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THE STATUS OF FUTURISTICS IN THE ADMINISTRATION OF COMMUNITY AND JUNIOR COLLEGES IN THE UNITED STATES OF AMERICA

By

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ABSTRACT

THE STATUS OF FUTURISTICS IN THE ADMINISTRATION OF COMMUNITY AND JUNIOR COLLEGES IN THE UNITED STATES OF AMERICA

By

Kenneth Randolph Riley

The purpose of the study was to describe futuring practices in community and junior colleges and to describe the major content of the product of these practices as well as selected elements from the best available plans. To accomplish this purpose, a sample of 303 administrators were drawn from the 1979 Community, Junior and Technical College Directory.

The administrators were mailed a questionnaire and asked to respond to seventy-eight questions and statements, and to provide planning documents such as college mission statements, college goals, results of futuring sessions, and entire or complete plans for the college.

The questions and statements were organized under four major headings as follows: (1) the identification and rating of social trends; (2) the rating of the feasibility and desirability of alternative future

images of the community college; (3) present participation and importance of futuring processes; and (4) present and future institutional goal priorities. Two hundred and twenty-one, or 73 percent of the respondents completed and returned the questionnaire.

The two social trends of greatest significance were: energy shortages and advances in science and technology. Six others were of moderate significance. The community-based college was considered the most desirable future image. Other competing or supplementary images were the career-based college and the development-based college.

When futuring processes were considered, it was found that the most heavily practiced process was, periodic and specific activities to identify major institutional strengths and areas for improvement. Correspondingly, the least practiced futuring process was the writing of scenarios.

Present and future priorities revealed community and junior college administrators programing traditional transfer programs for both the present and the long term. Some new programs could be tried but only as a second priority.

The sorting, categorizing, and evaluation of the planning documents, with other elements of the study, led this researcher to conclude that the steps taken in futuristics in community and junior colleges were

limited and minimal, but that there was enough direction for community and junior college policymakers and planners who want to be more effective at planning.

To Mr. Livingstone Conrad Riley and

Mrs. Thelma Ford

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CHAPTER I

INTRODUCTION

Background and need for the study

Community and junior colleges in the United States experienced growth in students and facilities during the decade of the 1960s which was unparalleled. This phenomenal growth tapered off considerably in the 1970s as community and junior colleges attempted to determine their future in a period of generally declining enrollments in post-secondary education.

Declining enrollments was only one of the concerns of community and junior college educators. Other concerns were: the vigorous competition for students among institutions of higher education; the diverse mixture of students who enroll; the expanding needs of students against institutional decrease in resources; the increased competition with other areas of the public sector for scarce financial resources; and other accelerating changes brought on by technological, societal, economical, and political forces (King, 1975, p. 36).

The emphasis on change, more than any other concern, was felt keenly by some thoughtful and concerned

community and junior college educators. Gleazer expressed that concern in this manner: "We are living in times of almost uncontrolable change and we do not know how to deal with it" (1973, p. 41).

Clearly, if community and junior colleges are to achieve their mission, educators must come to grips with the concern of accelerating change. The reason is, change affects the manner in which community and junior colleges relate to their communities and serve their needs.

Tathan (1978, pp. 10-11) observed that "the era of the 1970's and the 1980's must be that of cooperation among college staff, and between college staff and the community it serves." Cooperation with its community provides the college with a clue to the changing needs of the community, so that planned change is possible rather than a resort to crisis management.

Most community and junior college educators seem to agree that it is important to manage their institutions efficiently. The question that is uppermost in their minds is, how do you manage efficiently? when, as Cooper points out,

> . . . only two things are certain. First the world of tomorrow will be different from the world of today, and second that the needs of business with change as a consequence. The ability to anticipate, prepare for and possibly help to mold changes by systematic forethought and planning must clearly

> give the business an advantage over one that merely tries to adapt to changed circumstances. (1974, p. 122)

community and junior colleges are not businesses but the rationale is applicable. The considerations of forethought and planning should not be overlooked. Perhaps it should be looked at in a different manner. Gleazer (1973, pp. 41-43) appears to have this in mind when he said, "Our structures have let us down, and yet the present structures are determinging our goals." This was not a commentary against planning, but it appears to be a comment to put planning in perspective or to provide the planning process with the information which will make it effective.

There is no disagreement with the advocates of long-range planning as found in the work of Hungate (1964, p. 8); Dressell, and Palola and Padget (1971, pp. 229); McGrath (1964, p. 78); Dressell (1976, p. 15); Mayhew (1979, pp. 12-15). Also acceptable is the work of Steiner (1963, pp. 1-5) on strategic planning, and that of Cooper (1974, p. 75), on contingency planning. There is no need to reject the conclusion of Rarig (1968, p. 127) on long-range planning, and it is understandable why Landsburg (1975, p. 170) found "flexibility and adaptability" as important behaviors in a successful comprehensive community and junior college. However, this study on futuring is expected to provide

planning in all its form with direction and assistance in the explication of how the characteristics of flexibility and adaptability can be achieved in community and junior college administration.

The need for this study can more clearly be understood when it is recognized that in the discussion of all forms of planning a great deal of attention has been given to institutional change to meet changing environments. It does not seem that enough attention has been given to the people who must respond to change, provide for it, and manage the changes which will come about. Eckstein (1974, p. 13) expresses this idea by placing side by side the external orientation of trends and the internal orientation of values, as the context in which managers must anticipate change. Such anticipation provides for policy and mission statements, which allow for social, technological, political, and economic trends and value shifts. It is consistent with what has become known as futuring.

The idea of futuring has been growing steadily for some time and is being utilized by government, business, industry, and education. The practice of futuring is engaged in by the Commission on the Year 2000 of the American Academy of Arts and Sciences, to study problems and issues the United States government expects to face in the future (Perloff, 1971, p. 23).

In a similar manner, the U. S. Congress has established the Congressional Clearing House on the Future, to study the consequences of "decisions made today" (Anderson, 1978, p. 292).

Shane (1972, pp. 9-10) recognizes the interest of the U. S. Government in futuring as well as profit and non-profit organizations and education. Landsburg (1975, p. 169) appears to be missing the mark when he observed that community and junior college administrators are hemmed in by "too many external variables beyond their control." The Carnegie Commission on Higher Education suggested a more positive approach when they observed:

> Higher education, state and federal support notwithstanding, should take the major initiative in determing its own future. Too often it has been the recipient of change rather than the originator of it. A new generation of leadership is required, if higher education is to design its own future and not merely live in the framework others will have built for it. (Priorities for Action: Final Report of the Carnegie Commission on Higher Education. (1973, p. 89)

Vator emphasizes the need for futuristics in education when he said:

> The essence of these activities [futuring] has been to encourage individual self-determination and control over one's own future. . . . Our interest so far is to orient persons to dimension of time about which they are relatively ignorant. . . . It should stretch their minds, not "blow" them. It should certainly inform them. (1972, pp. 89-90)

The need was also noticed by this researcher's

interest in long-range planning over a period of time. This led to an association with Dr. Gundar Myran, who recognized a distinct relationship between futuring and long-range planning. This was partly a result of his being a futurist, but no less a result of his being president of a community college, dissatisfied with the results of long-range planning, but in search of improved methods to manage change more effectively in policy development and goal setting.

In this context, the work of Rarig (1965) and Landsburg (1975) cannot be overlooked. Rarig came to the conclusion that long-range planning was "the most single administrative tool that could aid in providing vitality and direction to community and junior colleges of the future" (Rarig, 1965, p. 127). Rarig did not consider futuring as an aspect of long-range planning.

Landsburg, in his study of long-range planning, rejected Rarig's conclusions, but recommended an adaptive stance which "can be accomplished with or without long-range planning" (1975, p. 170).

The effectiveness of the arguments presented in the literature, the impact of social trends, the strength of images, the recognition of value shifts, the increasing use of the practice of futuring in business and industry, government, and higher education, the differing conclusions about the value and

effectiveness of long-range planning in community and junior college administration, led this researcher to believe that there was a real important need for this study.

After studying this background material, it was clear to this researcher that there existed an important need to learn the extent to which community and junior colleges were engaged in futuring.

Statement of the problem

The problem is twofold: (1) many community colleges do not include futuring as part of their planning process; (2) the literature review reveals that futuring is important to all aspects of planning. Therefore, there is a need to investigate the extent of futuring in community and junior colleges.

Why is this a problem? The response takes into consideration three elements: (1) the literature suggests that futuring is important to all aspects of planning; (2) a couple of national studies on community and junior colleges came to different conclusions about the effectiveness of long-range planning (Rarig, 1965; Landsburg, 1975); (3) neither of the above studies considered futuring essential to planning. Had they done so, their conclusions could have been different. Therefore, it is expected that this study will contribute to the furtherance and effectiveness of all aspects of

planning and will offer some insights on how a community and junior college might achieve adaptability and flexibility.

Purpose of the study

The purpose of this study is: (1) to study the extent to which community and junior colleges are engaged in futuring, (2) to identify the extent of present practice, and (3) describe some of the best elements and practices which are available.

In preparation for this study, this researcher conducted a literature search. There was a paucity of information related to futuring in community and junior college. So little was available that it could be considered as nonexistent. However, much material was available on several aspects of business and industry, government and higher education. From this available information the component parts of futuring were selected.

Questions to be answered

This study was intended to answer the following questions: (1) to what extent are community and junior colleges engaged in futuring? (2) what is the present state of futuring among community and junior colleges? (3) what are some of the best elements and practices available?

Significance of the study

This study should provide a number of significant contributions. These are as follows: (1) provide insights on how long-range planning could be effective and contribute to the strengthening of all aspects of planning; (2) provide insights on the achievement of adaptability and flexibility in community and junior college administration; (3) improve planning and administrative practice, which could provide for efficiencies.

Definition of terms

Community and junior colleges are all those institutions so designated in the 1979 Community and Junior College Technical Directory.

Futuring is an approach to planning for the future which is concerned with sharpening data and improving the processes on the basis of which policy decisions are made in community and junior college administration. The objective is to help policy makers choose wisely in terms of their purposes and values, among alternative courses of action that are open to them at any given time (Shane, 1972, p. 1).

This definition treats other terms, such as "futures," "futuristics," "futurism," "futuribles," and "futurology" as synonomous with futuring, although this researcher admits the appropriateness of the

reservations made by DeJouvenal about the term "futurology" (Pulliam and Bowman, 1974, p. 3; World Future Society Catalog, 1980, p. 55; Welch and Watson, 1979, p. 3; DeJouvenal, 1967, pp. 16-19.

Image is a mental picture of something not actually present.

Image of the future is a condensed and crystalized expectation among peoples in certain periods and developed in systematic projections toward the future (Bundy, 1976, p. 11).

Trend is a change in a variable that takes place over an extended period of time (The Future: A Guide to Information Sources, 2nd ed., p. 654).

Scenario is a description of events that might possibly occur in the future. It requires a study of the facts of the situation, the selection of a development which might occur, and imagining the sequence and range of developments which might occur (The Future: A Guide to Information Sources, 2nd ed., p. 653).

Delphi Technique is a method of soliciting and aggregating individual opinions or judgments, typically of a group of experts, to arrive at consensus views concerning such things as what may happen in the future. Anonymity is preserved, social influences minimized, and questions and results are presented in a structured

manner (The Future: A Guide to Information Sources, 2nd ed., p. 649).

Administrators include those persons whose chief responsibility is to conduct the administrative duties of the college within the guidelines established by the governing board of the college, and for the realization of the educational enterprise for which the college is known (Gainer, 1970), p. 21).

Extrapolation is "extending a curve into the future simply by assuming that the variable will continue to change at the same rate and in the same direction" (Dibsbury, Jr. & Crider, 1979, p. 174).

Relevance Tree is

> . . . a diagramatic technique for analyzing systems or processes in which distinct levels of complexity or hierarchy can be identified. . . . A relevance tree allows an analyst to identify various aspects of a problem or a proposed solution and thus arrive at a more complete understanding of his subject. This technique is also useful for identifying unintended side-effects of innovations (Dibsbury, Jr. & Crider, 1979, p. 177)

Cross-Impact Analysis is "an attempt to identify the various effects that developments have on each other. For example, the effects two variables might have on each other" (Dibsbury, Jr. & Crider, 1979, p. 173).

Counter-Intuitive is the behavior of variables, developments, or systems which are contrary to one's natural expectations.

Alternative Futures is

> Possible forthcoming developments. The term emphasizes that the future is not fixed: many things may occur and people should explore the various possibilities and then seek to realize those that seem most desirable. (Dibsbury, Jr. & Crider, 1979, p. 173)

Technological Forecasting is the forecasting of future technical developments. The forecaster places emphasis on how soon various technologies will be possible and what characteristics they may have (Dibsbury, Jr. & Crider, 1979, p. 178).

Delimitations

This study is limited to public community and junior colleges in the United States that were listed in the 1979 Community, Junior and Technical College Directory.

Organization of the Study

Chapter I includes the background and need for the study, the statement of the problem, purpose of the study, questions to be answered, significance of the study, definition of terms, and the delimitations of the study.

Chapter II contains a review of the literature in the field of futuring.

Chapter III contains the methodology of the study. In it the process of developing the questionnaire is described; the selection of the colleges to

which it was sent; and the methods for analyzing the data received.

Chapter IV is the presentation of the data. Chapter V presents the discussion and results, the outcomes of the study, and certain logical conclusions. Chapter VI presents the summary, conclusions, and recommendations.

CHAPTER II

THE COMPONENTS OF FUTURIZING AND A SEARCH OF THE LITERATURE

Many community and junior college policy makers, administrators, and educators have just gone through a period beginning about the middle 1960s and continuing through the mid-70s when they were called upon to provide effective long-range planning for their institutions. Rarig in a nationwide study of community and junior colleges, identified long-range planning as "the most important single administrative tool that can aid in providing vitality and direction to community and junior colleges of the future" (1965, p. 127). In a similar study, Landsburg concluded that "an adaptive stance" was needed by community and junior college policy makers and this could be accomplished "with or without long-range planning" (1975, p. 120).

The apparent difference in these conclusions represents frustrations heard by this researcher from community and junior college policy makers and educators with the apparent ineffectiveness of the results of long-range planning. What appears to be absent from long-range planning was a certain perspective. Boyer

identifies that perspective as the direction futuring gives to planning:

> It is not new to treat educational institutions as instruments of social planning. . . . It is new to treat education as a process which teaches people to design preferred futures and to learn to undertake their realization. (1975, p. 391)

More specifically, the futuristic perspective addresses one of the central purposes of managers, namely, to plan. Brodzinski, commenting on the futuristic perspective, observes that "it proposes alternative ways to approach traditional managerial tasks and suggests some expansion of the concept of management, particularly as it relates to planning" (1979, p. 21).

It is the purpose of this chapter to search the existing literature in an attempt to answer the question, What are the components of futuring?

Definition of futuring

The World Future Society Catalog (1980, p. 55) does not refer to the term "futuring," but instead uses the terms "futuristics" and "futurology." The former it describes as "the field of study that deals with possible future developments." The latter is described as "the study of the future." The World Future Society Catalog acknowledges that some futurists object to the term "futurology" on the ground that it implies the study of a science, when in fact one cannot study what does not exist. Polak and Toffler acknowledged that

the future is not known, say as the study of biology is known, but that every advance in the knowledge of science is the result of the "redrawing of the boundaries of the unknown," that is to say, that which cannot be grasped by the human mind cannot be known. More precisely, "the deliberations of the man of thought center about the future, about that which at present is not, but is yet to come" (Polak, 1972, p. 286).

Shane defines futuring as "a new discipline concerned with sharpening the data and improving the processes on which policy decisions are made in various fields of human endeavor, such as business, government, or education" (1973, p. 1).

Pulliam and Bowman (1976, p. 3) considered futurism to be a "science" and described it as centering upon the interrelationships of human activities, the wide range of possible alternatives for human action and the opportunity for consciously altering or inventing the future. Newman (1973, p. 18) described futurism as "a way of trying to feel at home in the present."

This researcher found that none of the definitions were completely adequate. However, it can be deduced that futuring is an action-oriented activity with the future as a province which can be known, understood and planned. The approach is applicable to business, government, and education, and centers upon

interrelationships and a wide range of human activity. Futurism's perspective is not that of a single dominating future but a wide possibility of alternative futures. Futurism is both interventionist and inventive.

The mission

It is appropriate to suggest that futurism has purpose or mission. That is to say, that futuring is the task assigned or undertaken to illuminate, anticipate, and investigate trends and directions brought about by societal, economical, technological, and political forces, that will yield a wide range of alternative futures.

Enzer further explicates the mission of futuring as:

1. The forecast of a future situation, regardless of methodology of technique

2. Interdisciplinary, recognizing the complex interaction of social system components

3. Systematic, attempting to avoid overlooking interacting developments or trends

4. Judgmental, as hard, predicated data may not be available to forecast a future event

5. Alternatives, stressing range of decisions and planning choices (1972, pp. 30-51)

The idea that futurism has a mission also allows

for the assumption that it has operational bases. Dror identified these as "something ought to be known about the future, . . . something can be known about the future, . . . and futuring as a specific endeavor is a preferable frame for producing knowledge about the future" (1975, p. 147).

Eckstein in discussing change, focuses on two points which are essential to the futures' mission. One deals with the external environment and the other deals with the inner-man's values. Specifically,

> . . . ideas about change have always seemed to divide men in two polarizing groups. Some believe that in order to change, man must change his outer reality--society. Others say that regardless of how one changes the culture, the external world of man, unless one can make change reach the inner man one will not succeed. (1974, p. 13)

Futuring shies away from the use of prediction as a way of presenting futures, but it accepts forecasting as an essential mode in the accomplishment of a similar task. Welch and Watson (1979, p. 2) asserted that "the purpose of futures research is not to predict, but to understand the range of options and how they may be affected by the interaction of choice and chance." Bell (1976, p. 60) brings further clarity to the situation when he observes, "What should be stressed however, in knowing past facts and present options is not what makes action effective. It is accurately knowing future forecasts." Ferkiss added,

> Futurists are concerned with setting forth possible alternative futures and assessing the probabilities of their coming into existence. Futurists are less interested in trying to predict the course of particular sets of events than in foreseeing the broad currents which will influence future history. (1977, p. 18)

The objectives

Futurism has many objectives. This researcher was concerned with objectives which have application in the context of higher education and specifically at the level of the community and junior college. There was a paucity of information at this level, but there was enough of a general nature to permit application to the community and junior college.

The World Future Society (1978, p. 25) identified a central objective of futurism as follows: "By studying the future, futurists hope to anticipate cultural trends and help people prepare for them." It would seem natural that this kind of assistance would be of invaluable help to educators and administrators who plan for the well being of community and junior colleges. Learning how to recognize trends and value changes could provide for better policy development, fiscal management and control, program offerings, and service to the community.

The objective may be clarified even more by the recognition that much of planning, even though somewhat successful, has been more intuitive- than knowledge-based.

Planning in community and junior colleges more often than not, has been governed by the budget, student enrollment, and other procedures and policies which do not take into account a wide range of human activities and interrelationships which produce change (The American Association of State Colleges and Universities, 1978, pp. vi, viii).

Interrelationship is a central concept in futurism. Pulliam and Bowman addressed this concept in this manner: "Futurism must center upon interrelationships of human activities, the wide range of possible alternatives for consciously altering or inventing the future" (1976, p. 3). Along with the concept of interrelationships are the concepts of intervention and invention. These concepts provide the community college educator and administrator with responses to questions of change and policy development. This is a distinct advantage for one who has not only the opportunity to prepare and mold changes brought about by systematic forethought, and is beyond merely having to adapt to changed circumstances (Cooper, 1974, p. 122).

Another objective of futurism is its emphasis on consequences. An example is in place. During the 1960s community and junior college facilities could hardly keep pace with student demand. This was a period of generally rising enrollments. A similar situation

existed for four-year colleges and universities. Now in the 80s, decreasing enrollments are forcing the closure of some facilities once used for educational purposes, or at least these facilities are used for other purposes other than what they were originally intended. During the hectic building period of facilities in the 1960s it appeared that the planners and builders gave little or no thought to facility needs in the 80s. Futurism is concerned about today's actions before they become tomorrow's reality (Pulliam and Bowman, 1976, p. 7).

Stages of futurism

It is fairly well established that futurism finds its wellspring in the utopian tradition of Western culture and in its science fiction. Ferkiss (1977, pp. 6-8) goes back to Plato's Republic, the utopia of St. Thomas Moore, the Christian's belief in the imminence of the second coming of Christ, as precursors to the more modern secularistic forms of Comptian industrialism, Marxian socialism, or Post-Industrial Society to trace the normative and deterministic elements which make futurism possible.

> The major substantive difference that distinguishes the modern version from the older, religious forms is that the causal force that redeems mankind is not a new outpouring of the grace of God but the benificent influence of science and technology. Ferkiss, 1977, p. 7)

In a similar manner, science fiction has contributed a number of important ingredients to futurism. These are as follows: (1) "a forum in which the human impact of projected developments can be juxtaposed in a picture of the future as a whole," and (2) an entrée into the popular imagination.

Change has been made easier because it can be experienced vicariously through the imagination and television. Buck Rogers and Flash Gordon were national heroes long before Neil Armstrong.

As noted earlier, futurism owes much of its existence to the belief that scientific and technological developments are relatively amenable to forecasting or prediction and can serve as a basis for social change. It is not surprising, then, that technological forecasting would give rise to much of the present vigor in futurism.

Cornish (1980, pp. 83-84) and Ferkiss (1977, pp. 9-10) established the beginnings of organized research from 1944, when the Commanding General of the U. S. Army, H. H. Arnold, commissioned a study toward new horizons. The study was on the technological capabilities of the United States. It was an effort to forecast what the U. S. military might be capable of accomplishing in the future. However, it was not until about 1965 when the Academy of Arts and Sciences

commissioned the Study of the Year 2000 under David Bell, while at the same time "an obscure journalist named Edward Cornish," founded an organization and published a bulletin which eventually became the Futurist.

Shane has identified four phases of futuring activity. Phase I is characterized by linear planning, and is generally thought to be the period up to the mid-1960s. Data to provide linear planning would include production data, birthrates and/or deathrates, depending on the requirements of the project at hand. Projections were made in such a manner that given lag time between development, implementation, and completion, the best that could be hoped for was that the plans would fit. Plans did not always fit (1973, p. 8).

Phase II is identified as beginning about 1965 or 1966 and coming to a close about 1972. The distinguishing characterisitc of this phase was a shift from linear planning, even though it was not abandoned, to an exploration of what an organization, agency, or group intended the future to be. This was what came to be known as "alternative futures," for it was realized that there was not a single "inevitable" future but an infinite number of possible futures (Shane, 1973, pp. 8-9).

It was just a matter of time after the concept of alternative futures was understood, that the concept

of cross-impact analyses would be introduced. Cross-impact analysis was identified with phase III of futurism. In terms of time, it was the period of the early 1970s. The cross-impact concept recognized interrelationships between and among disciplines and between and among a wide range of human activities. For example, during the early 1970s, studies were done to show what the crossimpact would be of so-called "smart pills on educational futures" (Shane, 1973, p. 9).

In quick succession came phase IV. The time period was about 1975. It should be borne in mind that these phases were not clear-cut or arbitrary. There was much overlapping. Shane referred to phase III as a "sophisticated" version of phase II. Nevertheless, as in the other phases, the chief concept of phase IV was intervention. The question was not whether man should use his time, energy, and money to create desirable futures, but how should it be done (Shane, 1973, p. 10).

The four phases of futurism may be summed up as follows: phase I was characterized by linear planning and projections, and included all thought and practice on futurism up to the 1960s. From about 1965 through 1972, phase II, characterized by the concept of alternative futures, predominated. In rapid succession came phases III and IV. The former was characterized by the

concept of cross-impact analyses and the latter by the concept of intervention.

Theory and supportive research

Futuristics and planning are firmly grounded in systems theory. Cleland and King defined a system as "an organized or complex whole; an assemblage or combination of things or parts forming a complex or whole" (1968, p. 10). This definition recognized that a system is made up of segments, which pursue their own goals to the extent that the overall goals of the system can be achieved. Such a perspective allows for viewing the system as a whole and for an understanding of the interrelationships between the segments (Cleland and King, 1968, p. 11).

White and Tauber defined a system as "a set of interacting elements"; and observed that systems are "natural or man-made." Man-made systems operate within such parameters as "cost, efficiency, size, or reliability . . . derived from externally imposed value systems, such as economic, social or even political" (1969, p. 4).

Arends and Arends working with a similar definition, described "schools as complex social systems." This means that "people in schools, like the components in any system, interact in fairly regularized and predictable ways" (1977, pp. 26-27).

Johns and Morphet identified two characteristics of systems as "organizational equilibrium" and "entrophy." On the one hand, the first characteristic provides that the system has a tendency to achieve a balance among the many forces or factors operating upon the system and within it. On the other hand, the second characteristic provides that in open systems death is combated by the exchange of matter and energy within the environment, while in closed systems, death ensues because of the system's inability to exchange matter or energy (1975, p. 35).

Immigart and Pilecki identified other elements of social systems. These are as follows: systems exist in time and space, have boundaries, environment, variables and parameters, subsystems and suprasystems (1973, pp. 34-39).

On the basis of the characteristics stated above, Johns and Morphet asserted that the school is an open, living, social system (1975, p. 37). The characterization of the school as a living, social system, permits application to colleges and universities, of which community and junior colleges are a part.

In addition to establishing that community and junior colleges are living social systems, a more important essential connector was application of futuristics to living social systems. Harmon (1976, pp.

10-14) observed that the different methods of futuristic research were based essentially on various combinations of six principles that characterize complex, highly interconnected social systems. The principles are as follows: continuity, self-consistency, similarities among social systems, cause-effect relationships, holistic trending, and goal seeking.

Futuristic theorists and researchers are in general agreement on the characteristics of social systems and the application of futuristic methods to the management of social systems. There is also general agreement that one dominant behavior of social systems is change. Drucker (1968, pp. 7-10) observed four conditions in our time which produce change. They are as follows: (1) genuinely new technologies; (2) changes in the world's economy, changing it from a local or national economy to what Drucker described as a "global shopping center"; (3) a new socialization and political organization in which all major tasks were becoming institutionalized so that society was becoming dominated by a web of overlapping, interdependent, special-purpose organizations; and (4) access to knowledge rather than raw materials and transportation.

Harmon (1976, pp. 2-3) has added five other observations to those of Drucker:

1. The threat from industrialized civilization

to the sufficiency of fossil fuels, minerals, natural fresh water; or arable land and inhabitable space; of the waste absorbing capacity of the environment, and of the resilence of the planet's life-support systems.

2. Great masses of people are no longer satisfied with the political and economic status quo.

3. Disillusionment with the idea of large masses of people that ever-increasing material growth and expanding technology and industrialization would overcome world poverty and help mankind to achieve a more meaningful existence.

4. The new power of third-world nations as a moral force; an influence on world economy; and as an expression of the discontented poor.

5. The emergence of a new emphasis on intuitive and spiritual experience.

Change produces change. Massive amounts of unplanned change creates "future shock," defined as "the shattering stress and disorientation that we induce in individuals by subjecting them to too much change in too little time" (Toffler, 1971, p. 2).

Futurists accept change as an ingredient in social systems, but they would prefer to plan for it rather than to see it as inevitable and do nothing about it. Even so, Ogburn suggested that

> When material conditions change, changes are occasioned in the adaptive culture. But these changes

> in the adaptive culture do not sychronize exactly with changes in the material culture. There is a lag which may last for varying lengths of time, sometimes indeed for many years. (1973, p. 478)

Ogburn's thesis is,

> The unchanged adaptive culture was more harmoniously related to the old than to the new material conditions and that a new adaptive culture will be better suited to the new material conditions than was the old adaptive culture. (1973, p. 480)

There is also the suggestion that the culture cannot sustain materialistic invention which comes too fast or too rapidly for social development.

It is not to be construed that all futuristic theorists and researchers are agreed on the process or processes for planned change. In general, futurists are divided into two groups, "extrapolinationists," sometimes referred to as extrapolationists, and "utopians." On the one hand the former develops projections on the basis of trends, values, and directions which are already known and established to forecast possible futures. On the other hand, utopians maintain that technology can be controlled, and the affluence made possible by cybernation and automation enables mankind to determine his own goals and the priorities needed to attain them (Hoffman, 1974, p. 4). It may not be of particular importance for community and junior college educators to be identified as extrapolationists or utopians. What is important is for them to be able to

read the signs of change and plan for accommodation or adjustment as best fits their particular college or community needs.

Marien and Ziegler (1972, pp. 5-6) described three possible stances of planners and policy developers. They are as follows:

1. Preventive, the most prevalent form in education. It is characterized by crisis planning; lack of relationships to the whole; lack of knowledge about unintended consequences; and lack of knowledge of interacting factors. In viewing the future from a preventive stance, it is viewed as an extrapolation of the past.

2. Adaptive, the forecast is thought to be overwhelming and inescapable, that action is taken in the present to adapt to coming conditions, because preventive intervention is neither possible nor desirable.

3. Inventive, the key characteristic is the perception that the future is not predetermined. It is not an extrapolation of the past. It is an array of possible futures. Another characteristic is the future as the province of intentional action, choice, and invention.

While futurists are aware of the constancy of change in living social systems, they are deeply concerned about the disorientation and stress brought on by changes which come too quickly in the material culture.

Differences between conventional and futuristic planning

Shane makes five important differences between conventional planning and futuristic planning. They are as follows:

1. Futures planning takes into consideration the planner's examined values. Linear projections are deemphasized, while alternative solutions, relationships, cross-impacts, and unintended consequences are emphasized.

2. Good ideas are offered a better chance of survival in futuristic planning than in conventional planning because of its emphasis on alternative futures.

3. Conventional planning tends to be utopian, an improvement of the present. Futuristic planning anticipates genuinely different futures.

4. Conventional planning emphasizes statistical analyses and projections per se, as opposed to the considerations of unexpected developments and their consequences.

5. Futures planning emphasizes invention of probable futures as opposed to the reform of the past or an extension of the present (1973, p. 2).

Scanlon added another six principles which may be of particular assistance to community and junior college administrators and policy developers. These six principles are as follows:

1. Any plan which provides for future needs must be constantly revised and verified because of the sometimes sudden shifts in trends.

2. The wise planner or administrator always establishes a division between immediate problems and those which will become more pressing as time goes on.

3. It is of vital importance to establish the time factor between short-range and long-range planning goals. Predictive accuracy is greater in the former. The outer time limit for the latter should not generally exceed five years. As a rule of thumb, some institutions divert 25 percent of their resources to long-range endeavors and 75 percent toward activities of more immediate concerns.

4. An important factor in planning is goal focus. Who does what, when, and in what order is very important.

5. A close fit should exist between organizational planning and policy.

6. Considerable study should be given to the need of time for transition (1975, pp. 84-86).

Brodzinski, commenting on this approach, observed that "it proposes alternative ways to approach managerial tasks and suggests some expansion of the concept of management, particularly as it relates to planning" (1979, p. 21).

Tools

This researcher will not attempt to present an exhaustive list of tools used by futurists; rather, an attempt will be made to describe those tools which appeared to this researcher to be more widely used. They are as follows: human reasoning power; Delphi technique; trend extrapolation; cross-impact analyses; relevance trees; images and scenarios.

Human reasoning

It appears that by far the most valuable tool which futurists have at their disposal is human reasoning power. This is more so when futurists eschew the practice of conventional reasoning and are concerned with innovation, speculation, probing system breaks and counterintuitive conclusions and concepts.

In this connection, an idea becomes a powerful tool which is not always readily recognized. Cornish (1980, p. 100) observed that ideas "represent an extremely valuable resource and, from an economic standpoint, are often more important than raw materials, industrial plants, and manpower when it comes to earning money."

Our limitations are not within the material resources at our disposal. "Our major constraints on human achievement are not physical but conceptual" (Cornish, 1980), p. 101). What is desirable is

possible, if people can work together and develop a consensus about it.

Delphi technique

Gordon (1972, p. 169) described the Delphi technique as "a method of seeking a group consensus which avoids some of the problems of face-to-face confrontation." Delphi preserves anonymity at two levels. On the one hand, participants do not know the other participants who are involved in the Delphi exercise. On the other hand, opinions of participants are passed through an intermediary (Gordon, 1972, pp. 169-71). Lonsdale (1971), pp. 23-24) added two other conditions of Delphi. There are "conveyance of forecasts" and "protection or defense of the minority position."

The Delphi technique among the most widely used tools and was probably open to "improper affiliations" (Linstone, 1975, p. 584). In spite of this, Martino (1972, p. 32) concluded that the product of Delphi was superior to results obtained by conventional methods. Specifically, the results can be described quantitatively, and the user of Delphi has a greater understanding of what is going on. Dalkey's work suggested that with a panel no larger than fifteen, consisting of a cross section of experts in a given field, it was highly unlikely that another equally expert panel would produce a radically different median (1969, pp.

73-78). In spite of very strong evidence in support of the use of Delphi as a tool in futuristics, Weaver (1972, pp. 32-34) observed that there were weaknesses. "Consensus alone was not a sufficient condition for arguing that a forecast was plausible and convincing. It was not even a necessary condition." What Delphi lacks was "explanatory quality." Another weakness Weaver observed was a lack of discrimination between Delphi forecasts which were the product of hope and those that were probable. He continued, that to be able to discriminate was important because hope and desirability interfered with and to a considerable extent influenced judgments about future events.

A further observation by Weaver was that "in the absence of actually knowing in detail what the future would be, one could either guess or judge." He concluded that at this time Delphi lacked the discrimination to determine if a forecast was the result of guessing or judgment. In spite of these weaknesses, Weaver concluded that Delphi in combination "with other tools was a very potent device for teaching people to think about the future of education, in much more complex ways than they ordinarily would" (1972, pp. 32-34).

Trend evaluation

This technique requires an analysis of past and present trends in order to predict future trends.

Central to trend extrapolation is the concept of continuity. Martino (1973, p. 107) explained that

> . . . if in some area of technology, there has been continuous progression of technical approaches, each one surpassing the limitations of the previous one, it is not unreasonable to expect the rate of innovation to continue. To argue the contrary, in fact, is to say that the present is a point of discontinuity.

That is to say, that future trends will follow past conditions.

Pulliam and Bowman (1976, p. 11) observed that the major problem with trend extrapolation was the selection of parameters. They suggested that parameters should meet at least four criteria:

1. Parameters should be capable of quantification

2. Parameters should provide sufficient historical data

3. Regularity of parameter patterns should be established.

4. Determination should be made about past trends and interrelationships between past and present parameters

In spite of some problems connected with trend extrapolation, Brown (1974, p. 278) cautioned that with care, whether used by itself or in combination with other tools, it was useful to the educator in the solution of problems dealing "with group behavior,

personnel flow, material availability, or financial resources."

Cross-impact analyses

Cross-impact analyses is a systematic way of examining the interaction among a set of activities or forecasts. In the examination one must determine how activities affect each other. Do they "enhance or diminish," "advance or delay," "necessitate or obviate"? This is referred to as the "mode" of the interaction. The "force" of the interaction must also be determined; for example, is it "weak or strong." In addition, the "time lag" must be determined in an effort to know if the cross impact is "immediate" or "distant," and whether the influence dies out after a period of time (Martino, 1973, pp. 271-72). Another factor which Hudspeth (1974, pp. 115-16) introduced was "probability of occurrence." This was of particular importance to long-range planners and policy makers, for the probability of an event occurring could significantly alter a future state.

It appeared clear that cross-impact analysis was a useful tool in data analyses and the manipulation of event relationship. The application of the computer to this technique makes it that much more useful.

Relevance trees

McGrath (1974, p. 73) described a relevance tree

as "a commonly used method of normative forecasting that may be likened to a pathway to the future. The focus is how to reach a predetermined goal or avoid an undesirable one by directing a sequence or a hierarchy of events in the pathways to the future." Other characteristics of relevance trees are: branches extending downward from a mode must be a closed set of events; branches extending downward must be mutually exclusive; the tree must be viewed as a set of goals and subgoals; and the process works backwards from a set of goals to the present situation.

Martino (1972, pp. 290-92) observed that the relevance tree was most commonly used for description rather than normative processes and was useful in listing alternative problems as well as alternative solutions. Jantsch (1972, pp. 87-89) considered relevance trees "the only systematic approach in use linking the entire range of levels," as well as "fully applicable to technological forecasting within a range of 10-15 years."

Images

Futurists find that images of the future are very essential to the creation of alternative futures. Polak (1976, p. 11) described "images of the future" as

> . . . those condensed and crystalized expectations prevailing among peoples in certain periods and

> developed in systematic projections toward the future. They may be of a transcendental--religious character, pertaining mainly to the end of time or the last things, or they may concern themselves mainly with social humanitarian ideals for the good of society on earth.

Havinghurst (1973, p. 3) expressed essentially a similar idea when he described images as "more or less disciplined speculations or expectations that express my hopes and fears about the future." To be useful, images must possess certain characteristics. An essential one is the "awareness of ideal values" (Polak, 1975, p. 13). Essentially, the value is but a guide to that future which constantly reflects and reinforces itself. Cornish (1980, pp. 101-2) described images of the future as "ideas about the future world," and explained that they "are the blueprints that we use in constructing our lives, and the blueprints may be more important than the materials we work with in determining our success and happiness."

Images of the future must possess certain characteristics. Bundy (1976, p. 27) made this observation: ". . . for an image of the future to have some real value, it must appear capable of being lived, and not merely desired--not only by the individuals who believe in it but by the social body as a whole."

The image of the future may be expressed in a single "image or metaphor" or because of the richness of

reality may be expressed in "complementary metaphors" or images. For example, consider the various images of man: man as an "economic animal"; "man as a physiological motivated mechanism"' "man as a psychological conditioned animal"; "man as a free being': or "man as a transcendental being" (Harmon, 1976, pp. 89-90).

Images are essentially mythological in content, but they are not wishful thinking. They must find root in the consciousness or experience of a people or institution and they must express hope. Hope is an emotion, a positive attitude which expresses itself in the belief of what the future will be like. An image resides not in the past or the present. Its domain is the future, from where it beckons to become a reality. To become a reality an image must have a reasonable hope of fulfillment (Green, 1976, pp. 40-42).

Scenario

The scenario is a much-used tool in the forecasting of alternative futures and is usually a study of possible futures. Jantsch (1969, p. 180) described the term scenario writing as

> . . . a technique which attempts to set up a logical sequence of events in order to show how, starting from the present or any given situation, a future step might evolve, step by step. The purpose is not to predict the future, but systematically to explore branching points dependent on critical choices.

The characteristics of scenario writing are:

"plausibility," "self-consistency," "inclusion of all critical relevant factors," and "similarity to other scenarios in form and scope" (Vanston, Jr., Feisher, Lopriato, & Poston, Jr., 1977, pp. 159-62).

Sage and Chobot (1974, p. 163) suggested that the generation of a scenario places a great deal of emphasis on the expertise, reputation, and creditability of the individual researcher or group generating the scenario, than on the methods of data manipulation employed. Abt, Foster, and Rea (1973, p. 192) suggested other techniques for generating scenarios. They are as follows: "consensus techniques, iteration through synopsis and cross-impact matrices."

The Delphi technique would and could meet the requirement of consensus techniques and discussion has already been forwarded on cross-impact analyses. Left for some clarification is iteration through synopsis. Basically this method is designed to increase consistency among disciplines as they relate to each other in scenario development.

Summary

The purpose of this chapter was to search the literature to determine what were the components of futuring. In the process, futuring was defined as the study of the future--the future of individuals, business and industry, government or education.

Futuring has purpose or mission, which is to investigate trends and trend values brought about by change. The mission was predicated on the assumption that something ought to be known about the future and that futuring is a legitimate frame of reference for investigation.

The objectives of futurism are as follows:

1. To study trends and trend values and help people and managers of business and industry, government, or education to prepare for them.

2. To approach futuring in a holistic manner, that is, to be concerned with a wide range of interrelationships

3. To be aware that there is not one future but many futures and that intervention and invention are tools used in the development of alternative futures

4. Futuring is concerned with today's actions because they are a mirror of tomorrow's consequences.

Futuring can be traced back to the utopian tradition of Western culture. It can be shown that its impetus derives from such elements as Plato's Republic, the Utopia of St. Thomas Moore, the Christians' belief in the imminence of the second coming of Christ, and in more modern times, Comptian industrialsm, Marxian socialism, or Post-Industrial Society.

Science fiction provided important ingredients for the growth and development of futuring. It caught the popular imagination, and the populace experienced vicariously what was possible in the future before it actually occurred.

Futurism in the United States developed in stages. A significant beginning was the commissioning of the Study Toward New Beginnings, by the U. S. Commanding General, H. H. Arnold in 1944. In 1965 the United States Academy of Arts and Sciences commissioned the study of the year 2000 and Edward Cornish founded what later became the Futurist in 1966.

Shane identified four stages in the development of futurism. These were as follows: phase I, linear planning, characterized by the use of various data elements, and was represented as the period up to the mid-1960s; phase II, alternative futures, characterized by a shift from linear planning to the concept of an infinite number of futures, covered a period from about 1966 to 1972; phase III was the period extending from 1972 to 1975 and was identified with cross-impact analyses or interrelationships; phase IV was the period extending from 1975 onward, and its chief contribution was intervention.

Futurism and planning are grounded in systems theory. Schools and colleges were shown to be living

social systems which possessed the characteristics of organizational equilibrium, entropy and other characteristics common to living social systems.

Futurists may be identified as extrapolationists or as utopists, but they are in general agreement in proposing planned change as a way of managing change in living social systems. They recognize various responses to planned change, such as "preventive," "adaptive," and "inventive." The inventive response to change was proposed by futurists as the method of managing planned change by educators or policy developers.

There are differences between conventional planning and futuristic planning. They are as follows:

1. Conventional planning emphasizes linear projections, while futuristic planning emphasizes alternative solutions, relationships, cross-impacts, and unintended consequences.

2. Good ideas have a better survival rate in futuristic planning than in conventional planning because of the former's emphasis on alternative solutions.

3. Conventional planning tends to anticipate the future as an improvement of the past. Futuristic planning envisions alternative futures.

4. Conventional planning focuses on statistical analyses and projections per se, as opposed to

invention, unexpected consequences and their developments.

Some of the tools of futurism are as follows: human reasoning, the Delphi technique, trend extrapolation, cross-impact analyses, relevance trees, images, and the scenario. This is by no means an exhaustive list, but rather a sample of the tools very much in use by many futurists.

CHAPTER III

METHODOLOGY

As stated in chapter I, the purpose of this study was (1) to examine the extent to which community and junior college administrators were engaged in futuring, (2) to identify the extent of present practice, and (3) to describe some of the best elements and practices which are available.

This chapter presents a description of the population and the sampling procedures used in the study; the design and testing of the research instrument; the procedures used in collecting the data; the methods used in analyzing the collected data; and the methods used in the presentation of the data.

Research Design

In order to accomplish the purpose of this study, it was necessary to conduct a thorough review of the literature as it related to the problem as stated in chapter I. This led to the identification of four elements which are essential to futuring and to the construction of a questionnaire. The four elements are as follows:

1. The impact social trends are expected to have on community and junior colleges over the next decade

2. Alternative images of community and junior colleges, their feasibility and desirability

3. Present engagement in futuring practices and the importance given to them

4. Present and 1985 goal priorities

The first element, social trends, consisted of eighteen statements. Community college administrators were asked to rate on a Likert scale from "no impact at all (1)" to "very major impact (5)," the expected impact during the next decade on the community college. (These eighteen statements are listed in appendix A.

The second element consisted of six alternative images of the community college. Each alternative image required two responses, one addressed to its feasibility and the other addressed to its desirability. Each of the two responses to each alternative image was rated on separate Likert scales from "not at all feasible (1)" to "very feasible (5)." (The alternative images are presented in appendix A.

The third element of the questionnaire was aimed at futuring processes which were used by community college administrators. These five futuring processes included (1) the identification of social and community

trends which will have an impact on college development, (2) identification of alternative images of the future of the college, (3) determination of major college strengths and areas for improvement, (4) the establishment of long-term action priorities, and (5) writing of "scenarios" or stories which describe how the college will take action on priorities over time.

Community college administrators were asked to check "yes" or "no" beside each futuring activity in which the college was engaged. Community college administrators were also asked, "How important do you feel it is to do so?" and to rate each response on a Likert scale rated from "not at all (1)" to "very important (5)." (This material is presented in appendix A.

The fourth element of the questionnaire dealt with institutional goal priorities. Nineteen such goals were identified. Community and junior college administrators were asked to rate each goal on its priority to the college "at the present time," and "What priority do you feel this goal will have in 1985?" Each goal was rated on a Likert scale from "Low priority (1)" to "Top priority (5)," for the "present time" and for "1985." These nineteen goals are presented in appendix A.

The Sample and Sampling Procedures

With the assistance of my adviser and Dr. Gundar Myran, a questionnaire was constructed. It was sent to a panel (see appendix B) of experts to be validated. When it was returned, this researcher, with the assistance of his advisor, revised the questionnaire and mailed it to a national sample of 303 community and junior colleges selected from the 1979 Community, Junior and Technical College Directory. In selecting the sample, the first college was drawn randomly, then a systematic selection was made from all the colleges represented in the continental United States. The result was that each of the ten regions cited in United States Department of Health, Education and Welfare Regional Boundaries and Headquarters publication was represented. The composition of the regions are different from those used by Bushnell and Zagaus (1972, p. 163) and Landsburg (1975, p. 57). (A listing of the regions is given in appendix C).

The 1979 Community, Junior and Technical College Directory was also used to secure the names of the chief administrative officer of each college within the sample. The chief administrative officers bore titles such as, President, Dean, Provost, Chief Administrator, College Director, Chancellor, and Superintendent. The purpose of identifying the chief administrators was to

request their participation in the study by filling out the questionnaire and returning it.

In an effort to secure the greatest possible return of completed questionnaires, five steps were taken as follows:

1. Dr. Gundar Myran, President of Washtenaw Community College, and President of the Combase Consortium, which is made up of about twenty-five community colleges, secured the sponsorship of this study by that organization. He then wrote a letter on Washtenaw Community College stationery in support of the study, as well as to encourage his colleagues, the chief administrators, to participate in the study by filling out the questionnaire and returning it. (See appendix D.

2. On November 3, 1979, the secretary of each chief administrative officer in the sample was mailed a letter which briefly explained the nature of the study and asked for assistance in getting the questionnaire before the chief administrator and mailing it back when it was completed. One secretary responded that the researcher "was a wise man, politically astute." (See appendix D.

3. The questionnaire was mailed to each chief administrator in the sample. Enclosed with the questionnaire was a letter by Dr. Gundar Myran which briefly

explained the nature of the study and related futuring to long-range planning. Included also was a stamped addressed envelope for the return of the completed questionnaire. Chief administrators were urged to participate in the study as the findings could be useful to them in policy development and planning. Of the 303 questionnaires which were sent out, no responses were received which questioned the value of the study or were critical of it in any manner.

4. A follow-up letter dated January 16, 1980 was mailed to the chief administrators who had been sent the questionnaire. Included with this letter was a return stamped addressed envelope. The letter reminded the chief administrators about the nature of the study, reported on the responses to the questionnaire, and encouraged those administrators who had not already completed the questionnaire and returned it, to do so in order for the validity of the study to be assured. (See appendix D.) The first, second, third, and fourth steps accounted for 88 percent, or 194 of the questionnaires returned.

5. A second follow-up letter dated February 12, 1980, stressed that the researcher and Dr. Gundar Myran desired "to have a maximum response from the colleges we had selected for our sample," and "we are taking the liberty of sending this one last reminder." We

professed understanding, "if you are too busy to respond." (See appendix D.) This letter resulted in 12 percent, or twenty-seven of the completed questionnaires returned. This brought the complete return to 221, or approximately 73 percent of the sample.

Methods of Data Analysis

The questionnaires were coded and the data were punched on computer cards. A Sigma 6 computer was used to analyze the data. The computer was programmed to provide simple desriptive statistics as well as categorical scaling. The categorical scales were transformed into interval scales for ease of comparison among regions and school sizes. (Interval scales are listed in appendix E and colleges grouped according to size in appendix F.)

Discriminant analysis was used to determine if the variables acted in such a manner as to separate the regions into groups on the basis of social trends, future images, futuring processes, present goal priorities, and priorities for 1985, as well as on the basis of whether community and junior colleges were grouped as small, medium, and large.

Chi-square was used to determine if there was significant difference among community and junior college administrators among the regions in their responses to each question on the questionnaire.

Pearson's Product Moment Correlation Coefficients

was used to determine if there were correlations among the regions with respect to social trends, future images, futuring processes, and present goal priorities and priorities for 1985.

Presentation of the Data

The questionnaire consisted of four sections as follows: (1) the expected impact of social trends on community and junior college development; (2) future images of the community and junior college, their feasibility and desirability; (3) the present engagement in futuring processes and their importance, and (4) the ranking of institutional goal priorities for the present and for 1985.

For all four sections of the questionnaire scale values were generated by a computer program and then transformed into interval scales. Tables were used to present the data graphically and were supported by written description. Comparisons were made among the variables, the ten regions, and colleges grouped according to size.

The values generated by the categorical scaling program were used in Pearson's Product Moment Correlation Coefficients and in discriminant analysis. The number of respondents to each question by region and response scale (1-5) were used in the chi-square

analysis to determine if there was a relationship between the regions and the type of responses. This was repeated for colleges grouped according to size. The data were gathered and analyzed, the report is what follows.

CHAPTER IV

RESULTS OF THE STUDY

This investigation is an exploration of the status of futuristics in community college administration in the ten regions of the United States of America. More specifically, the study is concerned with the extent to which social trends have an impact on the development of the community college, images of the community college, futuring processes, and present and future goal priorities which are used in the planning and development of the community college.

The results of the data generated by this study have been grouped and presented as follows:

1. The generation of scale values and the development of interval scales to determine the expected impact of social trends on community college development, the feasibility and desirability of images of the community college, present use and importance of futuring processes, and goal priorities for the present and 1985.

2. Pearson's Product Moment Correlation Coefficients on the regions and variables as listed above.

3. Discriminant analysis among the regions on the variables listed above.

4. Chi-square analysis on the above-mentioned regions and variables.

Scale Values Social Trends

Scale values were generated by the Categorical Scaling procedure, which enabled the eighteen trends to be placed along an interval scale. This procedure was undertaken for each of the subgroups, namely, futuring processes, future images, present goal priorities, and goal priorities for 1985, to enable comparisons to be made among the regions, and colleges grouped according to size. The scale values were adjusted in each case to range from zero for the least important trend to ten for the most important.

Respondents from each of the ten regions rated the eighteen trends. The scale values resulting from the categorical rating procedure are shown in tables 1 and 2, and interval scales are shown in appendix E.

Eighteen social trends were presented to community college administrators in the ten regions of the United States as having the potential to impact on community college development. Two trends emerged above level six on the unit interval scale as having an impact on community college development. These were: (1) energy shortages, and (2) advances in science and

TABLE 1

SCALE VALUES FOR TRENDS--BY REGIONS

	Trends	Region									
		1	2	3	4	5	6	7	8	9	10
1	Diversification of life styles	3.45	4.46	.98	1.40	2.82	.48	0	6.88	4.95	4.11
2	Advances in science and technology	10	7.92	7.62	10	6.42	7.56	5.50	10	6.40	5.63
3	Energy shortages	8.69	10	10	8.31	10	10	10	5.69	10	10
4	Women in most career fields	6.49	3.51	7.65	6.66	5.10	4.18	5.20	2.30	6.78	8.83
5	Changes in family life	3.90	1.80	5.31	4.36	3.14	.42	3.34	2.34	3.53	5.56
6	Advances in communications	6.91	6.91	5.53	7.80	2.88	6.58	4.76	.55	4.71	5.75
7	Tendency toward centralized govern. control	5.81	8.53	2.00	3.68	2.93	7.23	5.08	2.42	8.75	5.42
8	Alienation, loss of personal control	2.68	4.94	.05	0	.48	.34	.75	0	2.20	2.87
9	Citizen participation in community decisions	0	3.73	.18	3.06	2.22	2.60	2.64	6.53	3.35	6.43
10	End of "youth culture," begin "adult culture"	4.28	8.62	5.60	5.79	4.00	5.95	4.91	7.31	5.25	8.83
11	Changes in the nature of work	7.61	6.25	5.39	6.61	4.48	4.72	4.61	5.54	6.65	8.79

TABLE 1--Continued

Trends	Region									
	1	2	3	4	5	6	7	8	9	10
12 Diminution of higher education for job entry and security	3.00	1.11	.70	5.41	3.20	4.13	2.68	1.01	2.85	2.29
13 From governmental services to self-reliance	2.98	0	0	1.93	0	3.20	1.70	.56	0	0
14 From conformity to individual self-expression	2.64	4.11	.95	3.79	.63	0	1.51	2.30	.17	4.11
15 From large-scale to small-scale technology	5.02	2.40	1.41	2.99	3.25	1.37	2.01	.80	1.68	.31
16 From job security to varied life experiences	3.24	3.50	.59	3.37	2.12	.47	3.98	5.07	1.82	4.86
17 From consumption to conservation	5.21	5.22	5.98	2.93	4.31	5.09	5.09	4.01	7.98	6.47
18 From work- to leisure-oriented society	3.90	4.16	2.99	.93	1.90	4.05	2.28	6.28	5.58	5.56

TABLE 2

SCALE VALUES FOR TRENDS--BY COLLEGES GROUPED ACCORDING TO SIZE

	Trends	Colleges grouped according to size		
		Small	Medium	Large
1	Diversification of life styles	1.21	3.41	2.54
2	Advances in science and technology	7.27	5.45	5.18
3	Energy shortages	10	10	10
4	Women in most career fields	5.25	5.24	4.49
5	Changes in family life	2.20	3.82	.93
6	Advances in communications	4.96	4.28	3.63
7	Tendency toward centralized government control	3.44	5.44	7.73
8	Alienation, loss of personal control	0	.47	.14
9	Citizen participation in community decisions	1.43	1.49	.35
10	End of "youth Culture," begin "adult culture"	4.33	5.05	6.18
11	Changes in the nature of work	5.90	4.50	3.94
12	Diminution of higher education for job entry and security	2.50	2.39	4.40
13	From governmental services to self-reliance	.36	0	.69
14	From conformity to individual self-expression	.78	1.17	0
15	From large-scale to small-scale technology	2.07	2.54	.66
16	From job security to varied life experiences	1.62	2.94	.55

TABLE 2--Continued

Trends	Colleges grouped according to size		
	Small	Medium	Large
17 From consumption to conservation	5.26	6.02	5.17
18 From work- to leisure-oriented society	1.75	3.51	4.33

technology. At the third to sixth level on the unit interval scale, six other trends emerged: (1) a value shift from consumption to conservation, (2) entry of women into most or all career fields, (3) changes in the nature of work, (4) end of "youth culture," beginning of an "adult development culture," (5) advances in communications, and (6) tendency toward centralized government control.

The other ten social trends were at the 2.9 level on the unit interval scale or below. These trends were as follows: (1) diminution of higher education certification as the means for job entry and security, (2) change in family life (two-income families, single-parent families), (3) from a work-oriented to a leisure-oriented society, (4) from large-scale to small-scale technology, (5) from job security to varied life experiences, (6) diversification of life styles, (7) citizen participation in community decision making, (8) from

conformity to individual self-expression, (9) feelings of alienation, loss of personal contact, and (1) from governmental services to self-reliance.

All ten regions did not agree that energy shortages and advances in science and technology would have the greatest impact on community college development. Regions seven and ten did not think advances in science and technology would have much impact on community college development, and similarly, region eight downgraded the impact of energy shortages.

While the national picture showed two trends as having an impact at the sixth level or above on the unit interval scale, the average for the regions was 4.6 trends, with region ten expecting eight trends to have major impacts and region seven expecting only one.

In table 2 community colleges are compared according to size of college on social trends. The picture as seen among the regions remained quite similar, although three social trends were added to the list of important ones. These were as follows: (1) tendency towards centralized government control, (2) end of "youth culture" and the beginning of an "adult development culture," and (3) changes in the nature of work. Medium and large schools placed emphasis on tendency towards centralized governmental control and end of "youth culture," beginning of an "adult developmental

culture," while small schools placed emphasis on changes in the nature of work.

The picture remained very constant when the lowest ranked social trends among the regions were compared with the lowest ranked social trends according to community college size. One social trend was added to the list ranked lowest by the regions: changes in family life (two-income families, single-parent families).

Future images: feasibility and desirability

In a similar manner, scale values were generated for the feasibility of specific future images with respect to each of the regions and with colleges grouped according to small, medium, and large.

Respondents from each of the ten regions rated the feasibility of six future images. The scale values resulting from the categorical scaling procedure are shown in tables 3, 4, 5, and 6, and interval scales are shown in appendix E.

The predominant feasible image of the community college was one of the community-based college. However, several regions of the country, such as regions 2, 3, 5, 6, and 10, held multiple images of the community college which they ranked very closely. The view of community college administrators in the ten regions was that the development-based college was least feasible.

TABLE 3

SCALE VALUES FOR FUTURE IMAGES: FEASIBILITY

Future Images	Regions										National
	1	2	3	4	5	6	7	8	9	10	
Life-based college	10	9.14	8.15	4.60	8.49	0	5.02	8.9	4.94	8.94	5.51
Learning-based college	4.88	8.42	8.37	5.94	7.19	9.45	7.37	1.41	7.04	10	5.94
Career-based college	3.51	9.43	0	4.83	9.52	8.84	8.84	3.58	10	8.00	7.92
Consumer-based college	1.40	2.19	9.45	3.62	8.71	10	0	0	5.84	0	5.98
Development-based college	0	0	10	0	0	6.11	10	5.94	0	7.90	0
Community-based college	8.04	10	9.73	10	10	9.13	5.80	10	4.22	9.25	10

Table 4 shows the scale values for the feasibility of future images grouped according to community and junior college size.

TABLE 4

SCALE VALUES FOR FEASIBILITY OF FUTURE IMAGES: BY COLLEGES GROUPED ACCORDING TO SIZE

Future Images: Feasibility	Colleges grouped according to size		
	Small	Medium	Large
1 Life-based college	7.71	8.74	4.70
2 Learning-based college	7.06	8.33	9.11
3 Career-based college	7.73	10	10
4 Consumer-based college	7.04	8.94	8.35
5 Development-based college	0	0	0
6 Community-based college	10	8.99	8.42

When viewed according to community college size, small community colleges found the image of the community-based college most feasible, community and junior colleges grouped as medium and large viewed the career-based college as most feasible. Like the regions, community and junior colleges grouped according to size, ranked other future images of the community college very high. In table 5 are the scale values for the

TABLE 5

SCALE VALUES FOR FUTURE IMAGES: DESIRABILITY

Future Images	Regions										National
	1	2	3	4	5	6	7	8	9	10	
Life-based college	9.99	10	8.43	7.65	9.37	10	4.75	0	0	1.10	3.36
Learing-based college	8.37	7.14	0	6.52	8.86	9.62	6.57	1.63	8.49	1.22	1.37
Career-based college	9.06	6.80	10	6.45	9.09	0	5.98	.79	10	1.22	3.54
Consumer-based college	10	8.49	8.70	0	9.34	9.67	3.17	.68	7.67	.88	5.14
Development-based college	7.88	0	8.67	6.12	0	9.11	10	.73	8.06	0	0
Community-based college	0	8.14	9.53	10	10	9.75	0	10	8.55	10	10

desirability of future images of the community college from the regions. Interval scales are shown in appendix E.

An effort was made to determine if the feasible image of the community college was also a desirable one. The predominant view of community college administrators in the ten regions was that the image of the community-based college was the most desirable.

While the image of the community-based college was the most desirable one, yet many regions of the country reflected a multiple of images which appear to be desirable. These are as follows: regions one, two, three, five, and most noticeably, six.

The image of the community college which was considered least desirable among community college administrators in the ten regions was the development-based college. In table 6 are the scale values for the desirability of future images of the community college grouped according to size.

Community colleges regardless of size, considered the community-based college the most desirable. This was very much as the ten regions did, and like the ten regions, the several groups of community colleges (small, medium, and large) considered many future images as highly desirable. Community colleges grouped as small and large considered the image of the development-based college as least desirable while colleges grouped

as medium considered the image of the learning-based college as least desirable.

TABLE 6

SCALE VALUES FOR DESIRABILITY OF FUTURE IMAGES: BY COLLEGES GROUPED ACCORDING TO SIZE

Future Images: Desirability	Colleges grouped according to size		
	Small	Medium	Large
Life-based college	8.16	8.55	9.04
Learning-based college	7.48	0	9.04
Career-based college	7.74	9.66	9.73
Consumer-based college	7.98	8.40	9.61
Development-based college	0	7.61	0
Community-based college	10	.10	10

Futuring processes: present practice

An effort was made to determine two things: (1) if community college administrators were engaged in futuring processes, and (2) how important administrators felt the futuring processes to be. Futuring processes were described as efforts to identify social and community trends, alternative images of the future college, major college strengths and areas for improvement, long-term priorities, and the writing of scenarios.

A tabulation reveals that community college administrators were engaged in futuring practices in the following order: (1) identification of major institutional strengths and areas for improvement; (2) the identification of social and community trends which may have an impact on college development; (3) periodic and specific activities to identify major institutional strengths and areas for improvement; (4) establishing and recording long-term priorities for college development (using Delphi or other consensus-seeking techniques)/ (5) and writing "scenarios" (stories which describe possible year-by-year events which could happen as the college develops over the next decade. These data are presented in table 7.

Futuring processes: importance

Scale values were developed for the importance of futuring processes with respect to the regions and also for community and junior colleges grouped according to size. They are presented in tables 8 and 9. Interval scales are shown in appendix E.

Community college administrators in the ten regions ranked futuring processes in the following order of importance: (1) to engage in specific activities to identify major institutional strengths and areas for improvement; (2) to identify social and community trends which may have an impact on college development; and (3) to establish and record long-term priorities for

college development. Ranked fourth and almost equally as important as item three were efforts to examine alternatives open for future development and engage in dialogue designed to create shared "images" of the future of the college. Ranked fifth and last was the writing of scenarios.

TABLE 7

ORDER AND EXTENT TO WHICH FUTURING PROCESSES ARE USED IN COMMUNITY COLLEGES

Variable	Rank	Engage in activities at present	
		Percentage	
		Yes	No
Identification of major institutional strengths	1	89	11
Identification of social and community trends	2	71	29
Examination of alternatives for future development	3	59	41
Establish and record long-term priorities	4	53	47
Write scenarios	5	16	84

Administrators in all but regions seven and eight felt that the writing of scenarios (stories which describe possible year-by-year events which could happen as their college develops over the next decade),

TABLE 8

SCALE VALUES FOR FUTURING PROCESSES: IN IMPORTANCE

Future processes: importance of	Regions										National
	1	2	3	4	5	6	7	8	9	10	
1 A specific periodic effort to identify social and community trends which may have an impact on college development	8.48	7.23	8.49	6.59	8.08	8.87	7.05	10	7.89	9.78	7.82
2 Specific efforts to examine alternatives open for future development and engage in dialogue designed to create shared "images" of the future of the college	8.40	8.35	7.40	5.10	7.09	7.61	10	7.79	5.86	9.78	7.23
3 Periodic and specific activities to identify major institutional attempts and areas for improvement	10	10	10	10	10	10	6.48	9.68	10	10	10
4 Establishing and recording long-term priorities for college development (using delphi or other consensus-seeking techniques	8.70	6.29	6.81	4.32	7.70	8.26	0	9.81	6.54	9.78	6.95

TABLE 8--Continued

Future processes: importance of	Regions										National
	1	2	3	4	5	6	7	8	9	10	
5 Writing "scenarios," (stories which describe possible year-by-year events which could happen as your college develops over the next decade	0	0	0	0	0	0	7.68	0	0	0	0

were not at all important. In table 9 the responses of community college administrators are shown with respect to colleges grouped according to size.

TABLE 9

SCALE VALUES FOR FUTURING PROCESSES: BY COMMUNITY COLLEGES GROUPED ACCORDING TO SIZE

Future Processes: Importance	Colleges grouped according to size		
	Small	Medium	Large
1 A specific period effort to identify social and community trends which may have an impact on college development	8.10	7.23	9.82
2 Specific efforts to examine alternatives open for future development and engage in dialogue designed to create shared "images" of the future of the college	6.10	7.37	4.95
3 Periodic and specific activities to identify major institutional attempts and areas for improvement	10	10	10
4 Establishing and recording long-term priorities for college development (using delphi or other consensus-seeking techniques	6.57	6.02	6.81
5 Writing "scenarios," (stories which describe possible year-by-year events which could happen as your college develops over the next decade	0	0	0

When community and junior colleges were grouped according to size, they chose the futuring process of periodic and specific activities to identify major institutional strengths and areas for improvement as being of prime importance. Like the regions, they also considered scenario writing to be the least important futuring activity.

Present goal priorities

In a similar manner scale values were developed for present goal priorities with respect to the ten regions and community and junior colleges grouped according to size. Respondents from each of the ten regions rated the nineteen present goal priorities. The scale values resulting from the categorical rating procedure are shown in tables 10 and 11. Interval scales are shown in appendix E.

Looking at the administrator's responses to the nineteen present priority goals as a whole, three priorities emerge at or above level seven on the unit interval scale. These were as follows: (1) college transfer programs which enable students to work towards a four-year degree, (2) programs which provide adults with reading, writing, and math skills necessary to success in collegiate efforts, and (3) counseling programs which assist persons in determining career and other life goals.

Three present goal priorities emerge between

TABLE 10

SCALE VALUES FOR PRESENT GOAL PRIORITIES

Present goal priorities	Regions										National
	1	2	3	4	5	6	7	8	9	10	
1 Accessability to college programs, including those who cannot attend on-campus programs	6.79	7.76	8.76	4.02	7.99	7.52	8.05	6.50	8.21	5.10	5.99
2 Counseling programs which assist persons in determining career and other life goals	6.98	8.05	9.55	5.62	8.66	9.07	9.71	6.48	8.46	5.16	7.02
3 Programs which provide adults with the writing, reading, and math skills for collegiate efforts	8.53	9.47	.0	7.84	8.53	7.69	6.61	10	9.48	6.71	8.20
4 Instructional and counseling approaches to assist adults in various development stages or transitions	3.17	4.35	6.15	4.31	6.54	4.57	1.67	4.32	4.33	3.58	.81
5 Counseling programs to assist adults in adapting to college life	4.26	4.01	6.89	1.22	6.21	5.61	2.67	2.64	5.93	2.26	.08

TABLE 10--Continued

Present goal priorities	Regions										National
	1	2	3	4	5	6	7	8	9	10	
6 Programs to assist adults in the performance of adult life roles, such as worker, citizen, consumer, family member	3.92	6.50	4.35	.86	5.66	4.70	8.44	7.71	6.52	0	.40
7 Manpower programs to assist adults achieve career goals and contribute to economic development of area	6.63	7.61	7.30	5.44	9.44	7.09	10	4.89	10	6.71	6.31
8 College transfer programs	10	10	9.01	10	10	10	9.81	8.54	9.77	6.92	10
9 Short-term community services programs to assist adults in improving skills in various life role areas	2.84	4.76	8.61	7.15	8.28	6.84	6.21	8.54	6.52	4.24	5.04
10 Individualized instruction through contract learning, T.V. and audio-tutorial	2.19	2.26	6.88	.63	4.87	3.65	7.16	6.50	5.51	1.72	.80
11 Results-oriented instruction based on specified learning outcomes	3.49	.35	7.25	2.60	6.47	3.24	3.60	3.44	5.30	.82	.11
12 Retirement and pre-retirement programs	0	0	3.69	0	3.85	3.05	7.50	7.73	4.41	4.24	4.55

TABLE 10--Continued

Present goal priorities	Regions										National
	1	2	3	4	5	6	7	8	9	10	
13 Programs to assist homemakers enter or re-enter the work force	4.89	3.22	6.51	2.39	5.60	4.07	9.75	8.54	7.02	10	1.43
14 Continuing education programs for those in health and other human service fields	5.19	2.12	6.38	2.85	6.26	5.14	6.68	8.92	6.73	5.82	2.33
15 Programs to assist in the preparation for second careers	3.41	1.75	7.03	2.95	6.00	2.52	2.90	6.02	6.82	2.26	.73
16 Programs in cooperation with other community agencies and groups which assist in solving contemporary community problems	4.01	1.13	3.81	1.12	5.13	1.90	.15	3.85	3.24	.19	0
17 Instructional programs based on an international perspective	4.81	4.90	0	1.42	0	0	3.2	0	0	1.99	.14
18 Programs which emphasize service to minority groups	4.65	5.75	7.82	2.37	5.34	5.03	4.10	3.02	7.02	5.34	.73
19 Joint programming with labor unions, industries, and other community groups and agencies	3.76	1.60	7.65	.95	6.19	3.57	0	3.85	6.59	1.99	0

levels 3.1 on the unit interval scale and 6.9. They are as follows: (1) manpower programs to assist adults achieve career goals and contribute to the economic development of the area, (2) accessibility to college programs including those who cannot attend on-campus programs, and (3) short-term community services programs to assist adults in improving skills in various life roles.

There were twelve goals which were at level three or below on the unit interval scale. These were as follows: (1) programs in cooperation with other community agencies and groups which assist in solving contemporary community problems, (2) continuing education programs for those in health and other human service fields, (3) instructional and other counseling approches which assist persons at various adult development life stages or transitions, (4) individualized instruction through approaches such as contract learning, television, and audio-tutorial instruction, (5) programs to assist homemakers to enter or re-enter the work force, (6) programs which emphasize services to minority groups, (7) programs which enhance the ability of the adult to perform adult life roles, such as worker, citizen, consumer, and family member, (8) counseling programs which assist adults in adapting to college life, (9) results-oriented instruction based on specified

learning outcomes, (10) programs which assist people in preparing for second careers, (11) instructional programs based on an international perspective, and (12) joint programming with labor unions, industries, and other community agencies or groups.

Unlike the national picture, some regions showed a distinct regional view in terms of number of present goal priorities and different goal priorities. For example, region ten chose as its highest present priority, programs to assist homemakers enter and re-enter the work force. This was the only goal priority which emerged at or above level seven on the unit interval scale. Two other important programs, college transfer programs, and programs to provide adults with writing, reading, and math skills for collegiate efforts, were rated below the above-mentioned level.

Regions three and seven were very unlike the national profile in that whereas, the national profile ranked three goal priorities at levels seven to ten on the unit interval scale, these regions registered as many as nine priorities between the same levels on the interval scale. The present goal priorities included the three in the national profile and six others. Further details are given in appendix E.

In a similar manner scale values were developed for present goal priorities with respect to colleges

grouped according to size. The scale values from categorical procedure are shown in table 11.

TABLE 11

SCALE VALUES FOR PRESENT GOAL PRIORITIES: BY COLLEGES GROUPED ACCORDING TO SIZE

Present goal priorities	College grouped according to size		
	Small	Medium	Large
1 Accessability to college programs, including those who cannot attend on-campus programs	7.89	8.55	7.98
2 Counseling programs which assist persons in determining career and other life goals	8.85	10	6.85
3 Programs which provide adults with the writing, reading, and math skills for collegiate efforts	9.32	9.98	8.30
4 Instructional and counseling approaches to assist adults in various development states or transitions	6.36	6.14	3.73
5 Counseling programs to assist adults in adapting to college life	5.62	6.21	5.65
6 Programs to assist adults in the performance of adult life roles, such as worker, citizen, consumer, family member	5.48	5.44	6.64
7 Manpower programs to assist adults achieve career goals and contribute to economic development of area	7.97	9.38	10

TABLE 11--Continued

Present goal priorities	Colleges grouped according to size		
	Small	Medium	Large
8 College transfer programs	10	9.84	9.50
9 Short-term community services programs to assist adults in improving skills in various life role areas	7.88	8.42	8.05
10 Individualized instruction through contract learning, T.V., and audio-tutorial	5.33	6.13	5.34
11 Results-oriented instruction based on specified learning outcomes	5.85	5.88	3.91
12 Retirement and pre-retirement programs	3.95	4.52	5.62
13 Programs to assist homemakers enter or re-enter the work force	5.91	7.30	6.85
14 Continuing education programs for those in health and other human service fields	6.45	6.84	6.54
15 Programs to assist in the preparation for second careers	6.07	6.20	6.18
16 Programs in cooperation with other community agencies and groups which assist in solving contemporary community problems	4.85	4.05	3.38
17 Instructional programs based on an international perspective	0	0	0
18 Programs which emphasize service to minority groups	5.46	7.41	6.75
19 Joint programming with labor unions, industries, and other community groups and agencies	5.45	6.32	5.85

When community college administrator's responses were grouped according to community and junior college size, approximately twice as many goal priorities for the present were found at level seven or above on the interval scale in colleges of all sizes as compared to the national profile which had only three. Colleges grouped as small and medium cited the same three top priorities as were cited in the national profile, with colleges grouped as small, adding three more goal priorities for the present to round out their list of priorities. Colleges grouped as medium, added five others. Colleges grouped as large did not choose as many present goal priorities as colleges grouped as small and medium. They dropped counseling programs to assist in the determination of other life goals, but included, like colleges grouped as small and medium, manpower programs to assist adults achieve career goals and contribute to the economic goals of the area; short-term community services programs to assist adults in improving skills in various life role areas; and accessibility to college programs including those who cannot attend on-campus programs.

Goal priorities for 1985 by region and by size

In a similar manner, scale values were developed for goal priorities for 1985 with respect to the ten regions and community and junior colleges grouped

according to size. Respondents from each of the ten regions rated the nineteen goal priority statements for 1985. The scale values from the categorical procedures are shown in tables 12 and 13. Interval scales are shown in appendix E.

The regional view of community college administrators of the nineteen priorities for 1985 taken as a whole reveals twelve goal statements which were at level 7 of the unit interval scale or above. These were as follows: (1) instructional and counseling approaches which assist adult persons at various adult development stages or transitions, (2) college transfer programs which enable students to work towards a four-year degree, (3) programs which provide adults with writing, reading, and math skills necessary to successfully undertake collegiate efforts, (4) counseling programs which assist persons in determining career and other life goals, (5) programs in cooperation with other community agencies and groups which assist in solving contemporary community problems, (6) programs which assist people in preparing for second careers, (7) short-term community service programs which permit adults to improve skills in various life-role areas, (8) individualized instruction through approaches such as contract learning, television and audio-tutorial instruction, (9) results-oriented instruction based on specified learning outcomes, (1) programs for retired persons and

TABLE 12

SCALE VALUES FOR GOAL PRIORITIES 1985

Goal priorities 1985	Regions										National
	1	2	3	4	5	6	7	8	9	10	
1 Accessibility to college programs, including those who cannot attend on-campus programs	.01	0	0	0	0	0	10	0	0	0	0
2 Counseling programs which assist persons in determining career and other life goals	6.77	9.43	8.99	8.37	9.22	8.23	7.39	8.87	8.20	9.05	9.13
3 Programs which provide adults with the writing, reading, and math skills for collegiate efforts	6.60	8.64	9.08	9.65	10	9.86	9.12	8.87	7.91	8.34	9.24
4 Instructional and counseling approaches to assist adults in various development stages or transitions	8.31	10	10	9.61	8.66	10	7.18	10	8.31	7.15	10
5 Counseling programs to assist adults in adapting to college life	4.87	6.70	8.64	7.68	8.31	8.52	4.63	6.38	5.42	6.33	7.50

TABLE 12--Continued

Goal priorities 1985	Regions										National
	1	2	3	4	5	6	7	8	9	10	
6 Programs to assist adults in the performance of adult life roles, such as worker, citizen, consumer, family member	8.53	7.77	8.19	5.68	7.75	7.57	5.56	4.41	5.91	7.48	6.80
7 Manpower porgrams to assist adults achieve career goals and contribute to economic development of area	3.80	7.58	6.97	6.51	7.40	6.67	8.47	6.73	6.50	4.99	6.59
8 College transfer programs	10	9.71	8.69	10	9.72	6.95	8.30	9.54	10	10	9.57
9 Short-term community services programs to assist adults in improving skills in various life role areas	5.00	7.77	7.93	9.05	8.25	8.10	8.47	6.73	6.99	7.73	7.97
10 Individualized instruction through contract learning, T.V. and audio-tutorial	4.00	7.83	8.90	9.31	9.45	8.13	8.11	8.35	5.92	7.73	8.02
11 Results-oriented instruction based on specified learning outcomes	1.37	8.01	8.39	7.41	8.76	7.13	6.06	8.18	6.74	9.07	7.76
12 Retirement and pre-retirement programs	7.90	8.75	8.42	7.36	9.33	6.61	5.40	8.05	6.90	5.97	7.79

TABLE 12--Continued

Present goal priorities	Regions										National
	1	2	3	4	5	6	7	8	9	10	
13 Programs to assist homemakers enter or re-enter the work force	.69	6.84	6.03	6.09	6.61	6.91	7.29	4.82	5.77	7.48	5.94
14 Continuing education programs for those in health and other human service fields	6.68	6.83	8.55	7.96	8.44	7.13	7.59	8.87	6.92	7.81	7.82
15 Programs to assist in the preparation for second careers	5.47	6.98	8.08	6.82	9.90	8.23	7.06	8.87	8.66	7.48	8.01
16. Programs in cooperation with other community agencies and groups which assist in solving contemporary community problems	4.93	7.13	8.66	7.31	8.64	8.31	4.01	7.70	8.82	8.30	8.03
17 Instructional programs based on an international perspective	1.21	7.08	7.50	6.84	7.44	7.08	0	6.13	5.33	6.70	6.48
18 Programs which emphasize service to minority groups	0	3.27	2.86	1.77	3.42	3.26	3.80	1.66	2.24	4.78	2.58
19 Joint programming with labor unions, industries, and other community groups and agencies	6.10	8.27	7.55	6.08	6.26	8.02	6.52	3.38	6.26	7.02	6.42

those preparing for retirement, (11) continuing education programs for those in health and other human service fields, and (12) counseling programs which assist adults in adapting to college life.

Five goal priorities for 1985 were found at interval levels from 3.1 to 6.9. The five goal priorities are as follows: (1) programs to assist adults in the performance of adult life roles, such as worker, citizen, consumer, and family member, (2) manpower programs to assist adults achieve career goals and contribute to the economic goals of the area (3) programs based on an international perspective, (4) joint programming with labor unions, industries, and other community groups and agencies, and (5) programs to assist homemakers enter and re-enter the work force.

In a similar manner, only two goals were found at level three or below on the interval scale. These were as follows: (1) programs which emphasize services to minority groups, and (2) accessibility to college programs, including those who cannot attend on-campus programs.

Except for region one, which recorded four goal priorities for 1985, and region nine, which recorded six goal priorities for 1985 between levels seven and ten on the interval scale, all the other regions generally

reflected a profile of goal priorities more like the national one. These are shown on table 13.

TABLE 13

SCALE VALUES FOR GOAL PRIORITIES 1985: BY COLLEGES GROUPED ACCORDING TO SIZE

Goal Priorities 1985	Colleges grouped according to size		
	Small	Medium	Large
1 Accessibility to college programs, including those who cannot attend on-campus programs	0	0	.48
2 Counseling programs which assist persons in determining career and other life goals	9.10	9.74	6.32
3 Programs which provide adults with the writing, reading, and math skills for collegiate efforts	9.50	9.98	5.13
4 Instructional and counseling approaches to assist adults in various development states or transitions	10	9.13	8.47
5 Counseling programs to assist adults in adapting to college life	8.30	7.86	3.11
6 Programs to assist adults in the performance of adult life roles, such as worker, citizen, consumer, family member	7.58	7.54	5.14
7 Manpower programs to assist adults achieve career goals and contribute to economic development of area	7.38	7.36	5.27
8 College transfer programs	9.38	10	10

TABLE 13--Continued

Goal Priorities 1985	Colleges grouped according to size		
	Small	Medium	Large
9 Short-term community services programs to assist adults in improving skills in various life role areas	8.49	8.20	6.13
10 Individualized instruction through contract learning, T.V., and audio-tutorial	8.67	8.65	5.71
11 Results-oriented instruction based on specified learning outcomes	8.31	8.52	5.79
12 Retirement and pre-retirement programs	8.46	7.82	5.46
13 Programs to assist homemakers enter or re-enter the work force	6.75	7.29	5.00
14 Continuing education programs for those in health and other human service fields	8.10	8.99	6.63
15 Programs to assist in the preparation for second careers	8.01	9.28	7.01
16 Programs in cooperation with other community agencies and groups which assist in solving contemporary community problems	8.11	9.45	6.14
17 Instruction programs based on an international perspective	7.24	7.45	5.27
18 Programs which emphasize service to minority groups	4.48	3.64	0
19 Joint programming with labor unions, industries, and other community groups and agencies	6.84	8.32	5.57

When the nineteen priority goal statements for 1985 were considered according to community college size, colleges grouped as small and medium each identified sixteen of the nineteen goal statements at or above level seven of the interval scale. Colleges grouped as large identified three priority goal statements at or above level seven of the unit interval scale and twelve between level five and seven. Community and junior colleges regardless of group, did not consider accessibility to college programs, including those who cannot attend on campus programs, and programs which emphasize services to minority groups to be important priorities for 1985.

Pearsons Product Moment Correlation

Pearsons Product Moment Correlations Coefficients was used to determine if there were correlations among the different regions with respect to social trends, future images, futuring processes, present and 1985 institutional goal priorities, and among colleges grouped according to size, using the scale values generated by the categorical procedure.

Social trends

Community college administrators in the ten regions fell into five groups in their views of how social trends would impact on their college. Group one was made up of regions one and nine, whose views were

similar. Group two was made up of regions three, four, five, and ten, whose views were similar. Group three was made up of regions four and five, who had similar views. Group four was made up of regions five and ten, whose views were similar, and group five was made up of regions two, six, seven, and eight, who had separate views on how social trends would impact against their college. The data described above are presented in table 14.

Future images: feasibility

When viewing the feasibility of future images of the community college, community college administrators fell into four groups. Group one was comprised of regions one and seven, whose views were different rather than similar. Group two was made up of regions three and nine, whose views were different rather than similar. Group three was made up of regions eight and ten, whose views were similar, and group four was made up of regions two, four, five, and six, which had separate views and views not in common with any other region. The data described above are presented in table 15.

Future images: desirability

Community college administrators fell into three groups in viewing the desirability of future images of the community college. Group one was made up of regions one and four, which had similar views. Group two was

TABLE 14

PEARSONS PRODUCT MOMENT CORRELATIONS AMONG THE REGIONS WITH RESPECT TO SOCIAL TRENDS, USING SCALE VALUES

	Intercorrelation matrix for the 10 variables[a]									
	1	2	3	4	5	6	7	8	9	10
1.	1.000	.389	-.150	.219	-.080	-.100	.076	.227	.643 **	.159
2.		1.000	-.217	.160	.111	.106	-.034	.310	.465 *	.152
3.			1.000	.477 *	.600 **	.175	.144	-.265	-.225	.582 **
4.				1.000	.719 ***	.030	.079	-.269	.301	.306
5.					1.000	.270	.344	-.282	.108	.657 **
6.						1.000	.363	-.372	.113	.173
7.							1.000	.102	.353	.449 *
8.								1.000	.188	.138
9.									1.000	.073
10.										1.000

[a]Critical values for 2-tailed test:
* denotes a statistically significant correlation at .05 level.
** denotes a statistically significant correlation at .01 level.
*** denotes a statistically significant correlation at .001 level.

TABLE 15

PEARSONS PRODUCT MOMENT CORRELATIONS WITH RESPECT TO THE FEASIBILITY OF FUTURE IMAGES, USING SCALE VALUES

	Intercorrelation matrix for the 10 variables[a]									
	1	2	3	4	5	6	7	8	9	10
1.	1.000	.064	.187	.099	.0403	.016	-.953**	.276	-.237	-.229
2.		1.000	-.498	.762	.778	.107	-.289	.373	.409	.553
3.			1.000	.102	-.292	-.012	-.021	.177	-.840*	-.246
4.				1.000	.600	.354	-.301	.637	-.015	.603
5.					1.000	.354	-.525	-.100	.442	-.029
6.						1.000	-.166	-.050	.490	-.016
7.							1.000	-.430	.066	-.010
8.								1.000	-.405	.815*
9.									1.000	.007
10.										1.000

[a]Critical values for 2-tailed test:
* denotes a statistically significant correlation at .05 level.
** denotes a statistically significant correlation at .01 level.
*** denotes a statistically significant correlation at .001 level.

made up of regions three and nine, whose views were similar, and group three was made up of regions two, five, six, seven, eight, and ten, each of whose views were different. The data described above are presented in table 16.

Futuring processes: yes and no

Community college administrators fell into four groups in their response to five yes and no questions inquiring about their present engagement in futuring processes. Group one comprised regions two, four, and seven. Region four engaged in futuring activities which appear to be quite different than those of region two, while region seven's activities appear to be quite similar.

Group two was comprised of regions three, five, six, and nine. Their futuring activities appear to be similar. Group three was comprised of regions four and seven. There was a negative correlation between them. Group four was comprised of regions one, eight, and ten. These engage in different futuring activities from each other and from among other regions. The data described above is presented in table 17.

Futuring processes: importance

The response of community college administrators to the importance of five futuring processes fell into four groups. Group one was made up of regions one,

TABLE 16

PEARSONS PRODUCT MOMENT CORRELATIONS WITH RESPECT TO THE DESIRABILITY OF FUTURE IMAGES, USING SCALE VALUES

	Intercorrelation matrix for the 10 variables[a]									
	1	2	3	4	5	6	7	8	9	10
1.	1.000	-.421	-.387	.910**	-.246	-.094	.548	.443	-.411	-.608
2.		1.000	.095	-.730*	.141	-.202	-.298	.160	.228	.061
3.			1.000	-.381	.059	.650	-.756*	.171	.825*	-.233
4.				1.000	-.280	.002	.617	.293	-.363	-.421
5.					1.000	.570	.207	.295	-.077	.628
6.						1.000	-.039	.580	.594	.166
7.							1.000	.381	-.474	.287
8.								1.000	.363	-.211
9.									1.000	-.085
10.										1.000

[a]Critical values for 2-tailed test:
* denotes a statistically significant correlation at .05 level.
** denotes a statistically significant correlation at .01 level.
*** denotes a statistically significant correlation at .001 level.

TABLE 17

PEARSONS PRODUCT MOMENT CORRELATIONS WITH RESPECT TO WHETHER OR NOT COLLEGE ADMINISTRATORS WERE USING FUTURING PROCESSES, USING SCALE VALUES

	Intercorrelation matrix for the 10 variables[a]									
	1	2	3	4	5	6	7	8	9	10
1.	1.000	-.324	.649	.633	.655	.679	-.375	-.530	.772	.240
2.		1.000	-.509	-.904 *	-.292	-.398	.901 *	-.454	-.379	-.586
3.			1.000	.799	.947 **	.991 ***	-.733	-.430	-.961 **	.839
4.				1.000	.623	.729	-.905	.040	.716	.733
5.					1.000	.962	-.613	-.525	.982 **	.661
6.						1.000	-.639	-.546	.974 **	.799
7.							1.000	-.288	-.642	-.694
8.								1.000	-.529	-.190
9.									1.000	.659
10.										1.000

[a]Critical values for 2-tailed test:
* denotes a statistically significant correlation at .05 level.
** denotes a statistically significant correlation at .01 level.
*** denotes a statistically significant correlation at .001 level.

eight, and ten. There was a negative correlation between one and eight and a positive correlation between regions one and ten.

Group two was made up of regions four and nine, both of which viewed futuring processes in a similar manner. Group three was made up of regions five and seven, both of which was negatively correlated, and group four was made up of regions two, three, and six. No correlation existed among the regions in group four. The data described above are presented in table 18.

Present goals: priority

The responses of community college administrators fell into three groups on the priority of goals for the present. Group one was comprised of regions one and ten and are positively correlated. Group two was comprised of regions five and nine and are positively correlated. Group three was comprised of regions two, three, four, six, seven, and eight, each of which held separate views. The data described above are presented in table 19.

1985 goals: priority

Community college administrators' responses to long-term goals for 1985 were divided into five groups. Group one was comprised of regions one and five, which were positively correlated. Group two was comprised of regions two, five, eight, and nine, and were positively

TABLE 18

PEARSONS PRODUCT MOMENT CORRELATIONS WITH RESPECT TO THE IMPORTANCE OF FUTURING PROCESSES, USING SCALE VALUES

	Intercorrelation matrix for the 10 variables[a]									
	1	2	3	4	5	6	7	8	9	10
1.	1.000	-.815	.333	.214	-.457	-.313	.628	-.881	.214	.993***
2.		1.000	-.246	.324	.584	.571	-.673	.470	.324	-.857*
3.			1.000	.124	.396	-.437	-.141	-.258	.124	.251
4.				1.000	-.040	.085	.180	-.472	1.000***	.128
5.					1.000	.524	-.959**	.169	-.040	-.511
6.						1.000	-.641	-.107	.085	-.305
7.							1.000	-.337	.180	.657
8.								1.000	-.472	-.851*
9.									1.000	.128
10.										1.000

*Critical values for 2-tailed test:
* denotes a statistically significant correlation at .05 level.
** denotes a statistically significant correlation at .01 level.
*** denotes a statistically significant correlation at .001 level.

TABLE 19

PEARSONS PRODUCT MOMENT CORRELATIONS WITH RESPECT TO PRESENT GOAL PRIORITIES, USING SCALE VALUES

	Intercorrelation matrix for the 10 variables[a]									
	1	2	3	4	5	6	7	8	9	10
1.	1.000	.040	-.111	.159	-.057	.263	-.169	.272	-.077	.457 *
2.		1.000	.045	.088	-.370	-.141	-.077	-.048	-.165	.159
3.			1.000	-.106	.382	.320	.041	.451	.172	-.144
4.				1.000	.388	-.206	.139	-.205	.237	.146
5.					1.000	.227	.041	.089	.709 ***	.287
6.						1.000	.229	.204	.103	.098
7.							1.000	-.394 *	.008	-.267
8.								1.000	-.006	-.097
9.									1.000	.441
10.										1.000

[a]Critical values for 2-tailed test:
* denotes a statistically significant correlation at .05 level.
* denotes a statistically significant correlation at .01 level.
*** denotes a statistically significant correlation at .001 level.

correlated. Group three, comprised of regions three and five, were positively correlated. Group four, comprised of regions four and seven, were positively correlated. Group five, comprised of regions six and ten, each held different views from each other and from the rest of the regions about the priority of long-term goals for 1985. The data described above are presented in table 20.

Discriminant Analysis

Discriminant analysis was used to study whether the various sub-groups by region and by size were significantly differentiated on the basis of the different sets of dependent variables--social trends, future images, futuring processes, goal priorities for the present, and goal priorities for 1985.

Among the fourteen discriminant analyses, only three yielded a significant function. These were for school size, with respect to social trends, and futuring processes.

Social trends

Table 21 gives the standardized discriminant function of the eighteen social trend variables which significantly discriminated among schools of different sizes. For this function, the test of significance yielded a chi-square of 51.38 with thirty-six degrees of freedom, and a probability of .0446.

TABLE 20

PEARSONS PRODUCT MOMENT CORRELATIONS WITH RESPECT TO 1985 GOAL PRIORITIES, USING SCALE VALUES

	Intercorrelation matrix for the 10 variables[a]									
	1	2	3	4	5	6	7	8	9	10
1.	1.000	.114	.464 *	-.077	.145	-.120	.072	.059	.410 *	.418 *
2.		1.000	.273	-.276	.494 *	-.160	.119	.518 *	.540 **	-.115
3.			1.000	-.093	.524 *	-.210	.111	.313	.189	.340
4.				1.000	.121	.706 ***	.220	-.211	.051	.371
5.					1.000	.159	.116	.612 **	.160	.234
6.						1.000	.201	-.304	-.305	.198
7.							1.000	.138	.071	.011
8.								1.000	.240	.051
9.									1.000	.354
10.										1.000

[a]Critical values for 2-tailed test:
* denotes a statistically significant correlation at .05 level.
** denotes a statistically significant correlation at .01 level.
*** denotes a statistically significant correlation at .001 level.

TABLE 21

STANDARD DISCRIMINANT FUNCTION BY SCHOOL SIZE: SOCIAL TRENDS

Variable	Discriminant Weight	Rank
1 Diversification of life styles	4.56	5
2 Advances in science and technology	-5.29	2
3 Energy shortages	2.97	9
4 Women in most career fields	- .47	17
5 Changes in family life	2.20	11
6 Advances in communications	-1.70	12
7 Tendency towards centralized governmental control	6.60	1
8 Alienation, loss of personal control	-4.86	4
9 Citizen participation in community decisions	-1.12	14
10 End of "youth culture," beginning of "adult culture"	4.02	7
11 Changes in the nature of work	-5.10	3
12 Diminution of higher education as for job entry and security	.86	16
13 From governmental services to self-reliance	-2.52	10
14 From conformity to individual self-expression	-3.61	8.
15 From large-scale to small-scale technology	1.57	13
16 From job security to varied life experiences	.39	18
17 From consumption to conservation	- .97	15
18 From work- to leisure-oriented society	4.29	6

It is common to note those variables whose standard weight is at least 50 percent of the maximum absolute weight. In this case eight variables would be included, with decreasing degree of importance in distinguishing among the groups.

The means of the three groups on the discriminant function were .237 for group one, colleges grouped as small; .752 for group two, colleges grouped as medium; and 1.116 for group three, colleges grouped as large. These are located in figure 1 together with the eight variables, in decreasing order of importance from top to bottom. The arrow indicates the direction of increasing strength of that variable.

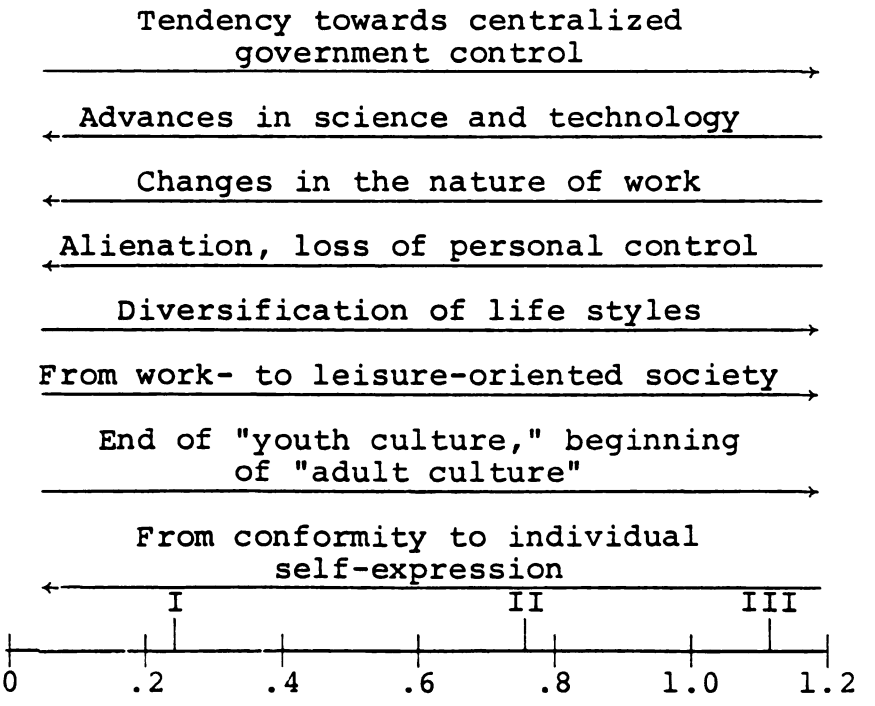


Fig. 1. Location of college group by size on discriminant function: social trends.

Thus, with increasing size of college, there is a tendency for greater importance to be given to the tendency towards centralized government control; diversification of life styles; from work- to a leisure-oriented society; and end of "youth culture" to beginning of "adult development culture." Lesser importance is given to advances in science and technology; changes in the nature of work; alienation, loss of personal control; and from conformity to self-expression.

Futuring processes: Eigenvector 1

In a similar manner, two significant functions were yielded for futuring processes. It is customary to give more weight to one of these functions than the other, but the data for each eigenvector is presented. Table 15 gives the standardized discriminant function for the five futuring processes variables which significantly differentiate among schools of different sizes and are associated with eigenvector one. For this function, the test of significance yielded a chi-square of 41.70 with ten degrees of freedom and a probability of .0000.

It is common to note those variables whose standard weight is at least 50 percent of the maximum absolute weight. In this case all five variables would be included, with decreasing degree of importance in distinguishing among the groups.

TABLE 22

STANDARD DISCRIMINANT FUNCTION BY SCHOOL SIZE: FUTURING PROCESSES

	Variable	Discriminant Weight	Rank
1	A specific periodic effort to identify social and community trends which may have an impact on college development	6.74	1
2	Specific efforts to examine alternatives open for future development and engage in dialogue designed to create shared images of the future of the college	3.91	5
3	Periodic and specific activities to identify major institutional strengths and areas for improvement	-6.27	2
4	Establishing and recording long-term priorities for college development (using Delphi or other consensus-seeking techniques	5.85	3
5	Writing scenarios (stories which describe possible year-by-year events which could happen as your college develops over the next decade	-4.90	4

The means of the three groups on the discriminany function were: 1.141 for colleges grouped as small; 1.338 for colleges grouped as medium; and 1.562 for colleges grouped as large. These are located on a scale in figure 2, together with the five variables, in

decreasing order of importance from top to bottom. The arrow indicates the direction of increasing strength of that variable.

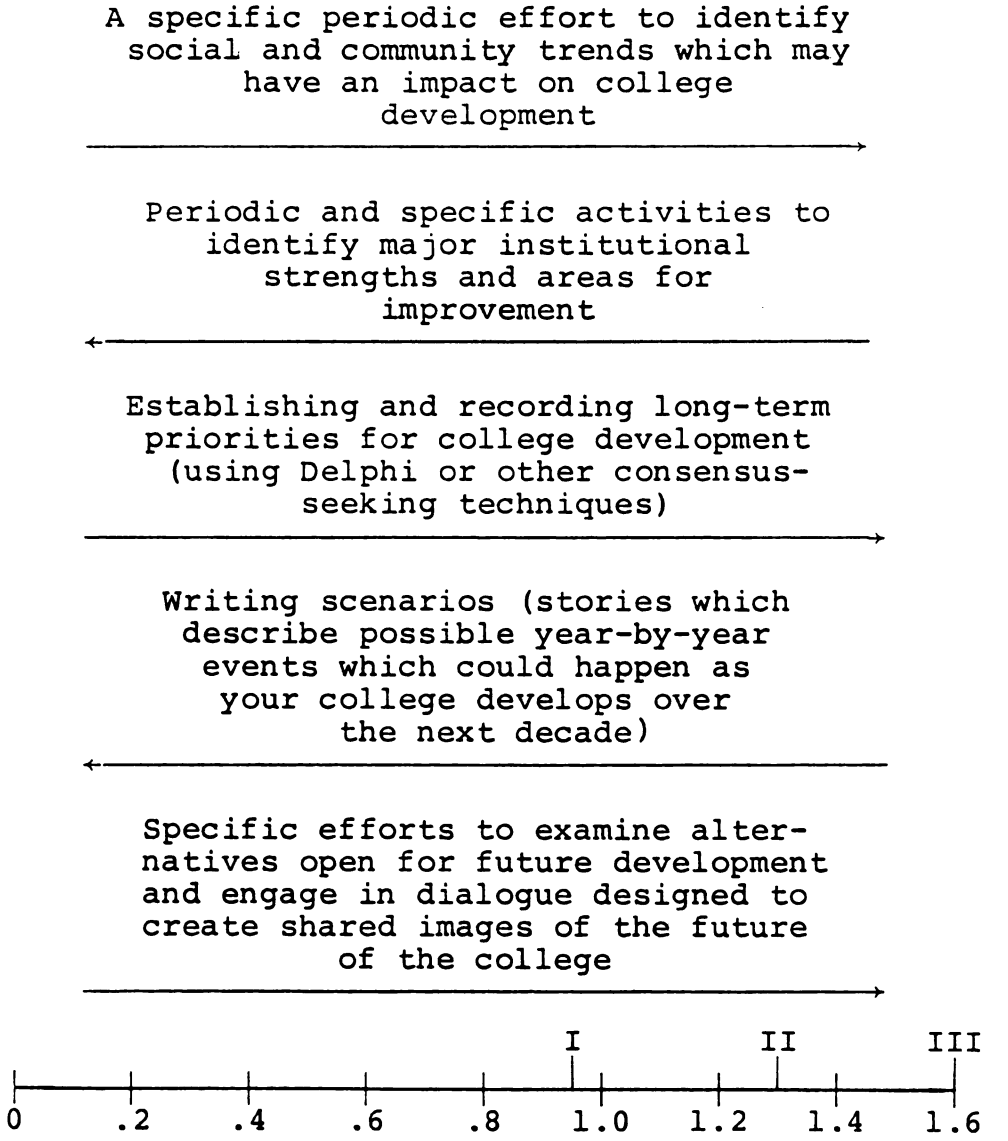


Fig. 2. Location of college group by size on discriminant function: futuring processes--Eigenvector 1

Thus, with increasing size of college, there is a tendency for greater importance to be placed on a specific periodic effort to identify social and community trends which may have an impact on college development; and specific efforts to examine alternatives open for future development and engage in dialogue designed to create shared images of the future of the college. Lesser importance is given to periodic and specific activities to identify major institutional strengths and areas for improvement, and to writing scenarios which describe possible year-by-year events which could happen as a college develops over the next decade.

Futuring processes: Eigenvector 2

Table 23 gives the standardized discriminant function for the five futuring processes variables which significantly differentiated among schools of different sizes and are associated with eigenvector two. For this function, the test of significance yielded a chi-square of 11.27 with four degrees of freedom and a probability of .0237.

It is common to note those variables whose standard weight is at least 50 percent of a maximum weight. In this case, three of the five variables would be included, with decreasing degree of importance in distinguishing among the groups. The means of the three groups on the discriminant function were 3.177 for

colleges grouped as small; 3.451 for colleges grouped as medium; and 2.965 for colleges grouped as large. These are located on a scale in figure 3, together with the three variables in decreasing order of importance from top to bottom. The arrow indicates the direction of increasing strength of that variable.

TABLE 23

STANDARDIZED DISCRIMINANT FUNCTION BY SCHOOL SIZE: FUTURING PROCESSES--EIGENVECTOR 2

Variable	Discriminant Weight	Rank
1 A specific periodic effort to identify social and community trends which may have an impact on college development	4.74	4
2 A specific effort to examine alternatives open for future development and engage in dialogue designed to create shared images of the future of the college	11.65	1
3 Periodic and specific activities to identify major institutional strengths and areas for improvement	7.63	3
4 Establishing and recording long-term priorities for college development (using Delphi or other consensus-seeking techniques)	-9.68	2
5 Writing scenarios (stories which describe possible year-by-year events which could happen as your college develops over the next decade)	3.97	5

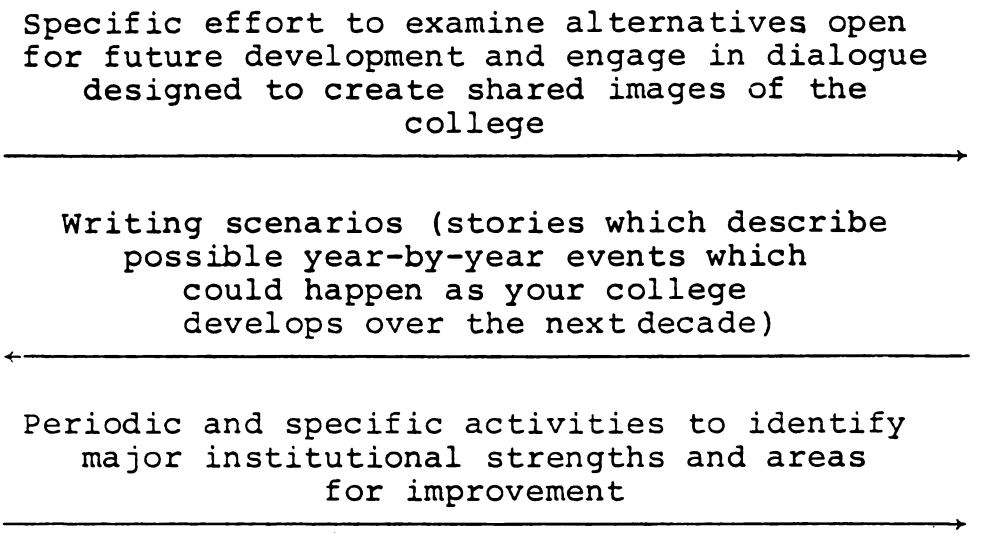


Fig. 3. Location of college groups by size on discriminant function: futuring processes--Eigenvector 2

Chi-Square

Chi-square was used to determine if there was a significant difference among community college administrators among the regions in their response to each question on the questionnaire. A chi-square test was also conducted to determine if community colleges grouped as small, medium, and large responded significantly different to each question on the questionnaire.

Social trends

This researcher found that there was no significant difference at the $p < .05$ level among community

college administrators in the regions. A significant difference was found at the $p < .05$ level among community colleges grouped according to size. Table 24 shows the proportional responses from colleges of various sizes to the question which asked whether they engaged in a periodic effort to identify social and community trends which may have an impact on college development.

TABLE 24

CHI-SQUARE ANALYSIS BY SCHOOL SIZE:
EFFORT TO IDENTIFY TRENDS

College size	Yes	No
Small	.643	.357
Medium	.628	.372
Large	.263	.737

Chi-square = 10.2146 with two degrees of freedom. P = .006.

Four bodies of data have been presented dealing with (1) the expected impact of social trends on community college development, (2) the feasibility and desirability of alternative images of the community college in 1985, (3) the present engagement and importance of futuring processes, and (4) present and 1985 goal priorities. Chapter V will discuss the results in the same order.

CHAPTER V

INTERPRETATION OF RESULTS

In Chapter I the purpose of the study was described as: (1) to study the extent to which community and junior colleges were engaged in futuring, (2) to identify the extent of present practice and to describe some of the best elements and practices which are available. This chapter will analyze the results of the data as it relates to various parts of the problem.

Discussion of Results

Unit interval scales: social trends

Two hundred and twenty-one respondents in the national sample recognized social trends as having an impact on community junior college development. Specificially, they expected that in the next decade two trends would be of particular significance. These were energy shortages and advances in science and technology.

Since these two trends rated on a unit interval scale at or above level six, one would expect to find references to them in planning documents, goal setting, and in some or all of their futuring processes.

References would also be found in actions taken, or directives which would recognize the impact of these trends on college development. Suggestions would also be found about the minimization of undesirable effects and the maximization of desirable effects on college development. For example, what would a president of a community junior college do if he expected or knew that five years into the future his institution would be faced with shortages of energy and steeply rising prices? If advances in science and technology was considered in a similar manner as energy shortages, the president could study the impact one trend might have on the other. This could range from no impact at all to a very major impact, The relevant information gathered in this manner could, on the one hand, lead to the conclusion that energy shortages might have a minimum impact on the college. On the other hand, the information might reveal that energy shortages could have a major impact on the college and that advances in science and technology were not an ameliorating factor. If the analysis was correct, the president would be left with the original problem, energy shortages.

Since nothing is ever as simple as it first appears, what could be some of the implications of energy shortages over a five-year period? Such questions as severity and price would have to be considered.

The answers to these questions would provide some insight on how price might affect the budget, in terms of how the college could support the instructional program, faculty salaries, maintenance of facilities and equipment, and needed expansion, if there were such needs. The idea was to study the interrelationships and impacts, to better inform policy development and planning.

While national social trends rated high on the unit interval scale as being important, social trends around the middle and lower end of the scale were important for the potential they offered in policy development and goal setting. The discussion of social trends around the lowest end of the scale will follow.

Ten social trends were under consideration. They were as follows: (1) diminution of higher education certification as the means of job entry and security; (2) changes in family life; (3) from a work- to a leisure-oriented society; (4) from large-scale to small-scale technology; (5) from job security to varied life experiences; (6) diversification of life styles; (7) citizen participation in community decision making; (8) feelings of alienation, loss of personal control; (9) from conformity to individual self-expression; and (10) from governmental services to self-reliance.

These ten national social trends which fall at

the bottom of the unit interval scale may be viewed by chief administrators of community junior colleges with apprehension or with relief or with some of both. From a national perspective the rating of these trends provide a rough gauge of the national expression of them. National trends reinforced by similar regional trends could be instructive in informing policy directions and planning activities. Where national trends are not supported by regional trends, community junior college administrators would do well to pay attention to local and regional trends. For example, in regions one, two, and ten, they were five, four, and four trends at level 2.9 or below as compared with ten at the national level at 2.9 or below on the unit interval scale.

Regions one, two, and ten may discount the significance of the social trends; diminution of higher education certification as the means for job entry and security; and from governmental services to self-reliance, from two points of reference. On the one hand, they were not identified as national trends and on the other, they were not identified as regional trends.

Region one may discount feelings of alienation, loss of personal control; citizen participation in community decision making; and from conformity to individual self-expression; for similar reasons as stated

above. Region ten may apply similar reasoning with respect to the social trend, feelings of alienation, loss of personal control.

The situation was somewhat different for region two to discount the social trend, changes in family life. This trend was not among the social trends found at the 2.9 level or below on the interval scale. If region two were to discount this trend it would have to be done on the basis that the region does not consider it to be significant, and on any other studies or surveys which supported the regional position.

Unlike the social trends which fell at the 2.9 or below level, those which fell between levels three and 6.9 were significant for policy development, goal setting and planning. As was the case with the social trends which fell at the 2.9 level or below, those which fell at the three to 6.9 level must be considered on their own regional strength. When the force of a trend is established both at the national and regional levels, that trend is significant. This is particularly significant because some trends have national but no regional force or vice versa. This was borne out by the national profile of social trends which were expected to have an impact on community junior colleges in the ten regions. The national profile had six social trends at the three to 6.9 level on the

interval scale. Of the ten regions, three had ten social trends in this category, two had nine, two had eight, two had seven, and one had five. Nine of the ten regions had more social trends at the three to 6.9 level than the national profile, and one region had five, one less than the national profile.

The differences among the regions and the national profile on social trends were not limited to number of trends, but also included a variety of different trends. This was to be expected, because it reflected that in different parts of the country community and junior college administrators were responding to trends differently. What was reflected was the dynamic of change.

Community and junior colleges, regardless of size, considered the social trend, energy shortages, to have a major impact on their development. This finding was similar to the national finding and reflects the conclusion that most of the regions reported. From the evidence, energy shortages could be considered a national trend.

Community and junior colleges grouped as small, medium, and large, rated fewer social trends at level seven and above on the unit interval scale than did the regions, or as was found in the national profile. Colleges grouped as small and large rated two trends, and

colleges grouped as medium rated one trend at level seven or above. Colleges grouped as small considered advances in science and technology as having a major impact on their institutions while colleges grouped as medium and large considered it as having a moderate impact on them.

Colleges grouped as large considered the tendency toward centralized government control as having a major impact on their institutions. Colleges grouped as medium rated this trend at level four of the unit interval scale, and colleges grouped as small rated it even lower, at the 3.4 level of the scale.

This study did not provide the answer why community colleges grouped as large viewed the tendency towards centralized governmental control as having a major impact on their development. Nor does it explain why colleges grouped as small and medium ascribed only moderate impact to this trend on their development. One factor which appeared to offer some explanation was the increased competition with other areas of the public sector for scarce financial resources.

King (1975), Gleazer (1973, pp. 128-29), affirmed that State legislators will increasingly get into the "nitty-gritty" of college operations. He offered at least two reasons for this. On the one hand, legislators are the representatives of the people on all

issues, and on the other hand, community and junior colleges are only as autonomous as they can afford to be. That is, the less money they require from the legislature, the more control community and junior colleges can have over themselves.

Images: feasibility and desirability

This study showed that the predominant image of community and junior colleges was the community-based image. This was true of the national profile as well as among the regions. Four of the ten regions chose the image of the community-based college as the most feasible for them. Two regions chose the development-based college, and the other four regions each chose one of the other four remaining images as the one most suitable for them.

It was not surprising that the image of the community-based college was the one found to be most feasible by community and junior colleges. The literature supports this position. Gleazer (1973, pp. 213-17) observed, "there is a meeting place for America's diversity, a common ground, a means for communication. . . . The meeting place is America's community colleges." The forging of the images, "community" and "college" into a single image of "community college" was a response in the late sixties to "divisions and struggles for identity as part of a cultural nationalism; it was concerned about the youth culture and generation gaps,

the haves and have-nots, the hard hats and the long hairs." The result was an image of an institution which promised much for the present as well as for the future.

The characteristics of promise for the present and for the future make the image, "community college," a very powerful one. Images of the future work their way

> . . . toward the real future through their magnetic mass-appeal and the massive expansion of influence-optimism in the forward strivings and active aspirations of man. These images not only reflect the shape of things to come in the present but they give shape to these things and promote their coming. (Bundy, 1976, p. 11)

The community college movement of the 1960s by fusing the community and the college together created an image which caught the essence of what Bundy was talking about. The erection of community colleges was a response to needs, but those needs touched the pride of people, who, according to Gleazer (1973, p. 214) said, "this city needs a community college."

The image, "community college," created in the minds of people an educational institution which was both feasible and desirable. Four regions considered the image "community-based college," the most feasible, as well as the most desirable image of the future. For an image to be feasible, it must be capable of being accomplished, suitable, likely, or possible. It must have the possibility for being achieved or accomplished. The

image, "community college," appeared to have all of these characteristics. But it must move beyond them, beyond feasibility and desirability to what Bundy (1976, p. 27) called "capable of being lived." For many people in America, the image of the community-based college is alive, attractive, and worth seeking for its beneficial effects.

Other images

Although the image, community based college, was considered the most feasible and desirable, there were other competing images. This was particularly so among the ten regions as well as among colleges grouped according to size. Two of the regions preferred the images, development-based college, to that of community-based college. They considered the image, development-based college, the most feasible, though not the most desirable. Similarly, five of the regions considered three or more competing images as feasible and reported them at level eight or above on the unit interval scale. The high rating of competing images of the community college suggested that while the community-based college image was foremost, there were other images which were competing with it and could in time supplant it.

When community and junior colleges were grouped according to size, colleges grouped as small considered the image, community-based college, as the most feasible

for them. Colleges grouped as medium and large considered the image of the community-based college as the most feasible. However, colleges of all sizes considered the image of the community-based college as the most feasible. In a pattern somewhat similar to the ten regions, community and junior colleges grouped as medium and large reported four images above level eight as feasible and desirable. The data also suggested that there was vigorous competition from other images of the community college for the place of being the most feasible and desirable.

These findings were consistent with the literature. Images of the future are always in competition with other images of the future. Bundy (1976), pp. 11-12), observed,

> . . . the history of human civilization abounds with future-forming images of the future, supplementing and supplanting each other in a continuous golden chain, welded together by the world's greatest prophets, philosophers, poets, humanists, idealists, saints, scholars . . . by the visionary men of genius and thought-provoking pioneers.

Images supplement and supplant each other. The image of the two-year college up to 1945 was that of a junior college (Thornton, 1960, p. 53). Increasingly after 1945, and especially during the decade of the 1960s, the image of the community college became the dominant image of the community college movement (Monroe, 1972, pp. 14-17). The distinctive

characteristic of this period was its novel approach to education. The community college image supplanted the junior college image. Whether the former will endure was not a question of this study, but it was clear that there were many other competing images.

Futuring processes

This portion of the questionnaire contained two sections. One section required respondents to indicate by a "yes" or "no" whether they were presently engaged in any or all of five futuring processes. The second section asked respondents to state on a Likert scale of one to five, how important they felt it was to engage in futuring processes.

Community and junior college administrators considered periodic and specific activities to identify major institutional strengths and areas for improvement, as the most important activity in futuring. It was rated at 8.9 on the interval scale. This was followed by the identification of social and community trends which may have an impact on college development, followed by the examination of alternatives open for development, as well as image designing, creation, and sharing; long-term priorities for college development; and lastly, scenarios.

There appeared to be many reasons why community and junior college administrators chose as the most

important futuring process, periodic and specific activities to identify major institutional strengths and areas for improvement. One reason was that this choice was supported in the literature. Another reason was that community and junior colleges have become used to the identification of strengths and weaknesses in preparation for accreditation from accrediting bodies. The hope was that colleges would capitalize on their strengths, improve their weaknesses, or eliminate them, and be better able to better serve their communities.

A first step in securing accreditation is to provide "evidence of sound planning, have available the resources to implement its plans, and appear to have the potential for attaining its goals within a reasonable time" (Handbook on Accreditation, 1975, p. 9). Dressel (1971, p. 280), identified a number of points that need to be studied for accreditation, and included among them, definition and clarification of institutional purposes and goals; and a review of the strengths and weaknesses of current curriculum organization and instructional methods of the institution. Semion (1974, p. 285) believes that present-day accreditation does not follow fixed rules or norms, but among other factors, evaluates according to an institutions' particular set of goals and objectives.

It would appear that the force of the literature

and the practice of community college administrators in the identification of institutional strengths and weaknesses, have helped to insure some strengths as well as to identify this process as the most important in futuring.

The activity which community and junior college administrators rated as second in usage was the identification of social and community trends which may have an impact on college development. This activity received a 7.1 rating on the interval scale. The identification or creation of trends may have an important impact on college development. Gleazer (1973, p. 214), in discussing "trends in community relations," considered it a "dramatic shift in higher education, when community and junior college planners began to study their service areas and then designed programs to fit the needs they uncovered."

The importance of the shift was the manner in which community and junior college planners and administrators viewed higher education. Traditionally, higher education was referred to as a body of knowledge and of processes. Today, community and junior college planners and administrators consider the sociology, economics, psychology, and educational needs of the people to be served, when developing programs aimed at meeting their needs. Gleazer (1973, p. 217) considered

it a basic requirement of community colleges that they "probe the community for program-bearing data, and then possess the capacity to interpret the data correctly."

The next futuring process which appeared to be widely used was, efforts to examine alternatives open for future development and engage in dialogue designed to create shared 'images' of the future of the college. One hundred and fifty-nine of the respondents said they practiced this futuring activity. It was rated nationally at 6.1 on the unit interval scale.

The data suggested that a substantial number of community and junior college administrators were engaged in this futuring activity. The importance may be gauged when it was considered that 3.1 percent of the community and junior college administrators rated it as "very important" on a Likert Scale of one to five, with five being the highest value. Another 62 percent rated it three and four. While the statistic is impressive, some caution is needed in determining how this translates into goal, mission statements, and other planning documents.

Another futuring process which was used and identified as fourth in importance was, consensus-seeking techniques such as Delphi. More than half of the community and junior college administrators who responded were engaged in this activity at present.

From a national perspective, this activity was rated at 6.2 on a unit scale. All but two regions reported it at or above six on the unit interval scale and regardless of community college size, it was not rated at less than six. The activity was engaged in at the present and it enjoyed solid support in terms of its importance. Like the designing and creation of shared images, caution is appropriate in interpreting this result as very hopeful.

The last of five futuring processes was the writing of scenarios. Very few community and junior college administrators were presently engaged in this activity. To be specific, only 16 percent were presently engaged in this process. The nation rated it as not important "at all." Eight of the ten regions rated it similarly, as well as the community colleges, irregardless of size.

The support for scenario writing in the literature was strong. Jantsch (1969, p. 180) pointed out several essential characteristics of scenario writing. It is logical and sequential. The purpose is not prediction but systematic exploration of "branching points dependent on critical choices." Vanston, et al (1977, pp. 159-62) added "plausibility," "self-consistency," "inclusion of all critical relevant factors," and "similarity to other scenarios in form and scope."

Almost as important as determining that the characteristics for scenario generation was present, was the determination that qualified personnel are available for generating the scenario.

The five futuring processes, when looked at as a whole, appeared to fall into two categories. The two categories were arbitrarily established, but that did not appear to do any violence to the data. The two categories were: (1) periodic and specific activities to identify major institutional strengths and areas for improvement; and specific periodic effort to identify social and community trends which may have an impact on college development; and (2) the examination of alternatives open for future development and the designing and creation of shared images of the college; the use of consensus techniques in the establishment and recording of long-term priorities for college development; and scenario writing.

It could be argued that category two should be divided into two categories with scenarios forming the third category. If that were done, it could be argued that little substantive difference existed between categories one and two. But this position could not be supported by the literature. The literature showed, though not the data, that the elements in category one were

elements which were long associated with long-range planning and credentialing.

A similar situation did not exist with respect to category two, the designing and creation of images, the use of consensus techniques for the establishment and recording of long-term priorities and scenario writing. These materials were of a later historical period and are just gradually becoming part of the tools which community junior college administrators use for planning, policy development, and goal setting.

On another level, category two contained the elements which gave conventional planning a broadened base and a truly futuristic approach. Category two makes use of the planner's examined values, alternative solutions, relationships, anticipates genuinely different futures, and places considerable emphasis on unintended consequences (Shane, 1973, p. 2).

Category two, with its emphasis on scenario writing, required that a degree of expertise and credibility in scenario development be available to community college administrators. This requirement could be met by having expertise on the staff or faculty or by obtaining it elsewhere. The likelihood that either condition could or would be met was not very high. For example, community college administrators, policy developers and planners have begun to appreciate the

importance of an institutional research capability. So important was this felt to be that over the last decade the U.S. Department of Education, through its Basic Institutional Development Program (BIDP) and its Advanced Institutional Development Program (AIDP) have assisted two- and four-year colleges in developing this capability as part of their management and planning tool. But in spite of this effort, the high cost of developing such a capability slowed, if not prevented, its development. Much of the work done in two-year colleges under institutional research is small and fledgling. Much of the work is an add-on to teaching responsibilities or to other staff duties and it is mostly not treated as a priority. In a similar manner, scenario writing requires patient cultivation and expertise. It was not likely then, that one should find persons with this skill flourishing in community and junior colleges.

Scenario writing requires an orientation to the future. It requires the writer or group writing the scenario to visualize what is going to happen in a step-by-step manner. That 81 percent of community and junior colleges were not presently engaged in this activity, and that eight of the ten regions and all of the colleges when grouped according to size, did not rate scenario writing as important, suggested at least two things. On the one hand, the data suggested that

community and junior college administrators, planners and policy makers may be in need of education or staff development training with respect to the value and importance of scenario writing. On the other hand, the absence of scenario writing as a primary tool in the community and junior college futuring kit suggested that a great deal of what was passed off as futuring may very well be some approach to traditional planning and development.

Present goal priorities

The 221 respondents identified the top three goal statements for present priorities as follows: (1) college transfer programs which enable students to work towards a four-year degree; (2) programs which provide writing, reading, and math skills necessary to successfully undertake collegiate efforts; (3) counselling programs which assist persons in determining career and other life goals. These programs were rated at level seven and above on the unit interval scale.

These priorities were held by community and junior colleges for at least two decades. Priority four, accessibility to college programs, including those who cannot attend on campus, was a more recent addition to priorities of community and junior colleges.

When colleges were grouped according to size, colleges grouped as small chose the same three

priorities but added three others. They were as follows: (1) manpower programs which provided career and economic development; (2) accessibility to college programs; and (3) short-term community service programs. Colleges grouped as large eliminated counselling programs which assist persons in determining career and other life goals, and narrowed their top priorities to five.

Colleges grouped as medium chose the same priorities as colleges grouped as small except they added programs which emphasize services to minority groups and homemakers who want to enter or re-enter the work force.

Underlying these goal priorities rests a number of assumptions held by the American people about education. These are as follows: (1) college and credentialing are ways to achieve the good life (Monroe, 1972, p. 382); (2) reading, writing, and mathematics are essential to college and career and to responsible citizen participation in this democracy; (3) where evidence exists of unpreparedness for either assumption one or two or both, remediation must be provided; (4) need for a strong on-going egalitarianism; and (5) a commitment to the economic development of people and the community.

The study also provided a profile of goal statements which community and junior colleges considered

low priority or of no priority at the present. The list of these goal statements ranged from the 2.9 level to zero on the unit interval scale and will be listed in that order.

1. Programs in cooperation with other community agencies and groups which assist in solving contemporary community problems.

2. Continuing education programs for those in health and other human service fields.

3. Instructional and other counseling approaches which assist persons at various adult development stages or transitions.

4. Individualized instruction through approaches such as contract learning, television, and audio-tutorial instruction.

5. Programs to assist homemakers to enter or re-enter the work force.

6. Programs which emphasize services to minority groups.

7. Programs based on an international perspective.

8. Programs which enhance the ability of the adult to perform adult life roles such as worker, citizen, consumer, and family member.

9. Counseling programs which assist adults in adapting to college life.

10. Results-oriented instruction based on specified learning outcomes.

11. Programs which assist people in preparing for second careers.

12. Joint programming with labor unions, industries, and other community agencies or groups.

The low priority given these goal statements at this time suggested a number of considerations. One was that community and junior colleges recognized a variety of educational needs of the communities they serve, but that they were not part of their action agenda. This study does not provide reasons for the limited set of goals chosen by community and junior colleges, but it does reflect some of the directions addressed in the literature. For example, the educational programs community junior colleges do were directly related to their funding and funding sources. That is to say, community junior colleges were sensitive to financial pressures from the local community and from the State. The programs which were funded were more and more those which were dictated by the State. In addressing this situation, Cohen observed:

> In determining the courses to be offered, state level influences create pressures on the colleges, some direct, others not. The legislature exerts the most direct influence, followed by the state Community College Board, various licensing agencies and commissions, and professional associations. (1975, p. 2)

As if to underscore the weakness of the local community's position, Cohen (1975, p. 10) asked, "How many districts would still be running racially separate and unequal two-year colleges if local option were paramount?"

The recognition by community and junior college administrators that their institutions can only provide limited responses to needs of the local community, moves away from some of the wider implications of Bushnell's (1973, p. 49) study which showed that presidents considered response to the needs of the local community second only to serving the higher education needs of youth from the local community. What appears to be operative is not what a president desires to do, but what a president may do or does in the face of limited financing from the State. This may go far to explain why many colleges have not followed such calls to action as, "If community colleges want to be in the forefront in the 1970's, they need to re-focus their efforts to respond to the needs of older people rather than recent high school graduates, who will probably go to college anyway" (Gleazer, 1973, p. 216). Program funding appeared to be aimed at some very old and established forms of programming. Efforts to secure greater funding will be complicated and will be met with intense resistance from other community agencies of the local

government which are competing for those funds.

A second consideration which may be derived from an interpretation of the data was that instruction at the community and junior college level was people-intensive or conventional. This was not surprising because in many ways, the community and junior college, while striving to develop an identity of its own, still strives after much that is four-year college. The low priority assigned to individualized instruction through approaches such as contract learning, and audio-tutorial instruction, may reflect the "fear that technology may dominate and dehumanize learning" (Evans and Neagley, 1973, p. 102). Other fears include "imposition of State or national systems of education, with standardized curricula supplied to all colleges via television or other electronic means, loss of jobs to the electronic media or domination by the universities" (Knoell and McIntyre, 1974, pp. 91-92). Whatever the reasons, the data suggested that community and junior college administrators were reluctant to identify electronic media for instructional purposes as a high priority.

Another factor which the study revealed was that community and junior colleges generally do no consider addressing minority group educational needs as a present priority. This finding was somewhat of a surprise when

the educational needs of racial minorities were found to be so well documented. A decade ago Crossland (1971, p. 99) observed,

> . . . despite impressive gains in the 1960's ever greater efforts will be required in the future to remove the barriers that restrict the entry of Black Americans, Mexican Americans, and Puerto Rican and American Indian youth into higher education.

Reflecting on the increased numbers of racial minorities enrolled in community and junior colleges, Gleazer (1973, pp. 21-22) saw some encouragement in the numbers enrolled but felt that it was a poor showing for an institution which, in the view of some, had a significant responsibility to the "needs of the Black, Spanish-speaking, and Indian populations." He concluded this observation by saying, "I am convinced that improvements of opportunities for minority persons must become a matter of first priority in America's community colleges." An interpretation of the data suggested that the educational needs of racial minorities have not yet become a matter of first priority for America's community and junior colleges.

A fourth consideration was that community and junior colleges do not have as a present priority, programs which emphasize an international perspective. Five of the ten regions rated programs with an international perspective at zero on a one-to-ten-point scale. The colleges when grouped according to size (small,

medium, and large), also rated them at zero. Except for regions one, two, and seven, where such programs were rated at levels 4.8, 4.9, and 3.2 respectively, community junior colleges almost unanimously rejected international programming as a present priority. What was the probable reasons for such a condition? The reasons appear to rest in the nature and purposes of the institution. From the very earliest times the junior college, the forerunner of the community junior college, was associated with the preparation of students for four-year colleges (Thornton, 1960, p. 47). At successive stages, the junior college expanded to include occupational education, adult education, and community services. It was not until the junior college experienced that last expansion that the name expanded to community junior college (Thornton, 1960, pp. 50-55).

As the name implies, the community junior college is a product of the American community. Evans and Neagley (1973), pp. ix and x), observed that "it is the extension of opportunities for education to all citizens who can profit from the experience." The concept was strengthened by another concept, "Open Door," and the great dream of higher education seemed to be possible and within reach of every community resident. The idea of community and college became so entertwined that Medsker (1960, p. 16) observed,

> . . . the term connotes a close interrelationship of the college and the life of the community: the college looks to the community for suggestions in program planning, and the community looks to the college for many different services to many different people.

The emphasis of the community college was local. It was never distant, far away, or international. Even if one accepted the social purpose for community junior colleges of sorting and screening students for four-year colleges and thereby ensuring that "higher educational systems will continue to underpin the social status quo" (Zwerling, 1976, p. 67), one would still come to the conclusion that though the impact was national in scope, yet the operational base was the local community.

A fifth consideration was that community junior colleges considered "results-oriented instruction based on specified learning outcomes," a low priority. Any interpretation of this response would be somewhat limited and tentative, but a few observations are appropriate. Given the established purposes of community junior colleges, it would seem out of step with those purposes to place "results-oriented instruction based on specified learning outcomes" other than a low priority.

Medsker (1960, pp. 51-52; 72-74) identified the purposes of community junior colleges as providing educational programs which meet the needs of transfer, and

terminal students as well as adult education and community services.

Thornton (1960, p. 59) identified the purposes of community junior colleges after a rather careful review as,

> . . . (1) occupational education of post high school level, (2) general education for all categories of students, (3) transfer for pre-professional education, (4) community service, including education for adults, and (5) the counseling and guidance of students.

Cohen and Associates (1975, p. 62) pressed the four categories into three. These were described as "college-parallel," "occupational," and "non-traditional" programs. Non-traditional included adult education, community services, and special programs to other educational needy groups in the community. Evans and Neagley (1973, p. 99) define community junior colleges as "comprehensive," which offer the "following programs among others,--day and evening, on and off campus, year round: developmental or remedial, transfer, technical, and para-professional." Here there were different descriptions but the substance of the community junior college program was still about the same. The new ingredient was that colleges offering programs as described above were now called "comprehensive." It was shown that the transfer program was and is still a major focus of the community junior college program, but so is terminal education, adult education, and community

services. The balanced approach to the many different educational needs of the publics the community junior college serves was described as "comprehensive."

Gleazer (1973, p. 237) identified comprehensiveness as one characteristic among many that community junior colleges should strive for, so as to attract the funding necessary to their existence.

The community junior college has always had an interest in developing the whole person rather than a part of the person. Knoell and McIntyre (1974, p. 112), emphatically expressed this when they observed,

> . . . probably the most important characteristic which distinguishes the community college from the technical institute is its paramount concern with individual needs and interests. Community colleges are interested in educating whole persons, not simply the labor force portion of the person.

The finding that community junior colleges regard results-oriented instruction based on specified learning outcomes as a low priority was in keeping with its image of itself as a comprehensive educational institution interested in the whole person. This image of itself was supported in the literature.

A sixth finding was that community junior colleges did not consider joint programming with labor unions, industry, and other community groups and agencies as a present priority. Looking at the nation as a whole, this item ranked the lowest on a unit interval scale of zero to ten. It was ranked at zero. Only

three regions rated it between level three and 6.9 on the interval scale, and only one rated it above the 6.9 level. When community junior colleges were looked at according to size, each group--small, medium, and large--rated it between levels three and 6.9 on the interval scale.

This finding was of particular interest because as far back as 1974 Pifer described a new community junior college function as being that of coordinating agent for all other community service agencies. He said that colleges

> . . . should start thinking about themselves from now on only secondary as a sector of higher education and regard their primary role community leadership. . . . Not least they can become the hub of a network of institutions and community agencies--the high schools, industry, the church, voluntary agencies, youth groups, even the prison system and the courts--utilizing their educational resources and, in turn, becoming a resource for them.

Gleazer (1974, p. 4), strongly supported the above position and added, "The mission of the American Association of Community and Junior Colleges is to provide an organization for national leadership of community-based post-secondary education." This appears to be new ground that community junior college administrators were being urged to take by their national spokesmen. Cohen (1975, p. 81) observed, "the term community service is in the process of being modified to community development."

It could be that both Pifer and Gleazer were heartened by Harlacher (1969, pp. 8-9), who saw the community service function of community junior colleges "as a relative new segment of American education, . . . unencumbered with tradition, unfettered by a rigid history, eager for adventure." Hence the call to expansion or modification of the community services concept to community development.

This study revealed that community junior colleges have said no to the call, or were not overly enthusiastic about community development.

Why have community and junior college administrators responded in such a lackluster manner? What were the kinds of problems they were faced with? The study itself did not provide the answers, but the literature addressed some of the problems which may account for administrative inactivity.

More than a decade ago, Harlacher (1969, p. 90) identified community services development in community and junior colleges. He wrote, "The community college will increasingly utilize its catalytic capacities to assist its community in the solution of basic educational, economic, political and social problems." The problems which confront community college administrators as they consider community development, appeared to be numerous. A full listing of such problems will not be

undertaken, but enough to provide some reasons why community college administrators were reticent about community development will be attempted. The problems were as follows: (1) the recognition that community service/community development programs were recognized as less than equal to transfer, occupational, and counseling and guidance functions (Cohen, 1975, p. 83); (2) the plurality of communities which the community college serves; (3) limited resources; and (4) lack of strong evidence to support that community development is possible.

Cohen (1975, p. 83) argued very persuasively that community services/community development programs are recognized as less than equal to transfer, occupational, counseling and guidance functions. Elsner (1974, pp. 19-23) supported this position, at least in the area of finance. When funds are available community services/community development may flourish a little, but when funds are tight, it is the nontraditional that goes first.

A similar conclusion may be drawn from another source, Project Focus, a nationwide survey conducted by the American Association of Community Junior Colleges in 1971. Ninety community junior college presidents, replying to the question, "Respond to the needs of the local community," placed it fourth. However, when that question was articulated into the specific goals of,

"help solve social, economic, or political problems in the immediate geographical area," and, "help formulate programs in public policy areas," for example, "pollution control," the specific goals were ranked almost at the bottom--twenty-third and twenty-fourth--in a list of twenty-six questions. Faculty members ranked the same general goal third, but ranked the specific goals eleventh and twelfth. Students ranked the general goal eighth, and the specific formulations similar to the ranking the faculty gave (Bushnell, 1973, pp. 50-55). The conclusion appears to be inescapable: community development is important, but not very important, to community junior colleges.

The second problem facing community junior college administrators was the plurality of communities the community college serves. In considering this situation, Cohen (1973, p. 84) observed that the community college district is marked more by its diversity than by its similarity. The question of serving dissimilar communities raises questions about who will be served and where the resources will come from to serve them.

Monroe (1972, pp. 31-32) observed, "In serving the community, the community college needs to guard against the danger of dissipating its resources by trying to perform so many different services for the

community that it may not be able to perform its primary task of providing students with quality education." Even if the question of resources could be solved, a major question might still be, how far would the college constitutents allow the college to go in providing non-traditional education?

The question of limited financial resources has been a major problem in community development. It was of major concern in the American Association of Community Junior College's nationwide questionnaire to presidents of community junior colleges. The first question was, "If your campus financial resources (operating and capital budgets) were to vary over the next ten years in the indicated manner (assuming that enrollment stayed the same), what priority would you assign to each of the activities below?" (Bushnell, 1973, p. 200). The question of priorities was discussed in the above paragraphs. What is of significance here is that financial resources will to a large degree determine what will be done in community development programming. Gleazer (1973, p. 147) observed this when he said, "Of all the problems we face, finance heads the list." If community development in community junior colleges is off to a rocky start, as it appears to be, then there is nothing at this time to suggest that financial conditions are going to get better.

The fourth problem which appeared to affect community development was lack of strong evidence that it was possible. Whenever a new image is created or a goal established, it must possess certain characteristics. Among those characteristics are believability and attainability. That is to say, people must believe in the image or the goal and they must believe that it is attainable. Cohen (1973, p. 89) noted,

> A major reason that the community development function has not reached parity with instruction--or even with student guidance--is that although its importance has been noted, the philosophical base on which it stands has not been well articulated.

For example, what does McClusky (1974, p. 22) mean when he said, "all who desire and need to learn, whatever that learning may be" are a proper clientele of community junior colleges? How inclusive is the need to learn? Must the college teach them whatever they need to learn? Does it include, as Cohen (1974, p. 90) inquired, to be taught courses in "fire-bomb making," "safecracking," or principles of avoidance when "shoplifting"? It seemed appropriate to conclude that it would be absurd to expect the college to teach such things, but it does serve to point up the openendedness of the goal.

Bushnell (1973, p. 127) seemed unaware that community junior colleges cannot address all the educational needs of the community when he observed, "A focus on the problems of the community and the need to serve the 'new'

student more effectively has brought the community colleges into center stage as the potential mechanism for meeting community and individual student needs." No assistance was provided about where the financial resources were going to come from to accomplish this task or what elements peculiar to the task that community junior colleges should perform.

Gleazer (1973, pp. 227-28) seemed to subscribe to the lack of clarity about what educational needs can be met by community junior colleges and who should decide those needs. He said,

> To realize the full potential of being where the action is, the community college will want to reform its efforts in the 1970's. It will need to consider older people as well as youth in its programming efforts. A wide range of services will be needed. Present arrangements for meeting the needs of all the people will need to be altered.

This appeared to be somewhat awkward, when prior to that he observed,

> It appears that society is inclined to give community colleges--and that community colleges are generally ready to accept--a large and difficult assignment. But for community colleges to provide the services needed, financial support must be assured. . . . More basic perhaps is the need for society to understand better what community colleges are capable of doing, to decide more precisely what it wishes community colleges to do, and then to make a commitment to support the college in that work. (1973, p. 177)

The demands of the community seem to require from community and junior colleges, not so much a ready acceptance but a disciplined one. The community might

better understand, if they were told clearly, what educational needs community and junior colleges can meet and those they cannot meet. Cohen and associates (1975, pp. 90-91) observed, "The point is, that the debate on community development has not been opened. . . . In brief, the colleges' 'new mission' stands on an old shaky base."

Priority goal statements 1985

In this section of the questionnaire community junior college administrators were asked to prioritize nineteen goal statements for 1985. When the ten regions were looked at as a whole, twelve goal statements were found between levels seven and ten on the interval scale, five at levels three through 6.9, and two at the zero through 2.9 level.

The two at the lowest level were as follows: (1) accessibility to college programs, including those who cannot attend on-campus programs, and (2) programs which emphasize services to minority groups. Accessibility to college programs was considered under "present priority," a "medium priority," but as college administrators looked to the future, it fell to "low priority." This study does not offer any explanation why, but in light of much of the above discussions, accessibility tends to require increasingly more

financial resources, which at this time appeared to be difficult to acquire.

Programs to minority groups were considered as a low priority for the present, and college administrators expressed themselves as seeing this program as a low priority for the future. Apparently the conditions which exist in the present for placing this program as a low priority were also projected into the future, thereby guaranteeing it a low priority.

Twelve programs were considered of high priority. They were as follows: (1) instructional and counseling approaches which assist persons at various adult development stages or transitions; (2) college transfer programs; (3) writing, reading, and math skill programs necessary for college; (4) accessibility to on- and off-campus college programs; (5) community development; (6) programs to assist persons in preparing for second careers; (7) community services programs; (8) individualized instruction, utilizing contracts, television, and audio-tutorial instruction; (9) results oriented instruction; (10) pre-retirement and retirement programs; (11) continuing education for health and human services; and (12) counseling programs which assist adults in adapting to college life. The first four of the twelve programs were rated at levels 9.1 to ten on the unit interval scale.

When looking at present priorities, community and junior college administrators rated twelve programs as "low priority." If a forward look were taken, it would be noted that community and junior college administrators rated twelve programs as of "high priority" for 1985. Eight of the twelve programs were considered of "low priority" when looked at for the present. If community college administrators were optimistic about the future, one must conclude that, that optimism extends to the identification of more financial resources, more decision making at the community level about programs, and greater freedom from state legislative control in course offerings.

The list of twelve programs was also instructive because of its omissions. Omitted from the list of twelve and relegated to the lowest priority in 1985 were programs for minorities, accessibility to college, and programs to assist homemakers to enter and re-enter the work force. These omissions were particularly difficult to explain since they were unanticipated. The difficulty stems also from the fact that community junior college literature is replete with exhortations from community junior college leaders regarding the purposes of community junior colleges. Among the many purposes are programs for minorities and accessibility to college.

The four programs which rated highest among the regions on a national profile were as follows: (1) instructional and counseling approaches which assist persons at various adult development stages or transitions; (2) college transfer programs which enable students to work towards a four-year degree; (3) programs which provide adults with the writing, reading, and math skills necessary to successfully undertake collegiate efforts; (4) counseling programs which assist persons to determine career and other life goals. These priority goals statements were supported at levels 9.1 through ten on the interval scale. The first-mentioned program was the only one of the four which was not a "present priority" at levels seven through ten on the interval scale. The other three programs are established ones and represent no change in direction of community junior colleges for two or more decades. In this sense community junior college administrators mostly see a future which will be very much like the present.

A future very much like the present suggests that the state legislatures will continue to determine what courses will or will not be funded. The State will continue to increasingly control programming. Conversely, less and less control will be expected at the community level. Unless other sources of funding are

secured, little improvement can be expected in community development. Where financial resources are difficult to obtain, any move in the direction of community development by community junior colleges could alienate other human service agencies in the community as competition for dollars becomes intense.

Unlike the national profile and most of the other regions, regions one, nine, and ten had interesting characteristics which merit some discussion. Region one was unlike the national profile in distribution and priorities. At level seven through ten on the interval scale, region one had four priorities, while the national profile had four grouped between nine and ten on the interval scale. The national profile priorities consisted of programs which for the most part were very traditional. Of the four programs in region one's priorities, two of them focused on presenting services to entirely new populations. These were as follows: (1) programs which enhance the ability of the adult to perform adult life roles, such as worker, citizen, consumer, and family member; and (2) programs for retired persons and those preparing for retirement. In a similar manner, region nine had as its primary priority, college transfer programs, while the next two priorities consisted of programs which provide services to new populations. They were as follows: (1) programs in

cooperation with other community agencies and groups which assist in solving contemporary community problems; and (2) programs which assist people in preparing for second careers. Region ten was unlike the national profile and regions one and nine in choosing a new population as its primary priority and relegating traditional programs to the 6.6 through seven level on the interval scale. The new population region ten chose to serve was assisting homemakers to enter or re-enter the work force.

The data suggested that the entire community college community was not unified about what kinds of programming will take priority in the future. For the most part traditional community junior college programs were projected for the future; but some regions were reaching out to combine some traditional programs with programs that reach out to serve new populations--programs to serve the aged, homemakers, and the areas of community development. The evidence was not conclusive, and it seemed far too sketchy to be considered a trend, but it is worth watching because these were some of the areas that Gleazer, Bushnell, Harlacher, Knoell, and McIntyre, to cite a few, considered to be growth areas for the community college.

When community junior colleges were grouped according to size, small colleges projected traditional

community junior college programs as their first priorities; medium-size colleges did likewise, but also included programs in cooperation with other community agencies and groups which assist in solving contemporary community problems (community development) and programs to assist homemakers enter and re-enter the work force. Large colleges chose college transfer programs and instructional and counseling approaches which assist persons at various adult development stages or transitions. Fourteen other programs were grouped between levels five and seven on the unit interval scale.

All colleges when grouped according to size, also placed as their lowest priorities, accessibility to college programs, and programs which emphasize services to minority groups. If this projection should hold true, community junior colleges would be abandoning two areas which were widely considered part of their mission and purpose. More tragic would be the loss to countless minority people, the opportunity (accessibility) and the program services needed to improve their lot in what claims to be an egalitarian society.

Pearsons Product Moment:
social trends

A study of the data revealed that there was not a great deal of unanimity among the regions with respect to social trends. There were correlations between regions three and four, three and five, and three and

ten. Other correlations were between regions four and five, five and ten, and one and nine. There was no correlation between four and ten. At the high level of the interval scale and common to these correlations was the social trend, energy shortages. Common to these correlations at the middle level of the unit interval scale was the social trend, changes in family life. At the lower end of the unit interval scale and also common to these correlations were the social trends, feelings of alienation, loss of personal control, and from governmental services to self-reliance.

What appeared to be a common concern among regions three, four, five, and ten, was energy shortages, as the primary concern, followed by changes in family life as a moderate concern. Of little or no concern were the trends cited at the lower level of the unit interval scale.

Other correlations were between regions four and five, five and ten, and one and nine. As in the above correlations, the data revealed that one common element to these correlations at the high level of the unit interval scale was energy shortages, followed at the middle level by changes in family life, and at the lower level, by feelings of alienation, loss of personal control, and from governmental services to self-reliance. What emerges was that energy shortages was seen

as a regional and national trend. This corroborates other data which were discussed before. At the other end of the interval scale, feelings of alienation, loss of personal control, and from governmental services to self-reliance, emerged as unimportant regional and national social trends.

Apart from these common elements which run through the several regions, each region had its special kind of image of social trends at the different levels of the unit scale. This made each region unique and worthy of special attention to the community college administrator, planner, and program developer.

Images: feasibility

While the data revealed that the image most feasible to community colleges was the community-based college, there was also evidence of a great deal of dissimilarity among the regions. Regions one and seven were negatively correlated and so were regions three and nine. Positively correlated were regions eight and ten. No correlations were found among any of the other regions.

The dissimilarity among regions one and seven was their different emphases. At the high end of the unit interval scale, region one identified the most feasible image of the community college as the life-based college, and region seven identified it as the

development-based college. At the low end of the unit interval scale, regions one and seven identified the community college image least feasible respectively as the development-based college, and the consumer-based college. Other dissimilarities existed between regions three and nine. Region three rated in the uppermost part of the unit interval scale (between levels 9.4 and ten on the interval scale), three images of high feasibility. Listed in rank order were the following images: the development-based college, the community-based college, and the consumer-based college. Region nine considered these same images but ranked them quite differently. The image of the development-based college was ranked as the least feasible. That is to say, it was ranked at zero on the unit interval scale; the community-based college was ranked at the 4.2 level, and the consumer-based college was ranked at the 5.8 level.

These dissimilarities confirm what has already been identified, that is, vigorous competition was going on among the regions with respect to the most feasible image of the community college.

Images: desirability

Two positive correlations were identified with respect to the most desirable image of the community college: regions one and four and regions three and nine. Regions one and four were correlated and the

profile presented was suggestive of vigorous competition among images. Five of the six images, region one could choose from were placed at levels 7.8 through ten on the unit interval scale, while region four placed five of its six choices between levels 6.1 and ten. A similar profile was cast by regions three and nine. Region three placed five of its six choices for desirable image of the community college between levels 8.4 and ten on the unit interval scale. Region nine placed five of its six choices between 7.6 and ten on the scale. The close proximity of images to each other suggested that images may be complementing and supplementing each other and could in time supplant one another.

Futuring processes

Two positive and two negative correlations were identified with respect to futuring processes. Regions one and eight were negatively correlated. They were in agreement on the most important futuring process, namely, periodic and specific activities to identify major institutional strengths and areas for improvement. But they identified different processes as the least important. Region one considered scenarios the least important futuring process, while region eight identified the least important futuring process as establishing and recording long-term priorities for college development (using Delphi or other consensus techniques).

Apart from this, region one ranked four of its five choices in the high part of the scale, while region eight ranked three of its five choices around the mid-point of the scale. A similar negative correlation was identified between regions five and seven.

Regions one and ten exhibited a high degree of correlation and regions four and nine were perfectly correlated (both of these correlations were quite similar). Regions four and nine identified periodic activities to identify major institutional strengths and areas for improvement as the most important futuring process. Both considered scenario writing as the least important futuring process. The other futuring processes were grouped toward the upper end of the unit interval scale.

The negative correlations were indicative of the dissimilarity among these regions about the importance and unimportance of various futuring processes. The high correlations between regions one and ten and regions four and nine exhibited two conditions. In regions one and ten the futuring processes were arranged in approximately the same order, but was considered of different importance by each region. The other condition exhibited by regions four and nine was one in which both regions arranged the futuring processes in a relatively similar manner, and gave them about equal

importance, suggesting that there was no agreement even among the regions which were highly correlated about the ranking and importance of futuring processes.

Present goal priorities

There were two correlations in present goal priority, the series of nineteen statements on the questionnaire which community college administrators were required to prioritize. The correlations were as follows: (1) regions one and ten were weakly correlated, and (2) regions five and nine were strongly correlated.

A look at the interval scale of regions one and ten showed that between levels seven and ten on the unit interval scale, region one had two goal priorities and region ten had one priority. The former had college transfer programs which enable students to work towards a four-year degree, and programs which provide adults with writing, reading, and math skills necessary to successfully undertake collegiate programs. The latter had as its priority, programs to assist homemakers to enter or re-enter the work force.

Another comparison between regions one and ten was made at the zero to 2.9 level on the interval scale. Region one had three goals and region ten had eight. Region ten had only one goal statement of the eight which was common to region one.

The other correlation between regions five and nine were much stronger and more similar. At level seven through ten on the interval scale, region five had six goal statements and region nine had seven. Five of the goal statements were common to each region. At the lower end of the scale a similar situation existed. Each region had only one goal statement and it was the same in each case.

The data suggested that there was some unanimity among the regions about present goal priorities. However, this was not widespread and there existed a great deal of diversity among the regions about present goal priorities.

1985 goal priorities

When community and junior college administrators were asked to rank nineteen goal statements as priorities for 1985, a number of correlations were found. A correlation was found between regions one and three; among regions two, five, eight, and nine; between regions three and five, between regions four and six, and between regions five and eight. Region two had something in common with three other regions, but these four regions were not correlated to each other. A similar situation was found among the other correlations.

What the data suggested was that some regions found more in common with each other about what the

future would be like with respect to their priorities. But even among those regions which had priorities in common, there was yet a great deal of difference. The differences suggested that the regions were responding to trends or social forces which were uniquely their own.

Discriminant Functions: Trends

No discriminant function was found which separated the regions on any of the eighteen variables on social trends at the $p < .05$ level. The ten regions acted uniformly as a group. This was not the case when community colleges were grouped according to size.

Community junior colleges grouped as large rated variable seven of social trends, tendency towards centralized government control, more positively than did small or medium-sized colleges. In a similar manner, colleges grouped as large rated variables one, eighteen, and ten more positively than did small- or medium-sized colleges, but less positively than they rated variable seven. The variables respectively were as follows: diversification of life styles, from a work-oriented to a leisure-oriented society, and adult development culture.

Gleazer (1973, p. 129) observed that the state legislature was controlling much of the programming and course offerings which are done by community junior

colleges. The data suggest that colleges grouped as large were managing the tendency towards centralized government control much more comfortably than colleges grouped as small or medium. In a similar manner, large colleges appeared to be managing much better than colleges grouped as small and medium in areas such as the diversification of life styles, the change from a work-oriented to a leisure-oriented society, and what was described as the adult development culture. Bushnell (1973, p. 126) considered community junior colleges in a unique position to deal with the shifting values of our postindustrial society and the preparation of education for a consumer society. The indication of the data was that colleges grouped as large were doing better in these areas than colleges grouped as small and medium.

Community junior colleges grouped as small and medium ranked three social trend variables negative. They were as follows: (1) advances in science and technology, (2) changes in the nature of work, and (3) from conformity to individual self-expression. The last variable was rated more negative than any of the other variables.

The negative rating of these variables may express fears which were pronounced among colleges grouped as small and medium as opposed to colleges grouped as large. Knoell and McIntyre (1974, p. 91)

identified a fear by the education profession of advances in science and technology. These advances relate to the use of electronic media to carry standardized curricula which could be supplied to all colleges. The fear could well be related to the loss of jobs.

Another fear may be changes in the nature of work. For small and medium colleges, this fear may be expressed in movement away from traditional curricula, as in transfer programs to new curricula which focus on individual ability and egalitarian principles (Cross, 1974, p. 156). Moving in this direction was moving into the unknown, along a path which was untried, and by its very nature, posed many threats.

The change in the nature of work and the emphasis on development of individual abilities may produce what Knoell and McIntyre called a change from "universal access to a comprehensive community college campus--to the goal of providing universal access to comprehensive post-secondary education" (1974, p. 90). This kind of change would precipitate new programs, increased and improved staffs and facilities with a wide range of functions which are not presently in existence. Change perceived in this magnitude could pose some threat to small- and medium-sized colleges, while large colleges

may adapt to such changing conditions in a more positive manner.

Discriminant functions: futuring processes

Community junior colleges grouped as large rated variables one, four, and two of futuring processes more positive than did community colleges grouped as small and medium. The three variables in the order in which they were listed were as follows: (1) a specific periodic effort to identify social and community trends which may have an impact on college development; (2) establishing and recording long-term priorities for college development; and (3) establishing and recording long-term priorities for college development (using Delphi or other consensus-seeking techniques).

This finding was not a surprise and was very consistent with what one would expect to find to a greater extent in colleges grouped as large, than in colleges grouped as small or medium. It was not as if they were the exclusive right of colleges grouped as large. One would expect that the attention paid to those variables would in part be responsible for the colleges' largeness, or size. The attention paid to these variables was a factor in the human and financial resources of those colleges. An inference to be drawn from this finding was that colleges grouped as small and medium were strong on the three variables mentioned above, but

not quite as strong as were colleges grouped as large.

Community colleges grouped as small and medium rated periodic specific activities to identify major institutional strengths and areas for improvement, and writing scenarios, more negatively than did community colleges grouped as large. The finding did not tell how much futuring activity was done. What it did was to point at the perceived value of what futuring activity was going on. With respect to the above two variables, colleges grouped as large appeared a little stronger than colleges grouped as small and medium. This could be construed as consistent with expectation. The identification of major institutional strengths requires the presence of a sophisticated faculty and administrative staff. And much more sophistication will be needed by a faculty and staff which generates scenarios. In both of these matters one would expect to find that colleges grouped as large would be in a stronger position than colleges grouped as small and medium, especially with respect to the generation of scenarios.

Summary: Discussion of Results

Unit interval scales were developed from the generation of catscale values to analyze the responses of 221 community and junior college respondents from ten regions in the United States. The respondents were asked to rate their expectation of how eighteen

identified social trends might impact on their college in the next decade. The data reflected a national profile which identified two social trends of prime importance. They were as follows: (1) energy shortages, and (2) advances in science and technology. Around the middle of the interval scale were six social trends and at the lower end of the scale there were ten social trends. The latter were as follows: (1) diminution of higher education certification as the means of job entry and security; (2) changes in family life; (3) from a work-oriented to a leisure-oriented society; (4) from large-scale to small-scale technology; (5) from job security to varied life experiences; (6) diversification of life styles; (7) citizen participation in decision making; (8) from conformity to individual self-expression; (9) feelings of alienation and loss of personal control; and (10) from governmental services to self-reliance.

In addition to the national profile there were ten regional profiles. When looked at together or as a whole, it was the ten regional profiles which produced the national profile. The national profile was significant in that it provided a general direction of how community and junior college administrators viewed the social trends, energy shortages, and advances in science and technology. A further significance was when

national social trends and regional social trends were identical they re-enforced each other and were, therefore, of greater significance.

Just as national social trends had their own significance, so did regional social trends. The regional social trends were specific to their respective regions. As such they were useful for policy development, planning, and goal setting.

The importance attached to a particular social trend was related to its force. For example, the importance given to energy shortages and advances in science and technology was the result of its place on the unit interval scale, while little or no importance was given to the ten social trends which fell at the lower end of the scale.

When community and junior colleges were grouped according to size (small, medium, and large), all colleges considered the social trend, energy shortages, to have a major impact upon them. Colleges grouped as large and medium considered advances in science and technology to have a moderate impact on them, while colleges grouped as small considered it to have a major impact on them. The situation was reversed when colleges considered the social trend, tendency towards centralized government. Colleges grouped as large considered this trend to have a major impact on them, while colleges

grouped as small and medium considered that it might have little or no impact on them. Colleges grouped as large perceived that government will have more control over their activities, while colleges grouped as small and medium minimized this. The perception might be well grounded, since the volume of funds sent to large colleges was greater than funds sent to colleges grouped as small and medium.

When the data were further tested for Pearsons Product Moment Correlation Coefficient, it was found that there was not a great deal of unanimity among the regions on social trends. There were correlations among the regions one to each other, but not among them as a group. For example, there was a correlation between regions three and four, three and five, and three and ten, but there was no correlation between regions three, four, five, and ten. This re-enforces what was found already, that regions were viewing social trends much in their own manner. The importance of this reflected the uniqueness of each region and indicated that the trends were affecting the regions differently. Apart from this, the information gained was useful to community and junior college administrators for policy development and planning.

When the regions were tested for a discriminant function on the eighteen social trends, none was found.

The regions acted uniformly on social trends; that is, there was no significant direction or grouping together. However, when community and junior colleges were grouped according to size, a discriminant function was found with respect to social trends.

Community and junior colleges grouped as large viewed more positively than did colleges grouped as small and medium, tendency toward centralized government control, diversification of life styles, from a work-oriented to a leisure-oriented society, and adult development culture. This suggests that colleges grouped as large felt a greater degree of comfort in this changing environment than did colleges grouped as small or medium.

Three trends which community and junior colleges grouped as negative were as follows: advances in science and technology, changes in the nature of work, and from conformity to individual self-expression. The negative ranking of these trends may reflect fear of the loss of jobs to the electronic media, and the development of new non-traditional educational programs; areas in which small- and medium-sized colleges might feel quite vulnerable.

Future images

Future images were looked at from two points of view, their desirability and their feasibility. The

most feasible image of the future of the community college was that of the community-based college. A strong competing image was the development-based college. The characteristics which appeared to contribute to the community-based college's degree of feasibility were: (1) the fusion of community and college, (2) the promise for the present and the future; and (3) its mass appeal to the educational needs of the people. It should be noted that while the community-based college was the most feasible image of the community college, it achieved that distinction from only four of the ten regions, suggesting that while that image now appeared secure, it could be supplanted by other competing images or was actively complemented by other future images.

The image of the college as a community-based institution was also considered the most desirable by four of the ten regions. In choosing this image, the regions affirmed that it was attractive and worth seeking for its beneficial effects. Other future images competing for most desirable future image were as follows: life-based college, and career-based college. These images could in time supplant the image of the community-based college, or may, in fact, while competing with it, supplement it. An indication of this may be reflected by the manner in which college administrators chose future images when grouped in colleges

according to size. When colleges were grouped according to small, medium, and large, they unanimously chose the image of the community-based college as the most desirable. However, when choosing the most feasible, colleges grouped as small chose the image of the community-based college, while colleges grouped as medium and large chose the image of the career-based college.

Pearsons Product Moment Correlation Coefficients confirmed much of what was already known with respect to the feasibility and desirability of future images of the community college; that is, a great deal of dissimilarity existed among the regions on both the feasibility and desirability of future images of the community college.

Futuring processes

Community and junior college administrators indicated that they engaged in all five futuring processes listed in the questionnaire. The most heavily engaged in futuring activity was that of periodic specific activities to identify major institutional strengths and areas for improvement. The least engaged-in activity was the writing of scenarios. Eighty-nine percent of the respondents engaged in the former and 16 percent engaged in the latter and considered it not important at all. Community and junior colleges expressed no difference between their engagement in present futuring

processes and the importance they attached to them.

There was some support for the idea that the order in which community and junior college administrators ranked futuring processes grew out of their familiarity with those processes in their preparation for certification and accreditating bodies. Similarly, the low ranking given to consensus-seeking techniques such as Delphi, as well as the low ranking given to scenario writing, were the result of a slow introduction of the ideas of image development and sharing, the use of consensus-seeking techniques and the difficulties in finding personnel in community college settings of acknowledged quality in scenario writing.

When the data were submitted to Parsons Product Moment Correlation Coefficient, there was no indication that the regions rated the futuring processes as a group or that several groups could be identified. This indicated that the regions ranked the futuring processes in their own unique manner and mostly different from one another.

When the data were subjected to discriminant analysis, colleges grouped as large were more positive towards three futuring processes than were colleges grouped as small and medium. The futuring processes were as follows: (1) a specific periodic effort to identify social and community trends which may have an

impact on the college; (2) establishing and recording long-term priorities for college development (using Delphi or other consensus-seeking techniques); and (3) specific efforts to examine alternatives open for future development and engage in dialogue designed to create shared images of the future of the college.

Colleges grouped as small and medium were more negative about the futuring processes, periodic and specific activities to identify major institutional strengths and areas for improvement, and the writing of scenarios. The different emphases between colleges grouped as large and colleges grouped as small and medium appeared to be due to the human and financial resources of colleges grouped as large.

Present goal priorities

The national profile of community and junior colleges in the United States with respect to present goal priorities were as follows: (1) college transfer programs; (2) programs which provide writing, reading, and math skills necessary to successfully undertake collegiate efforts; and (3) counseling programs which assist persons in determining career and other life goals. The next two programs in line were: (1) manpower programs directed toward career goals and area economic development; and (2) accessibility to college programs, including students who cannot attend on-campus programs.

When colleges were grouped according to size, colleges grouped as small chose the same three priorities and added three others. These were as follows: (1) manpower programs which provide career and economic development; (2) accessability to college programs; and (3) short-term community service programs. Colleges grouped as large eliminated counseling programs which assist persons in determining career and other life goals and narrowed their top priorities as colleges grouped as small, but added two others: programs for minority groups and homemakers who want to enter or re-enter the work force. With the exception of accessability to college programs, the other goal priorities have been established priorities of community and junior colleges for more than two decades.

Twelve of the nineteen goal priorities were rated at zero to 2.9 on the unit interval scale. Among the low priorities were the following: (1) individualized instruction through approaches such as contract learning, television and audio-tutorial instruction; (2) programs which emphasized services to minority groups; (3) programs based on an international perspective; (4) results-oriented instruction based on specified learning outcomes; and (5) joint programming with labor unions, industries, and other community agencies or groups.

The choice of present goal priorities and the low ranking given to twelve other goal statements appeared to be the result of several factors. These factors were as follows: (1) pressures created by state legislatures on community and junior college programming; (2) limited and increased competition for scarce educational funds; (3) fear of loss of jobs to the electronic media on state control of curriculum; (4) lack of commitment to racial minorities; (5) close identification of college and community; (6) an image of providing educational programming to develop the whole person; and (7) a growing recognition that the community and junior college needs to define more clearly what it can do and what it cannot do.

When the data were submitted to Pearsons Product Moment Correlation Coefficient analysis, no widespread correlations were found among the regions. This confirmed the diversity of response the regions made to this part of the questionnaire.

When the data were submitted to discriminant analysis, no discriminant function was found among the regions or among community and junior colleges grouped according to size. This suggested that the regional response could not be placed in groups, but that their responses were unique and dissimilar to each other.

Goal priorities 1985

As community and junior colleges looked toward the future, they presented a national profile of high expectancy in program offerings and goal priorities. Between levels seven and ten on the unit interval scale, twelve goal priorities were listed. The four highest of the twelve and listed between 9.1 and ten on the interval scale were the following: (1) instructional and counseling approaches which assist persons at various development stages or transitions; (2) college transfer programs; (3) programs which provide adults with the writing, reading, and math skills necessary to successfully undertake collegiate efforts; and (4) counseling programs which assist persons in determining career and other life goals.

It should be observed that community and junior college administrators on a nationwide basis were optimistic about the future. All but two of the twelve program priorities listed as present priorities and rated at zero to 2.9 on the unit interval scale, moved up to moderate or of high importance in the goal priorities for 1985. If such optimism was justified, one must include among one's reasons that community and junior college administrators saw in their crystal balls, identification of more financial resources, more decision making at the community level about programs and

course offerings, and greater freedom from state control over such matters.

Some caution about the optimism is in place. Regions one, nine, and ten projected goal priorities for 1985 which in general were quite similar to the national profile on present goal priorities. Another observation was that while twelve of the goal statements were ranked at level seven or above on the interval scale for goal priorities in 1985, three of the four ranked between 9.1 and ten were goals of present priority. The conclusion seemed justified that programming in 1985 will basically be what it is at the present, perhaps a little different if resources provide for that.

When colleges were grouped according to size, colleges grouped as small projected traditional community and junior college programs as their 1985 goal priority. Colleges grouped as medium were similar, but they included community development, while colleges grouped as large chose college transfer programs, and instructional and counseling approaches which assist persons at various adult stages or transitions. Colleges when grouped according to size also chose as their lowest priorities, accessibility to college programs, and programs which emphasize services to minority groups. The exclusion of these two programs from the goal priority list for 1985 raised certain questions.

For example, what were the factors which permitted the inclusion of programs on an international perspective, but excluded accessibility to college programs and programs to address the educational needs of minorities? If this projection should hold true, community and junior colleges will be abandoning two areas which were widely considered part of their mission and purpose. More tragic would be the loss to large numbers of minority people of the opportunity (accessibility) and the program services needed to improve their lot in what claims to be an egalitarian society.

When the data were subjected to Pearsons Product Moment Correlation Coefficient, a number of correlations were found. Regions two, five, eight, and nine had something in common with each other but were not correlated with one another. This suggested that in general the regions reacted to goal priorities for 1985 in their own unique manner and that no particular trend was discernable. When the data were subjected to discriminant analysis, no discriminant function was found.

CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Chapter VI presents a summary of the study, conclusions arrived at, and recommendations for review, consideration and possible application. Recommendations for further study have also been included in this section.

Summary

The purpose of the study was to describe futuring practices in community and junior colleges and to describe the major content of the product of these practices as well as selected elements from the best available plans. To accomplish this purpose, a sample of 303 chief administrators were drawn from the 1979 Community, Junior and Technical College Directory. These administrators were mailed a questionnaire and asked to respond to seventy-eight questions and statements under four headings. In addition, they were asked to return with the completed questionnaire, any planning documents such as college mission statements, college goals, results of futuring sessions, and entire or complete plans for the college.

The four major headings of the questionnaire (see appendix A) were as follows: (1) the identification and rating of social trends; (2) the rating of the feasibility and desirability of alternative future images of the community college; (3) the present participation and importance of futuring processes; and (4) present and future institutional goal priorities. Two hundred and twenty-one, or 73 percent of the respondents returned the completed questionnaire.

Chief administrators of community and junior colleges identified two social trends to be of great significance, six others of moderate significance, and ten more of little or no significance. The two social trends of greatest significance were (1) energy shortages, and (2) advances in science and technology. The six social trends of moderate significance were: (1) from consumption to conservation; (2) entry of women into all or most career fields; (3) changes in the nature of work; (4) advances in communications; (5) end of youth culture, beginning of an adult development culture; and (6) tendency toward centralized governmental control.

College administrators felt that the social trend involving energy shortages would have a major impact on their institutions. Administrators in colleges grouped as small and medium felt that the trend

involving advances in science and technology would have a major impact on them, while administrators in colleges grouped as large felt the impact would be moderate. On the trend dealing with the tendency towards centralized governmental control, the situation was reversed. Administrators in colleges grouped as large felt this trend would have a major impact on their institutions, while administrators in schools grouped as small and medium felt it would have a moderate impact.

Community and junior college administrators also considered future images of the community college from two perspectives. They were as follows: (1) feasibility and (2) desirability. The choice of administrators in general was that of the image of the community-based college for both perspectives. Nevertheless, other future images were very attractive to college administrators. When colleges were grouped according to size, specifically, colleges grouped as medium and large found the image, career-based college, most feasible. Community and junior college administrators indicated that they participated in all of the futuring processes listed in the study. Of the five processes, the most heavily engaged-in futuring activity was periodic and specific activities to identify major institutional strengths and areas for improvement. Eighty-nine percent of the respondents engaged in this activity, while

16 percent engaged in scenario writing. Chief administrators felt that periodic and specific activities to identify major institutional strengths and areas for improvement were very important, while scenario writing was not important at all.

Other futuring activities included: (1) a specific periodic effort to identify social and community trends which may have an impact on college development; (2) specific efforts to examine alternatives open for future development; (3) the design and creation of shared images; and (4) establishing and recording long-term priorities for future development, using consensus-seeking techniques such as Delphi. These futuring processes were rated second, third, and fourth respectively in present use and importance.

When colleges were grouped according to size, the chief administrators responded in much the same manner to futuring activities except that administrators of colleges grouped as small and medium responded to scenario writing more positively than did administrators of colleges grouped as large.

The final section of the study addressed institutional goal priorities for the present and for 1985. College administrators identified present institutional goal priorities as follows: (1) college transfer programs; (2) programs which provide writing, reading, and

math skills necessary to successfully undertake collegiate efforts; and (3) counseling programs which assist persons in determing career and other life goals. Three other programs were of moderate significance: (1) accessibility to college programs, including those who cannot attend on campus; (2) manpower programs directed towards career goals and area economic development; and (3) short-term community services programs which permit adults to improve skills in various life role areas. The other thirteen goal statements fell into the 35 percent level or below on the unit interval scale.

Factors which appeared to affect the low ranking of these goal priorities were as follows: (1) pressures created by the state legislature on community and junior college programming; (2) pressures from accrediting institutions; (3) increased competition for scarce financial resources; (4) fear of the loss of jobs to the electronic media or state control of the curricula; (5) lack of commitment to minorities; and (6) a growing recognition that community and junior colleges need to define more clearly what they can and cannot do in serving their diverse communities.

When community and junior college administrators considered 1985 institutional goal priorities, they appeared very optimistic about the future. Twelve of

the nineteen goal priority statements were ranked at or above level seven on the unit interval scale. Four of the twelve were ranked at the 9.1 to ten level on the unit interval scale. The four were as follows: (1) instructional and counseling approaches which assist persons at various adult development steps or transitions; (2) college transfer programs; (3) programs which provide adults with the reading, writing, and math skills necessary to successfully undertake collegiate efforts; and (4) counseling programs which assist persons in determining career and other life goals.

When colleges were grouped according to size, colleges grouped as small and medium projected traditional community and junior college programs, except colleges grouped as medium included community development. Colleges grouped as large focused on transfer and counseling programs. All colleges regardless of size chose as their lowest priorities, accessibility to college programs, including those who cannot attend on-campus programs, and programs which emphasize services to minority groups.

Planning documents

Community and junior college administrators were asked to return with the questionnaire the following planning documents: (1) college mission statements; (2) college goals; (3) results of futuring sessions,

such as written statements of future images, missions, goals, and scenarios; as well as (4) planning documents.

When these data were grossly sorted and categorized, it seemed evident that community and junior college administrators had gone a long way in traditional planning and development of long-range plans. It was also evident that little was accomplished in the manner of futuristic planning by community and junior college administrators. The conclusion was reached that while some first steps were taken in futuristics in community and junior college administration, the extent and practice remained very limited.

Conclusions

As indicated in chapter I, three conditions were to be addressed through this investigation. The results are as follows:

1. To study the extent to which community and junior colleges were engaged in futuring.

The analysis of the data suggested that community and junior college administrators were heavily engaged in traditional aspects of planning. These included but were not limited to, the development of mission statements, goal statements, activities to identify major institutional strengths and areas for improvement. Other areas included efforts to identify

social and community trends which might impact on institutional development.

These activities formed the major portion of institutional planning activity and were considered to be the most important. Eighty-nine percent of community and junior college administrators indicated that they were presently engaged in activities to identify institutional strengths and areas for improvement. Seventy-one percent were engaged in activities to identify social trends which might have an impact on their institutions.

Described as not important, and little practiced at present, were (1) scenario writing; (2) the use of consensus techniques in establishing long-term priorities; (3) the creation of shared images; and (4) the examination of alternatives for future institutional development. But it was precisely the use of these factors in planning which were said to give planning its futuristic approach.

The conclusion was that while some first steps have been taken in futuristic planning in community and junior college administration, the extent of such activity was limited.

2. To identify the extent of the present practice of futuring.

It appears from the results of this study that

the extent of present practice of futurism in community and junior college planning was minimal. The results of the study showed that while community and junior college administrators identified social trends, specifically, energy shortages, advances in science and technology, and the tendency towards centralized governmental control, to mention a few, could have a very major impact on their institutions, there was little evidence to suggest that community and junior college administrators had taken the potential impact of these social trends seriously. That is, one would expect to see the evidence in planning documents, but this was rarely seen.

A similar situation existed with respect to the examination of alternatives open for future development and the development and creation of shared images. Of the forty-four planning documents studied, only three considered a "what if?" For example, What if plans did not go as they were planned? What if new or altered circumstances developed which called for some new or altered approach? Three plans anticipated this possibility and developed scenarios to help determine what course or courses of action might be best suited to the developing situation. One of the three plans went further. It designed scenarios which required an altered economic base for an area dependent on a single industry. In choosing this path, this plan was the seed

plant for the creation of a different future for that area. It was altering a present and past image of that community, and was in the process of creating a new one.

The general absence of evidence which takes the treatment of social trends seriously; the consideration of alternatives open for action; the sparcity of scenario writing and use of consensus-seeking techniques in the development of long-term priorities; suggested that the extent of futuring in community and junior colleges was minimal.

3. To describe some of the best elements and practices which are available.

The conclusion this researcher reached after studying the forty-four planning documents which were returned was that some community and junior colleges were doing a remarkable job at futuring. The quantity was not enough to generalize that community and junior college administrators had embraced futuring. It was enough to provide direction for those community and junior college policymakers and planners who want to get more effectiveness out of planning.

What follows is a composite of some of the very best plans. This will suggest what an excellent plan might contain. To facilitate description, two categories were developed as follows: (1) considerations

for futuristic planning, and (2) results of futuristic planning.

Considerations when planning. Some of the better plans showed that a number of considerations were taken into account when planning was undertaken. This is not an exhaustive listing, but a few considerations this researcher thinks are important. They are as follows: (1) the purpose of planning; (2) a statement of planning assumptions, present and future; (3) consideration of the external and internal environment; (4) trends; (5) the use of consensus-seeking techniques and scenario writing; (6) image development and sharing; and (7) identification of institutional strengths and weaknesses.

It seemed quite obvious why planning was undertaken, yet it was quite refreshing to see the purpose stated. Planning may be undertaken to facilitate the fulfillment of institutional mission and to achieve operating efficiency and effectivness. Whatever the purpose, it seems that it should be stated. When stated, the purpose declares for all the institution and its various publics what the institution is all about.

Present and future planning assumptions should be given careful consideration. At least a couple of factors should be considered. One is the certain/

uncertainty factor assigned to the assumption and its application. The certainty factor determines the level of precision the assumption is allowed in planning. This yields better planning precision, better long-term goal effectiveness, improved cost efficiency and program effectiveness. The greater the uncertainty factor, the greater the range of flexibility, hedging, and options the institution needs for unexpected conditions. When making decisions about the inclusion or exclusion of an assumption, one should consider what direct bearing it has on goals and objectives.

A few of the better plans required planning assumptions from each planning unit along with their goals and objectives. Categories covered were societal context, external agencies, leadership/management, existing and potential programs, potential enrollment, professional development, physical plant, equipment, and physical resources. Within each category there were several planning assumptions.

In the category societal context, one college listed thirty assumptions. These were about such things as crime and violence, substance abuse, metrication, energy, family life, work and leisure, to mention a few. Each planning assumption was fully written and covered both the external and the internal environment.

A few of the better plans dealt extensively with

the external and internal environment, and focused heavily on trends. A major problem with some of the poorer plans was the limited manner in which the internal and external environment was perceived and their treatment of trends.

Another component of futuruism which appeared in some of the better plans was the use of consensus-seeking techniques such as Delphi. This was very much missing in the poorer plans. These latter plans read as though the establishment of mission, goals, objectives, and the setting of priorities occurred without the need for consensus. Maybe there was a method for obtaining consensus, but it was not stated in the plan. Some of the better plans referred to Delphi in particular as a method of obtaining consensus.

The use of consensus-seeking techniques can assist in the resolution of tough issues. Plans arrived at through consensus appear to have a much better chance at implementation and success than do plans arrived at by limited support from the persons expected to carry them out.

Other elements of some of the best plans were scenario writing and image development and sharing. One plan in particular used scenario writing to suggest a change in the economic base of a community. Scenario writing can be used in a variety of situations. It can

be used to enhance clarity, direction, and in expected or unexpected conditions. It is a useful tool to use to probe the question, What if?

The final consideration from some of the better plans was image development and sharing. The creation of an image requires that the institution must know what it wants to be. The institution must be aware of how it wants to be perceived by the various publics it serves. Besides that, the institution must also know whom it wants to serve and is capable of serving. Much of this comes from understanding the external and internal environment. When this is accomplished, the establishment of goals, priorities, and the allocation of resources, represent the raw materials out of which the image of an institution is created.

Just as it is important for an institution to have a sense of purpose, so it is equally important to understand what that purpose is. An institution's sense of being is communicated through its mission, purpose(s), goals, objectives, and priorities. This was clear from some of the best plans.

Results of futuristic planning. The results of planning were seen in the development of what appeared to be more effective institutional plans. The contents of some of the better plans included the following: (1) mission statement, purpose(s), goals (long- and

short-range), objectives; (2) time frames for the accomplishment of goals and objectives, (3) list of priorities and ranking of priorities (high, medium, and low); (4) planning calendar; (5) planning alternative approaches to goal achievement; and (6) other evidences of futuristic planning, including scenario writing and consensus-seeking measures.

The mission was generally a considered statement of what the college wants to be. A college may want to be a comprehensive institution of higher education, or it may want to have a simple purpose. Whatever may be the purpose(s), when stated, it/they add(s) clarity to the plan. Community and junior colleges in the study did not, in general, differentiate between mission and purposes. Sometimes these terms were used interchangeably, but on a very few occasions the purpose(s) was/were stated as to accomplish the mission. When so used, the statement of purpose appeared to be very effective.

Most plans had well-stated goals, both short- and long-range. These generally reflected the broad aims of the mission and were much broader than the objectives. The objectives were a series of thrusts to achieve the much larger goal. The significance of the futuristic orientation of the goals was that they were tied to certain assumptions which required periodic review. One got the impression that the planners were

sensitive to the dynamics of change, unintended consequences, and unexpected situations.

Some of the best plans also identified priorities. These priorities were listed, ranked, and grouped in categories. An example of a major category was "student retention." Some major categories had sub-categories. For example, the major category, "credit producing programs," had sub-categories which included career, academic, new and continuing education programs. Whether the priorities were stated as a major category or with sub-categories, they were ranked as high, medium, or low.

Another important result of some of the best plans was the planning calendar. The calendar signals the institution when certain planning activities should begin and end. It is one place where one can coordinate the various elements of planning. Some calendars were quite comprehensive and included college-wide activities for divisions, departments, and individuals. These activities had various cycles. The cycles stretched from mid-term to annual, to biennial, and were well synchronized.

One of the components which was evident among the best plans and central to planning, was the planning process. Some of the better plans high-lighted the centrality of it by observing its explicit

relationship to institutional mission, institutional goals, priorities, program objectives, plans and budgets. It is through the planning process that the various activities of the institution are unified, focused, and goal-directed.

The planning process in the best plans was described as a formal endeavor and it was in the planning process that great care was given to planning assumptions, checking out their tenability and validity. Here also is a structured environment in which people interact with one another and with information to assess institutional weaknesses, strengths, opportunities, and changing conditions. The final assessment results in the laying of short- and long-term strategies supported by a budget that will thrust the institution forward.

The last item which appeared to be important in some of the best plans was image development and sharing. This activity requires conscious action by an institution. It requires that the institution determine what it wants to be, the community or communities it wants to serve and is capable of serving. For this period of rising needs and limited resources, the creation of an institutional image and the sharing of that image are of vital importance.

The sharing of the image has its own validity in that it allows planning units, the staff, and the

community or communities the institution serves to play back what they perceive as the image of the institution. In the process of playback, the image is continuously focused and crystalized toward the likeness the institution determines for itself.

Recommendations

1. That presidents and chief administrators of community and junior colleges strengthen and improve their ability to plan more effectively by incorporating futuring practices into their present planning processes.

2. That presidents, chief administrators, or their designee, create or provide staff development opportunities for administrative staff and faculty to become improved and practiced in futuring.

3. Futuring requires a commitment to planning, and particularly to long-range planning. It is imperative that presidents and chief administrators make that commitment where it has not been made. Institutional effectiveness, efficiency, and flexibility could be enhanced and improved.

4. There is some recognition that long-range planning did not provide much that it promised. In some quarters, there is an attempt to discourage long-range planning or to ignore it entirely. It seems to this researcher that presidents and chief administrators

would be wisely counseled to examine more carefully planning assumptions as they relate to goals and objectives, and to more carefully and extensively consider the external and internal environments in which the institution operates.

5. Planning takes time. In these times of dwindling resources, faculty and staff may be persuaded to add planning activities to an already heavy schedule of responsibilities. Presidents and chief administrators should consider carefully the environment and conditions under which the planning process and planning activities are conducted. Every effort should be made to see that there is adequate and appropriate time for deliberation. Effort should be made to secure appropriate participation at all levels of the planning process as well as consensus.

6. As funds for the operation and maintenance of programming at community and junior colleges become more scarce, presidents and chief administrators must become more sure that the college's present programs are operated to achieve the mission and goals of the institution. Particular care should be given to the impact which new programs aimed at community residents, agencies, or businesses, have on the budget, as well as to the quality of existing and future programs and to their future support.

Recommendations for further research

This study was conducted at a time when the country was experiencing a shortage of energy with increasingly high energy costs, high unemployment, double-digit inflation, a worsening economy, uncertainty about the country's economic future, diminishing number of freshmen entering college, and uncertainty about the ability of continuing education to fill the gap created by fewer freshmen entering college. At a time like this, careful planning is needed. Yet it is precisely because of the above-mentioned conditions that situations develop which result in crisis management by far too many chief administrators. It is as if the basis or climate for futuring was hostile and so the opportunity to futuring was postponed. It is for these reasons that this study should be replicated at a time when the economic posture of the country offers relief from some of the economic problems cited above.

The study should be replicated with greater emphasis placed on the results of planning (that is, results of futuring sessions, utilization of consensus-seeking techniques, scenario writing, and long-range plans). This researcher was impressed with the excellence of a few plans during the course of this study, but also by the variety of considerations brought to bear on futuring. The plans, of themselves, conveyed a

great deal about the state of the art of futuring and may provide greater illumination than the questionnaire method.

The study should be replicated with the use of a research technique which would permit observations of the sample institutions over an extended period of time. This would provide an opportunity to test the effectiveness of futuring and its contribution to long-range planning over an extended period of time.

Some community and junior colleges have done extensive and intensive examination of the internal and external environments in which their institutions operate. This is essential for futuring. More institutions should be encouraged to do this. A study ought to be done among such institutions to determine if such study produces superior results.

The study suggested that community and junior colleges were not moving beyond the elements of what constitute a comprehensive college. It also suggested that community and junior colleges were downgrading accessibility to college and programs to minorities. The study ought to be replicated to determine if such an attitude persists.

APPENDIX A

QUESTIONNAIRE

FUTURING PRACTICES IN COMMUNITY COLLEGES

A COMBASE Project

(A consortium of community-based community colleges.) Please return completed questionnaire by December 31, 1979.

The purpose of this study is to describe futuring practices in community colleges and to describe the major content of the products of these practices. For the purposes of this study, futuring will be defined as efforts to conceptualize the mission and characteristics of the college in the years ahead. The purpose of futuring activities is to provide a conceptual base for determining long-range programming, staffing, financial, and facility priorities and plans.

Social Trends

Directions. Check (✓) the impact on your community college development you expect the following social trends to have during the next decade. The rating scale is from "No Impact at All" (1) to "Very Major Impact" (5).

SOCIAL TRENDS: RATING SCALE	No Impact At All 1	2	3	4	Very Major Impact 5
1. Diversification of life styles	___	___	___	___	___
2. Advances in science and technology	___	___	___	___	___
3. Energy shortages	___	___	___	___	___
4. Entry of women into all or most career fields	___	___	___	___	___
5. Changes in family life (two-income families, single parent families)	___	___	___	___	___
6. Advances in communications	___	___	___	___	___

SOCIAL TRENDS: RATING SCALE	No Impact At All 1	2	3	4	Very Major Impact 5
7. Tendency toward centralized governmental control	___	___	___	___	___
8. Feelings of alienation, loss of personal control	___	___	___	___	___
9. Citizen participation in community decision-making	___	___	___	___	___
10. End of "youth culture," beginning of an "adult development culture"	___	___	___	___	___
11. Changes in the nature of work	___	___	___	___	___
12. Diminution of higher education certification as the means for job entry and security	___	___	___	___	___
13. Value Shifts					
a. from governmental services to self-reliance	___	___	___	___	___
b. from conformity to individual self-expression	___	___	___	___	___
c. from large scale to small scale technology	___	___	___	___	___
d. from job security to varied life experiences	___	___	___	___	___
e. from consumption to conservation	___	___	___	___	___
f. from a work to a leisure oriented society	___	___	___	___	___

Future Images

Directions. Rate the following alternative images of your community college of 1990 in terms of (1) feasibility, and (2) desirability:

IMAGES: RATING SCALE	FEASIBILITY Not At All 1	2	3	4	Very 5	DESIRABILITY Not At All 1	2	3	4	Very 5
1. Life Based College. The identification of human resource needs of the community in employment or other life role areas; career and life planning as a basis for admissions and counseling services; and instruction appropriate to the life goals of adults	___	___	___	___	___	___	___	___	___	___
2. Learning Based College. The college as a social services agency, diagnosing the learning needs of individuals and prescribing instructional responses. The focus would be on basic literacy skills and career preparation	___	___	___	___	___	___	___	___	___	___
3. Career Based College. Service to community groups having limited options including low-income and handicapped groups. The focus would be on indivdual and group counseling; occupational education; placement and follow-up	___	___	___	___	___	___	___	___	___	___
4. Consumer Based College. The use of marketing research in identifying student educational needs; the "packaging" of educational programs in response to identified needs; and an extensive advertising and public relations program to inform and attract students. . .	___	___	___	___	___	___	___	___	___	___

FUTURING PROCESS: RATING SCALE	Engage in activities at present?		How important do you feel it is to do so? Not At All				Very
	YES	NO	1	2	3	4	5
1. A specific periodic effort to identify social and community trends which may have an impact on college development.	___	___	___	___	___	___	___
2. Specific efforts to examine alternatives open for future development and engage in dialogue designed to create shared "images" of the future of the college.	___	___	___	___	___	___	___
3. Periodic and specific activities to identify major institutional strengths and areas for improvement	___	___	___	___	___	___	___
4. Establishing and recording long-term priorities for college development (using delphi or other consensus-seeking techniques)	___	___	___	___	___	___	___
5. Writing "scenarios," stories which describe possible year-by-year events which could happen as your college develops over the next decade	___	___	___	___	___	___	___

Institutional Goal Priorities

Directions. Please rate present and future priorities in ascending order from "Low Priority" (1) to "Top Priority" (5).

IMAGES: RATING SCALE	FEASIBILITY Not At All 1	2	3	4	Very 5	DESIRABILITY Not At All 1	2	3	4	Very 5
5. Development Based College. Educational programs tailored to the various adult development stages or seasons. The emphasis would be on counseling which responds to the needs of persons at different age categories; and instruction designed to meet adult needs throughout the life cycle.	___	___	___	___	___	___	___	___	___	___
6. Community Based College. Emphasis on collaboration with community agencies and groups in identifying educational responses. The focus would be on a wide range of short and longer term programs, (offered at various community locations as well as the campus), which would help communities, groups, or individuals solve problems or achieve goals	___	___	___	___	___	___	___	___	___	___

Futuring Process

Futuring processes include efforts to (1) identify social and community trends which will have an impact on college development, (2) identify alternative images of the future of the college (condensed and crystallized expectations for what the college will become), (3) determine major college strengths and areas for improvement, (4) establish long-term action priorities, and (5) write scenarios or stories which describe how the college will take action on priorities over time.

Directions. Please check (✓) in the space provided futuring activities your college is engaged in at present, and use the rating scale to rate each item in descending order, with "Not Important At All" (1) to "Very Important" (5).

PRIORITY RATING SCALE	What priority does your college give to this goal at the present time? Low Priority 1 2 3 4 5 Top Priority	What priority do you feel this goal will have in 1985? Low Priority 1 2 3 4 5 Top Priority
What priority do you give to these possible long-term goals?		
1. Accessibility to college programs, including those who cannot attend on-campus programs	___ ___ ___ ___ ___	___ ___ ___ ___ ___
2. Counseling programs which assist persons in determining career and other life goals	___ ___ ___ ___ ___	___ ___ ___ ___ ___
3. Programs which provide adults with the writing, reading, and math skills necessary to successfully undertake collegiate efforts	___ ___ ___ ___ ___	___ ___ ___ ___ ___
4. Instructional and counseling approaches which assist persons at various adult development stages or transitions	___ ___ ___ ___ ___	___ ___ ___ ___ ___
5. Counseling programs which assist adults in adapting to college life	___ ___ ___ ___ ___	___ ___ ___ ___ ___
6. Programs which enhance the ability of the adult to perform adult life roles such as worker, citizen, consumer, and family member	___ ___ ___ ___ ___	___ ___ ___ ___ ___
7. Manpower programs which enable adults to achieve career goals and contribute to the economic development of the area	___ ___ ___ ___ ___	___ ___ ___ ___ ___
8. College transfer programs which enable students to work towards a four-year degree	___ ___ ___ ___ ___	___ ___ ___ ___ ___

PRIORITY RATING SCALE	What priority does your college give to this goal at the present time? Low Priority 1 2 3 4 5 Top Priority	What priority do you feel this goal will have in 1985? Low Priority 1 2 3 4 5 Top Priority
9. Short-term community services programs which permit adults to improve skills in various life role areas	___ ___ ___ ___ ___	___ ___ ___ ___ ___
10. Individualized instruction through approaches such as contract learning, television, and audio-tutorial instruction	___ ___ ___ ___ ___	___ ___ ___ ___ ___
11. Results-oriented instruction based on specified learning outcomes	___ ___ ___ ___ ___	___ ___ ___ ___ ___
12. Programs for retired persons and those preparing for retirement	___ ___ ___ ___ ___	___ ___ ___ ___ ___
13. Programs to assist homemakers to enter or re-enter the work force	___ ___ ___ ___ ___	___ ___ ___ ___ ___
14. Continuing education programs for those in health and other human service fields	___ ___ ___ ___ ___	___ ___ ___ ___ ___
15. Programs which assist people in preparing for second careers	___ ___ ___ ___ ___	___ ___ ___ ___ ___
16. Programs in cooperation with other community agencies and groups which assist in solving contemporary community problems	___ ___ ___ ___ ___	___ ___ ___ ___ ___
17. Instructional programs based on an international perspective	___ ___ ___ ___ ___	___ ___ ___ ___ ___
18. Programs which emphasize services to minority groups	___ ___ ___ ___ ___	___ ___ ___ ___ ___

PRIORITY RATING SCALE	What priority does your college give to this goal at the present time? Low Priority 1 2 3 4 5 Top Priority	What priority do you feel this goal will have in 1985? Low Priority 1 2 3 4 5 Top Priority
19. Joint programming with labor unions, industries, and other community agencies or groups	___ ___ ___ ___ ___	___ ___ ___ ___ ___

Planning Documents

Could you please send the following items when you return this questionnaire?

1. College mission statements
2. Statements of college goals
3. Written results of futuring sessions such as statements of future images, missions, goals, and scenarios
4. Planning documents

APPENDIX B

COMMUNITY AND JUNIOR COLLEGE EXPERTS

COMMUNITY AND JUNIOR COLLEGE EXPERTS

Campbell, R.	Monroe Community College
Grot, C. Nelson	Schoolcraft Community College
Heath III, Conner	Highland Park Community College
Morris, Dick	St. Clair County Community College
Myran, Gundar A.	President, Washtenaw Community College
Pappas, Charles W.	Mott Community College
Wilson, Reginald W.	Wayne County Community College

APPENDIX C

REGIONS OF THE UNITED STATES AND NUMBER OF RESPONDENTS IN EACH REGION RESPONDING

REGIONS OF THE UNITED STATES AND NUMBER OF RESPONDENDENTS IN EACH REGION RESPONDING

Region	Status	No. of Respondents
1	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	15
2	New Jersey, New York, Puerto Rico, Virgin Islands, Canal Zone	13
3	Delaware, Maryland, Pennsylvania, Virginia, West Virginia, Washington, D.C.	19
4	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee	45
5	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin	44
6	Arkansas, Louisiana, New Mexico, Oklahoma, Texas	23
7	Iowa, Kansas, Missouri, Nebraska	17
8	Colorado, Montana, North Dakota, South Dakota, Utah	7
9	Arizona, California, Hawaii, Nevada, American Somoa, Trust Territory of the Pacific, Guam, Wake Islands	30
10	Alaska, Idaho, Oregon, Washington	6
	Region unknown	6
	Total respondents	221

APPENDIX D

CORRESPONDENCE

LAKE
MICHIGAN
COLLEGE

BENTON HARBOR
MICHIGAN
49022

RECEIVED NOV 30 1979

11-16-79 You are a very wise and politically astute woman. From Harwood the Secretary to Superintendent

November 13, 1979

Secretary to the President
Santa Monica College
Santa Monica CA 90405

Dear Madam:

I am a doctoral student at Michigan State University in the College of Higher Education and Administration and associated with Dr. Gunder Myron, President of Washtenaw Community College. Together, we are conducting a nationwide study in the status of futuristics (for the purposes of this study, futuring will be defined as efforts to conceptualize the nature of the college beyond five years) in community and junior colleges.

The results of this study are important to us, as well as large numbers of presidents and administrators of junior and community colleges. As an index of the importance we place on the results of this study, I have chosen to write you to solicit your support in bringing this study to your chief administrator's attention to secure the completion of the questionnaire and to return it to us.

You will notice that we have chosen to write you before sending the questionnaire. This is because we realize the importance of secretaries as people who get things done and to alert you that the questionnaire will arrive in about ten days.

We deeply appreciate your assistance in this matter, and we thank you for your support.

Sincerely,

Kenneth Riley

Kenneth Riley
Associate Dean of Continuing
Education and Community Services

lm/1/1

P.S. The questionnaire will arrive under a different letterhead, but this is because mailings are going out from two different offices.

November 21, 1979

Ms. Ann Warmbrott
Secretary to the President
Santa Monica College
Santa Monica, California 90405

Dear Ms. Warmbrott:

Greeting!

Thank you for your kind response and for your support in this project. The study is progressing according to plan and the questionnaire will be arriving on schedule. If it should arise that there is need for clarification, or if you should have any observations which might be helpful to this study, please direct the same to me.

Thank you again for your every assistance.

Sincerely yours,

Kenneth Riley
Associate Dean of Continuing
Education and Community Services

KR/kc

WASHTENAW COMMUNITY COLLEGE
4800 EAST HURON RIVER DRIVE P.O. Box D-1
ANN ARBOR MICHIGAN 48106
TELEPHONE 973-3300 AREA 313

GUNDER A. MYRAN, PRESIDENT

Dear Community College President:

The COMBASE consortium, which is made up of about twenty-five community colleges interested in the development of community-based services and programs, has made the study of futuring and long-range planning practices in community colleges one of its priorities. I have agreed to approach our colleagues in a selected group of colleges to ask their assistance in conducting a study of futuring practices in community colleges. Your college has been selected, and we are very hopeful that you will take about twenty minutes to complete the enclosed questionnaire and return it to us. We expect the study to result in a publication on futuring practices, and would of course plan to send a copy to you.

Mr. Ken Riley, who is a staff member at Lake Michigan Community College, is working with us and is producing a dissertation as a result of this work. He is a doctoral candidate at Michigan State University.

I realize that "futuring" is a new word to some. I would define futuring as an effort to conceptualize the mission and characteristics of the community college in the years ahead. It would be regarded as the first phase of long-range planning, since it would provide a conceptual base for more specific planning efforts. I think the content of the questionnaire helps to explain the parameters of futuring.

In other sectors, futuring activities are already given high priority. Examples would be the insurance industry, some of the major corporations, and some agencies of the federal government. Sophisticated techniques are emerging that will help institutions "know" the future in somewhat the same ways we know the past, and I believe community colleges can benefit greatly from applying or adapting such techniques.

Page 2.

At this point, we feel it is important to know what futuring activities do exist in community colleges, and to assess the viewpoint of community college presidents about the future. We hope you will agree, and will send us the completed questionnaire.

Thanks so much.

Sincerely,

Gunder A. Myran
President
Washtenaw Community College

GAM:jmvb

Enclosure: Questionnaire

LAKE
MICHIGAN
COLLEGE

BENTON HARBOR
MICHIGAN
49022

January 18, 1980

Dear Community College Dean:

During the first week of December 1979, Dr. Gunder Myran, president of Washtenaw Community College and a member of COMBASE, a consortium made up of about 25 community colleges interested in the development of community-based services and programs, sent you a questionnaire on a study of futuring practices in community colleges.

The response to this questionnaire is enthusiastic, but your completed questionnaire is needed to complete the study and assure its validity. If you have not returned your questionnaire which was requested to be returned by December 31, 1979, please do me the favor of filling it out and returning it by January 31, 1980. If you have already returned yours, many thanks.

Sincerely yours,

Kenneth Riley

Kenneth Riley, Associate Dean
Community Services and
Continuing Education

ac/5/7

WASHTENAW COMMUNITY COLLEGE
4800 EAST HURON RIVER DRIVE
ANN ARBOR MICHIGAN 48106
TELEPHONE 973 3300 AREA 313

GUNDER A. MYRAN, PRESIDENT

February 12, 1980

Dear Community College Dean:

Some time ago, Mr. Ken Riley and I sent you a questionnaire which related to futuring practices in community colleges. Since we do wish to have a maximum response from the colleges we selected for our sample, I am taking the liberty of sending this one last reminder.

Believe me, I would understand if you are too busy to respond. However, we do have a very good return so far and are anxious to add your response. So, if you can, could you take a few minutes to complete and return the questionnaire by Wednesday, February 27, to:

Mr. Ken Riley
Lake Michigan College
2755 East Napier Avenue
Benton Harbor MI 49022

Thanks.

Sincerely,

Gunder A. Myran
President

APPENDIX E

INTERVAL SCALES FOR REGIONS AND COLLEGES GROUPED ACCORDING TO SIZE

1. Diversification of life styles
2. Advances in science & techology
3. Energy shortages
4. Entry of women in all/most career fields
5. Changes in family (2-income families, single-parent families)
6. Advances in communication
7. Tendency toward central gov. control
8. Feelings of alienation, loss of personal control
9. Citizen participation in community decisions
10. End "youth culture," begin "adult culture"
11. Changes in nature of work
12. Diminution of higher ed. cert. for job entry & security
13. From gov. services to self-reliance
14. From conformity to self-expression
15. From large- to small-scale technology
16. From job security to varied life exper.
17. From consumption to conservation
18. From work- to leisure-oriented society

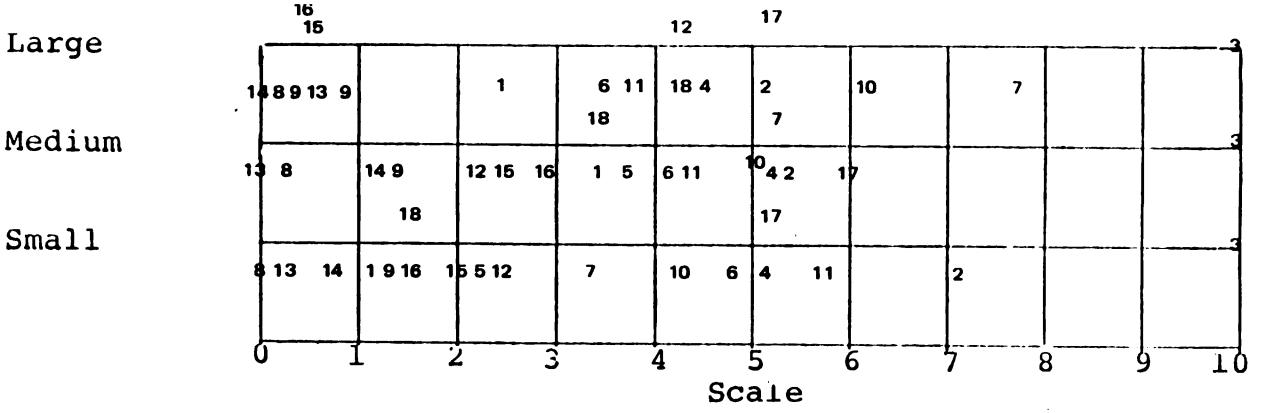


Fig. 4. A response by community college administrators from community colleges grouped as small, medium, and large on eighteen social trends. Catscale values were used to determine the interval scale.

1 = Life-based college
2 = Learning-based college
3 = Career-based college
4 = Consumer-based college
5 = Development-based college
6 = Community-based college

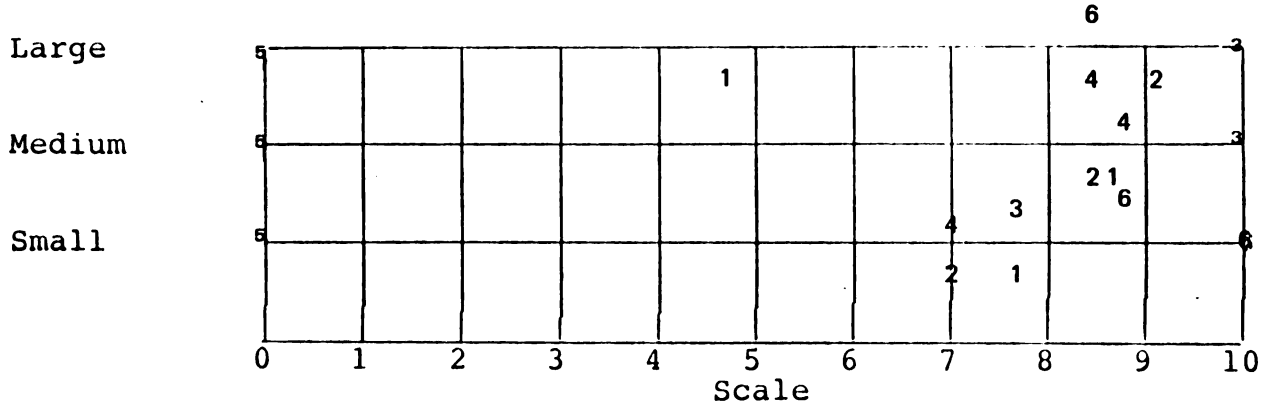


Fig. 5. Feasible images of the community college from community colleges grouped as small, medium, and large. Catscale values were used to develop the interval scale.

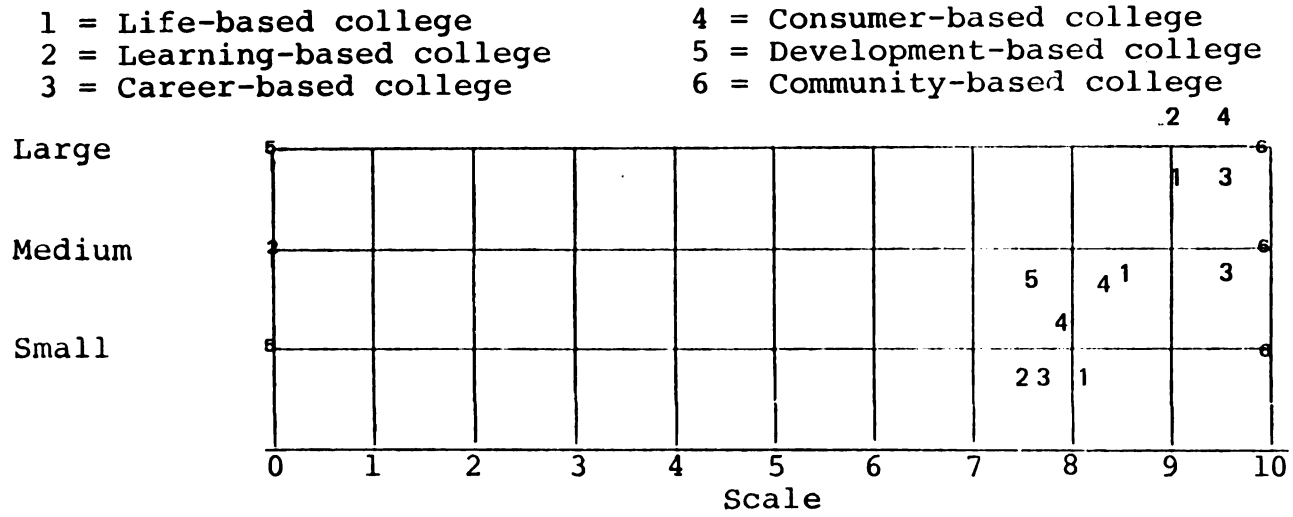


Fig. 6. Desirable images of the community college from community colleges grouped as small, medium, and large. Catscale values were used to develop the interval scale.

1. A specific effort to identify social and community trends.
2. Specific efforts to examine alternatives open for future development.
3. Specific activities to identify major institutional strengths.
4. Establishing and recording long-term priorities.
5. Writing scenarios

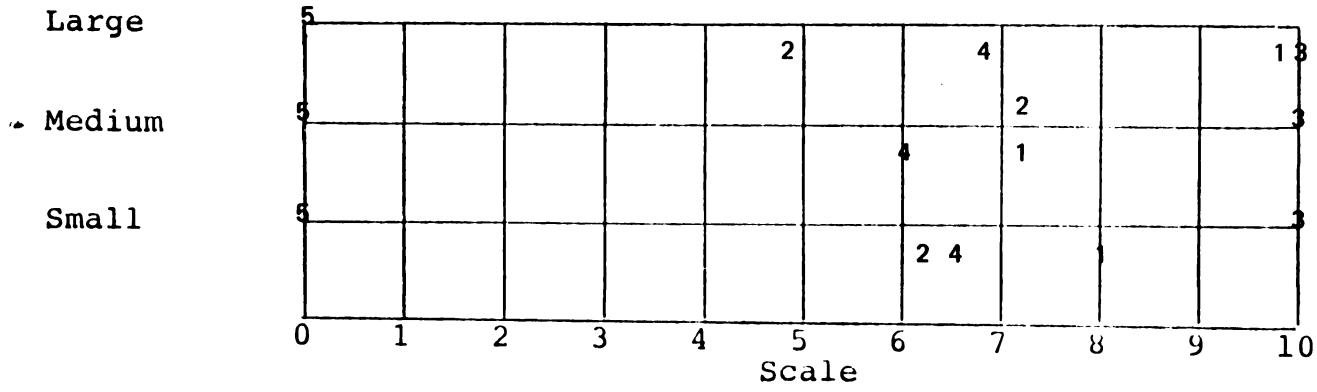


Fig. 7. A response by community college administrators from community colleges grouped as small, medium, and large on the importance of futuring processes. Catscale values were used in developing the interval scale.

1. Accessibility to college
2. Counseling
3. Writing, reading, and math skills
4. Adult development instruction and counseling
5. For adults to adapt to college
6. For adults to perform life roles
7. Manpower
8. College transfer
9. Short-term community services
10. Individualized instruction
11. Results oriented
12. for pre-retirement and retired persons
13. for homemakers to enter or re-enter work force
14. Continuing education in health and human services
15. For second careers
16. For cooperation with other community agencies
17. International
18. Minority groups
19. Joint with labor unions and industry

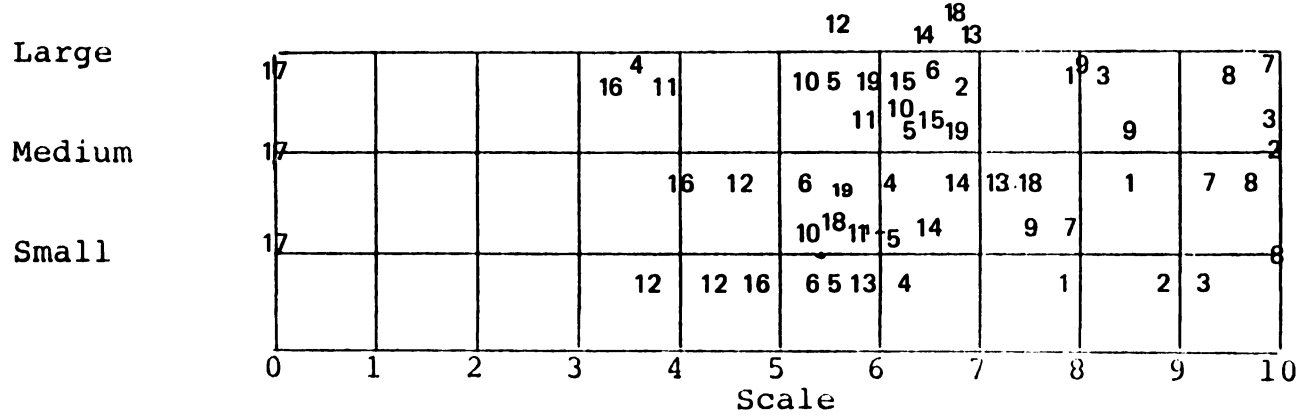


Fig. 8. A response by community college administrators from community colleges grouped as small, medium, and large, to nineteen present goal priorities. Catscale values were used in developing the interval scale.

1. Accessibility to college
2. Counseling
3. Writing, reading, and math skills
4. Adult development instruction and counseling
5. For adults to adapt to college
6. For adults to perform life roles
7. Manpower
8. College transfer
9. Short-term community services
10. Individualized instruction
11. Results oriented
12. For pre-retirement and retired persons
13. For homemakers to enter or re-enter work force
14. Continuing education in health and human services
15. For second careers
16. For cooperation with other community agencies
17. International
18. Minority groups
19. Joint with labor unions and industry

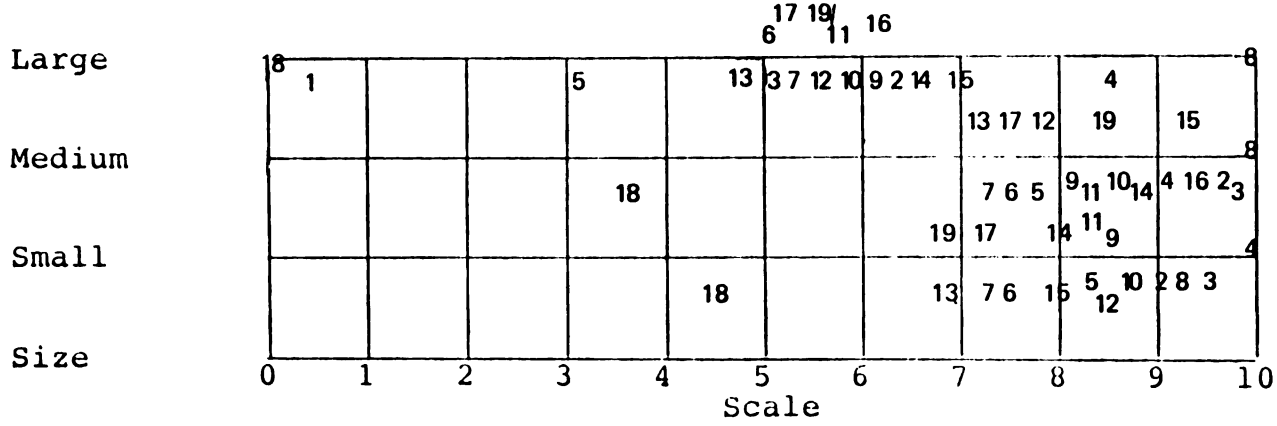


Fig. 9. A response by community college administrators from community colleges grouped as small, medium, and large, to nineteen goal priorities for 1985. Catscale values were used in developing the interval scale.

1. Diversification of life styles
2. Advances in science and technology
3. Energy shortages
4. Entry of women in all/most career fields
5. Changes in family (2-income families, single-parent families)
6. Advances in communication
7. Tendency toward central gov. control
8. Feelings of alienation, loss of personal control
9. Ci tizen participation in community decisions
10. End "youth culture," begin "adult culture"
11. Changes in nature of work
12. Diminution of higher ed. cert. for job entry and security
13. From gov. services to self-reliance
14. From conformity to self expression
15. From large- to small-scale technology
16. From job security to varied life exper.
17. From consumption to conservation
18. From work- to leisure-oriented society

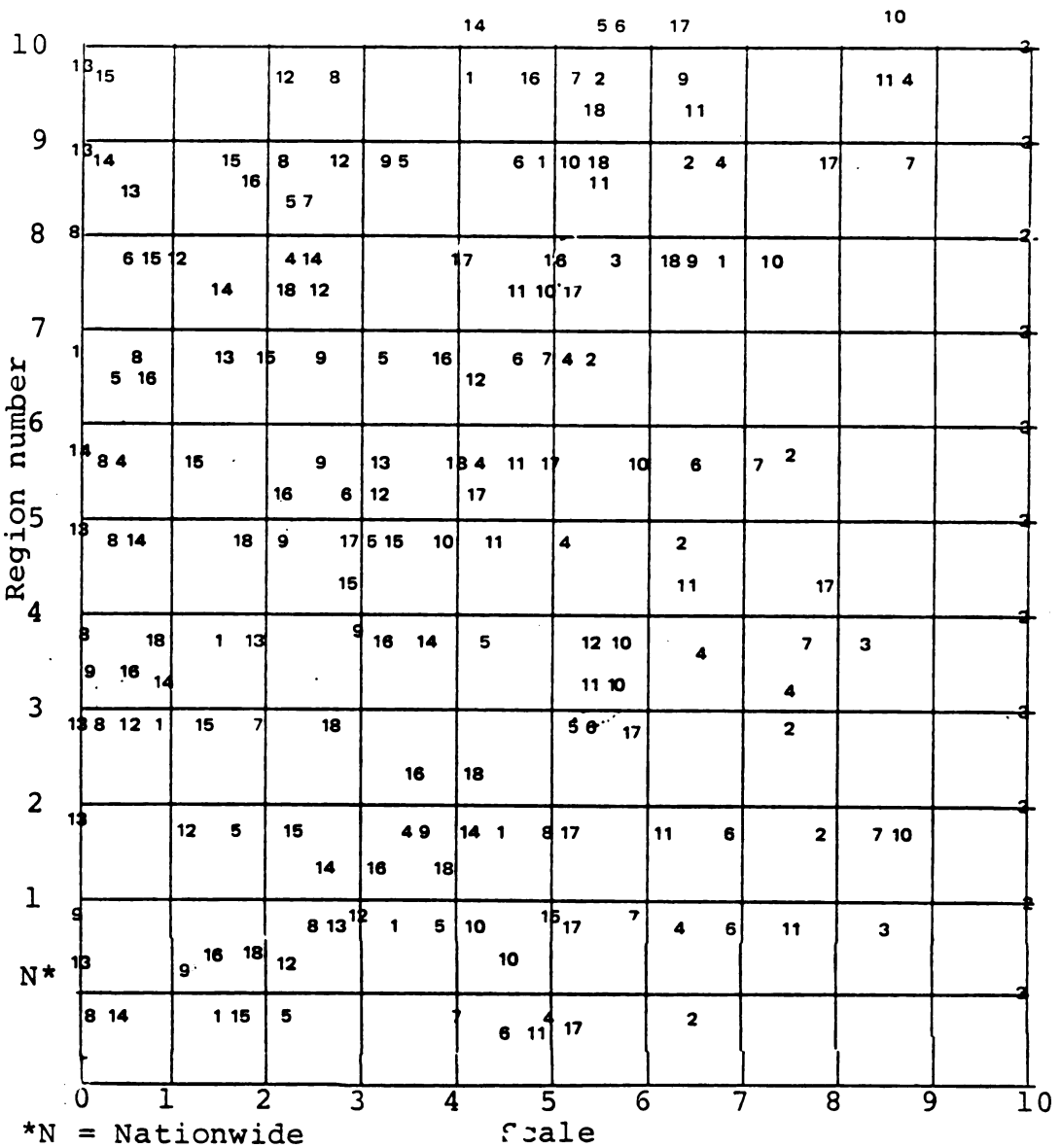


Fig. 10. A response by community college administrators from community colleges grouped according to regions on eighteen social trends. Catscale values were used in developing the interval scale.

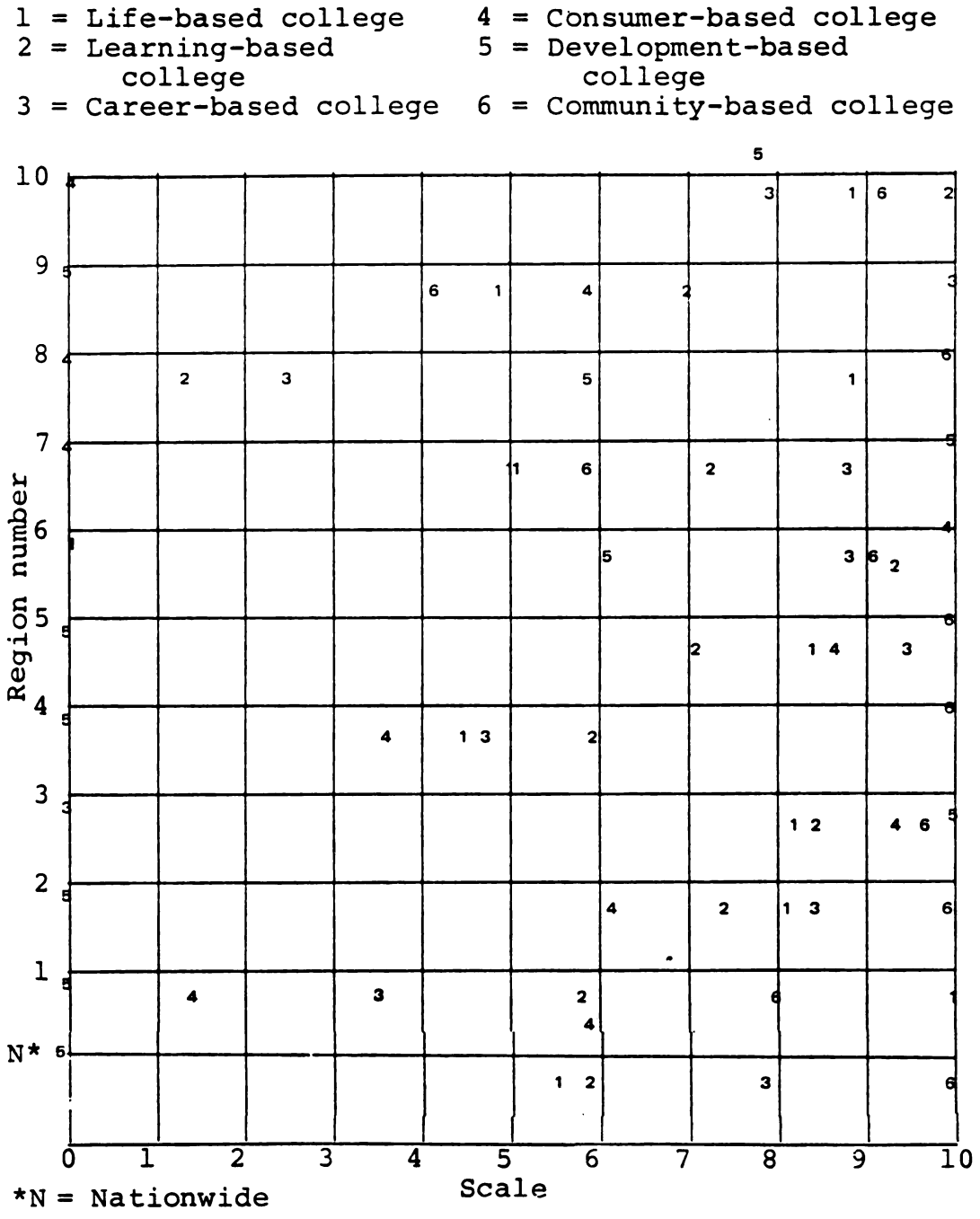


Fig. 11. Feasible images of the community college from community colleges grouped according to regions. Catscale values were used to develop the interval scale.

1 = Life-based college
2 = Learning-based College
3 = Career-based college
4 = Consumer-based college
5 = Development-based college
6 = Community-based college

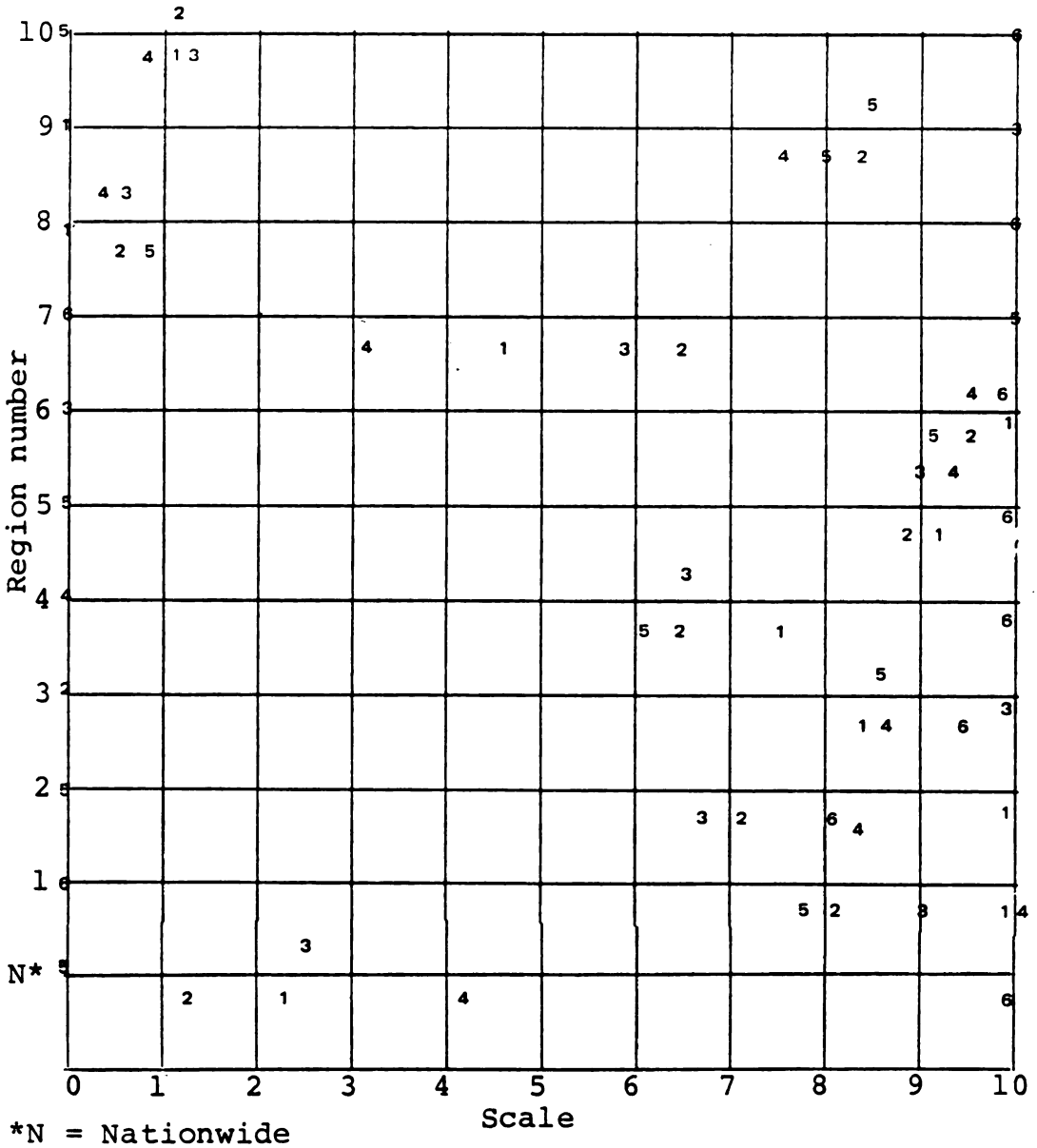
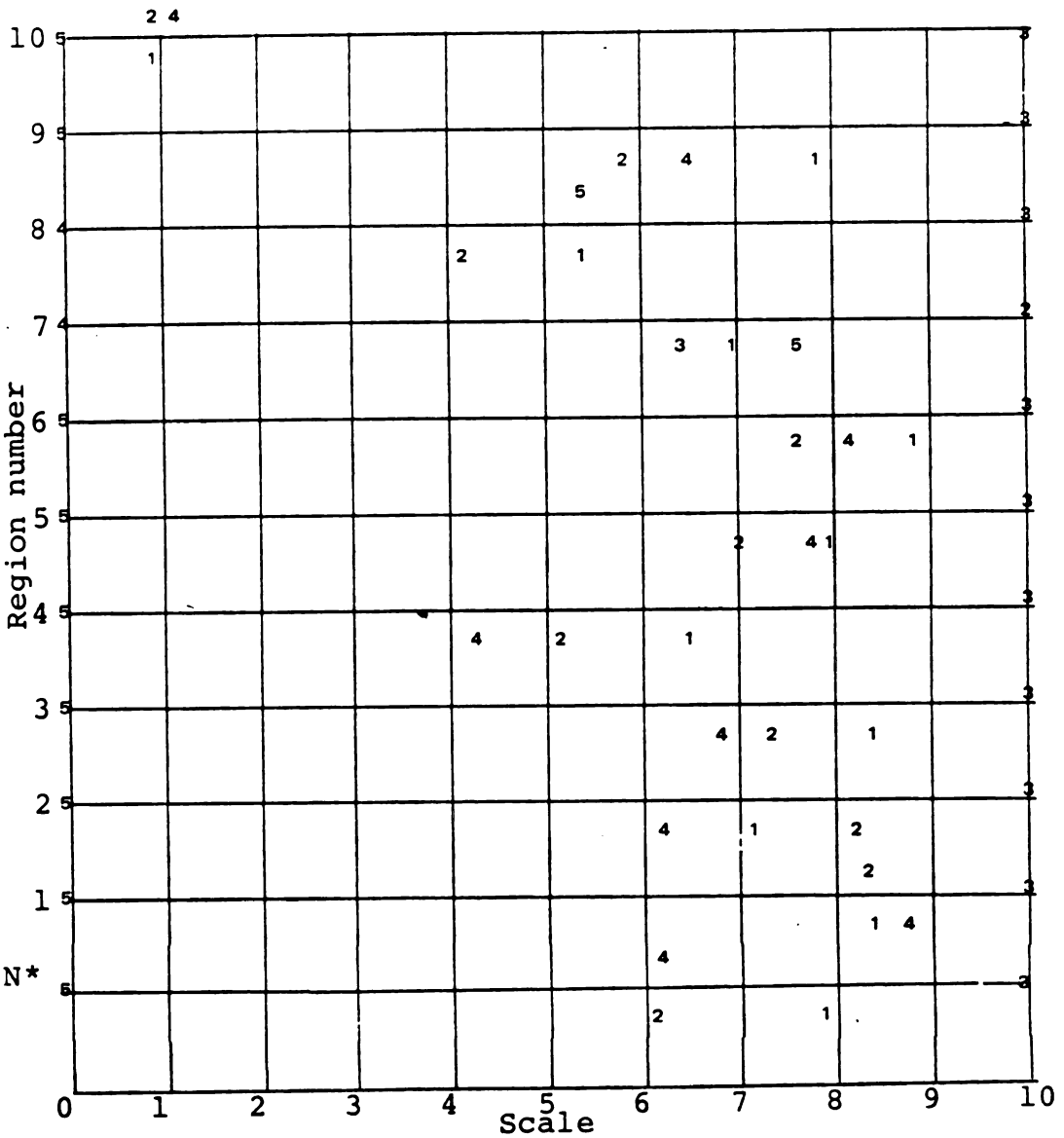


Fig. 12. Desirable images of the community college from community colleges grouped according to regions. Catscale values were used to determine the interval scale.

1. A specific effort to identify social and community trends.
2. Specific efforts to examine alternatives open for future development.
3. Specific activities to identify major institutional strengths.
4. Establishing and recording long-term priorities.
5. Writing scenarios.



*N = Nationwide

Fig. 13. A response by community college administrators from community colleges grouped according to regions on the importance of futuring processes. Catscale values were used in developing the interval scale.

1. Accessibility to college
2. Counseling
3. Writing, reading, and math skills
4. Adult development instruction & counseling
5. For adults to adapt to college
6. For adults to perform life roles
7. Manpower
8. College transfer
9. Short-term community services
10. Individualized instruction
11. Results oriented
12. For pre-retirement and retired persons
13. For homemakers to enter or re-enter work force
14. Continuing education in health and human services
15. For second careers
16. For cooperation with other community agencies
17. International
18. Minority groups
19. Joint with labor unions and industry

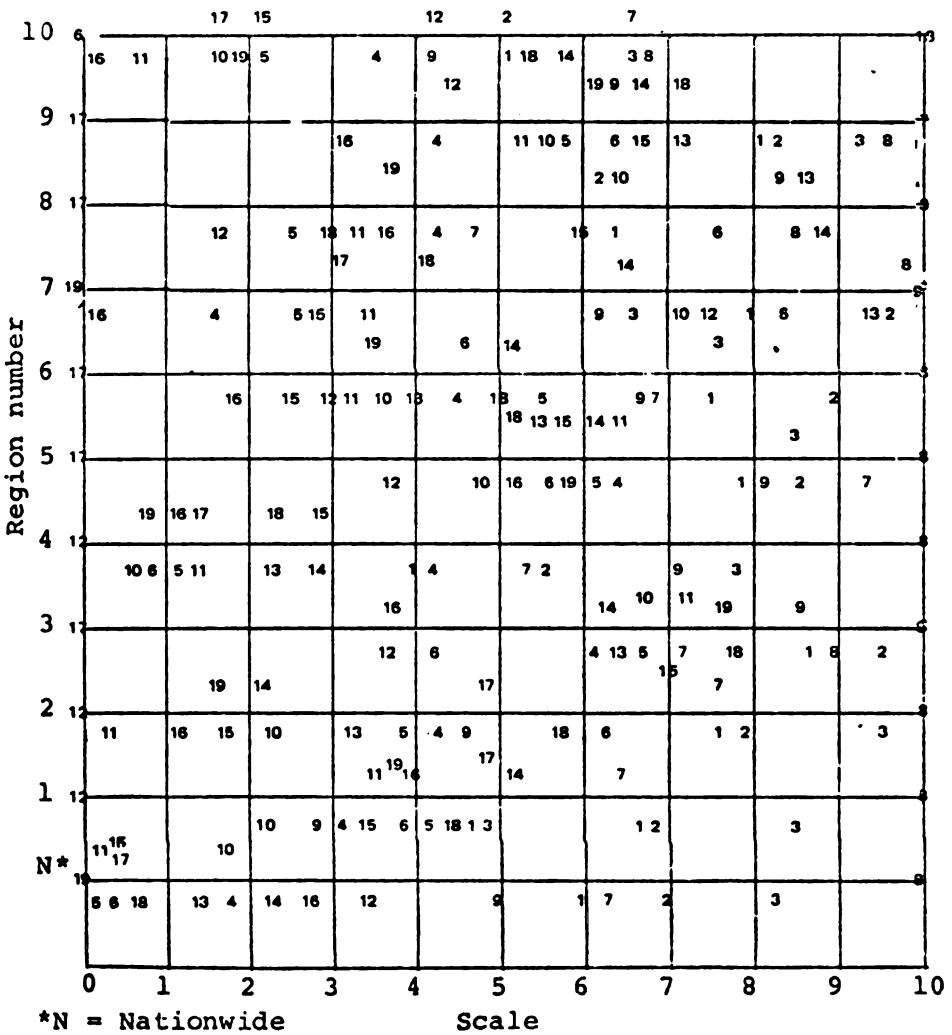


Fig. 14. A response by community college administrators from community colleges grouped according to regions to nineteen present goal priorities. Catscale values were used in developing the interval scale.

1. Accessibility to college
2. Counseling
3. Writing, reading, and math skills
4. Adult development instruction & counseling
5. For adults to adapt to college
6. For adults to perform life roles
7. Manpower
8. College transfer
9. Short-term community services
10. Individualized instruction
11. Results oriented
12. For pre-retirement and retired persons
13. For homemakers to enter or re-enter work force
14. Continuing education in health and human services
15. For second careers
16. For cooperation with other community agencies
17. International
18. Minority groups
19. Joint with labor unions and industry

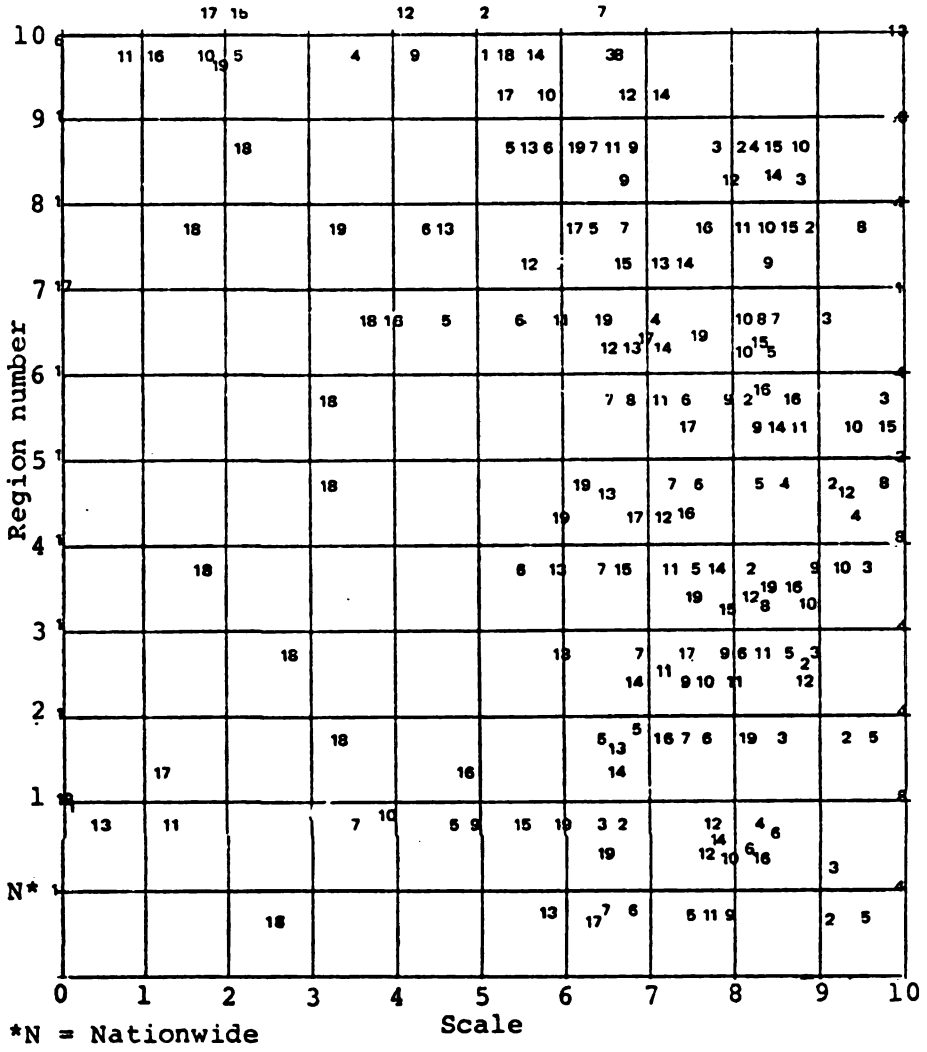


Fig. 15. A response by community college administrators from community colleges grouped according to regions to nineteen goal priorities for 1985. Catscale values were used in developing the interval scale

APPENDIX F

COLLEGES GROUPED ACCORDING TO SIZE

COLLEGES GROUPED ACCORDING TO SIZE

Colleges	Number of Respondents	Percent
Colleges grouped as small	147	66.52
Colleges grouped as medium	43	19.46
Colleges grouped as large	20	9.05
Unknown	11	4.97
Totals	221	100.00

SELECTED BIBLIOGRAPHY

SELECTED BIBLIOGRAPHY

Abt, Clark C.; Foster, Richard H.; and Rea, Robert H. "A Scenario Generating Methodology." Guide to Practical Technological Forecasting. Edited by James R. Bright and Milton E. F. Schoeman. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1973.

Anderson, Mach W. "The Institutionalization of Futures Research in the United States Congress." Technological Forecasting and Social Change 11 (April 1978): 292.

Arends, Richard J., and Arends, Jane H. Systems Change Strategies in Educational Settings. Vol. III in the New Vistas in Counseling Series. Edited by Garry Walz and Libby Benjamin. New York: Human Sciences Press, 1977.

Baier, Kent, and Rescher, N., eds. "Values and the Future." What Is Value Change? A Framework for Research. New York: Free Press, 1969.

Bell, Wendell, "Futuristics and Social Behavior." Images of the Future: The Twenty-First Century and Beyond. Edited by Robert Bundy. New York: Promethius Books, 1976.

Botkin, James W.; Mahdi, Elmandyra; and Malitza, Mincea. No Limits to Learning: Bridging the Human Gap. Oxford, England: Pergamon Press, 1979.

Boulding, Elsie. "Learning to Make New Futures." Educational Reform for a Changing Society Anticipating Tomorrow's Schools. Edited by Louis Ruben. Boston. Allyn and Bacon, Inc., 1978.

Boulding, Kenneth E. "Predictive Reliability and the Future." The Future of Education: Perspectives on Tomorrow's Schooling. Edited by Louis Rubin. Boston: Allyn and Bacon, 1975.

Boyer, William. "The Educational Forum: Planning Education and Systems Change." Vol. 39, No. 4, May 1975. Kappa Dela Pi. West Lafayette, Indiana.

Brodzinski, Frederick R. New Directions for Student Services Utilizing Futures Research. San Francisco: Josey-Bass Publishers, Inc., 1979.

_____. "The Futurist Perspective and the Managerial Process." Utilizing Futures Research: New Directions for Student Services. San Francisco: Josey-Bass Publishers, Inc., 1979.

Brown, Daniel J. "Educational Trend Analysis Methods." Futurism in Education. Edited by Stephen P. Henley and James R. Gates. Berkeley, California: McCutchen Publishing Corp., 1974.

Buckner, William H., and Cope, Donald M. The Planning Process. Cambridge, Massachusetts: Winthrop Publishers, Inc., 1977.

Bundy, Robert. "Up the Downward Path: The Futures Movement and the Social Imagination." Images of the Future: The Twenty-First Century and Beyond. New York: Prometheus Books, 1976.

Bushnell, David S. Organizing Change: New Frontiers for Community Colleges. New York: McGraw-Hill Book Company, 1973.

Carnegie Commission on Higher Education. Priorities for Action: Final Report. New York: McGraw-Hill Book Company, 1973.

Carnegie Council on Policy Studies in Higher Education. Three Thousand Futures: The Next Twenty Years in Higher Education. Final Report. San Francisco, California: Josey-Bass, Inc., 1980.

Chrishal, Margaret A. "The Effects of Accreditation by the North Central Association on the Organization, Administration and Programs of Selected Accredited Michigan Public Community Colleges." Ed.D. dissertation, Andrews University, Berrien Springs, Michigan, 1981.

Clark, John J. The Management of Forecasting. New York: St. John's University Press, 1969.

Cohen, Arthur M.; Lombardi, J.; and Beaver, Florence B. College Responses to Community Demands. San Francisco: Josey-Bass Publishers, Inc., 1975.

Collier, James R. Effective Long-Range Business Planning. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1968.

Cooper, Dennis Jones. Business Planning and Forecasting. New York: John Wiley and Sons, 1974.

Dalkey, Norman C. The Delphi Method: An Experimental Study of Group Opinion. RD-5888-PR. Santa Monica, California: Rand Corporation, June 1969.

Dator, James. "Orienting Hawaii to the Future: Multimode Adult Education." Potential of Educational Futures. Edited by Michael Marien and Warren L. Ziegler. Belmont, California: Wadworth Publishing Company, Inc., 1972.

Davis, Keith. "Some Fundamental Trends Affecting Management in the Future." Management for the Future. Edited by Lewis Benton. New York: McGraw-Hill Book Company, 1978.

Dressell, Paul L. "Accreditation and Institutional Self-Study." North Central Association Quarterly 46 (Fall 1971): 277-87.

_____. "A Comprehensive and Continuing Program of Institutional Research." Cooperative Long-Range Planning in Liberal Arts Colleges. Edited by Earl J. McGrath. New York: Teachers' College Press, Columbia University, 1964.

Dror, Yehezkel. "Some Fundamental Philosophical, Psychological and Intellectual Assumptions of Futures Studies." The Future as an Academic Discipline. Amsterdam: Elseview Publishing Company, 1975.

Drucker, Peter E. Managing in Turbulent Times. New York: Harper and Row Publishers, 1980.

Eckstein. "Twoard Walten III." The Reiss-Davis Clinic Bulletin, Spring, 1974.

Evans, William R., Jr., and Neagley, Ross L. Planning and Developing Innovative Community Colleges. Englewood Cliffs, New Jersey: Prentice Hall, 1973.

Ewald, William R., Jr. Environment and Policy: The Next Fifty Years. Bloomington, Indiana: Indiana University Press, 1968.

Ferkiss, Victor. The Future of Technological Civilization. New York: George Braziller, Inc., 1974.

Gordon, Theodore J. The Current Methods of Futures Research. New York: Random House, 1972.

Gleazer, Edmund J., Jr. Project Focus: A Forecast Study of Community Colleges. New York: McGraw-Hill Book Company, 1973.

Green, Thomas F. "Stories and Images of the Future." Images of the Future: The Twenty-First Century and Beyond. Edited by Robert Bundy. New York: Promethius Books, 1976.

Hack, Walter. "On Confronting the Future." Educational Futurism 1985: Challenges for Schools and Their Administrators. Berkeley, California: McCutchen Publishing Corporation, 1971.

Handbook on Accreditation. Evanston, Illinois: North Central Association Commission on Institutions of Higher Education, 1975.

Harmon, Willis W. An Incomplete Guide to the Future. San Francisco: San Francisco Book Company, Inc., 1976.

Harlacher, E. L. The Community Dimension of the Community College. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1969.

Havinghurst, Robert J. "The Future of Education: Image and Reality." The Future as an Academic Discipline. The Hague, Netherlands: Mouton and Company, 1975.

Henderson, Hazel. Creating Alternative Futures: The End of Economics. New York: Berkley Publishing Corporation, 1978.

Hungate, Thad L. Management in Higher Education. New York: Teacher College Press, Columbia University, 1964.

Jantsch, Eric. Technological Forecasting in Perspective. Paris: Organization for Economic Cooperation and Development, 1967.

_____. Technological Planning and Social Futures. New York: John Wiley and Sons, 1972.

Knoell, Dorothy, and McIntyre, Charles. Planning Colleges for the Community. San Francisco: Josey-Bass Publishers, Inc., 1974.

Landsburg, David Lee. "The Perceived Impact of Institutional Long-Range Planning on Community Colleges." Ph.D. dissertation, University of Michigan, 1975.

Linstone, H. A. "Eight Basic Pitfalls: A Check List." The Delphi Method Techniques and Applications. Edited by H. A. Kinstone and M. Turoff. Reading, Massachusetts: Addison and Wesley, 1975.

Lonsdale, Richard C. "Futurism, Its Development, Content and Methodology." Educational Futurism: Challenges for Schools and Their Administrators. Edited by Walter G. Hack. Berkeley, California: McCutchen Publishing Corp., 1971.

Loswell, Harold D. "The Future of Government and Politics in the United States." The Future of Education: Perspectives on Tomorrow's Schooling. Edited by Louis Rubin. Boston: Allyn and Bacon, Inc., 1975.

Martino, Joseph P. Technological Forecasting for Decision Making. New York: American Elseview Publishing Company, Inc., 1972.

_____. "Trend Extrapolation." Guide to Practical uTechnology Forecasting. Edited by James R. Bright; E. F. Milton; and E. F. Schoeman. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1973.

Martorana, S. I., and Kihns, Eileen. "Long-Range Future Perspectives for the Community College." Community College Frontiers. Springfield, Illinois, 1977.

Mazze, Edward M. "Management toward the Year 2000: The Challenges and the Opportunities." Management for the Future. Edited by Lewis Benton. New York: McGraw Hill Book Company, 1978.

McCluskey, H. Y. "Adult Continuing and Community Education: The Shape and Promise of the Field." National Conference on Community Education: Alternative Approaches to Responsibility. Edited by F. C. Kintzer. Los Angeles: University of California, 1974.

Meadows, Donella H.; Meadows, Dennis L; Randers, Jorgen; and Behrens III, William W. Limits to Growth. New York: New American Library, Inc., 1972.

Medsker, Leland L. The Junior College: Progress and Prospect. New York: McGraw-Hill Book Company, 1960.

Monroe, Chalres. Profile of the Community College. San Francisco: Josey-Bass Publishers, Inc., 1972.

Mood, Alexander M. The Future of Higher Education: Some Speculations and Suggestions: New York: McGraw-Hill Book Company, 1973.

Namias, Jean. "Consumer Surveys and Forecasting." The Management of Forecasting. Edited by John J. Clark. New York: St. John's University Press, 1969.

Norman, Roxwell H. Dimensions of the Future: Alternatives for Tomorrow. New York: Holt, Rhinehart and Winston, Inc., 1974.

Ogburn, William J. "The Hypothesis of Cultural Lag." Social Change Sources, Patterns and Consequences. Edited by Eva Halvey-Etzioni and Amatai Etzioni. New York: Basic Books.

Perloff, Harvey S. The Future of the U. S. Government: Toward the Year 2000. New York: George Braziller, Inc., 1971.

Pifer, A. "The Improvement of Community Life." From a speech given for the American Association on Community and Junior Colleges, 1974.

Polak, Fred L. "Responsibility for the Future." Images of the Future: The Twenty-First Century and Beyond. Edited by Robert Bundy. New York: Promethius Books, 1976.

"Priorities for Action: Final Report of the Carnegie Commission on Higher Education." New York: McGraw-Hill Publishing Company, 1973.

Pulliam, John D., and Bowman, Jim R. Educational Futurism in Persuance of Survival. Norman, Oklahoma: University of Oklahoma Press. 2nd edition, 1974.

Rarig, Emory Webster, Jr. "Administrative Practices in Institutional Long-Range Planning in Community and Junior Colleges." Ed.D. dissertation, Teachers' College, Columbia University, 1968.

Rescher, Nicholas. "A Questionnaire Study of American Values by 2000 A.D." Values and the Future. Edited by Kurt Baier and Nicholas Rescher. New York: Free Press, 1969.

Scanton, Robert C. "Policy and Planning for the Future." The Future of Education: Perspectives on Tomorrow's Schooling. Edited by Louis Rubin. Boston: Allyn and Bacon, Inc., 1975.

Seminow, Joseph J. "Toward Maximizing the Analytical Aspects of the Evaluating/Accreditating Process." North Central Quarterly 48 (Fall 1974).

Shane, Harold G. The Educational Significance of the Future. Bloomington, Indiana: Phi Delta Kappa, Inc., 1973.

_____. U.S. Futures Research in Education: The Status of the Field. Belmont, California: Wadsworth Publishing Company, Inc., 1972.

Steiner, George A. Top Management Planning. Toronto: The MacMillan Company, 1969.

The American Association of State Colleges. A Futures Creating Paradigm: A Guide to Long-Range Planning from the Future to the Future. Washington, D.C., 1978.

Tatham, Elaine. "Community College Enrollment Trends and Implications." Bethesda, Maryland: ERIC Document Reproduction Service, ED 153687.

Thornton, James W., Jr. The Community Junior College. New York: Wiley and Sons, Inc., 1960.

Toffler, Alvin. Future Shock. New York: Random House, Inc., Bantam Edition, 1971.

Vanston, John H., Jr; Frisbic, W. P.; Loreato, S. C.; and Poston, D. L., Jr. "Alternative Scenario Planning." Technological and Social Change. Vol. 10, No. 2. New York: Elseview North Holland, Inc., 1977.

Welsh, Harvey, Jr., and Watson, Sally E. "Techniques of Futures Research." New Directions for Student Services Utilizing Futures Research. Edited by Frederick R. Brodzinski. San Francisco: Josey-Bass Publishers, Inc., 1979.

Weaver, Timothy W. "The Delphi Forecasting Method: Some Theoretical Considerations." Potential of Educational Futures. Edited by Michael Marien and Warren L. Ziegler. Belmont, California: Wadsworth Publishing Company, Inc., 1972.

White, Harry J., and Tauber, Selmo. Systems Analysis. Philadelphia: W. B. Saunders Company, 1969.

World Future Society Catalog. Washington, D.C.: World Future Society, 1978.

Ziegler, Warren L. "The Potential of Educational Futures." Potential of Educational Futures. Edited by Michael Marien and Warren L. Ziegler. Worthington, Ohio: Charles A. Jones Publishing Company, 1972.

Zwerling, Steven L. The Crisis of the Community College: Second Best. New York: McGraw-Hill Book Company, 1976.

TABLE 14

PEARSONS PRODUCT MOMENT CORRELATIONS AMONG THE REGIONS WITH RESPECT TO SOCIAL TRENDS, USING SCALE VALUES

	Intercorrelation matrix for the 10 variables[a]									
	1	2	3	4	5	6	7	8	9	10
1.	1.000	.389	-.150	.219	-.080	-.100	.076	.227	.643**	.159
2.		1.000	-.217	.160	.111	.106	-.034	.310	.465*	.152
3.			1.000	.477*	.600**	.175	.144	-.265	-.225	.582**
4.				1.000	.719***	.030	.079	-.269	.301	.306
5.					1.000	.270	.344	-.282	.108	.657**
6.						1.000	.363	-.372	.113	.173
7.							1.000	.102	.353	.449*
8.								1.000	.188	.138
9.									1.000	.073
10.										1.000

[a]Critical values for 2-tailed test:
* denotes a statistically significant correlation at .05 level.
** denotes a statistically significant correlation at .01 level.
*** denotes a statistically significant correlation at .001 level.