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LONG, MERLE RAY

**THE EFFECTS OF INSTITUTIONAL SIZE ON THE
EFFECTIVENESS OF GOAL ATTAINMENT IN FOUR
JUNIOR COLLEGES IN THE STATE OF OKLAHOMA.**

THE UNIVERSITY OF OKLAHOMA, ED.D., 1979

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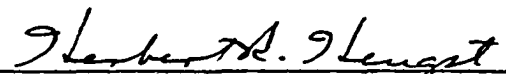
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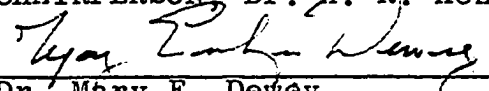
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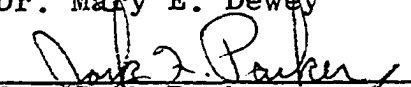
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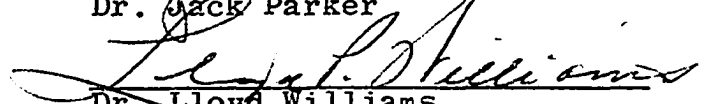
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IN THE STATE OF OKLAHOMA

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ACKNOWLEDGMENTS

I would like to express my appreciation to my advisor, Dr. Herbert R. Hengst, who has provided valuable support and guidance, and who has shown a deep personal interest in this study.

My appreciation is extended to my doctoral committee. Mary E. Dewey has read profusely and has offered valuable suggestions. Dr. Jack Parker has furnished invaluable advice and counsel. Dr. Lloyd Williams has continually been a source of encouragement. Appreciation is also extended to Dr. William Graves and Dr. Allen Nicewander for their valuable advice in statistical design.

This study could not have been conducted without the interest and cooperation of the following Junior Colleges: Oscar Rose, South Oklahoma City, El Reno, and Sayer.

My sincere appreciation is extended to Dr. Philip P. Chandler, Director, and Mr. Dale Delano, Associate Director of Oklahoma State University Technical Institute for the cooperation which allowed me the time to pursue this study.

My deepest appreciation is given to a special lady, my wife, Wanda, and my understanding children: Stephen, Philip, Karen, and Michael. They have sacrificed many things and lived with a part-time husband and father.

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CHAPTER I

INTRODUCTION

A leading problem in education since World War II has been the educator's plight of effectively attaining the educational goals of the institution while in the midst of accelerated institutional growth. Goal attainment as related to increased institutional size was not unique to education, but permeated the entire American society. Growth and success became equated. This philosophy came as a result of the tremendous economic and technological advances produced by expanded knowledge. Drucker thinks that this trend will continue in the future:

Today, too, there is a good chance that the prediction of technological maturity and resulting stagnation will be followed by tremendous technological change and economic advance.¹

Man's reaction to the problem he has created with his vastly expanded knowledge has been to organize institutions of increasing size and complexity through which to improve his own and his societal groups response to challenges that can not be met individually.² As a result, organizational

¹ Peter F. Drucker, The Age of Discontinuity, (New York: Harper and Row, 1969), p. 24.

² Clyde E. Blocker, Robert H. Plummer, and Richard C. Richardson, Jr., The Two Year College: A Social Synthesis, (New Jersey: Prentice Hall, 1965), p. 48.

size often becomes a goal of bureaucratic organizations.

Presthus states:

Indeed, bureaucratic organizations often seem less concerned with the self realization of their members than with the relevance of such individuals for organizational goals of size, power, and survival.¹

The limited amount of research in education that has been conducted concerning organizational effectiveness as related to size has left educational decision makers and planners perplexed with the idea of how large an educational organization should be to most effectively perform its multi-purpose functions. Logan Wilson expresses his hopes for change:

I hope we are beginning to realize that multi-universities, like small colleges can be overextended too, and that it is essential for us to set priorities of effort among and within institutions of higher education.²

The size of an organization has been found to be an important factor in the effectiveness of other organizations. Haire (1959) studied the interdependence of size, shape, and function in four industrial firms ranging from 200 to 2,000 employees. He found that as the size increased the shape and function changed. The greatest force

¹Robert Presthus, The Organizational Society, (New York: Random House, 1962), p. 3.

²Logan Wilson, Shaping American Higher Education, (1972), p. 207.

that affected the effectiveness was support or staff change. Each time the firm doubled in size the staff increased accordingly 6 times, 5 times, 3 times, and then equally. Supervision decreased as size increased, and clerical help increased equally with size increase. Haire concluded that the greatest danger was in the area of lack of control and coordination as the size increased.¹

Hall (1963) studied the correlation of bureaucratic characteristics in ten organizations that ranged from 65 to 3,096 employees. Organizations were purposely selected to give variety in terms of type, age, and size. He found that the bureaucratic dimensions existed independently in the form of continua. None of the rank-order correlation coefficients indicated any significant relationship between age or size and degree of bureaucratization.²

Friedlander and Pickle (1970) studied 97 small Texas businesses employing 4 to 40 employees to explore the concepts of total organization effectiveness by studying the relationships between internal and external relationships, and whether the organizational size was related to these.

¹Mason Haire, Modern Organizational Theory, (New York: John Wiley and Sons, 1961), pp. 272-305.

²Richard H. Hall, "The Concept of Bureaucracy: An Empirical Assessment," (American Journal of Sociology, 69, 1963), pp. 32-40.

They found the relationship between the internal and external criteria of organizational effectiveness were relatively weak. But they found that organizational size is related to the ability of the organization to fulfill the needs of the societal components. The larger the organization, the more likely it is to fulfill the needs of the community, its owners, and its customers. Correlation coefficients were computed in order to explore the relationships.¹

Although the results of these studies shed some light on the subject of institution size as related to the institution's ability to accomplish its goals, the nature of the organizations prevents generalization to educational areas. The profit motive of businesses or the differences between students and employees could make a difference in the institution's ability to effectively attain its goals. This study will be an attempt to explore the effectiveness of goal attainment of educational institutions as it relates to the institution's size.

Statement of the Problem

The problem in this study was to determine if there was a difference in degree of institutional effectiveness in

¹Frank Friedlander and Hall Pickle, "Components of Effectiveness in Small Organizations," Current Perspectives for Managing Organizations, Barnard M. Bass and Samuel D. Desp (ed.), (New Jersey: Prentice Hall, 1970), pp. 27-44.

goal attainment exhibited between two small and two large public, two-year junior colleges.

This study examined the difference between perceived institutional goals and perceived institutional practices as reported by the faculty, administration, and students from two small and two large junior colleges in Oklahoma.

In particular, the researcher examined the following questions:

- (1) Is there a difference between the degree of effectiveness of goal attainment of the two small junior colleges and the two large junior colleges as perceived by the schools' administrators?
- (2) Is there a difference between the degree of effectiveness of goal attainment of the two small junior colleges and the two large junior colleges as perceived by the schools' faculties?
- (3) Is there a difference between the degree of effectiveness of goal attainment of the two small junior colleges and the two large junior colleges as perceived by the schools' student bodies?
- (4) Is there a difference between the institutional goals for the small junior colleges and the large junior colleges as perceived by the administrators, faculty, and students from the participating institutions?
- (5) Is there a difference between the institutional functions for the small junior colleges and the large junior colleges as perceived by the administrators, faculty, and students from the participating institutions?

Hypotheses Tested in the Study

Several hypotheses were tested in the study as a means of answering the questions stated earlier. All null hypotheses were tested for significance at the .05 level of

confidence, but more stringent levels were reported when they were attained.

- Ho₁ There is no statistically significant difference between the institutional goals of the two small junior colleges as perceived by their administrators, faculty and students and the institutional goals of the two large junior colleges as perceived by their administrators, faculty and students.
- Ho₂ There is no statistically significant difference between the institutional functions of the two small junior colleges as perceived by their administrators, faculty and students and the institutional functions of the two large junior colleges as perceived by their administrators, faculty and students.
- Ho₃ There is no statistically significant difference between the institutional effectiveness of goal attainment of the two small junior colleges as perceived by their administrators and the institutional effectiveness of goal attainment of the two large junior colleges as perceived by their administrators.
- Ho₄ There is no statistically significant difference between the institutional effectiveness of goal attainment of the two small junior colleges as perceived by their faculty and the institutional effectiveness of goal attainment of the two large junior colleges as perceived by their faculty.
- Ho₅ There is no statistically significant difference between the institutional effectiveness of goal attainment of the two small junior colleges as perceived by their students and the institutional effectiveness of goal attainment of the two large junior colleges as perceived by their students.

Additional comparisons were made if it became necessary to fully explain the results of this study.

Need for the Study

"The devotion of democracy to education," is a fact that is well known to most Americans.¹ Dewey, who was a major advocate of this theory, stated the aim of education as "Bound up with the idea of education as a freeing of individual capacity in a progressive growth directed to social aims."² One of the leading democratic social aims of higher education is stated by Blocker, Plummer, and Richardson: "To provide educational opportunity by teaching whatever needs to be learned to whoever needs to learn it, whenever he needs to learn it."³

The comprehensive junior college has assumed the monumental task of fulfilling this social aim of higher education. To accomplish this task it must bridge the gap between two major educational philosophies which are defined by Brameld as "Essentialism and Progressivism".⁴ Essentialism is the conservative road to culture and progressivism is the liberal road to culture. It must also incorporate five major education areas: (1) Liberal Arts and Science

¹John Dewey, Democracy and Education, (New York: The Free Press, 1966), p. 87.

²Ibid., p. 98.

³Blocker, Plummer, and Richardson, Jr., The Two Year College: A Social Synthesis, p. 33.

⁴Theodore Brameld, Philosophies of Education, (New York: Hold, Rinehard, and Winston, 1955), p. 81.

transfer programs, (2) Vocational and Technical programs, (3) Adult Education, (4) Guidance Services, and (5) Community Service.¹

Wilson warns that, "No institution of higher education should try to be all things to all men."² Can one educational institution effectively perform all these tasks? Etzioni believes that within multi-purposes organizations certain types of conflict are unavoidable and that various goals make incompatible demands on the organization. To solve this problem he recommends, "The establishment of a set of priorities which clearly defines the relative importance of the various goals."³

Clark finds that the diversity of functions have left the junior college with an image that is blurred and vague. He concludes that, "The ability to handle diversity however, militates against a high degree of competence in any one educational formula that embraces and rationalizes diverse programs."⁴

Regarding the effectiveness of the junior college in

¹Blocker, Plummer, and Richardson, Jr., The Two Year College: A Social Synthesis, pp. 32-33.

²Logan Wilson, Shaping American Higher Education, p. 29.

³Amitai Etzioni, Modern Organizations, (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1964), p. 1.

⁴Burton R. Clark, The Open Door College: A Case Study, (New York: McGraw-Hill, 1960), pp. 160-172.

achieving its multiple-purposes, Gleazer feels that, "Without denying the social need, a question must be raised about the capacity of the institution to deliver on the implied promise."¹ He suggests that each institution, "Needs to determine how comprehensive it can be, and that an educational approach of these dimensions should not be sold to the public on the basis of low-cost."²

Blocker, Plummer, and Richardson question the effectiveness of the comprehensive college. "The allocation of emphasis to various programs and functions does, however, raise some question as to whether it is possible for a single institution to serve effectively so many masters at one time."³ They also state that approximately half of the public community colleges are large enough to provide comprehensive programs and these colleges have enrollments of nine hundred FTE students or more. Those colleges of less enrollment should consider only college transfer and technical programs.⁴

The Carnegie Commission on Higher Education in its report, "The Open Door College: Policies for Community

¹Edmund J. Gleazer, Jr., This is the Community College, (Boston: Houghton Mifflin Co., 1968), p. 131.

²Ibid., p. 139.

³Blocker, Plummer, and Richardson, Jr., The Two Year College: A Social Synthesis, p. 272.

⁴Ibid., p. 272.

Colleges"; recommended that:

For the sake of quality programs, economy of operation and easy availability, state plans should provide for community colleges ranging in size from about 2,000 to 5,000 daytime students.¹

Wilson summarized the consequences of allowing an institution to become overextended:

If we permit our institutions to be saddled with responsibilities they can not effectively discharge . . . we run the risk of damaging the academic endeavor and fragmenting its basic purpose.²

This study proposes to furnish information about the effectiveness of goal attainment of different sized comprehensive junior colleges. This information may be used by junior college administrators in decision-making; by local and state regents in planning and policy making; and by federal agencies in funding and evaluation.

Definition of Terms

Several terms must be defined to avoid multiple interpretations. These terms, as they were used in the present study, are as follows:

- (1) Institutional Goals: An institutional future

¹Carnegie Commission of Higher Education, The Open-Door Colleges: Policies for Community Colleges, (New York: McGraw-Hill Book Co., 1970), p. 31.

²Logan Wilson, Shaping American Higher Education, p. 205.

state of affairs as stated on the Institutional Goals Inventory and perceived as desirable and worth striving for by the participants.

(2) Institutional Functions: The perceived actions and practices of the four junior colleges participating in the study which are measured by the data collection instrument, Institutional Functioning Inventory (the University of Oklahoma Modification).

(3) Institutional Congruence/Incongruence: The amount of agreement/disagreement shown between perceived goal-importance ratings and perceived function-emphasis ratings made by participants.

(4) Institutional Effectiveness: The mathematical differences between each of the twenty Institutional Goal scales mean ratings of the participants and each of the twenty Institutional Functions scales mean ratings of the participants. This is the measure of goal attainment.

(5) Administrators/Full-time Administrators: The participants from the four junior colleges whose primary responsibilities were administrative in nature and who were employed by the institutions during the 1977-78 academic year on a full-time basis.

(6) Faculty/Full-time Faculty: The participants from the four junior colleges whose primary responsibility was to teach more than 15 hours of classes during the fall semester of the 1977-78 academic year.

(7) Students/Full-time Students: The student participants who were randomly chosen from the total student populations of the four junior colleges during the spring semester of the 1977-78 academic year. Students were enrolled in and attending more than twelve (12) credit hours before they were considered full-time students.

(8) Perceptions/Ratings: Individual judgments made by the administrators, faculty, and students on the Institutional Goals Inventory and the Institutional Functioning Inventory (the University of Oklahoma Modification).

(9) Consensus/Disparity Ratings: The amount of agreement or disagreement among the administrators', faculty's', and students' ratings of the importance of institutional goals or emphasis on institutional functions.

(10) Junior Colleges: The two-year, postsecondary educational institutions in Oklahoma who receive at least some funding from the State and are not considered private or parochial schools.

(11) Small Junior Colleges: Those junior colleges having less than 500 full-time students enrolled. The small junior colleges in the present study were Sayre and El Reno.

(12) Large Junior Colleges: Those junior colleges having more than 3,000 full-time students enrolled. The large junior colleges in the present study were Oscar Rose and South Oklahoma City.

Limitations of the Study

The present study was limited to four junior colleges in Oklahoma. For this reason, generalization of the study results to other junior colleges should be approached with caution.

The students samples included in the study were limited to 100 stratified-randomly selected students from four junior colleges. Because of the random procedures used in selecting the junior colleges and students within each college, however, the results can be generalized to the student populations of all junior colleges in the State.

The present study was limited to the time period during which it was conducted. This constituted the spring semester of the 1977-78 academic year.

The small sample of administrators at Sayre Junior College (N=6) and the limited numbers at the other junior colleges (N=9 each) affected the power of the statistical tests used in the study. A number of ten (10) administrators and faculty members from each of the junior colleges would yield a power of 95 percent at the .05 level of confidence.¹

The number of six administrators at Sayre Junior College showed a power equivalency of .74,² while the nine administrators from El Reno Junior College reduced the

¹Roger E. Kirk, Experimental Design: Procedures for the Behavioral Sciences, (Belmont, California: Brooks-Cole Publishing Company, 1968), pp. 9-10.

²
Ibid., p. 540.

power of the tests for that group to .92 or 92 percent.¹ However, the number of administrators from these two junior colleges represent all the administrators employed by each and the situation could not be remedied.

Data concerning institutional goals and institutional functions were limited to the participants' perceptions of the areas included on the Institutional Goals Inventory and the Institutional Functioning Inventory (University of Oklahoma Modification).

Organization of the Study Results

The results of the study are presented in dissertation format according to the guidelines established by the Dissertation Committee and the University of Oklahoma's Graduate College. Chapter I includes an introduction, statement of the problem, need for the study, hypotheses tested in the study, limitations, and definition of terms used in the study.

Chapter II includes the theoretical framework used to formulate the hypotheses and a review of the related research.

Chapter III is a detailed explanation of the method and procedures used in conducting the study. Chapter III includes a description of the study design, explanation of sampling procedures, a description of the data collection

¹Roger E. Kirk, Experimental Design: Procedures for the Behavioral Sciences, p. 540.

instruments, an explanation of the procedures used in collecting the data, and the data analysis procedures.

Chapter IV includes the results of the study. This chapter includes the descriptive statistics of each group's data, the results of testing each null hypothesis, ancillary findings, and the summary of all results.

Chapter V includes a summary of the entire study, conclusions drawn from the results of Chapter IV, implications for further research studies, a discussion of the results as they pertain to previous research, and closing remarks.

CHAPTER II

RELATED LITERATURE

The focus of this study is organizations, that is, social systems with specific purposes.¹ There are different measures of the effectiveness of organizations, but for this study the determinant of effectiveness will be defined as the degree of goal attainment.² The determination of an organization's goals, therefore, is crucial in evaluating organizational effectiveness. Goals have been distinguished as "stated" and "real"³ or as "official" and "operative".⁴ The stated or official goals are the purposes set forth in the charter or document defining the organization. The real or operative goals reflect decisions concerning alternative goals, priorities among multiple goals, how means are allocated, and the major commitment of the participants. The present study will measure the perceived importance of the

¹Talcott Parsons, Structure and Process in Modern Societies, p. 17.

²Amitai Etzioni, Modern Organizations, p. 8.

³Ibid., p. 7.

⁴Charles Perrow, "The Analysis of Goals in Complex Organizations," Readings in Organizational Theory: A Behavioral Approach, (Boston: Allyn and Bacon, Inc., 1966), ed. Walter A. Hill and Douglas Egan, p. 130.

goals of the organization and measure the perceived emphasis of the practices of the organization. The difference in the measure of the perceived importance and perceived emphasis of the goal will determine how effective the organization has been in attaining its goal. The major emphasis of the study is the effect of size, the independent variable, on organizational effectiveness or reported goal attainment.

Nature of Organizations

"Many social systems such as local communities, schools, business firms, and kinship units are not societies but rather subsystems of a society."¹ Blau and Scott state that subsystems or social organizations may be of two types: those that emerge whenever men are living together and conform to social norms, and those that have been deliberately established for a certain purpose.²

Parsons defines organizations as social units (or human grouping) deliberately constructed and reconstructed to seek specific goals.³ Etzioni also views organizations as goal directed and states that they are characterized

¹Talcott Parsons, Societies, (New Jersey: Prentice-Hall, Inc., 1966), pp. 1-7.

²Peter M. Blau and W. Richard Scott, Formal Organizations: A Comparative Approach, (San Francisco, Calif.: Chandler Publishing Co., 1962), p. 5.

³Talcott Parsons, Structure and Process in Modern Societies, (Glencoe, Ill.: The Free Press, 1962), p. 5.

by: (1) division of labor, power, and communications responsibilities that are deliberately planned, (2) the presence of one or more power centers which control the concerted efforts of the organization and directs them toward their goals, and (3) substitution of personnel.¹

Functions of Institutional Goals

The concerted efforts of the organization are directed toward goals; therefore, goals are central to the study of organizations. Parsons defines the organizational goal as, "The future state of affairs that is seen as desirable and worth striving for."² He perceives that a major problem in attaining goals is, "An inherent potential for conflict and disorganization in social organizations."³ This conclusion is from the concept that the personality of the individual is an analytically independent unit. In this study the college is viewed as integrating the cultural goals of the organization with the goals of the individual or groups in the organization to reach that desired future state of affairs.

¹ Amitai Etzioni, Modern Organizations, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964), p. 3.

² Structure and Process in Modern Society, p. 16, quoted in Henry A. Landsberger, "Parson's Theory of Organizations," The Social Theory of Talcott Parsons, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1961), p. 30.

³ Talcott Parsons, Societies, p. 7.

Perrow views the organization goals in two major categories; official and operative. The official goals are purposely vague and general, and he states that they do not indicate two major factors which influence organizational behavior:

. . . the host of decisions that must be made among alternative ways of achieving official goals and the priority of multiple goals, and the many unofficial goals pursued by groups within the organization.¹

Simon defines goals as "value premises that can serve as inputs to decisions", and motives as "causes . . . that lead individuals to select some goals rather than others as premises for their decisions".² He observed that:

. . . for we often have occasion to observe that the goals that actually underlie the decisions made in an organization do not coincide with the goals of the owners, or of top management, but have been modified by managers and employees at all echelons.³

Motivation is divided into personal or inducement and role-defined or contribution goals. Simon postulates two sets of constraints in the organization. First, "the system of personal inducements and contributions impose constraints

¹Charles Perrow, "The Analysis of Goals in Complex Organizations," Readings in Organizational Theory: A Behavioral Approach, (Boston: Allyn and Bacon, Inc., 1966), ed. Walter A. Hill and Douglas Egan, p. 130.

²Ibid., p. 59.

³Herbert A. Simon, "On the Concept of Organizational Goals," Readings in Organizational Theory: A Behavioral Approach, (Boston: Allyn and Bacon, Inc., 1966), ed. Walter A. Hill and Douglas Egan, p. 58.

the organization must satisfy if it is to survive." Second, "the constraints incorporated in the organizational role . . . are the constraints that a course of action must satisfy. . . ." ¹

Simon noted that the organizations that survived have developed decision-making systems whose constraints guarantee that their actions maintain a favorable balance of inducements to contributions for their participants. From this he concluded, "What goals are must be inferred from observations of the organizations' decision-making process." ²

Etzioni defines the organizational goals as, "The future state of affairs which the organization as a collectivity is trying to bring about." ³ He states that one may obtain information about what the goals are from the participants. The participants should be asked what they see as the organizational goals, as distinct from what they think that they ought to be. He says that it is unwise to depend entirely on interviews for real goals, but that, "An examination of the allocation of resources and direction of effort is often a complimentary research method for obtaining satisfactory results." ⁴ Gross and Grambsch declare

¹Ibid., p. 70.

²Ibid., p. 71.

³Amitai Etzioni, Modern Organizations, p. 6.

⁴Ibid., p. 7.

that two kinds of evidence are necessary before one can confidently assert that a goal is present; intentions and activities:

By intentions we refer to what participants see the organization as trying to do: what they believe its goals to be, what direction they feel it is taking as an organization. By activities, we refer to what persons in the organization are in fact observed to be doing: how they spend their time, how resources are being allocated.¹

Meaning of Institutional Effectiveness

Etzioni states, "The actual effectiveness of an organization is determined by the degree to which it realizes its goals."² The determination of "what are the goals" of the organization becomes a guideline of effectiveness. Etzioni clarifies what the real goals of an organization are:

The researcher will define as the real goals of the organization those future states toward which a majority of the organization's means and the major organizational commitments of the participants are directed, and which, in case of conflict with goals which are stated but command few resources, have clear priority.³

Parsons views the concept of goals as central to the study of an organization. He also postulates that the

¹Edward Gross and Paul V. Grambsch, University Goals and Academic Power, p. 9.

²Amitai Etzioni, Modern Organizations, p. 8.

³Ibid., p. 7.

problem central to an organization's survival is the attainment of its goals.¹ Gross and Grambsch view the concept goal attainment as central to organizations because the organization is evaluated in terms of its success in attaining its goals.²

Leslie This states, "Managers use different guidelines to identify effective organizations. Among those frequently mentioned are: clarity of organization's purposes and goals, optimal use of human and physical resources . . ."³ He says that an organization to function effectively once it reaches the size of 100 employees, will find that there are certain elements that must exist within the organization: Predictability, standardization, and regularity and stabilization. As the organization grows through certain stages its activities change. This lists these stages of growth as: to be born, to survive, to become stable, to gain reputation, to achieve uniqueness, and to contribute.⁴

¹Talcott Parsons, Structure and Process in Modern Societies, pp. 16-20.

²Edward Gross and Paul Grambsch, Changes in University Organizations, 1964-1971, The Carnegie Commission on Higher Education, (San Francisco: McGraw-Hill Book Company, 1974), p.8.

³Leslie E. This, A Guide to Effective Management: Practical Applications from Behavioral Science, (Reading, Massachusetts: Addison-Wesley Publishing Co., 1974), p. 147.

⁴Ibid., p. 153.

Organizational Size and Effectiveness

Caplow believes that, "Not only does the size of an organization affect all phases of its activity, but changes of size at certain points along the scale are more important than at other points."¹ The larger organizations are more likely to be successful in maintaining themselves than are smaller organizations of the same type. The larger organizations are less affected by variation in size than the smaller organizations. Caplow is very emphatic when he states, "It has repeatedly been shown that a business enterprise's chance of survival increases directly with its size."²

Haire views organizational effectiveness as overcoming the forces that tend to destroy the organization, which in turn allows the organization to grow. He equates growth with effectiveness. There are forces within the organization, arising from the fact that it is made up of individuals, which determine the course of its growth. He says that these forces, "Are associated with the cohesion of groups; with the demands for integration and communication; and with the development of specialization of function."³

¹Theodore Caplow, Principles of Organizations, (New York: Harcourt, Brace and World, Inc., 1964), p. 25.

²Ibid., p. 34.

³Mason Haire, Modern Organizational Theory, (New York: John Wiley and Sons, Inc., 1959), p. 276.

If each increment in size produced one increment in productive capacity and needed one increment of additional supportive function, then as Haire states, "There would be no limit on size. As the size of the firm increases, the structure needed to support it grows faster than the size itself."¹

Blocker, Plummer, and Richardson believe that junior colleges should not overextend themselves and degrade the quality or excellence of their programs. They suggest that a priority list be developed to provide for orderly accomplishment of their objectives.

This kind of realistic approach to the question of comprehensive educational services will mean that many small public colleges will not be truly comprehensive. Colleges with large student populations . . . will have the resources with which to provide all types of course work, guidance and community services. It must be recognized, however, that the ideal of comprehensive educational programs is well beyond the reach of many institutions and it would be folly for them to attempt such expansion or to claim that they can fulfill the entire broad range of post-high school educational needs.²

They indicate that only half of the public community colleges are large enough to provide comprehensive programs in all areas.

¹Ibid., p. 275.

²Clyde Blocker, Robert H. Plummer, and Richard C. Richardson, Jr., The Two Year College: A Social Synthesis, (New Jersey: Harper and Row, 1969), p. 272.

Survey of Related Literature

A literature survey revealed that very little research has been accomplished in regard to the effect of size on organizational effectiveness. Volumes of research have been conducted on organizations, and there is considerable literature on organizational effectiveness.

Effectiveness is usually regarded as an implied problem and the studies usually examine productivity, morale, conformity, adaptiveness, and institutionalization.¹ One study considered organizational effectiveness in terms of goals and related effectiveness to size, Gross and Grambsch (1968).

Gross and Grambsch (1968) in their important study University Goals and Academic Power noted the effects which institutional size had upon a university's organization and goals. In order to explore more fully the impact of "global characteristics", which includes size, because they apply to the institution as a whole, they compared the goal emphases of different types of universities.

Gross and Grambsch found that the characteristic of size proved to have little relation to the goal structure of the universities. The only findings that emerged were that as size of the full-time teaching, research, and administrative staff increase, more emphasis is given to doing pure

¹James L. Price, Organizational Effectiveness, (Homewood, Illinois: Richard D. Irwin, Inc., 1968), p. 5.

research, disseminating new ideas, and keeping up to date, and lower value is assigned to developing pride in the university; as the size of the student body increases, providing cultural leadership to the community is given slightly more prominence, carrying on applied research is regarded as a worthy goal, and encouraging graduate work is not.¹

The Gross and Grambsch study included 68 universities which had student bodies of 3,000 to 15,000, and they interviewed administrators and faculty only. The present study will examine community colleges of less than 1,000 students, and will also include students in the research population.

Gross and Grambsch (1974) published, Changes in University Organizations 1964-1971. The decision was made to replicate the 1964 study to determine if the major events of the 1960's had merely shaken American universities, or whether they had led to structural change. They found that there had been very little change in the goals or values of the universities and persons in them. But important changes had also taken place. Professor and administrators both felt stronger congruence between the actual emphasis in their universities and the kind of emphasis they felt proper. The highly "productive" universities were differentiating

¹Edward Gross and Paul V. Grambsch, University Goals and Academic Power, pp. 43-74.

themselves from less productive universities. They found little change since the 1964 study in the university power structure. But an ominous cleavage had grown up between outside power holders (regents, legislators, etc.) and insiders (chairmen, deans, faculty and students), which very much affected the goals of the university. As a result of this power struggle, there was evidence of a shift from the national to the local level, with strong implications for the internal structure of universities.¹

The top-rated five goals of the survey were: (1) Protect Academic Freedom, (2) Insure Confidence of Contributors, (3) Maintain Top Quality in Important Programs, (4) Increase or Maintain Prestige, and (5) Train Students for Scholarship/Research. An important finding from this result is that four of the top five goals are support goals and not output goals. This suggests that American universities show signs of having become institutionalized. It is also important to observe that only one of the top five goals includes students.²

Concerning the effects of size on goals, Gross and Grambsch found the following results. They reported an average product-moment correlation of .370 between goals

¹Edward Gross and Paul V. Grambsch, Changes in University Organizations, 1964-1971, The Carnegie Commission on Higher Education (New York: McGraw-Hill Book Co., 1974), p. 3.

²Ibid., pp. 47-51.

and enrollment. Higher correlations were obtained for other size measures. For graduate enrollment the average correlation was .470, for number of doctorates the correlation was .472, and for federal obligations (grants, etc.) the correlation was .492. These results suggest that when size is measured by some output measure, it is more strongly related to organizational goals than when measured by number of students, which is a kind-of-client measure.¹

Another pertinent study that considered the effects of size on quality of education in colleges was conducted by Lazarsfeld and Thielens (1958). They studied 2,451 social scientists in 165 four-year, undergraduate colleges.² Ninety percent (90%) of the social scientists were actually interviewed. The colleges were classified by size: Very small (0-700), Small (700-2,500), Large (2,500-9,000), Very large (9,000 and above). The quality of the colleges was measured by:

- (1) Total volumes in the library
- (2) Ratio of books to students
- (3) Ratio of annual budget to students
- (4) Proportion of Ph. D.'s on faculty
- (5) Production of scholars
- (6) Tuition fees

They found that among the privately endowed schools, the smaller schools rated higher in quality. In the tax-supported colleges the relation was markedly in the other

¹Ibid., pp. 75-78.

²Paul F. Lazarsfeld and Wagner Thielens, Jr., The Academic Mind, (Glencoe, Ill.: The Free Press, 1958), pp. 3-34.

direction: The larger the college the higher the quality rating. There was a close relationship between the size of a college and its type of organization. Very large institutions were found most frequently among the state universities, while Protestant-affiliated schools and teachers' colleges were usually quite small.

Faculty productivity was measured by: publications of dissertations, papers and books, and recognition from peers and community. It was found that productivity and size were associated. The most distinguished professors taught in the larger schools: 29% in very small colleges, 29% in small colleges, 49% in large colleges, and 66% in very large colleges.

Two questions that were used by Lazarsfeld and Thielens to establish the atmosphere in which the respondents worked were: (1) On-campus social relations among faculty and (2) On-campus social relations between faculty and administration.¹ The faculty were asked to rate the questions on a continuum from no opinion to unusually good. The results showed an interesting variation with size. In the small colleges the sentiments which the faculty members have for each other was expressed by eighty-four per cent expressing the relations as good or unusually good, and the relations between the faculty and administration was expressed as good or unusually good by eighty per cent of

¹Ibid., p. 24.

the faculty. As the size of the college increases, the proportion of faculty who give their college top rating declines, especially with regard to relations with the administration. Lazarsfeld and Thielens offer the following explanation:

This is a somewhat surprising result, because the salaries at the large institutions are certainly higher; their research facilities are probably better and their teaching burdens lighter. What intervenes could be the expectations of the teacher.¹

This negative relation of size and morale may be explained according to Price by the fact that large social systems may be more goal oriented and small social systems may be more people oriented.² If Price's explanation is true, then morale is higher at the smaller colleges because these schools are more concerned with satisfying the needs of its members, and conversely, morale is lower at the larger colleges because these schools are more concerned with teaching and research.³

The results of Lazarsfeld and Thielens study support the statement that in tax-supported colleges there is a relationship between size and effectiveness (the quality index), productivity, and morale.

¹Ibid., pp. 25-26.

²James L. Price, Organizational Effectiveness, p. 190.

³Ibid., p. 190.

Baldrige, Curtis, Ecker, and Riley (1973) investigated the effects of institutional size and complexity on professional autonomy in 241 colleges, universities, and community colleges in the United States by mailing survey questionnaires to more than 9,200 individual faculty members and administrators. Autonomy was defined as the ability to set goals and structure the organization toward maximum professional concerns. Size was defined as the number of professors and students in the academic organization.

To determine the impact of institutional size on professional autonomy and faculty power, they examined three patterns: (1) patterns of decision making; institutional and departmental, (2) patterns of control; departmental autonomy and freedom from bureaucratic regulations, and (3) patterns of evaluation; amount of peer evaluation.

In answer to whether institutional decisions were concentrated in a few hands or widely dispersed, they found that a minority (27%) of the large schools reported strong centralization. They concluded that this indicated a broad spectrum of faculty participation. Forty percent (40%) of the small schools reported high decision centralization, indicating domination by central administration, trustees, and cliques of faculty. On the departmental level, most of the large schools (67%) placed the decision making in the

hands of a strong chairperson or clique of professors.

This finding was explained by three factors: (1) accountability in a decentralized system, (2) the need for a small group to make efficient decisions for a large department, and (3) the faculty's willingness to relinquish power to the department chairperson to protect itself against the central administration. The small schools results showed only thirty-eight percent (38%) where decision making was concentrated within the departments. One may conclude from this evidence that strong departmental leadership may be a necessary condition for decentralization to work within the complex structure of the large college's whole system.

One main concern of the professional educator is achieving departmental autonomy. Baldrige et. al. examined departmental power over four areas of control. High departmental autonomy in the area of faculty selection was reported in seventy-nine percent (79%) of the large colleges and in eleven percent (11%) of the small colleges. In the area of control over course additions, fifty percent (50%) of the large colleges reported high autonomy and thirty-one percent (31%) of the small colleges. In the area of granting tenure and promotions, eighty-three (83%) of the large colleges reported high autonomy as contrasted with twelve percent (12%) of the small colleges. In the area of budget control, there was no significant difference between the large and small colleges.

Bureaucratic control was examined in the areas of travel, which showed seventy-nine percent (79%) of the large and eleven percent (11%) of the small schools regulating control. The regulation of courses taught showed that fifty percent (50%) of the large and thirty-one percent (31%) of the small schools' professors had more control. The regulations concerning contracts showed fifty-eight percent (58%) in large and twenty-one percent (21%) in small schools where professors had more flexibility and open-ended contracts.

Peer elevation was measured by first listing the work activities and determining the people who had the power to evaluate these activities. Sixty-three percent (63%) of the large and seventeen percent (17%) of the small schools reported that the faculty was judging the quality of their peers' work.

The larger and more complex the school, the more likely it was to be divided into specialized units or departments. The professionals they sampled demanded autonomy because they had the expertise to do complex tasks, and wished to be left alone to achieve them.¹ Along every

¹J. Victor Baldridge, David Curtis, George Ecker, and Gary Lee Riley, "Institutional Size and Professional Autonomy: The Death of the Small College Myth?", (Stanford, California: Stanford Center for Research, 1973).

dimension of professional autonomy, increased size and complexity contributed to increased faculty power, authority and autonomy.

A study was conducted by the Michigan Department of Education (1974) on "Planning Relative to Institutional Size and the Total Postsecondary Delivery System". The study included 15 colleges and universities, and 29 community colleges. The community college enrollments varied from 723 students to over 19,000 students. One of their charges was to establish criteria for limitations and minimums for institution size. The varied roles and locations of the institutions precluded any "ideal" enrollment levels. It appeared that there should be some evaluation of campus size as it would affect an institution's ability to provide services to students.

The category and role of each institution was reviewed and studied. A comparison was made of the institutions with respect to metropolitan areas. Community colleges were compared for duplication of effort. A review of standards from other states indicated that considerable attention had been given to institutional size through a complete review of enrollment growth of all institutions.

The study reported that enrollments were leveling off, and, therefore, no limits should be set on growth. Researchers found that particular attention should be given to community college programs and districting

patterns to encourage growth of institutions having less than 1,000 FTE students. Their conclusion was that a community college of less than 1,000 FTE students did not have the ability to support a comprehensive academic program, and consideration should be given to district boundaries, assignment of new programs, and other means to encourage growth.¹

The Organization of Academic Work (1973) is the result of Blau's investigation of the administrative structure of universities and colleges and its implication for academic pursuits. One hundred fifteen American universities and colleges were included in the study with the exception of junior colleges, teacher colleges, and other specialized colleges. Information was obtained from personal visits, published compilations of quantitative information on academic institutions, and a survey of a sample of 2,577 faculty members.²

One question raised in the study was whether the administrative structure of universities and colleges is fundamentally homologous to that of other types of organizations.³ Two basic theorems derived from research on

¹A Study on Planning Relative to Institutional Size and Total Postsecondary Delivery System, 1974, Michigan Department of Education.

²Peter M. Blau, The Organization of Academic Work, (New York: John Wiley and Sons, 1973), pp. 20-28.

³Ibid., p. 13.

government bureaus were compared with the information received from colleges and universities. The two theorems were: (1) Increasing organizational size is accompanied by increasing differentiation in their structure, and (2) These increases in differentiation in their structure occur at decelerating rates with increasing size. Three measures of differentiation in universities and colleges were used: number of departments, number of administrative levels, and major academic subunits (colleges and schools). Blau found that the size of an academic institution was highly correlated with all three aspects of differentiation (.83, .51 and .80). These results compared to the correlations of the government bureaus clearly confirmed the first theorem. Scatter diagrams of the gathered data confirmed the second theorem as true for colleges and universities.

Four additional theorems derived from the same research on governments bureaus were:

- (1) Large organizational size reduces the proportion of administrative personnel.
- (2) Differentiation increases the proportion of administrative personnel.
- (3) Large size has opposite influences on the administrative ratio, indirectly increasing it, owing to greater structural differentiation of large organizations, as well as directly reducing it.
- (4) The influences of expanding size on reduction in the administrative ratio is increasingly weakened by its counteracting indirect influences mediated by differentiation, so that these reductions occur at a declining rate.

Blau states that data collected on American colleges and universities conforms to all these propositions.¹

Blau concludes that this does not mean that universities and colleges are just as bureaucratic as government bureaus, but rather that small colleges and small government bureaus are less bureaucratic than their large counterparts if we refer to complexity of formal structure, but they are more bureaucratic if we refer to the relative size of administrative machinery.

Blau investigated the effect of large size on the economic resources of the universities and colleges. He found that large institutions pay better salaries which makes them more successful in competing for the best qualified faculties who are most committed to scholarly research, and they can recruit larger faculties which enable them to establish more departments in specialized fields. Large institutions have the highest reputations, the best students, and the most productive faculties with the highest record of publications.

The number of faculty members in an academic institution is indicative of the quantity of its human resources. Blau found that the size of an institution's faculty affects nearly all its other characteristics. It appears in twenty five of the thirty tables in the book because it affected

¹Ibid., pp. 48-66.

all the dependent variables, including affluence, proportion of graduate students and university status.¹

Blau found that the size of an academic institution unquestionably has a predominant effect on its character. The reason is that institutional size comprises several elements. It refers to economic and manpower resources, an impersonal atmosphere, a large administrative work load, and the statistical probability of finding colleagues with common interest. Blau lists the direct effects of the size of academic institutions under the following categories:²

Economic and Manpower Resources

1. Many graduate students
2. Ph.D.-granting university; mediated by it, high research productivity
3. High salaries; mediated by it, superior faculty qualifications
4. Many specialized departments; mediated by it, superior reputation, high clerical-faculty ratio, more contacts with graduate students, and fewer with undergraduates
5. Several schools and colleges; mediated by it, high administration-faculty ratio and greater interest in outside faculty
6. Emphasis on research
7. High student aptitudes

Impersonality

8. Lower faculty qualifications
9. Lower attraction to good students
10. Less allegiance to local institution

Administrative Load

11. More administrative levels; mediated by it, narrower span of control of the president, also

¹Ibid., pp. 78-86.

²Ibid., pp. 250-258.

- of vice-presidents, and less influence of the president over appointments
- 12. Wide span of control of the president
- 13. Wide span of control of vice-presidents
- 14. Low administration-faculty ratio (economy of scale)
- 15. Low clerical-faculty ratio (economy of scale)
- 16. Less interest in outside faculty
- 17. Less appointment power of administration
- 18. More appointment power of faculty
- 19. Less financial authority of president

Chances of Common Interests

- 20. More departments in new fields
- 21. Frequent creation of departments

The Carnegie Commission of Higher Education (1970) reviewed issues relevant to the community college. Their research also included the size of two-year institutions. In search for the optimum size range for community colleges, the staff analyzed the relationship between institutional cost per full-time equivalent (FTE) student and the number of full-time equivalent students.

They found that very small institutions tended to have high cost, and there was a slight tendency for costs to decline as the size of the student body rose until it reached some 2,000 to 3,000 FTE students. This optimum size was based on the following criteria: minimum faculty size required for a comprehensive program and for reasonable student-faculty ratios, and judgments with respect to the size most compatible with stimulating intellectual and social environment for the students. On the basis of these criteria, the Carnegie Commission reported that if an institution is to offer a variety of occupational programs

and transfer programs, a minimum enrollment of 1,500 to 2,000 daytime students is needed for a reasonably effective program.

They recommend that the optimum size for a community college be 2,000 to 5,000 fulltime students, but a limitation of institutional size may not be feasible in large cities. The limitation was not based on ineffectiveness but to allow more institutions to be within commuting distance of the students.¹

In small colleges, the rate of growth was found to be crucial in determining the rate of tuition inflation. With larger institutions, a controlled growth rate was found to be necessary if the academic planning, recruitment of facilities and acquisition of libraries was to take place prior to students coming to the campus. The recommendations of the special committee of the Illinois Board of Higher Education was most notable in this area of institutional size and capacity. Committee L was charged to determine maximum enrollments. They found in response to their queries that optimum size for existing campuses was the point at which maximum effectiveness as a viable educational unit was achieved within the limits of available economic, physical, programmatic, and staff facilities. Rather than

¹ The Open Door College: Policies for Community Colleges, Report of the Carnegie Commission on Higher Education, (Hightstown, New Jersey: McGraw-Hill Book Co., 1970).

set maximum sizes for institutions the committee recommended the control of growth.

Judging from the experiences of the presidents of the state universities as revealed in testimonies before this committee, the rate of growth of a university is of vital concern. Too rapid growth as experienced in recent years tend to make it difficult and even impossible to assimilate new faculty members and to help them develop an awareness of the goals and traditions of the institutions.

The results of the committee meetings showed that maximum size and growth rates make a significant difference in the total college environment. Comparisons were made among the problems and benefits resulting from growth problems encountered by many similar colleges and universities. The committee recommended that no state college be permitted to grow at a rate greater than 1,000 (full-time) students per year. However, if an institution had not reached a minimum size within a given period of time, growth could be allowed to increase at a faster rate.¹

An alternative to the large institution is the cluster college. One of the most outstanding examples is Claremont College. The cluster concept proposes to

¹Institutional Size and Capacity, Report of Committee L, Master Plan Phase III Committee to the Illinois Board of Higher Education, December, 1970.

preserve the personal values of the small college while securing the facilities of the university to enrich educational resources at a faster rate than the rise in unit cost. No systematic studies of any major aspect of cluster college programs, including economic aspects, were started until 1965.¹

Stewart (1968) studied both the cost and the level of services or resources of certain Claremont facilities or functions which operate on a cooperative or central basis within the cluster and compared them to the cost of similar functions in individual colleges which were not a part of the cluster. Colleges were selected on the same level of quality or effectiveness as the cluster colleges. The comparisons were based on a three year average (1964, 1965, and 1967).

The author found that the cost of library operations in the comparison colleges decreased as the size of the student body increased, at least up to about 1,000. A similar trend was found to exist with regard to expenditures for books. Although no clear pattern developed with regard to the business office operation, Stewart concluded that central operation had a financial advantage. They found that a larger combined center does provide cost benefits

¹Donald J. Richard, Campus Size: A Selected Review, (Atlanta, Georgia: Southern Regional Education Board, 1971), p. 26.

for health services. These advantages included cost benefits as well as greater resources. This latter advantage related to quantity and/or variety of services available. For other areas studied there was not enough information available to determine any advantage to the cluster or non-cluster college.¹

Gaff (1970) compiled a descriptive analysis of the purposes and practices of the cluster college. He states in his analysis that the university, which has grown unmanageably large, has too many functions that can detract from undergraduate education to make it effective for that purpose. He also states that the small liberal arts college is often too limited in resources to offer what the university can. Therefore, one of the major purposes of the cluster college is to combine the small college individuality, personal involvement, and sense of community with the resources of the larger university. Another purpose is to offer alternative liberal arts programs, and experiment with new educational philosophies. The emphasis on close human relationships and individual instruction requires that the cluster colleges have a low faculty-student ratio, and in a period of academic inflation this

¹ Clifford T. Stewart, "Financial Aspects of Inter-institutional Cooperation: Unit Cost in Cluster and Non-Cluster Colleges," Institutional Research and Academic Outcomes, Proceedings of the Eight Annual Forum on Institutional Research, 1968, pp. 171-179.

means an expensive program. Gaff found in his survey that several universities have discovered that cluster colleges program are expensive to operate if they are to be effective.¹

Colclazier (1974) studied the relationship between the goals and practices of four public community junior colleges as perceived by three groups of participants: (1) faculty, (2) students, and (3) administrators. He defined effectiveness as the degree to which the institution succeeds in doing whatever it is trying to do. The measure used was a correlation between goals and practices which produced evidence of the extent to which the institutions were working toward their perceived goals. Each of the four colleges was small and relatively rural.

The two instruments used to test institutional goal perception and institutional functions at the four junior colleges were the Institutional Goals Inventory and the Institutional Functional Inventory (Oklahoma University Modification). A computation of Eta on all paired scales (20 scales) resulted in significant correlations on all twenty scales at the .001 level of confidence. This study did not test differences of size, but did produce evidence

¹ Jerry G. Gaff, The Cluster College, (San Francisco: Jossey-Bass, 1970).

of agreement of small community colleges on goals and the functional agreement with goals.¹

Summary

As previously stated in this chapter, most organizational theorists agree that the organization is the most effective social unit. The problem of this study is to measure how effective the organization is in attaining its real goals. Parsons' has furnished insight into the problem by revealing that goal attainment is central to the study of any organization. Perrow suggests that there are two categories of goals: official and operative. Etzioni refers to these categories as stated and real goals.

One concern of this study is the measure of the perceived importance of goals and the perceived emphasis of the practices of the organization. Etzioni and Simon each propose a way of finding the goals of an organization. Simon points out that organizational goals are dynamic and continually being modified by managers and employees at all levels; therefore, one must infer what the goals are by observing the organizations decision-making process. Etzioni states one may obtain information about what the goals are from the participants. He also states that one should not

¹James L. Colclazier, "An Investigation Into the Relationships Between Perceived Goals and Practices in Four Oklahoma Community Colleges", (Unpublished Ed. D. dissertation, University of Oklahoma, 1974).

depend entirely on interviews, but on examination of the allocation of resources and direction of effort is often a complementary research.

This study is based upon the theories of Parsons, Perrow, Etzioni, and Simon and not on any one theorist. This study synthesizes from these theorists that organizations can be studied and that goals are central to their understanding. The measure of effectiveness of the organization is found in its ability to direct its resources toward the attainment of its goals.

Specific to this study is the effect of size upon the organizations' attainment of its goals. Leslie This, Caplow, Haire and Blocker, Plummer, and Richardson are the theorists to whom reference has been made. This takes a similar position to Parsons, Perrow, Etzioni, and Simon that a clarity of organizational goals is a guideline to organizational effectiveness. He also states that as the organization grows its activities change. Caplow believes that not only does the size of an organization affect all phases of its activities, but changes of size at certain points along the scale are more important than at other points. Haire in his study directly equates growth with effectiveness in organization. Blocker, Plummer, and Richardson believe that a junior college of less than a thousand is too small to effectively carry out its goals. This study will rely upon support from the theorists who

have been quoted and through research will hope to expose some facts about the effect of size upon organizational goal attainment.

The question of how small a junior college can be and still remain an effective comprehensive college is increasing in interest in both Federal and State educational agencies. This concern is expressed in the Carnegie Commission's Reports on the Junior College.

The administrators of small colleges are concerned about effectively maintaining the goals of a comprehensive junior college with a lack of appropriate resources. If decisions are made to be comprehensive, then appropriation must be increased for the small colleges.

This study is intended to produce at least some information for the community colleges in their reservations concerning the influence that size has on the effectiveness of a community college in attaining its goals.

CHAPTER III

METHODS AND PROCEDURES

The present study was an attempt to determine any difference between the institutional effectiveness of goal attainment of two small junior and two large junior colleges as perceived by the administrators, faculties, and students of the participating institutions.

This chapter contains the pre-survey procedures, survey procedures, and data analysis procedures. Each of these areas of methodology is contained in the following sections.

Pre-Survey Procedures

Selection of a Research Design

The first pre-experimental procedure was to choose the proper research design for the conduct of the study. The words "research design" are intended to mean the plan, structure, and strategy of investigation conceived to obtain answers to research questions and to control external sources of variation. The "plan" is the overall scheme or program of the evaluation problem; the "structure" is the more specific structure or paradigm of the actual manipulation of the independent variables being studied; and

the "strategy" as used here is even more specific than the structure--it is the actual method to be used in the gathering and analysis of the data.¹

A research design serves two basic purposes: (1) it provides answers to research questions posed by the investigator; and (2) it controls external sources of variation. In other words, it is through the design of a study that research is made effective and interpretable.

The research design chosen for the present experiment was a three-sample, quasi-experimental design preceded by the sampling of participants from three finite populations. A paradigm of this research design is presented in Figure 1.

The Institutional Goals Inventory

The Institutional Goals Inventory (IGI), developed by Educational Testing Service, was chosen as one of the data collection instruments for the present study.² The IGI was developed for the use of universities and colleges in defining their goals and establishing priorities among them.

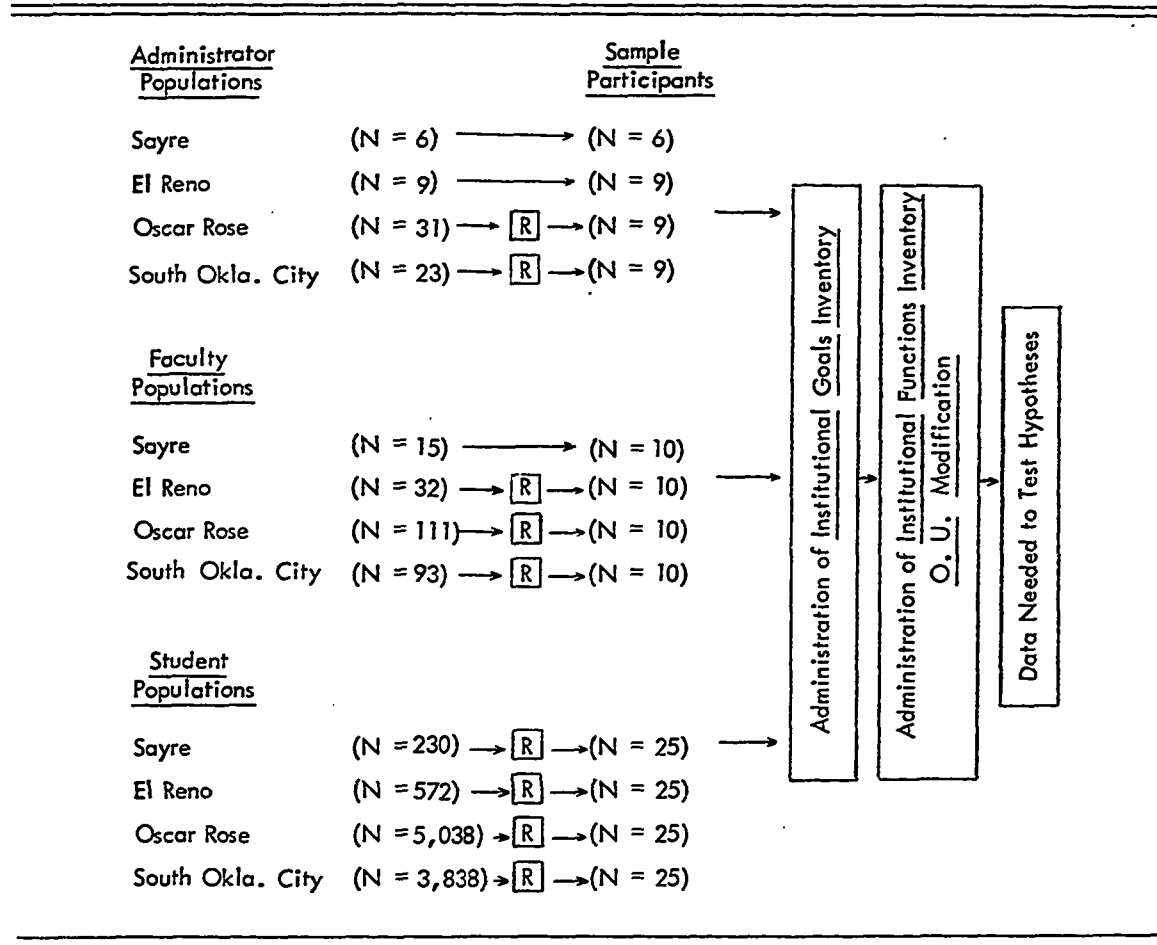
The IGI identifies twenty goal areas, each of which is derived from four statements in a ninety item questionnaire. Ten questions deal with miscellaneous goals which

¹F. N. Kerlinger, Foundations of Behavioral Research, (New York: Holt, Rinehard, and Winston, 1964), p. 276.

²Norman P. Uhl and Richard E. Peterson, Institutional Goal Inventory, (Princeton, New Jersey: Educational Testing Service, 1970).

FIGURE 1

ILLUSTRATION OF RESEARCH DESIGN USED IN THE RESEARCH



[R] = Random selection

can be ascertained from a single statement. Each statement is rated on a five-point continuum with rating values as follows: (1) of no importance or not applicable, (2) of low importance, (3) of medium importance, (4) of high importance, and (5) of extremely high importance. The twenty goal areas identified by the IGI are as follows:

- (1) Academic Development
- (2) Intellectual Orientation
- (3) Individual Personal Development
- (4) Humanism/Altruism
- (5) Cultural/Esthetic Awareness
- (6) Traditional Religiousness
- (7) Vocational Preparation
- (8) Advanced Training
- (9) Research
- (10) Meeting Local Needs
- (11) Public Service
- (12) Social Egalitarianism
- (13) Social Criticism/Activities
- (14) Freedom
- (15) Democratic Governance
- (16) Community
- (17) Intellectual/Esthetic Environment
- (18) Innovation
- (19) Off Campus Learning
- (20) Accountability/Efficiency¹

The IGI allows for two separate scorings, "Is", representing the current presence of the goal, and "Should Be", which represents a preferred future state of the goal. However, the present study utilized only the "Is" response, representing the present perception of goals.

¹ A description of each of the twenty goals and statements from both the IGI and IFI-OUM used to derive the raw data is presented in Appendix A.

Instrument Reliability

In the development of the IGI, two experimental versions were constructed and pilot tested--one involving 1,000 participants representing several constituent groups, the second included 1,300 faculty and students at ten colleges and universities on the West Coast. Educational Testing Service has conducted extensive investigation concerning validity and reliability, this information has been published in an Institutional Goals Inventory Technical Manual¹, and the reliability coefficients of the twenty institutional goal scales are presented in Table 1.

In determining validity, the statements were correlated with institutional data (such as number of volumes in the library, income per student, student-faculty ratio, selectivity in admission), providing validity for all but three goal areas (Social Criticism/Activism, Democratic Governance, and Accountability/Efficiency). A group of higher education specialists' judgments were compared with the faculty, student administrator, and community ratings of present importance for each goal area. Agreements were obtained except for the areas of Democratic Governance, Off Campus Learning, and Accountability/Efficiency.²

¹Norman P. Uhl and Richard E. Peterson, Preliminary Draft, Institutional Goals Inventory Technical Manual, 1973, (Mimeographed).

²Ibid., pp. 29-31.

TABLE 1
TEST-RETEST RELIABILITY OF INSTITUTIONAL GOALS INVENTORY SCALES

Areas measured by the <u>Institutional Goals Inventory</u>	Reliability Coefficients
1. Academic Development	.61
2. Intellectual Orientation	.75
3. Individual Personal Development	.94
4. Humanism/Altruism	.88
5. Cultural/Aesthetic Awareness	.90
6. Traditional Religiousness	.98
7. Vocational Preparation	.97
8. Advanced Training	.89
9. Research	.94
10. Meeting Local Needs	.91
11. Public Service	.80
12. Social Egalitarianism	.91
13. Social Criticism/Activism	.84
14. Freedom	.99
15. Democratic Governance	.93
16. Community	.97
17. Intellectual/Aesthetic Environment	.80
18. Innovation	.92
19. Off-Campus Learning	.99
20. Accountability/Efficiency	.75

An adaptation of Campbell and Fiske's (1959) convergent and discriminant validity procedure was employed to examine whether faculty, students, and community attach similar meanings to the goal areas. General agreement was found among these three groups with three exceptions. There was disagreement among the three groups on Accountability/Efficiency. Whereas faculty and student agreed on the meaning of Social Criticism/Activism and Democratic Governance, the community groups disagreed with both.¹

Uhl, in conducting this investigation, stated that these varied procedures--

. . . have provided support for the validity of the IGI. However, one goal area, Accountability/Efficiency, seems to hold different meanings for different groups and therefore should be used with caution.²

Institutional Functioning Inventory

The Institutional Functioning Inventory was developed by the Educational Testing Service.³ The instrument was pretested on the faculty, students, and administrators at 67 colleges and universities. An attempt was made to select a cross section of institutions; institutions that were thought to stand high or low on one or another dimension of

¹ Ibid., p. 33.

² Ibid., p. 33.

³ Richard Peterson, John Centra, Rodney Hartnott, and Robert Linn, Institutional Functioning Inventory, (Princeton, New Jersey: Educational Testing Service, 1963).

TABLE 2

COEFFICIENT ALPHA RELIABILITIES FOR INSTITUTIONAL FUNCTIONING
INVENTORY FOR ADMINISTRATORS, FACULTY AND STUDENTS

Functioning Scales	Administrators	Faculty	Students
1. Intellectual/Aesthetic Extracurriculum	.88	.88	.91
2. Freedom	.86	.90	.93
3. Human Diversity	.86	.90	.95
4. Concern for Improvement	.92	.95	.90
5. Concern for Undergraduate	.88	.92	.87
6. Democratic Governance	.93	.96	.96
7. Meeting Local Needs	.89	.92	--
8. Self-Study and Planning	.83	.86	--
9. Concern for Advancing	.94	.96	--
10. Concern for Innovation	.87	.92	--
11. Institutional Esprit	.90	.92	--

of the instrument.¹ The instrument used in this pretest contained 11 function scales with 12 items per scale.

Peterson reported that the Coefficient Alpha method for internal consistency was utilized for obtaining reliability for the instrument. Table 2 reports individual reliability coefficients for each scale for administrators, faculty, and students.² Students answered items to only six function scales because it felt that they do not have sufficient access to the necessary information to answer items in the other five scales.³

However, since the Institutional Goals Inventory contained twenty goal areas, it was deemed important to revise the Institutional Functioning Inventory so that the function scales would correspond to the goal scales of the Institutional Goals Inventory. Therefore, permission was obtained from the Educational Testing Service to modify the Institutional Functioning Inventory so that the scales relate directly to the scales of the Institutional Goals Inventory.

The University of Oklahoma Modification of the Institutional Goals Inventory was developed by Hengst and

¹Richard E. Peterson, Institutional Functioning Inventory Preliminary Technical Manual, (Princeton, New Jersey: Educational Testing Service, 1970), p. 63.

²Ibid., pp. 15-16.

³Ibid., p. 7.

Lynn.¹ In modifying the Institutional Functioning Inventory seventy-five (75) of the existing items used in those function areas were deemed appropriate. An additional forty-five (45) new items were written for those areas of the instrument where the existing items were judged to be inappropriate. Two types of items were included in the instrument; those calling for factual information and those calling for opinions. The items calling for factual information allow the respondent to answer "yes," "no," or "I don't know." The opinion items have four possible responses ranging from "strongly agree" to "strongly disagree."

The University of Oklahoma Modification of the Institutional Functioning Inventory was then given to a panel of eight (N=8) practitioners in higher education for the purpose of evaluating the appropriateness of each item in each scale. In those instances where the panel could not agree on the appropriateness of an item for a scale, the item was removed. As a consequence, the final draft of the University of Oklahoma Modification contains six items per scale for a total of one-hundred twenty (N=120) items. The instrument was designed to measure the perceptions of present institutional functioning.

The twenty scales of the Institutional Functioning Inventory - University of Oklahoma Modification are as

¹Herbert R. Hengst and Robert L. Lynn, Institutional Functioning Inventory, (University of Oklahoma Modification), (Norman, Oklahoma: University of Oklahoma, 1973).

follows:

- (1) Academic Development
- (2) Intellectual Orientation
- (3) Individual Personal Development
- (4) Human/Altruism
- (5) Cultural/Aesthetic Awareness
- (6) Traditional Religiousness
- (7) Vocational Preparation
- (8) Advanced Training
- (9) Research
- (10) Meeting Local Needs
- (11) Public Service
- (12) Social Egalitarianism
- (13) Social Criticism/Activism
- (14) Freedom
- (15) Democratic Governance
- (16) Community
- (17) Intellectual/Aesthetic Environment
- (18) Innovation
- (19) Off-Campus Learning
- (20) Accountability/Efficiency

In redesigning the instrument a decision was made to follow the Educational Testing Services guidelines in regard to students. Students do not answer items in the following scales:

- (7) Vocational Preparation
- (8) Advanced Training
- (9) Research
- (10) Meeting Local Needs
- (16) Community
- (18) Innovation
- (19) Off-Campus Learning
- (20) Accountability/Efficiency

It was decided that students do not have sufficient access to the necessary information in these areas to adequately answer items in these functioning areas. Therefore, separate test booklets were created for students that do not include items for these scales.

Reliability data for the modified I.F.I. were obtained

by administering the instrument to a sample of administrators, faculty and students at three dissimilar public institutions of higher education in Oklahoma. The test-retest reliability procedure was utilized for this purpose. The median coefficients for the three samples were .70, .65 and .64. In only one instance did two of three coefficients for a scale fall below .50. Therefore, these coefficients were considered to demonstrate adequate reliability for the instrument. Table 3 reports the reliability coefficients for the three testings as reported by the Center for Studies in Higher Education, University of Oklahoma.

Sample Populations

Selecting Sample Sizes

It was necessary to calculate the number of administrators, teachers and students needed for 95 percent level of confidence. However, the calculations had to be modified because of the small numbers in some areas and because of the sampling procedures used in others.

In order to determine the degree of accuracy desired (e), it was necessary to calculate a standard deviation for the two data collection instruments. The combined standard deviations of the IGI and the IFI-UOM were calculated by combining the overall variances of the two instruments and extracting the square root. This value was determined to be $s = 0.956$. The degree of accuracy desired was then established at one-half standard deviation.

A procedure suggested by Walpole was used to determine sample size. The following formula was used:¹

$$n = \left(\frac{Z_{\alpha/2} \sigma}{e} \right)^2$$

where

$$\begin{aligned} Z_{\alpha} &= Z \text{ value of confidence level sought (1.64)} \\ \sigma &= \text{The standard deviation of the IGI and IFI difference scores (s = 0.956)} \\ e &= \frac{1}{2} \text{ standard deviation} = 0.4781 \\ n &= \left(\frac{(1.64) (0.956)}{.4781} \right)^2 \\ n &= 10.75 \end{aligned}$$

A number of 10 administrators and faculty members from each of the junior colleges would yield a power of 95 percent at the .05 level of confidence. This is the number of faculty members to be chosen from each institution; however, the small numbers of fulltime administrators at some of the junior colleges (Sayre, 6) and (El Reno, 9) caused the numbers of administrators to be reduced slightly from the calculated number needed.

Student samples had to be modified to accomodate the random stratification of participants along three variables.

¹Ronald E. Walpole, Introduction to Statistics, (New York: The Macmillian Co., 1968), p. 182.

Students were stratified along the variables of age (three categories), college major (two categories), and grade level (two categories).

Categories of each variable were as follows:

Age: 1. < 20 years
2. 21-25 years
3. 26 > years

Type of Program: 1. University-Parallel Programs
2. Technical-Occupational Programs

Grade: 1. Freshman
2. Sophomore

Using a formula for the 3 X 2 X 2 crossbreak paradigm, the number needed for each cell was determined to be 2.23 or 2 per cell. This was rounded to 24 per college and an alternate was drawn to allow for attrition. This came to a total of 25 students from each of the 4 junior colleges.

Administrators

One group of participants were the administrators. Both Sayre and El Reno are quite small junior colleges, and it was necessary to utilize all six of the administrators at Sayre and all nine of the administrators at El Reno Junior College. Oscar Rose Junior College had a total of 31 full-time administrators, but only nine were randomly selected from the total group; one representing each of the college's nine areas of programs. South Oklahoma City Junior College also had a large number of full-time

TABLE 3

INSTITUTIONAL FUNCTIONING INVENTORY -- THE UNIVERSITY OF OKLAHOMA
MODIFICATION TEST-RETEST RELIABILITY COEFFICIENTS

Scales	Reliability Coefficients-- State University	Reliability Coefficients-- Public Jr. College	Reliability Coefficients-- Public 4-yr College
1. Academic Development	.64	.57	.34
2. Intellectual Orientation	.71	.38	.20
3. Individual Personal Development	.69	.68	.55
4. Human/Altruism	.61	.56	.63
5. Cultural/Aesthetic Awareness	.65	.68	.64
6. Traditional Religiousness	.83	.65	.59
7. Vocational Preparation	.52	.56	.86
8. Advanced Training	.37	.73	.77
9. Research	.56	.73	.80
10. Meeting Local Needs	.73	.64	.84
11. Public Service	.68	.65	.61
12. Social Egalitarianism	.74	.59	.52
13. Social Criticism/Activism	.77	.65	.60
14. Freedom	.73	.84	.51
15. Democratic Governance	.84	.75	.53
16. Community	.79	.75	.85
17. Intellectual/Aesthetic Environment	.68	.62	.75
18. Innovation	.88	.60	.85
19. Off-Campus Learning	.73	.54	.78
20. Accountability/Efficiency	.63	.51	.83

administrators, but only nine were selected as representatives from each of the school's areas of concentration. This made a total of thirty-three ($N=33$) administrators: fifteen from the small schools and eighteen from the large schools.

Faculty Members

A second group of participants was faculty members. Ten faculty members were randomly selected from the faculties of the four junior colleges. These ten were randomly selected to represent at least ten program areas at each institution. This made a total of forty ($N=40$) full-time faculty members; twenty from the small schools and twenty from the large schools.

Students

A third group of participants was full-time students. Twenty-five ($N=25$) students were stratified-randomly selected from among the full-time students at each school. Students were stratified along the variables of age, major field of study, and grade classification. There was a total of one-hundred ($N=100$) students with fifty ($N=50$) from the small schools and fifty ($N=50$) from the large schools.

It was anticipated that a total of one-hundred seventy-three ($N=173$) administrators, faculty members and students would participate in the study. This number did not fluctuate with the normal passage of time. Whenever

one dropped out of the study, he/she was quickly replaced with others who had been selected in a comparable manner.

TABLE 4
NUMBER OF ADMINISTRATORS, FACULTY MEMBERS, AND STUDENTS
PARTICIPATING FROM EACH OF THE FOUR JUNIOR COLLEGES

Junior College	Administrators	Faculty Members	Students
Sayre	6	10	25
El Reno	9	10	25
Oscar Rose	9	10	25
South Oklahoma City	9	10	25
TOTALS . . .	33	40	100

Data Collection Procedures

The second step was the data collection procedures. This involved the mailing of the data collection instruments and visiting the four junior colleges when necessary.

The first step in the data collection procedures was to mail a packet of materials to the administrators, faculty members, and students selected from each school. This packet included a copy of the Institutional Goals Inventory, one copy of the Institutional Functioning Inventory, a cover letter describing the nature of the study (see Appendix B), and a self-addressed, stamped envelope. Recipients were instructed to complete the two instruments and return them as soon as possible.

One week after the initial mailing, a postcard was sent to the non-respondents to remind them of the study. In addition, some telephone calls were made.

Two weeks after the initial mailing, a second mailing was sent to the non-respondents. This mailing included the same material as the initial mailing.

After the first week of the study, the researcher made telephone calls to non-respondents, and if necessary visited the non-respondents at the four school sites.

Data Analysis Procedure

The data were analyzed by using a multivariate analysis of variance technique suggested by Anderson.¹ Anderson indicated that the multivariate analysis of variance (MANOVA) technique is appropriate for comparing the responses of two or more groups on a variety of dependent measures. In this study there were twenty ($N=20$) measures taken for each participant, one for each scale of the IGI and the IFI-UOM.

A multivariate analysis of variance was performed across all twenty goal scales of the IGI instrument for the independent variable of school size.

Fisher's theorem for partitioning the sum of squares in analysis of variance into orthogonal, additive components permits the number

¹T. W. Anderson, An Introduction to Multivariate Statistical Analysis, (New York: John Wiley and Sons, Inc., 1957), pp. 178-193.

of hypothesis partitions to be extended as far as $g-1$, where g is the number of interaction cells; thus it is possible to test several hypotheses simultaneously.¹

This procedure made it possible to determine whether or not there were statistically significant differences in the perceived importance of institutional goals between the two sizes of institutions. A significant F-value indicated a significant difference among the 20 measures. When systematic interaction effects were detected, a one-way analysis of variance was computed in order to determine in which scales the interaction effects had occurred. The ANOVA simply compared the mean values computed for the large and small junior colleges on each scale of the data collection instruments.

When statistically significant interaction effects were detected, tests of simple main-effects were conducted on those scales with significant univariate F ratios.²

A decision to compute simple main-effects is usually made following an examination and statistical analysis of the data. The procedure recommended for such tests is to design the same family error rate to the simple main-effects test as that allotted to the over-all F ratio.³

¹William W. Cooley and Paul R. Lohnes, Multivariate Data Analysis, (New York: John Wiley & Sons, Inc., 1971), p. 299.

²Roger E. Kirk, Experimental Design: Procedures for the Behavioral Sciences, (Belmont, California: Brooks/Cole Publishing Co., 1968), p. 179.

³Ibid., p. 181.

This procedure separated the interaction effects from other levels of the design so as to determine if other statistically significant difference existed.

The second stage of the analysis was with the data obtained from the administration of the IFI - UOM at all four institutions and was designed to test null hypothesis number two. However, because the student groups did not respond to items on eight of the IFI scales, the analysis of the data had to be accomplished in the following manner: (1) a multivariate analysis of variance (MANOVA) was computed across twenty scales of the instrument for the administrators and faculty groups, and (2) a multivariate analysis of variance was computed across the twelve scales to which all three groups responded.

In the first step a multivariate analysis of variance was computed in order to detect systematic interaction effects of the perceived emphasis being given institutional functions among the faculty and administrative groups within the four institutions. If a significant interaction was detected, a one-way analysis of variance was then computed between the responses of participants from the small colleges and responses of participants from the large colleges in order to determine those areas where the significant interaction occurred.

In the second step of this stage of the analysis a multivariate analysis of variance was computed on the

twelve scales of the IFI - UOM in which all three groups from each institution responded in order to detect a systematic interaction effect. A one-way analysis of variance was computed if significant interactions were determined.

The third stage of the data analysis was to compare the effectiveness scores of the three groups of participants.

Computing Effectiveness Scores

It was necessary to determine a measure of effectiveness in order to test null hypotheses 3, 4, and 5. Effectiveness was defined earlier as the degree of difference between the participants' perceptions of their institution's goal statements and functioning statements. The use of a difference between two correlated scores as a raw score is a technique advocated by Ferguson.¹

In scoring the instruments, the IGI was scored on a 1-5 continuum, with one being of no importance and five being of extremely high importance. The respondents' ratings of the twenty IGI scales were summed to form a total rating for each scale.

Scoring of the IFI-UOM proved to be more difficult because of the two types of item responses on the IFI questions. Fifty five (N=55) items on the IFI require a "yes",

¹George A. Ferguson, Statistical Analysis in Psychology and Education, (New York: McGraw-Hill Book Company, 1966), p. 371.

"no", or "don't know" response. Sixty five (N=65) items on the IFI called for an opinion rating of "strongly agree", "agree", "disagree", or "strongly disagree". Scoring of the "yes" "no" items was given a value of four (4) for the "yes" and a value of one (1) for the "no". Opinions were given values of four (4) for "strongly agree", three (3) for "agree", two (2) for "disagree", and a value of one (1) for "strongly disagree". Participants' responses to the six items on each of the twenty IFI scales were then summed to form a scale score. It was necessary to compare the IGI scale scores with the IFI scale scores in order to determine the amount of institutional effectiveness perceived by each group of participants.

It was difficult to compare the IGI scale scores with the IFI scale scores, however, because the importance rating scores were based on the results of a scale of five while the IFI emphasis scores were based on the results of a scale of four. In order to reconcile this difference, a simple linear transformation was made of each IGI and IFI scale score. A mean average was computed for the IGI and IFI scale scores. These scale means were then subtracted to determine the institutional effectiveness scores for each individual and each group on the twenty instrument scales. The procedure for determining the effectiveness of goal achievement scores was as follows:

$$\begin{array}{rcl} \text{IGI mean} & - & \text{IFI mean} \\ \text{scale score} & & \text{scale score} \end{array} = \begin{array}{l} \text{Effectiveness of} \\ \text{Goal Achievement} \end{array}$$

In order to test null hypotheses 4, 5, and 6, a multivariate analysis of variance was computed as a means of detecting systematic interaction effects among the three groups' institutional effectiveness scores. If significant interactions were detected, a one-way analysis of variance was computed in order to determine those areas where significant differences had occurred.

Two computerized statistical analysis programs were used in the data analysis procedures. A multiple analysis of variance (MANOVA) program was utilized to perform the initial comparisons in the data analysis. This program performs univariate and multivariate analysis of variance with and/or without factorial designs of covariance and regression. The program also provides an exact solution in either the orthogonal or non-orthogonal case.

The second computerized statistical analysis program used in the data analysis was a one-way analysis of variance (ANOVA). This program was employed whenever significant F values resulted from the MANOVA calculations. The use of the ANOVA allowed the researcher to locate specific areas of difference on the twenty scales of the IGI and the IFI-UOM. Other statistical analyses were performed if it became necessary and proper to do so in order to more fully explain the results of the study. The results of all data analyses are presented in Chapter IV.

CHAPTER IV

RESULTS OF DATA ANALYSIS

In this study 173 administrators, faculty members and students responded to the Institutional Goals Inventory (IGI) and the Institutional Functioning Inventory--University of Oklahoma Modification (IFI-UOM) in an attempt to determine any differences between the effectiveness of two small and two large Oklahoma junior colleges. Responses of fifteen (N=15) administrators, twenty (N=20) faculty members and fifty (N=50) students from two small junior colleges were compared with the responses of eighteen (N=18) administrators, twenty (N=20) faculty members, and fifty (N=50) students from two large junior colleges to test five null hypotheses.

This chapter contains an analysis of the data related to the five major null hypotheses. These hypotheses were concerned with the amount of consensus on institutional goal intentions, consensus on institutional functioning, and the differences among the administrators', faculty members' and students' perceptions of the large and small junior colleges' effectiveness.

Preliminary Analysis

Prior to testing the hypotheses, it was necessary to compare the variances of the four institutions' ratings in order to assure that the assumptions underlying the multiple analysis of variance (MANOVA) and analysis of variance (ANOVA) had not been violated.¹ A comparison was made among the variances of goals, functions, and effectiveness ratings. The means, standard deviations and variances computed for participants from the four participating institutions are presented in Table 5.

A comparison of the largest and smallest variances in each case yielded insignificant results.² These results, presented in Table 5, show that the variances of goals ratings were homogeneous ($F = 2.974; df=4/19; p > .05$); variances of the functions ratings were homogeneous ($F = 2.410; df=4/19; p > .05$); and variances of the effectiveness scores were homogeneous ($F = 1.518; df=4/19; p > .05$). These results allowed the researcher to meet the assumption of homogeneity of variances underlying the MANOVA and ANOVA statistics.

¹T. W. Anderson, An Introduction to Multivariate Statistical Analysis, (New York: John Wiley and Sons, Inc., 1957), pp. 178-193.

²James L. Bruning and B. L. Kintz, Computational Handbook of Statistics, (Glenview, Illinois: Scott, Foresman, and Company, 1968), pp. 110, 111.

TABLE 5
A COMPARISON OF THE FOUR INSTITUTIONS'
VARIANCES IN GOALS, FUNCTIONS, AND
EFFECTIVENESS SCORES

Institution	Variances of Goals Ratings	Variances of Functions Ratings	Effectiveness
Small Institution #1	0.583	0.167	0.458
Small Institution #2	0.334	0.178	0.354
Large Institution #1	0.219	0.403	0.555
Large Institution #2	0.196	0.177	0.311
	$F_{\max} = 2.974$ $df = 4/19$ $p > .05$	$F_{\max} = 2.410$ $df = 4/19$ $p > .05$	$F_{\max} = 1.518$ $df = 4/19$ $p > .05$

A Comparison of the Small and Large
Colleges Goal Intentions

The first null hypothesis was concerned with a comparison of the goal perceptions of participants from the two large junior colleges and the goal perceptions of participants from the two small junior colleges. The mean ratings made by participants from the large and small junior colleges are presented in Table 6.

The first null hypothesis was:

Ho₁ There are no statistically significant differences between the institutional goals perceptions of administrators, faculty and students from the two large junior colleges and the institutional goals perceptions of administrators, faculty and students from the two small junior colleges.

A multiple analysis of variance (MANOVA) and a univariate analysis of variance (ANOVA) were used to test the first null hypothesis.

Rao's Approximate F Test was computed between the goals perceptions of all three groups from the large junior colleges and the goals perceptions of all three groups from the small junior colleges as an overall test of significance, utilizing Wilks' lambda criterion (likelihood ratio test) for significance at the .05 level.¹ The results of the calculations are presented in Table 7.

The data presented in Table 7 show that there was a

¹C. R. Rao, "Tests of Significance in Multivariate Analysis," Biometrika, 35, pp. 58-79.

TABLE 6
GOAL INTENTIONS RATINGS MADE BY ADMINISTRATORS, FACULTY MEMBERS
AND STUDENTS FROM THE SMALL AND LARGE JUNIOR COLLEGES

Institutional Goals Scales	Large Junior Colleges				Small Junior Colleges			
	Adm.	Fac.	Stu.	TOTAL	Adm.	Fac.	Stu.	TOTAL
1. Academic Development	3.556	3.697	3.507	3.712	3.622	3.417	3.279	3.508
2. Intellectual Orientation	3.873	3.704	3.772	3.755	3.172	3.215	2.977	3.029
3. Individual Personal Development	2.475	2.119	2.042	2.174	3.816	3.707	3.404	3.748
4. Humanism/Altruism	3.107	3.024	2.886	2.961	3.172	3.204	2.816	3.015
5. Cultural/Esthetic Awareness	3.142	2.950	2.914	3.022	3.019	2.883	2.554	2.853
6. Traditional Religiousness	2.804	2.672	2.442	2.652	3.844	3.624	3.471	3.719
7. Vocational Preparation	3.414	3.162	3.074	3.209	3.178	3.152	2.689	3.087
8. Advanced Training	3.192	3.852	3.516	3.974	2.407	2.093	2.013	2.151
9. Research	3.350	3.473	3.196	3.258	3.110	3.172	2.852	2.971
10. Meeting Local Needs	3.574	3.156	2.992	3.023	3.740	3.745	3.440	3.655
11. Public Service	3.713	3.344	3.208	3.462	3.175	3.021	2.912	3.085
12. Social Egalitarianism	3.144	3.218	2.660	2.907	2.673	2.718	2.481	2.615
13. Social Criticism/Activism	2.960	3.044	2.638	2.853	2.914	2.875	2.612	2.741
14. Freedom	2.398	2.513	2.258	2.477	2.244	2.358	1.994	2.179
15. Democratic Governance	2.510	2.442	2.374	2.455	2.286	2.197	1.875	2.109
16. Community	3.745	3.762	3.501	3.732	2.853	2.719	2.328	2.615
17. Intellectual/Esthetic Envir.	3.414	3.558	3.292	3.406	2.993	3.174	2.952	3.087
18. Innovation	3.912	3.817	3.775	3.804	2.689	2.712	2.476	2.519
19. Off-Campus Learning	2.404	2.163	2.111	2.179	2.119	2.055	1.852	2.009
20. Accountability/Efficiency	2.977	3.204	3.075	3.119	3.581	3.554	3.201	3.392
Means . . .	3.183	3.144	2.962	3.107	3.030	2.980	2.709	2.904
Standard Deviations . . .	(0.484)	(0.537)	(0.530)	(0.541)	(0.524)	(0.520)	(0.517)	(0.540)

significant difference between the goal ratings made by the participants from the small colleges and ratings made by participants from the large colleges. The results were significant beyond the .001 level which allowed the researcher to reject the first null hypothesis.

TABLE 7

RESULTS OF COMPARING THE OVERALL GOAL PERCEPTIONS OF PARTICIPANTS FROM SMALL AND LARGE JUNIOR COLLEGES (RAO'S APPROXIMATE F TEST)

Computed F Value	DF Hypothesis	DF Error	Significance Level
2.17	20	571.44	P <.001

Because significant differences had been found in testing the first hypothesis, univariate analysis of variance statistics were computed comparing the small college participants' responses with the large college participants' responses on all twenty IGI scales. This procedure allowed the researcher to locate specific areas of differences. The results of the analysis of variance comparisons are presented in Table 8.

The data presented in Table 8 show that there were significant differences between the participants' ratings from the large and small schools on eight of the twenty IGI

TABLE 8
RESULTS OF COMPARING THE LARGE SCHOOL PARTICIPANTS' AND
SMALL SCHOOL PARTICIPANTS' GOAL RATINGS ON
THE TWENTY IGI SCALES

Institutional Goals Scales	F* Ratio	Significance Level
1. Academic Development	1.371	> .05
2. Intellectual Orientation	5.273	< .05
3. Individual Personal Development	6.904	< .01
4. Humanism/Altruism	1.527	> .05
5. Cultural/Esthetic Awareness	0.633	> .05
6. Traditional Religiousness	5.636	< .05
7. Vocational Preparation	3.692	> .05
8. Advanced Training	11.052	< .001
9. Research	4.144	< .05
10. Meeting Local Needs	9.108	< .01
11. Public Service	3.568	> .05
12. Social Egalitarianism	0.349	> .05
13. Social Criticism/Activism	0.928	> .05
14. Freedom	1.200	> .05
15. Democratic Governance	1.943	> .05
16. Community	5.293	< .05
17. Intellectual/Esthetic Environment	2.626	> .05
18. Innovation	12.714	< .001
19. Off-Campus Learning	0.760	> .05
20. Accountability/Efficiency	1.336	> .05

*All F Ratios were based on 1 and 171 degrees of freedom

scales. A perusal of the two groups' mean ratings scores in Table 5 show that participants from the large junior colleges had significantly higher goal ratings than participants from the small junior colleges on the following scales:

- (1) Intellectual Orientation
- (2) Advanced Training
- (3) Research
- (4) Community
- (5) Innovation

Participants from the small junior colleges had significantly greater goal ratings than participants from the large junior colleges on the following scales:

- (1) Individual Personal Development
- (2) Traditional Religiousness
- (3) Meeting Local Needs

A Comparison of the Small and Large Colleges' Institutional Functioning Ratings

The second null hypothesis was concerned with a comparison of the institutional functioning (practices) as perceived by participants from the two large junior colleges and the institutional functionings (practices) as perceived by participants from the two small junior colleges. The mean ratings made by participants from the large and small junior colleges on each of the IFI-UOM scales are presented in Table 9.

TABLE 9
INSTITUTIONAL FUNCTIONING RATINGS MADE BY ADMINISTRATORS, FACULTY MEMBERS
AND STUDENTS FROM THE SMALL AND LARGE JUNIOR COLLEGES

Institutional Functioning Scales	Large Junior Colleges				Small Junior Colleges			
	Adm.	Fac.	Stu.	TOTAL	Adm.	Fac.	Stu.	TOTAL
1. Academic Development	3.254	3.417	2.814	3.107	3.642	3.174	2.558	2.964
2. Intellectual Orientation	3.655	3.898	3.104	3.215	3.172	3.272	2.249	2.640
3. Individual Personal Development	3.016	3.514	2.215	2.652	3.421	3.528	3.113	3.290
4. Humanism/Altruism	3.212	3.057	2.994	3.091	3.422	3.394	3.178	3.236
5. Cultural/Esthetic Awareness	3.172	2.914	2.770	2.854	3.013	2.644	2.118	2.317
6. Traditional Religiosity	3.178	3.042	2.817	2.916	3.852	3.636	3.107	3.294
7. Vocational Preparation	3.644	3.471	NA	3.528	2.918	2.504	NA	2.619
8. Advanced Training	3.640	3.372	NA	3.421	3.172	2.809	NA	2.917
9. Research	3.819	3.674	NA	3.742	3.002	2.478	NA	2.614
10. Meeting Local Needs	3.104	2.903	NA	2.954	3.518	3.193	NA	3.272
11. Public Service	3.002	2.856	2.886	2.904	3.615	3.408	3.107	3.276
12. Social Egalitarianism	2.917	2.943	2.750	2.852	2.913	2.940	2.515	2.607
13. Social Criticism/Activism	2.904	2.913	2.546	2.798	2.562	2.407	2.152	2.315
14. Freedom	3.271	3.018	3.126	3.117	2.888	2.713	2.534	2.641
15. Democratic Governance	2.813	2.542	1.981	2.104	2.407	2.179	2.004	2.113
16. Community	2.427	2.619	NA	2.542	3.422	3.089	NA	3.178
17. Intellectual/Esthetic Envir.	3.810	3.622	3.276	3.519	2.492	2.617	2.118	2.204
18. Innovation	3.500	3.312	NA	3.472	2.000	2.117	NA	2.054
19. Off-Campus Learning	3.626	3.279	NA	3.493	1.973	2.216	NA	2.104
20. Accountability/Efficiency	2.404	2.013	NA	2.174	3.107	2.855	NA	2.916
Means . . .	3.218	3.119	2.773	3.023	3.026	2.859	2.563	2.729
Standard Deviations . . .	(0.414)	(0.360)	(0.375)	(0.443)	(0.526)	(0.465)	(0.460)	(0.442)

The second null hypothesis was tested as follows:

- H_{02} There are no statistically significant differences between the institutional functioning (practices) perceptions of administrators, faculty, and students from the two large junior colleges and the institutional functioning (practices) perceptions of administrators, faculty and students from the two small junior colleges.

A multivariate analysis of variance (MANOVA) and a one-way analysis of variance (ANOVA) were used to test the second null hypothesis.

Rao's Approximate F Test was computed between the functioning perceptions of participants from the large junior colleges and the functioning perceptions of participants from the small junior colleges. The overall test of significance employed Wilks' Lambda criterion for significance at the .05 level.

Since the students had no opportunity to respond to questionnaire items on eight of the IFI scales, it was necessary to compare the responses of all three groups from each size institution on twelve of the IFI scales and to make comparisons between the responses of only two groups (administrators and faculty members) from the small and large junior colleges on the other eight IFI-UOM scales. This resulted in two overall F tests on the functioning ratings. The first MANOVA involved the comparison of functioning ratings made by eighty-eight ($N=88$) administrators, faculty and students from the large junior colleges

on eight IFI scales. The second MANOVA involved the comparison of functioning ratings made by thirty-eight (N=38) administrators, and faculty members from the large junior colleges and functioning ratings made by thirty-five (N=35) administrators and faculty members from the small junior colleges on eight IFI-UOM scales.

The results of the MANOVA calculations concerning the comparison of functioning ratings made by participants from the large and small junior colleges are presented in Table 10.

TABLE 10

RESULTS OF COMPARING THE FUNCTIONING PERCEPTIONS OF
ADMINISTRATORS, FACULTY AND STUDENTS FROM SMALL
AND LARGE JUNIOR COLLEGES
(RAO'S APPROXIMATE F TEST)

Computed F Value	DF Hypothesis	DF Error	Significance Level
4.445	12	487.24	P <.001

The results of the MANOVA calculations comparing the functioning ratings made by administrators and faculty members from the small and large junior colleges are presented in Table 11.

The results presented in Tables 10 and 11 show that there were significant differences between the large college participants' institutional functioning perceptions and the small college participants' institutional functioning

perceptions. A comparison of all participants from the different sized colleges showed significant differences among ratings on twelve of the IFI scales. The overall F value of 4.445 was significant beyond the .001 level. A second comparison was made between the administrators' and faculty's perceptions of institutional functioning on the remaining eight IFI scales. The overall F value of 5.404 was also significant beyond the .001 level.

TABLE 11

RESULTS OF COMPARING THE FUNCTIONING PERCEPTIONS OF
ADMINISTRATORS AND FACULTY FROM LARGE AND SMALL
JUNIOR COLLEGES (RAO'S APPROXIMATE F TEST)

Computed F Value	DF Hypothesis	DF Error	Significance Level
5.404	8	316.20	P < .001

Since significant differences were found in testing the second null hypothesis, the second null hypothesis was rejected and one-way analysis of variance tests were computed comparing the small college participants' responses with the large college participants' responses. These procedures allowed the researcher to locate specific areas of differences on the individual scales of the IFI-UOM. The results of the ANOVA calculations are presented in Table 12.

The results presented in Table 12 show that there were significant differences between the large school participants'

TABLE 12

ANOVA RESULTS OF COMPARING THE LARGE COLLEGE PARTICIPANTS'
PRACTICES RATINGS WITH THE SMALL COLLEGE
PARTICIPANTS' PRACTICES RATINGS

Institutional Goals Scales	F* Ratio	Significance Level
1. Academic Development	1.842*	> .05
2. Intellectual Orientation	7.140*	< .01
3. Individual Personal Development	8.276*	< .01
4. Humanism/Altruism	0.966*	> .05
5. Cultural/Esthetic Awareness	3.174*	> .05
6. Traditional Religiousness	3.528*	> .05
7. Vocational Preparation	9.241**	< .01
8. Advanced Training	2.653**	> .05
9. Research	13.551**	< .001
10. Meeting Local Needs	1.104**	> .05
11. Public Service	1.329*	> .05
12. Social Egalitarianism	0.742*	> .05
13. Social/Criticism/Activism	0.859*	> .05
14. Freedom	8.715*	< .01
15. Democratic Governance	1.324*	> .05
16. Community	4.227**	< .05
17. Intellectual/Esthetic Environment	11.874*	< .001
18. Innovation	12.279**	< .001
19. Off-Campus Learning	9.115**	< .01
20. Accountability/Efficiency	6.202**	< .05

*F Ratios were based on 1 and 171 degrees of freedom and include the administrators, faculty, and students from all junior colleges.

**F Ratios were based on 1 and 71 degrees of freedom and comparison included only the administrators and faculty members.

practices ratings and the small school participants' practices ratings on four of the twelve IFI scales. Administrators, faculty and students from the large institutions made significantly higher practices ratings than their counterparts from the small institutions on the following scales:

- (1) Intellectual Orientation
- (2) Freedom
- (3) Intellectual/Esthetic Environment

Participants from the small institutions made significantly higher functioning ratings than their counterparts on the Individual Personal Development scale of the IFI.

Comparisons which did not include the students' ratings showed a wider contrast than those where they were included. Administrators and faculty from the large junior colleges made significantly higher functioning ratings than administrators and faculty from the small junior colleges on the following IFI scales:

- (1) Vocational Preparation
- (2) Research
- (3) Innovation
- (4) Off-Campus Learning

Administrators and faculty members from the small junior colleges made significantly higher functioning ratings than administrators and faculty from the large junior colleges on the following IFI scales:

- (1) Community
- (2) Accountability/Efficiency

A Comparison of the Small and Large Junior Colleges' Institutional Effectiveness

Institutional effectiveness was defined in this study as the mathematical difference between the IGI mean scale ratings and the IFI-UOM mean scale ratings made by the participants from a particular institution. The primary question investigated in the study was to determine whether the large junior colleges were more or less effective than the small junior colleges. If there was a difference between the effectiveness levels of the two types of institutions, was one size of institution more effective than the other in specific areas such as those reflected on the twenty scales of the IGI and IFI-UOM?

In order to investigate these questions three null hypotheses were stated and tested. One null hypothesis compared the effectiveness scores of administrators from the small and large junior colleges, another compared the effectiveness scores of faculty members from the small and large junior colleges, and a third hypothesis compared the effectiveness scores of students from the small and large junior colleges.

A Comparison of the Administrators' Perceptions of Institutional Effectiveness

The third null hypothesis was concerned with a comparison of the institutional effectiveness scores of administrators from the small and large junior colleges.

The mean effectiveness ratings computed for administrators, faculty and students from the small and large junior colleges are presented in Table 13.

The third null hypothesis was tested as follows:

H_{o_3} There are no statistically significant differences between the institutional effectiveness scores of the two large junior colleges as perceived by their administrators and the institutional effectiveness scores of the two small junior colleges as perceived by their administrators.

A multivariate analysis of variance (MANOVA) was used to compare the effectiveness scores computed for administrators from the large junior colleges and the effectiveness scores computed for administrators from the small junior colleges. The results of the MANOVA calculations are presented in Table 14.

TABLE 14

RESULTS OF COMPARING THE ADMINISTRATORS' INSTITUTIONAL EFFECTIVENESS RATINGS OF LARGE AND SMALL JUNIOR COLLEGES (RAO'S APPROXIMATE F TEST)

F-Value	DF/Hypothesis	DF/Error	Significance
6.173	12	441.87	$P < .01$

The results presented in Table 14 show that there were significant differences between the institutional effectiveness ratings made by administrators from the large

TABLE 13
INSTITUTIONAL EFFECTIVENESS RATINGS COMPUTED FOR ADMINISTRATORS, FACULTY
MEMBERS AND STUDENTS FROM THE SMALL AND LARGE JUNIOR COLLEGES

IGI-IFI Scales	Large Junior Colleges				Small Junior Colleges			
	Adm.	Fac.	Stu.	TOTAL	Adm.	Fac.	Stu.	TOTAL
1. Academic Development	0.302	0.280	0.693	0.605	-0.020	0.243	0.721	0.544
2. Intellectual Orientation	0.218	-0.194	0.668	0.540	0.000	-0.057	0.728	0.389
3. Individual Personal Devel.	-0.541	-1.395	-0.173	-0.478	0.395	0.179	0.291	0.458
4. Humanism/Altruism	-0.105	-0.033	-0.108	-0.130	-0.250	-0.190	-0.362	-0.221
5. Cultural/Esthetic Awareness	-0.030	0.036	0.144	0.168	0.006	0.239	0.436	0.536
6. Traditional Religiosity	-0.374	0.370	-0.375	-0.264	-0.008	-0.012	0.364	0.425
7. Vocational Preparation	-0.230	-0.309	NA	-0.319	0.260	0.648	NA	0.468
8. Advanced Training	-0.448	0.480	NA	0.553	-0.765	-0.716	NA	-0.766
9. Research	-0.469	-0.201	NA	-0.484	0.108	0.694	NA	0.357
10. Meeting Local Needs	0.470	0.253	NA	0.069	0.222	0.552	NA	0.383
11. Public Service	0.711	0.488	0.322	0.558	-0.440	-0.387	-0.195	-0.191
12. Social Egalitarianism	0.227	0.275	-0.090	0.055	-0.240	-0.222	-0.034	0.008
13. Social Criticism/Activism	0.056	0.131	0.092	0.055	0.352	0.468	0.460	0.426
14. Freedom	-0.873	-0.505	0.868	-0.640	-0.644	-0.355	-0.540	-0.462
15. Democratic Governance	-0.303	-0.100	0.393	0.351	-0.121	0.018	-0.129	-0.004
16. Community	1.318	1.143	NA	1.190	-0.569	-0.370	NA	-0.563
17. Intellectual/Esthetic Envir.	-0.396	-0.064	0.016	-0.113	0.501	0.557	0.834	0.883
18. Innovation	0.412	0.505	NA	0.332	0.689	0.595	NA	0.465
19. Off-Campus Learning	-1.222	-1.116	NA	-1.314	0.146	-0.161	NA	-0.095
20. Accountability/Efficiency	0.573	1.191	NA	.945	0.474	0.699	NA	0.476
Means	-0.352	0.062	0.204	0.084	0.005	0.124	0.215	0.176
Standard Deviations . . .	(0.568)	(0.623)	(0.388)	(0.586)	(0.472)	(0.428)	(0.456)	(0.436)

and small junior colleges. The overall F value of 6.173 was significant beyond the .01 level. This allowed the researcher to reject the third null hypothesis.

Since there were significant differences noted in the overall comparisons of the two administrators' groups on effectiveness ratings, it was necessary to perform one-way analysis of variance (ANOVA) tests on each of the twenty IGI-IGI scales in order to determine specific areas of differences. The results of the ANOVA calculations are presented in Table 15.

The results presented in Table 15 show that there were significant differences between the administrators' effectiveness ratings on eight of the twenty areas included on the IGI and IFI instruments. Administrators from the large junior colleges showed significantly higher effectiveness ratings than administrators from the small junior colleges on the following scales:

- (1) Individual Personal Development
- (2) Vocational Preparation
- (3) Research
- (4) Intellectual/Esthetic Environment
- (5) Off-Campus Learning

Administrators from the small junior colleges showed significantly higher effectiveness ratings on their institutions than administrators from the small junior colleges on the following instrument scales:

- (1) Public Service
- (2) Social Egalitarianism
- (3) Community

TABLE 15
RESULTS OF COMPARING THE LARGE COLLEGE ADMINISTRATORS'
EFFECTIVENESS RATINGS AND SMALL COLLEGE
ADMINISTRATORS' EFFECTIVENESS RATINGS

Institutional Goals/Functions Scales	F* Ratio	Significance Level
1. Academic Development	3.119	> .05
2. Intellectual Orientation	2.104	> .05
3. Individual Personal Development	8.291	< .01
4. Humanism/Altruism	0.174	> .05
5. Cultural/Esthetic Awareness	0.113	> .05
6. Traditional Religiousness	3.752	> .05
7. Vocational Preparation	5.017	< .05
8. Advanced Training	2.614	> .05
9. Research	4.530	< .05
10. Meeting Local Needs	1.175	> .05
11. Public Service	9.192	< .01
12. Social Egalitarianism	6.025	< .05
13. Social Criticism/Activism	1.110	> .05
14. Freedom	0.973	> .05
15. Democratic Governance	0.436	> .05
16. Community	14.718	< .001
17. Intellectual	6.173	< .05
18. Innovation	1.311	> .05
19. Off-Campus Learning	10.220	< .01
20. Accountability/Efficiency	0.742	> .05

*All F Ratios were based on 1 and 31 degrees of freedom

A Comparison of the Faculty Members' Perceptions
Of Institutional Effectiveness

The fourth null hypothesis was concerned with a comparison of the institutional effectiveness scores of faculty members from the small and large junior colleges. The mean effectiveness ratings computed for administrators, faculty and students from the small and large junior colleges are presented in Table 13.

The fourth null hypothesis was tested as follows:

H_{04} There are no statistically significant differences between the institutional effectiveness scores of the two large junior colleges as perceived by their faculty members and the institutional effectiveness scores of the two small junior colleges as perceived by their faculty members.

A multivariate analysis of variance (MANOVA) was used to compare the effectiveness scores computed for faculty members from the large junior colleges and the effectiveness scores computed for faculty members from the small junior colleges. The results of the MANOVA calculations are presented in Table 16.

TABLE 16

RESULTS OF COMPARING THE FACULTY MEMBERS' INSTITUTIONAL
EFFECTIVENESS RATINGS OF LARGE AND SMALL JUNIOR
COLLEGES (RAO'S APPROXIMATE F TEST)

F Value	DF Hypothesis	DF Error	Significance
4.107	12	518.76	$p < .01$

The results presented in Table 16 show that there were significant differences between the institutional effectiveness ratings made by faculty members from the large and small junior colleges. The overall F value of 4.107 was significant beyond the .01 level. This allowed the researcher to reject the fourth null hypothesis.

Since there were significant differences noted in the overall comparisons of the two faculty members' groups on effectiveness ratings, it was necessary to perform one-way analysis of variance (ANOVA) tests on each of the twenty IGI-IFI scales in order to determine specific areas of differences. The results of the ANOVA calculations are presented in Table 17.

The results presented in Table 17 show that there were significant differences between the faculty members' effectiveness ratings on ten of the twenty areas included on the IGI and IFI instruments. Faculty members from the large junior colleges showed significantly higher effectiveness ratings than faculty members from the small junior colleges on the following scales:

- (1) Individual Personal Development
- (2) Vocational Preparation
- (3) Research
- (4) Intellectual/Esthetic Environment
- (5) Off-Campus Learning

Faculty members from the small junior colleges showed significantly higher effectiveness ratings of their

TABLE 17
RESULTS OF COMPARING THE INSTITUTIONAL EFFECTIVENESS
RATINGS MADE BY FACULTY MEMBERS FROM LARGE
AND SMALL JUNIOR COLLEGES

Institutional Goals/Functions Scales	F* Ratio	Significance Level
1. Academic Development	0.347	> .05
2. Intellectual Orientation	0.596	> .05
3. Individual Personal Development	9.223	< .01
4. Humanism/Altruism	1.175	> .05
5. Cultural/Esthetic Awareness	2.036	> .05
6. Traditional Religiousness	1.714	> .05
7. Vocational Preparation	5.073	< .05
8. Advanced Training	9.630	< .01
9. Research	6.221	< .05
10. Meeting Local Needs	1.173	> .05
11. Public Service	5.106	< .05
12. Social Egalitarianism	6.123	< .05
13. Social Criticism/Activism	3.607	> .05
14. Freedom	1.148	> .05
15. Democratic Governance	0.976	> .05
16. Community	11.614	< .01
17. Intellectual/Esthetic Environment	4.932	< .05
18. Innovation	0.156	> .05
19. Off-Campus Learning	10.679	< .01
20. Accountability/Efficiency	6.440	< .05

*All F Ratios were based on 1 and 38 degrees of freedom

institutions than faculty members from the small junior colleges on the following instrument scales:

- (1) Advanced Training
- (2) Public Service
- (3) Social Egalitarianism
- (4) Community
- (5) Accountability/Efficiency

A Comparison of the Student Groups' Perceptions of Institutional Effectiveness

The fifth null hypothesis was concerned with a comparison of the institutional effectiveness scores of students from the small and large junior colleges. The mean effectiveness ratings computed for administrators, faculty and students from the small and large junior colleges are presented in Table 13.

The fifth null hypothesis was tested as follows:

- Ho₅ There are no statistically significant differences between the institutional effectiveness scores of the two large junior colleges as perceived by their students and the institutional effectiveness scores of the two large junior colleges as perceived by their students.

A multivariate analysis of variance (MANOVA) was used to compare the effectiveness scores computed for students from the large junior colleges and the effectiveness scores computed for students from the small junior colleges. The results of the MANOVA calculations are presented in Table 18.

TABLE 18

RESULTS OF COMPARING THE STUDENT GROUPS' INSTITUTIONAL
EFFECTIVENESS RATINGS OF LARGE AND SMALL JUNIOR
COLLEGES (RAO'S APPROXIMATE F TEST)

F Value	DF Hypothesis	DF Error	Significance Level
3.249	8	389.07	$P < .01$

The results presented in Table 18 show that there were significant differences between the institutional effectiveness ratings made by students from the large and small junior colleges. The overall F value of 3.249 was significant beyond the .01 level. This allowed the researcher to reject the fifth null hypothesis.

Since there were significant differences noted in the overall comparisons of the two student groups on effectiveness ratings, it was necessary to perform one-way analysis of variance (ANOVA) tests on each of the twelve IGI-IFI scales in order to determine specific areas of differences. It should be noted that students' effectiveness ratings could only be made on twelve of the IGI-IFI areas. The students made no ratings of institutional functioning on eight of the IFI scales. The results of the ANOVA calculations are presented in Table 19.

The results presented in Table 19 show that there were differences between the students' effectiveness ratings

TABLE 19

RESULTS OF COMPARING THE INSTITUTIONAL EFFECTIVENESS
RATINGS MADE BY STUDENTS FROM THE LARGE AND
SMALL JUNIOR COLLEGES

Institutional Goals/Functions Scales	F* Ratio	Significance Level
1. Academic Development	1.730	> .05
2. Intellectual Orientation	2.336	> .05
3. Individual Personal Development	6.373	< .05
4. Humanism/Altruism	3.109	> .05
5. Cultural/Esthetic Awareness	0.973	> .05
6. Traditional Religiousness	9.814	< .01
7. Vocational Preparation	NA	NA
8. Advanced Training	NA	NA
9. Research	NA	NA
10. Meeting Local Needs	NA	NA
11. Public Service	6.304	< .05
12. Social Egalitarianism	1.352	> .05
13. Social Criticism/Activism	3.882	> .05
14. Freedom	11.225	< .01
15. Democratic Governance	6.317	< .05
16. Community	NA	NA
17. Intellectual/Esthetic Environment	6.028	< .05
18. Innovation	NA	NA
19. Off-Campus Learning	NA	NA
20. Accountability/Efficiency	NA	NA

*All F Ratios were based on 1 and 48 degrees of freedom

on six of the twelve areas rated on the IGI and IFI instruments. Students from the large junior colleges showed significantly higher effectiveness ratings than students from the small junior colleges on the following areas:

- (1) Individual Personal Development
- (2) Traditional Religiousness
- (3) Intellectual/Esthetic Environment

Students from the small junior colleges showed significantly higher effectiveness ratings of their institutions than students from the large junior colleges on the following instrument scales:

- (1) Public Service
- (2) Freedom
- (3) Democratic Governance

A Comparison of the Institutional Effectiveness
Ratings Made by Participants from the
Small and Large Junior Colleges

One final comparison was made in an attempt to further analyze the institutional effectiveness ratings. Although it had not been hypothesized, it became obvious that the institutional effectiveness ratings made by all three groups of participants from the large and small junior colleges should be compared. Such a comparison would supplement the findings derived from comparing the effectiveness ratings made by the individual groups of administrators, faculty and students. The mean effectiveness ratings made by the combined groups from the small and large institutions are shown in Table 13.

It was necessary to make a dual analysis of the data in order to properly analyze the effectiveness ratings made by the administrators, faculty and students. Since the students had no opportunity to respond to questionnaire items on eight of the twenty IFI scales, no institutional effectiveness ratings could be calculated for them on these eight scales. This eliminated the student groups from the overall comparisons on eight of the instrument scales and included them on twelve of the instrument scales. This resulted in two overall F tests on the effectiveness ratings.

The first MANOVA involved the comparison of effectiveness ratings made by eighty-eight (N=88) participants from the large junior colleges and effectiveness ratings made by eighty-five (N=85) participants from the small junior colleges. The second MANOVA involved the comparison of effectiveness ratings made by thirty-eight (N=38) administrators and faculty from the large junior colleges and thirty-five (N=35) administrators and faculty from the small junior colleges. The results of the MANOVA calculations concerning the comparisons of effectiveness ratings made by all three groups from the small and large junior colleges are presented in Table 20. Results of comparing the ratings made by the administrators and faculty members from the small and large institutions are presented in Table 21.

Table 20

RESULTS OF COMPARING THE EFFECTIVENESS RATINGS OF ADMINISTRATORS,
FACULTY, AND STUDENTS FROM SMALL AND LARGE JUNIOR COLLEGES
(RAO'S APPROXIMATE F TEST)

F-Value	DF/Hypothesis	DF/Error	Significance Level
3.492	12	416.20	< .01

Table 21

RESULTS OF COMPARING THE EFFECTIVENESS RATINGS OF ADMINISTRATORS
AND FACULTY MEMBERS FROM SMALL AND LARGE JUNIOR COLLEGES
(RAO'S APPROXIMATE F TEST)

F-Value	DF/Hypothesis	DF/Error	Significance Level
6.177	8	397.02	< .001

The results presented in Tables 20 and 21 show that there were significant differences between the effectiveness ratings made by participants from the small and large junior colleges. The comparison of all participants' ratings from the different sized colleges showed significant differences on four of the twelve instrument scales. The overall F value of 3.492 was significant beyond the .01 level.

The second comparison made between the administrators' and faculty's effectiveness ratings of the small and large junior colleges showed significant differences on six of the eight instrument scales. The overall F value of 6.177 was significant beyond the .001 level.

Since significant differences were found in the overall comparisons, one-way analysis of variance tests were computed comparing the small college participants' effectiveness ratings with the large college participants' effectiveness ratings. These procedures allowed the researcher to locate specific areas of differences on the individual scales. The results of the ANOVA calculations are presented in Table 22.

The results presented in Table 22 show that the participants from the large junior colleges rated their institutions as being more effective than did the participants from the small junior colleges on the following scales:

- (1) Individual Personal Development
- (2) Traditional Religiousness
- (3) Intellectual/Esthetic Environment

Participants from the small junior colleges rated their institutions as being more effective than did the participants from the large junior colleges in the following area:

- (1) Public Service

Results of comparing the effectiveness ratings made by only the administrators and faculty from the small and

TABLE 22
RESULTS OF COMPARING THE INSTITUTIONAL EFFECTIVENESS
MADE BY PARTICIPANTS FROM THE LARGE
AND SMALL JUNIOR COLLEGES

Institutional Goals Scales	F* Ratio	Significance Level
1. Academic Development	1.273*	> .05
2. Intellectual Orientation	2.337*	> .05
3. Individual Personal Development	9.251*	< .01
4. Humanism/Altruism	0.617*	> .05
5. Cultural/Esthetic Awareness	3.114*	> .05
6. Traditional Religiousness	5.103*	< .05
7. Vocational Preparation	11.184**	< .01
8. Advanced Training	10.233**	< .01
9. Research	12.174**	< .01
10. Meeting Local Needs	1.337**	> .05
11. Public Service	12.220*	< .01
12. Social Egalitarianism	0.378*	> .05
13. Social Criticism/Activism	2.173*	> .05
14. Freedom	1.298*	> .05
15. Democratic Governance	3.146*	> .05
16. Community	15.619**	< .001
17. Intellectual/Esthetic Environment	12.237*	< .01
18. Innovation	0.606**	> .05
19. Off-Campus Learning	9.771**	< .01
20. Accountability/Efficiency	5.283**	< .05

*F Ratios were based on 1 and 171 degrees of freedom and include the administrators, faculty, and students from all junior colleges.

**F Ratios were based on 1 and 71 degrees of freedom and comparison included only the administrators and faculty members.

Group x Institution Interactions

One aspect of the results which was not considered in the hypotheses was the amount of interaction occurring between the individual groups of administrators, faculty and students and their respective institutions. Further analyses were conducted on the data although it was not part of the original study. The interaction effects reflected in the participants goals ratings, functioning ratings, and effectiveness scores are presented in Tables 23, 24, and 25 of Appendix G.

The results presented in Tables 23, 24, and 25 show that significant group x institution interactions did occur in the participants' goal ratings, functioning ratings, and effectiveness scores. Nine (9) areas of the IGI showed significant group x institution interactions, while five (5) IFI scales and seven (7) effectiveness areas showed significant interactions. It should be noted, however, that all significant interactions occurred while all three groups of participants were being considered. On the other hand, no significant interactions were noted when only the administrators and faculty were considered. This led to the conclusion that all group x institution interactions were reflected within the students' scores.

large junior colleges showed that ratings made by participants from the large junior colleges were significantly more effective than ratings made by participants from the small junior colleges in the following areas:

- (1) Vocational Preparation
- (2) Research
- (3) Off-Campus Learning

Administrators and faculty members from the small junior colleges felt that their institutions were significantly more effective than did the participants from large junior colleges in the following areas:

- (1) Advance Training
- (2) Community
- (3) Accountability/Efficiency

Summary of Results

The results of testing the five null hypotheses and the results of making the secondary comparisons may be summarized as follows.

Participants from the large junior colleges made significantly higher goal ratings than participants from the small junior colleges in the areas of (1) Intellectual Orientation, (2) Advanced Training, (3) Research, (4) Community, and (5) Innovation, while participants from the small junior colleges made significantly higher goal ratings than those from the large junior colleges in the areas of (1) Individual Personal Development, (2) Traditional Religiousness, and (3) Meeting Local Needs.

In the areas of Institutional Functioning, the participants from the two large junior colleges made significantly higher ratings than participants from the two small junior colleges in the areas of (1) Intellectual Orientation, (2) Vocational Preparation, (3) Research, (4) Freedom, (5) Innovation, (6) Intellectual/Esthetic Environment, and Off-Campus Learning. On the other hand, participants from the small colleges made significantly higher functions ratings than participants from the large colleges in the areas of (1) Individual Personal Development, (2) Community, and (3) Accountability/Efficiency.

A comparison of the small and large junior colleges' institutional effectiveness showed that their institutions were significantly more effective than did participants from the two small colleges in the areas of (1) Individual Personal Development, (2) Traditional Religiousness, (3) Intellectual/Esthetic Environment, (4) Vocational Preparation, (5) Research, and (6) Off-Campus Learning. Participants from the small colleges felt that their institutions were significantly more effective than did the participants from the large colleges in the areas of (1) Public Service, (2) Advance Training, (3) Community, and (4) Accountability/Efficiency. Participants from the large colleges felt that their institutions were more effective in the areas of (1) Community, (2) Freedom, and (3) Individual Personal Development, while participants from the small

colleges felt that their institutions were more effective in the areas of (1) Advanced Training, (2) Freedom, and (3) Community.

This chapter has contained the results of the study. Chapter V contains a summary, conclusions, and implications for further research.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS FOR FURTHER RESEARCH

The purpose of this study was to determine the differences in institutional effectiveness of goal attainment as reported by administrators, faculty members and students from two large and two small junior colleges in Oklahoma. In conducting the study, 173 administrators, faculty members and students responded to the Institutional Goals Inventory (IGI) and the Institutional Functioning Inventory--University of Oklahoma Modification (IFI-UOM). Differences between the respondents' goals and functioning ratings were regarded as a measure of institutional effectiveness.

Responses of fifteen (N=15) administrators, twenty (N=20) faculty members, and fifty (N=50) students from two small junior colleges were compared with the responses of eighteen (N=18) administrators, twenty (N=20) faculty members, and fifty (N=50) students from two large junior colleges in testing five null hypotheses. The results of testing these hypotheses and the results of making some secondary comparisons may be summarized as follows:

Participants from the two large junior colleges made significantly higher goal ratings than participants from the

two small junior colleges in the areas of (1) Intellectual Orientation, (2) Advanced Training, (3) Research, (4) Community, and (5) Innovation, While participants from the small junior colleges made significantly higher goal ratings than those from the large junior colleges in the areas of (1) Individual Personal Development, (2) Traditional Religiousness, and (3) Meeting Local Needs.

In the areas of Institutional Functioning, the participants from the large junior colleges made significantly higher ratings than participants from the small junior colleges in the areas of (1) Intellectual Orientation, (2) Vocational Preparation, (3) Research, (4) Freedom, (5) Innovation, (6) Intellectual/Esthetic Environment, and (7) Off-Campus Learning. On the other hand, participants from the small junior colleges made significantly higher functions ratings than participants from the large junior colleges in the areas of (1) Individual Personal Development, (2) Community, and (3) Accountability/Efficiency.

In the area of institutional effectiveness in goal attainment the participants from the large colleges rated their institutions as significantly more effective than did the participants from the small colleges in the areas of (1) Individual Personal Development, (2) Traditional Religiousness, (3) Intellectual/Esthetic Environment, (4) Vocational Preparation, (5) Research, and (6) Off-Campus Learning. Participants from the small colleges felt that

their institutions were significantly more effective than the large colleges in the areas of (1) Public Service, (2) Advanced Training, (3) Community, and (4) Accountability/Efficiency.

Conclusions

(1) The results of testing the first null hypothesis led to the conclusion that goals of the colleges were perceived differently by participants from the two large junior colleges and participants from the two small junior colleges. There were statistically significant differences between the goal ratings made by participants from the large colleges and the goal ratings made by participants from the small colleges on eight of the twenty IGI scales.

(2) The results of testing the first null hypothesis also led to the conclusion that participants from the large junior colleges perceived that their institutions were more goal oriented while the participants from the small colleges perceived that their institutions were more people oriented. The large colleges showed higher goal ratings on fifteen of the twenty IGI goals. They were significantly higher on the five goals of (1) Intellectual Orientation, (2) Advanced Training, (3) Research, (4) Innovation, and (5) Community. The small colleges showed higher goal ratings on five of the twenty IGI goals and of these the following three were significant: (1) Individual Personal Development, (2)

Traditional Religiousness, and (3) Meeting Local Needs. These goals are expressive of satisfying students' and faculty members' personal needs.

(3) The results of testing the second null hypothesis led to the conclusion that functions (practices of colleges) were perceived differently by participants from the two large junior colleges and participants from the two small junior colleges on ten goal areas.

(4) The results of testing the second null hypothesis also led to the conclusion that the institutional goals differed from institutional practices, and that a comparison of stated goals with the practices should take place for a measure of the real goals of an institution. Perrow¹ and Etzioni² distinguish between stated and real goals, and they advocate the comparison of stated goals with practices to determine the real goals of the institution.

The analysis of the results of the Functioning Inventory showed that the participants from the large colleges rated significantly higher on the following practices: (1) Intellectual Orientation, (2) Freedom, (3) Intellectual/Esthetic Environment, (4) Vocational Preparation, (5)

¹Charles Perrow, "The Analysis of Goals in Complex Organizations," Readings in Organizational Theory: A Behavioral Approach, p. 130.

²Amitai Etzioni, Modern Organizations, p. 8.

Research, (6) Innovation, and (7) Off-Campus Learning.

Three of these seven practices' ratings were congruent with the same three goals' ratings, while four practices' ratings were not congruent with the same goals' ratings. The analysis also showed that the participants from the small colleges rated significantly higher on the following practices: (1) Individual Personal Development, (2) Community, and (3) Accountability/Efficiency. Only one of these three practices' ratings was congruent with the same three goals' ratings.

(5) The results of testing the third null hypothesis led to the conclusion that the effectiveness of goal attainment of the junior colleges was perceived differently by administrators from the large colleges and administrators from the small colleges. Administrators from the large colleges showed significantly higher effectiveness ratings than administrators from the small junior colleges on the following five scales: (1) Individual Personal Development, (2) Vocational Preparation, (3) Research, (4) Intellectual/Esthetic Environment, and (5) Off-Campus Learning. Administrators from the small colleges rated the following three goals as significant: (1) Public Service, (2) Social Egalitarianism, and (3) Community. Administrators from the large junior colleges rated their institutions as significantly more effective on the attainment of more scales than did administrators from the small junior colleges.

(6) The results of testing the fourth null hypothesis led to the conclusion that the effectiveness of goal attainment of the junior colleges was perceived differently by faculty members from the two large colleges and faculty members from the two small colleges. The faculty from the large colleges showed significantly higher effectiveness ratings than faculty from the small colleges on five scales: (1) Individual Personal Development, (2) Vocational Preparation, (3) Research, (4) Intellectual/Esthetic Environment, and (5) Off-Campus Learning. Faculty from the small colleges showed significantly higher effectiveness ratings than faculty from the large colleges on five scales: (1) Advanced Training, (2) Public Service, (3) Social Egalitarianism, (4) Community, and (5) Accountability/Efficiency. Faculty of the large colleges and faculty of the small colleges rated the same number of scales (5) significantly higher, but the large colleges rated higher on more scales; therefore, the faculty of the large colleges rated their institution significantly more effective in goal attainment.

(7) The results of testing the fifth hypothesis led to the conclusion that the effectiveness of goal attainment by the junior colleges was perceived differently by students from the two large colleges and students from the two small colleges. Students from the large colleges showed significantly higher effectiveness ratings than students from the small colleges on three scales: (1) Individual Personal

Development, (2) Traditional Religiousness, and (3) Intellectual/Esthetic Environment. Students from the small colleges showed significantly higher effectiveness ratings than students from the large colleges on three scales: (1) Public Service, (2) Freedom, and (3) Democratic Governance. Students from the large colleges showed significantly higher effectiveness ratings on the same number of scales (3) as students from the small colleges, although the scales were different for each group. Students from the large colleges rated significantly higher on effectiveness on this hypothesis since they rated higher on more scales than students from the small colleges.

(8) The results of testing the third, fourth, and fifth hypotheses led to the conclusion that administrators from the two large and two small junior colleges showed a greater variation in significant ratings of effectiveness than the faculty or students from the large and small colleges. The administrators from the large colleges showed significantly higher ratings on 5 scales, while administrators from the small colleges showed significantly higher ratings on only 3 scales. Faculty and students from the large colleges showed significantly higher ratings on 3 scales, while faculty and students from the small colleges showed significantly higher ratings on 3 scales also.

(9) The results of the analysis comparing the institutional effectiveness ratings made by participants from

the two small and two large junior colleges led to the conclusion that groups from the large colleges rated their institutions significantly more effective than groups from the small colleges in college goal attainment. Participants from the large colleges rated their institutions significantly more effective than participants from the small institutions in goal attainment. The large colleges rated six scales as significantly more effective: (1) Individual Personal Development, (2) Freedom, (3) Traditional Religiousness, (4) Intellectual/Esthetic Environment, (5) Vocational Preparation, (6) Research, and (7) Off-Campus Learning. Participants from the small colleges rated their institutions as significantly more effective on four of the twenty scales: (1) Public Service, (2) Advanced Training, (3) Community, and (4) Accountability/Efficiency.

(10) Results of testing the fifth hypothesis led to the conclusion that the administrators, faculty, and students from the large college differed significantly with administrators, faculty, and students from the small colleges on the perception of the importance of the goals of the junior colleges and the perceived emphasis on the practice. Participants from the large and small junior colleges rated significant difference on ten of the twenty goal scales.

(11) The results of testing the fifth hypothesis led to the conclusion that the size of the junior college affected the effectiveness of the college in attaining its

goals. Participants from the large colleges rated significantly more effective than the small colleges on six of the twenty goal scales, while the participants from the small colleges rated significantly higher than the large colleges on four of the twenty goal scales.

(12) The purpose of this study was to determine any differences between the institutional effectiveness of goal attainment of small junior colleges and large junior colleges. This purpose necessitated the construction of a measure of institutional effectiveness in goal attainment. The measure of goal importance was measured by the Institutional Goals Inventory, and the measure of emphasis of practices was measured by the Institutional Functioning Inventory - University of Oklahoma Modification. Institutional effectiveness was measured by subtracting the mean scale score of the functions from the mean scale score of the goals.

A very interesting and important finding evolved from an inspection of the effectiveness scores. The measure of emphasis of certain functioning scales exceeded the measure of importance of the goal scales. This situation produced a negative effectiveness score.

This study was designed as a model for institutional analysis. The purpose of the model is to measure the difference between goal importance and functioning emphasis. If the practices of the institution are exceeding the perceived goals, then the institution is functioning at a more

effective level than is perceived on the goal scale. This study takes the position that the ultimate goal of the institution is improvement and that there is no optimum which can be achieved. If the institution is doing more than it perceives that it is doing, it is functioning at a more effective level.

An alternative interpretation of the negative effectiveness score could be suboptimization. Suboptimization is a concept that is usually considered within the framework of General Systems Theory. The Systems approach emphasizes the "whole system" rather than the component systems and strives to optimize the effectiveness of the whole system.¹

"Optimization in the absolute sense is possible only in the context of a closed model such as mathematics where all variables, parameter, and assumptions can be defined and controlled."² Therefore, the Systems approach to the real world is to attempt to reach the optimum through the progressive improvement of suboptimization when it is viewed from the perspective of the Total or Whole system. This point of view is expressed by Van Gigch when he states, "On the other hand, we recognize that suboptimization may be the only feasible approach, and therefore we settle for less

¹ John P. Van Gigch, Applied General Systems Theory, New York: (Harper and Row, 1974), p. 11.

² Ibid., p. 261.

and look for the best possible suboptimization."¹

The concept of suboptimization is often referred to as bad and on other occasions it is referred to as good. Van Gigch explains this discrepancy by stating that there are good and bad suboptimizations. When a problem is viewed within the context of a subsystem, an accomplishment may seem desirable and commendable, but unless the action is integrated in the broader picture and evaluated in relation to its contributions toward meeting the overall objective of larger systems, it is considered as bad.²

Suboptimization could be used as a possible interpretation. A parameter of the system would need to be defined and a maxima and minima would need to be defined in order to establish the utility of the range of suboptimization.

Discussion of Results as They Pertain to Previous Research

Gross and Grambsch pointed out in their research that there are two types of goals in institutions of higher learning: The Outcome Goals and the Support Goals. Their research found that the emphasis increased on Support Goal with the increased size of the institution. Haire in his theoretical concepts of size in relation to institutions,

¹Ibid., p. 256.

²Ibid., pp. 258-268.

supports Goss and Grambsch's findings when he states, "As the organization grows it will be more effective, if proper support is provided."¹ The results of this study support the same concept. The IGI and IFI both divide the goals into Outcome Goals and Process Goals. This division is very similar to the Gross and Grambsch classification of goals. The two large junior colleges consistently rated significantly higher and more often in the process goals. This finding would indicate that as the two colleges increased in size, they also increased the importance given to process goals and increased the emphasis given to process functions.

The finding of the Carnegie Commission of Higher Education (1970) on relevant issues of the Community Colleges; the findings of Committee L of the Illinois Board of Higher Education; the findings of the Michigan Department of Education in their study on "Planning Relative To Institutional Size", all agreed that a junior college of less than 1,000 enrollment could not conduct an effective comprehensive junior college program. Blocker, Plummer, and Richardson in their study of the two-year colleges recommend that junior colleges of the future should not overextend themselves by trying to be a comprehensive junior college.

¹Mason Haire, Modern Organizational Theory, p. 277.

They state that a priority of goals should be set and accomplished as a junior college increases in size. They feel that a junior college of less than nine hundred students should not attempt to become a comprehensive junior college. This study supported the premise that the two small junior colleges were not as effective as the two large junior colleges in achieving their goals.

Lazarsfeld and Thielens found in their research that the larger the state college the higher the quality ratings or effectiveness. This study supported their findings.

Price in compiling his inventory of institutional effectiveness found that large social systems may be more goal oriented and small social systems may be more people oriented. The results of the IGI in this study supported the premise that the two small institutions were more people oriented while the two large institutions were more professional or goal oriented.

Baldrige, Curtis, Ecker, and Riley (1973) investigated the effects of institutional size on professional autonomy in 241 colleges. They defined autonomy as the ability to set goals and structure the organization toward maximum professional concerns. They found that along every dimension of professional autonomy increased size contributed to increased autonomy. The present study supported the findings of Baldrige, Curtis, Ecker, and Riley. The two large institutions were more effective in setting goals

and performing the practices necessary to fulfill these goals than the two small institutions.

Recommendations for Further Studies

(1) This study should be replicated in a greater number of junior colleges and in a wider geographical area to permit wider generalization of the results.

(2) This study was limited to participants who were internally associated with four junior colleges. The study should be revised to include participants who are externally associated with the junior colleges.

(3) This study should be conducted using a small junior college in a large city and a large junior college in a large city. This would place better control on the variable of rural versus urban influence.

(4) This study should be conducted in the private sector of higher education using small and large junior colleges to determine which is more effective.

(5) The Institutional Goals Inventory should be modified to reduce the number of scales to equal the scales on the Institutional Functions Inventory (University of Oklahoma Modification). The emphasis given to each scale should have equal categories. These modifications would allow more exact computations with no transformation of figures.

(6) This study and other studies that measure institutional effectiveness should be conducted on large and small junior colleges and the results matched to determine correlations of effectiveness.

(7) An instrument should be designed that will be more directly applicable to the goals of the junior college. Since nearly half of the students in higher education are now enrolled in junior colleges, an instrument of this type could be valuable to junior colleges in making decisions.

(8) Further investigation should be conducted into the organizational condition of functioning emphasis exceeding goal importance. The causes of this condition should be pursued, and it should prove to be a valuable contribution to the study of organizations.

Observed Limitations of the Study

(1) This study was limited to two small and two large junior colleges in the State of Oklahoma.

(2) This study was limited to the measurement of organizational effectiveness as the degree of goal attainment. There are other measurements of organizational effectiveness such as: productivity, morale, conformity, adaptiveness, and institutionalization.

(3) This study was limited to the participants' perception of goals and functions and made no attempt to measure actual output of the organization.

(4) This study was limited to the participants within the organization; no external participants were involved in measurements.

(5) This study was limited to the minimum number of student participants necessary for valid random testing.

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APPENDIX A

DESCRIPTION OF THE 20 SCALES CONTAINED
ON THE INSTITUTIONAL GOALS INVENTORY
AND THE INSTITUTIONAL FUNCTIONING
INVENTORY

Scale 1: Academic Development

The first kind of institutional goal covered by the I. G. I. has to do with the acquisition of general and specialized knowledge, preparation of students for advanced scholarly study, and maintenance of high intellectual standards on the campus.

Scale 2: Intellectual Orientation

While the first goal area had to do with acquisition of knowledge, this second general goal of instruction relates to an attitude about learning and intellectual work. Likewise, some conception of the scholarly, rational, analytical, inquiring mind has perhaps always been associated with the academy or university. In the I. G. I., Intellectual Orientation means familiarity with research and problem solving methods, the ability to synthesize knowledge from many sources, the capacity for selfdirected learning, and a commitment to life-long learning.

Scale 3: Individual Personal Development

In contrast to most of the goals covered by the I. G. I., this one was set forth and has found acceptance only in roughly the past decade. It was conceived by psychologists and has found its main support among professional psychologists, student personnel people, and other adherents of "humanistic psychology" and the "human potential movement". As defined in the I. G. I., Individual Personal Development means identification by students of personal goals and development of means for achieving them, enhancement of sense of self-worth and self-confidence, self-understanding, and a capacity for open and trusting interpersonal relations.

Scale 4: Humanism/Altruism

More or less explicit discernment of this concept may also be of fairly recent vintage, although variously construed it has long had its place in the catalogues of liberal arts and church-related colleges. It reflects the belief (in many quarters) that a college education should not mean just acquisition of knowledge and skills, but that it should also somehow make students better people--more decent, tolerant, responsible, and humane. Labeled Humanism/Altruism, this fundamental ethical stance has been conceived in the I. G. I. as respect for diverse cultures, commitment to working for world peace, consciousness of the important moral issues of the time, and concern about the welfare of man generally.

Scale 5: Cultural/Aesthetic Awareness

Some conception of cultural sophistication and/or artistic appreciation has traditionally been in the panoply of goals of many private liberal arts colleges in America, perhaps especially liberal arts colleges for women. In the I. G. I., the conception entails heightened appreciation of a variety of art forms, required study in the humanities or arts, exposure to forms of non-Western art, and encouragement of active student participation in artistic activities.

Scale 6: Traditional Religiousness

This goal is included in the I. G. I. in recognition of the fact that a great many colleges and universities in America are explicitly religious in their control, functioning, and goals, while many more retain ties of varying strength with the Roman Catholic Church or, more often, a Protestant denomination. Traditional Religiousness, as conceived in the I. G. I., is meant to mean a religiousness that is orthodox, doctrinal, usually sectarian, and often fundamental--in short, traditional (rather than "secular" or "modern"). As defined in the I. G. I., this goal means educating students in a particular religious heritage, helping them to see the potentialities of fulltime religious work, developing students' ability to defend a theological position, and fostering their dedication to serving God in everyday life.

Scale 7: Vocational Preparation

While universities have perhaps always existed in part to train individuals for occupations, this role was made explicit for American public higher education by the Land Grant Act of 1862, and then extended to a broader populace by the public two-year college movement of the 1950's and 1960's. As operationalized in the I. G. I., this goal means offering: specific occupational curricula (as in accounting or nursing), programs geared to emerging career fields, opportunities for retraining or upgrading skills, and assistance to students in career planning. It is important to distinguish between this goal and the next one to be discussed, Advanced Training, which involves graduate-level training for various professional careers.

Scale 8: Advanced Training

This goal, as defined in the I. G. I., can be most readily understood simply as the availability of post-graduate education. The items comprising the goal area

have to do with developing/maintaining a strong and comprehensive graduate school, providing programs in the "traditional professions" (law, medicine, etc.), and conducting advanced study in specialized problem areas--as through a multi-disciplinary institute or center.

Scale 9: Research

According to most historians of the matter, the research function in the American University was a late 19th century import of the German concept of the university as a center for specialized scientific research and scholarship. Attempting to embrace both "applied" or "problem-centered" research as well as "basic" or "pure" research, the Research goal in the I. G. I. involves doing contract studies for external agencies, conducting basic research in the natural and social sciences, and seeking generally to extend the frontiers of knowledge through scientific research.

Scale 10: Meeting Local Needs

While in times past some institutions of higher learning must certainly have functioned in some way to meet a range of educational needs of local individuals and corporate bodies, the notion of Meeting Local Needs (in the I. G. I.) is drawn primarily from the philosophy of the post-war (American) community college movement. Which is not to say, as will be seen, that this is a goal that four-year institutions cannot share. In the I. G. I. Meeting Local Needs is defined as providing for continuing education for adults, serving as a cultural center for the community, providing trained manpower for local employers, and facilitating student involvement in community-service activities.

Scale 11: Public Service

While the previous goal focused on the local community, this one is conceived more broadly--as bringing to bear of the expertise of the university on a range of public problems of regional, state, or national scope. As it is defined in the I. G. I., Public Service means working with governmental agencies in social and environmental policy formation, committing institutional resources to the solution of major social and environmental problems, training people from disadvantaged communities, and generally being responsive to regional and national priorities in planning educational programs.

Scale 12: Social Egalitarianism

Has to do with open admissions and meaningful education for all admitted, providing educational experiences relevant to the evolving interests of (1) minority groups and (2) women, and offering remedial work in basic skills.

Scale 13: Social Criticism/Activism

This is a higher educational goal conception that has been put forth only in the past five years or so. Owing its origin almost entirely to the student protest movement of the 1969's, the central idea of the goal is that the university should be an advocate or instrument for social change. Specifically in the I. G. I., Social Criticism/Activism means providing criticism of prevailing American values, offering ideas for changing social institutions judged to be defective, helping students to learn how to bring about change in American society, and being engaged, as an institution, in working for basic changes in American society.

Scale 14: Freedom

Some of the standard dictionary definitions include: civil liberty, as opposed to subjection to an arbitrary or despotic government; exemption from external control, interference, regulation, etc.; personal liberty, as opposed to bondage or slavery; autonomy; relative self-determination. Freedom, as an institutional goal bearing upon the climate for and process of learning, is seen as relating to all the above definitions. It is seen as embracing both "academic freedom" and "personal freedom," although these distinctions are not always easy to draw. Specifically in the I. G. I., Freedom is defined as protecting the right of faculty to present controversial ideas in the classroom, not preventing students from hearing controversial points of view, placing no restrictions on off-campus political activities by faculty or students, and ensuring faculty and students the freedom to choose their own life cycles.

Scale 15: Democratic Governance

The central notion of this goal, as here conceived, is the opportunity for participation--participation in the decisions that affect one's working and learning life. Colleges and universities in America have probably varied a good deal in the degree to which their governance is participatory, depending on factors such as nature of external control (e. g., sectarian), curricular emphases, and

personalities of presidents and or other campus leaders. Most all institutions, one surmises, as they expanded during the 1950's and 1960's, experienced a diminution in participatory governance. A reaction set in the late 1960's spurred chiefly by student (power) activists. As defined in the I. G. I., Democratic Governance means decentralized decision-making; arrangements by which students, faculty, administrators, and governing board members can (all) be significantly involved in campus governance, opportunity for individuals to participate in all decisions affecting them, and governance that is genuinely responsive to the concerns of everyone at the institution.

Scale 16: Community

While community in some sense has perhaps always characterized most academic organizations, especially small ones, the more modern concept of community has risen in only the past decade in reaction to the realities of mass higher education, the "multiversity," and the factionalism and individual self-interest within the university. In the I. G. I., Community is defined as maintaining a climate in which there is faculty commitment to the general welfare of the institution, open and candid communication, open and amicable airing of differences, and mutual trust and respect among students, faculty, and administrators.

Scale 17: Intellectual/Aesthetic Environment

Means a rich program of cultural events, a campus climate that facilitates student free-time involvement in intellectual and cultural activities, an environment in which students and faculty can easily interact informally, and a reputation as an intellectually exciting campus.

Scale 18: Innovation

As here defined as an institutional goal means more than simply having recently made some changes at the college; instead the idea is that innovation has become institutionalized, that throughout the campus there is continuous concern to experiment with new ideas for educational practice. In the I. G. I., Innovation means a climate in which continuous innovation is an accepted way of life, it means established procedures for readily initiating curricular or instructional innovations, and, more specifically, it means experimentation with new approaches to (1) individualized instruction and (2) evaluating and grading student performance.

Scale 19: Off-Campus Learning

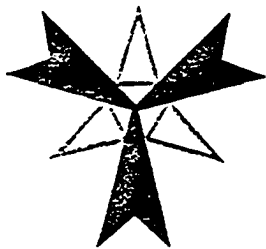
The elements of the I. G. I. definition of Off-Campus Learning, as a process goal an institution may pursue, form a kind of scale. They include: (short term) time away from the campus in travel, work-study, VISTA work, etc.; arranging for students to study on several campuses during their undergraduate years; awarding degrees for supervised study off the campus; awarding degrees entirely on the basis of performance on an examination.

Scale 20: Accountability/Efficiency

Is defined to include use of cost criteria in deciding among program alternatives, concern for program efficiency (not further defined), accountability to funding sources for program effectiveness (not defined), and regular submission of evidence that the institution is achieving stated goals.

APPENDIX B

COVER LETTER SENT WITH THE
DATA COLLECTION INSTRUMENTS



OSCAR ROSE JUNIOR COLLEGE

6420 SOUTHEAST 15TH • MIDWEST CITY, OKLAHOMA 73110

VICE PRESIDENT FOR ACADEMIC AFFAIRS

February 15, 1978

AC (405) 737-6611

Dear Ms. Jones:

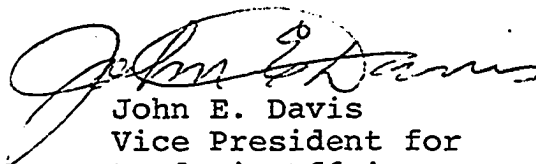
Mr. Merle Long is doing a study which concerns perceptions of institutional goals and practices of faculty, students, and administrators of Oscar Rose Junior College. The results from this study should be most helpful to us. Therefore, the College has agreed to participate in this study.

Your cooperation and your opinions are essential and vital to the success of this study. The questionnaire instruments will take approximately one hour to complete. The anonymity of your response is guaranteed.

The questionnaires may be mailed or personally returned to the Academic Vice President's Office. Please return the questionnaires in the enclosed envelopes by Monday, March 1, 1978.

I realize the many demands on your time and I am sure that Mr. Long will greatly appreciate your cooperation in this study.

Sincerely,


John E. Davis
Vice President for
Academic Affairs

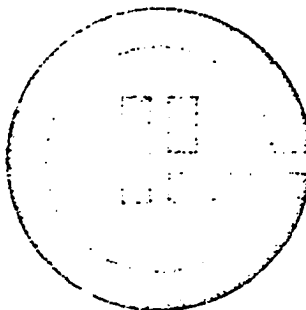
JED/cb

APPENDIX C

THE INSTITUTIONAL GOALS INVENTORY

INSTITUTIONAL GOALS INVENTORY

(Form 1)



To the respondent:

Numerous educational, social, and economic circumstances have arisen that have made it necessary for many colleges and universities in America to reach much clearer and often new understandings about their goals. During the late 1960's there were new demands, especially from students, for colleges to assume new roles and serve new interests. Now, in the early 1970's, a widespread financial crisis is making it imperative for colleges to specify the objectives to which limited resources may be directed.

The Institutional Goals Inventory (IGI) was developed as a tool to help college communities delineate goals and establish priorities among them. The instrument does not tell colleges what to do in order to reach the goals. Instead, it provides a means by which many individuals and constituent groups can contribute their thinking about desired institutional goals. Summaries of the results of this thinking then provide a basis for reasoned deliberations toward final definition of college goals.

The Inventory was designed to embrace possible goals of all types of American higher education institutions—universities, church-related colleges, junior colleges, and so forth. Most of the goal statements in the Inventory refer to what may be thought of as "output" or "outcome" goals—substantive objectives colleges may seek to achieve (e.g., qualities of graduating students, research emphases, kinds of public service). Statements toward the end of the instrument relate to "process" goals—goals having to do with campus climate and the educational process.

The IGI is intended to be completely confidential. Results will be summarized only in broad categories—faculty, students, trustees, and so forth. In no instance will responses of individuals be mentioned. The Inventory should ordinarily not take longer than 45 minutes to complete.

page two

DIRECTIONS

The *Inventory* consists of 90 statements of possible institutional goals. Using the answer key shown in the example below, you are asked to respond to each statement in two different ways:

First — How important is the goal at this institution at the present time?

Then — In your judgment, how important *should* the goal *be* at this institution?

EXAMPLE

	of no importance or not applicable	of low importance	of medium importance	of high importance	of a very high importance
to prepare students for graduate school...	is ☐	is ☒	is ☐	is ☐	is ☐
	should be ☐	should be ☐	should be ☐	should be ☒	should be ☐

In the example, the respondent has indicated that he believes the goal "to prepare students for graduate school" is presently of low importance at his institution, but that it should be of high importance.

- Unless you have been given other instructions, consider the institution as a whole in making your judgments.
- In giving *should be* responses, do not be restrained by your beliefs about whether the goal, realistically, can ever be attained on the campus.
- Please try to respond to every goal statement in the *Inventory*, by

blackening one oval after *is* and one oval after *should be*.

- Use any soft lead pencil. Do not use colored pencils or a pen-ink, ball point, or felt tip.
- Mark each answer so that it completely fills (blackens) the intended oval. Please do not make checks (✓) or X's.

- Additional Goal Statements (Local Option) (91–110): A section is included for additional goal statements of specific local interest or concern. These statements may be supplied locally. If none are supplied, leave them blank and go on to the Information Questions.
- Information Questions (111–117): These questions are included to enable each institution to analyze the results of the *Inventory* in ways that will be most meaningful and useful to them. Respond to each question that applies.
- Subgroups and Supplementary Information Questions (118–124): Instructions may be given for marking these items. If not, please leave them blank.

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Published and distributed by the Institutional Research Program for Higher Education, Educational Testing Service, Princeton, New Jersey 08540

page three Please respond to these goal statements by blackening one oval after <u>is</u> and one after <u>should be</u>.		of no importance or not applicable	of low importance	of medium importance	of high importance	of extremely high importance
1. to help students acquire depth of knowledge in at least one academic discipline...	is ☐ should be ☐	☐	☐	☐	☐	☐
2. to teach students methods of scholarly inquiry, scientific research, and/or problem definition and solution...	is ☐ should be ☐	☐	☐	☐	☐	☐
3. to help students identify their own personal goals and develop means of achieving them...	is ☐ should be ☐	☐	☐	☐	☐	☐
4. to ensure that students acquire a basic knowledge in the humanities, social sciences, and natural sciences...	is ☐ should be ☐	☐	☐	☐	☐	☐
5. to increase the desire and ability of students to undertake self-directed learning...	is ☐ should be ☐	☐	☐	☐	☐	☐
6. to prepare students for advanced academic work, e.g., at a four-year college or graduate or professional school...	is ☐ should be ☐	☐	☐	☐	☐	☐
7. to develop students' ability to synthesize knowledge from a variety of sources...	is ☐ should be ☐	☐	☐	☐	☐	☐
8. to help students develop a sense of self-worth, self-confidence, and a capacity to have an impact on events...	is ☐ should be ☐	☐	☐	☐	☐	☐
9. to hold students throughout the institution to high standards of intellectual performance...	is ☐ should be ☐	☐	☐	☐	☐	☐
10. to instill in students a life-long commitment to learning...	is ☐ should be ☐	☐	☐	☐	☐	☐
11. to help students achieve deeper levels of self-understanding...	is ☐ should be ☐	☐	☐	☐	☐	☐
12. to ensure that students who graduate have achieved some level of reading, writing, and mathematics competency...	is ☐ should be ☐	☐	☐	☐	☐	☐
13. to help students be open, honest, and trusting in their relationships with others...	is ☐ should be ☐	☐	☐	☐	☐	☐

page four Please respond to these goal statements by blackening one oval after <u>is</u> and one after <u>should be</u>.		of no importance or not applicable	of low importance	of medium importance	of high importance	of extremely high importance
14. to encourage students to become conscious of the important moral issues of our time...	is should be	☐	☐	☐	☐	☐
15. to increase students' sensitivity to and appreciation of various forms of art and artistic expression...	is should be	☐	☐	☐	☐	☐
16. to educate students in a particular religious heritage...	is should be	☐	☐	☐	☐	☐
17. to help students understand and respect people from diverse backgrounds and cultures...	is should be	☐	☐	☐	☐	☐
18. to require students to complete some course work in the humanities or arts...	is should be	☐	☐	☐	☐	☐
19. to help students become aware of the potentialities of a full-time religious vocation...	is should be	☐	☐	☐	☐	☐
20. to encourage students to become committed to working for world peace...	is should be	☐	☐	☐	☐	☐
21. to encourage students to express themselves artistically, e.g., in music, painting, film-making...	is should be	☐	☐	☐	☐	☐
22. to develop students' ability to understand and defend a theological position...	is should be	☐	☐	☐	☐	☐
23. to encourage students to make concern about the welfare of all mankind a central part of their lives...	is should be	☐	☐	☐	☐	☐
24. to acquaint students with forms of artistic or literary expression in non-Western countries...	is should be	☐	☐	☐	☐	☐
25. to help students develop a dedication to serving God in everyday life...	is should be	☐	☐	☐	☐	☐
26. to provide opportunities for students to prepare for specific occupational careers, e.g., accounting, engineering, nursing...	is should be	☐	☐	☐	☐	☐

Please respond to these goal statements by blackening one oval after <u>is</u> and one after <u>should be</u>.		page five					
		of no importance, or no duplicate	of low importance	of medium importance	of high importance	of extreme high importance	
27.	to develop what would generally be regarded as a strong and comprehensive graduate school...	is should be	☐ ☐	☐ ☐	☒ ☐	☐ ☐	☐ ☐
28.	to perform contract research for government, business, or industry...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
29.	to provide opportunities for continuing education for adults in the local area, e.g., on a part-time basis...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
30.	to develop educational programs geared to new and emerging career fields...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
31.	to prepare students in one or more of the traditional professions, e.g., law, medicine, architecture...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
32.	to offer graduate programs in such "newer" professions as engineering, education, and social work...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
33.	to serve as a cultural center in the community served by the campus...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
34.	to conduct basic research in the natural sciences...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
35.	to conduct basic research in the social sciences...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
36.	to provide retraining opportunities for individuals whose job skills have become out of date...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
37.	to contribute, through research, to the general advancement of knowledge...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
38.	to assist students in deciding upon a vocational career...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
39.	to provide skilled manpower for local area business, industry, and government...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐

page six Please respond to these goal statements by blackening one oval after <u>is</u> and one after <u>should be</u>.		of no importance or not applicable	of low importance	of medium importance	of high importance	of extremely high importance
40. to facilitate involvement of students in neighborhood and community-service activities...	is should be	☐	☐	☐	☐	☐
41. to conduct advanced study in specialized problem areas, e.g., through research institutes, centers, or graduate programs...	is should be	☐	☐	☐	☐	☐
42. to provide educational experiences relevant to the evolving interests of women in America...	is should be	☐	☐	☐	☐	☐
43. to provide critical evaluation of prevailing practices and values in American society...	is should be	☐	☐	☐	☐	☐
44. to help people from disadvantaged communities acquire knowledge and skills they can use in improving conditions in their own communities...	is should be	☐	☐	☐	☐	☐
45. to move to or maintain a policy of essentially open admissions, and then to develop meaningful educational experiences for all who are admitted...	is should be	☐	☐	☐	☐	☐
46. to serve as a source of ideas and recommendations for changing social institutions judged to be unjust or otherwise defective...	is should be	☐	☐	☐	☐	☐
47. to work with governmental agencies in designing new social and environmental programs...	is should be	☐	☐	☐	☐	☐
48. to offer developmental or remedial programs in basic skills (reading, writing, mathematics)...	is should be	☐	☐	☐	☐	☐
49. to help students learn how to bring about change in American society...	is should be	☐	☐	☐	☐	☐
50. to focus resources of the institution on the solution of major social and environmental problems...	is should be	☐	☐	☐	☐	☐
51. to be responsive to regional and national priorities when considering new educational programs for the institution...	is should be	☐	☐	☐	☐	☐
52. to provide educational experiences relevant to the evolving interests of Blacks, Chicanos, and American Indians...	is should be	☐	☐	☐	☐	☐

Page seven Please respond to these goal statements by blackening one oval after <u>is</u> and one after <u>should be</u> .		of no importance, or not applicable	of low importance	of medium importance	of high importance	of extremely high importance
53. to be engaged, <u>as an institution</u> , in working for basic changes in American society...	is ☐ should be ☐	☐	☐	☐	☐	☐
54. to ensure that students are not prevented from hearing speakers presenting controversial points of view...	is ☐ should be ☐	☐	☐	☐	☐	☐
55. to create a system of campus governance that is genuinely responsive to the concerns of all people at the institution...	is ☐ should be ☐	☐	☐	☐	☐	☐
56. to maintain a climate in which faculty commitment to the goals and well-being of the institution is as strong as commitment to professional careers...	is ☐ should be ☐	☐	☐	☐	☐	☐
57. to ensure the freedom of students and faculty to choose their own life styles (living arrangements, personal appearance, etc.)...	is ☐ should be ☐	☐	☐	☐	☐	☐
58. to develop arrangements by which students, faculty, administrators, and trustees can be significantly involved in campus governance...	is ☐ should be ☐	☐	☐	☐	☐	☐
59. to maintain a climate in which communication throughout the organizational structure is open and candid...	is ☐ should be ☐	☐	☐	☐	☐	☐
60. to place no restrictions on off-campus political activities by faculty or students...	is ☐ should be ☐	☐	☐	☐	☐	☐
61. to decentralize decision making on the campus to the greatest extent possible...	is ☐ should be ☐	☐	☐	☐	☐	☐
62. to maintain a campus climate in which differences of opinion can be aired openly and amicably...	is ☐ should be ☐	☐	☐	☐	☐	☐
63. to protect the right of faculty members to present unpopular or controversial ideas in the classroom...	is ☐ should be ☐	☐	☐	☐	☐	☐
64. to assure individuals the opportunity to participate or be represented in making any decisions that affect them...	is ☐ should be ☐	☐	☐	☐	☐	☐
65. to maintain a climate of mutual trust and respect among students, faculty, and administrators...	is ☐ should be ☐	☐	☐	☐	☐	☐

page eight		Please respond to these goal statements by blackening one oval after <u>is</u> and one after <u>should be</u> .					
		is	of no importance or not suitable	of low importance	of medium importance	of high importance	of extreme importance
66.	to create a campus climate in which students spend much of their free time in intellectual and cultural activities...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
67.	to build a climate on the campus in which continuous educational innovation is accepted as an institutional way of life...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
68.	to encourage students to spend time away from the campus gaining academic credit for such activities as a year of study abroad, in work-study programs, in VISTA, etc....	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
69.	to create a climate in which students and faculty may easily come together for informal discussion of ideas and mutual interests...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
70.	to experiment with different methods of evaluating and grading student performance...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
71.	to maintain or work to achieve a large degree of institutional autonomy or independence in relation to governmental or other educational agencies...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
72.	to participate in a network of colleges through which students, according to plan, may study on several campuses during their undergraduate years...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
73.	to sponsor each year a rich program of cultural events--lectures, concerts, art exhibits, and the like...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
74.	to experiment with new approaches to individualized instruction such as tutorials, flexible scheduling, and students planning their own programs...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
75.	to award the bachelor's and/or associate degree for supervised study done away from the campus, e.g., in extension or tutorial centers, by correspondence, or through field work...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
76.	to create an institution known widely as an intellectually exciting and stimulating place...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
77.	to create procedures by which curricular or instructional innovations may be readily initiated...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
78.	to award the bachelor's and/or associate degree to some individuals solely on the basis of their performance on an acceptable examination (with no college-supervised study, on- or off-campus, necessary)...	is should be	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐

page nine		of no importance or not significant of low importance of medium importance of high importance of extremely high importance				
79. to apply cost criteria in deciding among alternative academic and non-academic programs...	is	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐
80. to maintain or work to achieve a reputable standing for the institution within the academic world (or in relation to similar colleges)...	is	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐
81. to regularly provide evidence that the institution is actually achieving its stated goals...	is	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐
82. to carry on a broad and vigorous program of extracurricular activities and events for students...	is	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐
83. to be concerned about the <u>efficiency</u> with which college operations are conducted...	is	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐
84. to be organized for continuous short-, medium-, and long-range planning for the total institution...	is	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐
85. to include local citizens in planning college programs that will affect the local community...	is	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐
86. to excel in intercollegiate athletic competition...	is	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐
87. to be <u>accountable</u> to funding sources for the effectiveness of college programs...	is	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐
88. to create a climate in which systematic evaluation of college programs is accepted as an institutional way of life...	is	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐
89. to systematically interpret the nature, purpose, and work of the institution to citizens off the campus...	is	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐
90. to achieve consensus among people on the campus about the goals of the institution...	is	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐
- If additional locally written goal statements have been provided, use page ten for responding and then go on to page eleven. - If no additional goal statements were given, leave page ten blank and answer the information questions on page eleven.						

page ten

ADDITIONAL GOAL STATEMENTS (Local Option)

If you have been provided with supplementary goal statements, use this section for responding. Use the same answer key as you use for the first 90 items, and respond to both *is* and *should be*.

		of no importance, or not applicable					of low importance					of medium importance					of high importance					of extremely high importance				
91.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
92.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
93.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
94.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
95.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
96.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
97.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
98.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
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99.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
100.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
101.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
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102.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
103.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
104.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
105.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
106.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
107.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
108.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
109.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
110.	is	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	should be	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

APPENDIX D

**INSTITUTIONAL FUNCTIONING INVENTORY
(University of Oklahoma Modification)**

INSTITUTIONAL FUNCTIONING INVENTORY
(University of Oklahoma Modification)

TO THE RESPONDENT:

This is a questionnaire for institutional self-study. In it you are asked for your perceptions about what your institution is like--administrative policies, teaching practices, types of programs, characteristic attitudes of groups of people, etc. This inventory is not a test; the only "right" answers are those which reflect your own perceptions, judgments, and opinions.

No names are to be written on the inventory. Comments and criticisms are invited regarding any aspect of the inventory. Please use the back of the test booklet for any such comments.

DIRECTIONS:

1. PENCILS. Any type of marking instrument may be used. Please mark out the appropriate response by using an (X).
2. INFORMATION ITEMS. Check only one answer box for each question that applies to you. All respondents should answer Item A and each of the items, B-J that apply.
3. MARKING YOUR RESPONSES. Sections 1 and 3 consist of statements about policies and programs that may or may not exist at your institution. Indicate whether you know a given situation exists or does not exist by marking either YES (Y); NO (N); or DON'T KNOW (?).
4. RESPOND TO EVERY QUESTION. Please mark an answer for every statement in the inventory.
5. MARK ONLY ONE ANSWER FOR EACH STATEMENT, but please respond to each and every statement.

The IFI-(OUM) was developed by the Center for Studies
in Higher Education, University of Oklahoma.

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INFORMATION ITEMS

Please select one answer for each question below that applies to you.

- | | |
|--|---|
| <p>A. Select the one response that best describes your role.</p> <p>☐ 0. Faculty member</p> <p>☐ 1. Student</p> <p>☐ 2. Administrator</p> <p>☐ 3. Governing board member</p> <p>☐ 4. Alumna/Alumnus</p> <p>☐ 5. Member of off-campus community group</p> <p>☐ 6. Staff</p> <p>☐ 7. Other</p> | <p>E. All respondents: indicate age at last birthday.</p> <p>☐ 0. 17 to 18</p> <p>☐ 1. 19 to 20</p> <p>☐ 2. 21 to 23</p> <p>☐ 3. 24 to 26</p> <p>☐ 4. 27 to 29</p> <p>☐ 5. 30 to 39</p> <p>☐ 6. 40 to 49</p> <p>☐ 7. 50 to 59</p> <p>☐ 8. 60 or over</p> |
| <p>B. Faculty and students: select one field of teaching and/or research interest or, for students, major field of study.</p> <p>☐ 0. Biological sciences</p> <p>☐ 1. Physical sciences</p> <p>☐ 2. Mathematics</p> <p>☐ 3. Social sciences</p> <p>☐ 4. Humanities</p> <p>☐ 5. Fine arts, performing arts</p> <p>☐ 6. Education</p> <p>☐ 7. Business</p> <p>☐ 8. Engineering</p> <p>☐ 9. Other</p> | <p>F. Students: indicate class in college.</p> <p>☐ 0. Freshman</p> <p>☐ 1. Sophomore</p> <p>☐ 2. Junior</p> <p>☐ 3. Senior</p> <p>☐ 4. Graduate</p> <p>☐ 5. Other</p> |
| <p>C. Faculty: indicate academic rank.</p> <p>☐ 0. Instructor</p> <p>☐ 1. Assistant professor</p> <p>☐ 2. Associate professor</p> <p>☐ 3. Professor</p> <p>☐ 4. Other</p> | <p>G. Students: indicate current enrollment status.</p> <p>☐ 0. Full-time, day</p> <p>☐ 1. Part-time, day</p> <p>☐ 2. Evening only</p> <p>☐ 3. Off-campus only-e.g. extension, correspondence, TV, Etc.</p> <p>☐ 4. Other</p> |
| <p>D. Faculty: indicate current teaching arrangement.</p> <p>☐ 0. Full-time</p> <p>☐ 1. Part-time</p> <p>☐ 2. Evening only</p> <p>☐ 3. Off-campus only - extension, etc.</p> <p>☐ 4. Research only</p> <p>☐ 5. Other</p> | <p>H. Optional information question (special supplemental sheet will be provided if this item is used.)</p> <p>I. Optional information question (special supplemental sheet will be provided if this item is used.)</p> <p>J. Optional information question (special supplemental sheet will be provided if this item is used.)</p> |

SECTION 1

Respond to statements in this section by selecting either:

			YES (Y)	NO (N)	DON'T KNOW (?)
			If the statement applies or is true at your institution.	If the statement does not apply or is not true at your institution.	If you do not know whether the statement applies or is true.
(Y)	(N)	(?)	1. There is a campus art gallery in which traveling exhibits or collections on loan are regularly displayed.		
(Y)	(N)	(?)	2. There are programs and/or organizations at this institution which are directly concerned with solving pressing social problems, e.g., race relations, urban blight, rural poverty, etc.		
(Y)	(N)	(?)	3. Regulations of student behavior are detailed and precise at this institution.		
(Y)	(N)	(?)	4. Foreign films are shown regularly on or near campus.		
(Y)	(N)	(?)	5. Religious services are conducted regularly on campus involving a majority of the students.		
(Y)	(N)	(?)	6. A number of professors have been involved in the past few years with economic planning at either the national, regional, or state level.		
(Y)	(N)	(?)	7. There are provisions by which some number of educationally disadvantaged students may be admitted to the institution without meeting the normal entrance requirements.		
(Y)	(N)	(?)	8. A number of nationally known scientists and/or scholars are invited to the campus each year to address student and faculty groups.		
(Y)	(N)	(?)	9. Advisement (counseling) is offered students concerning personal as well as academic goals.		
(Y)	(N)	(?)	10. Successful efforts to raise funds or to perform voluntary service to relieve human need and suffering occur at least annually on this campus.		
(Y)	(N)	(?)	11. This institution attempts each year to sponsor a rich program of cultural events—lectures, concerts, plays, art exhibits, and the like.		
(Y)	(N)	(?)	12. At least one modern dance program has been presented in the past year.		
(Y)	(N)	(?)	13. Ministers are invited to the campus to speak and to counsel students about religious vocations.		
(Y)	(N)	(?)	14. Professors from this institution have been actively involved in framing state or federal legislation in the areas of health, education, or welfare.		
(Y)	(N)	(?)	15. A concerted effort is made to attract students of diverse ethnic and social backgrounds.		
(Y)	(N)	(?)	16. Quite a number of students are associated with organizations that actively seek or reform society in one way or another.		
(Y)	(N)	(?)	17. There are no written regulations regarding student dress.		
(Y)	(N)	(?)	18. Students publish a literary magazine.		
(Y)	(N)	(?)	19. A testing-counseling program is available to students to help them to achieve self-understanding.		
(Y)	(N)	(?)	20. An organization exists on campus which has as its primary objective to work for world peace.		
(Y)	(N)	(?)	21. At least one chamber music concert has been given within the past year.		
(Y)	(N)	(?)	22. The institution sponsors groups and programs which provide students opportunities to witness to others concerning their faith.		
(Y)	(N)	(?)	23. A number of faculty members or administrators from this institution have gone to Washington to participate in planning and operating various federal programs.		
(Y)	(N)	(?)	24. One of the methods used to influence the flavor of the college is to try to select students with fairly similar personality traits.		

- (Y) (N) (?) 25. This institution, through the efforts of individuals and/or specially created institutes or centers, is actively engaged in projects aimed at improving the quality of urban life.
- (Y) (N) (?) 26. The institution imposes certain restrictions on off-campus political activities by faculty members.
- (Y) (N) (?) 27. There are a number of student groups that meet regularly to discuss intellectual and/or philosophic topics.
- (Y) (N) (?) 28. At least one poetry reading, open to the campus community, has been given within the past year.
- (Y) (N) (?) 29. The curriculum is deliberately designed to accommodate a great diversity in student ability levels and educational-vocational aspirations.

SECTION 2

Respond to statements in this section by selecting either:

- | | STRONGLY AGREE (SA) | AGREE (A) | DISAGREE (D) | STRONGLY DISAGREE (SD) | |
|------|--|--|---|---|---|
| | If you strongly agree with the statement as applied to your institution. | If you mildly agree with the statement as applied to your institution. | If you mildly disagree with the statement as applied to your institution. | If you strongly disagree with the statement as applied to your institution. | |
| (SA) | (A) | (D) | (SD) | 30. | How best to communicate knowledge to undergraduates is not a question that seriously concerns a very large proportion of the faculty. |
| (SA) | (A) | (D) | (SD) | 31. | Students who display traditional "scholar" behavior are held in low esteem in the campus community. |
| (SA) | (A) | (D) | (SD) | 32. | In dealing with institutional problems, attempts are generally made to involve interested people without regard to their formal position or hierarchical status. |
| (SA) | (A) | (D) | (SD) | 33. | Capable undergraduates are encouraged to collaborate with faculty on research projects or to carry out studies of their own. |
| (SA) | (A) | (D) | (SD) | 34. | Undergraduate programs of instruction are designed to include demonstration of the methods of problem analysis. |
| (SA) | (A) | (D) | (SD) | 35. | Power here tends to be widely dispersed rather than tightly held. |
| (SA) | (A) | (D) | (SD) | 36. | Almost every degree program is constructed to enable the student to acquire a depth of knowledge in at least one academic discipline. |
| (SA) | (A) | (D) | (SD) | 37. | A major expectation of faculty members is that they will help students to synthesize knowledge from many sources. |
| (SA) | (A) | (D) | (SD) | 38. | The important moral issues of the time are discussed seriously in classes and programs. |
| (SA) | (A) | (D) | (SD) | 39. | Many faculty members would welcome the opportunity to participate in laying plans for broad social and economic reforms in American society. |
| (SA) | (A) | (D) | (SD) | 40. | Serious consideration is given to student opinion when policy decisions affecting students are made. |
| (SA) | (A) | (D) | (SD) | 41. | Certain radical student organizations, such as Students for a Democratic Society, are not, or probably would not be, allowed to organize chapters on this campus. |
| (SA) | (A) | (D) | (SD) | 42. | This institution takes pride in the percentage of graduates who go on to advanced study. |
| (SA) | (A) | (D) | (SD) | 43. | Student publications of high intellectual reputation exist on this campus. |
| (SA) | (A) | (D) | (SD) | 44. | Professors get to know most students in their undergraduate classes quite well. |
| (SA) | (A) | (D) | (SD) | 45. | Foreign students are genuinely respected and are made to feel welcome on this campus. |
| (SA) | (A) | (D) | (SD) | 46. | Religious diversity is encouraged at this institution. |
| (SA) | (A) | (D) | (SD) | 47. | Application of knowledge and talent to the solution of social problems is a mission of this institution that is widely supported by faculty and administrators. |
| (SA) | (A) | (D) | (SD) | 48. | Governance of this institution is clearly in the hands of the administration. |

- (SA) (A) (D) (SD) 49. Certain highly controversial figures in public life are not allowed or probably would not be allowed to address students.
- (SA) (A) (D) (SD) 50. Little money is generally available for inviting outstanding people to give public lectures.
- (SA) (A) (D) (SD) 51. A 4.0 grade average brings to a student the highest recognition on this campus.
- (SA) (A) (D) (SD) 52. Academic advisers generally favor that a meaningful portion of each degree program be allocated to individual study.
- (SA) (A) (D) (SD) 53. Most faculty members do not wish to spend much time in talking with students about students' personal interests and concerns.
- (SA) (A) (D) (SD) 54. When a student has a special problem, some of his peers usually are aware of and respond to his need.
- (SA) (A) (D) (SD) 55. Religious ideals of the institution's founding fathers are considered by most faculty members to be obsolete.
- (SA) (A) (D) (SD) 56. Senior administrators generally support (or would support) faculty members who spend time away from the campus consulting with governmental agencies about social, economic, and related matters.
- (SA) (A) (D) (SD) 57. Compared with most other colleges, fewer minority groups are represented on this campus.
- (SA) (A) (D) (SD) 58. The notion of colleges and universities assuming leadership in bringing about social change is not an idea that is or would be particularly popular on this campus.
- (SA) (A) (D) (SD) 59. In arriving at institutional policies, attempts are generally made to involve all the individuals who will be directly affected.
- (SA) (A) (D) (SD) 60. Faculty members feel free to express radical political beliefs in their classrooms.
- (SA) (A) (D) (SD) 61. The student newspaper comments regularly on important issues and ideas (in addition to carrying out the customary tasks of student newspapers).
- (SA) (A) (D) (SD) 62. It is almost impossible for a student to graduate from this institution without a basic knowledge in the social sciences, natural sciences and humanities.
- (SA) (A) (D) (SD) 63. Programs for the adult (out-of-school) age student are primarily designed to treat their vocational needs.
- (SA) (A) (D) (SD) 64. Formal organizations designed to provide special assistance to students are accorded favorable recognition by individual members of the faculty.
- (SA) (A) (D) (SD) 65. Faculty members are more concerned with helping students to acquire knowledge and professional skills than they are in helping students to be better persons.
- (SA) (A) (D) (SD) 66. By example, the administration and faculty encourage students to dedicate their lives to God.
- (SA) (A) (D) (SD) 67. Administrators and faculty have in the past three years been responsive to regional and national priorities in planning educational programs.
- (SA) (A) (D) (SD) 68. There are no courses or programs for students with educational deficiencies, i.e., remedial work.
- (SA) (A) (D) (SD) 69. The governing board does not consider active engagement in resolving major social ills to be an appropriate institutional function.
- (SA) (A) (D) (SD) 70. Students, faculty and administrators all have opportunities for meaningful involvement in campus governance.
- (SA) (A) (D) (SD) 71. The governing body (e.g., Board of Trustees) strongly supports the principle of academic freedom for faculty and students to discuss any topic they may choose.
- (SA) (A) (D) (SD) 72. Many opportunities exist outside the classroom for intellectual and aesthetic self-expression on the part of students.

SECTION 3

Respond to statements in this section by selecting either:

			YES (Y)	NO (N)	DON'T KNOW (?)	
			If the statement applies or is true at your institution.	If the statement does not apply or is not true at your institution.	If you do not know whether the statement applies or is true.	
(Y)	(N)	(?)	73.	This institution operates an adult education program, e.g., evening courses open to local area residents.		
(Y)	(N)	(?)	74.	Counseling services are available to adults in the local area seeking information about educational and occupational matters.		
(Y)	(N)	(?)	75.	Quite a number of faculty members have had books published in the past two or three years.		
(Y)	(N)	(?)	76.	Courses are offered through which local area residents may be retrained or upgraded in their job skills.		
(Y)	(N)	(?)	77.	There is a job placement service through which local employers may hire students and graduates for full or part-time work.		
(Y)	(N)	(?)	78.	There are a number of research professors on campus, i.e., faculty members whose appointments primarily entail research rather than teaching.		
(Y)	(N)	(?)	79.	Facilities are made available to local groups and organizations for meetings, short courses, clinics, forums, and the like.		
(Y)	(N)	(?)	80.	Credit for numerous courses can be earned now solely on the basis of performance on an examination.		
(Y)	(N)	(?)	81.	Some of the strongest and best-funded undergraduate academic departments are professional departments which prepare students for specific occupations, such as nursing, accounting, etc.		
(Y)	(N)	(?)	82.	A number of departments frequently hold seminars or colloquia in which a visiting scholar discusses his ideas or research findings.		
(Y)	(N)	(?)	83.	The average teaching load in most departments is eight credit hours or fewer.		
(Y)	(N)	(?)	84.	There are a number of courses or programs that are designed to provide manpower for local area business, industry, or public services.		
(Y)	(N)	(?)	85.	A plan exists at this institution whereby a student may be awarded a degree based primarily on supervised study off-campus.		
(Y)	(N)	(?)	86.	One or more individuals are presently engaged in long-range financial planning for the total institution.		
(Y)	(N)	(?)	87.	Courses or seminars are conducted in order that former students and others may be retrained or upgraded in their skills.		
(Y)	(N)	(?)	88.	New advanced degrees have been authorized and awarded within the last three years.		
(Y)	(N)	(?)	89.	Faculty promotions generally are based primarily on scholarly publication.		
(Y)	(N)	(?)	90.	Courses dealing with artistic expression or appreciation are available to all adults in the local area.		
(Y)	(N)	(?)	91.	Several arrangements exist by which students may enroll for credit in short terms away from the campus in travel; work-study, VISTA-type work, etc.		
(Y)	(N)	(?)	92.	Analyses of the philosophy, purposes, and objectives of the institution are frequently conducted.		
(Y)	(N)	(?)	93.	Counseling services are available to students to assist them in choosing a career.		
(Y)	(N)	(?)	94.	One or more non-traditional graduate departments (or centers) has been established within the last five years.		
(Y)	(N)	(?)	95.	In general, the governing board is committed to the view that advancement of knowledge through research and scholarship is a major institutional purpose.		
(Y)	(N)	(?)	96.	Attention is given to maintaining fairly close relationships with businesses and industries in the local area.		
(Y)	(N)	(?)	97.	Every student is encouraged to include some study abroad in his educational program.		
(Y)	(N)	(?)	98.	Planning at this institution is continuous rather than one-shot or completely non-existent.		

SECTION 4

Respond to statements in this section by selecting either:

	STRONGLY AGREE (SA)	AGREE (A)	DISAGREE (D)	STRONGLY DISAGREE (SD)	
	If you strongly agree with the statement as applied to your institution. If you mildly agree with the statement as applied to your institution. If you mildly disagree with the statement as applied to your institution. If you strongly disagree with the statement as applied to your institution.				
(SA)	(A)	(D)	(SD)	99.	Most faculty members consider the senior administrators on campus to be able and well-qualified for their positions.
(SA)	(A)	(D)	(SD)	100.	It is almost impossible to obtain the necessary financial support to try out a new idea for educational practice.
(SA)	(A)	(D)	(SD)	101.	Generally speaking, top-level administrators are providing effective educational leadership.
(SA)	(A)	(D)	(SD)	102.	There is a general willingness here to experiment with innovations that have shown promise at other institutions.
(SA)	(A)	(D)	(SD)	103.	Generally speaking, communication between the faculty and the administration is poor.
(SA)	(A)	(D)	(SD)	104.	High ranking administrators or department chairmen generally encourage professors to experiment with new courses and teaching methods.
(SA)	(A)	(D)	(SD)	105.	More recognition is regularly accorded faculty members for research grants received than for service grants.
(SA)	(A)	(D)	(SD)	106.	Staff infighting, backbiting, and the like seem to be more the rule than the exception.
(SA)	(A)	(D)	(SD)	107.	This institution would be willing to be among the first to experiment with a novel educational program or method if it appeared promising.
(SA)	(A)	(D)	(SD)	108.	Laying plans for the future of the institution is a high priority activity for many senior administrators.
(SA)	(A)	(D)	(SD)	109.	The graduates of such professional colleges as the Colleges of Law and Medicine at this institution are recognized by the public as strong practitioners.
(SA)	(A)	(D)	(SD)	110.	Although they may criticize certain practices, most faculty seem to be very loyal to the institution.
(SA)	(A)	(D)	(SD)	111.	In my experience it has not been easy for new ideas about educational practice to receive a hearing.
(SA)	(A)	(D)	(SD)	112.	A graduate is usually considered by faculty to be better educated if all of his credit hours were earned at this institution, than if he had studied on several campuses in qualifying for his degree.
(SA)	(A)	(D)	(SD)	113.	Seldom do faculty members prepare formal evaluations of institutional goal achievement.
(SA)	(A)	(D)	(SD)	114.	The faculty is receptive to adding new courses geared to emerging career fields.
(SA)	(A)	(D)	(SD)	115.	Undergraduates interested in study beyond the B.A. level receive little or no formal encouragement from the faculty or staff.
(SA)	(A)	(D)	(SD)	116.	Few, if any, of the faculty could be regarded as having national or international reputations for their scientific or scholarly contributions.
(SA)	(A)	(D)	(SD)	117.	There is a strong sense of community, a feeling of shared interests and purposes, on this campus.
(SA)	(A)	(D)	(SD)	118.	This institution has experimented with new approaches to either individualized instruction or evaluation of student performance.
(SA)	(A)	(D)	(SD)	119.	Off-campus learning experiences of various types are considered as valuable, or more valuable, to the student's education, as regular courses.
(SA)	(A)	(D)	(SD)	120.	The approval of proposals for new instructional programs is regularly dependent on an estimate of potential efficiency.

APPENDIX E

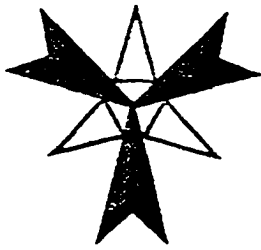
POSTCARD SENT TO NON-RESPONDENTS

Dear Mr. Jones,

Thank you for participating in the Oscar Rose research program. Your packet is very vital to the success of the program, and we shall be very appreciative if you could return the packet this week.

APPENDIX F

FOLLOWUP LETTER SENT TO NON-RESPONDENTS



OSCAR ROSE JUNIOR COLLEGE

6420 SOUTHEAST 15TH • MIDWEST CITY, OKLAHOMA 73110

VICE PRESIDENT FOR ACADEMIC AFFAIRS

March 2, 1978

AC (405) 737-6611

Dear Ms. Jones:

Mr. Merle Long is doing a study which concerns perceptions of institutional goals and practices of faculty, students, and administrators of Oscar Rose Junior College. The results from this study should be most helpful to us. Therefore, the College has agreed to participate in this study.

Your cooperation and your opinions are essential and vital to the success of this study. The questionnaire instruments will take approximately one hour to complete. The anonymity of your response is guaranteed.

The questionnaires may be mailed or personally returned to the Academic Vice President's Office. Please return the questionnaires in the enclosed envelopes by Monday, March 13, 1978.

I realize the many demands on your time and I am sure that Mr. Long will greatly appreciate your cooperation in this study.

Sincerely,

John E. Davis
Vice President for
Academic Affairs

JED/cb

Appendix G

THE GROUP X INTERACTION EFFECTS AS
REFLECTED IN THE GOAL RATINGS,
FUNCTIONING RATINGS, AND
EFFECTIVENESS SCORES

TABLE 23
THE GROUP x INSTITUTION INTERACTION EFFECTS
REFLECTED IN THE PARTICIPANTS'
GOAL RATINGS

Institutional Goals Scales	Interaction F Ratio	Significance Level
* 1. Academic Development	3.18	< .05
* 2. Intellectual Orientation	4.54	< .05
* 3. Individual Personal Development	5.36	< .01
* 4. Humanism/Altruism	4.77	< .05
* 5. Cultural/Esthetic Awareness	5.52	< .05
* 6. Traditional Religiousness	6.90	< .01
* 7. Vocational Preparation	6.14	< .01
* 8. Advanced Training	2.13	> .05
* 9. Research	7.25	< .01
*10. Meeting Local Needs	3.32	> .05
*11. Public Service	7.92	< .01
*12. Social Egalitarianism	7.82	< .01
**13. Social Criticism/Activism	3.42	> .05
**14. Freedom	0.22	> .05
**15. Democratic Governance	0.08	> .05
**16. Community	0.01	> .05
**17. Intellectual/Esthetic Environment	0.00	> .05
**18. Innovation	1.63	> .05
**19. Off-Campus Learning	1.15	> .05
**20. Accountability/Efficiency	1.98	> .05

*All F Ratios were based on 1 and 171 degrees of freedom

**All F Ratios were based on 1 and 71 degrees of freedom

TABLE 24
THE GROUP x INSTITUTION INTERACTION EFFECTS
REFLECTED IN THE PARTICIPANTS'
FUNCTIONING RATINGS

Institutional Goals Scales	Interaction F Ratios	Significance Level
* 1. Academic Development	2.30	> .05
* 2. Intellectual Orientation	2.40	> .05
* 3. Individual Personal Development	0.19	> .05
* 4. Humanism/Altruism	1.46	> .05
* 5. Cultural/Esthetic Awareness	0.23	> .05
* 6. Traditional Religiousness	3.22	< .05
* 7. Vocational Preparation	0.75	> .05
* 8. Advanced Training	4.57	< .05
* 9. Research	3.55	< .05
*10. Meeting Local Needs	1.21	> .05
*11. Public Service	3.19	< .05
*12. Social Egalitarianism	7.82	< .01
**13. Social Criticism/Activism	1.66	> .05
**14. Freedom	0.13	> .05
**15. Democratic Governance	1.31	> .05
**16. Community	0.13	> .05
**17. Intellectual/Esthetic Environment	0.71	> .05
**18. Innovation	0.66	> .05
**19. Off-Campus Learning	0.32	> .05
**20. Accountability/Efficiency	0.20	> .05

*All F Ratios were based on 1 and 171 degrees of freedom

**All F Ratios were based on 1 and 71 degrees of freedom

TABLE 25

THE GROUP $\times$ INSTITUTION INTERACTION EFFECTS
REFLECTED IN THE PARTICIPANTS'
EFFECTIVENESS RATINGS

Institutional Goals Scales	Interaction F Ratio	Significance Level
* 1. Academic Development	1.69	< .05
* 2. Intellectual Orientation	0.01	< .05
* 3. Individual Personal Development	0.27	> .05
* 4. Humanism/Altruism	4.64	< .05
* 5. Cultural/Esthetic Awareness	6.21	< .01
* 6. Traditional Religiousness	2.40	> .05
* 7. Vocational Preparation	0.72	> .05
* 8. Advanced Training	6.42	< .01
* 9. Research	0.48	> .05
*10. Meeting Local Needs	2.28	> .05
*11. Public Service	3.78	< .05
*12. Social Egalitarianism	2.22	> .05
**13. Social Criticism/Activism	4.04	< .05
**14. Freedom	0.06	> .05
**15. Democratic Governance	0.72	> .05
**16. Community	0.02	> .05
**17. Intellectual/Esthetic Environment	0.36	> .05
**18. Innovation	3.26	> .05
**19. Off-Campus Learning	1.46	> .05
**20. Accountability/Efficiency	2.22	> .05

* All F Ratios were based on 1 and 171 degrees of freedom

** All F Ratios were based on 1 and 71 degrees of freedom