

OCCUPATIONAL EDUCATION INFORMATION NEEDS AND
GOVERNANCE PATTERNS OF MANAGEMENT TEAMS IN
SELECTED CALIFORNIA COMMUNITY COLLEGES

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CHAPTER I

INTRODUCTION

What is the real basis for decisions? political considerations? individual egos? organizational imagery? real or imagined needs? relevant data? or some combination of these? What is the real basis for decisions in educational institutions? Research indicates that the quality of the decision is directly related to the amount of information used in making that decision. Adams and Swanson (1) concluded that "the accuracy of an estimate is largely determined by the estimator himself" (p. 109). They also found that "...over 65 percent of the variation in accuracy was explained by the amount of information sought and processed..." (p. 109).

While there is no doubt that the good judgment of the decision-maker is essential, that good judgment can be supplemented by relevant, accurate, and timely information. This study is an attempt to develop the blue print for an information needs assessment for occupational education for California community colleges.

Statement of the Problem

Decision makers for occupational education have, throughout the past, had to rely on their personal experiences, attitudes, and values to formulate recommendations and decisions for the planning of occupational programs. The simplistic era of yesteryear when personal

judgments sufficed has vanished. With a wide variety of clientele to serve, with accountability and evaluation impacting, and with complicated alternatives to consider, an information base from which to launch decisions is an imperative for effective planning for occupational education. This study has been designed to begin to provide the information perceived to be needed and usable for the effective planning of occupational education in community colleges in California.

Purpose of the Study

The purpose of the study was to determine information factors perceived by the members of the occupational management teams to be needed and usable to make decisions for effective planning for occupational education in eight California community colleges.

Need for the Study

With the financial, political, technological, and organizational environments in a constant state of change, with emphasis on equality of educational opportunity, with the rise and fall and shifting of the demands of the market place, decision makers for occupational education are experiencing doubts and uncertainties in relation to determinations made for occupational education. The California Community College Occupational Programs Evaluation System, COPES Report, 1973 and Report 1974 identified the inadequacies of available information for planning in California community colleges. Each community college that conducted a self-evaluation and each site visitation team, as well as a COPES panel of eleven professional judges, although not supporting identical priorities, did have the commonality of a need of information relating to the organizational patterns and to students.

This study makes recommendations which may be used in developing a statewide project to assess the information needs of the occupational education management teams in California community colleges. The recommendations based on the eight community colleges involved in this study could, if implemented, provide the initial structure for developing a statewide occupational information system. Such a system will aid the occupational team managers in meeting the new demands imposed by complex and difficult decisions. These recommendations could also, if implemented, serve as a basis for improving the occupational management team members' basis for judgments made in effective planning.

Objectives of the Study

The long-range goal to which this study contributes is to begin to move the management of post-secondary occupational education in California toward a more systematic, information-based approach to decision making. The operational objective of this study is to determine the information perceived to be needed and usable for effective planning by the management teams of selected community colleges in California. Specific objectives of the study are:

1. To identify the members of the occupational management teams for each of the eight selected California community colleges;
2. To identify the information factors perceived to be needed and usable by the occupational education management teams of the eight selected community colleges;
3. To rank the information factors submitted by the members of the eight occupational education management teams;

4. To identify the information factors deemed to be essential by each occupational management team;
5. To determine the governance patterns of occupational education as evidenced by the hierarchical level at which a decision is perceived to be made; and
6. To obtain demographic data about the members of the occupational management teams.

Definitions

Information Factor--a unit of information, devoid insofar as possible of bias, designed to increase knowledge.

Decision Area--an area of uncertainty which can, through infusion of relevant information, reach an equilibrium point to indicate a direction for resolution.

Governance Pattern-- the institutional structure which impinges on the decision-making process.

Occupational Management Team--those staff members who in the chief occupational education administrator's opinion participated in the decision-making activities for occupational education.

Assumptions of the Study

The assumptions of this study are as follows:

1. It is assumed that the eight community colleges selected as a representative sample by the Chancellor's Office of California Community Colleges in 1971 would retain their representativeness.
2. It is assumed that the occupational management team members will, insofar as possible, provide true information.

Limitations of the Study

The internal validity is limited to the DELPHI process and to the responses themselves as they are submitted by the participants. The internal validity is further limited by the editing, combining, and rewording of the participants' responses into an informational context. The external validity of the study is limited to the size of the sample.

CHAPTER II

REVIEW OF LITERATURE

A search of the literature related to this research included the development of the California Community Colleges Programs Evaluation System (COPES), the determination of information needs, and the governance structure and its influence on the decision-making process relating to occupational education. An examination of the DELPHI process was also addressed.

The COPES Reports

COPES, an acronym for Community College Occupational Programs Evaluation System, was initiated and sponsored by the Chancellor's Office of the California Community Colleges in Sacramento. Its objective is "to assess the major strengths and needs for improvement in occupational education programs" (17, p. 2). This evaluation system was launched in the winter of 1971 (58), under the management of Foothill Community College District, with Dr. Nathan H. Boortz, Director of Technical Education, and Dr. George Ebey of George Ebey Associates serving as project coordinators (18). Developing the system and field testing at 13 community colleges consumed the first year of the project. The "second thrust dealt with the status of occupational education in eight representative community colleges" (17, p. 2). The emphasis of the evaluation, according to Morris and Hubbard (58), zeroed in on three

components, a college's occupational education goals and objectives, its instructional and support processes, and its resources. The evaluation system concentrates on measurable elements. At each institution a profile of the perceptions of occupational education is developed through rating forms submitted by the president and other administrators, occupational teachers, counselors, continuing education faculty, students, and occupational advisory committee members. After this information has been compiled, an on-site team conducts an intensive three-day interview and analysis. In the pattern of other accrediting agencies, an oral report is made before the visitation team's departure; a written report is submitted to the president of the college at a later date.

During 1973-74 specialized evaluation subsystems for handicapped, disadvantaged, consumer and homemaking education, and occupational home economics augmented the COPES program.

During 1972-73 and 1973-74 school years, very little discernible difference was noted among colleges in relation to the observed strengths. The highest ratings were accorded the occupational experience and educational qualifications of the instructional staff and to the quality of the occupational instruction. During the second year's evaluations, the institutions involved seemed to have evidenced greater response to community needs through modification of curricular offerings. Adequacy of the instructional facilities and the number of instructors necessary for program effectiveness received higher ratings for colleges evaluated during the second year also. The chief weaknesses of occupational education at community colleges identified in both years were found to be systematic follow-up and coordinated placement services. Of the ten

lowest overall ratings in the 1973-74 Report (18), half the low ratings involved various dimensions of follow-up programs.

The three lowest overall ranked items for both years were "Systematic follow-up of students who have dropped out of occupational programs," "College-wide coordination of placement services with occupational education curriculums," and "Systematic follow-up of students who have completed occupational programs" (18, p. 25). The priority improvement needs based on visiting evaluation teams' perceptions tended to agree. Also added were "Organizational structure for occupational education leadership" and "Communications" as priority needs (18, p. 26).

For seven of the eight community colleges in this study, the major item identified as in critical need of improvement in 1972-73 was "Organization for effective coordination and direction of occupational education" (18, pp. 72-73). For half of the colleges, "Provision of educational opportunities consistent with community needs" was listed and for another three colleges, "Systematic collection and translation of information on community needs" was identified as critical (18, pp. 72-73).

Information Needs and Decision Making

Most generally, the terms data and information in relation to administrative decisions are considered as synonymous. Burch and Strater (12) in their book given an excellent historical perspective of the development of data and information. These authors concede that the terms data and information are often used interchangeably; however, they suggest that there is a distinction. Data defined as "raw facts in isolation which, when placed in a meaningful context by

a data processing operation(s), allows inferences to be drawn" (p. 69).

To distinguish data from information, they offer

Information is substantially different from data in that data are raw unevaluated messages. Information is the increase in knowledge obtained by the recipient by matching proper data elements to the variables of the problem. Information is the aggregation of processing of data to provide knowledge or intelligence (p. 70).

The authors have further differentiated with

Information is an occurrence or a set of occurrences which carry messages and, when perceived by the recipients via any of the senses, will increase their state of knowledge. The significance or value of information received can only be measured by the recipient (12, p. 71).

Banghart and Trull (3), however, see the distinction between data and information differently.

Information refers to knowledge acquired by, derived from or in conversations. It is untreated and may or may not be a given fact whose validity remains to be proved. Data ...are facts; something known that forms the basis for conclusions. Data are documented, purged of subjective treatment, and ready to support the plan in an objective manner (p. 136).

Hussain (37) lends currency to the first interpretation of data and information with "Data consists of a set of characters or signals to which a significance can be assigned. Information...is selected data that have been processed to make them meaningful" (p. 81). Sire (73) defines information as "that which is communicated. It is the transmission of meaningful data or knowledge: it is not events as such, but a patterned relationship between events" (p. 4). This act of transmission suggests the decision is related to a selection process being made from available alternatives. Hussain's concept of data selectivity (37) supports the idea that a filtering process is involved in identifying the information to be used in decision making.

Sire (72) quotes the classic works of Shannon and Wiener in which they regard information as "that which removes uncertainty" (p. 4). Hussain (37) also incorporates the concept that a state of uncertainty is reduced as information is infused into the decision process.

McKenna (52) in his article on information pollution calls attention to another dimension "...that pollution of natural resources, such as information, is the direct result of inefficiency in the use of our material and energy resources or the misplacement of those resources after use" (p. 245). He further suggests that the "information explosion" needs to be discussed in light of "too much pseudo information distributed which does not and cannot increase man's knowledge" (p. 246). As the pseudo and/or irrelevant data expands, it is recognized that accumulations of mountains of data is lacking in value if the selection process is faulty. The quality of the decision will be proportionately related to the recognition and selection of information to be used in making a decision.

McKenna (52) states of the usefulness of published data,

Fewer than 1% of research workers clearly understand the statistical techniques that they commonly invoke. An even smaller number of information workers understand the statistical techniques.... The U.S. National Bureau of Standards estimates that from 50% to more than 90% of the published raw data available cannot, in fact, be used to produce trustworthy, evaluated results for the physical properties of scientific materials (p. 246).

Dressell (26) also states that information is a resource and views the selectivity if not the rejection of the resource with concern.

Some persons [administrators and faculty members] regard efforts of increased efficiency in the use of resources with suspicion and alarm. Administrators preferring to operate by the seat of their pants and committees concerned with compromising the emotionally stated convictions of members are not receptive to studies that may provide a

firm basis for their deliberations.... Decision-making in higher education is simply not a good model of the process as stated in the decision-making objectives formulated for its students (pp. 20-21).

Richman and Farmer (65) shed some light as to why they feel there is confusion about information needs and the systems which should be involved. They submit that the goal systems of those involved are indeed confused; that "one can infer much about what is really important around a university by observing just how well the record system is able to report results" (p. 200). Importance then is attached to the student grade records and the institution's payroll records. If the institution cared less about money, it is logical to expect that this part of the "information system would be as messy as some other parts" (p. 200). They also pointed out that the availability of good information which might show what is really going on is avoided--suppressed--as its surfacing might cause change more quickly than some cared to respond. Attempts to extract usable relevant information are ignored, diverted, and frustrated. These thwarted efforts result in a greater camouflaging of goals and objectives. Without a well-defined goal structure, the care and nurturing of data mounds produces only a marshmellow-like consistency when speaking of results.

Art Lee (45), Former Director of Project Baseline, told a group of state directors of vocational education that to keep pace with sweeping changes in education, they must know what is going on in their programs and that necessitates a good information system. He maintained that such a system makes possible the identification of programs where proper training is being provided by supplying information on the kinds and numbers of individuals served, what happens to those students once they leave school, and how much the training received cost.

He asserted:

Vocational education has far more to reveal than it has to hide. Obscurity and confusion about what vocational education has accomplished, is accomplishing, and is capable of accomplishing, serve only its critics (45, p. 3).

He concluded by observing that federal requirements will eventually mandate the kind of information system vocational education should develop on its own.

Vocational Information Needs

Typically an informational system will evolve through time, in bits and pieces as requirements dictate. McCracken (51) in his study of the "Information Needs of State Directors of Vocational Education," found that available information often fails to reach key decision makers in the forms and in time to assist in decision making. It was also determined that nearly 90 percent of the problems faced by the state directors required information for their resolution. Malinski (48) in his study of "Planning Techniques for Local Programs of Vocational Education" stated, "The local vocational and technical manager must be concerned with the information required for policy planning, work planning and program operations" (p. 14). At the local level, the manager appears to be in a strategic position to affect policy and operational decisions influencing student and program performance. "Therefore the quality of locally based or generated information is critical" (48, p. 14).

Ott (63) expressed concern over the quality of administrative decisions which are based on incomplete or wrong information. Kintzer (40) identified his concern with the person, "The chief executive officer needs further to recognize that the quality of decision making is closely

related to the amount of relevant information available...." (p. 19).

The question then must be asked, what is relevancy? Who decides? Van Dusseldrop (77) writes,

Systems analysts cannot possibly know what information management needs for decision making. Too often management abdicates its responsibility for a system of goals and objectives.... In too many cases...management has not been willing or has not seen the need to devote its own time and effort to the development of a management information system (p. 33).

A system thus produced is unlikely to adequately serve the needs of the administration and additionally the analysts will be unfairly accused of exceeding their authority. Brooks (7) in his search of the literature for "The Development of a Decision Model for Vocational-Technical Education Planning" observed that "Objective methods were not common in the decision-making process of vocational and technical education program planning" (p. 21). The literature revealed that these educational managers were making "assessments based upon personal experience, authority, or tradition" (p. 21). What seems to be said is that reliable information is discounted in favor of the "seat-of-the-pants" approach.

Owens (64) in his paradigm for decision making would probably describe the latter approach as ignoring the awareness of information. The alternative, as Owens describes it, is that the awareness leads to the definition of the problem. Further the process of decision making can accommodate a single person handling the decision making or the process can accommodate a combination of participatory decision makers.

Decision Areas

Decision areas are surfacing in the current literature. Komar (41) found six broad categories of problems which would require decisions for

resolution: finances, communication, community college administrative procedures, staffing, curriculum development, and state level vocational administration. These same areas were identified in the Barlow (4) study with advisory committees, public relations, and proposal writing added. Looking at educational data more broadly, Banghard and Trull (3) proposed five areas: relating to people, to places, to movement, to economics, and to education. The authors cautioned that one must recognize that

Data gathered differs widely among educational planners, the differences reflect the different events impinging on the educational organization and its environment. Data gathering, therefore, serves as the sensory organ of the educational organization (p. 137).

In a study exploring the receptivity to a systems approach among community and junior college administrators, Hoke (35) concluded that these administrators on the whole were open in adopting an operational systems approach although they, at that point in time, were not involved. The study further concluded that the establishment of institutional objectives attracted more favorable reactions than other components of the systems model. Long and Bruun (47) have indirectly called attention to the "handwriting on the wall" for educators when they wrote of industry,

Just as the production line became a necessity for industry, so will management information systems. Large, medium and small firms will all too soon confront the imperatives of MIS. There is no escape, nor should there be (p. 13).

Educators in general and vocational-technical educators specifically can ill afford the luxury of decision making in the loosely structured context that permeates today's administration arena.

Emch (28) in his paper on "Long Range Planning for Colleges and Universities," identifies three questions as the basic framework for top

policy and management for long range planning: (1) "What decisions have to be made?" (2) "In what order should they be made?" (3) "What information is necessary in order to make them?" He then organizes the analysis and interrelationships to these three basic questions in seven elements represented as levels of decision making: Philosophy, Objectives, Programs, Organization, Staffing, Facilities, Financing. He feels that the last five levels are the means whereby the ends, the first two levels are achieved.

Koontz and O'Donnel (42) in their eight step planning process begin with "Being Aware of Opportunity" (p. 144). They explain that opportunity is used in lieu of problem as opportunity conveys a more constructive goal achievement orientation.

It includes a preliminary look at possible future opportunities and the ability to see them clearly and completely, a knowledge of where we stand in the light of our strengths and weaknesses, an understanding of why we wish to solve uncertainties, and a vision of what we expect to gain (p. 145).

Step two identified the goals and objectives--"where we want to be and what we want to accomplish and when." Step three incorporates the decision areas as planning premises "which are planning assumptions of the anticipated environment in which plans are expected to operate" (p. 146). External premises are divided into three groups: (1) general environment (economic, technological, political, social, and ethical conditions), (2) the product market (conditions influencing demand), and (3) the factor market (land, location, labor, materials, parts, capital). Internal premises relate to capital investment in plant and equipment, strategies, policies, major programs already decided, the developed and approved sales forecast, a given organization structure that is

unlikely to change, and equally important are the beliefs, behaviors, strengths and weaknesses of the top executives and often of their subordinates.

Peter Drucker (27) succinctly states, "Thus to identify alternative questions is the first step to making effective decisions" (p. 471). The military, specifically the United States Army, in its instructional manual for "Management Information Systems (MIS) Design (49) under the section of management phases identifies two, first problem solving and decision making. It is suggested that little attention is given to the second phase, "...finding the problems that need to be solved and then planning for the attainment of desired results, or planning how to carry out operating plans" (p. 2).

Stevenson (74) in his opening paper at the "Management Information Systems for Vocational Education: A National Overview" asks, "How do we begin to gather and provide the types of information which are required" (p. 10)? To which his response was, "The first thing necessary is to determine the present state of the art..." (p. 10). Decision areas are inherent in the kinds of data gathering suggested, such as data

...about the teachers we have, about students who are enrolled; about the equipment and facilities that are available; about the dollars that are being spent; about the manpower needs of the state and locality; about the other programs which may be supplying trained manpower; about the effectiveness of our training in terms of student placement, advancement, and career development; about those citizens in our state and localities who need special kinds of training programs to effectively move them into the social mainstream and employment mainstream (p. 11).

Participatory Management

A typical industrial approach to participatory management is well stated by Fenn and Yankelovich (29) in their article, "Responding to the Employee Voice," as they

...argue that people below the top level in modern corporations have become increasingly estranged from the locus of decisions that affect their organizational well-being. Not only do they feel frustrated, powerless, and exploited as a result, but also the health of the entire organization can suffer when there are no channels that allow these individuals to contribute their knowledge and expertise in solving company-wide problems (p. 87).

The authors felt the emergence of two characteristics from these concerns, one is the challenge to authority and the second is the insistence on a piece of the decision-making action. The corporate response to the concerns has been to develop various approaches, systems, packages for upward communication. From the manager down, the process calls for some sharing of managerial authority. From the manager up, input becomes a viable option. Koontz (42) describes Rensis Likert and his associates at the University of Michigan as proponents of participative management. Koontz elaborates on the four-system model developed by Likert with System 4 the most "participative group" of all:

...managers have complete trust and confidence in subordinates in all matters, always get ideas and opinions from subordinates and constructively use them, give economic rewards on the basis of group participation and involvement in such areas as setting goals and appraising progress toward goals; engage in much communication down and up and with peers; encourage decision making throughout the organization, and otherwise operate with themselves and their subordinates as a group (p. 597).

Likert found that "...departments and companies managed by the system 4 approach were most effective in setting goals and achieving them and were generally more productive" (p. 597).

Boyer (6) acknowledging the trends which promoted the expansionistic era for education have sharply reversed so that survival tactics seem to be the only recourse. For new educational thrusts, he offers "creative management" as an alternative. He views "...good management [as] the process by which objectives are fulfilled with the minimum waste. And creative management means not only efficiency but effectiveness as well" (p. 31). He accepts that machines and formulas may improve a process, but the human aspect of the equation is the fulcrum. Sawyer (66) expands this concept by characterizing creative management as "...people-centered depending for its actualization on people more than procedures; and it is dynamic, requiring adjustments and accommodations between and among discrete sets of guidelines" (p. 39). To operationalize this concept is to bring people together into productive interaction.

Creative management, the productive interaction, can be likened to the bubbling tea kettle in its generation of energy. Does the steam accumulate to explode, does it waste itself, does it find a viable direction? The direction for the potential energies of participatory management in education can be found in viable institutional goals. According to the literature, setting of institutional goals is today one of the most pressing concerns. Cohen and March (11) in describing organized anarchies address goals as problematic.

It is difficult to impute a set of goals to the organization that satisfies the standard consistency requirements of theories of choice. The organization appears to operate on a variety of inconsistent and ill-defined preferences. It can be described better as a loose collection of changing ideas than as a coherent structure (p. 3).

Lahti (43) adds

Higher education decision makers often go to great lengths to find out what programs cost but make decisions and formulate plans with little or no idea of what the outcome will

be. All too often goals become merely wishful thinking, sterile ideas confined to writing, or a planning process of some fashion to be gotten through and then abandoned (pp. 13-14).

Lahti cites several additional authors who share his concerns for lack of attention on the part of educational institutions toward goal orientation. Richman and Farmer compound the dilemma with "As long as universities and colleges have ill-defined goals, administrators do not see the need to accumulate systematically information about those goals" (p. 209). It is unrealistic to think in terms of effectiveness and efficiency of management under these conditions.

Emch (28) supports the participative mode of management as he states,

The desirability of widespread participation of all concerned cannot be stressed too much. The wider the participation in the planning effort, the stronger will be the identification of the various individuals and groups with the goals and the greater their desire for achievement (p. 14).

To summarize, industry has for some time recognized, developed, and implemented programs incorporating various combinations of participation. One of the major thrusts of the participatory mode is its openness and encouragement for communication and interaction. The established and communicated goals hinging on the profit motive provide the direction. The goal orientation for educational institutions if written is unfortunately likely to be ambiguous; often the goals are merely inferred. It would seem that it is incumbent upon management teams in the educational context to have established a strong goal orientation to optimize the potential of the interactions.

Governance

Governance according to Monroe (56) is a comprehensive term to describe all aspects of the control and direction of the college, including the state constitution, statutes, state boards of education or higher education, local boards of control, the administration, and in some institutions, the faculty and the student body. It includes both the policy making mechanisms and the agencies through which the policies are executed or administered. Platt (61) refers to governance as the procedure by which educational policies are considered and adopted... "[governance] is a shorthand expression for legitimizing authority in education" (p. 32).

Shannon in the fall of 1973 writing about the position of AACJC on governance stated,

The search for better ways of running a college must focus on several essentials but none more important than the policy makers and administrators themselves.... Individuals assigned governance responsibilities can develop the right combinations of energy and resources to serve the college purposes or they can, if inefficient, subvert them. The leverage of authority, the power to make critical decisions about curriculum, admissions, staff relationships, and budgets if used unwisely can easily stifle learning or cause it to die of malnutrition (69, p. 6).

The report from the Carnegie Commission on Higher Education, Governance in Higher Education (31), states that academic institutions have proved themselves in their "ability to handle programmed decisions about slowly developing problems" (p. 73). Today's thrust contrasts diametrically "...quicker responses are needed and are undertaken in a more complex setting. More individuals and groups are involved" (p. 3). It follows then that governance can come in many forms. "The recognition

of the great variety of patterns, conditions, and responses is the beginning of wisdom in approaching the problems of governance" (p. 13).

The administrators, those individuals who carry out the functioning of the organization, have their offices neatly and precisely diagrammed and labelled on the organizational charts. As Richman and Farmer (65) pointed out, from an outsider's observation, the structure and organization of an educational institution appears orderly and tidy. However, insiders are very aware of the ubiquitous confusion--people working at cross purposes; people who formally appear to hold little power yet exercise considerable influence; people who seemingly lack knowledge of or awareness of desirable outcomes; or even the lack of outcomes. In relation to management's functions of planning, organizing, and controlling, Baughman (5) felt that present-day administrators have done little to escape the traditional stewardship attitude which evolved from the "beadel-like duties" characteristic of historical times. He feels that this carryover is especially noticeable in the manner in which administrators exercise control especially of expenditures. This type of control is also exemplified by the meticulous records kept on students. Further no one seems to be charged with putting these records together, nor are records designed so that they can be put together. Richman and Farmer (65) would view this state as a lack of precise goal system. When goals are hazy, the information system is indiscreet and the resultant decisions, more appropriately identified as acquiescences, foster, at best, a maintenance function.

In his promotion of creative management in education, Boyer (6) examines the contradictions inherent in the collegial and the hierarchic governance patterns of educational institutions. On the one hand, there

is the New England town meeting approach where all meet for dialogue and to find truth. Higher education has its councils, senates, and committees. Additionally, higher education has also invested energies into the prestigious leader who has wielded power to attract money and more prestige to the institution. He views this dichotomy as one which creates ambivalence. So as not to force a choice between the two models, he envisions the creative management to accommodate both.

To summarize the direction of governance, John D. Millett (56) has written of "The Challenge of Allocation Decisions."

As the structure and process of governance has undergone change or modification in many colleges and universities in the past decade...new or modified structures of governance have been established to recognize faculty and student participation and to provide a legitimacy for such participation. The resulting process of governance has required a more detailed sharing of information about institutional affairs, an extensive discussion of policies and programs, some diffusion of leadership roles, and some confusion in decision making (p. 55).

A simplified description of the hierarchical structure for occupational education in California community colleges commences with the chief occupational administrators at the local level. The major point of contact for this person to the state offices is channeled through one of three regional offices, located in Los Angeles, Sacramento, and Oakland. The line of authority then funnels into the Chancellor's Office through his Assistant Chancellor of Occupational Education. By statute, the State Board of Education has ultimate responsibility for all aspects of the administration of federally aided vocational education programs. The Board of Governors of the California Community Colleges through cooperative agreement with the State Board of Education is responsible for all community college programs. This Board consists of 15 members appointed by the governor with three of the

members, in addition to the executive officers serving on the Joint Committee of Vocational Education. This committee comes under the direction of the State Director of Occupational Education (13).

It can be established from the literature that there is little consistency in titles attributed to the chief administrator of occupational education. At some California community colleges, no one is identified on the published organizational arrangement, as official contact person for occupational education although someone at the institution has usually been designated to be responsible for the occupational programs (62). Barlow (4) and Komar (41) spoke to the high variations in titles. Whelchel (80) found that 65 percent of the chief occupational administrators reported at the first level in the administrative hierarchical structure. This was an increase over the 62 percent recorded seven years earlier. However, Lien (46) found in his study, "Problems and Profiles of Administration of Occupational Education in Rural Western Public Community Colleges," that these administrators reported to the second level, the academic dean of instruction, instead of reporting to the president. The Whelchel study (80) recommended that "a study be made to determine where the chief administrator of occupational programs in public junior colleges fits into the administrative structure at their respective institutions and how these findings might influence their duties and responsibilities" (pp. 335-336).

DELPHI Technique

DELPHI is a written communication process providing for a meeting of the minds. Through the use of carefully designed communications,

the DELPHI technique elicits individualized brainstormed responses which form the basis of feedback information to all other participants by way of successive communicative rounds until a convergent opinion is reached.

When in search of a solution to a problem whether that problem relates to current or futuristic eras, the process traditionally focuses on inquiry made of an expert in the field to provide insight into a potential solution. As other equally knowledgeable persons are queried, it is not uncommon to discover that opinions and judgments differ. The dilemma of direction faces the inquirer. Unless one is willing to unquestionably follow a single opinion, an alternative must be found. An option would be the assembling of the experts. Through their interaction with as many viable ideas as can be suggested, the goal would be to consider all suggested options and reach a consensus about the most acceptable or likely solution.

Convening such a prestigious panel encounters almost insurmountable obstacles. Consideration not only of time, location, but also of the workability of the panel members themselves are paramount. Additionally direct confrontation rarely provides an open environment for the encouragement, recognition, and consideration of all ideas. Prima-donnas dominate; the gifted articulates persuade; the bandwagoners roll; the venerate impose. Anonymity of the members would further tend to reduce the psychological and sociological dysfunctioning of committees. Written communications supplant the time and location factors as well as tending to promote more thoughtfully prepared responses.

The DELPHI communication process begins with a problem statement directed to carefully selected participants. Their first round responses,

often crude suggestions, are submitted through an intermediary, who collates and organizes the responses for redistribution to all participants. As the new communication is received each member is asked to evaluate all previously submitted responses by some criterion, degree of importance, likelihood of success, probability of occurrence, etc. In some of the more sophisticated DELPHI projects, each participant may request additional information related to the problem area; the information will be supplied to all members of the panel. With each successive round, the participants are provided with revised estimates of previous responses and are asked to reconsider their position. Some members may alter their prior decisions, others will not. As the range of the estimates narrows, the tendency toward convergence emerges. Whether the process merely explores the tendency toward convergence or attempts a full consensus will determine the number of rounds to be included. Anonymity of the panel members, an essential ingredient of the process, protects participants' ideas from being submerged; it also affords the opportunity to re-evaluate the hundreds of potential solutions and to privately change one's initial opinion. A meeting of the minds, the reaching of a consensus, is the concept underlying the DELPHI.

Because the technique was originally identified with futuristic forecasting, it acquired its name from the famed Oracle at Delphi, where in the Temple of Apollo overlooking the awesomely beautiful ravine, consultations with the gods were held. Questioners received their "answers" from the oracle's pronouncements which were interpreted by an attendant priest.

The DELPHI technique was pioneered by RAND Corporation in Santa Monica, California in the late 1940's (52). Olaf Helmer, senior mathematician, and his colleagues used the technique in the early 1950's in a classified project to reach a convergent opinion about a potential defense problem identified by the Air Force.

Before discussing this early study, consideration of whether or not one can accept the premise that the purpose of all science is to explain and predict in an objective manner must be addressed. Helmer and Rescher discuss the issue in their article, "On the Epistemology of the Inexact Science," (32) offering that the difference between an exact and inexact science is a matter of degree and not a difference in principle. Further they state "...a discipline which provides predictions of a less precise character, but makes them correctly and in a systematic and reasoned way, must be classified as a science" (p. 25).

Early Studies

In 1963 after its security declassification, Dalkey and Helmer wrote of "Project DELPHI" (23) sponsored by the United States Air Force in the early 1950's. The experiment was designed to "determine from a Soviet strategic planner's viewpoint, an optimal United States industrial target system and to estimate the number of A bombs required to reduce the munitions output by a prescribed amount" (p. 458), through reliable consensus. Seven individuals representing four distinct areas of expertise comprised the panel. On a weekly schedule, a series of five highly technical questions were submitted. Following each round of questions, two kinds of feedback information were provided: additional information which had been requested by panel members and information factors obtained from the members' responses.

The term "mode of controlled interaction" was used to describe the factors and the efforts of the intermediary to protect the anonymity of the experts by submitting only the information factor without introducing unnecessary bias. Interviews with each participant were conducted after the first and third rounds. The median unit of measure, e.g., number of plants or bombs or percent of damage, and the interquartile range, the middle 50 percent of the estimates, were included as feedback information. From the initial responses, the estimated number of bombs ranged from 50 to 5000 with a median of 200. After five rounds of information feedback, the range narrowed from 167 to 360 with the median of 276 (23).

Another of the early long-range forecasting studies (11) identified six broad areas, scientific breakthrough, population growth, automation, space progress, probability and prevention of war, and future weapons systems in which to forecast expectations twenty-five to fifty years hence. Six groups of experts selected included twenty engineers, seventeen physical scientists, fourteen logicians and mathematicians, twelve economists, nine social scientists, five writers, four operations analysts, and one military officer. The first of four questionnaires (70) asked for a listing of innovations which appeared to be urgently needed and realizable in the next fifty years. Forty-nine possibilities were named. In round two, the panel was asked to estimate the probability time frame. From the estimates, the median year and interquartile range of years estimated for each innovation was determined. In round three, each participant was asked to reconsider the previous estimate if it fell outside the interquartile range or to provide justification of the position if it was retained. On thirty-one items, the experts had

reached reasonable consensus. Both majority and minority opinions were given for each innovation (70).

One of the first studies in education to use the DELPHI technique was "Innovation in Education" conducted in 1966 by the Institute of Government and Public Affairs at the University of California at Los Angeles and sponsored by the Charles F. Kettering Foundation (2, 11, 33). This pilot project was a multi-discipline group designed to generate some useful perspectives on thinkable changes in American education. For the DELPHI sub-unit of the larger study, three groups were formed. Group A began with 45 members later reduced to 22; group B, a 5-member project steering committee; group C, 32 participants although formed for a different purpose included almost all those who had participated in group A. Ninety-three proposed educational innovations were suggested in the first round. Each innovation was rated on a 10-point scale, listing four levels of acceptability, a need for data, a need for modification, three categories of rejection, and no opinion. Few innovations were clearly rejected, however, if they were, they were deleted from the feedback information. For the third round, cost estimates of the proposed innovations were included in the feedback information. The cost estimates, based on a five-year projected budget, had been determined through a supplementary mini-DELPHI project using group B. If members of group A did not think the proposed budgetary estimates were appropriate, they were asked to justify their positions. The main thrust of this round, however, was the allocation of \$10 billion among the proposed innovations. Helmer in his report on the study (33) re-emphasized that the

...primary purpose of this pilot study was to explore the potentialities of applying DELPHI and simulation techniques

to such problems as education planning. Although we believe that the compilation of a large number of ideas for possible educational innovations has served a useful purpose, not too much weight should be given to substantive findings resulting from these pilot studies. Methodologically the endeavor was found very promising by the participants, who feel encouraged to apply the techniques used to similar problems in a more comprehensive manner in the future (p. 22).

The results of this early study indicated that the DELPHI technique held promise in educational planning (2). "The DELPHI technique is being modified and improved so as to be useful in a variety of ways in education decision-making" (p. 29).

DELPHI Evaluation

It is understandable that in long-range forecasting, the validity of the forecast is not immediately discernible. There seems to be substantial evidence that the DELPHI technique has the ability to generate responses which more accurately reflect a "true answer."

One of the earlier studies conducted at RAND Corporation (11), usually referred to as "20 Questions," examined this concern from two perspectives. The experiment itself used 23 participants, all from the RAND research staff. There were 20 questions; answers to 18 of the questions were available in the World Almanac while the two remaining questions required mathematical calculations from the responses. No reference materials were used by the participants. In addition to providing an estimate in the first round, each participant was asked to indicate the degree of expertise he/she had in relation to each question. The feedback information for the second round was the group median, the interquartile range, and the frequency distribution of the self-ratings. Each individual was asked to reconsider

the former response to each question and if a new response was outside the interquartile range to submit justification for the position.

Revised feedback information and instructions to reconsider continued for two more rounds. A control group was implemented with the process varying in two ways: first, there was no feedback information and secondly, the series stopped with two rounds. A sharper consensus was obtained with the experimental group in that the range of responses was reduced with subsequent rounds although at the end of the second round the accuracy of both groups was about the same. The other significant aspect of this experiment had to do with the self-rating assessment requested at the first round. It was found that the participants who had rated themselves highest in a particular area did approximate the "true answer" more frequently than the answer responses from the total group. The "elite" group was closer to the "true answer" almost three and one half times more often.

Robert Campbell at the University of California at Los Angeles conducted another short-term predictive study (15, 33) using two graduate business seminars each randomly divided into two DELPHI groups and two control groups. All participants were requested to make forecasts on 16 different economic indicators. The DELPHI groups participated in a series of four questionnaires over a six-weeks' period. These groups made better forecasts in 13 of the 16 economic indicators; the control groups did better in two cases; both groups produced the same prediction with one indicator.

Milkovich et al. (55) in professional manpower forecasting for a large national retail organization compared the results of the DELPHI

technique with the results generated by conventional regression-based models and both compared against the criterion of actual experience.

The forecasts generated by the systematical albeit clinical delphi procedures is closer to the firm's "true demand" for buyers than any of the more conventionally generated projections. In fact, none of the three regression equation interval estimates even includes the firm's actual decision of 37 buyers (p. 386).

Delphi's forecast was 38. For validation purposes, in two educational studies, "Identifying College Goals the DELPHI Way" (76) and "A Study of the Needs of Oklahoma Citizens for Information About Vocational-Technical Education" (24), a specialists' team was established additionally for the former and a Task Force initiated for the latter. In the goals identification for five institutions from the Uhl study (76), the specialists' team matched the institutional results in 24 of the 27 predictions generated. In DeGugliamo's study, Oklahoma citizens DELPHI group generated 35 items while the Task Force generated 17. A panel of judges determined that 27 of the 35 DELPHI-produced items did carry a relationship, although varying in degree, with 17 items identified by the task force. In both studies the DELPHI groups generated more items than did the expert control groups. This suggests that the specialized group although closely approximating the population sampled was not as inclusive in generating items. This is not to suggest that the ideas or items were excluded but rather it supports the DELPHI process of accepting all options presented.

Selection of an Expert

The term "expert" has been widely associated with the DELPHI. Brown (11) asks, "How is an expert to be judged an expert?" She sees status among peers, years of professional experience, the person's own

self-appraisal of relative competence, the amount of relevant information to which one has access, by some objective indices, by a priori judgment, all as possibilities. She adds that there is at the expert's disposal a large store of background knowledge and a cultivated sensitivity to its relevance which permeates intuitive insight. Weaver (79) attributes expert status to

...one who is objective, [who] take[s] into account new and discrepant information, and construct[s] logically sound deductions about the future based upon a thorough and disciplined understanding of particular phenomena and how they relate (p. 269).

For a reference table relating to the important factors in panel selection, Campbell and Hitchin (15) have adapted criteria developed by the Charles W. Williams, Jr., National Science Foundation for a particular application in the World Future Society. In the more recent educational studies, the trend has moved from the expert panel to an informed constituency approach. This direction is viewed as attempting to promote closer communication to be more responsive to the expressed ideas and needs of the constituency. Campbell and Hitchin (15) state that

...as forecast needs vary from the concrete to the abstract, the importance of empirical data diminishes rapidly; that forecasters with specialized skills must be replaced by informed generalists...(p. 39).

It would appear that at the present time, education needs are empirical data which would use specialized skills or knowledges. This means that the special group selection must be used to develop data.

Size of the Sample

The flexibility of the DELPHI technique is evidenced also in the size of the sample which can be accommodated. In the early experiments,

the number of panel members was quite small. For "Project DELPHI" (17), seven experts were involved. A score of years later, National Laboratories for Higher Education had 844 participants in its study, "Identifying Institutional Goals" (76). Another study, "Goals in Secondary Education--A Conflict of Interest?" (25) reported by Duetsch and Hamm included nearly 800 participants. Cyphert and Gant (22) in their application of the DELPHI technique to assess the needs, desires, opinions of the clientele of the School of Education at the University of Virginia reported an initial sample of 421 participants. Brooks (8) in his study, "A DELPHI Study of Parents', Teachers', School Board Members', School Administrators', School Counselors', and Students' Perceptions of the Roles of Vocational and Technical Education in Oklahoma," included slightly over 100 participants.

Number of Rounds

The number of rounds of feedback information involved in the DELPHI technique have varied from three to six. In the earlier studies where consensus was the goal, a greater number of rounds, with more supplementary and feedback information provided, were required. As the emphasis of the studies has shifted from a non-data base into an attitudinal or perceptual orientation, the goal for a tendency toward convergence reduces the number of rounds necessary. With the later type study, it also reduces or eliminates the necessity of providing supplemental information between rounds.

Statistical Measure

Another aspect of the DELPHI is the use of the measures of central tendency, mean, median and mode. All three have been employed in about equal numbers of applications. The early studies used the median as the statistical group response accompanied by the interquartile (middle 50 percent) rating. These initial estimates were included as feedback information accompanied by the request to reconsider one's private estimates and if they fell outside the interquartile range to either change the estimates to the interquartile range of the group or to justify the estimate outside the range. Brown, in her paper, "Improving the Reliability of Estimates Obtained from a Consensus of Experts" (10) states

...the median has the evident advantage over, say, the mean of being independent of the metric. Moreover, it has the obvious and appealing quality that it is that value for which half the group thinks the true answer is less than or equal to it and the other half that it is greater than or equal to it (p. 9).

As the technique has been adapted to meet the needs of educational institutions, there seems to be a balance in numbers of studies using the mean and the modal group responses. Judd (39) in the development of an experimental type curriculum used the interquartile rating alone. The vocational studies reviewed (7, 20, 36, 73, 75) all used the arithmetic mean.

Alternative Uses

Sergiovanni (68) sees the DELPHI process as widening education's abilities to seek and gather information from a number of populations. The in-house consensus seeking occasions provided an appropriate environment for the DELPHI. Judd (39) and his colleagues created an innovative

curriculum; Newton and Hellegna (59) produced learning objectives for a master's level program in student personnel. Weaver (79) concluded that DELPHI, "in combination with other tools, is a very potent device for teaching people to make better decisions--decisions which account for alternative consequences--a way to enhance their capacity to think in complex ways about the future..." (p. 271).

In summary, the early studies have been directed toward long-range forecasts and have selected individuals with expert status as members of the panel. The methodology used, questionnaires in a series of rounds of feedback information which provided the median group response, the interquartile range. As the technique has been developed and refined, its flexibility and adaptability in the communicative process to encourage the meeting of the minds on a predetermined subject has been broadened. The DELPHI is an intellectual tool while maintaining anonymity elicits individually brainstormed ideas from constituents and has as its goal the reaching of a convergence of opinions.

CHAPTER III

DESIGN AND METHODOLOGY

The purpose of this study is to determine the occupational information needs perceived to be needed and usable in effective planning by the occupational management teams from eight community colleges in California.

This study grew out of a recognition by occupational educators and management team members of a lack of available systematized information on which to base reliable decisions. In the 1973-74 project, COPES (California Community College Occupational Programs Evaluation System) identified "systematic collection and translation of information on community occupational education needs" as first priority for research and development.

With the accelerated competition in the market place and with the complexities of our technological society, decisions oftentimes are subject to pressures of time and the frustrations of access to viable sources. Also the multi-roles which occupational management team members reflect in the present day organizational structure suggest, if not demand, an accessible information system upon which to base relevant, effective decisions. There is no lack of data; at times the collections are likened to the pollutants (33). With the data held in secret caches, too much time is often required to organize the hunt to ferret out the appropriate sources and to extract the useful data from its captor. A

reasonable option traditionally has been to rely on colleagues for the needed input. The likelihood of the information from this source being genuinely useful, although used, remains questionable. Hidden agendas of individual biases or of institutional aspirations become the influentials rather than consideration of the outcomes guiding the decision.

As the need to move into the participatory decision-making mode continues to emerge and as institutions strive to narrow the credibility gap through accountability, an information base system becomes the vital element for planning. The thrust of this study is to identify the information perceived to be needed and usable for eight California community colleges.

A rank order of the needed information in eight decision areas identified by the Occupational Education Management Team in eight community colleges was determined. A second aspect of the study was to identify the hierarchical level at which the manager of occupational education perceives decisions are made in each of the eight decision areas. A subsection of the decision process was to identify the sources of recommendations for occupational education management teams. The purpose of this chapter is to describe the procedures for population selection, instrumentation, and data collection and analysis.

Identification of the Population

The study has as its population the management teams for occupational education from eight California community colleges. In 1972-73, these eight community colleges had been selected as a ten percent representation of the community college system, excluding those institutions that had participated in the field tests of COPES instrumentation

as well as the newly established colleges. California had been divided into north and south regions. To select the participating institutions, four categories were established for each region; large, medium large, medium small, and small, with size defined as ADA (average daily attendance) in occupational education for the previous year. Eight colleges were selected through use of a table of random numbers.

For purposes of this study, it was assumed that the eight community colleges, Porterville College, San Jose City College, American River College, West Hills College, Santa Barbara City College, San Diego City College, College of the Redwoods, and Riverside City College, retained their representativeness of the California community college system. These community colleges are all established institutions having been in existence from a minimum of 12 years to 72 years.

To establish the occupational management team members, a letter was sent to the chief occupational administrator at each college as identified from Occupational Programs in California Public Community Colleges 1973-74 and verified with the Chancellor's Office. The letter, after explaining the purpose of the study, requested the chief occupational administrator to designate those individuals who were involved with the management of occupational education at that college. Designations were provided by all eight chief occupational administrators by phone and by letter. The eight chief occupational administrators designated 111 individuals as members of their management teams for occupational education.

Instrumentation

The DELPHI technique was used to collect the data. The DELPHI technique is a written communication process enabling a meeting of the minds through the use of carefully designed questionnaires which elicit individualized brainstormed responses. The responses form the information feedback base which is communicated to all participants in successive rounds until a convergent opinion is reached. Three communication rounds were used to acquire the information perceived to be needed and usable in eight decision areas. Although referring to the study in the singular, technically there were eight component or mini-DELPHI studies undertaken simultaneously. Each decision area in itself represents its own perceived information needs.

As was determined from the literature, decision areas accompanied by their needed information bases emanate from problems or opportunities awarenesses. The COPES 1973-74 Report had listed the ten lowest ranked COPES items as judged by the site visitation teams for 1972-73 and 1973-74 institution evaluations. (1) Decision areas were determined through an analysis of the COPES items most in need of improvement as ranked by eleven judges, (2) the items which were accorded the highest priority ranking for research and development from a research conference of 43 professionals, and (3) post-site visitation teams' proposals were analyzed to determine decision making areas. Fourteen decision areas were identified and field tested at selected community colleges in Oklahoma. In addition to the refinements and condensing suggested in the field tests, a panel of judges recommended further changes. The suggestions and recommendations were incorporated into the first instrument. Communication No. 1 contained eight decision areas: Program Goals,

Program Objectives, Program Planning, Advisory Committees, Operational Budget, Coordination and Direction, Evaluation, and Emphasis on Occupational Counseling, Guidance and Placement.

Communication No. 1

The first mailing, Appendix A, contained Communication No. 1, an explanatory letter, an abstract of the project as submitted to the California Chancellor's Office, the "reference sheet," and a blank cassette tape. Communication No. 1 was an eight-page instrument; a page for each decision area. Three questions were asked in relation to each of the eight decision areas: (1) At what administrative level is the decision(s) made about (named decision area) for occupational education? (2) Who makes recommendations for the (named decision area) for occupational education? and (3) Specify at least five units of information you perceive would be needed and used to do effective planning to develop (named decision area) for occupational education. The "reference sheet" listed 48 statement items extracted from COPES "Perceptions of Occupational Education Evaluative Guides and Criteria" (17) relating to the decision areas. This packet was mailed to 111 designated management team members from the eight community colleges. Those who responded to Communication No. 1 formed the group to whom Communication No. 2 was mailed.

Communication No. 2

The responses to Question 3, requesting units of information, from Communication No. 1 were analyzed. Like responses were clustered and other responses were translated into an information-needs context. Insofar as possible, the wording used by the participants was retained. A

list of response items made up of information factors perceived to be needed and usable, each with an eleven-point importance rating continuum, was developed and returned to all team members who had responded to Communication No. 1. The participants were asked to rate each information factor in relation to its importance to the decision area. Based on the responses to Communication No. 2, the median response was determined for each information factor. (See Appendix B.)

Communication No. 3

For Communication No. 3, each information factor was repeated accompanied by its median response displayed on a separate eleven-point continuum. A second eleven-point importance continuum and a "Comments" column was provided for different ranking of the factors. The participant was asked to evaluate the median response for each factor. If the median response was consistent with the participant's views, no additional markings were needed. However, if the median response was not consistent with the views held, the participant could reconsider his or her opinions thereby moving to accept the median rating. Or the participant could opt to retain a distinct opinion by re-ranking the factor on the second importance scale and providing a written explanation to support the change. Communication No. 3 was mailed to the 111 management team members. A reminder card and a second packet of Communication No. 3 instruments was sent to provide additional opportunity for input from the occupational education team members. In addition to the Communication No. 3 instrument, a profile sheet requesting background experience and training information about the members of the occupational management team members was included. (See Appendix C.)

Treatment of the Data

For all participants who responded to Communication No. 3, the responses to each factor served as a bases for the mean upon which the information factors could be ranked. To have accepted only the median rating would not have discriminated sufficiently to accommodate ranking of the factors. The rank order of information factors was calculated for each decision area, for each of the eight colleges, and for the entire group of factors. Following the rank ordering of all factors, the matrix was turned to permit examination of selected variables obtained from the input of the profile sheet. The variables to be used in this study are the eight community colleges. The Product Moment Correlation Coefficient was calculated to determine the degrees of relationship of the information factors between community colleges.

To establish an information needs base for all institutions as a unit as well as for each community college independently, reporting of the information factors was limited to the upper quartile of the group rankings. The use of the upper quartile is supported in the literature as a recommendation from the Center for Vocational Technical Education Research at The Ohio State University (15).

CHAPTER IV

PRESENTATION OF FINDINGS

The purpose of this study was to determine the perceived factors of information which would be needed and used to make decisions for effective planning in selected California community colleges. The analysis of the data relates to the responses obtained from Communication No. 3. The complete list of rank-ordered information factors, recorded in descending order of importance, appears in Appendix D. The rank order of each information factor as determined by each community college also appears in Appendix D. Discussion of the information factors includes only those responses appearing in the top quartile rankings.

The respondent group consisted of 111 individuals designated by the eight chief occupational administrators to form eight management teams. The data in Table I indicates the number of management team members from each of the eight community colleges. Additionally, the relative size, as determined by the Chancellor's Office, is based on occupational education average daily attendance.

The data in Table II indicates the occupational areas of members within institutions as well as the hierarchical level of the member's position. The areas were identified and classified on the basis of title and whether the title contained commonly accepted occupational identifiers. Eighty-eight men, 79.8 percent, and 23 women, 20.7 percent,

were nominated as management team participants. A composite of the designated management teams' members appears in Table II.

TABLE I
OCCUPATIONAL MANAGEMENT TEAM PARTICIPANTS

College	College Size	Mgt. Team Number	Percent of Total
College of the Redwoods	Medium Small	7	6.3
San Diego City College	Medium Large	12	10.8
Santa Barbara City College	Medium Small	18	16.2
San Jose City College	Medium Large	14	12.6
American River College	Large	43	38.7
West Hills College	Small	6	5.4
Riverside City College	Large	4	3.6
Porterville College	Small	7	6.3
TOTAL		111	99.9

The number of returns from each management team representing the participating institutions is shown in Table III.

TABLE II
DESIGNATED MANAGEMENT TEAM MEMBERS'
ORGANIZATIONAL BACKGROUND
AND LEVEL

Institutional Area	Hierarchical Levels						Total
	District	Administrative	Divisional or Director	Departmental	Coordinator/ Supervisor	Instructor	
Agriculture & Industrial Technology						1	1
Administration of Justice				3	1		4
Business and Office				11		3	14
Career Placement and Work Experience			1	1	2		4
Data Processing				2			2
Fire Science					1		1
General Occupational Education	2	7	1	4			14
Health Occupations			6	3	1		10
Home Economics				2½*			2½
Hotel & Restaurant Management				1			1
Industrial				6½*	3		9½
Technical				9			9
Other:							
General Administration		18					18
Academic & Related			1	15	1	4	21
TOTAL FREQUENCY	2	25	9	58	9	8	111
PERCENT	1.8	22.5	8.1	52.2	8.1	7.2	99.9

*One individual reported chairing a combined department

TABLE III
PARTICIPANTS' RETURN RATES TO COMMUNICATIONS
NO. 1, 2, AND 3

College	Team Members	First Response	Second* Response	Third** Response
Porterville College	7	3	2	4
San Diego City College	12	6	4	6
Santa Barbara City College	18	5	5	12
Riverside City College	4	1	1	3
San Jose City College	14	7	5	9
West Hills College	6	3	3	2
American River College	43	16	11	22
College of the Redwoods	7	5	3	6
TOTAL	111	46	34	64
PERCENT RETURN		41.4	73.9	57.7

*Sent only to those who had responded to Round 1

**Sent to all 111 designees

Communication No. 1

Forty-six management team members returned Communication No. 1 for a 41.4 percent response. Eleven potential participants, 9.9 percent forwarded letters explaining inability to participate. Eight felt they could not commit the time, one was about to go on sabbatical, another felt he should not participate as no occupational courses were offered

in his department. One person declined to participate because of negative feelings about assisting in a study for another person. Responses by cassette tape were meager; therefore, this technique had no meaning.

The data submitted by the forty-six respondents were analyzed. Like responses were clustered, while reactions, concerns, and observations were translated into information-needs context. Insofar as possible, the wording used by the participants was retained.

Communication No. 2

Communication No. 2 (Appendix B) contained 193 information factors perceived to be needed and usable for the eight decision areas. The participants were asked to rate each factor in relation to its degree of importance for effective planning within the specific decision area. The importance scale, an eleven-point continuum, was used. Thirty-four responses or a 73.9 percent return was received from the 46 participants who had responded to Communication No. 1. Each respondent's rating of information factors was recorded. A median response for each factor was then identified. Several respondents submitted additional factors. The factors were analyzed and, if it was determined that they had not previously been included in an existing wording of the factors, they were added to the list. Three additional factors were included. The importance ratings of these factors as submitted in Communication No. 2 was reported back to the total group in round three of the DELPHI.

Communication No. 3

Communication No. 3 was sent to the original constituency designated as members of the occupational education management teams. Sixty-four

or 57.7 percent responded. Six additional responses, 5.4 percent, were received but were not usable; three were returned unanswered; another felt he should have greater involvement with occupational courses; one had been involved in a fatal automobile accident; another had moved.

In Communication No. 3, the median response for each information factor was identified and marked on the eleven-point continuum. The participants were asked to evaluate the median ranking for each factor. If the participant was in agreement with the median ranking, nothing more was needed. However, if the median response was not consistent with the respondent's views, the respondent could re-evaluate and accept the median ranking. Or the respondent could re-evaluate and reject the median response by marking another point on the "importance" continuum and by supporting the position through a written reason(s) in the "Comments" column.

Decision Area Rankings

There were a total of 194 information factors generated by the study--nineteen factors relating to the decision area of Program Goals, 17 factors relating to the decision area of Advisory Committees, 24 factors relating to Program Objectives decision area, 39 information factors relating to the decision area of Operational Budget, 20 information factors needed for the decision area of Program Planning, 21 factors relating to the Evaluation decision area, 38 information factors needed for the Coordination and Direction decision area, and 15 information factors identified for the decision area of Emphasis on Occupational Counseling, Guidance, and Placement.

The upper quartile rankings of information factors from each decision area, the average of the means response for each decision area, the upper quartile ranked information factors for each of the eight community colleges, and the upper quartile ranked information factors from all factors submitted will be presented.

In the following eight tables, the upper quartile-ranked information factors are identified for each decision area. The tables have been arranged in the order in which the decision areas appear in Communication No. 3.

TABLE IV
UPPER QUARTILE RANKED INFORMATION FACTORS
RELATING TO PROGRAM GOALS

Rank	Number ¹	Information Factor
* 1	19	Knowledge of subject materials
2	1	Administrative and board commitment to occupational education
3	5	Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations, etc.)
4	17	Relationship existing between education and industry
5	10	Programs needed to make the offerings sufficiently extensive to meet industrial and student needs

*Factor submitted by an individual at Round 2 which was added data in Round 3 for participants to re-evaluate

¹Refers to the information factor number used in Communication No. 3

TABLE V
UPPER QUARTILE RANKED INFORMATION FACTORS
RELATING TO ADVISORY COMMITTEES

Rank	Number ¹	Information Factor
* 1	36	Procedures to inform advisory committee members of the institution's capabilities: its potentials and its limitations
2	30	Faculty attitude toward meeting with and accepting recommendations from the advisory committee
3	27	The attitude of leaders in business and industry toward updating and improving personnel in their fields
4	24	Procedures for dissemination of information about occupational programs to the community
5.5	22	Communications procedures and techniques between the advisory committees, administration, and faculty
5.5	34	Procedures for advisory committee members to provide assistance in student and graduate placement

*Factor submitted by an individual at Round 2 which was added data in Round 3 for all participants to re-evaluate

¹Refers to the information factor number used in Communication No. 3

TABLE VI
UPPER QUARTILE RANKED INFORMATION FACTORS
RELATING TO PROGRAM OBJECTIVES

Rank	Number ¹	Information Factor
1	40	Commitment of board and top administration to occupational education
2	56	Knowledge of anticipated technological and industrial job requirements
3	45	Facilities and equipment required and available to meet program objectives
4	37	Community needs--current and anticipated
5	44	Number and qualifications for faculty required to accomplish program objectives
6	54	Input from current and former students

¹Refers to the information factor number used in Communication No. 3

TABLE VII
UPPER QUARTILE RANKED INFORMATION FACTORS
RELATED TO OPERATIONAL BUDGET

Rank	Number ¹	Information Factor
1	65	Training needs of the community, county, and state
2	64	Administrative attitudes toward providing financial support of occupational programs
3	84	Staffing requirements (the number of instructors available and needed; areas of expertise, paraprofessionals, aides, readers, clerical, secretarial, etc.)
4.5	67	Present condition and availability of instructional equipment as it reflects the equipment used in industry
4.5	79	Total district budget plan
6.5	66	Long-range community needs mirrored by planned program changes
6.5	86	Attitude of administration regarding part-time/hourly staffing patterns
8.5	70	Minimum and maximum equipment needs to accomplish goals and objectives of program
8.5	91	Program priorities
10.5	72	Identified work experience and practicum sites
10.5	81	Basis on which funds are to be allocated
12.0	92	Estimates of anticipated program growth
13.0	62	Recommendations and approval from advisory committee
14.0	61	Cost of equipment
15.0	96	Placement of the chief administrator for occupational education on the organizational chart

¹Refers to the information factor number used in Communication No. 3

TABLE VIII
UPPER QUARTILE RANKED INFORMATION FACTORS
RELATED TO PROGRAM PLANNING

Rank	Number ¹	Information Factor
1	100	Board and top administrators' commitment to occupational education
2	116	Changes anticipated in the job market
3	111	Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job market requirements, etc.
4	101	Program approval by advisory committees
5	108	Projected facility and equipment needs

¹Refers to the information factor number used in Communication No. 3

TABLE IX
UPPER QUARTILE RANKED INFORMATION FACTORS
RELATED TO EVALUATION

Rank	Number ¹	Information Factor
* 1	139	Procedures and criteria for employed former students' input
2	130	Follow-up information (enrollments, retention, placement, levels of training, abilities, student occupational goals and objectives, graduates, drop-outs, job-outs, completers, entering trade for which trained, successes, etc.)
3	133	Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employees, etc.)
4	121	Input from advisory committee into program evaluation
5	122	Knowledge of the requirements of various accrediting agencies (COPES, Trade Licensing, Western States Accreditation Association, district and national certifying examinations, etc.)

*Factor submitted by an individual at Round 2 which was added data for Round 3 for all participants to re-evaluate

¹Refers to the information factor number used in Communication No. 3

TABLE X
UPPER QUARTILE RANKED INFORMATION FACTORS
RELATED TO COORDINATION AND DIRECTION

Rank	Number ¹	Information Factor
1	150	Employer feedback
2	156	Availability of qualified interested instructors for ongoing coordination and direction of occupational education
3	142	Administrative and board commitment to ongoing functioning of occupational programs
4	164	Evidence that the vocational deans are involved in top-level decision-making planning about occupational education
5	144	Recommendations from the advisory committee
6	155	Release time allocated to coordination and direction of occupational programs
7	149	Community needs (information and projections of business and industry, population shifts--economic conditions, and trends, etc.)
8	172	Student information (enrollments, desires, needs, placement and retention in industry, evaluation, demand, etc.)
10	154	Yearly evaluations to determine progress in meeting the goals and objectives (identification and removal of blockages, etc.)
10	161	Commitment of the administration to support faculty in-service training programs (district workshops, statewide seminars, national conferences, return-to-industry subsidies, planned summer government positions, etc.)
10	168	Availability of flexible, open-ended programs accommodating a student shift in occupational goals with a minimal time loss

¹Refers to the information factor number used in Communication No. 3

TABLE XI
UPPER QUARTILE RANKED INFORMATION FACTORS
RELATING TO EMPHASIS ON OCCUPATIONAL
COUNSELING, GUIDANCE AND PLACEMENT

Rank	Number ¹	Information Factor
1	187	Qualifications for occupational counseling (attitudes, responsibilities, duties, etc.)
2	179	Institutional commitment to establish an occupational information system to guide students
3.5	191	Provisions for supportive staff requirements (clerical, secretarial, aides, etc.)
3.5	193	Student needs met and unmet (number of occupational students, day/evening makeup, occupational objectives, needs, desires, abilities, etc.)
6.5	181	Evidence of effective liaison between community college counselors and high school counselors, advisory committees, occupational faculty, 4-year transfer occupational programs, etc.
6.5	182	Knowledge of community agencies providing occupational counseling, guidance, and placement services.
6.5	186	Attitude of occupational faculty toward working with counselors
6.5	189	Coordination of placement services with: all occupational programs; counselors from other districts and campuses, the community, students, faculty, etc.

¹Refers to the information factor number used in Communication No. 3

To examine the strength of each of the decision areas, both the average of the means and the frequency of factors mentioned have been given in Table XII. The lowest average of the means is ranked as the most important decision area; it is Evaluation. The decision area of Operational Budget ranked last.

TABLE XII
RANK ORDER BY EIGHT DECISION AREAS
BY AVERAGE OF THE MEANS

Decision Area	Frequency of Factors	Average of the Means	Rank
Evaluation	21	3.06	1
Program Planning	20	3.07	2
Occupational Counseling, Guidance, and Placement	16	3.32	3
Program Objectives	24	3.48	4.5
Program Goals	19	3.48	4.5
Coordination and Direction	38	3.54	6
Advisory Committees	17	3.63	7
Operational Budget	39	3.81	8

Community College Rankings

The upper quartile ranked information factors perceived to be needed and useful for effective planning for eight community colleges are

provided in the following Tables, XIII, XIV, XV, XVI, XVII, XVIII, XIX, and XX. The rank accorded the information factor for each institution is accompanied by the overall rank it received as compared to total list of factors. In the event of tied rankings, the factors are then listed in chronological order. The appropriate decision area for the information factor is also included.

The number of factors included in the upper quartile rankings from each college is in direct proportion to the number of team members responding; the greater the number participating, the more discriminating the rankings. The three top-ranked information factors for college 1 relate to board and administrative commitment to occupational education in three decision areas, Program Goals, Program Objectives, and Program Planning. These same factors appear for College 2, with some shift in rank. Two factors which had been proposed by individuals at Round 2 were accorded higher ratings by College 2. College 3 ranked the first five factors as equally important. The commitment of board and administration under Program Objectives and Program Planning were among the group. Three of the five factors had been submitted at Round 2. College 4 ranked six items as top priority; half the factors relate to the "commitment" context and half to the factors submitted at Round 2. College 5 had five factors ranked as most significant. Three of the five again relate to the "commitment" dimension. College 6 ranked the three factors of commitment as most significant; College 7 included the commitment dimension for the identical factors but spread the rankings from one through five. The decision area of Program Objectives achieved more importance for Colleges 7 and 2 compared to Program Goals for the remaining six colleges. College 8 ranked the three

TABLE XIII

UPPER QUARTILE RANKED INFORMATION FACTORS PERCEIVED TO
BE NEEDED AND USABLE FOR EFFECTIVE PLANNING
COMMUNITY COLLEGE 1

Decision Area	College 1 Rankings	Factor Number	Information Factor
Program Goals	2.0	1	Administrative and board commitment to occupational education
Program Objectives	2.0	40	Commitment of board and top administration to occupational education
Program Planning	2.0	100	Board and top administrator's commitment to occupational education
Program Goals	*4.0	19	Knowledge of subject materials
Advisory Committees	*5.5	36	Procedures to inform advisory committee of the institution's capabilities: its potentials and its limitations
Evaluation	*5.5	139	Procedures and criteria for employed former students' input
Coordination & Direction	7.0	150	Employer feedback
Program Objectives	9.5	56	Knowledge of anticipated technological and industrial job requirements
Operational Budget	9.5	64	Administrative attitudes toward providing financial support of occupational education
Operational Budget	9.5	65	Training needs of the community, county and state
Coordination & Direction	9.5	142	Administrative and board commitment to ongoing functioning of occupational programs
Program Planning	14.5	116	Changes anticipated in the job market
Evaluation	14.5	133	Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employees, etc.)

TABLE XIII (CONTINUED)

Decision Area	College 1 Rankings	Factor Number	Information Factor
Coordination & Direction	14.5	144	Recommendations from the advisory committee
Coordination & Direction	14.5	156	Availability of qualified, interested instructors for ongoing coordination and direction of occupational education
Occ. Counslg/ Guid/Placmnt	14.5	179	Institutional commitment to establish an occupational information system to guide students
Occ Counslg/ Guid/Placmnt	14.5	187	Qualifications for occupational counseling (attitudes, responsibilities, duties, etc.)
Advisory Committees	21.5	27	Attitude of leaders in business and industry toward updating and improving personnel in their fields
Advisory Committees	21.5	30	Faculty attitude toward meeting with and accepting recommendations from the advisory committee
Program Objectives	21.5	37	Community needs--current and anticipated
Program Objectives	21.5	45	Facilities and equipment required and available to meet program objectives
Operational Budget	21.5	84	Staffing requirements (the number of instructors available and needed, areas of expertise, paraprofessionals, aides, readers, clerical, secretaries, etc.)
Program Planning	21.5	111	Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job market requirements, etc.
Evaluation	21.5	121	Input from advisory committees into program evaluation

TABLE XIII (CONTINUED)

Decision Area	College 1 Rankings	Factor Number	Information Factor
Evaluation	21.5	130	Follow-up information (enrollments, retention, placements, levels of training, abilities, student occupational goals and objectives, graduates, drop-outs, completers, entering trade for which trained, successes, etc.)
Program Goals	26.5	5	Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations, etc.)
Program Planning	26.5	101	Program approval by advisory committees
Coordination & Direction	28.0	164	Evidence that the vocational deans are involved in top-level, decision-making planning about occupational education
Coordination & Direction	29.0	155	Release time allocated to coordination and direction of occupational programs
Operational Budget	30.0	79	Total district budget plan
Program Goals	32.5	10	Programs needed to make the offerings sufficiently extensive to meet industrial and student needs
Program Goals	32.5	14	Student needs met and unmet (recruitment and selection, vocational counseling needs, placement needs, interests, desires, former, current, potential, mobility, etc.)
Program Goals	32.5	17	Relationship existing between education and industry
Operational Budget	41.5	86	Attitude of administration regarding part-time/hourly staffing patterns
Program Planning	41.5	107	Knowledge of trade licensing requirements; local, state, and national accrediting agency standards; state and federal legal requirements, etc.

TABLE XIII (CONTINUED)

Decision Area	College 1 Rankings	Factor Number	Information Factor
Evaluation	41.5	122	Knowledge of the requirements of various accrediting agencies (COPES, Trade licensing, Western States Accreditation Association, district and national certifying examinations, etc.)
Evaluation	41.5	137	Knowledge of who has the responsibility and authority for data collection
Coordination & Direction	41.5	143	Administrative feedback
Coordination & Direction	41.5	158	Locations of new types of work stations to fit new occupational programs
Coordination & Direction	41.5	161	Commitment of the administration to support faculty in-service training programs (district workshops, statewide seminars, national conferences, return-to-industry subsidies, planned summer government positions, etc.)
Coordination & Direction	41.5	166	Evidence of the capabilities of a management team to carry out the direction and coordination of occupational education (coordinators, curriculum committee, faculty, division and department heads, etc.)
Coordination & Direction	41.5	172	Student information (enrollments, desires, needs, placement and retention in industry, evaluation, demand, etc.)
Occ Counslg/ Guid/Placmnt	41.5	182	Knowledge of community agencies providing occupational counseling, guidance, and placement services
Occ Counslg/ Guid/Placmnt	41.5	186	Attitude of occupational faculty toward working with counselors
Occ Counslg/ Guid/Placmnt	41.5	189	Coordination of placement services with: all occupational programs, counselors from other districts and campuses, the community, students, faculty, etc.

TABLE XIII (CONTINUED)

Decision Area	College 1 Rankings	Factor Number	Information Factor
Occ Counslg/ Guid/Placmnt	41.5	190	The role of placement services (career, temporary employment, graduates, job-outs, work experience, part-time, specific programs, accessibility, processing job requests, recruitment, etc.)
Occ Counslg/ Guid/Placmnt	41.5	191	Provisions for supportive staff requirements (clerical, secretarial, aides, etc.)

*Factors submitted by individuals at Round 2 which were added data in Round 3 for all participants to re-evaluate

TABLE XIV
UPPER QUARTILE RANKED INFORMATION FACTORS PERCEIVED TO
BE NEEDED AND USABLE FOR EFFECTIVE PLANNING
COMMUNITY COLLEGE 2

Decision Area	College 2 Rankings	Factor Number	Information Factor
Program Objectives	1.5	40	Commitment of board and top administration to occupational education
Evaluation	*1.5	139	Procedures and criteria for employed former students' input
Program Goals	*3.0	19	Knowledge of subject materials
Program Planning	4.5	100	Board and top administrators' commitment to occupational education
Program Goals	4.5	1	Administrative and board commitment to occupational education
Program Planning	7.0	111	Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job market requirements, etc.
Evaluation	7.0	133	Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employees, etc.)
Coordination & Direction	7.0	150	Employer feedback
Advisory Committees	14.5	27	Attitude of leaders in business and industry toward updating and improving personnel in their fields
Advisory Committees	14.5	30	Faculty attitude toward meeting with and accepting recommendations from the advisory committee
Advisory Committees	*14.5	36	Procedures to inform advisory committee members of the institution's capabilities: its potential and its limitations

TABLE XIV (CONTINUED)

Decision Area	College 2 Rankings	Factor Number	Information Factor
Program Objectives	14.5	45	Facilities and equipment required and available to meet program objectives
Operational Budget	14.5	64	Administrative attitudes toward providing financial support of occupational education
Operational Budget	14.5	65	Training needs of the community, county and state
Operational Budget	14.5	84	Staffing requirements (the number of instructors available and needed, areas of expertise, paraprofessionals, aides, readers, clerical, secretarial, etc.)
Program Planning	14.5	116	Changes anticipated in the job market
Evaluation	14.5	121	Input from advisory committees into program evaluation
Evaluation	14.5	130	Follow-up information (enrollments, retention, placements, levels of training, abilities, student occupational goals and objectives, graduates, drop-outs, completers, entering trade for which trained, successes, etc.)
Coordination & Direction	14.5	156	Availability of qualified, interested instructors for ongoing coordination and direction of occupational education
Occ Counslg/ Guid/Placmnt	14.5	187	Qualifications for occupational counseling (attitudes, responsibilities, duties, etc.)
Program Goals	22.0	5	Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations, etc.)
Program Objectives	22.0	37	Community needs--current and anticipated

TABLE XIV (CONTINUED)

Decision Area	College 2 Rankings	Factor Number	Information Factor
Program Objectives	22.0	56	Knowledge of anticipated technological and industrial job requirements
Occ Counslg/ Guid/Placmnt	24.0	179	Institutional commitment to establish an occupational information system to guide students
Program Planning	26.0	101	Program approval by advisory committees
Coordination & Direction	26.0	142	Administrative and board commitment to ongoing functioning of occupational programs
Coordination & Direction	26.0	164	Evidence that the vocational deans are involved in top-level decision-making planning about occupational education
Advisory Committees	29.5	44	Number and qualifications for faculty required to accomplish program objectives
Program Planning	29.5	107	Knowledge of trade licensing requirements, local, state and national accrediting agency standards, state and federal legal requirements, etc.
Coordination & Direction	29.5	144	Recommendations from the advisory committee
Coordination & Direction	29.5	159	Availability of state and federal funds to meet the goals and objectives of each occupational program
Program Goals	32.0	2	Costs of establishing and maintaining programs for occupational education
Program Goals	63.5	10	Programs needed to make the offerings sufficiently extensive to meet industrial and student needs
Program Goals	63.5	14	Student needs met and unmet (recruitment and selection, vocational counseling needs, placement needs, interests, desires, former, current, potential mobility, etc.)

TABLE XIV (CONTINUED)

Decision Area	College 2 Rankings	Factor Number	Information Factor
Program Goals	63.5	17	Relationship existing between education and industry
Advisory Committees	63.5	22	Communications procedures and techniques between the advisory committees, administration, and faculty
Advisory Committees	63.5	24	Procedures for dissemination of information about occupational programs to the community
Advisory Committees	63.5	25	Membership selection process (representativeness of occupational areas, scope of area levels--supervisory, secretarial, employers, students, faculty, characteristics--interest, perceptive, etc.)
Advisory Committees	63.5	34	Procedures for advisory committee members to provide assistance to student and graduate placement
Program Objectives	63.5	39	Community input (advisory committee, etc.)
Program Objectives	63.5	41	Cost analysis of program objectives
Program Objectives	63.5	42	Evidence of reaching program objectives
Program Objectives	63.5	51	Knowledge of components of program objectives (degree requirements, length of program, specific skills, levels, related learnings, and cluster areas)
Program Objectives	63.5	54	Input from current and former students
Operational Budget	63.5	61	Cost of equipment
Operational Budget	63.5	66	Long-range community needs mirrored by planned program changes

TABLE XIV (CONTINUED)

Decision Area	College 2 Rankings	Factor Number	Information Factor
Operational Budget	63.5	67	Present condition and availability of instructional equipment as it reflects the equipment used in industry
Operational Budget	63.5	70	Minimum and maximum equipment needs to accomplish goals and objectives of program
Operational Budget	63.5	79	Total district budget plan
Operational Budget	63.5	86	Attitude of administration regarding part-time/hourly staffing patterns
Operational Budget	63.5	91	Program priorities
Operational Budget	63.5	92	Estimates of anticipated program growth
Program Planning	63.5	102	Recommendations from advisory committees
Program Planning	63.5	103	Community needs met and unmet
Program Planning	63.5	105	Program guidelines (scope, content, time, etc.)
Program Planning	63.5	106	Assessment of all vocational programs available in the community
Program Planning	63.5	108	Projected facility and equipment needs
Program Planning	63.5	115	Student needs (desires, interests, supply, selection, demand, projections, successes, completers, evaluations, etc.)
Program Planning	63.5	117	Availability of resource people with planning expertise to assist with planning and developing programs

TABLE XIV (CONTINUED)

Decision Area	College 2 Rankings	Factor Number	Information Factor
Program Planning	63.5	118	Available facilities, equipment, and instructional supplies (texts, audio-visual, software, etc.)
Evaluation	63.5	120	Procedures for implementing recommendations for changes in occupational programs
Evaluation	63.5	122	Knowledge of the requirements of various accrediting agencies (COPES, trade licensing, Western States Accreditation Association, district and national certifying examinations, etc.)
Evaluation	63.5	124	Effectiveness of facilities (flexibility, utilization, adequacy, comparisons, etc.)
Evaluation	63.5	127	Knowledge of the goals and specific objectives from each occupational area
Evaluation	63.5	128	Identification of occupational program manager on an organizational level commensurate with defined management function and on a lateral level with other managers who have equivalent responsibilities and authority
Evaluation	63.5	132	Knowledge of use to be made of evaluation
Evaluation	63.5	134	Criteria for and measurement of job success
Evaluation	63.5	135	Availability of job-focus information from former students in relation to instructional programs
Evaluation	63.5	136	Attitudes of faculty, administration, students, advisory committees, employers, and community toward evaluation of occupational programs
Evaluation	63.5	137	Knowledge of who has the responsibility and authority for data collection

TABLE XIV (CONTINUED)

Decision Area	College 2 Rankings	Factor Number	Information Factor
Evaluation	63.5	138	Evidence of growth and modification of offerings over the past 5 years (levels and amounts of skill needed, most appropriate types of training, etc.)
Evaluation	63.5	140	Evidence of continuing review of all occupational programs (elimination of duplications, identifying uniquenesses, examinations of past performance, e.g. placements, completion rates, relevancy, etc.)
Coordination & Direction	63.5	145	Working effectiveness of the advisory committee with other program components
Coordination & Direction	63.5	146	Knowledge of all community occupational training programs and the impact on each other (feeder high schools, transfer institutions, ROP's, private institutions, duplications, etc.)
Coordination & Direction	63.5	149	Community needs (information and projections of business and industry, population shifts, economic conditions and trends, etc.)
Coordination & Direction	63.5	154	Yearly evaluations to determine progress in meeting the goals and objectives (identification and removal of blockages, etc.)
Coordination & Direction	63.5	157	Knowledge of the availability and appropriateness of campus and community facilities
Coordination & Direction	63.5	158	Locations of new types of work stations to fit new occupational programs
Coordination & Direction	63.5	160	Institutional financial commitment to the needs of special student populations

TABLE XIV (CONTINUED)

Decision Area	College 2 Rankings	Factor Number	Information Factor
Coordination & Direction	63.5	161	Commitment of the administration to support faculty in-service training programs (district workshops, statewide seminars, national conferences, return-to-industry subsidies, planned summer government positions, etc.)
Coordination & Direction	63.5	162	Availability of supplemental educational materials (texts, audio-visual, etc.)
Coordination & Direction	63.5	166	Evidence of the capabilities of a management team to carry out the direction and coordination of occupational education (coordinators, curriculum committees, faculty, division and department heads, etc.)
Coordination & Direction	63.5	167	Evidence of a centralization of authority, overall program management, and accountability for occupational education into a single individual at the Dean's level
Coordination & Direction	63.5	172	Student information (enrollments, desires, needs, placement and retention in industry, evaluation, demand, etc.)
Occ Counslg/ Guid/Placmnt	63.5	181	Evidence of effective liaison between community college counselors and high school counselors, advisory committees, occupational faculty, 4-year transfer occupational programs, etc.)
Occ Counslg/ Guid/Placmnt	63.5	182	Knowledge of community agencies providing occupational counseling, guidance, and placement services
Occ Counslg/ Guid/Placmnt	63.5	186	Attitude of occupational faculty toward working with counselors
Occ Counslg/ Guid/Placmnt	63.5	188	Changes in the labor market requiring in-service training for counselors

TABLE XIV (CONTINUED)

Decision Area	College 2 Rankings	Factor Number	Information Factor
Occ Counslg/ Guid/Placmnt	63.5	189	Coordination of placement services with: all occupational programs, counselors from other districts and campuses, the community, students, faculty, etc.
Occ Counslg/ Guid/Placmnt	63.5	190	The role of placement services (careers, temporary employment, graduates, job-outs, work experience, part-time, specific programs, accessibility, processing job requests, recruitment, etc.
Occ Counslg/ Guid/Placmnt	63.5	191	Provisions for supportive staff requirements (clerical, secretarial, aides, etc.)
Occ Counslg/ Guid/Placmnt	63.5	192	Evidence that students of all ability levels are being served
Occ Counslg/ Guid/Placmnt	63.5	193	Student needs met and unmet (number of occupational students, day/evening makeup, occupational objectives, needs, desires, abilities, etc.)

*Factors submitted by individuals at Round 2 which were added data in Round 3 for all participants to re-evaluate

TABLE XV
UPPER QUARTILE RANKED INFORMATION FACTORS PERCEIVED TO
BE NEEDED AND USABLE FOR EFFECTIVE PLANNING
COMMUNITY COLLEGE 3

Decision Area	College 3 Rankings	Factor Number	Information Factor
Program Goals	*3.0	19	Knowledge of subject materials
Advisory Committees	*3.0	36	Procedures to inform advisory committee members of the institution's capabilities: its potential and its limitations
Program Objectives	3.0	40	Commitment of board and top administration to occupational education
Program Planning	3.0	100	Board and top administrators' commitment to occupational education
Evaluation	*3.0	139	Procedures and criteria for employed students' input
Program Goals	6.0	1	Administrative and board commitment to occupational education
Program Goals	17.5	5	Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations, etc.)
Advisory Committees	17.5	27	Attitude of leaders in business and industry toward updating and improving personnel in their fields
Advisory Committees	17.5	30	Faculty attitude toward meeting with and accepting recommendations from the advisory committee
Program Objectives	17.5	37	Community needs--current and anticipated
Program Objectives	17.5	45	Facilities and equipment required and available to meet program objectives
Program Objectives	17.5	56	Knowledge of anticipated technological and industrial job requirements

TABLE XV (CONTINUED)

Decision Area	College 3 Rankings	Factor Number	Information Factor
Operational Budget	17.5	64	Administrative attitudes toward providing financial support of occupational education
Operational Budget	17.5	65	Training needs of the community, county, and state
Operational Budget	17.5	84	Staffing requirements (the number of instructors available and needed, areas of expertise, paraprofessionals, aides, readers, clerical, secretarial, etc.)
Program Planning	17.5	101	Program approval by advisory committees
Program Planning	17.5	111	Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job market requirements, etc.
Program Planning	17.5	116	Changes anticipated in the job market
Evaluation	17.5	121	Input from advisory committees into program evaluation
Evaluation	17.5	130	Follow-up information (enrollments, retention, placements, levels of training, abilities, student occupational goals and objectives, graduates, drop-outs, completers, entering trade for which trained, successes, etc.)
Evaluation	17.5	133	Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employees, etc.)
Coordination & Direction	17.5	142	Administrative and board commitment to ongoing functioning of occupational programs
Coordination & Direction	17.5	144	Recommendations from the advisory committee
Coordination & Direction	17.5	150	Employer feedback

TABLE XV (CONTINUED)

Decision Area	College 3 Rankings	Factor Number	Information Factor
Coordination & Direction	17.5	156	Availability of qualified, interested instructors for ongoing coordination and direction of occupational education
Coordination & Direction	17.5	164	Evidence that the vocational deans are involved in top-level decision-making planning about occupational education
Occ Counslg/ Guid/Placmnt	17.5	179	Institutional commitment to establish an occupational information system to guide students
Program Goals	29.0	6	Facilities needed and available
Operational Budget	30.0	85	Student/teacher ratio for all occupational programs
Program Goals	68.5	10	Programs needed to make the offerings sufficiently extensive to meet industrial and student needs
Program Goals	68.5	14	Student needs met and unmet (recruitment and selection, vocational counseling needs, placement needs, interests, desires, former, current, potential, mobility, etc.)
Program Goals	68.5	17	Relationship existing between education and industry
Advisory Committees	68.5	22	Communications procedures and techniques between the advisory committees, administration, and faculty
Advisory Committees	68.5	24	Procedures for dissemination of information about occupational programs to the community
Advisory Committees	68.5	24	Membership selection process (representativeness of occupational areas, scope of area levels--supervisory, secretarial, employers--students, faculty, characteristics--interest, perceptive, etc.)

TABLE XV (CONTINUED)

Decision Area	College 3 Rankings	Factor Number	Information Factor
Advisory Committees	68.5	34	Procedures for advisory committee members to provide assistance to student and graduate placement
Program Objectives	68.5	39	Community input (advisory committee, etc.)
Program Objectives	68.5	41	Cost analysis of program objectives
Program Objectives	68.5	42	Evidence of reaching program objectives
Program Objectives	68.5	43	Faculty input (curriculum committee, etc.)
Program Objectives	68.5	44	Number and qualification for faculty required to accomplish program objectives
Program Objectives	68.5	51	Knowledge of components of program objectives (degree requirements, length of program, specific skills, levels, related learnings, and cluster areas)
Program Objectives	68.5	54	Input from current and former students
Program Objectives	68.5	60	Long-range manpower projection from industry to determine long-range need for program
Operational Budget	68.5	61	Cost of equipment
Operational Budget	68.5	62	Recommendations and approval from advisory committee
Operational Budget	68.5	66	Long-range community needs mirrored by planned program changes
Operational Budget	68.5	67	Present condition and availability of instructional equipment as it reflects the equipment used in industry

TABLE XV (CONTINUED)

Decision Area	College 3 Rankings	Factor Number	Information Factor
Operational Budget	68.5	70	Minimum and maximum equipment needs to accomplish goals and objectives of program
Operational Budget	68.5	72	Identified work experience and practicum sites
Operational Budget	68.5	79	Total district budget plan
Operational Budget	68.5	81	Basis on which funds are to be allocated
Operational Budget	68.5	86	Attitude of administration regarding part-time/hourly staffing patterns
Operational Budget	68.5	91	Program priorities
Operational Budget	68.5	92	Estimates of anticipated program growth
Operational Budget	68.5	96	Placement of the chief administrator for occupational education on the organizational chart
Operational Budget	68.5	97	Societal benefits gained from occupational programs
Program Planning	68.5	102	Recommendations from advisory committees
Program Planning	68.5	103	Community needs met and unmet
Program Planning	68.5	105	Program guidelines (scope, content, time, etc.)
Program Planning	68.5	106	Assessment of all vocational programs available in the community
Program Planning	68.5	107	Knowledge of trade licensing requirements; local, state, and national accrediting agency standards; state and federal legal requirements, etc.

TABLE XV (CONTINUED)

Decision Area	College 3 Rankings	Factor Number	Information Factor
Program Planning	68.5	108	Projected facility and equipment needs
Program Planning	68.5	115	Student needs (desires, interests, supply, selection, demand, projections, successes, completers, evaluations, etc.)
Program Planning	68.5	117	Availability of resource people with planning expertise to assist with planning and developing programs
Program Planning	68.5	118	Available facilities, equipment, and instructional supplies (texts, audio-visual, software, etc.)
Evaluation	68.5	120	Procedures for implementing recommendations for changes in occupational programs
Evaluation	68.5	122	Knowledge of the requirements of various accrediting agencies (COPES, Trade licensing, Western States Accreditation, district and national certifying examinations, etc.)
Evaluation	68.5	124	Effectiveness of facilities (flexibility, utilization, adequacy, comparisons, etc.)
Evaluation	68.5	127	Knowledge of the goals and specific objectives from each occupational area
Evaluation	68.5	132	Knowledge of use to be made of evaluations
Evaluation	68.5	134	Criteria for and measurement of job success
Evaluation	68.5	135	Availability of job-focus information from former students in relation to instructional programs
Evaluation	68.5	136	Attitudes of faculty, administration, students, advisory committees, employers, and community toward evaluation of occupational programs

TABLE XV (CONTINUED)

Decision Area	College 3 Rankings	Factor Number	Information Factor
Evaluation	68.5	137	Knowledge of who has the responsibility and authority for data collection
Evaluation	68.5	138	Evidence of growth and modification of offerings over the past 5 years (levels and amounts of skill needed, most appropriate types of training, etc.)
Evaluation	68.5	140	Evidence of continuing review of all occupational programs (elimination of duplications, identifying uniquenesses, examinations of past performances, e.g. placements, completion rates, relevancy, etc.)
Coordination & Direction	68.5	141	Information needs of board members and administrators about occupational education (content, competencies, conceptual)
Coordination & Direction	68.5	143	Administrative feedback
Coordination & Direction	68.5	145	Working effectiveness of the advisory committee with other program components
Coordination & Direction	68.5	146	Knowledge of all community occupational training programs and the impact on each other (feeder high schools, transfer institutions, ROP's, private institutions, duplications, etc.)
Coordination & Direction	68.5	149	Community needs (information and projections of business and industry, population shifts, economic conditions and trends, etc.)
Coordination & Direction	68.5	154	Yearly evaluations to determine progress in meeting the goals and objectives (identification and removal of blockages, etc.)
Coordination & Direction	68.5	155	Release time allocated to coordination and direction of occupational programs
Coordination & Direction	68.5	157	Knowledge of the availability and appropriateness of campus and community facilities

TABLE XV (CONTINUED)

Decision Area	College 3 Rankings	Factor Number	Information Factor
Coordination & Direction	68.5	158	Locations and new types of work stations to fit new occupational programs
Coordination & Direction	68.5	159	Availability of state and federal funds to meet the goals and objectives of each occupational program
Coordination & Direction	68.5	161	Commitment of the administration to support faculty in-service training programs (district workshops, statewide seminars, national conferences, return-to-industry subsidies, planned summer government positions, etc.)
Coordination & Direction	68.5	162	Availability of supplemental educational materials (texts, audio-visual, etc.)
Coordination & Direction	68.5	166	Evidence of the capabilities of a management team to carry out the direction and coordination of occupational education (coordinators, curriculum committees, faculty, division and department heads, etc.)
Coordination & Direction	68.5	167	Evidence of a centralization of authority, overall program management, and accountability for occupational education into a single individual at the Dean's level
Coordination & Direction	68.5	168	Availability of flexible open-ended programs accommodating a student shift in occupational goals with a minimal time loss
Coordination & Direction	68.5	172	Student information (enrollments, desires, needs, placement and retention in industry, evaluation, demand, etc.)
Occ Counselg/ Guid/Placmnt	68.5	180	Recommendation from the advisory committee
Occ Counselg/ Guid/Placmnt	68.5	181	Evidence of effective liaison between community colleges counselors and high school counselors, advisory committees, occupational faculty, 4-year transfer occupational programs, etc.

TABLE XV (CONTINUED)

Decision Area	College 3 Rankings	Factor Number	Information Factor
Occ Counslg/ Guid/Placmnt	68.5	182	Knowledge of community agencies providing occupational counseling, guidance, and placement services
Occ Counslg/ Guid/Placmnt	68.5	186	Attitude of occupational faculty toward working with counselors
Occ Counslg/ Guid/Placmnt	68.5	188	Changes in the labor market requiring in-service training for counselors
Occ Counslg/ Guid/Placmnt	68.5	189	Coordination of placement services with: all occupational programs, counselors from other districts and campuses, the community, students, faculty, etc.
Occ Counslg/ Guid/Placmnt	68.5	190	The role of placement services (career, temporary employment, graduates, job-outs, work experience, part-time specific programs, accessibility, processing job requests, recruitment, etc.)
Occ Counslg/ Guid/Placmnt	68.5	191	Provisions for supportive staff requirements (clerical, secretarial, aides, etc.)
Occ Counslg/ Guid/Placmnt	68.5	192	Evidence that students of all ability levels are being served
Occ Counslg/ Guid/Placmnt	68.5	193	Student needs met and unmet (number of occupational students, day/evening makeup, occupational objectives, needs, desires, abilities, etc.)

*Factors submitted by individuals at Round 2 which were added data in Round 3 for all participants to re-evaluate

TABLE XVI
UPPER QUARTILE RANKED INFORMATION FACTORS PERCEIVED TO
BE NEEDED AND USABLE FOR EFFECTIVE PLANNING
COMMUNITY COLLEGE 4

Decision Area	College 4 Rankings	Factor Number	Information Factor
Program Goals	3.5	7	Administrative and board commitment to occupational education
Program Goals	*3.5	19	Knowledge of subject materials
Advisory Committees	*3.5	36	Procedures to inform advisory committee members of the institution's capabilities: its potential and its limitations
Program Objectives	3.5	40	Commitment of board and top administration to occupational education
Program Planning	3.5	100	Board and top administrators' commitment to occupational education
Evaluation	*3.5	139	Procedures and criteria for employed former students' input
Operational Budget	7.0	65	Training needs of the community, county, and state
Program Goals	18.0	5	Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations, etc.)
Advisory Committees	18.0	27	Attitude of leaders in business and industry toward updating and improving personnel in their fields
Advisory Committees	18.0	30	Faculty attitude toward meeting with and accepting recommendations from advisory committee
Program Objectives	18.0	37	Community needs--current and anticipated
Program Objectives	18.0	45	Facilities and equipment require and available to meet program objectives

TABLE XVI (CONTINUED)

Decision Area	College 4 Rankings	Factor Number	Information Factor
Program Objectives	18.0	56	Knowledge of anticipated technological and industrial job requirements
Operational Budget	18.0	64	Administrative attitudes toward providing financial support of occupational education
Operational Budget	18.0	84	Staffing requirements (the number of instructors available and needed, areas of expertise, paraprofessionals, aides, readers, clerical, secretarial, etc.)
Program Planning	18.0	101	Program approval by advisory committees
Program Planning	18.0	111	Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job market requirements, etc.
Program Planning	18.0	116	Changes anticipated in the job market
Evaluation	18.0	121	Input from advisory committees into program evaluation
Evaluation	18.0	230	Follow-up information (enrollments, retention, placements, levels of training, abilities, student occupational objectives, graduates, drop-outs, completers, entering trade for which trained, successes, etc.)
Evaluation	18.0	133	Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employees, etc.)
Coordination & Direction	18.0	142	Administrative and board commitment to ongoing functioning of occupational programs
Coordination & Direction	18.0	144	Recommendations from the advisory committee
Coordination & Direction	18.0	150	Employer feedback

TABLE XVI (CONTINUED)

Decision Area	College 4 Rankings	Factor Number	Information Factor
Coordination & Direction	18.0	156	Availability of qualified, interested instructors for ongoing coordination and direction of occupational education
Coordination & Direction	18.0	164	Evidence that the vocational deans are involved in top-level decision-making planning about occupational education
Occ Counslg/ Guid/Placmnt	18.0	179	Institutional commitment to establish an occupational information system to guide students
Occ Counslg/ Guid/Placmnt	18.0	187	Qualifications for occupational counseling (attitudes, responsibilities, duties, etc.)
Program Goals	68.5	4	Knowledge of program offerings at feeder high schools, 4-year transfer institutions, private schools, and other educational agencies
Program Goals	68.5	6	Facilities needed and available
Program Goals	68.5	10	Programs needed to make the offerings sufficiently extensive to meet industrial and student needs
Program Goals	68.5	14	Student needs met and unmet (recruitment and selection, vocational counseling needs, placement needs, interest, desires, former, current, potential, mobility, etc.)
Program Goals	68.5	17	Relationship existing between education and industry
Advisory Committees	68.5	22	Communications procedures and techniques between the advisory committees, administration and faculty
Advisory Committees	68.5	24	Procedures for dissemination of information about occupational programs to the community

TABLE XVI (CONTINUED)

Decision Area	College 4 Rankings	Factor Number	Information Factor
Advisory Committees	68.5	25	Membership selection process (representativeness of occupational areas, scope of area levels--supervisory, secretarial, employers, students, faculty, characteristics--interest, perceptive, etc.)
Advisory Committees	68.5	30	Faculty attitude toward meeting with and accepting recommendations from the advisory committee
Advisory Committees	68.5	34	Procedures for advisory committee members to provide assistance to student and graduate placement
Program Objectives	68.5	39	Community input (advisory committee, etc.)
Program Objectives	68.5	41	Cost analysis of program objectives
Program Objectives	68.5	42	Evidence of reaching program objectives
Program Objectives	68.5	43	Faculty input (curriculum committee, etc.)
Program Objectives	68.5	44	Number and qualification for faculty required to accomplish program objectives
Program Objectives	68.5	51	Knowledge of components of program objectives (degree requirements, length of program, specific skills, levels related learnings, and cluster areas)
Program Objectives	68.5	52	Number of available and committed occupational students
Program Objectives	68.5	54	Input from current and former students
Operational Budget	68.5	61	Cost of equipment
Operational Budget	68.5	62	Recommendations and approval from advisory committee

TABLE XVI (CONTINUED)

Decision Area	College 4 Rankings	Factor Number	Information Factor
Operational Budget	68.5	66	Long-range community needs mirrored by planned program changes
Operational Budget	68.5	67	Present condition and availability of instructional equipment as it reflects the equipment used in industry
Operational Budget	68.5	70	Minimum and maximum equipment needs to accomplish goals and objectives of program
Operational Budget	68.5	72	Identified work experience and practicum sites
Operational Budget	68.5	79	Total district budget plan
Operational Budget	68.5	81	Basis on which funds are to be allocated
Operational Budget	68.5	86	Attitude of administration regarding part-time/hourly staffing patterns
Operational Budget	68.5	91	Program priorities
Operational Budget	68.5	92	Estimates of anticipated program growth
Operational Budget	68.0	96	Placement of the chief administrator for occupational education on the organizational chart
Operational Budget	68.0	97	Societal benefits gained from occupational programs
Program Planning	68.0	102	Recommendations from advisory committees
Program Planning	68.0	103	Community needs met and unmet
Program Planning	68.0	104	Needs assessment of identified target populations, (disadvantaged, handicapped, minorities, other special populations)

TABLE XVI (CONTINUED)

Decision Area	College 4 Rankings	Factor Number	Information Factor
Program Planning	68.0	105	Program guidelines (scope, content, time, etc.)
Program Planning	68.0	106	Assessment of all vocational programs available in the community
Program Planning	68.0	107	Knowledge of trade licensing requirements; local; state, and national accrediting agency standards; state and federal legal requirements, etc.
Program Planning	68.0	108	Projected facility and equipment needs
Program Planning	68.0	115	Student needs (desires, interests, supply, selection, demand, projections, successes, completers, evaluations, etc.)
Program Planning	68.0	117	Availability of resource people with planning expertise to assist with planning and developing programs
Program Planning	68.0	118	Available facilities, equipment, and instructional supplies (texts, audio-visual, software, etc.)
Evaluation	68.0	120	Procedures for implementing recommendations for changes in occupational programs
Evaluation	68.0	122	Knowledge of the requirements of various accrediting agencies (COPES, Trade licensing, Western States Accreditation Association, district and national certifying examinations, etc.)
Evaluation	68.0	124	Effectiveness of facilities (flexibility, utilization, adequacy, comparisons, etc.)
Evaluation	68.0	127	Knowledge of the goals and specific objectives from each occupational area
Evaluation	68.0	132	Knowledge of use to be made of evaluations
Evaluation	68.0	134	Criteria for and measurement of job success

TABLE XVI (CONTINUED)

Decision Area	College 4 Rankings	Factor Number	Information Factor
Evaluation	68.0	135	Availability of job-focus information from former students in relation to instructional programs
Evaluation	68.0	136	Attitudes of faculty, administration, students, advisory committees, employers, and community toward evaluation of occupational programs
Evaluation	68.0	137	Knowledge of who has the responsibility and authority for data collection
Evaluation	68.0	138	Evidence of growth and modification of offerings over the past 5 years (levels and amounts of skill needed, most appropriate types of training, etc.)
Evaluation	68.0	140	Evidence of continuing review of all occupational programs (elimination of duplications, identifying uniquenesses, examinations of past performances, e.g. placements, completion rates, relevancy, etc.)
Coordination & Direction	68.0	141	Information needs of board members and administrators about occupational education (content, competencies, conceptual)
Coordination & Direction	68.0	143	Administrative feedback
Coordination & Direction	68.0	145	Working effectiveness of the advisory committee with other program components
Coordination & Direction	68.0	146	Knowledge of all community occupational training programs and the impact on each other (feeder high schools, transfer institutions, ROP's, private institutions, duplications, etc.)
Coordination & Direction	68.0	149	Community needs (information and projections of business and industry, population shifts, economic conditions and trends, etc.)

TABLE XVI (CONTINUED)

Decision Area	College 4 Rankings	Factor Number	Information Factor
Coordination & Direction	68.0	154	Yearly evaluations to determine progress in meeting the goals and objectives (identification and removal of blockages, etc.)
Coordination & Direction	68.0	155	Release time allocated to coordination and direction of occupational programs
Coordination & Direction	68.0	157	Knowledge of the availability and appropriateness of campus and community facilities
Coordination & Direction	68.0	158	Locations of new types of work stations to fit new occupational programs
Coordination & Direction	68.0	159	Availability of state and federal funds to meet the goals and objectives of each occupational program
Coordination & Direction	68.0	160	Institutional financial commitment to the needs of special student populations
Coordination & Direction	68.0	161	Commitment of the administration to support in-service training programs (district workshops, statewide seminars, national conferences, return-to-industry subsidies, planned summer government positions, etc.)
Coordination & Direction	68.0	162	Availability of supplemental educational materials (texts, audio-visuals, etc.)
Coordination & Direction	68.0	166	Evidence of the capabilities of a management team to carry out the direction and coordination of occupational education (coordinators, curriculum committees, faculty, division and department heads, etc.)
Coordination & Direction	68.0	167	Evidence of a centralization of authority, overall program management, and accountability for occupational education into a single individual at the dean's level

TABLE XVI (CONTINUED)

Decision Area	College 4 Rankings	Factor Number	Information Factor
Coordination & Direction	68.0	168	Availability of flexible, open-ended programs accommodating a student shift in occupational goals with a minimal time loss
Coordination & Direction	68.0	172	Student information (enrollments, desires, needs, placement and retention in industry, evaluation, demand, etc.)
Occ Counslg/ Guid/Placmnt	68.0	180	Recommendations from the advisory committee
Occ Counslg/ Guid/Placmnt	68.0	181	Evidence of effective liaison between community colleges counselors and high school counselors, advisory committees, occupational faculty, 4-year transfer occupational programs, etc.
Occ Counslg/ Guid/Placmnt	68.0	182	Knowledge of community agencies providing occupational counseling, guidance, and placement services
Occ Counslg/ Guid/Placmnt	68.0	186	Attitude of occupational faculty toward working with counselors
Occ Counslg/ Guid/Placmnt	68.0	188	Changes in the labor market requiring in-service training for counselors
Occ Counslg/ Guid/Placmnt	68.0	189	Coordination of placement services with: all occupational programs, counselors from other districts and campuses, the community, students, faculty, etc.
Occ Counslg/ Guid/Placmnt	68.0	190	The role of placement services (career, temporary employment, graduates, job-outs, work experience, part-time, specific programs, accessibility, processing job requests, recruitment, etc.)
Occ Counslg/ Guid/Placmnt	68.0	191	Provisions for supportive staff requirements (clerical, secretarial, aides, etc.)

TABLE XVI (CONTINUED)

Decision Area	College 4 Rankings	Factor Number	Information Factor
Occ Counslg/ Guid/Placmnt	68.0	192	Evidence that students of all ability levels are being served
Occ Counslg/ Guid/Placmnt	68.0	193	Student needs met and unmet (number of occupational students, day/evening makeup, occupational objectives, needs, desires, abilities, etc.)

*Factors submitted by individual at Round 2 which were added data in Round 3 for all participants to re-evaluate

TABLE XVII

UPPER QUARTILE RANKED INFORMATION FACTORS PERCEIVED TO
BE NEEDED AND USABLE FOR EFFECTIVE PLANNING
COMMUNITY COLLEGE 5

Decision Area	College 5 Rankings	Factor Number	Information Factor
Program Goals	3.0	1	Administrative and board commitment to occupational education
Program Goals	*3.0	19	Knowledge of subject materials
Program Objectives	3.0	40	Commitment of board and top administration to occupational education
Program Planning	3.0	100	Board and top administrators' commitment to occupational education
Evaluation	*3.0	139	Procedures and criteria for employed former students' input
Program Objectives	10.0	37	Community needs--current and anticipated
Program Objectives	10.0	45	Facilities and equipment required and available to meet program objectives
Program Objectives	10.0	56	Knowledge of anticipated technological and industrial job requirements
Operational Budget	10.0	84	Staffing requirements (the number of instructors available and needed, areas of expertise, paraprofessionals, aides readers, clerical, secretarial, etc.)
Evaluation	10.0	130	Follow-up information (enrollments, retention, placements, levels of training, abilities, student occupational goals and objectives, graduates, drop-outs, completers, entering trade for which trained, successes, etc.)
Coordination & Direction	10.0	142	Administrative and board commitment to ongoing functioning of occupational programs
Coordination & Direction	10.0	150	Employer feedback

TABLE XVII (CONTINUED)

Decision Area	College 5 Rankings	Factor Number	Information Factor
Coordination & Direction	10.0	156	Availability of qualified, interested instructors for ongoing coordination and direction of occupational education
Occ Counslg/ Guid/Placmnt	10.0	187	Qualifications for occupational counseling (attitude, responsibilities, duties, etc.)
Program Goals	21.0	5	Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations, etc.)
Advisory Committees	21.0	27	Attitude of leaders in business and industry toward updating and improving personnel in their fields
Operational Budget	21.0	64	Administrative attitudes toward providing financial support of occupational education
Operational Budget	21.0	65	Training needs of the community, county, and state
Program Planning	21.0	101	Program approval by advisory committees
Program Planning	21.0	111	Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job market requirements, etc.
Program Planning	21.0	116	Changes anticipated in the job market
Evaluation	21.0	121	Input from advisory committees into program evaluation
Evaluation	21.0	133	Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employees, etc.)
Coordination & Direction	21.0	144	Recommendations from the advisory committee

TABLE XVII (CONTINUED)

Decision Area	College 5 Rankings	Factor Number	Information Factor
Coordination & Direction	21.0	164	Evidence that the vocational deans are involved in top-level, decision-making planning about occupational education
Occ Counslg/ Guid/Placmnt	21.0	179	Institutional commitment to establish an occupational information system to guide students
Advisory Committees	*28.0	36	Procedures to inform advisory committee members of the institution's capabilities: its potential and its limitations
Operational Budget	29.5	96	Placement of the chief administrator for occupational education on the organizational chart
Coordination & Direction	29.5	155	Release time allocated to coordination and direction of occupational programs
Program Goals	40.5	2	Costs of establishing and maintaining programs for occupational education
Program Goals	40.5	10	Programs needed to make the offerings sufficiently extensive to meet industrial and student needs
Advisory Committees	40.5	24	Procedures for dissemination of information about occupational programs to the community
Program Objectives	40.5	42	Evidence of reaching program objectives
Program Objectives	40.5	43	Faculty input (curriculum committee, etc.)
Program Objectives	40.5	54	Input from current and former students
Operational Budet	40.5	67	Present condition and availability of instructional equipment as it reflects the equipment used in industry
Operational Budget	40.5	70	Minimum and maximum equipment needs to accomplish goals and objectives of program

TABLE XVII (CONTINUED)

Decision Area	College 5 Rankings	Factor Number	Information Factor
Operational Budget	40.5	72	Identified work experience and practicum sites
Operational Budget	40.5	79	Total district budget plan
Program Planning	40.5	108	Projected facility and equipment needs
Evaluation	40.5	124	Criteria for and measurement of job success
Evaluation	40.5	132	Knowledge of use to be made of evaluations
Evaluation	40.5	135	Availability of job-focus information from former students in relation to instructional programs
Coordination & Direction	40.5	168	Availability of flexible, open-ended programs accommodating a student shift in occupational goals with a minimal time loss
Occ Counslg/ Guid/Placmnt	40.5	181	Evidence of effective liaison between community colleges counselors and high school counselors, advisory committees, occupational faculty, 4-year transfer occupational program, etc.
Occ Counslg/ Guid/Placmnt	40.5	190	The role of placement services (career, temporary employment, graduates, job-outs, work experience, part-time, specific programs, accessibility, processing job requests, recruitment, etc.)
Occ Counslg/ Guid/Placmnt	40.5	191	Provisions for supportive staff requirements (clerical, secretarial, aides, etc.)
Occ Counslg/ Guid/Placmnt	40.5	192	Evidence that students of all ability levels are being served

*Factors submitted by individual at Round 2 which were added data in Round 3 for all participants to re-evaluate.

TABLE XVIII

UPPER QUARTILE RANKED INFORMATION FACTORS PERCEIVED TO
BE NEEDED AND USABLE FOR EFFECTIVE PLANNING
COMMUNITY COLLEGE 6

Decision Area	College 6 Rankings	Factor Number	Information Factor
Program Goals	2.0	1	Administrative and board commitment to occupational education
Program Objectives	2.0	40	Commitment of board and top administration to occupational education
Program Planning	2.0	100	Board and top administrators' commitment to occupational education
Program Goals	*4.0	19	Knowledge of subject materials
Advisory Committees	*5.0	36	Procedures to inform advisory committee members of the institutions' capabilities: its potential and its limitations
Evaluation	*6.0	139	Procedures and criteria for employed former students' input
Program Objectives	7.5	37	Community needs--current and anticipated
Evaluation	7.5	130	Follow-up information (enrollment, retention, placements, levels of training, abilities, student occupational goals and objectives, graduates, drop-outs, completers, entering trade for which trained, successes, etc.)
Advisory Committees	16.5	27	Attitude of leaders in business and industry toward updating and improving personnel in their fields
Advisory Committees	16.5	30	Faculty attitude toward meeting with and accepting recommendations from the advisory committee
Program Objectives	16.5	45	Facilities and equipment required and available to meet program objectives

TABLE XVIII (CONTINUED)

Decision Area	College 6 Rankings	Factor Number	Information Factor
Program Objectives	16.5	56	Knowledge of anticipated technological and industrial job requirements
Operational Budget	16.5	64	Administrative attitudes toward providing financial support of occupational education
Operational Budget	16.5	65	Training needs of the community, county, and state
Operational Budget	16.5	84	Staffing requirements (the number of instructors available and needed, areas of expertise, paraprofessionals, aides, readers, clerical, secretarial, etc.)
Program Planning	16.5	101	Program approval by advisory committees
Program Planning	16.5	116	Changes anticipated in the job market
Evaluation	16.5	133	Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employees, etc.)
Coordination & Direction	16.5	142	Administrative and board commitment to ongoing functioning of occupational programs
Coordination & Direction	16.5	150	Employer feedback
Coordination & Direction	16.5	156	Availability of qualified, interested instructors for ongoing coordination and direction of occupational education
Coordination & Direction	16.5	164	Evidence that the vocational deans are involved in top-level, decision-making planning about occupational education
Occ Counslg/ Guid/Placmnt	16.5	179	Institutional commitment to establish an occupational information system to guide students

TABLE XVIII (CONTINUED)

Decision Area	College 6 Rankings	Factor Number	Information Factor
Occ Counslg/ Guid/Placmnt	16.5	187	Qualifications for occupational counseling (attitudes, responsibilities, duties, etc.)
Program Planning	25.0	111	Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job market requirements, etc.
Evaluation	26.5	121	Input from advisory committees into program evaluation
Coordination & Direction	26.5	144	Recommendations from the advisory committee
Program Goals	28.0	5	Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations, etc.)
Program Objectives	29.0	44	Number and qualifications for faculty required to accomplish program objectives
Program Goals	32.0	10	Programs needed to make the offerings sufficiently extensive to meet industrial and student needs
Program Goals	32.0	14	Student needs met and unmet (recruitment and selection, vocational counseling needs, placement needs, interests, desires, former, current, potential, mobility, etc.)
Operational Budget	32.0	96	Placement of the chief administrator for occupational education on the organization chart
Evaluation	32.0	122	Knowledge of the requirements of various accrediting agencies (COPES, trade licensing, Western States Accreditation Association, district and national certifying examinations, etc.)

TABLE XVIII (CONTINUED)

Decision Area	College 6 Rankings	Factor Number	Information Factor
Coordination & Direction	32.0	154	Yearly evaluations to determine progress in meeting the goals and objectives (identification and removal of blockages, etc.)
Program Objectives	39.5	54	Input from current and former students
Program Planning	39.5	106	Assessment of all vocational programs available in the community
Program Planning	39.5	115	Student needs (desires, interests, supply, selection, demand, projections, successes, completers, evaluations, etc.)
Evaluation	39.5	127	Knowledge of the goals and specific objectives from each occupational area
Evaluation	39.5	132	Knowledge of use to be made of evaluations
Evaluation	39.5	134	Criteria for and measurement of job success
Coordination & Direction	39.5	149	Community needs (information and projections of business and industry, population shifts, economic conditions and trends, etc.)
Coordination & Direction	39.5	155	Release time allocated to coordination and direction of occupational programs
Coordination & Direction	39.5	172	Student information (enrollments, desires, needs, placement and retention in industry, evaluation, demand, etc.)
Occ Counslg/ Guid/Placmnt	39.5	193	Student needs met and unmet (number of occupational students, day/evening makeup, occupational objectives, needs, desires, abilities, etc.)

*Factors submitted by individuals at Round 2 which were added data at Round 3 for all participants to re-evaluate.

TABLE XIX

UPPER QUARTILE RANKED INFORMATION FACTORS PERCEIVED TO
BE NEEDED AND USABLE FOR EFFECTIVE PLANNING
COMMUNITY COLLEGE 7

Decision Area	College 7 Rankings	Factor Number	Information Factor
Program Objectives	1.0	40	Commitment of board and top administration to occupational education
Program Goals	*2.5	19	Knowledge of subject materials
Program Planning	2.5	100	Board and top administrator's commitment to occupational education
Evaluation	4.0	139	Procedures and criteria for employed former students' input
Program Goals	5.0	1	Administrative and board commitment to occupational education
Advisory Committees	*6.5	36	Procedures to inform advisory committee members of the institution's capabilities: its potential and its limitations
Operational Budget	6.5	65	Training needs of the community, county, and state
Operational Budget	9.5	64	Administrative attitudes toward providing financial support of occupational education
Program Planning	9.5	116	Changes anticipated in the job market
Coordination & Direction	9.5	156	Availability of qualified, interested instructors for ongoing coordination and direction of occupational education
Occ Counslg/ Guid/Placmnt	9.5	179	Institutional commitment to establish an occupational information system to guide students
Advisory Committees	18.5	30	Faculty attitude toward meeting with and accepting recommendations from the advisory committee

TABLE XIX (CONTINUED)

Decision Area	College 7 Rankings	Factor Number	Information Factor
Program Objectives	18.5	45	Facilities and equipment required and available to meet program objectives
Program Objectives	18.5	56	Knowledge of anticipated technological and industrial job requirements
Operational Budget	18.5	84	Staffing requirements (the number of instructors available and needed, areas of expertise, paraprofessionals, aides, readers, clerical, secretarial, etc.)
Program Planning	18.5	101	Program approval by advisory committees
Program Planning	18.5	111	Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job market requirements, etc.
Evaluation	18.5	121	Input from advisory committees into program evaluation
Evaluation	18.5	130	Follow-up information (enrollments, retention, placements, levels of training, abilities, student occupational goals and objectives, graduates, drop-outs, completers, entering trade for which trained, successes, etc.)
Evaluation	18.5	133	Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employees, etc.)
Coordination & Direction	18.5	142	Administrative and board commitment to ongoing functioning of occupational programs
Coordination & Direction	18.5	144	Recommendations from the advisory committee
Coordination & Direction	18.5	150	Employer feedback
Coordination & Direction	18.5	164	Evidence that the vocational deans are involved in top-level, decision-making planning about occupational education

TABLE XIX (CONTINUED)

Decision Area	College 7 Rankings	Factor Number	Information Factor
Occ Counslg/ Guid/Placmnt	18.5	187	Qualifications for occupational counseling (attitudes, responsibilities, duties, etc.)
Program Objectives	26.0	37	Community needs--current and anticipated
Advisory Committees	27.0	27	Attitude of leaders in business and industry toward updating and improving personnel in their fields
Program Goals	28.0	5	Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations, etc.)
Program Goals	29.5	17	Relationship existing between education and industry
Program Planning	29.5	108	Projected facility and equipment needs
Program Planning	31.0	107	Knowledge of trade licensing requirements; local, state, and national accrediting agency standards; state and federal legal requirements, etc.
Evaluation	31.5	122	Knowledge of the requirements of various accrediting agencies (COPES, trade licensing, Western States Accreditation Association, district and national certifying examinations, etc.)
Program Objectives	36.5	39	Community input (advisory committee, etc.)
Operational Budget	36.5	66	Long-range community needs mirrored by planned program changes
Operational Budget	36.5	67	Present condition and availability of instructional equipment as it reflects the equipment used in industry
Operational Budget	36.5	86	Attitude of administration regarding part-time/hourly staffing patterns

TABLE XIX (CONTINUED)

Decision Area	College 7 Rankings	Factor Number	Information Factor
Program Planning	36.5	106	Assessment of all vocational programs available in the community
Program Planning	36.5	118	Available facilities, equipment, and instructional supplies (texts, audio-visual, software, etc.)
Coordination & Direction	36.5	141	Information needs of board members and administrators about occupational education (content, competencies, conceptual)
Coordination & Direction	36.5	155	Release time allocated to coordination and direction of occupational programs
Program Goals	45.0	14	Student needs met and unmet (recruitment and selection, vocational counseling needs, placement needs, interests, desires, former, current, potential, mobility, etc.)
Program Objectives	45.0	42	Evidence of reaching program objectives
Program Objectives	45.0	43	Faculty input (curriculum committee, etc.)
Program Objectives	45.0	44	Number and qualifications for faculty required to accomplish program objectives
Operational Budget	45.0	91	Program priorities
Program Planning	45.0	103	Community needs met and unmet
Program Planning	45.0	115	Student needs (desires, interests, supply, selection, demand, projections, successes, completers, evaluations, etc.)

TABLE XIX (CONTINUED)

Decision Area	College 7 Rankings	Factor Number	Information Factor
Coordination & Direction	45.0	149	Community needs (information and projections of business and industry, population shifts, economic conditions and trends, etc.)
Occ Counslg/ Guid/Placmnt	45.0	193	Student needs met and unmet (number of occupational students, day/evening makeup, occupational objectives, needs, desires, abilities, etc.)

*Factor submitted by an individual at Round 2 which was added data in Round 3 for all participants to re-evaluate

TABLE XX

UPPER QUARTILE RANKED INFORMATION FACTORS PERCEIVED TO
BE NEEDED AND USABLE FOR EFFECTIVE PLANNING
COMMUNITY COLLEGE 8

Decision Area	College 8 Rankings	Factor Number	Information Factor
Program Goals	2.5	1	Administrative and board commitment to occupational education
Advisory Committees	*2.5	36	Procedures to inform advisory committee members of the institutions' capabilities: its potential and its limitations
Program Objectives	2.5	40	Commitment of board and top administration to occupational education
Program Planning	2.5	100	Board and top administrators' commitment to occupational education
Program Goals	15.0	5	Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations, etc.)
Advisory Committees	15.0	27	Attitude of leaders in business and industry toward updating and improving personnel in their fields
Advisory Committees	15.0	30	Faculty attitude toward meeting with and accepting recommendations from the advisory committee
Program Objectives	15.0	37	Community needs--current and anticipated
Program Objectives	15.0	45	Facilities and equipment required and available to meet program objectives
Program Objectives	15.0	56	Knowledge of anticipated technological and industrial job requirements
Operational Budget	15.0	64	Administrative attitudes toward providing financial support for occupational education
Operational Budget	15.0	65	Training needs of the community, county, and state

TABLE XX (CONTINUED)

Decision Area	College 8 Rankings	Factor Number	Information Factor
Operational Budget	15.0	84	Staffing requirements (the number of instructors available and needed, areas of expertise, paraprofessionals, aides, readers, clerical, secretarial, etc.)
Program Planning	15.0	101	Program approval by advisory committees
Program Planning	15.0	111	Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job market requirements, etc.)
Program Planning	15.0	116	Changes anticipated in the job market
Evaluation	15.0	121	Input from advisory committees into program evaluation
Evaluation	15.0	130	Follow-up information (enrollments, retention, placements, levels of training, abilities, student occupational goals and objectives, graduates, drop-outs, completers, entering trade for which trained, successes, etc.)
Coordination & Direction	15.0	142	Administration and board commitment to ongoing functioning of occupational programs
Coordination & Direction	15.0	144	Recommendations from the advisory committee
Coordination & Direction	15.0	150	Employer feedback
Coordination & Direction	15.0	156	Availability of qualified, interested instructors for ongoing coordination and direction of occupational education
Coordination & Direction	15.0	164	Evidence that the vocational deans are involved in top-level, decision-making planning about occupational education

TABLE XX (CONTINUED)

Decision Area	College 8 Rankings	Factor Number	Information Factor
Occ Counslg/ Guid/Placmnt	15.0	179	Institutional commitment to establish an occupational information system to guide students
Occ Counslg/ Guid/Placmnt	15.0	187	Qualifications for occupational counseling (attitudes, responsibilities, duties, etc.)
Program Goals	*22.0	19	Knowledge of subject materials
Advisory Committees	27.0	20	Administrative and board policy toward advisory committees (calling for membership, establishing goals, paying travel costs of members, etc.)
Evaluation	*27.0	139	Procedures and criteria for employed former students' input
Program Goals	66.5	2	Administrative and board commitment to occupational education
Program Goals	66.5	3	Input from advisory committee
Program Goals	66.5	6	Facilities needed and available
Program Goals	66.5	10	Programs needed to make the offerings sufficiently extensive to meet industrial and student needs
Program Goals	66.5	14	Student needs met and unmet (recruitment and selection, vocational counseling needs, placement needs, interests, desires, former, current, potential, mobility, etc.)
Program Goals	66.5	17	Relationship existing between education and industry
Advisory Committees	66.5	22	Communications procedures and techniques between the advisory committees, administration and faculty

TABLE XX (CONTINUED)

Decision Area	College 8 Rankings	Factor Number	Information Factor
Advisory Committees	66.5	24	Procedures for dissemination of information about occupational programs to the community
Advisory Committees	66.5	25	Membership selection process (representativeness of occupational areas, scope of area levels--supervisory, secretarial, employers--students, faculty, characteristics--interest, perceptive, etc.)
Advisory Committees	66.5	34	Procedures for advisory committee members to provide assistance to student and graduate placement
Program Objectives	66.5	39	Community input (advisory committee, etc.)
Program Objectives	66.5	41	Cost analysis of program objectives
Program Objectives	66.5	42	Evidence of reaching program objectives
Program Objectives	66.5	43	Faculty input (curriculum committee, etc.)
Program Objectives	66.5	44	Number and qualifications for faculty required to accomplish program objectives
Program Objectives	66.5	51	Knowledge of components of program objectives (degree requirements, length of program, specific skills, level related learnings, and cluster areas)
Program Objectives	66.5	54	Input from current and former students
Operational Budget	66.5	61	Cost of equipment
Operational Budget	66.5	62	Recommendations and approval from advisory committee
Operational Budget	66.5	66	Long-range community needs mirrored by planned program changes

TABLE XX (CONTINUED)

Decision Area	College 8 Rankings	Factor Number	Information Factor
Operational Budget	66.5	67	Present condition and availability of instructional equipment as it reflects the equipment used in industry
Operational Budget	66.5	70	Minimum and maximum equipment needs to accomplish goals and objectives of program
Operational Budget	66.5	72	Identified work experience and practicum sites
Operational Budget	66.5	79	Total district budget plan
Operational Budget	66.5	81	Basis on which funds are to be allocated
Operational Budget	66.5	86	Attitude of administration regarding part-time/hourly staffing patterns
Operational Budget	66.5	91	Program priorities
Operational Budget	66.5	92	Estimates of anticipated program growth
Operational Budget	66.5	96	Placement of the chief administrator for occupational education on the organizational chart
Operational Budget	66.5	97	Societal benefits gained from occupational programs
Program Planning	66.5	102	Recommendations from advisory committees
Program Planning	66.5	103	Community needs met and unmet
Program Planning	66.5	105	Program guidelines (scope, content, time, etc.)
Program Planning	66.5	106	Assessment of all vocational programs available in the community

TABLE XX (CONTINUED)

Decision Area	College 8 Rankings	Factor Number	Information Factor
Program Planning	66.5	107	Knowledge of trade licensing requirements; local, state, and national accrediting agency standards; state and federal legal requirements, etc.
Program Planning	66.5	108	Projected facility and equipment needs
Program Planning	66.5	115	Student needs (desires, interests, supply, selection, demand, projections, successes, completers, evaluations, etc.)
Program Planning	66.5	117	Availability of resource people with planning expertise to assist with planning and developing programs
Program Planning	66.5	118	Available facilities, equipment, and instructional supplies (texts, audio-visual, software, etc.)
Evaluation	66.5	120	Procedures for implementing recommendations for changes in occupational programs
Evaluation	66.5	124	Effectiveness of facilities (flexibility, utilization, adequacy, comparisons, etc.)
Evaluation	66.5	127	Knowledge of the goals and specific objectives from each occupational area
Evaluation	66.5	132	Knowledge of use to be made of evaluations
Evaluation	66.5	134	Criteria for and measurement of job success
Evaluation	66.5	135	Availability of job-focus information from former students in relation to instructional programs
Evaluation	66.5	136	Attitudes of faculty, administration, students, advisory committees, employers, and community toward evaluation of occupational programs
Evaluation	66.5	137	Knowledge of who has the responsibility and authority for data collection

TABLE XX (CONTINUED)

Decision Area	College 8 Rankings	Factor Number	Information Factor
Evaluation	66.5	138	Evidence of growth and modification of offerings over the past 5 years (levels and amounts of skill needed, most appropriate types of training, etc.)
Evaluation	66.5	140	Evidence of continuing review of all occupational programs (elimination of duplications, identifying uniquenesses, examinations of past performances, e.g. placements, completion rates, relevancy, etc.)
Coordination & Direction	66.5	141	Information need of board members and administrators about occupational education (content, competencies, conceptual)
Coordination & Direction	66.5	143	Administrative feedback
Coordination & Direction	66.5	145	Working effectiveness of the advisory committee with other program components
Coordination & Direction	66.5	146	Knowledge of all community occupational training programs and the impact on each other (feeder high schools, transfer institutions, ROP's, private institutions, duplications, etc.)
Coordination & Direction	66.5	149	Community needs (information and projections of business and industry, population shifts, economic conditions and trends, etc.)
Coordination & Direction	66.5	154	Yearly evaluations to determine progress in meeting the goals and objectives (identification and removal of blockages, etc.)
Coordination & Direction	66.5	155	Release time allocated to coordination and direction of occupational programs
Coordination & Direction	66.5	157	Knowledge of the availability and appropriateness of campus and community facilities

TABLE XX (CONTINUED)

Decision Area	College 8 Rankings	Factor Number	Information Factor
Coordination & Direction	66.5	158	Locations of new types of work stations to fit new occupational programs
Coordination & Direction	66.5	159	Availability of state and federal funds to meet the goals and objectives of each occupational program
Coordination & Direction	66.5	160	Institutional financial commitment to the needs of special student populations
Coordination & Direction	66.5	161	Commitment of the administration to support faculty in-service training programs (district workshops, statewide seminars, national conferences, return-to-industry subsidies, planned summer government positions, etc.)
Coordination & Direction	66.5	162	Availability of supplemental educational materials (texts, audio-visual, etc.)
Coordination & Direction	66.5	166	Evidence of the capabilities of a management team to carry out the direction and coordination of occupational education (coordinators, curriculum committee, faculty, division and department heads, etc.)
Coordination & Direction	66.5	167	Evidence of a centralization of authority, overall program management, and accountability for occupational education into a single individual at the Dean's level
Coordination & Direction	66.5	168	Availability of flexible, open-ended programs accommodating a student shift in occupational goals with a minimal time loss
Coordination & Direction	66.5	172	Student information (enrollments, desires, needs, placement and retention in industry, evaluation, demand, etc.)
Occ Counslg/ Guid/Placmnt	66.5	180	Recommendations from the advisory committee

TABLE XX (CONTINUED)

Decision Area	College 8 Rankings	Factor Number	Information Factor
Occ Counslg/ Guid/Placmnt	66.5	181	Evidence of effective liaison between community colleges counselors and high school counselors, advisory committees, occupational faculty, 4-year transfer occupational programs, etc.
Occ Counslg/ Guid/Placmnt	66.5	182	Knowledge of community agencies providing occupational counseling, guidance, and placement services
Occ Counslg/ Guid/Placmnt	66.5	186	Attitude of occupational faculty toward working with counselors
Occ Counslg/ Guid/Placmnt	66.5	188	Changes in the labor market requiring in-service training for counselors
Occ Counslg/ Guid/Placmnt	66.5	189	Coordination of placement services with: all occupational programs; counselors from other districts and campuses, the community, students, faculty, etc.
Occ Counslg/ Guid/Placmnt	66.5	190	The role of placement services (career temporary employment, graduates, job-outs, work experience, part-time, specific programs; accessibility, processing job requests, recruitment, etc.)
Occ Counslg/ Guid/Placmnt	66.5	191	Provisions for supportive staff requirements (clerical, secretarial, aides, etc.)
Occ Counslg/ Guid/Placmnt	66.5	192	Evidence that students of all ability levels are being served
Occ Counslg/ Guid/Placmnt	66.5	193	Student needs met and unmet (number of occupational students, day/evening makeup, occupational objectives, needs, desires, abilities, etc.)

*Factors submitted by individuals at Round 2 which were added data in Round 3 for all participants to re-evaluate

commitment factors equal in importance. An added factor submitted by a participant at Round 2 was a fourth factor, "Procedures to inform advisory committee members of the institutions' capabilities," ranked equal in importance to the commitment factors.

The priority factors of information perceived to be needed and usable relate to the commitment of the board and administration to occupational education. In Round 3, three factors submitted Round 2 have a high ranking attributed them by their authors at the time they were proposed.

Recognizing the broad differences and variations existing between and among institutions in this study, the rankings determined by each of the eight community colleges are compared with each other as well as with the overall ranking of the upper quartile ranked information factors. The comparative data is provided in Table XXI.

Two information factors show the greatest range in ranks among the colleges in this study. Factor No. 133 in decision area of Evaluation, "Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employment, etc.)" with College No. 2 ranking the factor at 7.0 while College No. 8 ranked the factor at 106.5 in importance. The other six colleges recorded a seven-point range or less. These ratings can then be compared with the overall ranking of 21.5. The second information factor displaying a wide range in ranks among the colleges was Item No. 122 in decision area, Evaluation, "Knowledge of the requirements of various accrediting agencies (COPES, trade licensing, Western States Accreditation Association, district and national certifying examinations, etc.)." The highest rank, 21.5, was given by College 7; College 8 provided the lowest rank of 137.5; the

TABLE XXI

A RANK ORDER LISTING OF THE UPPER QUARTILE
OF INFORMATION FACTORS BY COLLEGES

Information Factor		Community Colleges							
Item No.	Rank Order	1	2	3	4	5	6	7	8
40	1.0	2.0	1.5	3.0	3.5-	3.0	2.0	1.0+	2.5
100	2.0	2.0+	4.5-	3.0	3.5	3.0	2.0+	2.5	2.5
* 19	3.0	4.0	3.0	3.0	3.5	3.0	4.0	2.5	27.0-
1	4.0	2.0+	4.5	6.0-	3.5	3.0	2.0+	5.0	2.5
*139	5.0	5.5	1.5+	3.0	3.5	3.0	6.0	4.0	27.0-
* 36	6.0	5.5	14.5	3.0	3.5	28.0-	5.0	6.5	2.5+
65	7.5	9.5	14.5	17.5	7.0	21.0-	16.5	6.5+	15.0
150	7.5	7.0+	7.0+	17.5	18.0	10.0	16.5	18.5-	15.0
156	9.5	14.5	14.5	17.5	18.0-	10.0	16.5	9.5+	15.0
64	9.5	9.5	14.5	17.5	18.0	21.0-	16.5	6.5+	15.0
56	12.5	9.5+	22.0-	17.5	18.0	10.0	16.5	18.5	15.0
116	12.5	14.5	14.5	17.5	18.0	21.0-	16.5	9.5+	15.0
187	12.5	14.5	14.5	17.5	18.0	20.0+	16.5	18.5-	15.0
130	12.5	21.5-	14.5	17.5	18.0	10.0	7.5+	18.5	15.0
45	15.5	21.5-	14.5	17.5	18.0	10.0+	16.5	18.5	15.0
84	15.5	21.5-	14.5	17.5	18.0	10.0	16.5	18.5	15.0
30	18.5	21.5-	14.5	17.5	18.0	21.0	16.5	18.5	15.0
37	18.5	21.5	22.0	17.5	18.0	10.0	7.5+	26.0-	15.0
142	18.5	9.5+	26.0	17.5	18.0	10.0	16.5	18.5	15.0
179	18.5	14.5	24.0-	17.5	18.0	21.0	16.5	9.5+	15.0
111	21.5	21.5	7.0+	17.5	18.0	21.0	25.0-	18.5	15.0
133	21.5	14.5	7.0+	17.5	18.0	21.0	16.5	18.5	106.5-
27	23.0	21.5	14.5+	17.5	18.0	21.0	16.5	27.0-	15.0
121	24.0	21.5	14.5+	17.5	18.0	21.0	26.5-	18.5	15.0
101	25.0	26.5-	26.0	17.5	18.0	21.0	16.5	18.5	15.0+
164	26.0	28.0-	26.0	17.5	18.0	21.0	16.5	18.5	15.0+
144	27.0	14.5+	29.5-	17.5	18.0	21.0	26.5	18.5	15.0
5	28.0	26.5	22.0	17.5	18.0	21.0	28.0-	28.0-	15.0+
17	30.0	32.5	63.5	68.5	68.0	86.5-	71.5	29.5+	66.5
108	30.0	57.5	63.5	68.5	68.0	40.5	71.5-	29.5+	66.5
155	30.0	29.0+	104.5-	68.5	68.0	29.5	39.5	36.5	66.5
10	33.0	32.5	63.5	68.5-	68.0	40.5	32.0+	59.5	66.5
44	33.0	81.0	29.5	68.5	68.0	86.5-	29.0+	45.0	66.5
107	33.0	41.5	29.5+	68.5	68.0	86.5	71.5	31.5	66.5
14	35.5	32.5	63.5	68.5	68.0	86.5-	32.0+	45.0	66.5
122	35.5	41.5	63.5	68.5	68.0	59.5	32.0	31.5+	137.5-
67	37.5	57.5	63.5	68.5	68.0	40.5	71.5-	36.5+	66.5
79	37.5	30.0+	63.5	68.5	68.0	40.5	71.5	82.0-	66.5

TABLE XXI (CONTINUED)

Information Factor		Community College							
Item No.	Rank Order	1	2	3	4	5	6	7	8
54	40.5	57.5	63.5	68.5-	68.0	40.5	39.5+	59.5	66.5
66	40.5	57.5	63.5	68.5	68.0	59.5	71.5-	36.5+	66.5
86	40.5	41.5	63.5	68.5	68.0	86.5-	71.5	36.5+	66.5
149	40.5	57.5	63.5	68.5-	68.0	59.5	39.5+	45.0	66.5
42	45.0	81.0	83.5	68.5	68.0	40.5+	71.5	45.0	66.5
106	45.0	81.0	63.5	68.5	68.0	86.0-	39.5	36.5+	66.5
172	45.0	41.5	63.5	68.5	68.0	86.0-	39.5+	59.5	66.5
191	45.0	81.0	63.5	68.5	68.0	40.5+	71.5	82.0-	66.5
70	54.0	81.0-	63.5	68.5	68.0	40.5+	71.5	59.5	66.5
91	54.0	81.0-	63.5	68.5	68.0	59.5	71.5	45.0+	66.5
115	54.0	81.0	63.5	68.5	68.0	86.5-	39.5+	45.0	66.5
118	54.0	57.5	63.5	68.5	68.0	59.5	100.0-	36.5+	66.5
132	54.0	81.0	63.5	68.5	68.0	40.5	39.5+	82.0-	66.5
134	54.0	81.0	63.5	68.5	68.0	40.5	39.5+	82.0-	66.5
154	54.0	81.0	63.5	68.5	68.0	59.5	32.0+	82.0-	66.5
161	54.0	41.5+	63.5	68.5	68.0	86.5-	71.5	59.5	66.5
168	54.0	57.5	97.0-	68.5	68.0	40.5+	71.5	59.5	66.5
181	54.0	32.5+	63.5	68.5	68.0	40.5	71.5	100.0-	66.5
182	54.0	41.5	63.5	68.5	68.0	59.5	71.5	83.0-	66.5
186	54.0	41.5+	63.5	68.5	68.0	86.5-	71.5	59.5	66.5
189	54.0	41.5+	63.5	68.5	68.0	59.5	71.5	82.0-	66.5

-The lowest institutional ranking of the factor

+The highest institutional ranking of the factor

*Factors submitted by individuals at Round 2 which were added data in Round 3 for all participants to re-evaluate.

overall rank of this information factor was 35.5; the range among the remaining six colleges was from 32.0 to a low of 68.5.

Eleven additional information factors had relatively large ranges in the rank order of importance attributed to them by each of the eight colleges. Information factor no. 155, decision area, Coordination and Direction, was ranked highest (29.0) by College 1. The management team members from College 8 ranked the same factor at 104.5. The factor carried an overall rank of 30.0 in the total study. Decision area, Emphasis Occupational Counseling, Guidance and Placement, factor no. 181, "Evidence of effective liaison between community college counselors and high school counselors, advisory committees, occupational faculty, 4-year transfer occupational programs, etc." was ranked 32.5 by College 1, while College 7 viewed the importance with less enthusiasm at 100.0. The overall rank was 54.0. From decision area Program Planning, information factor no. 118, "Available facilities, equipment, and instructional supplies (texts, audio-visual, software, etc.)" had the most important rank of 36.5 from College 7, while College 6 had the least important rank of 100.0. The factor ranked 54.0 in order of importance from all. Item no. 44, "Number and qualifications for faculty required to accomplish program objectives," in decision area, Program Objectives, received its most important rank from College 6 at 29.0, its least important rank from college 5 at 86.5, and an overall rank of 33.0. About the same diversity was recorded in rankings between College 7 and College 5 regarding factor no. 17 in Program Goals, "Relationship existing between education and industry," with the overall rank of 30.0. Colleges 5 and 2 differed in their rankings of factor no. 107, "Knowledge of trade licensing requirements, local, state and

national accrediting agency standards, state and federal legal requirements, etc.," from the least importance of 86.5 to most important at 29.5 and an overall rank of 33.0.

The remaining factors evidenced a spread in rank order from 49 to 57 points. In decision area, Coordination and Direction, factor no. 168, "Availability of flexible, open-ended programs accommodating a student shift in occupational goals with a minimal time loss," College 5 ranked it at 40.5 while College 2 ranked it at 97.0; the overall ranking was 54.0. In decision area, Program Goals, no. 14, "Student needs met and unmet (recruitment and selection, vocational counseling needs, placement, needs, interests, desires, former, current, potential, mobility, etc.)," was ranked 32.0 by College 6, while College 5 responded with a rank of 86.5; the overall rank of the factor was 35.5. Under Operational Budget decision area, factor no. 79, "Total district budget plan," ranked at 30.0 by College 1 and 82.0 by College 7 with an overall rank of 37.5. Under the same decision area, factor no. 86, "Attitude of administration regarding part-time/hourly staffing patterns," was ranked as most important at 36.5 by College 7 and least important at 86.5 by College 5. The overall rank was 40.5. For the decision area, Program Planning, no. 106, "Assessment of vocational programs available in the community," ranked 36.5 for College 7 and 86.0 for College 5; the overall ranking of the factor was 45.0. Under Coordination and Direction, no. 154, "Yearly evaluations to determine progress in meeting the goals and objectives (identification and removal of blockages, etc.)," ranked 32.0 at College 6 and 81.0 at College 1 with an overall rank of 54.0.

As can be observed from the data in Table XXII, the Correlation Coefficient between colleges is consistently high. The lowest correlation is between College 8 and College 2 at a .926 level, while the highest correlation of .983 is between College 1 and College 4 and the same correlation exists between College 1 and College 6.

TABLE XXII

PRODUCT MOMENT CORRELATION COEFFICIENT MATRIX
OF INFORMATION FACTORS FOR ALL COLLEGES

	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	C ₇	C ₈
C ₁	1.00							
C ₂	.968							
C ₃	.978	.948						
C ₄	.983	.972	.958					
C ₅	.973	.956	.954	.962				
C ₆	.983	.956	.969	.970	.962			
C ₇	.978	.953	.965	.965	.955	.961		
C ₈	.960	.926	.948	.952	.937	.954	.947	1.00

With such high correlations and 194 degrees of freedom, all correlations were significant beyond the .0001 level.

All Information Factors

Sixty-four members of occupational education management teams from eight community colleges rank ordered 194 information factors perceived to be needed and usable for effective planning. The upper quartile group of information factors from the overall group is presented in Table XXIII. Where tied rankings occur, a chronological order pertains. The decision area, the information factor, its overall rank order, and the factor number are provided for 59 factors representing the upper quartile group for all information factors.

Governance

In Communication No. 1, the first question asked about the decision area was "At what administrative level is the decision(s) made about (named decision area) for occupational education?" The responses varied. Some couched their responses in broad terms such as, the top administration or the district office; others offered a complete range from students through the Board of Trustees; a few did not respond.

To provide some insight into the responses, it is necessary to first examine the formal organizational structure of the institution as outlined on its organizational chart. Organizational charts, supplied by the chief occupational administrators, were used to develop the data in Table XXIV. The only commonality existing in all institutions was the Board of Trustees at the top level in the hierarchical structure. From this point, the flow downward was from a superintendent, president, chancellor, or a combination to vice-presidents or deans.

TABLE XXIII
UPPER QUARTILE RANKINGS OF ALL INFORMATION FACTORS
PERCEIVED TO BE NEEDED AND USABLE FOR
EFFECTIVE PLANNING

Decision Area	Overall Ranking	Factor Number	Information Factor
Program Objectives	1.0	40	Commitment of board and top administration to occupational education
Program Planning	2.0	100	Board and top administrator's commitment to occupational education
Program Goals	*3.0	19	Knowledge of subject materials
Program Goals	4.0	1	Administrative and board commitment to occupational education
Evaluation	*5.0	139	Procedures and criteria for employed former students' input
Advisory Committees	*6.0	36	Procedures to inform advisory committee members of the institution's capabilities: its potential and its limitations
Operational Budget	7.5	65	Training needs of the community, county and state
Coordination & Direction	7.5	150	Employer feedback
Coordination & Direction	9.5	156	Availability of qualified, interested instructors for ongoing coordination and direction of occupational education
Operational Budget	9.5	64	Administrative attitudes toward providing financial support of occupational education
Program Objectives	12.5	56	Knowledge of anticipated technological and industrial job requirements
Program Planning	12.5	116	Changes anticipated in the job market
Occ Counslg/ Guid/Placmnt	12.5	187	Qualifications for occupational counseling (attitudes, responsibilities, duties, etc.)

TABLE XXIII (CONTINUED)

Decision Area	Overall Ranking	Factor Number	Information Factor
Evaluation	12.5	130	Follow-up information (enrollments, retention, placements, levels of training, abilities, student occupational goals and objectives, graduates, drop-outs, completers, entering trade for which trained, successes, etc.)
Program Objectives	15.5	45	Facilities and equipment required and available to meet program objectives
Operational Budget	15.5	84	Staffing requirements (the number of instructors available and needed, areas of expertise, paraprofessionals, aides, readers, clerical, secretarial, etc.)
Advisory Committees	18.5	30	Faculty attitude toward meeting with and accepting recommendations from the advisory committee
Program Objectives	18.5	37	Community needs--current and anticipated
Coordination & Direction	18.5	142	Administrative and board commitment to ongoing functioning of occupational programs
Occ Counslg/ Guid/Placmnt	18.5	179	Institutional commitment to establish an occupational information system to guide students
Program Planning	21.5	111	Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job market requirements, etc.
Evaluation	21.5	133	Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employees, etc.)
Advisory Committees	23.0	27	Attitude of leaders in business and industry toward updating and improving personnel in their fields
Evaluation	24.0	121	Input from advisory committees into program evaluation

TABLE XXIII (CONTINUED)

Decision Area	Overall Ranking	Factor Number	Information Factor
Program Planning	25.0	101	Program approval by advisory committees
Coordination & Direction	26.0	164	Evidence that the vocational deans are involved in top-level, decision-making planning about occupational education
Coordination & Direction	27.0	144	Recommendations from the advisory committee
Program Goals	28.0	5	Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations, etc.)
Program Goals	30.0	17	Relationship existing between education and industry
Program Planning	30.0	108	Projected facility and equipment needs
Coordination & Direction	30.0	155	Release time allocated to coordination and direction of occupational programs
Advisory Committees	33.0	10	Programs needed to make the offerings sufficiently extensive to meet industrial and student needs
Program Objectives	33.0	44	Number and qualifications for faculty required to accomplish program objectives
Program Planning	33.0	107	Knowledge of trade licensing requirements, local, state and national accrediting agency standards, state and federal legal requirements, etc.
Program Planning	35.5	14	Student needs met and unmet (recruitment and selection, vocational counseling needs, placement needs, interests, desires, former, current, potential, mobility, etc.)
Evaluation	35.5	122	Knowledge of the requirements of various accrediting agencies (COPES, trade licensing, Western States Accreditation Association, district and national certifying examinations, etc.)

TABLE XXIII (CONTINUED)

Decision Area	Overall Ranking	Factor Number	Information Factor
Operational Budget	37.5	67	Present condition and availability of instructional equipment as it reflects the equipment used in industry
Operational Budget	37.5	79	Total district budget plan
Program Objectives	40.5	54	Input from current and former students
Operational Budget	40.5	66	Long-range community needs mirrored by planned program changes
Operational Budget	40.5	86	Attitude of administration regarding part-time/hourly staffing patterns
Coordination & Direction	40.5	149	Community needs (information and projections of business and industry, population shifts, economic conditions and trends, etc.)
Program Objectives	45.0	42	Evidence of reaching program objectives
Program Planning	45.0	106	Assessment of all vocational programs available in the community
Occ Counslg/ Guid/Placmnt	45.0	172	Student information (enrollments, desires, needs, placement and retention in industry, evaluation, demand, etc.)
Occ Counslg/ Guid/Placmnt	45.0	191	Provisions for supportive staff requirements (clerical, secretarial, aides, etc.)
Operational Budget	54.0	70	Minimum and maximum equipment needs to accomplish goals and objectives of program
Operational Budget	54.0	91	Program priorities
Program Planning	54.0	115	Student needs (desires, interests, supply, selection, demand, projections, successes, completers, evaluations, etc.)

TABLE XXIII (CONTINUED)

Decision Area	Overall Ranking	Factor Number	Information Factor
Program Planning	54.0	118	Available facilities, equipment, and instructional supplies (texts, audio-visual, software, etc.)
Evaluation	54.0	132	Knowledge of use to be made of evaluations
Evaluation	54.0	134	Criteria for and measurement of job success
Coordination & Direction	54.0	154	Yearly evaluations to determine progress in meeting the goals and objectives (identification and removal of blockages, etc.)
Coordination & Direction	54.0	161	Commitment of the administration to support faculty in-service training programs (district workshops, statewide seminars, national conferences, return-to-industry subsidies, planned summer government positions, etc.)
Coordination & Direction	54.0	168	Availability of flexible, open-ended programs accommodating a student shift in occupational goals with a minimal time loss
Occ Counslg/ Guid/Placmnt	54.0	181	Evidence of effective liaison between community colleges counselors and high school counselors, advisory committees, occupational faculty, 4-year transfer occupational programs, etc.
Occ Counslg/ Guid/Placmnt	54.0	182	Knowledge of community agencies providing occupational counseling, guidance, and placement services
Occ Counslg/ Guid/Placmnt	54.0	186	Attitude of occupational faculty toward working with counselors
Occ Counslg/ Guid/Placmnt	54.0	189	Coordination of placement services with: all occupational programs, counselors from other districts and campuses, the community, students, faculty, etc.

*Factors submitted by individuals at Round 2 which were added data in Round 3 for all participants to re-evaluate

TABLE XXIV
HIEARCHICAL ORGANIZATIONAL LEVELS FOR
EIGHT DECISION-MAKING LEVELS

Levels	College 1	College 2	College 3	College 4	College 5	College 6	College 7	College 8
1	Bd Trustees	Bd Trustees	Bd Trustees	Bd Trustees	Bd Trustees	Bd Trustees	Bd Trustees	Bd Trustees
2	Sup't	President	District Chancellor	Sup't/Pres	Chancellor	Sup't	Sup't/Pres	Sup't/Pres
3	President	VP Inst VP Stu Prsnl	President	Deputy Sup't	President	President	Academic Dean Instr	VP/Dean Instr
4	Dean Instr	DEAN OCC ED	Dean Instr	Academic Dean	VP Operations	DEAN OCC ED	ASS'T DEAN OCC & CAREER ED	Div Chrpns/ Work Exp Coordinators
5	ASS'T DEAN OCC ED Asso Dean Instr/ Asso Dean Eve	Work Exp Coor	ASSO DEAN VO-TECH ED	ASSO DEAN OCC ED	DEAN VOC ED	Ass't Dean Occ Ed	Tchr/Coords Dept/Cluster Chrpns	Chairpersons
6	Div Chrpns	Faculty	Work Exp Coors Div Chrpns	Div Chrpns	Dept/Div Chrpns	Dept Chrpns	Faculty	Faculty
7	Faculty	Students	Faculty	Dept Chrpns	Faculty	Faculty	Students	Students
8	Students		Students	Faculty	Students	Students		

Indicates the main communication channel on the organizational chart

through associate or assistant deans on to divisions to departments to faculty to students. Because of the differing titles and organizational arrangements, no clear distinction could be identified. The formal channels for communications for each college have been outlined in Table XXIV.

The data in Table XXV indicates that, at College 6, the Dean of Occupational Education holds the highest decision-making level as well as maintaining the most direct accessibility to the top-level administrator at the institution. The data in Table XXV supports the strength of the position as a large number of the management team members perceive decisions to be made at the Dean's level. Five of the eight community colleges chart their chief occupational education administrator in areas which have little or no impact with divisions or faculty or students. For colleges 1, 2, 3, 4, and 7, there is no direct line contact with occupational programs.

Decisions

The two most frequently mentioned hierarchical levels at each college where decisions were perceived to be made about each decision area have been identified in Table XXV. For College 1, the Dean of Instruction is the most frequently mentioned in relation to the decision areas of this study. The Assistant Dean of Occupational Education is perceived to make decisions in the Advisory Committees decision area. The same pattern follows in College 2 for the Dean of Instruction and again the Dean of Occupational Education is perceived as making the decisions about the Advisory Committees. For College 3, the Associate Dean of Occupational Education is perceived as responsible

TABLE XXV
FIRST AND SECOND MOST FREQUENTLY MENTIONED
HIERARCHICAL DECISION-MAKING LEVELS

Decision Area		College 1	College 2	College 3	College 4	College 5	College 6	College 7	College 8
Program Goals	1st	Staff	Staff	Staff	Staff	Advisory Com	Dept Chrpsn	?	Div Chrpsn & Staff Advisory Com/Curriculum Com
	2nd	Advisory Com	DEAN OCC ED/ Div Chrpsn/ Advisory Com	?	--	Staff	Coordinators	?	
Advisory Committee	1st	DEAN OCC ED/ Div Chrpsn	Staff	Staff	DEAN OCC ED	Coordinators	Dept Chrpsn	Staff	Dept Chrpsn
	2nd	Staff	?	?	Staff	?	Coordinators	?	?
Program Objectives	1st	Staff	Staff	Staff	Staff	Advisory Com	Dept Chrpsn	Staff	Div Chrpsn & Staff Curriculum Com
	2nd	Advisory Com	Advisory Com	ASSO DEAN OCC ED	--	Staff	Coordinators	?	
Operational Budget	1st	Staff	Div Chrpsn	Div Chrpsn	Div Chrpsn	DEAN OCC ED/ Dept Chrpsn/ Advisory Com	Dept Chrpsn/ Staff	Dean Instr/ ASS'T DEAN OCC ED	Div Chrpsn
	2nd	Div Chrpsn	Staff	?	--	?	?	?	Staff
Program Planning	1st	Staff/Advisory Com	Div Chrpsn/ Staff	?	?	Advisory Com	Dept Chrpsn	Staff	Staff/Advisory Com
	2nd	DEAN OCC ED	Advisory Com	?	?	District Coordinator	Coordinator	ASS'T DEAN OCC ED	?
Evaluation	1st	Staff	Staff	?	--	DEAN OCC ED	Dept Chrpsn	Staff	Staff/Students
	2nd	DEAN OCC ED/ Advisory Com	Advisory Com	?	--	Staff/Advisory Com	?	Employers	?
Program Coordination & Direction	1st	Staff	Div Chrpsn	?	?	DEAN OCC ED/ Coordinators	Dept Chrpsn/ Coordinators	Staff	?
	2nd	Dean Instr/ Div Chrpsn Advisory Com	?	?	?	Dept Chrpsn	--	?	?
Occupational Counseling, Guidance, and Placement	1st	Staff/Counseling Staff	Staff	Staff	?	Dean Studnt Prsn//DEAN OCC ED/ Counseling Staff	Dept Chrpsn/ Counseling Staff	?	?
	2nd	Students' Evaluation	DEAN OCC ED	?	?	Counseling Staff	?	?	?

--No alternatives given
? No discernible level evident

for the decision area of Coordination and Direction with secondary input into Program Planning. At College 4, the Associate Dean of Occupational Education was not among those most frequently mentioned in any of the eight decision areas. The Dean of Vocational Education at College 5, although under the Vice President of Operations, does have a line position with the Department/Division levels and thereby interaction with the faculty and programs. The Dean of Occupational Education is also viewed at a major influential level in the Program Objectives decision area. College 5 is the only institution mentioning the chief occupational administrator in the decision area of Emphasis on Occupational Counseling, Guidance and Placement. For College 6, the Dean of Occupational Education is prominent in five of the eight decision areas. The placement of this dean's position on the organizational structure has the greatest potential for influence and communication flow and interaction of the eight institutions in this study. In College 7, the Assistant Dean of Occupational and Career Education is perceived to have decision-making influence only in the decision area of Advisory Committees. College 8 does not have an identified office on its organizational chart as carrying responsibility for the overall direction for occupational education. The Dean of Instruction is the contact person for occupational education. Parenthetically, it was interesting to note that among the 99 community colleges in California in 1973-74, 19 did not have a designated chief occupational administrator listed in the California Directory of Community Colleges.

To summarize, the Dean of Instruction generally is perceived to be the office in which the major decisions about occupational education are made. In three colleges, 3, 5, and 6, the chief occupational

administrator has input into the decision-making activities. In the decision area of Emphasis on Occupational Counseling, Guidance, and Placement, the chief occupational administrator appears not to be involved in the decision-making activities. The heaviest involvement for the chief occupational education administrative office is in relation to the decision area of Advisory Committees. Two institutions particularly had a number of decision areas where multiple administrative levels were mentioned; apparently it was not known who made the decisions.

Recommendations

The second question asked in Communication No. 1 pertained to who was perceived to make recommendations for each of the decision-making areas. Table XXVI provides a matrix of the first and second most frequently mentioned hierarchical levels at which recommendations about each of the decision areas were perceived to have been made. Not every one who responded offered perceptions to this question. The instructors are the most frequently mentioned group as the source of recommendations in all colleges of the study. The Division/Department Chairmen and the Advisory Committees are the next two groups mentioned most frequently. The chief occupational administrators are the most frequently mentioned hierarchical level for recommendations by management team members in four colleges in three decision areas: Advisory Committees, 2 colleges; Evaluation, 1 college; and Operational Budget, 1 college. One college team sees a tie between the Dean of Occupational Education, the Department Chairmen, and the Advisory Committees. A

TABLE XXVI
FIRST AND SECOND MOST FREQUENTLY MENTIONED
HIEARCHICAL RECOMMENDATION-MAKING LEVELS

Decision Area		College 1	College 2	College 3	College 4	College 5	College 6	College 7	College 8
Program Goals	1st	Bd Trustees	President	Dean Instr	Deputy Sup't Dean Academic Services	Top Admin	DEAN OCC ED	Div Chrpns	Dean Instr
	2nd	Dean Instr	Div Chrpns	President		DEAN OCC ED	Dean Instr	Top Admin	Bd Trustees
Advisory Committee	1st	ASS'T DEAN OCC ED	DEAN OCC ED	Asso Dean Instr	Sup't/Pres	District Off	DEAN OCC ED	ASS'T DEAN OCC ED	Dean Instr
	2nd	Div Chrpns	Div Chrpns	Dean Instr	Bd Trustees	Dean Instr	Dean Instr	---	Bd Trustees
Program Objs	1st	Dean Instr	Div Chrpns	---	Faculty	DEAN OCC ED	?	---	Dean Instr
	2nd	Div Chrpns	---	---	---	District Off	?		---
Operatnl Budget	1st	Dean Instr	VP Business	ASSO DEAN OCC ED	President	Top Admin	DEAN OCC ED	Dean Instr	Dean Instr
	2nd	Sup't/Pres	?	?	---	DEAN OCC ED	?	?	?
Program Planning	1st	Dean Instr	?	Dean Instr	Top Admin	District Off	DEAN OCC ED	?	Dean Instr
	2nd	District Off	?	ASSO DEAN OCC ED	---	Faculty & Advisory Com	?	?	---
Evaluation	1st	Dean Instr	VP Instr	Top Admin	President	?	DEAN OCC ED	?	Dean Instr
	2nd	Div Chrpns/ Faculty	DEAN OCC ED	---	---	?	?	?	Sup't/Pres
Coordination & Direction	1st	Dean Instr	VP Instr	ASSO DEAN OCC ED	?	Coordinators	?	?	Dean Instr
	2nd	District Off	DEAN OCC ED	Dean Instr	?	?	?	?	---
Occ Counslg/ Guid & Placmt Personnel	1st	District Off Dean Stu	Dean Stu Personnel	?	President	Dean Stu Personnel	?	Counseling Staff	?
	2nd	Dean Instr	President	?	Dean Stu Personnel	DEAN OCC ED Coords/Dirts	?	?	?

--- No alternatives given

?--No discernible level evident

similar perception was recorded for another college in the Occupational Counseling, Guidance, and Placement decision area.

Commentary on the Governance Patterns

Within Colleges

Several comments about the decision area, Program Goals, were submitted with the identification of the decision level. Some suggested decisions were made at varying levels with ratification at the administrative level followed by a perfunctory decision from the Board of Trustees. Others felt that, at times, unrealistic goals were developed and imposed by the administration. It was suggested that there was an inconsistency within the institution as to where the decision-making level really was. In relation to some occupational areas, decisions were perceived to be made within the area while other occupational areas either had to accept administratively imposed goals or were in another sense disregarded; "...no one cared," was a telling response.

Management team members from four institutions added their perceptions relating to Program Objectives. The thrust of the perceptions from these three institutions was that "Goals are objectives." It was also noted from two colleges that, other than the published statement of philosophy appearing in the college catalog, no overall written goals were available.

For decision area, Operational Budget, responses from five institutions indicated that the chief occupational administrator had little or no involvement with decisions about occupational education's budget. The most negative comment labeled the deans who work with institution budget as "hatchet men." The chief administrator of occupational

education was not perceived as being involved with decision making at that specific college.

Program Planning decision area comments reflected the feeling that this area is more an individual instructor's task than it is an undertaking for the management team. Members from two institutions felt there was no evidence of planning for occupational education at their colleges.

For the decision area of Evaluation, the comments from five colleges reflected generally negative feelings. The comments ranged from "Don't have a formal method," to "Everyone is up to ears on evaluation because it's useless." Evaluation was also seen as a "string" attached to receipt of state monies.

The added comments for the decision area, Coordination and Direction, were submitted from management team members from five colleges and reflected that decisions were made in the top administrative levels or at the district office. Some felt that there was abdication of responsibility of those who should have been involved. Concern was expressed from five colleges also that the counseling staffs were lacking sufficient information and that this area was the weakest area in the college. That the counselors still directed students more toward the teaching profession was another expressed concern.

Occupational Education Management

Teams--A Profile

To gain some insight into the background of the occupational education decision makers, selected information was requested of the participants who responded to Communication No. 3. Sixty-four respondents,

50 men and 14 women, 78.1 and 21.9 percent, completed the majority of items on the profile sheet. The following tables display the selected data.

TABLE XXVII
COMPOSITION OF MANAGEMENT TEAMS OCCUPATIONAL
AND NON-OCCUPATIONAL

Type	Frequency	Percent
Occupational Administration	26	40.6
Occupational Instructors	18	28.1
Non-Occupational Administration	17	26.6
Non-Occupational Instructors	3	4.7
TOTAL	64	100.0

The present positions as identified by the participants were examined for the more commonly accepted occupational identifiers. For grouping purposes, Division Chairpersons were included with administration; Department Chairpersons were clustered in the instructor category as most had teaching responsibilities.

Table XXVIII presents data indicating the number of years respondents had held their present positions. All the occupational team members with the exception of four have been in their present positions for several years.

TABLE XXVIII
NUMBER OF YEARS IN PRESENT POSITION

Years	Number	Percent
0 - 1	4	6.3
2 - 5	28	43.8
6 - 10	17	26.6
11 and over	15	23.4

Table XXIX shows the distribution of management team members by title of present position. The Division Chairpersons who responded in the study were about equally divided between an occupational and academic orientation. A separate category was created for those individuals who were Division or Department Chairpersons and who had identified teaching as their first-order responsibility.

The three major responsibilities of respondents' present positions are presented in Table XXX. One individual did not respond to this question. Three participants did not identify the second area of responsibility, with four members omitting the third area of responsibility. Teaching is the first area of responsibility. Program and personnel scheduling as the third most frequently mentioned under the first area of responsibility and tied as the most frequently mentioned for the second area of responsibility accounts for the most significant responsibility of the management team members.

TABLE XXIX
DISTRIBUTION OF MANAGEMENT TEAM MEMBERS
BY TITLES OF PRESENT POSITIONS

Title Present Position	No.	Percent
Dean Occupational Education	2	3.1
Director Occupational Education	1	1.6
Assistant Dean Occupational Education	3	4.7
Associate Dean Occupational Education	2	3.1
Division Chairpersons	12	18.8
Occupationally Related (7)		
Academically Related (5)		
Department Chairpersons	11	17.2
Occupationally Related (11)		
Academically Related (0)		
Division or Department Chairpersons (combined with major instructional functions)	8	12.5
Occupationally Related (8)		
Academically Related (0)		
Instructors	6	9.4
Occupationally Related (4)		
Academically Related (2)		
Other*	19	29.7
Department Coordinators (3)		
Directors (4)		
President, Vice- President, Assoc./ Asst. Deans (12)		

*In the "Other" category, six of the 19 were classified in occupationally related areas, with 13 individuals in non-occupational areas, representing 20.3 percent of the total respondents.

TABLE XXX
THREE MAJOR RESPONSIBILITIES
OF PRESENT POSITION

Responsibility	First Area	Second Area	Third Area
Supervision of teachers	9	14	6
Advising students	3	7	10
Planning programs	15	7	8
Budgeting	1	7	13
Student placement	1	-	1
Public Relations	-	5	6
Program & personnel scheduling	10	14	7
Teaching	21	2	1
Reporting	-	2	5
Research	-	1	1
Other	3	2	2
TOTAL	63	61	60

The three responses under "Other" listed coordination activities as the first area of responsibility. Under the second area of responsibility, grantsmanship and director of a program were identified. Three respondents indicated that the ranking of responsibilities was quite difficult.

The left portion of Table XXXI indicates the number of years the respondents in the study had taught prior to their current positions.

Almost two-thirds of the team members have taught 11 years or over. This teaching experience could have occurred at more than one educational level. The levels of prior teaching experience concentrates in the community college. Teacher experience at the secondary level is also a strong possibility. Considering the range in number of years of teaching experience at various education levels, the three respondents at the elementary teaching level identified 3, 5, and 10 years respectively. At the secondary level, the most frequently mentioned, four years experience, was listed by eight participants. At the community college level, it was bimodal at eight and eleven years. For higher education, there were five responses mentioning two years teaching experience. The "Other" category included private institutions, adult education, an MDTA program, hospitals, the military, and industry.

TABLE XXXI
FACTORS RELATING TO TEACHING BACKGROUND

No. Yrs. Taught	No.	Per- cent	Teaching Levels	No.	Per- cent	Range in Yrs.
2 - 5	10	15.9	Elementary	3	2.4	3 - 10
6 - 10	14	22.2	Secondary	39	31.2	1 - 14
11 and over	39	61.9	Community College	61	48.8	1 - 29
			Higher Education	15	12.0	1 - 10
			Other	7	5.6	1 - 6

The data in Table XXXII indicates that the present occupational management team member has accumulated a substantial number of years of administrative experience prior to accepting the current position. This experience is more likely to have occurred in the community college. The frequency distribution of levels of experience recognized that some respondents identified administrative experience at more than one educational level.

TABLE XXXII
FACTORS RELATING TO PRIOR EDUCATIONAL
ADMINISTRATIVE EXPERIENCE

Years	Frequency	Per- cent	Educational Level	Frequency	Per- cent
0 - 1	4	6.3	Elementary	4	6.8
2 - 5	19	29.7	Secondary	17	28.8
6 - 10	16	25.0	Community College	28	47.5
11 and over	19	29.7	Higher Education	4	6.8
None	6	9.4	Other	6	10.2

The data in Table XXXIII indicates that the members of the occupational management team are as likely to have a two to five year background in community college teaching or administration.

TABLE XXXIII
THREE FACTORS, AREA, YEARS, AND LEVEL
RELATING TO THE LAST POSITION HELD

Area	Frequency	Years	Frequency	Level	Frequency
Teaching	26	0 - 1	6	Secondary	10
Administrative	22	2 - 5	29	Community College	43
Industry	7	6 - 10	18	Higher Education	1
Dept/Div Head	1	11 and over	7	Other	3
County Off Ed	2				
Other	3				
TOTAL	61		60		57

The participants were asked if they had had experience outside the educational setting. Fifty-seven, 89 percent, indicated that they had, some time during their careers, gained experience in a paid business, industry, or labor position. Because of the extensiveness and diversity of the responses, only an arbitrary determination of potential relatedness of those experiences to the current position held was possible. Only ten individuals had had experience outside the field of education which appeared unrelated to the current position. These positions fell in the realm of temporary jobs reflecting a greater monetary need more than a planned experience for career development.

In response to a question asking for the number of years of administrative experience acquired in business and industry, 28 team

members declared administrative experience. Four participants had between 0 and 1 years' experience. Between 2 to 5 years experience had 11 expressions, and 10 additional team members indicated 11 or more years of experience in business and industry.

Table XXXIV presents data on the age distribution of respondents. Over 80 percent of the team members are over 40 years of age, with the greatest number in the 40 to 49 range.

TABLE XXXIV
AGE DISTRIBUTION

Age Range	Frequency	Percent
20 - 29	-	-
30 - 39	9	14.1
40 - 49	32	50.0
50 - 59	17	26.6
60 - over	4	6.3
Confidential	2	3.1
TOTAL	64	100.1

Data relating to the formal educational background of participants is given in Table XXXV. Under "Special" the individual had the identified vocational electronics area. For "Other" category, graduate student was recorded as no indication as to what level of graduate

student. The diploma conferred for registered nursing accounted for the second person.

TABLE XXXV
FORMAL EDUCATIONAL BACKGROUND

Degree Held	Frequency	Percent
Bachelors	9	14.1
Masters	38	59.4
Doctorate	14	21.9
Special	1	1.6
Other	2	3.1

A profile of an occupational management team member from the colleges in this study identifies

- . a male between 40-49 years of age holding a masters degree
- . one who has been in the current occupational administrative position between two to five years and is probably a Division Chairperson
- . the major responsibility of the position is teaching, with supporting responsibilities in supervision of teachers and program and personnel scheduling
- . one who has taught over eleven years in the community college

- . one who has had prior administrative experience either from two to five years or over eleven years at the community college level.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study is to begin to move the management of post-secondary occupational education in California toward a more systematic, information-based approach in decision making. The DELPHI technique has been employed to solicit responses from the designated occupational management team members as to the information factors which they perceived to be needed and usable for effective planning for occupational education. The study was further delineated to include eight decision areas based on the decision areas utilized in the COPES Program (Community College Occupational Programs Evaluation System) and the areas identified as critical in the 1972-73 and 1973-74 Reports.

Objectives of the Study

The study had six specific objectives which were addressed.

Objective 1: To identify the members of the occupational management teams from each of eight California community colleges. Each chief occupational administrator from the eight community colleges provided the names of the individuals whom they considered to be involved with the decisions made about occupational education at their respective

institutions. There was a total of 111 individuals designated to the combined management team.

Objective 2: To identify the information factors perceived to be needed and usable by management teams of occupational education from eight community colleges. By employing the DELPHI technique, a total of 194 information factors were submitted by 46 members of the management team. This was accomplished in Communication No. 1.

Objective 3: To rank the information factors perceived to be needed and usable by management teams of occupational education. Communication No. 2 (Round 2) of the DELPHI technique asked each participant to consider each information factor and to attribute a degree of importance to this factor in relation to the decision area in which it appeared. An eleven-point continuum for the importance scale was provided.

The information factors based on the median response were returned to the total management team for re-evaluation in Communication No. 3. Sixty-four management team members responded. The information factors were rank ordered according to mean. The upper quartile of the total information factors have been identified. The upper-quartile listing of factors for each of the eight decision areas have also been identified.

Objective 4: To identify the information factors deemed to be essential by each occupational management team. The information factors perceived to be needed and usable for eight decision areas for eight community colleges have been provided for the upper quartile group of information factors. There has been an additional comparison of the upper-quartile groups from the total responses to the importance of

the information factor attributed by each management team from the eight community colleges. Although there were many rankings that were very close, that is the colleges were in agreement as to the overall importance of the information factor, several factors differed. This difference is reflected in the representativeness of each institution, its uniqueness, geographic location, size of student body, number of occupational programs and faculty, organizational structure, and governance.

Objective 5: To determine the governance patterns of occupational education as evidenced by the hierarchical level at which a decision is perceived to be made. In Communication No. 1, two additional questions were asked about each decision area. The first question asked at what administrative level was the decision about the specific decision area made. The second question asked who made recommendations about the identified decision area. The responses to these questions have been combined into a macro-view of the most frequently perceived decision-making levels for each decision area in relation to the eight community colleges.

Objective 6: To obtain demographic data about the members of the occupational management teams. A profile of the background experiences and educational attainments of the members of the occupational management team members from the eight community colleges has been developed.

Summary of Information Factors

To summarize the information factors, they seem to cluster into four broad categories which have been designated attitudinal, data, procedural, and cognitive. The attitudinal category encompasses the

attitudes and commitments of those having impact on occupational education; data refers to the factual data such as that obtained through follow-up studies; procedural relates to those factors which identify the process which would be needed within or external to the institution but within the educational system; and lastly, the cognitive category relates to factors such as competencies, knowledge, understanding, etc. All the factors have been perceived as being needed and to be used for effective planning of occupational education.

From the upper quartile of information factors, 40.7 percent of the number of factors relate to the data category alone; 24 of the 59 factors were factually obtained data. The next most frequently mentioned number of factors clusters in the attitudinal category with 14 information factors accounting for 23.7 percent of the total. The procedural category listed 10 factors, 16.9 percent and 11 factors for the cognitive cluster or 18.6 percent of the total ranked in the upper quartile of all information factors. Those information factors clustering in the data category from the upper quartile are listed in Table XXXVI according to their decision area and the overall rank order.

The decision area Operational Budget in the upper quartile of rank-ordered information factors had the greatest number of mentions in the data cluster category. Program Objectives was the second decision area with the highest frequency mentions. Program Planning and Coordination and Direction tied in number of mentions for third. Decision areas of Program Goals and Emphasis on Occupational Counseling, Guidance, and Placement had two mentions each; Evaluation, one; and

TABLE XXXVI
UPPER QUARTILE RANK-ORDERED INFORMATION FACTORS
DATA CLUSTER CATEGORY

Decision Area	Overall Ranking	Information Factor
Operational Budget	7.5	Training needs of the community, county, and state
Coordination & Direction	7.5	Employer feedback
Coordination & Direction	9.5	Availability of qualified, interested instructors for ongoing coordination and direction of occupational education
Evaluation	12.5	Follow-up information (enrollments, retention, placements, levels of training, abilities, student occupational goals and objectives, graduates, drop-outs, completers, entering trade for which trained, successes, etc.)
Program Objectives	15.5	Facilities and equipment required and available to meet program objectives
Operational Budget	15.5	Staffing requirements (the number of instructors available and needed, areas of expertise, paraprofessionals, aides, readers, clerical, secretarial, etc.)
Program Objectives	18.5	Community needs--current and anticipated
Coordination & Direction	27.0	Recommendations from the advisory committee
Program Goals	28.0	Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations, etc.)
Program Planning	30.0	Projected facility and equipment needs
Program Objectives	33.0	Number and qualifications for faculty required to accomplish program objectives

TABLE XXXVI (CONTINUED)

Decision Area	Overall Ranking	Information Factor
Program Goals	35.5	Student needs met and unmet (recruitment and selection, vocational counseling needs, placement needs, interests, desires, former, current, potential, mobility, etc.)
Operational Budget	37.5	Present condition and availability of instructional equipment as it reflects the equipment used in industry
Operational Budget	37.5	Total district budget plan
Program Objectives	40.5	Input from current and former students
Operational Budget	40.5	Long-range community needs mirrored by planned program changes
Coordination & Direction	40.5	Community needs (information and projections of business and industry, population shifts, economic conditions and trends, etc.)
Program Objectives	45.0	Evidence of reaching program objectives
Program Planning	45.0	Assessment of all vocational programs available in the community
Occ Counslg/ Guid/Placmnt	45.0	Student information (enrollments, desires, needs, placement and retention in industry, evaluation, demand, etc.)
Operational Budget	54.0	Minimum and maximum equipment needs to accomplish goals and objectives of program
Program Planning	54.0	Student needs (desires, interests, supply, selection, demand, projections, successes, completers, evaluations, etc.)
Program Planning	54.0	Available facilities, equipment, and instruction supplies (texts, audio-visual, softwear, etc.)

TABLE XXXVI (CONTINUED)

Decision Area	Overall Ranking	Information Factor
Occ Counslg/ Guid/Placmnt	54.0	Evidence of effective liaison between community colleges counselors and high school counselors, advisory committees, occupational faculty, 4-year transfer occupational program, etc.

the decision area, Advisory Committees, no mentions under the data category.

The decision area in Table XXXVII receiving the greatest number of mentions in the attitudinal category was Occupational Counseling, Guidance, and Placement with 3. Two mentions each were reported for decision areas relating to Program Goals, Coordination and Direction, and Advisory Committees. The decision areas of Program Planning, Objectives, and Evaluation each had a single mention under the attitude and commitment cluster of information factors perceived to be needed and useful in effective planning for occupational education. Although the attitudinal cluster category does not include as many mentions as does the data category, the information factors in the attitudinal category were ranked significantly higher than those appearing in the data category, thereby according greater importance to the attitudinal category.

The decision areas receiving the greatest number of mentions for the cognitive cluster category (Table XXXVIII) were Program Planning and Program Evaluation which recorded three each. One mention each was made for five decision areas, Program Goals, Advisory Committees, Program Objectives, Operational Budget, and Occupational Counseling, Guidance, and Placement. The decision area of Program Coordination and Direction did not receive a mention.

The decision area receiving the greatest number of mentions in the procedural category (Table XXXIX) was Program Coordination and Direction which accumulated four. The decision areas of Program Evaluation and Occupational Counseling, Guidance, and Placement with two mentions each were also included. The Advisory Committee and Program Planning decision

TABLE XXXVII
UPPER QUARTILE RANK-ORDERED INFORMATION FACTORS
ATTITUDINAL CLUSTER CATEGORY

Decision Area	Overall Ranking	Information Factor
Program Objectives	1.0	Commitment of board and top administration to occupational education
Program Planning	2.0	Board and top administrators' commitment to occupational education
Program Goals	4.0	Administrative and board commitment to occupational education
Operational Budget	9.5	Administrative attitudes toward providing financial support of occupational education
Occ Counslg/ Guid/Placmnt	12.5	Qualifications for occupational counseling (attitudes, responsibilities, duties, etc.)
Advisory Committees	18.5	Faculty attitude toward meeting with and accepting recommendations from the advisory committee
Coordination & Direction	18.5	Administrative and board commitment to ongoing functioning of occupational programs
Occ Counslg/ Guid/Placmnt	18.5	Institutional commitment to establish an occupational information system to guide students
Evaluation	21.5	Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employees, etc.)
Advisory Committees	23.0	Attitude of leaders in business and industry toward updating and improving personnel in their fields
Program Goals	30.0	Relationship existing between education and industry
Operational Budget	40.5	Attitude of administration regarding part-time/hourly staffing patterns

TABLE XXXVII (CONTINUED)

Decision Area	Overall Ranking	Information Factor
Coordination & Direction	54.0	Commitment of the administration to support faculty in-service training programs (district workshops, state-wide seminars, national conferences, return-to-industry subsidies, planned summer government positions, etc.)
Occ Counslg/ Guid/Placmnt	54.0	Attitude of occupational faculty toward working with counselors

TABLE XXXVIII
UPPER QUARTILE RANK-ORDERED INFORMATION FACTORS
COGNITIVE CLUSTER AREA

Decision Area	Overall Ranking	Information Factor
Program Goals	*3.0	Knowledge of subject materials
Program Objectives	12.5	Knowledge of anticipated technological and industrial job requirements
Program Planning	12.5	Changes anticipated in the job market
Program Planning	12.5	Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job requirements, etc.
Advisory Committees	33.0	Programs needed to make the offering sufficiently extensive to meet industrial and student needs
Program Planning	33.0	Knowledge of trade licensing requirements, local, state and national accrediting agency standards, state and federal legal requirements
Evaluation	35.5	Knowledge of the requirements of various accrediting agencies (COPEs, trade licensing, Western States Accreditation Association, district and national certifying examinations, etc.)
Operational Budget	54.0	Program priorities
Evaluation	54.0	Knowledge of use to be made of evaluations
Evaluation	54.0	Criteria for and measurement of job success
Occ Counslg/ Guid/Placmnt	54.0	Knowledge of community agencies providing occupational counseling, guidance, and placement services

*Factor submitted by an individual at Round 2 which was added data for Round 3 for all participants to re-evaluate

TABLE XXXIX
UPPER QUARTILE RANK-ORDERED INFORMATION FACTORS
PROCEDURAL CLUSTER CATEGORY

Decision Area	Overall Ranking	Information Factor
Evaluation	*5.0	Procedures and criteria for employed former students' input
Advisory Committees	*6.0	Procedures to inform advisory committee members of the institution's capabilities; its potential and its limitations
Evaluation	24.0	Input from advisory committees into program evaluation
Program Planning	25.0	Program approval by advisory committees
Coordination & Direction	26.0	Evidence that the vocational deans are involved in top-level decision-making planning about occupational education
Coordination & Direction	30.0	Release time allocated to coordination and direction of occupational programs
Occ Counslg/ Guid/Placmnt	45.0	Provisions for supportive staff requirements (clerical, secretarial, aides, etc.)
Coordination & Direction	54.0	Yearly evaluations to determine progress in meeting the goals and objectives (identification and removal of blockages, etc.)
Coordination & Direction	54.0	Availability of flexible, open-ended programs accommodating a student shift in occupational goals with a minimal time loss
Occ Counslg/ Guid/Placmnt	54.0	Coordination of placement services with: all occupational programs, counselors from other districts and campuses, the community, students, faculty, etc.)

*Factors submitted by individuals at Round 2 which were added data for Round 3 for all participants to re-evaluate

area were mentioned one time each. Program Goals, Program Objectives, and Operational Budget were without mention.

Table XXXX summarizes the information factors ranked in the upper quartile distributed into the four cluster categories. Each cluster category provides the frequency of information factors for each decision area. Under the data column, the highest number of factors is in the Operational Budget decision area. Examining the attitudinal category, a relatively even distribution exists through all decision areas. Under the cognitive cluster category which includes the various knowledges, competencies, awarenesses, etc. perceived to be needed and usable for effective planning, Coordination and Direction recorded the highest number of mentions. A tie exists between Program Planning and Evaluation for the procedural category.

Conclusions

The 41.1 percent response to Communication No. 1 with 46 participating, followed by another reduction of 26 percent of the total group could be attributed somewhat to the timing of the study. Late spring and early summer apparently were not the most propitious times to expect an enthusiastic response. Communication Number 3 was mailed after a more convenient time had been determined and apparently encouraged a greater number of responses. Another option would suggest that, as in many aspects of our lives, decisions are actually made by a relatively few people. Communication No. 3 for several participants was a reactive approach rather than a proactive situation.

TABLE XXXX
CLUSTER CATEGORIES OF UPPER QUARTILE
INFORMATION FACTORS

Decision Area	Cluster Categories			
	Data Mentions	Attitudinal Mentions	Cognitive Mentions	Procedural Mentions
Program Goals	2	2	1	-
Advisory Committees	-	2	1	1
Program Objectives	5	1	-	1
Operational Budget	6	2	-	1
Program Planning	4	1	1	3
Evaluation	1	1	2	3
Coordination and Direction	4	2	4	-
Occupational Counseling, Guidance and Placement	2	3	2	1
TOTAL	24	14	10	11

The following conclusions were based on the data produced by the occupational management teams of selected California community colleges through the DELPHI technique.

Information Factors

1. The statistical analysis of the data indicated a significantly high relationship between institutions and their occupational

management teams' perceived importance of information factors which would be needed and usable for effective planning for occupational education.

2. The rankings given by the teams from the eight institutions indicated information factors relating to commitment and attitudes were most important. Information factors again relating to commitment and attitudes in seven of the eight decision areas were also ranked high.
3. Information factors relating to the product of occupational programs from the viewpoint of the students, the employers, and the advisory committees followed in importance.
4. Community needs, the next broad area for provision of information, includes the geographic area served, the training needs of the job, and the staff qualifications to meet these needs.
5. The emphasis on information factors relating to occupational counseling, guidance, placement, and follow-up is next in importance. Follow-up information becomes the validation of the occupational programs.
6. Information factors relating to facilities, equipment and staffing requirements is the last grouping.
7. Of the eight decision areas, Evaluation received the highest overall ranking.

Governance

1. Based on the analysis of the organizational charts and the responses of those who are perceived to make the decisions,

the chief occupational administrator is unlikely to hold a decision-making position.

2. Most of the decisions in relation to occupational education are perceived to be made by the Dean of Instruction.
3. The chief occupational administrator is perceived to make decisions about the advisory committee area.

Profile

1. The typical occupational management team member is a male between 40-49 years of age, who has attained a master's degree, who is likely to have held a Division Chairperson's position for the previous two to five years, who perceives his primary responsibility as teaching with teacher supervision and program and personnel scheduling as supporting responsibilities. This typical team member has been teaching in the community college system over eleven years and has acquired prior administrative experience in the community college system.

Recommendations

1. It is recommended that the findings of this study be used as a foundation for developing an information base for decision makers for effective planning of occupational education for post-secondary education. An information system to be effective must include information on the commitment and attitudinal dimension. It has long been recognized that a change in the membership of the Board or a change in a decision-making position brings with it the new belief system of that person to

the organization. An emerging tendency today is for researchers to examine how the organization processes are being manipulated as a result of the value systems of its decision makers. Conner and Becker (21) discuss several studies addressing the nature of the problem of relating values to organization properties. They suggest that values of organization members "may well be more parsimonious predictors of organizational phenomena than are such variables as attitudes, perceptions, and personality traits..." (p. 558). It appears, therefore, that if one variable were to be selected as indicating the direction and the effectiveness of occupational education, an examination of the value systems of the decision makers is that variable.

2. It is recommended that a developmental program be designed and implemented to bring about an organization-structural shift which would place chief occupational education administrators in a position commensurate with the chief academic administrator.
3. It is recommended that a program be developed and implemented to facilitate establishing occupational program goals and objectives. This is clearly a confused area for most team members. As a contemporary issue, goals and objectives seemingly are easy to talk about but in reality difficult to do. This dilemma leads to a sense of frustration about recognizing the need for assistance yet unsure of the source to provide the help. Meyers (53) found that managers improve their performance when specific goals are established. It follows that if planning for occupational education is to be most effective, a goal orientation will be its life line.

4. Suggested additional research areas are:

- (1) to develop a model to measure attitude and commitment for occupational education; and
- (2) to develop a simulation model using the major categories of information factors as identified in this study to provide training in decision-making activities.

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APPENDIX A

3602 north washington street - c-43 - stillwater, oklahoma 74074
phone (405) 377-1143

may 10, 1975

My name is Ellen Bowers; I am on a leave of absence from Monterey Peninsula College attending Oklahoma State University as the recipient of two California nominations to EPDA 552 Fellowships. Currently I am directing a research project relative to "Information Needs and Governance Patterns of Occupational Management Teams of Selected California Community Colleges." This project is supported by a small research grant awarded by the Office of the Chancellor of California Community Colleges. Data from this study will be used to develop a report for submission to the Chancellor's Office and as the basis for my doctoral thesis.

Since you are in a decision-making position, we feel you can make a real contribution to this study. You are being asked to participate because of your expertise as an occupational administrator. Hopefully the study will lead toward the establishment of a state-wide information system. With the move toward participatory management, the team concept, we wish to include the total management team from your institution. Your institution, through you, is being asked to participate with the other seven community colleges selected for the 1972-73 COPES PROJECT.

The DELPHI process, a technique which clusters divergent ideas created by individual brainstorming, will be used for data collection. This approach of mailed communications eliminates the need for time-consuming committee meetings. As participants, you and each of the management team members you designate will be asked to

- 1) individually respond to three questions for the decision-making areas in Communication No. 1
- 2) individually rank the compiled responses on an 11-point importance scale in Communication No. 2
- 3) individually react to the compiled ranked responses in Communication No. 3

You, as the chief occupational administrator at your institution, will receive a copy of the report and of your individual institution's prioritizations.

2

may 10, 1975

Recognizing that schedules are exceedingly tight at this time of year, a cassette tape will be included with each Communication. This tape may be used if you choose with the transcription to be made here.

I have been in close contact with Dr. Bill Morris of the Chancellor's Office about this study and he is familiar with its intent and purpose. If you would care to contact him also, please do so.

To implement the study, I will phone you on May 14 to obtain the names of your occupational management team members. A letter of explanation along with the packet of materials will then be sent to the remaining participants.

To provide a clearer understanding of the responses requested of each of the participants, the first Communications packet is enclosed. It consists of

- 1) Communication Form No. 1 - the response sheets for the decision areas - to be returned to me
- 2) reference sheet - the decision areas further clarified by selected items from COPES "Perceptions. . ."
- 3) the abstract of the research study
- 4) a cassette tape to be used if the participant chooses

Should you have questions or concerns, I will respond to them during our telephone conversation on Wednesday, May 14.

sincerely yours

ellen bowers

enclosures

3602 north washington street - c-43 - stillwater, oklahoma 74074
phone (405) 377-1143

may 19, 1975

My name is Ellen Bowers; I am on a leave of absence from Monterey Peninsula College attending Oklahoma State University as the recipient of two California nominations to EPDA 552 Fellowships. Currently I am directing a research project relative to "Information Needs and Governance Patterns of Occupational Management Teams of Selected California Community Colleges." This project is supported by a small research grant awarded by the Office of the Chancellor of California Community Colleges. Data from this study will be used to develop a report for submission to the Chancellor's Office and as the basis for my doctoral thesis.

Assistant Dean, Occupational Education, has designated that you, as Associate Dean of Community Services and sharing a sincere interest in occupational education, are an integral component of the decision-making team for occupational education at American River College. Because of your interest and position, you are being asked to participate in this study. You will be joined by others from American River as well as by participants from the other seven community colleges selected for the 1972-73 COPES PROJECT.

The DELPHI process, a technique which clusters divergent ideas created through individual brainstorming, will be used for data collection. This approach of mailed communications eliminates the need for the ubiquitous, time-consuming committee meetings. All ideas are accepted--not just the politically expedient or the "acceptable" ones, but the ideas, the beliefs, thoughts, and feelings addressing future needs are encouraged. With the DELPHI process, the confidentiality of individual responses is assured--"only your researcher knows." As a participant you are asked to

- 1) individually respond to three questions for the decision areas in Communication 1
- 2) individually rank the compiled responses on an 11-point importance scale in Communication No. 2
- 3) individually react to the compiled ranked responses in Communication No. 3

Dr. Quint, as Assistant Dean, Occupational Education, will receive a copy of the final report as well as the prioritizations, the consensus, reached by all the participants from American River.

2

may 19, 1975

Recognizing that your schedule is very tight at this time of year, a cassette tape is included as a time saver if you choose to use it. Just dictate your responses, return the tape, and the transcription will be made here. The response to Communication No. 1 will probably take about an hour's time. With each subsequent mailing, the time frame will be reduced. So that the DELPHI can be completed before the end of the semester, please return Communication No. 1 within the coming week.

To provide a clearer understanding of the project, in addition to Communication No. 1 and the cassette tape, I have included

- 1) the abstract - a copy of the project abstract as submitted to the Chancellor's Office
- 2) a reference sheet - the decision areas further clarified by selected items from COPES "Perceptions. . .Guides & Criteria"
- 3) a return envelope - stamped and self-addressed to be put in the mail by May 30

Should you have questions or concerns about the project, please call me collect after eleven o'clock Pacific time.

Or, if you prefer to contact Dr. Bill Morris of the Chancellor's Office with questions about the study, please do so. He is familiar with the intent and purpose of the project and will gladly respond.

I am very appreciative of the support given by Dr. Quint. By adding your expertise, we are producing a viable study--an information base for decisions for and about occupational education in community colleges in California.

sincerely

Ellen Bowers

ellen bowers

enclosures 5

DON'T FORGET MAY 30

C O M M U N I C A T I O N N O. 1

name _____

college _____

directions: In this communication, each decision-making area is listed on a separate page with three basic questions asked about the decision area.* Those questions are ...

- 1) At what administrative level are the decisions made about...
- 2) Who makes the recommendation[s] about...
- 3) Specify at least 5 units of information you perceive would be needed and used to do effective planning to develop...

In the interest of time, if you would care to use the enclosed cassette tape to dictate your responses, please do so. The tapes will be transcribed here.

*The decision areas used in this study have been derived from "Perceptions of Occupational Education Evaluative Guides and Criteria." These items serve as guidelines for the evaluation instruments used in the formal COPES study. A copy of "Perceptions of Occupational Education Evaluative Guides and Criteria" is enclosed.

NOTE: A separate page was prepared for each of the eight decision areas identified in the study, i.e., PROGRAM GOALS, PROGRAM OBJECTIVES, PROGRAM PLANNING, ADVISORY COMMITTEES, OPERATIONAL BUDGET, PROGRAM COORDINATION AND DIRECTION, EVALUATION, and EMPHASIS ON OCCUPATIONAL COUNSELING, GUIDANCE AND PLACEMENT

I. Decision Area - [specify]

- A. At what administrative level is the decision(s) made about [DECISION AREA] for occupational education?

- B. Who makes recommendations for the [DECISION AREA] for occupational education?

- C. Specify at least 5 units of information you perceive would be needed and used to do effective planning to develop [DECISION AREA] for occupational education.

information needs study

REFERENCE SHEET

The following selected items from COPES 1973-74 Report, Appendix E, "Perceptions of Occupational Education Evaluative Guides and Criteria," pages 40-51, are re-arranged into the decision areas of this study.

I. Decision Area - PROGRAM GOALS

1. Goal(s) (Broad Purpose) for occupational programs.

Excellent

General overall goals for occupational education are clearly stated in writing, available and committed to by virtually all occupational education personnel and used as a base for planning specific occupational program objectives.

Poor

General overall goals for occupational education are not clearly defined, are not understood by most occupational education personnel, or used as a base for planning specific occupational program objectives.

20. Administration's commitment to occupational education.

Excellent

Administration demonstrates a wholehearted commitment to and support for occupational education through the stated philosophy and objectives of the college, the administrative organization and the allocation of resources.

Poor

Administrative support for and commitment to occupational education is passive and demeaning. Occupational education administration, programs and resources are secondary to general education and education for transfer.

23. Awareness of college's occupational education goals by all faculty and staff.

Excellent

All administrators and instructional staff are aware of college goals for occupational education. Occupational education staff utilize them as a base for planning long range and short term specific program objectives.

Poor

Most administrators and all instructional staff have little or no familiarity with the college's goals for occupational education. Consequently, general goals are not used to guide planning of specific program objectives.

II. Decision Area - PROGRAM OBJECTIVES

2. Development of measurable learner performance objectives in organizing occupational programs.

Excellent

Measurable learner performance objectives have been or are in the process of being developed for all occupational programs and are used as the basis for planning course content and sequence. Administration and instructional staff demonstrate commitment to the development and application of learner performance objectives.

Poor

Measurable learner performance objectives have not been developed and/or are not in the process of being developed for any occupational program. Administration and instructional staff demonstrate no commitment to the development and application of learner performance objectives.

15. Relating of the college's general education courses (e.g., English, Math) to occupational education.

Excellent

General education courses required in an occupational major are closely coordinated with occupational education program; continual cooperative analysis and review of course offerings keep course offerings relevant and current to program needs.

Poor

No line of communication or cooperative coordination exists between general and occupational education departments. General education course requirements reflect no planned approach to meeting occupational program objectives.

16. Provision for vocational work experience in occupational education programs.

Excellent

Vocational work experience is a priority of occupational programs and has full commitment and support from administration, instructional staff and the community. A continual effort is made to

identify new opportunities for student placement in work experience. At least 25% of occupational students are participating in vocational work experience.

Poor

Work experience, as an essential component of occupational education, is given little emphasis. Few, if any, programs provide opportunity for work experience or work related activities. Only 0-5% of occupational students are participating in vocational work experience.

III. Decision Area - PROGRAM PLANNING

5. Planned enrollments in relation to community needs (e.g., population needs, labor market needs).

Excellent

The college has determined population and labor market needs through the use of surveys and/or other instruments or other data sources in the community such as inputs from advisory committees. Short term (one year) and long term (five year) enrollment projections are based on available data.

Poor

Enrollment projections and planning based on past experience only; little or no effort (has been) made to generate new or utilize existing data on actual community labor market or population needs.

6. Actual program enrollments in relation to planned enrollments.

Excellent

Planned program enrollments are analyzed in relation to actual enrollments to determine variables and their causes and to improve future planning.

Poor

No effort is made to compare actual with planned enrollments to improve future planning or to analyze or identify additional information needed.

7. Student completions in relation to enrollments including jobouts (i.e. students leaving school for employment in field of preparation prior to completing program of studies).

Excellent

Measurable objectives for number or % of student completions have been planned for the institution at large and by individual program.

Specific types of completions, i.e., jobouts, certificates, degree have been analyzed and actual experience is used as a base for future planning.

Poor

No objectives or projections have been identified for completions in relation to student enrollments. Data are not analyzed and used as a base for future planning.

10. Concurrence of programs with district vocational education plan submitted to state annually.

Excellent

Administration, counselors and instructional staff utilize the district plan to guide and evaluate occupational education program performance and progress.

Poor

Administrators, counselors and instructional staff, with the exception of one or two individuals who participated in its development, have little or no knowledge of the district vocational education plan and do not use the plan as a planning and evaluation tool. Administration and instructional staff objectives do not concur with those documented in the plan.

36. Participation in development of one year and five year district vocational education plan submitted to state.

Excellent

A systems approach is used to develop the district vocational plan. Participation by at least 75% of the occupational education administrators and full-time instructional staff is built in.

Poor

The district vocational plan is developed by one or a few of the district administrators and includes little participation by instructional staff.

12. Provision of educational opportunities consistent with community needs (e.g. population needs, labor market needs) for training, retraining and upgrading personnel.

Excellent

The spectrum of occupational education programs is continually reviewed and revised to most effectively meet community training and retraining needs.

Poor

Occupational education programs reflect limited relevance to actual population and labor market trends and changes. Limited efforts are made to service the needs of the community through programs that train, retrain or upgrade job skills.

9. Job success of former students in field of preparation.

Excellent

Goals and objectives include evaluation of job success of former students. Such data are used as a base for program analysis and future planning.

Poor

No specific evaluation is made of job success of former students. Such data are not used as a base for future planning.

37. Systematic collection and translation of information on community occupational education needs (population needs, labor market needs and opportunities).

Excellent

A system has been developed and is effectively utilized to collect, analyze and disseminate to occupational education personnel data on population needs and labor market needs, trends and opportunities.

Poor

No effort is being or has recently been made to determine or use population or labor market needs, trends and opportunities.

38. Coordination of college's community occupational education needs analysis with those of other planning agencies in the area.

Excellent

A community-wide system is in effect to consolidate and maximize the effectiveness of occupational education needs analysis by all area educational institutions and other agencies involved in occupational education.

Poor

There is no coordination of occupational needs analysis efforts by the various institutions and agencies in the area involved in this activity.

39. Use of community occupational education needs information in modifying programs.

Excellent

There is documented evidence of the consistent application of community occupational needs data to occupational education program development and modification.

Poor

There is no evidence that community occupational needs data are being or have recently been utilized in developing or modifying occupational education programs.

31. Systematic follow-up of students who have completed occupational programs.
32. Systematic follow-up of students who have dropped out.
33. Systematic follow-up of students who have completed college transfer programs.

Excellent

An effective system is in operation that provides current status and job success on student completions including those in advanced training, jobouts and dropouts from the previous year. Follow-up data on students overall, by specific occupation, is tabulated, available to and used by occupational education personnel.

Poor

No follow-up system has been established to gather data on occupational education students. Follow-up activities are informal and fragmented, and there are no data available on the current status of former students.

34. Use of job success and failure information of occupational education completions in program evaluation and planning.

Excellent

Comprehensive information on the employment success and failure of students completing occupational education programs is utilized as a program evaluation, planning and modification tool.

Poor

Employment data on success and failure of former students are not used in program planning and evaluating.

IV. Decision Area - ADVISORY COMMITTEES

55. Use of advisory committees.

Excellent

Every occupational program has a local or regional advisory committee representative of the labor market for which students are being trained. Selection criteria and functional responsibility are clearly defined and understood by instructional staff and committee members. Meetings are used to identify needs, to gain relevant inputs for occupational program decisions and to recommend solutions to problems. Advisory committee composition and function are evaluated annually.

Poor

Programs lack advisory committees or committees exist but do not meet. Committee memberships are of long standing and do not include sufficient breadth, depth, quality, or recency of experience.

56. Participation of advisory committees in shaping programs.

Excellent

Advisory committees meet with all appropriate staff to focus attention on current issues vital to occupational education effectiveness--program, facility, and equipment needs, long range planning and student work experience, placement, and follow-up.

Poor

Advisory committees do not focus on issues critical to occupational education effectiveness--planning, curriculum, student work experience, placement and follow-up.

V. Decision Area - OPERATIONAL BUDGET

43. Number of instructors necessary for program effectiveness.

Excellent

Teacher/student ratios are evaluated on a continuing basis and adjustments made to assure that high educational standards are maintained.

Poor

Little or no attention has been given to relationship of occupational education program effectiveness to teacher/student ratios. Classrooms are overcrowded and teachers are unavailable for individual student assistance and/or advising, and are assigned unrelated duties.

46. In-service education opportunities for faculty, including conference attendance, curriculum development, work experience.

Excellent

College policy provides, supports (time and money) and encourages in-service education experiences (including leaves for increasing occupational competence) for instructional staff; records are maintained on in-service education participation of all personnel.

Poor

The college has no policy for and discourages instructional staff participation in in-service education experiences.

48. Use of paraprofessionals (e.g., aides, teacher assistants)

Excellent

The college has made a careful analysis of the need for and usage of ancillary workers. The instructional staff show innovation and educational sensitivity in the use of paraprofessionals and teacher assistants. Delegated responsibilities have been identified through a complete job analysis.

Poor

Almost no use is made of paraprofessionals and teacher assistants.

49. Salary schedule provisions in relation to other professional staff within the college.

Excellent

The college maintains a single salary schedule for instructional personnel and grants degree equivalency for occupational experience.

Poor

The college maintains a dual salary schedule for instructional personnel that compensates occupational staff at lower levels than those for academic staff.

60. Provisions in current operating budget for occupational education in general.

Excellent

District annual operating budget provides adequate support for occupational program objectives; budgetary decisions are based on program priorities, and decisions and rationale are communicated to division and/or department chairmen and to instructional staff.

Poor

District annual operating budget does not provide adequate support for occupational program objectives; budgetary decisions are not based on program priorities, and decisions and rationale are not communicated to division and/or department chairmen and instructional staff.

51. Adequacy and availability of instructional equipment.

Excellent

Equipment is current, operational and representative of that found and used in the job situation for which students are being trained. Efforts are made to provide clinical or work experience for unique, unusual, or excessively expensive equipment that has significance for job effectiveness.

Poor

Equipment is in poor condition and/or is not representative of that found and used on the job for which students are being trained. Little effort is made to offset this lack through clinical or work experience.

53. Adequacy and availability of instructional materials and library resources (e.g., textbooks, reference books, visual aids, mock-ups).

Excellent

Instructional materials selection is based on currency, relevance to program and student needs, learning impact and variety. Materials are continually reviewed and evaluated in relation to program changes and use frequency. Materials are located for convenient student use.

Poor

Instructional materials are outdated and lack relevance to current occupational program and student needs. Materials are generally limited to basic textbooks.

VI. Decision Area - COORDINATION AND DIRECTION

21. Organization for effective coordination and direction of occupational education.

Excellent

Management responsibility, authority and accountability for occupational education have been delegated to an individual who is a participating member of the high level college management team.

This occupational dean or director has the responsibility for all occupational programs.

Poor

No individual has the management responsibility, authority or accountability for all occupational education. Little coordination is evident among the various segments of the college. No clearly defined lines of authority and accountability exist.

41. Provision for coordination and/or direction.

Excellent

Occupational program leadership is vested with one individual to whom program responsibilities, authorities, and accountabilities have been delegated.

Poor

Occupational program leadership has not been provided for in the administrative organization or through the delegation of responsibilities.

13. Growth and/or modification of offerings during past five years in response to community needs.

Excellent

The modifications in the occupational education program configuration demonstrate that the college has consistently responded to discerned changes during the past five years.

Poor

There is little evidence of growth or modification of course offerings; changes that have occurred reflect limited response to significant community needs.

14. Articulation with other educational organizations in your area (e.g. high schools, other community colleges, regional occupational centers and other institutions of higher education) in providing for community occupational needs.

Excellent

The college has an aggressive, effective and documented program of articulation and interaction with all the other educational organizations that have impact on area occupational education.

Poor

The college has no specific program of articulation and interaction with any educational institutions that have an impact on relevant occupational education.

18. Special provisions for the disadvantaged (i.e., academic, socio-economic, cultural, and related handicaps).

Excellent

An aggressive and readily identifiable program for disadvantaged students functions as an effective part of occupational education. Services for specialized needs, such as language or learning problems, transportation, financial aid, counseling and guidance, are readily available and utilized. Instructional staff have been given training and/or other assistance in working with the disadvantaged.

Poor

No organized program or coordination of services for disadvantaged students in occupational education exists. Limited resources are available to assist the disadvantaged student and there is a low level of commitment to these students by administration and instructional staff.

19. Special provisions for the handicapped (i.e., physical, mental, emotional, and other health-impairing handicaps).

Excellent

An aggressive, readily identifiable and coordinated program for handicapped students functions as an effective part of occupational education. Facilities and services to meet specialized needs are available and utilized. Instructional staff have been given training and/or other assistance in working with the handicapped.

Poor

No identifiable program or coordination of services for handicapped students in occupational education programs exists. Laboratory and equipment modification for the handicapped is almost nonexistent. Limited resources are available to assist the handicapped student and there is a low level of commitment to these students by administration and instructional staff.

VII. Decision Area - EVALUATION

11. Quality of occupational instruction, in general.

Excellent

Instruction is current in content, keyed to the needs and interests of students, is stimulating and maximizes individual student achievement.

Poor

Instruction remains static and is unresponsive to students' interests and needs.

17. Quality of work experience programs.

Excellent

The college supports vocational work experience with manpower, budget, and facilities. At least one FTE instructor is assigned for each 125 students. Community resources, such as advisory committees and participating business and industry, are used effectively to improve and evaluate the quality of work experience.

Poor

The college makes no provision to support work experience programs with manpower, budget, or facilities. No emphasis has been placed on the importance of work experience with community agencies, businesses, and advisory committees. Work experience programs that exist are not evaluated or reviewed.

47. Provisions for systematic evaluation of instructional personnel.

Excellent

A program has been established for periodic performance appraisal including the identification of performance objectives for all instructional personnel. Individuals are aware of evaluations, performance objectives agreed upon and progress in relation to objectives.

Poor

There are no guidelines for and no emphasis is placed on periodic evaluations of instructional personnel, or too much emphasis is placed on instructional staff evaluation; teacher effectiveness is impaired by "overkill" evaluations by peers, students, administrators, etc.

22. Status of occupational education dean or director position on the college "administration team."

Excellent

The occupational program manager is on an organizational level commensurate with defined management function and on a lateral level with other managers who have equivalent responsibilities and authorities.

Poor

The occupational program manager's position has been down-graded in the administrative organization to a status below that assumed by general education managers. The occupational program manager does not function as a member of the administrative team--participating in policy determination, resource allocation and other decisions that have real impact on occupational education.

60. Adequacy of instructional facilities, excluding equipment.

Excellent

Occupational education instructional facilities meet the needs of programs and students, are functional and provide maximum flexibility.

Poor

Occupational education instructional facilities are restrictive, overcrowded, out-of-date and do not meet the needs of program or students.

52. Utilization of instructional facilities and equipment.

Excellent

Scheduling is planned to maximize the creative utilization of facilities and equipment and provide individualized learning experiences for all students.

Poor

Little attention is given to the creative application and use of equipment and facilities; poor planning has resulted in over and/or under scheduling.

29. Effectiveness in placement of occupational education students completing programs.

Excellent

At least 80% of the occupational students available for employment are placed in positions commensurate with job proficiency skills within three months following completion of a certificate or degree program.

Poor

Placement success with occupational students available for employment is at a low level. Less than 20% of students completing the programs are placed in three months. No placement assistance is provided.

VIII. Decision Area - EMPHASIS ON OCCUPATIONAL COUNSELING, GUIDANCE, AND PLACEMENT

8. Student placements (employment or related advanced education) in relation to completions.

Excellent

Student placement objectives are realistic in relation to jobouts and completions and changing labor market conditions. Continual analysis is made of actual experiences to determine if discrepancies exist and why, and to improve future performance.

Poor

Student placement objectives have not been identified and/or are not realistic in relation to completions.

25. Emphasis on occupational counseling and guidance to full-time college students.
26. Emphasis on occupational counseling and guidance to adult and evening students.
27. Emphasis on occupational counseling and guidance to high school students.

Excellent

All counselors are familiar with and committed to occupational or career counseling; individual counselors have developed specialization in counseling occupational students. Counseling services are available to, relevant for, and utilized by most current and potential occupational students--full and part time, day and evening school and prospective students from feeder high schools.

Poor

Inadequate occupational counseling exists. Occupational counseling is given little emphasis. Counselors have little or no proficiency in career counseling and, in fact, tend to counsel students out of occupational programs.

28. College-wide coordination of placement services with occupational education programs.

Excellent

The college has an effective functioning system for coordinating placement services for full and part-time employment for all students in occupational education programs.

Poor

The college has no system or an ineffective system for coordinating placement services with occupational education programs.

30. Recruitment into occupational education programs.

Excellent

The college has committed personnel and resources for a comprehensive occupational information system to guide potential students.

Poor

Little or no efforts are made to provide occupational information for potential students.

Abstract

The abstract of the project should not exceed 500 words. The abstract should simply and concisely summarize the proposal. It should include a statement of the problem, objectives, procedures, a brief description of the evaluation component, the expected educational contribution, the amount of research funds requested, and the amount of local funds to be contributed.

The multiplicity of factors which administrators are called upon to consider mixed with the complexity of alternatives and coupled with the urgency of time result in decisions being made without needed information. Traditionally occupational education administrators have not had access to an objective data base for reaching administrative decisions. They have been forced to make decisions in the absence of information or with limited information. This lack has been compounded by the hesitancy on the part of some administrators to rely on something other than a "feel" for the situation. "Instant decisions" all too often form the basis of the direction given to occupational education.

In the COPES study of 1972-73, both the on-site Evaluation teams and the Research Conference of forty-three professionals zeroed in on follow-up information needs as their first priority item. The 1973-74 COPES REPORT re-emphasized the lack of information by identifying half the priority items in this category. It would naturally follow that the information which would be provided by the extensive and systematic follow-up programs would be used to reach future decisions. Today, however, very little is known about the decisions being made, about the decisions needed, about the information base needed to make these decisions, and how this combination affects the governance of occupational education at the local level.

The overriding goal of the project is to begin to move the management of post-secondary occupational education toward a more systematic, information-based approach to decision-making.

The study will have as its sample the eight individuals designated as chief administrators or the members of the management team for occupational education from the eight community colleges included in the COPES 1972-73 REPORT. These eight community colleges, at that point in time, had been randomly selected by the Chancellor's office. The DELPHI technique will be used to collect the data and to achieve a convergent opinion. The process of four mailings with synthesized feedback prepared by the investigator for each successive mailing will bring about a consensus about the information needed to make decisions and recommendations which affect the governance of occupational education at the local level. It will also bring about a modified convergent opinion as to needed decisions.

The identification of and the classification and ranking of the decisions and recommendations as well as the identification and prioritizing of the needed information for the decisions and recommendations will be validated by the DELPHI process itself. Where in the hierarchical

structure of each institution, are other decisions made about occupational education? Who is responsible for the decision--a single administrator or is the decision shared through a management team concept? The governance pattern, as it relates to occupational education, will become clearer when it is identified where the decisions about occupational education are made on the occupational administrators' recommendations.

As relevant, accurate, current information bases are built, better decisions will be made. This study should provide a step in the improvement of administration of occupational education at the post-secondary level through the use of a systematic information supply system.

3602 north washington street - c-43 - stillwater, oklahoma 74074
phone (405) 377-1143

june 6, 1975

Many, many ~~thanks~~ for the promptness and especially for the thought you have given to the responses. The quality is tremendous! I am all too aware of the pressures and strains under which you are concluding the year-end activities, which doubles my ~~thanks~~ to you for the time you are giving to participate in this study.

Oh, were it so that all stresses and strains belonged on the "other" side of the ledger, but unfortunately those same retardants have crept onto my side--otherwise, I can assure you that the timing of the study would have been arranged differently.

With plans for summer vacations and travel upon us, I am soliciting your continued participation in the study. However, should you be away from the College, would you provide a mailing address where you can be reached. A self-addressed card is enclosed for your use.

To provide a glimpse of what is to come, here is a sample of items which may appear in Communication No. 2. Using the decision area of Advisory Committees, some of the units of information perceived as needed and would be used which have been submitted are given below. You will be asked to rate your perceived importance of each of the items.

	I M P O R T A N C E S C A L E										
	Highest					Least					
1. The Advisory Committee members need to demonstrate a sincere interest in the occupational area.		X									
	1	2	3	4	5	6	7	8	9	10	11
2. Advisory Committee members need to have a background in the subject matter area.											X
	1	2	3	4	5	6	7	8	9	10	11
2. The staff (faculty) must be receptive to accept and to implement recommendations from the Advisory Committee.					X						
	1	2	3	4	5	6	7	8	9	10	11

In a similar manner, you will be asked to rate each of the items listed under the eight decision areas.

These ratings will be synthesized for Communication No. 3. At that point you will indicate your agreement or lack of agreement with the consensus ratings. The report on this stage will be returned to you.

With Communications Nos. 2 and 3 to follow, please let me know the most direct address where you can be reached this summer.

Again, ~~thank~~ you for your willingness to be involved.

ellen bowers

enclosure

APPENDIX B

3602 north washington street - c-43 - stillwater, oklahoma 74074n
phone (405) 377-1143

june 27, 1975

Thank you very much for responding to Communication No. 1 and thank you, too, for returning the card with your summer address.

With the many, many factors of information which you and others submitted, I am certain you will understand the need for grouping and synthesizing the responses. Otherwise, the volume of material would have been beyond manageable form. This means, of course, that verbatim responses probably will not be found. Rather the intent has been retained and insofar as possible your wordings have been incorporated into the factors appearing under each decision area.

Communication No. 2, although considered one instrument, really has incorporated 8 separate DELPHI's--one for each decision area. The decision areas average about twenty-five factors each. You are being asked to rank the importance of each factor of information in its relationship to the decision area. Completion of this instrument should require only about 45 minutes of your time. There is additional space at the end of each decision area for you to submit factors which you feel were not included. Or should you feel that specific factors would be more appropriate in another decision area, please indicate this. As the additions and shifts are made, be certain to include ranking the importance attributed to the factor in its decision area.

As soon as your ratings have been returned, Communication No. 3 can be constructed to submit to you asking for your agreement or disagreement with the rank order of the factors. A consensus will then be reached. Hopefully summer vacations can be accommodated--either before or after--within a two-week time frame.

Would you please return Communication No. 2 within the next 2 weeks. If you cannot meet this time schedule, please let me know--perhaps some alternative arrangements are possible. Please phone collect at the above number or at (405) 372-2495.

Again, may I extend my sincere appreciation to you for the time and thought you are contributing to this project and ultimately to occupational education. Thank you.

sincerely

ellen bowers

enclosures

COMMUNICATION NO. 2

Using the decision areas identified in Communication No. 1, the following pages represent a synthesis of the factors which you and others identified as information which is needed and would be used for effective planning. In order to establish a priority of the most essential information, please rate each item on the 11-point continuum, ranging from 1 as "Most Important" to 11 as "Least Important."

Please be selective in rating the factors you rank as "Most Important."

		PLACE (X) IN APPROPRIATE SECTION										
		Most Important					Least Important					
EXAMPLE:												
(a)	Qualifications of Advisory Committee Members	/	/	/X/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
(b)	Knowledge of equipment requirements to establish program goals	/	/	/	/	/	/	/	/	X/	/	/
		1	2	3	4	5	6	7	8	9	10	11

Decision Area - PROGRAM GOALS

Information factors		Most Important					Least Important					
1.	Administrative and Board commitment to occupational education	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
2.	Costs of establishing and maintaining programs for occupational education	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
3.	Input from Advisory Committee	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
4.	Knowledge of program offerings at feeder high schools, 4-year transfer institutions, private schools, and other educational agencies	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
5.	Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations, etc.)	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11

Decision Area - PROGRAM GOALS continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Program Goals. Be selective in the ratings.)

		Most Important					Least Important					
6.	Facilities needed and available	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
7.	Faculty input	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
8.	Changes which reflect in-service-training needs	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
9.	Availability of private, public, and campus placement services	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
10.	Programs needed to make the offerings sufficiently extensive to meet industrial and student needs	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
11.	The availability of programs at different preparation levels (entry, upgrading, promotional, retraining, etc.)	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
12.	Knowledge of legal requirements for employability and upward mobility	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
13.	Knowledge of accreditation requirements	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
14.	Student needs met and unmet (recruitment & selection, vocational counseling needs, placement, needs, interests, desires, former, current, potential, mobility, etc.)	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
15.	Knowledge of how to translate ideas, comments, etc., into usable, realistic goal statements	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
16.	Philosophy and purpose of the institution	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11
17.	Relationship existing between education and industry	/	/	/	/	/	/	/	/	/	/	/
		1	2	3	4	5	6	7	8	9	10	11

Decision Area - PROGRAM GOALS continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Program Goals. Be selective in the ratings.)

- | | Most
Important | Least
Important |
|---|-------------------------|-------------------------|
| 18. Knowledge of unemployment and welfare benefits in relation to earnings potential afforded students by existing programs | / / / / / / / / / / / / | / / / / / / / / / / / / |

If a factor(s) which you consider important has not been identified, use the added spaces below to include it (them), accompanied by the appropriate rating(s).

- | | | |
|----|-------------------------|-------------------------|
| 1. | / / / / / / / / / / / / | / / / / / / / / / / / / |
| 2. | / / / / / / / / / / / / | / / / / / / / / / / / / |

Decision Area - ADVISORY COMMITTEES

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Advisory Committees. Be selective in the ratings.)

- | | Most
Important | Least
Important |
|---|-------------------------|-------------------------|
| 19. Administrative and Board policy toward Advisory Committees (calling for membership, establishing goals, paying travel costs of members, etc.) | / / / / / / / / / / / / | / / / / / / / / / / / / |
| 20. Input of Advisory Committee at all administrative levels (including reporting directly to the Board, etc.) | / / / / / / / / / / / / | / / / / / / / / / / / / |
| 21. Communications procedures and techniques between the Advisory Committees, administration, and faculty | / / / / / / / / / / / / | / / / / / / / / / / / / |
| 22. Procedures for evaluating the activities of the Advisory Committees | / / / / / / / / / / / / | / / / / / / / / / / / / |

Decision Area - ADVISORY COMMITTEES continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Advisory Committees. Be selective in the ratings.)

- | | Most
Important | Least
Important |
|---|-------------------------|-------------------------|
| 23. Membership selection process (representativeness of occupational areas, scope of area, levels--supervisory, secretarial, employers--students, faculty, characteristics--interest, perceptive, creative, etc.) | / / / / / / / / / / / / | / / / / / / / / / / / / |
| 24. Procedures to inform members of their role on the committee (obtaining commitment, expectations: suggesting, advising, recommending, approving, etc.) | / / / / / / / / / / / / | / / / / / / / / / / / / |
| 25. The attitude of leaders in business and industry toward updating and improving personnel in their fields | / / / / / / / / / / / / | / / / / / / / / / / / / |
| 26. Procedures for dissemination of information about occupational programs to the community | / / / / / / / / / / / / | / / / / / / / / / / / / |
| 27. Faculty input to the Advisory Committee (reports, recommendations, etc.) | / / / / / / / / / / / / | / / / / / / / / / / / / |
| 28. Faculty membership in community organizations | / / / / / / / / / / / / | / / / / / / / / / / / / |
| 29. Faculty attitude toward meeting with and accepting recommendations from the Advisory Committee | / / / / / / / / / / / / | / / / / / / / / / / / / |
| 30. The organizational structure of the Advisory Committee (State guidelines, size, representativeness, chairing, etc.) | / / / / / / / / / / / / | / / / / / / / / / / / / |
| 31. The logistics of Advisory Committee meetings (time, place, length, agenda items, regularity, etc.) | / / / / / / / / / / / / | / / / / / / / / / / / / |
| 32. Student input to the Advisory Committee | / / / / / / / / / / / / | / / / / / / / / / / / / |

Decision Area - ADVISORY COMMITTEES continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Advisory Committees. Be selective in the ratings.)

	Most Important	Least Important
33. Procedures for Advisory Committee members to provide assistance to student and graduate placements	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
34. Procedures for the Advisory Committee to conduct surveys, studies, and research projects	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	

If a factor(s) which you consider important has not been identified, use the added spaces below to include it (them), accompanied by the appropriate rating(s).

1.	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
2.	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	

Decision Area - PROGRAM OBJECTIVES

(Rate the importance of each item of information as it relates to effective planning for the Decision Area of Program Objectives. Be selective in the ratings.)

	Most Important	Least Important
35. Community needs--current and anticipated	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
36. Parental wishes	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
37. Community input (Advisory Committee, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
38. Commitment of Board and top administration to occupational education	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
39. Cost analysis of program objectives	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	

Decision Area - PROGRAM OBJECTIVES continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Program Objectives. Be selective in the ratings.)

	Most Important	Least Important
40. Evidence of reaching program objectives	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
41. Faculty input (Curriculum Committee, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
42. Number and qualifications for faculty required to accomplish program objectives	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
43. Facilities and equipment required and available to meet program objectives	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
44. Changes requiring in-service training	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
45. Knowledge of most appropriate organizational structure to allow the accomplishment of program objectives	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
46. Knowledge of requirements from State licensing agencies, 4-year transferring institutions, national accrediting agencies, etc.	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
47. The availability of work experience opportunities for most students	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
48. The relationship of various instructional strategies to accomplish program objectives	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
49. Knowledge of components of program objectives (degree requirements, length of program, specific skills, levels, related learnings, and cluster areas)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
50. Number of available and committed occupational students	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	
51. Student characteristics (types, background, needs, expectations, aspirations, goals, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	

Decision Area - PROGRAM OBJECTIVES continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Program Objectives. Be selective in the ratings.)

- | | Most
Important | Least
Important |
|---|---------------------------|---------------------------|
| 52. Input from current and former students | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 53. Compatibility of anticipated programs with existing programs | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 54. Knowledge of anticipated technological and industrial job requirements | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 55. Input based on research findings | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 56. Procedures for dissemination of program objectives information | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 57. Long-range manpower projection from industry to determine long-range need for program | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 58. Knowledge of how to write program objectives | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |

If a factor(s) which you consider important has not been identified, use the added spaces below to include it (them), accompanied by the appropriate rating(s).

- | | | |
|----|---------------------------|---------------------------|
| 1. | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 2. | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
-

Decision Area - OPERATIONAL BUDGET

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Operational Budget. Be selective in the ratings.)

- | | Most
Important | Least
Important |
|-----------------------|---------------------------|---------------------------|
| 59. Cost of equipment | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |

Decision Area - OPERATIONAL BUDGET continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Operational Budget. Be selective in the ratings.)

- | | Most
Important | Least
Important |
|---|---------------------------|---------------------------|
| 60. Recommendations and approval from the Advisory Committee | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 61. Relative costs of occupational courses compared with costs of liberal arts courses | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 62. Administrative attitudes toward providing financial support of occupational programs | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 63. The training needs of the community, county, and state | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 64. Long-range community needs mirrored by planned program changes | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 65. Present condition and availability of instructional equipment as it reflects the equipment used in industry | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 66. The ratio of equipment/student usage | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 67. Replacement schedules | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 68. Minimum and maximum equipment needs to accomplish goals and objectives of program | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 69. Suitability and availability of facilities including alternative locations | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 70. Identified work experience and practicum sites | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 71. Former student evaluation of equipment and facilities used in their preparation | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |
| 72. Income generated by ADA | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| | 1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11 |

Decision Area - OPERATIONAL BUDGET continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Operational Budget. Be selective in the ratings.)

	Most Important	Least Important
73. Income generated by VEA entitlement foundation	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
74. Normal operating expenses per occupational class section	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
75. Funding from external sources (grants, donations, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
76. Projected income and expenses of each occupational instructional area	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
77. Total district budget plan	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
78. Capital outlay formula	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
79. Basis on which funds are to be allocated	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
80. Cost analysis of each occupational program	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
81. Staffing requirements (the number of instructors available and needed, areas of expertise, paraprofessionals, aides, readers, clerical, secretarial, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
82. Student/teacher ratio for all occupational programs	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
83. The attitude of the administration regarding part-time/hourly staffing patterns	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
84. Salary schedule criteria	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
85. The cost per student by program	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /

Decision Area - OPERATIONAL BUDGET continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Operational Budget. Be selective in the ratings.)

	Most Important	Least Important
73. Income generated by VEA entitlement foundation	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
74. Normal operating expenses per occupational class section	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
75. Funding from external sources (grants, donations, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
76. Projected income and expenses of each occupational instructional area	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
77. Total district budget plan	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
78. Capital outlay formula	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
79. Basis on which funds are to be allocated	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
80. Cost analysis of each occupational program	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
81. Staffing requirements (the number of instructors available and needed, areas of expertise, paraprofessionals, aides, readers, clerical, secretarial, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
82. Student/teacher ratio for all occupational programs	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
83. The attitude of the administration regarding part-time/hourly staffing patterns	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
84. Salary schedule criteria	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
85. The cost per student by program	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /

Decision Area - OPERATIONAL BUDGET continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Operational Budget. Be selective in the ratings.)

	Most Important	Least Important
86. The projected needs for program materials to meet program goals and objectives (texts, references, supplies, etc.)	/ / / / / / / / / / / / /	/
87. Library resources	/ / / / / / / / / / / / /	/
88. The attitude of the administration toward in-service educational opportunities (conference attendance, curriculum development, work experience, etc.)	/ / / / / / / / / / / / /	/
89. Estimates of anticipated program growth	/ / / / / / / / / / / / /	/
90. Program priorities	/ / / / / / / / / / / / /	/
91. Historical data for ongoing program (enrollments, placements, budget costs, etc.)	/ / / / / / / / / / / / /	/
92. Administrative attitude regarding the transportability factor in occupational programs (student mobility, training for employment outside the local area, etc.)	/ / / / / / / / / / / / /	/
93. The relationship between the number of new classes opening in liberal arts areas as compared to the number of new-class starts for occupational areas	/ / / / / / / / / / / / /	/
94. Number of different occupational classes and sections offered	/ / / / / / / / / / / / /	/
95. Placement of the chief administrator for occupational education on the organizational chart	/ / / / / / / / / / / / /	/
96. Societal benefits gained from occupational programs	/ / / / / / / / / / / / /	/

Decision Area - OPERATIONAL BUDGET continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Operational Budget. Be selective in the ratings.)

	Most Important	Least Important
97. Student information (enrollments, demand, abilities, interest, costs, graduates, placements, etc.)	/ / / / / / / / / / / / /	/
98. Procedures for communication between the Purchasing Department and faculty (providing updated budget balances, notification of changes and alterations in original requests, etc.)	/ / / / / / / / / / / / /	/

If a factor(s) which you consider important has not been identified, use the added spaces below to include it (them), accompanied by the appropriate rating(s).		
1.	/ / / / / / / / / / / / /	/
2.	/ / / / / / / / / / / / /	/

Decision Area - PROGRAM PLANNING

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Program Planning. Be selective in the ratings.)

	Most Important	Least Important
99. Board and top administrators' commitment to occupational education	/ / / / / / / / / / / / /	/
100. Program approval by Advisory Committees	/ / / / / / / / / / / / /	/
101. Recommendations from Advisory Committees	/ / / / / / / / / / / / /	/
102. Community needs met and unmet	/ / / / / / / / / / / / /	/

Decision Area - PROGRAM PLANNING continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Program Planning. Be selective in the ratings.)

	Most Important	Least Important
103. Needs assessment of identified target populations (disadvantaged, handicapped, minorities, other special populations)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
104. Program guidelines (scope, content, time, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
105. Assessment of all vocational programs available in the community	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
106. Knowledge of trade licensing requirements, local, state and national accrediting agency standards, state and federal legal requirements, etc.	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
107. Yearly evaluations to determine progress of program plans	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
108. Student/teacher ratios for programs	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
109. Faculty input (individuals, Departments, Divisions, Committees--esp. the Curriculum Committee, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
110. Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job market requirements, etc.	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
111. Expenses and income generated by each occupational program--present and projected relationships to the institution's financial status	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
112. Knowledge of Master Vocational Education Plan	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
113. Projected facility and equipment needs	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11

Decision Area - PROGRAM PLANNING

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Program Planning. Be selective in the ratings.)

	Most Important	Least Important
114. Student needs (desires, interests, supply, selection, demand, projections, successes, completers, evaluations, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
115. Changes anticipated in the job market	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
116. Availability of resource people with planning expertise to assist with planning and developing programs	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
117. Available facilities, equipment, and instructional supplies (texts, audio-visual, software, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
118. Evidence of interdisciplinary planning of campus resources and services into existing occupational programs	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11

If a factor(s) which you consider important has not been identified, use the added spaces below to include it (them), accompanied by the appropriate rating(s).		
1.	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
2.	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11

Decision Area - EVALUATION

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Evaluation. Be selective in the ratings.)

	Most Important	Least Important
119. Procedures for implementing recommendations for changes in occupational programs	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11

Decision Area - EVALUATION continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Evaluation. Be selective in the ratings.)

	Most Important	Least Important
120. Input from Advisory Committees into program evaluation	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
121. Knowledge of the requirements of various accrediting agencies (COPEs, trade licensing, Western States Accreditation Association, district and national certifying examinations, etc.)	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
122. The cost/effectiveness of occupational programs	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
123. Effectiveness of facilities (flexibility, utilization, adequacy, comparisons, etc.)	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
124. Negotiated and agreed-upon performance objectives for occupational education faculty evaluation of teaching excellence (classroom visitations, professional reading, etc.)	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
125. Evidence of an increase in the number of performance objectives established for faculty evaluation	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
126. Knowledge of the goals and specific objectives from each occupational area	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
127. Identification of occupational program manager on an organizational level commensurate with defined management function and on a lateral level with other managers who have equivalent responsibilities and authority	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
128. Identify where in the organizational hierarchy and with whom the responsibility for evaluation resides.	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11

Decision Area - EVALUATION continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Evaluation. Be selective in the ratings.)

	Most Important	Least Important
129. Follow-up information (enrollments, retention, placements, levels of training, abilities, student occupational goals and objectives, graduates, drop-outs, job-outs, completers, entering trade for which trained, successes, etc.)	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
130. Procedures for student evaluation of instruction	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
131. Knowledge of use to be made of evaluations	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
132. Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employees, etc.)	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
133. Criteria for and measurement of job success	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
134. Availability of job-focus information from former students in relation to instructional programs	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
135. Attitudes of faculty, administration, students, advisory committees, employers, and community toward evaluation of occupational education	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
136. Knowledge of who has the responsibility and authority for data collection	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11
137. Evidence of growth and modification of offerings over the past 5 years (levels and amounts of skill needed, most appropriate types of training, etc.)	/ / / / / / / / / / / / /	1 2 3 4 5 6 7 8 9 10 11

Decision Area - EVALUATION continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Evaluation. Be selective in the ratings.)

- | | Most
Important | Least
Important |
|--|---------------------------|---------------------------|
| 138. Evidence of continuing review of all occupational programs (elimination of duplications, identifying uniquenesses, examinations of past performances, e.g. placements, completion rates, relevancy, etc.) | / / / / / / / / / / / / / | / / / / / / / / / / / / / |

If a factor(s) which you consider important has not been identified, use the added spaces below to include it (them), accompanied by the appropriate rating(s).

- | | | |
|----|---------------------------|---------------------------|
| 1. | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 2. | / / / / / / / / / / / / / | / / / / / / / / / / / / / |

Decision Area - COORDINATION and DIRECTION

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Coordination and Direction. Be selective in the ratings.)

- | | Most
Important | Least
Important |
|---|---------------------------|---------------------------|
| 139. Information needs of Board members and administrators about occupational education (content, competencies, conceptual) | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 140. Administrative and Board commitment to ongoing functioning of occupational programs | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 141. Administrative feedback | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 142. Recommendations from the Advisory Committee | / / / / / / / / / / / / / | / / / / / / / / / / / / / |

Decision Area - COORDINATION and DIRECTION continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Coordination and Direction. Be selective in the ratings.)

- | | Most
Important | Least
Important |
|--|---------------------------|---------------------------|
| 143. Working effectiveness of the Advisory Committee with other program components | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 144. Knowledge of all community occupational training programs and the impact on each other (feeder high schools, transfer institutions, ROP's, private institutions, duplications, etc.) | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 145. Availability of jobs to accommodate handicaps of individuals | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 146. Needs of special student populations (equipment, facilities, satisfactory academic achievements, placements, etc.) | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 147. Community needs (information and projections of business and industry, population shifts, economic conditions and trends, etc.) | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 148. Employer feedback | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 149. Awareness of parents' wants | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 150. Evidence that curriculum changes are being made | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 151. Input from faculty (individuals, Divisions, Departments, Committees--esp. the Curriculum Committee, etc.) | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 152. Yearly evaluations to determine progress in meeting the goals and objectives (identification and removal of blockages, etc.) | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 153. Availability of qualified, interested instructors for ongoing coordination and direction of occupational education | / / / / / / / / / / / / / | / / / / / / / / / / / / / |

Decision Area - COORDINATION and DIRECTION continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Coordination and Direction. Be selective in the ratings.)

- | | Most
Important | Least
Important |
|--|-------------------------|-------------------------|
| 154. Release time allocated to coordination and direction of occupational programs | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 155. Knowledge of the availability and appropriateness of campus and community facilities | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 156. Locations of new types of work stations to fit new occupational programs | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 157. The availability of State and federal funds to meet the goals and objectives of each occupational program | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 158. The institution's financial commitment to the needs of special student populations | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 159. Commitment of the administration to support faculty in-service training programs (district workshops, state-wide seminars, national conferences, return-to-industry subsidies, planned summer government positions, etc.) | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 160. Availability of supplemental educational materials (tests, audio-visual, etc.) | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 161. Milage costs relative to vocational programs | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 162. Evidence that the Vocational Deans are involved in top-level, decision-making planning about occupational education | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 163. Evidence of occupational programs' fit into the career-ladder concept | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |

Decision Area - COORDINATION and DIRECTION continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Coordination and Direction. Be selective in the ratings.)

- | | Most
Important | Least
Important |
|--|-------------------------|-------------------------|
| 164. Evidence of the capabilities of a management team to carry out the direction and coordination of occupational education (coordinators, Curriculum Committees, faculty, division and department heads, etc.) | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 165. Evidence of a centralization of authority, overall program management, and accountability for occupational education into a single individual at the Dean's level | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 166. The availability of flexible, open-ended programs accommodating a student shift in occupational goals with a minimal time loss | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 167. Criteria to be used to inaugurate duplicate programs on another campus within the district | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 168. State standards and guidelines for coordination and direction of occupational education (State Vocational Plan, Education Code, other legislative measures, procedural requirements, etc.) | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 169. Evidence of strong leadership from the Chancellor's Office in establishing needs and priorities | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 170. Student information (enrollments, desires, needs placement and retention in industry, evaluation, demand, etc.) | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |
| 171. The ratio of number of students per coordinator | / / / / / / / / / / / / | 1 2 3 4 5 6 7 8 9 10 11 |

Decision Area - COORDINATION and DIRECTION continued . . .

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Coordination and Direction. Be selective in the ratings.)

- | | Most
Important | Least
Important |
|---|---------------------------|---------------------------|
| 182. Knowledge of the student flow through occupational programs at all educational levels and institutions (high school, adult school, community college, 4-year transfer institutions, private schools, etc.) | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 183. The philosophy and purpose of the institution and occupational education's place in the overall educational scheme | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 184. Criteria for determining whether or not the institution has reached its growth potential | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 185. Knowledge of the faculty's teaching goals and objectives to be able to make decisions about coordination and direction of occupational education | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 186. Credential requirements for salary increments | / / / / / / / / / / / / / | / / / / / / / / / / / / / |

If a factor(s) which you consider important has not been identified, use the added spaces below to include it (them), accompanied by the appropriate rating(s).

- | | |
|----|---------------------------|
| 1. | / / / / / / / / / / / / / |
| 2. | / / / / / / / / / / / / / |
-

Decision Area - OCCUPATIONAL COUNSELING, GUIDANCE, and PLACEMENT

Decision Area - OCCUPATIONAL COUNSELING, GUIDANCE, and PLACEMENT

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Occupational Counseling, Guidance, and Placement. Be selective in the ratings.)

- | | Most
Important | Least
Important |
|---|---------------------------|---------------------------|
| 172. The commitment of the institution to establish an occupational information system to guide students | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 173. Recommendations from the Advisory Committee | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 174. Evidence of effective liaison between community college counselors and high school counselors, Advisory Committees, occupational faculty, 4-year transfer occupational programs, etc.) | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 175. Knowledge of community agencies providing occupational counseling, guidance, and placement services | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 176. Procedures and instruments for objective and subjective student evaluations of occupational counseling, guidance, and placement programs | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 177. Cost/benefits analysis of occupational guidance and counseling | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 178. Availability of financial resources outside the institution for occupational guidance and counseling | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 179. Attitude of occupational faculty toward working with counselors | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 180. Qualifications for occupational counseling (attitudes, responsibilities, duties, etc.) | / / / / / / / / / / / / / | / / / / / / / / / / / / / |
| 181. Changes in the labor market requiring in-service training for counselors | / / / / / / / / / / / / / | / / / / / / / / / / / / / |

Decision Area - OCCUPATIONAL COUNSELING, GUIDANCE, and PLACEMENT

(Rate the importance of each information factor as it relates to effective planning for the Decision Area of Occupational Counseling, Guidance, and Placement. Be selective in the ratings.)

	Most Important	Least Important
187. Coordination of placement services with: all occupational programs, counselors from other districts and campuses, the com- munity, students, faculty, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
188. The role of placement services (careers, temporary employment, graduates, job- outs, work experience, part-time, spe- cific programs, accessibility, process- ing job requests, recruitment, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
189. Provisions for supportive staff require- ments (clerical, secretarial, aides, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
190. Evidence that students are selecting pro- grams in which they are successful	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
191. Evidence that students of all ability levels are being served	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
192. Student needs met and unmet (number of occupational students, day/evening makeup, occupational objectives, needs, desires, abilities, etc.)	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11
193. Comparisons of the effectiveness of different training methods	/ / / / / / / / / / / / /	/ / / / / / / / / / / / /
	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11

APPENDIX C

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january 16, 1976

dear occupational management
team member

The enclosed instrument is the third and final Communication in this Delphi series. Communication No. 3 has as its objective the bringing about of a consensus from the group about the degree of importance for each information factor as it relates to a specific decision area.

As you will recall, Communication No. 1 included 8 decision areas which are basic to a COPES evaluation study. For each decision area, you were asked to respond with 5 factors of information which you perceived would be needed and used to do effective planning to develop occupational education. After summarizing the responses, Communication No. 2 was returned. You were then requested to rank the degree of importance of each information factor to its decision area.

Communication No. 3 now seeks to know if you agree with the Median Ranking produced by the group. If you do agree with the ranking, no further mark is necessary. Should you disagree with the Median Importance Ranking, re-mark the ranking scale and give your reason(s) for the difference in degree of importance.

I am all too aware that this is a lengthy instrument. But I would remind you that we are really developing 8 different programs through a singular effort.

Although you may not have participated in a portion of--or even in the entire series--you are now U R G E D to have input with this Communication. Your response is important

- 1) To your institution: A separate report will be developed and sent to each participating institution providing a complete report on the rankings submitted by its management team.
- 2) To the Office of the Chancellor, California Community Colleges, Research Department: This study will hopefully be used as a basis for the development of a state-wide occupational information system.

Also this study is attempting to build a profile of the qualifications and background experiences of an occupational management team. Please take a few additional minutes to complete the 2-page (mostly checks) "Individual Qualifications and Background. . ." form and return it with Communication No. 3 in the enclosed envelope.

I know and understand the time you are taking to become involved in the growth and development of occupational education; your efforts are greatly appreciated.

sincerely


ellen bowers

enclosures 2

Respondent No. _____

COMMUNICATION NO. 3

Communication No. 1 identified 8 major decision areas from the COPES Study and requested that each member, who had been nominated as part of the institution's occupational management team, provide 5 factors of information which were perceived to be need in each of the decision areas.

Communication No. 2 followed with a compilation of the submitted factors of information. Each information factor was ranked on an 11-point scale as to its importance to that specific decision area. These rankings have been compiled and are reported in this Communication.

Communication No. 3 has 2 objectives:--

1. To communicate the median ranking of the group responses--it is indicated by an "Md" on the ranking scale
2. To request that you evaluate the ranking of each information factor
 - a. If you are in agreement with the median ranking of each of the information factors, no marking is necessary.
 - b. If you are not in agreement with the median ranking, please indicate this by re-ranking the factor so that it more accurately reflects your perception of the importance of the information factor.
 - c. After recording an "x" at a different ranking, indicate your reason(s) for the change under the "Comment" column.

REMEMBER: The information factors listed are to be considered as factors which should impact on the decision area.

E X A M P L E

A Given Decision Area

Information Factors	Ranking Scale											Comments
	Most Important					Least Important						
(a) Qualifications of Advisory Committee Members	/	/	/	Md	/	/	/	/	/	/	/	
	1	2	3	4	5	6	7	8	9	10	11	
(b) Knowledge of equipment requirements to establish program goals	/	/	/	Md	/	/	/	X	/	/	/	This information could be an input from subject matter people after program goals have been set.
	1	2	3	4	5	6	7	8	9	10	11	

Respondent No. _____

Decision Area - PROGRAM GOALS

Information Factors	Ranking Scale											Comments
	Most Important					Least Important						
1. Administrative and Board commitment to occupational education	/	/	/	/	/	/	/	/	/	/	/	
	1	2	3	4	5	6	7	8	9	10	11	
2. Costs of establishing and maintaining programs for occupational education	/	/	/	/	/	/	/	/	/	/	/	
	1	2	3	4	5	6	7	8	9	10	11	
3. Input from Advisory Committee	/	/	/	/	/	/	/	/	/	/	/	
	1	2	3	4	5	6	7	8	9	10	11	
4. Knowledge of program offerings at feeder high schools, 4-year transfer institutions, private schools, and other educational agencies	/	/	/	/	/	/	/	/	/	/	/	
	1	2	3	4	5	6	7	8	9	10	11	
5. Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations tions, etc.)	/	/	/	/	/	/	/	/	/	/	/	
	1	2	3	4	5	6	7	8	9	10	11	
6. Facilities needed and available	/	/	/	/	/	/	/	/	/	/	/	
	1	2	3	4	5	6	7	8	9	10	11	
7. Faculty input	/	/	/	/	/	/	/	/	/	/	/	
	1	2	3	4	5	6	7	8	9	10	11	
8. Changes which reflect in-service-training needs	/	/	/	/	/	/	/	/	/	/	/	
	1	2	3	4	5	6	7	8	9	10	11	

Decision Area - PROGRAM GOALS - continued . . .

9. Availability of private, public, and campus placement services	/ / / / / Md / / / / / / / / / /
10. Programs needed to make the offerings sufficiently extensive to meet industrial and student needs	/ / / / / Md / / / / / / / / / /
11. The availability of programs at different preparation levels (entry, upgrading, promotional, retraining, etc.)	/ / / / / Md / / / / / / / / / /
12. Knowledge of legal requirements for employability and upward mobility	/ / / / / Md / / / / / / / / / /
13. Knowledge of accreditation requirements	/ / / / / Md / / / / / / / / / /
14. Student needs met and unmet (recruitment & selection, vocational counseling needs, placement needs, interests, desires, former, current, potential, mobility, etc.)	/ / / / / Md / / / / / / / / / /
15. Knowledge of how to translate ideas, comments, etc., into usable, realistic goal statements	/ / / / / Md / / / / / / / / / /
16. Philosophy and purpose of the institution	/ / / / / Md / / / / / / / / / /
17. Relationship existing between education and industry	/ / / / / Md / / / / / / / / / /

Decision Area - PROGRAM GOALS - continued . . .

18. Knowledge of unemployment and welfare benefits in relation to earnings potential afforded students by existing programs	/ / / / / / / / / / / Md / / / / / /
(Factor added by one individual)	/ Md / / / / / / / / / / / / / / / /
19. Knowledge of subject materials	/ / / / / / / / / / / / / / / /

Decision Area - ADVISORY COMMITTEES

Information Factor	Ranking Scale		Comments
	Most Important	Least Important	
20. Administrative and Board policy toward Advisory Committees (calling for membership, establishing goals, paying travel costs of members, etc.)	/ / / / / Md / / / / / / / / / /		
21. Input of Advisory Committee at all administrative levels (including reporting directly to Board, etc.)	/ / / / / Md / / / / / / / / / /		
22. Communications procedures and techniques between the Advisory Committees, administration, and faculty	/ / / / / Md / / / / / / / / / /		
23. Procedures for evaluating the activities of the Advisory Committees	/ / / / / Md / / / / / / / / / /		
24. Procedures for dissemination of information about occupational programs to the community	/ / / / / Md / / / / / / / / / /		

Decision Area - PROGRAM OBJECTIVES - continued . . .

40. Commitment of Board and top administration to occupational education	<u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
41. Cost analysis of program objectives	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
42. Evidence of reaching program objectives	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
43. Faculty input (Curriculum Committee, etc.)	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
44. Number and qualifications for faculty required to accomplish program objectives	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
45. Facilities and equipment required and available to meet program objectives	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
46. Changes requiring in-service training	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
47. Knowledge of requirements from State licensing agencies, 4-year transfer institutions, national accrediting agencies, etc.	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
48. Knowledge of most appropriate organizational structure to allow the accomplishment of program objectives	/ / / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
49. The availability of work experience opportunities for most students	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /

Decision Area - PROGRAM OBJECTIVES - continued . . .

50. The relationship of various instructional strategies to accomplish program objectives	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
51. Knowledge of components of program objectives (degree requirements, length of program, specific skills, levels, related learnings, and cluster areas)	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
52. Number of available and committed occupational students	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
53. Student characteristics (types, background, needs, expectations, aspirations, goals, etc.)	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
54. Input from current and former students	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
55. Compatibility of anticipated programs with existing programs	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
56. Knowledge of anticipated technological and industrial job requirements	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
57. Input based on research findings	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
58. Procedures for dissemination of program objectives information	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /
59. Knowledge of how to write program objectives	/ / / <u>Md</u> / 1 2 3 4 5 6 7 8 9 10 11 /

Decision Area - OPERATIONAL BUDGET - continued . . .

81. Basis on which funds are to be allocated	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
82. Cost analysis of each occupational program	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
83. Salary schedule criteria	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
84. Staffing requirements (the number of instructors available and needed, areas of expertise, paraprofessionals, aides, readers, clerical, secretarial, etc.)	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
85. Student/teacher ratio for all occupational programs	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
86. Attitude of administration regarding part-time/hourly staffing patterns	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
87. Cost per student by program	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
88. Projected needs for program materials to meet program goals and objectives (texts, references, supplies, etc.)	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
89. Library resources	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
90. Attitude of administration toward in-service educational opportunities (conference attendance, curriculum development, work experience, etc.)	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
91. Program priorities	/ / / / / 1 2 3 4 5 6 7 8 9 10 11

Decision Area - OPERATIONAL BUDGET - continued . . .

92. Estimates of anticipated program growth	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
93. Historical data for ongoing program (enrollments, placements, budget costs, etc.)	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
95. Relationships between the number of new classes opening in liberal arts areas and the number of new-class starts for occupational areas	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
96. Number of different occupational classes and sections offered	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
97. Placement of the chief administrator for occupational education on the organizational chart	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
98. Societal benefits gained from occupational programs	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
99. Student information (enrollments, demand, abilities, interest, costs, graduates, placements, etc.)	/ / / / / 1 2 3 4 5 6 7 8 9 10 11
100. Procedures for communication between the Purchasing Department and faculty (providing updated budget balances, notification of changes and alterations in original requests, etc.)	/ / / / / 1 2 3 4 5 6 7 8 9 10 11

110. Yearly evaluations to determine progress of program plans	/ / / / Md / / / / / / / /
111. Faculty input (individuals, departments, divisions, committees--esp. the Curriculum Committee, etc.)	/ / / / Md / / / / / / / /
112. Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job market requirements, etc.	/ / Md / / / / / / / / / /
113. Expenses and income generated by each occupational program --present and projected relationships to the institution's financial status	/ / / / Md / / / / / / / /
114. Knowledge of Vocational Education's Master Plan	/ / / / Md / / / / / / / /
115. Student/teacher ratios for programs	/ / / / Md / / / / / / / /
116. Student needs (desires, interests, supply, selection, demand, projections, successes, completers, evaluations, etc.)	/ / / Md / / / / / / / / / /
117. Changes anticipated in the job market	/ / Md / / / / / / / / / /
118. Availability of resource people with planning expertise to assist with planning and developing programs	/ / / Md / / / / / / / / / /

Decision Area - EVALUATION - continued . . .

132. Procedures for student evaluation of instruction	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11	
133. Knowledge of use to be made of evaluations	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11	
134. Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employees, etc.)	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11	
135. Criteria for and measurement of job success	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11	
136. Availability of job-focus information from former students in relation to instructional programs	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11	
137. Attitudes of faculty, administration, students, advisory committees, employers, and community toward evaluation of occupational programs	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11	
138. Knowledge of who has the responsibility and authority for data collection	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11	
139. Evidence of growth and modification of offerings over the past 5 years (levels and amounts of skill needed, most appropriate types of training, etc.)	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11	
(Factor added by one individual)		
140. Procedures and criteria for employed former students' input	/ Md / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11	

Decision Area - EVALUATION - continued . . .

141. Evidence of continuing review of all occupational programs (elimination of duplications, identifying uniquenesses, examinations of past performances, e.g. placements, completion rates, relevancy, etc.)	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11	
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Decision Area - COORDINATION and DIRECTION

Information Factor	Ranking Scale		Comments
	Most Important	Least Important	
142. Information needs of Board members and administrators about occupational education (content, competencies, conceptual)	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11		
143. Administrative and Board commitment to ongoing functioning of occupational programs	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11		
144. Administrative feedback	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11		
145. Recommendations from the Advisory Committee	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11		
146. Working effectiveness of the Advisory Committee with other program components	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11		
147. Knowledge of all community occupational training programs and the impact on each other (feeder high schools, transfer institutions, ROP's, private institutions, duplications, etc.)	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11		

Decision Area - COORDINATION and DIRECTION - continued . . .

148. Availability of jobs to accommodate handicaps of individuals	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
149. Needs of special student populations (equipment, facilities, satisfactory academic achievements, placements, etc.)	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
150. Community needs (information and projections of business and industry, population shifts, economic conditions and trends, etc.)	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
151. Employer feedback	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
152. Awareness of parents' wishes	/ / / / / / / / / / Md / / / / / / 1 2 3 4 5 6 7 8 9 10 11
153. Evidence that curriculum changes are being made	/ / / / / / / / / / Md / / / / / / 1 2 3 4 5 6 7 8 9 10 11
154. Input from faculty (individuals, Divisions, Departments, Committees--esp. the Curriculum Committee, etc.)	/ / / / / / / / / / Md / / / / / / 1 2 3 4 5 6 7 8 9 10 11
155. Yearly evaluations to determine progress in meeting the goals and objectives (identification and removal of blockages, etc.)	/ / / / / / / / / / Md / / / / / / 1 2 3 4 5 6 7 8 9 10 11
156. Release time allocated to coordination and direction of occupational programs	/ / / / / / / / / / Md / / / / / / 1 2 3 4 5 6 7 8 9 10 11

Decision Area - COORDINATION and DIRECTION - continued . . .

157. Availability of qualified, interested instructors for ongoing coordination and direction of occupational education	/ / / / Md / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
158. Knowledge of the availability and appropriateness of campus and community facilities	/ / / / / / / / / / Md / / / / / / 1 2 3 4 5 6 7 8 9 10 11
159. Locations of new types of work stations to fit new occupational programs	/ / / / / / / / / / Md / / / / / / 1 2 3 4 5 6 7 8 9 10 11
160. Availability of State and Federal funds to meet the goals and objectives of each occupational program	/ / / / / / / / / / Md / / / / / / 1 2 3 4 5 6 7 8 9 10 11
161. Institutional financial commitment to the needs of special student populations	/ / / / / / / / / / Md / / / / / / 1 2 3 4 5 6 7 8 9 10 11
162. Commitment of the administration to support faculty in-service training programs (district workshops, state-wide seminars, national conferences, return-to-industry subsidies, planned summer government positions, etc.)	/ / / / / / / / / / Md / / / / / / 1 2 3 4 5 6 7 8 9 10 11
163. Availability of supplemental educational materials (tests, audio-visual, etc.)	/ / / / / / / / / / Md / / / / / / 1 2 3 4 5 6 7 8 9 10 11
164. Milage costs relative to vocational programs	/ / / / / / / / / / / / Md / / / / / / 1 2 3 4 5 6 7 8 9 10 11

Decision Area - COORDINATION and DIRECTION - continued . . .

165. Evidence that the Vocational Deans are involved in top-level, decision-making planning about occupational education	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
166. Evidence of occupational programs' fit into the career-ladder concept	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
167. Evidence of the capabilities of a management team to carry out the direction and coordination of occupational education (coordinators, Curriculum Committees, faculty, division and department heads, etc.)	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
168. Evidence of a centralization of authority, overall program management, and accountability for occupational education into a single individual at the Dean's level	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
169. Availability of flexible, open-ended programs accommodating a student shift in occupational goals with a minimal time loss	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
170. Criteria to be used to inaugurate duplicate programs on another campus within the district	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
171. Evidence of strong leadership from the Chancellor's Office in establishing needs and priorities	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11

Decision Area - COORDINATION and DIRECTION - continued . . .

172. State standards and guidelines for coordination and direction of occupational education (State Vocational Plan, Education Code, other legislative measures, procedural requirements, etc.)	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
173. Student information (enrollments, desires, needs, placement and retention in industry, evaluation, demand, etc.)	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
174. Ratio of number of students per coordinator	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
175. Knowledge of the student flow through occupational programs at all educational levels and institutions (high school, adult school, community college, 4-year transfer institutions, private schools, etc.)	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
176. The philosophy and purpose of the institution and occupational education's place in the overall educational scheme	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
177. Criteria for determining whether or not the institution has reached its growth potential	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11
178. Knowledge of the faculty's teaching goals and objectives to be able to make decisions about coordination and direction of occupational education	/ / / / / / / / / / / / / / / / 1 2 3 4 5 6 7 8 9 10 11

Decision Area - COORDINATION and DIRECTION - continued . . .

165. Evidence that the Vocational Deans are involved in top-level, decision-making planning about occupational education	/ / / / / / / / / / / / / / / Md / 1 2 3 4 5 6 7 8 9 10 11
166. Evidence of occupational programs' fit into the career-ladder concept	/ / / / / / / / / / / / / / / Md / 1 2 3 4 5 6 7 8 9 10 11
167. Evidence of the capabilities of a management team to carry out the direction and coordination of occupational education (coordinators, Curriculum Committees, faculty, division and department heads, etc.)	/ / / / / / / / / / / / / / / Md / 1 2 3 4 5 6 7 8 9 10 11
168. Evidence of a centralization of authority, overall program management, and accountability for occupational education into a single individual at the Dean's level	/ / / / / / / / / / / / / / / Md / 1 2 3 4 5 6 7 8 9 10 11
169. Availability of flexible, open-ended programs accommodating a student shift in occupational goals with a minimal time loss	/ / / / / / / / / / / / / / / Md / 1 2 3 4 5 6 7 8 9 10 11
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Decision Area - COORDINATION and DIRECTION - continued . . .

172. State standards and guidelines for coordination and direction of occupational education (State Vocational Plan, Education Code, other legislative measures, procedural requirements, etc.)	/ / / / / / / / / / / / / / / Md / 1 2 3 4 5 6 7 8 9 10 11
173. Student information (enrollments, desires, needs, placement and retention in industry, evaluation, demand, etc.)	/ / / / / / / / / / / / / / / Md / 1 2 3 4 5 6 7 8 9 10 11
174. Ratio of number of students per coordinator	/ / / / / / / / / / / / / / / Md / 1 2 3 4 5 6 7 8 9 10 11
175. Knowledge of the student flow through occupational programs at all educational levels and institutions (high school, adult school, community college, 4-year transfer institutions, private schools, etc.)	/ / / / / / / / / / / / / / / Md / 1 2 3 4 5 6 7 8 9 10 11
176. The philosophy and purpose of the institution and occupational education's place in the overall educational scheme	/ / / / / / / / / / / / / / / Md / 1 2 3 4 5 6 7 8 9 10 11
177. Criteria for determining whether or not the institution has reached its growth potential	/ / / / / / / / / / / / / / / Md / 1 2 3 4 5 6 7 8 9 10 11
178. Knowledge of the faculty's teaching goals and objectives to be able to make decisions about coordination and direction of occupational education	/ / / / / / / / / / / / / / / Md / 1 2 3 4 5 6 7 8 9 10 11

Decision Area - OCCUPATIONAL COUNSELING, GUIDANCE, and PLACEMENT

Decision Area - OCCUPATIONAL COUNSELING, GUIDANCE, and PLACEMENT

186. Availability of financial resources outside the institution for occupational guidance and counseling	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Md</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>1 2 3 4 5 6 7 8 9 10 11</div>
187. Attitude of occupational faculty toward working with counselors	<div> <div></div> <div></div> <div>Md</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>1 2 3 4 5 6 7 8 9 10 11</div>
188. Qualifications for occupational counseling (attitudes, responsibilities, duties, etc.)	<div> <div></div> <div></div> <div>Md</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>1 2 3 4 5 6 7 8 9 10 11</div>
189. Changes in the labor market requiring in-service training for counselors	<div> <div></div> <div></div> <div>Md</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>1 2 3 4 5 6 7 8 9 10 11</div>
190. Coordination of placement services with: all occupational programs, counselors from other districts and campuses, the community, students, faculty, etc.	<div> <div></div> <div></div> <div></div> <div>Md</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>1 2 3 4 5 6 7 8 9 10 11</div>
191. The role of placement services (careers, temporary employment, graduates, job-outs, work experience, part-time, specific programs, accessibility, processing job requests, recruitment, etc.)	<div> <div></div> <div></div> <div></div> <div>Md</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>1 2 3 4 5 6 7 8 9 10 11</div>
192. Provisions for supportive staff requirements (clerical, secretarial, aides, etc.)	<div> <div></div> <div></div> <div></div> <div>Md</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>1 2 3 4 5 6 7 8 9 10 11</div>
194. Evidence that students of all ability levels are being served	<div> <div></div> <div></div> <div></div> <div>Md</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>1 2 3 4 5 6 7 8 9 10 11</div>

Decision Area - OCCUPATIONAL COUNSELING, GUIDANCE, and PLACEMENT

195. Student needs met and unmet (number of occupational stu- dents, day/evening makeup, occupational objectives, needs, desires, abilities, etc.)	
196. Comparisons of the effective- ness of different training methods	

[illegible]

Age (check one) Sex (Check one)

20--29 _____	40--49 _____	60 and over _____	Male _____
30--39 _____	50--59 _____		Female _____

What degree(s) do you hold?
 Bachelor _____ Master _____ Doctorate _____ Special _____
 Other _____
 (Specify)

What is the title of your present position _____	Division Chairperson _____
Dean Occupational Education _____	Division of _____
Director Occupational Education _____	Department Chairperson _____
Assistant Dean Occupational Education _____	Department of _____
Associate Dean Occupational Education _____	Instructor _____
Assistant Director Occupational Education _____	Area of _____
Other _____	Other _____
(Specify) _____	(Specify) _____

0-1 2-5 6-10 11 and over

Supervision of teachers _____	Program & Personnel Scheduling _____
Advising students _____	Teaching _____
Planning programs _____	Reporting _____
Budgeting _____	Research _____
Student Placement _____	Other (Specify) _____
Public Relations _____	

How many years have you been in educational administration?

0-1	2-5	6-10	11 and over
-----	-----	------	-------------

Elementary _____ Community College _____ Other (Specify) _____
Secondary _____ Higher Education _____

What was the title of the last previous position held?

0-1 2-5 6-10 11 and over

Elementary _____ Community College _____ Other (Specify) _____
Secondary _____ Higher Education _____

How many years have you taught?

0-1	2-5	6-10	11 and over
-----	-----	------	-------------

(Indicate the approximate number of years at each level)

Elementary _____ years _____	Community College _____ years _____
Secondary _____ years _____	Higher Education _____ years _____
Other _____	_____ years _____

(Specify)

	Years
	Years
	Years
	Years
	Years

0-1 2-5 6-10 11 and over

In what professional and trade organization do you hold membership. Please list.
Place a check mark to indicate status of membership.

Professional/Trade Organizations

APPENDIX D

OVERALL RANK	DECISION AREA	FACTOR NUMBER	FACTOR	COLLEGE RANK							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
1.0	Program Objectives	40	Commitment of board and administration to occupational education	2.0	1.5	3.0	3.5	3.0	2.0	1.0	2.5
2.0	Operational Budget	100	Board and top administrator's commitment to occupational education	2.0	4.5	3.0	3.5	3.0	2.0	2.5	2.5
3.0	Program Goals	19	Knowledge of subject materials	4.0	3.0	3.0	3.5	3.0	4.0	2.5	27.0
4.0	Program Goals	1	Administrative and board commitment to occupational education	2.0	4.5	6.0	3.5	3.0	2.0	5.0	2.5
5.0	Program Planning	139	Procedures and criteria for employed former student's input	5.5	1.5	3.0	3.5	3.0	6.0	4.0	27.0
6.0	Advisory Committees	36	Procedures to inform advisory committee members of the institution's capabilities: its potential and its limitations	5.5	14.5	3.0	3.5	28.0	5.0	6.5	2.5
7.5	Operational Budget	65	The training needs of the community, county, and state	9.5	14.5	17.5	7.0	21.0	16.5	6.5	15.0
7.5	Coord. and Direction	150	Employer feedback	7.0	7.0	17.5	18.0	10.0	16.5	18.5	15.0
9.5	Operational Budget	64	Administrative attitudes toward providing financial support of occupational education	9.5	14.5	17.5	18.0	21.0	16.5	9.5	15.0

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
9.5	Coord. and Direction	156	Availability of qualified interested instructors for ongoing coordination and direction of occupational education	14.5	14.5	17.5	18.0	10.0	16.5	9.5	15.0
12.5	Program Objectives	56	Knowledge of anticipated technological and industrial job requirements	9.5	22.0	17.5	18.0	10.0	16.5	18.5	15.0
12.5	Program Planning	116	Changes anticipated in the job market	14.5	14.5	17.5	18.0	21.0	16.5	9.5	15.0
12.5	Program Planning	130	Follow-up information (enrollments, retention, placements, levels of training, abilities, student occupational goals and objectives, graduates, drop-outs, completers, entering trade for which trained, successes, etc.)	21.5	14.5	17.5	18.0	10.0	7.5	18.5	15.0
12.5	Occ. Coun. Guid./Plac.	187	Qualifications for occupational counseling (attitudes, responsibilities, duties, etc.)	14.5	14.5	17.5	18.0	10.0	16.5	18.5	15.0
15.5	Program Objectives	45	Facilities and equipment required and available to meet program objectives	21.5	14.5	17.5	18.0	10.0	16.5	18.5	15.0

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
15.5	Operational Budget	84	Staffing requirements (the number of instructors available and needed, areas of expertise, para-professionals, aides, readers, clerical, secretarial, etc.)	21.5	14.5	17.5	18.0	10.0	16.5	18.5	15.0
18.5	Advisory Committees	30	Faculty attitude toward meeting with and accepting recommendations from the advisory committee	21.5	14.5	17.5	18.0	21.0	16.5	18.5	15.0
18.5	Program Objectives	37	Community needs--current and anticipated	21.5	22.0	17.5	18.0	10.0	7.5	26.0	15.0
18.5	Coord. and Direction	142	Administrative and board commitment to ongoing functioning of occupational programs	9.5	26.0	17.5	18.0	10.0	16.5	18.5	15.0
18.5	Coord. and Direction	179	The institutional commitment to establish an occupational information system to guide students	14.5	24.0	17.5	18.0	21.0	16.5	9.5	15.0
21.5	Program Planning	111	Evidence of faculty expertise as demonstrated by skill competencies, relationships with occupational field, and knowledge of job market requirements, etc.	21.5	7.0	17.5	18.0	21.0	25.0	18.5	15.0

OVERALL RANK	DECISION AREA	FACTOR NUMBER	FACTOR	COLLEGE RANK							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
21.5	Program Planning	133	Employer feedback (attitudes toward evaluation of training programs, satisfaction with student employees, etc.)	14.5	7.0	17.5	18.0	21.0	16.5	18.5	106.5
23.0	Advisory Committees	27	Attitude of leaders in business and industry toward updating and improving personnel in their fields	21.5	14.5	17.5	18.0	21.0	16.5	27.0	15.0
24.0	Program Planning	121	Input from advisory committees into program evaluation	21.5	14.5	17.5	18.0	21.0	26.5	18.5	15.0
25.0	Program Planning	101	Program approval by advisory committees	26.5	26.0	17.5	18.0	21.0	16.5	18.5	15.0
26.0	Coord. and Direction	164	Evidence that the vocational deans are involved in top-level, decision-making planning about occupational education	28.0	26.0	17.5	18.0	21.0	16.5	18.5	15.0
27.0	Coord. and Direction	144	Recommendations from the advisory committee	14.5	29.5	17.5	18.0	21.0	26.5	18.5	15.0
28.0	Program Goals	5	Community needs (to include manpower supply, job availability, labor market analysis, job requirements, employer demands, special populations etc.)	26.5	22.0	17.5	18.0	21.0	28.0	28.0	15.0

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
30.0	Program Goals	17	Relationship existing between education and industry	32.5	63.5	68.5	68.0	86.5	71.5	29.5	66.5
30.0	Program Planning	108	Projected facility and equipment needs	57.5	63.5	68.5	68.0	40.5	71.5	29.5	66.5
30.0	Coord. and Direction	155	Release time allocated to coordination and direction of occupational programs	29.0	104.5	68.5	68.0	29.5	39.5	36.5	66.5
33.0	Program Goals	10	Programs needed to make the offerings sufficiently extensive to meet industrial and student needs	32.5	63.5	68.5	68.0	40.5	32.0	59.5	66.5
33.0	Program Objectives	44	Number and qualifications for faculty required to accomplish program objectives	81.0	29.5	68.5	68.0	86.5	29.0	45.0	66.5
33.0	Program Planning	107	Knowledge of trade licensing requirements, local, state and national accrediting agency standards, state and federal legal requirements, etc.	41.5	29.5	68.5	68.0	86.5	71.5	31.5	66.5
35.5	Program Goals	14	Student needs met and unmet (recruitment and selection, vocational counseling needs, placement, needs, interests, desires, former, current, potential, mobility, etc.)	32.5	63.5	68.5	68.0	86.5	32.0	45.0	66.5

OVERALL RANK	DECISION AREA	FACTOR NUMBER	FACTOR	COLLEGE RANK							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
35.5	Program Planning	122	Knowledge of the requirements of various accrediting agencies (COPEs, trade licensing, Western States Accreditation Association, district and national certifying examinations, etc.)	41.5	63.5	68.5	68.0	59.5	32.0	31.5	137.5
37.5	Operational Budget	67	Present condition and availability of instructional equipment as it reflects the equipment used in industry	57.5	63.5	68.5	68.0	40.5	71.5	36.5	66.5
37.5	Operational Budget	79	Total district budget plan	30.0	63.5	68.5	68.0	40.5	71.5	82.0	66.5
40.5	Program Objectives	54	Input from current and former students	57.5	63.5	68.5	68.0	40.5	39.5	59.5	66.5
40.5	Operational Budget	66	Long-range community needs mirrored by planned program changes	57.5	63.5	68.5	68.0	59.5	71.5	36.5	66.5
40.5	Operational Budget	86	The attitude of the administration regarding part-time/hourly staffing patterns	41.5	63.5	68.5	68.0	86.5	71.5	36.5	66.5
40.5	Coord. and Direction	149	Community needs (information and projections of business and industry, population shifts, economic conditions and trends, etc.)	57.5	63.5	68.5	68.0	59.5	39.5	45.0	66.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
45.0	Program Objectives	42	Evidence of reaching program objectives	81.0	63.5	68.5	68.0	40.5	71.5	45.0	66.5
45.0	Program Planning	106	Assessment of all vocational programs available in the community	81.0	63.5	68.5	68.0	86.5	39.5	36.5	66.5
45.0	Coord. and Direction	172	Student information (enrollments, desires, needs, placement and retention in industry, evaluation, demand, etc.)	41.5	63.5	68.5	68.0	86.5	39.5	59.5	66.5
45.0	Occ. Coun. Guid./Plac.	191	Provisions for supportive staff requirements (clerical, secretarial, aides, etc.)	41.5	63.5	68.5	68.0	40.5	71.5	82.0	66.5
45.0	Occ. Coun. Guid./Plac.	193	Student needs met and unmet (number of occupational students, day/evening makeup, occupational objectives, needs, desires, abilities, etc.)	57.5	63.5	68.5	68.0	86.5	39.5	45.0	66.5
54.0	Operational Budget	70	Minimum and maximum equipment needs to accomplish goals and objectives of program	81.0	63.5	68.5	68.0	40.5	71.5	59.5	66.5
54.0	Operational Budget	91	Program priorities	81.0	63.5	68.5	68.0	59.5	71.5	45.0	66.5

OVERALL RANK	DECISION AREA	FACTOR NUMBER	FACTOR	COLLEGE RANK							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
54.0	Program Planning	115	Student needs (desires, inter- ests, supply, selection, demand, projections, successes, complet- ers, evaluations, etc.)	81.0	63.5	68.5	68.0	86.5	39.5	45.0	66.5
54.0	Program Planning	118	Available facilities, equipment, and instructional supplies (texts, audio-visual, softwear, etc.)	57.5	63.5	68.5	68.0	59.5	100.0	36.5	66.5
54.0	Program Planning	132	Knowledge of use to be made of evaluations	81.0	63.5	68.5	68.0	40.5	39.5	82.0	66.5
54.0	Program Planning	134	Criteria for and measurement of job success	81.0	63.5	68.5	68.0	40.5	39.5	82.0	66.5
54.0	Coord. and Direction	154	Yearly evaluations to determine progress in meeting the goals and objectives (identification and removal of blockages, etc.)	81.0	63.5	68.5	68.0	59.5	32.0	82.0	66.5
54.0	Coord. and Direction	161	Commitment of the administration to support faculty in-service training programs (district work- shops, statewide seminars, national conferences, return-to-industry subsidies, planned summer govern- ment positions, etc.)	41.5	63.5	68.5	68.0	86.5	71.5	59.5	66.5
54.0	Coord. and Direction	168	The availability of flexible, open-ended programs accommodating a student shift in occupational goals with a minimal time loss	57.5	97.0	68.5	68.0	40.5	71.5	59.5	66.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
54.0	Occ. Coun. Guid./Plac.	181	Evidence of effective liaison between community college counselors, advisory committees, occupational faculty, 4-year transfer occupational programs, etc.)	32.5	63.5	68.5	68.0	40.5	71.5	100.0	66.5
54.0	Occ. Coun. Guid./Plac.	182	Knowledge of community agencies providing occupational counseling, guidance, and placement services	41.5	63.5	68.5	68.0	59.5	71.5	82.0	66.5
54.0	Occ. Coun. Guid./Plac.	186	Attitude of occupational faculty toward working with counselors	41.5	63.5	68.5	68.0	86.5	71.5	59.5	66.5
54.0	Occ. Coun. Guid./Plac.	189	Coordination of placement services with all occupational programs, counselors from other districts and campuses, the community, students, faculty, etc.)	41.5	63.5	68.5	68.0	59.5	71.5	82.0	66.5
67.5	Program Objectives	39	Community input (advisory committee, etc.)	57.5	63.5	68.5	68.0	59.5	102.0	36.5	66.5
67.5	Operational Budget	72	Identified work experience and practicum sites	57.5	97.0	68.5	68.0	40.5	71.5	82.0	66.5
67.5	Operational Budget	81	Basis on which funds are to be allocated	57.5	97.0	68.5	68.0	59.5	71.5	59.5	66.5

OVERALL RANK	DECISION AREA	FACTOR NUMBER	FACTOR	COLLEGE RANK							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
67.5	Program Planning	103	Community needs met and unmet	81.0	63.5	68.5	68.0	86.5	71.5	45.0	66.5
67.5	Program Planning	105	Program guidelines (scope, content, time, etc.)	57.5	63.5	68.5	68.0	86.5	71.5	59.5	66.5
67.5	Program Planning	127	Knowledge of the goals and specific objectives from each occupational area	81.0	63.5	68.5	68.0	59.5	39.5	82.0	66.5
67.5	Program Planning	135	Availability of job-focus information from former students in relation to instructional programs	81.0	63.5	68.5	68.0	40.5	71.5	82.0	66.5
67.5	Program Planning	137	Knowledge of who has the responsibility and authority for data collection	41.5	63.5	68.5	68.0	86.5	71.5	82.0	66.5
67.5	Coord. and Direction	143	Administrative feedback	41.5	97.0	68.5	68.0	86.5	71.5	59.5	66.5
67.5	Coord. and Direction	158	Locations of new types of work stations to fit new occupational programs	41.5	63.5	68.5	68.0	59.5	71.5	96.0	66.5
67.5	Coord. and Direction	160	The institutional financial commitment to the needs of special student populations	57.5	63.5	68.5	68.0	86.5	71.5	59.5	66.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
67.5	Coord. and Direction	166	Evidence of the capabilities of a management team to carry out the direction and coordination of occupational education (coordinators, curriculum committees, faculty, division and department heads, etc.)	41.5	63.5	68.5	68.0	86.5	71.5	82.0	66.5
67.5	Occ. Coun. Guid./Plac.	190	The role of placement services (careers, temporary employment, graduates, jobouts, work experience, part-time, specific programs, accessibility, processing job requests, recruitment, etc.)	41.5	63.5	68.5	68.0	40.5	71.5	100.0	66.5
67.5	Occ. Coun. Guid./Plac	192	Evidence that students of all ability levels are being served	81.0	63.5	68.5	68.0	40.5	71.5	82.0	66.5
79.0	Program Goals	6	Facilities needed and available	98.0	63.5	29.0	68.0	39.5	71.5	96.0	66.5
79.0	Operational Budget	92	Estimates of anticipated program growth	81.0	63.5	68.5	68.0	86.5	71.5	59.5	66.5
79.0	Program Planning	102	Recommendations from advisory committees	81.0	63.5	68.5	68.0	86.5	71.5	59.5	66.5
79.0	Program Planning	120	Procedures for implementing recommendations for changes in occupational programs	81.0	63.5	68.5	68.0	59.5	71.5	82.0	66.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
79.0	Program Planning	132	Evidence of growth and modification of offerings over the past five years (levels and amounts of skill needed, most appropriate types of training, etc.)	81.0	63.5	68.5	68.0	86.5	71.5	59.5	66.5
79.0	Program Planning	140	Evidence of continuing review of all occupational programs (elimination of duplications, identifying uniquenesses, examinations of past performances, e.g. placements, completion rates, relevancy, etc.)	81.0	63.5	68.5	68.0	86.5	71.5	59.5	66.5
79.0	Coord. and Direction	146	Knowledge of all community occupational training programs and the impact on each other (feeder high schools, transfer institutions, ROP'S, private institutions, duplications, etc.)	81.0	63.5	68.5	68.0	86.5	71.5	59.5	66.5
79.0	Coord. and Direction	157	Knowledge of the availability and appropriateness of campus and community facilities	57.5	63.5	68.5	68.0	86.5	71.5	82.0	66.5
79.0	Occ. Coun. Guid./Plac.	188	Changes in the labor market requiring in-service training for counselors	81.0	63.5	68.5	68.0	59.5	71.5	82.0	66.5
86.5	Advisory Committees	24	Procedures for dissemination of information about occupational programs to the community	57.5	63.5	68.5	68.0	40.5	71.5	103.5	66.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
86.5	Operational Budget	51	Knowledge of components of program objectives (degree requirements, length of program, specific skills, levels, related learnings, and cluster areas)	81.0	63.5	68.5	68.0	86.5	71.5	82.0	66.5
86.5	Operational Budget	62	Recommendations and approval from the advisory committee	81.0	97.0	68.5	68.0	86.5	71.5	59.5	66.5
86.5	Program Planning	124	Effectiveness of facilities (flexibility, utilization, adequacy, comparisons, etc.)	98.0	63.5	68.5	68.0	59.5	71.5	82.0	66.5
86.5	Program Planning	145	Working effectiveness of the advisory committee with other program components	57.5	63.5	68.5	68.0	86.5	71.5	96.0	66.5
86.5	Coord. and Direction	162	Availability of supplemental educational materials (texts, audio-visual, etc.)	81.0	63.5	68.5	68.0	86.5	71.5	82.0	66.5
91.5	Advisory Committees	22	Communications procedures and techniques between the advisory committees, administration, and faculty	81.0	63.5	68.5	68.0	59.5	71.5	100.0	66.5
91.5	Advisory Committees	34	Procedures for advisory committee members to provide assistance to student and graduate placements	98.0	63.5	68.5	68.0	86.5	71.5	82.0	66.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
91.5	Program Planning	141	Information needs of board members and administrators about occupational education (content, competencies, conceptual)	57.5	112.0	68.5	68.0	86.5	71.5	36.5	66.5
91.5	Occ. Coun. Guid./Plac.	180	Recommendations from the advisory committee	81.0	100.5	68.5	68.0	86.5	71.5	59.5	66.5
95.0	Advisory Committees	25	Membership selection process (representativeness of occupational areas, scope of area, levels--supervisory, secretarial, employers--students, faculty, characteristics--interest, perceptive, creative, etc.)	81.0	63.5	68.5	68.0	59.5	71.5	103.5	66.5
95.0	Program Planning	117	Availability of resource people with planning expertise to assist with planning and developing programs	81.0	63.5	68.5	68.0	86.0	100.0	82.0	66.5
95.0	Coord. and Direction	167	Evidence of a centralization of authority, overall program management, and accountability for occupational education into a single individual at the dean's level	101.0	63.5	68.5	68.0	86.5	71.5	82.0	66.5
98.0	Program Objectives	41	Cost analysis of program objectives	98.0	63.5	68.5	68.0	40.5	100.0	100.0	66.5

OVERALL RANK	DECISION AREA	FACTOR NUMBER	FACTOR	COLLEGE RANK							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
98.0	Operational Budget	61	Cost of equipment	98.0	63.5	68.5	68.0	86.5	71.5	100.0	66.5
98.0	Program Planning	136	Attitudes of faculty, administra- tion, students, advisory committees, employers, and community toward evaluation of occupational education	57.5	63.5	68.5	68.0	86.5	104.0	82.0	66.5
100.0	Coord. and Direction	159	Availability of state and federal funds to meet the goals and objectives of each occupa- tional program	81.0	29.5	68.5	68.0	106.0	71.5	108.0	66.5
101.0	Program Objectives	43	Faculty input (curriculum committee, etc.)	103.0	100.5	68.5	68.0	40.5	104.0	45.0	66.5
102.0	Operational Budget	96	Placement of the chief adminis- trator for occupational educa- tion on the organizational chart	105.0	139.5	68.5	68.0	29.5	32.0	82.0	66.5
103.0	Program Planning	97	Societal benefits gained from occupational programs	81.0	139.5	68.5	68.0	117.5	71.5	59.5	66.5
104.0	Program Goals	2	Costs of establishing and main- taining programs for occupational education	103.0	32.0	68.5	68.0	40.5	71.5	148.5	66.5
105.0	Program Goals	3	Input from advisory committee	103.0	112.0	68.5	68.0	86.5	112.5	59.5	66.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
106.0	Program Objectives	47	Knowledge of most appropriate organizational structure to allow the accomplishment of program objectives	108.5	112.0	139.5	136.0	143.5	112.5	82.0	137.5
107.0	Program Objectives	49	The availability of work experience opportunities for most students	108.5	102.0	139.5	136.0	117.5	112.5	115.0	137.5
108.0	Program Goals	4	Knowledge of program offerings at feeder high schools, 4-year transfer institutions, private schools, and other educational agencies	115.5	112.0	139.5	68.0	86.5	112.5	135.5	137.5
109.0	Coord. and Direction	175	The philosophy and purpose of the institution and occupational education's place in the overall educational scheme	108.5	104.5	110.5	136.0	157.5	139.0	111.5	137.5
111.0	Program Goals	7	Faculty input	123.0	112.0	139.5	136.0	106.0	160.5	105.0	137.5
111.0	Program Planning	128	Identification of occupational program manager on an organizational level commensurate with defined management function and on a lateral level with other managers who have equivalent responsibilities and authority	135.0	63.5	139.5	136.0	143.5	139.0	111.5	137.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
111.0	Coord. and Direction	177	Knowledge of the faculty's teaching goals and objectives to be able to make decisions about coordination and direction of occupational education	123.0	139.5	110.5	136.0	143.5	104.0	118.5	137.5
113.0	Program Objectives	53	Student characteristics (types, background, needs, expectations, aspirations, goals, etc.)	123.0	139.5	107.5	136.0	117.5	108.0	156.5	137.5
115.0	Program Objectives	59	Knowledge of how to write program objectives	108.5	139.5	139.5	136.0	117.5	139.0	124.0	137.5
115.0	Program Objectives	60	Long-range manpower projection from industry to determine long-range need for program	123.0	112.0	139.5	136.0	117.5	139.0	115.0	137.5
115.0	Operational Budget	85	Student/teacher ratio for all occupational programs	148.5	139.5	30.0	136.0	164.0	139.0	108.0	137.5
118.5	Program Goals	12	Knowledge of legal requirements for employability and upward mobility	148.5	112.0	139.5	136.0	130.0	139.0	108.0	137.5
118.5	Advisory Committees	28	Faculty input to the advisory committee (reports, recommendations, etc.)	123.0	162.0	139.5	136.0	117.5	118.0	118.5	137.5
118.5	Program Planning	109	Yearly evaluations to determine progress of program plans	148.5	139.5	139.5	136.0	143.5	108.0	115.0	137.5

OVERALL RANK	DECISION AREA	FACTOR NUMBER	FACTOR	COLLEGE RANK							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
118.5	Coord. and Direction	153	Input from faculty (individuals, divisions, departments, commit- tees--esp. the curriculum com- mittee, etc.)	148.5	139.5	139.5	136.0	117.5	118.0	115.0	137.5
122.5	Program Goals	15	Knowledge of how to translate ideas, comments, etc., into usable, realistic goal statements	135.0	139.5	139.5	136.0	130.0	156.5	108.0	137.5
122.5	Operational Budget	71	Suitability and availability of facilities including alternative locations	108.5	139.5	139.5	136.0	130.0	139.0	135.5	137.5
122.5	Program Planning	114	Student/teacher ratios for programs	123.0	139.5	139.5	136.0	157.5	139.0	108.0	137.5
122.5	Program Planning	125	Negotiated and agreed-upon per- formance objectives for occupa- tional education faculty evaluation of teaching excel- lence (classroom visitations, professional reading, etc.)	148.5	139.5	139.5	136.0	108.5	118.0	124.0	137.5
126.0	Program Objectives	52	Number of available and committed occupational students	148.5	139.5	139.5	68.0	130.0	139.0	124.0	137.5
126.0	Operational Budget	80	Capital outlay formula	135.0	139.5	139.5	136.0	106.0	139.0	135.5	137.5
126.0	Coord. and Direction	152	Evidence that curriculum changes are being made	135.0	139.5	139.5	136.0	108.5	118.0	148.5	137.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
131.0	Program Goals	11	The availability of programs at different preparation levels (entry, upgrading, promotional, retraining, etc.)	135.0	139.5	139.5	136.0	117.5	139.0	124.0	137.5
131.0	Program Objectives	57	Input based on research findings	135.0	139.5	139.5	136.0	117.5	118.0	148.5	137.5
131.0	Operational Budget	82	Cost analysis of each occupational program	123.0	139.5	110.5	136.0	143.5	139.0	135.5	137.5
131.0	Operational Budget	88	The projected needs for program materials to meet program goals and objectives (texts, references, supplies, etc.)	112.5	139.5	139.5	136.0	143.5	139.0	135.5	137.5
131.0	Operational Budget	90	The attitude of the administration toward in-service educational opportunities (conference attendance, curriculum development, work experience, etc.)	108.5	139.5	139.5	136.0	143.5	139.0	148.5	137.5
131.0	Operational Budget	98	Student information (enrollments, demand, abilities, interest, costs, graduates, placements, etc.)	148.5	104.5	139.5	136.0	143.5	118.0	135.5	137.5
131.0	Program Planning	104	Needs assessment of identified target populations (disadvantaged, handicapped, minorities, other special populations)	115.5	139.5	139.5	136.0	143.5	139.0	124.0	137.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
137.0	Program Objectives	58	Procedures for dissemination of program objectives information	115.5	139.5	139.5	136.0	117.5	160.5	135.5	137.5
137.0	Operational Budget	93	Historical data for ongoing program (enrollments, placements, budget costs, etc.)	148.5	112.0	139.5	136.0	117.5	139.0	135.5	137.5
137.0	Program Planning	131	Procedures for student evaluation of instruction	158.0	139.5	139.5	136.0	143.5	108.0	135.5	137.5
137.0	Coord. and Direction	147	Availability of jobs to accommodate handicaps of individuals	112.5	139.5	139.5	136.0	157.5	139.0	135.5	137.5
137.0	Coord. and Direction	165	Evidence of occupational program's fit into the career-ladder concept	135.0	139.5	139.5	136.0	157.5	108.0	148.5	137.5
140.5	Program Objectives	50	The relationship of various instructional strategies to accomplish program objectives	135.0	139.5	139.5	136.0	117.5	160.5	124.0	137.5
140.5	Program Objectives	55	Compatability of anticipated programs, with existing programs	123.0	112.0	139.5	136.0	166.5	156.5	115.0	137.5
144.0	Advisory Committees	20	Administrative and board policy toward advisory committees (calling for membership, establishing goals, paying travel costs of members, etc.	123.0	139.5	168.0	136.0	157.5	139.0	136.5	27.0
144.0	Program Objectives	46	Changes requiring in-service training	148.5	112.0	139.5	136.0	143.5	112.5	148.5	137.5

OVERALL RANK	DECISION AREA	FACTOR NUMBER	FACTOR	COLLEGE RANK							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
144.0	Operational Budget	83	Salary schedule criteria	158.0	139.5	139.5	136.0	130.0	139.0	124.0	137.5
144.0	Operational Budget	99	Procedures for communication between the Purchasing Department and faculty (providing updated budget balances, notification of changes and alterations in original requests, etc.)	123.0	139.5	139.5	136.0	143.5	139.0	148.5	137.5
144.0	Program Planning	123	The cost/effectiveness of occupational programs	148.5	139.5	139.5	136.0	157.5	108.0	156.5	137.5
147.5	Advisory Committees	23	Procedures for evaluating the activities of the advisory committee	158.0	139.5	139.5	136.0	130.0	139.0	135.5	137.5
147.5	Advisory Committees	26	Procedures to inform members of their role on the committee (obtaining commitment, expectations: suggesting, advising, recommending, approving, etc.)	135.0	139.5	139.5	136.0	117.5	139.0	159.5	137.5
150.5	Operational Budget	73	Former student evaluation of equipment and facilities used in their preparation	135.0	139.5	139.5	136.0	143.5	139.0	156.5	137.5
150.5	Program Planning	129	Identify where in the organizational hierarchy and with whom the responsibility for evaluation resides	115.5	139.5	139.5	136.0	157.5	139.0	159.5	137.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
150.0	Coord. and Direction	174	Knowledge of the student flow through occupational programs at all educational levels and institutions (high school, adult school, community college, 4-year transfer institutions, private schools, etc.)	135.0	139.5	139.5	136.0	157.5	139.0	148.5	137.5
150.5	Occ. Coun. Guid./Plac.	183	Procedures and instruments for objective and subjective student evaluations of occupational counseling, guidance, and placement programs	148.5	139.5	139.5	136.0	143.5	139.0	148.5	137.5
154.0	Program Planning	112	Expenses and income generated by each occupational program--present and projected relationships to the institution's financial status	135.0	104.5	139.5	136.0	164.0	139.0	148.5	174.5
154.0	Program Planning	113	Knowledge of Master Vocational Education Plan	123.0	139.5	139.5	136.0	157.5	139.0	124.0	137.5
154.0	Coord. and Direction	148	Needs of special student populations (equipment, facilities, satisfactory academic achievements, placements, etc.)	148.5	139.5	139.5	136.0	157.5	139.0	148.5	137.5
156.5	Program Goals	8	Changes which reflect in-service training needs	162.0	139.5	139.5	136.0	117.5	160.5	148.5	137.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
156.5	Occ. Coun. Guid./Plac.	194	Comparisons of the effectiveness of different training methods	148.5	139.5	139.5	136.0	130.0	164.0	135.5	137.5
158.5	Operational Budget	68	The ratio of equipment/student usage	158.0	139.5	139.5	136.0	117.5	122.0	167.5	137.5
158.5	Program Planning	119	Evidence of interdisciplinary planning of campus resources and services into existing occupa- tional programs	162.0	139.5	139.5	136.0	117.5	160.5	156.5	137.5
160.0	Operational Budget	76	Normal operating expenses per occupational class section	148.5	139.5	139.5	136.0	143.5	139.0	164.5	137.5
161.0	Operational Budget	78	Projected income and expenses of each occupational instruc- tional area	135.0	139.5	139.5	136.0	164.0	139.0	164.5	137.5
162.0	Advisory Committees	21	Input of advisory committee at all administrative levels (including reporting directly to the board, etc.)	162.0	139.5	139.5	136.0	143.5	165.5	135.5	137.5
163.0	Coord. and Direction	170	Evidence of strong leadership from the Chancellor's office in establishing needs and priorities	158.0	167.5	139.5	136.5	130.0	118.0	164.5	137.5
164.0	Operational Budget	75	Income generated by VEA entitle- ment foundation	164.0	179.5	110.5	181.5	143.5	139.0	164.5	137.5

OVERALL RANK	DECISION AREA	FACTOR NUMBER	FACTOR	COLLEGE RANK							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
165.0	Program Planning	110	Faculty input (individuals, departments, divisions, committees--esp. the curriculum committee, etc.)	165.5	163.5	113.0	172.5	143.5	165.5	161.5	106.5
166.0	Program Goals	16	Philosophy and purpose of the institution	167.0	167.5	107.5	172.5	166.5	168.0	124.0	106.5
167.0	Program Goals	9	Availability of private, public, and campus placement services	165.5	182.0	167.0	172.5	169.5	160.5	181.5	106.5
168.0	Operational Budget	69	Replacement schedules	174.0	174.0	175.5	172.5	157.5	175.0	161.5	174.5
169.0	Operational Budget	74	Income generated by ADA	168.0	112.0	175.5	136.0	169.5	184.5	175.0	174.5
170.0	Coord. and Direction	171	State standards and guidelines for coordination and direction of occupational education (State Vocational Plan, Education Code, other legislative measures, procedural requirements, etc.)	170.0	182.0	175.5	172.5	173.0	175.0	167.5	174.5
171.5	Advisory Committees	33	Student input to the advisory committee	181.0	174.0	175.5	172.5	173.0	170.0	169.0	167.0
171.5	Program Objectives	48	Knowledge of requirements from state licensing agencies, 4-year transferring institutions, national accrediting agencies, etc.	174.0	174.0	175.5	172.5	169.5	168.0	175.0	174.5

OVERALL RANK	DECISION AREA	FACTOR NUMBER	FACTOR	COLLEGE RANK							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
174.0	Advisory Committees	29	Faculty membership in community organizations	178.0	167.5	175.5	172.5	173.0	175.0	175.0	174.5
174.0	Operational Budget	95	Number of different occupational classes and sections offered	178.0	167.5	175.5	172.5	175.5	175.0	172.0	174.5
174.0	Coord. and Direction	163	Mileage costs relative to voca- tional programs	170.0	182.0	175.5	172.5	179.0	175.0	170.0	174.5
177.0	Advisory Committees	32	The logistics of advisory com- mittee meetings (time, place, length, agenda items, regularity, etc.)	178.0	167.5	175.5	172.5	179.0	175.0	179.0	174.5
177.0	Advisory Committees	35	Procedures for the advisory com- mittee to conduct surveys, stud- ies, and research projects	178.0	174.0	175.5	172.5	169.5	175.0	179.0	174.5
177.0	Operational Budget	89	Library resources	172.0	174.0	175.5	172.5	175.5	180.5	175.0	174.5
179.0	Program Planning	126	Evidence of an increase in the number of performance objectives established for faculty evaluation	182.0	174.0	175.5	172.5	177.0	168.0	171.0	174.5
180.5	Advisory Committees	31	The organizational structure of the advisory committee (state guidelines, size, representative- ness, chairing, etc.)	178.0	167.5	175.5	172.5	179.0	175.0	179.0	174.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
180.5	Coord. and Direction	176	Criteria for determining whether or not the institution has reached its growth potential	178.0	174.0	175.5	172.5	179.0	175.0	175.0	174.5
182.0	Program Goals	13	Knowledge of accreditation requirements	170.5	179.5	185.5	186.5	182.5	183.0	181.5	181.5
183.0	Operational Budget	87	The cost per student by program	184.5	185.0	166.0	186.5	190.0	189.5	184.0	186.5
184.0	Occ. Coun. Guid./Plac.	184	Cost/benefits analysis of occupational guidance and counseling	186.0	178.0	185.5	186.5	185.5	182.0	185.0	186.5
185.0	Coord. and Direction	169	Criteria to be used to inaugurate duplicate programs on another campus within the district	183.0	188.5	185.5	186.5	184.0	180.5	189.0	186.5
186.0	Coord. and Direction	173	The ratio of number of students per coordinator	181.5	188.5	185.5	186.5	188.0	186.5	183.0	186.5
187.5	Coord. and Direction	179	Credential requirements for salary increments	188.0	185.0	185.5	186.5	185.5	186.5	188.0	186.5
187.5	Occ. Coun. Guid./Plac.	185	Availability of financial resources outside the institution for occupational guidance and counseling	187.0	185.0	185.5	186.5	188.0	189.0	187.0	186.5
189.0	Operational Budget	77	Funding from external sources (grants, donations, etc.)	189.0	188.5	189.0	186.5	182.5	189.0	186.0	186.5

<u>OVERALL RANK</u>	<u>DECISION AREA</u>	<u>FACTOR NUMBER</u>	<u>FACTOR</u>	<u>COLLEGE RANK</u>							
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190.0	Operational Budget	63	Relative costs of occupational courses compared with costs of liberal arts courses	190.0	188.5	192.0	181.5	192.0	189.0	190.0	182.0
191.0	Program Goals	18	Knowledge of unemployment and welfare benefits in relation to earnings potential afforded students by existing programs	191.5	191.0	190.5	191.5	188.0	192.0	191.0	191.5
192.0	Coord. and Direction	151	Awareness of parents' wants	191.5	192.0	190.5	191.5	191.0	191.0	193.0	193.0
193.0	Operational Budget	94	The relationship between the number of new classes opening in liberal arts areas as compared to the number of new new-class starts for occupational areas	193.0	194.0	193.5	193.5	194.0	194.0	192.0	191.5
194.0	Program Objectives	38	Parental wishes	194.0	193.0	193.5	193.5	193.0	193.0	194.0	194.0

3
VITA

Ellen Miller Bowers

Candidate for the Degree of

Doctor of Education

Thesis: OCCUPATIONAL EDUCATION INFORMATION NEEDS AND GOVERNANCE PATTERNS
OF MANAGEMENT TEAMS IN SELECTED CALIFORNIA COMMUNITY COLLEGES

Major Field: Vocational-Technical and Career Education

Biographical:

Personal Data: Born Lowell, Indiana, January 1, 1926, the daughter
of Walter and Julia Miller.

Education: Graduated from Lowell District High School, Lowell,
Indiana, in 1944; received a Bachelor of Science degree in
Education, emphasis in Business Education, from Indiana
University, Bloomington, Indiana, in 1951. In 1966, a
Master of Science in Education degree, emphasis in Business
Education, was conferred by Indiana University, Bloomington,
Indiana. Completed the requirements for the Doctor of Educa-
tion degree at Oklahoma State University, Stillwater, Oklahoma,
in July, 1976.

Professional Experience: Teacher of Business Education, Westwood
High School, Westwood, California, 1952-1954; Teacher of Busi-
ness Education and Department Chairperson, Enterprise High
School, Redding, California, 1954-1957; Teacher of Business
Education and One Year Department Chairperson at Monterey
Peninsula College, Monterey, California, 1957-1975. Con-
ceived, authored and directed the implementation of a student-
centered orientation program funded through the Occupational
Education Department of the California Chancellor's Office
for the redesign of the typing program. Received a small
research grant from the same office to conduct the doctoral
study of "Information Needs and Governance Patterns of
Selected California Community Colleges." Nominated by
California for two consecutive years as an EPDA fellow.
Served as a graduate research assistant to the Oklahoma
Extern '75 program. Currently employed as Coordinator of
Title III program, Cameron State University, Lawton,
Oklahoma.

Professional Organizations: Member of American Vocational Association, Phi Delta Kappa, Delta Pi Epsilon, National Business Education Association, Oklahoma Education Association, National Education Association. Honorary and associate member National Secretaries Association International.