

STAFF ATTITUDES TOWARD
OUTCOMES ASSESSMENT

BY

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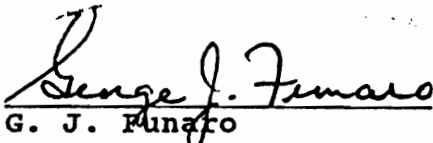
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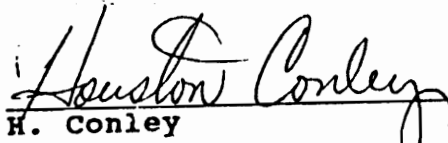
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STAFF ATTITUDES TOWARD OUTCOMES ASSESSMENT

by

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Educational Administration

(ABSTRACT)

The purpose of this study was to determine staff attitudes and preferences toward outcomes assessment in Maryland's public, undergraduate institutions. The data were collected in Fall, 1989. Over 400 chief academic officers, division chairs, and faculty from 26 two- and four-year institutions were surveyed.

An analysis of the data indicated the following: (1) That four-year faculty and administrators were less positive than two-year staff about the value and feasibility of outcomes assessment. (2) That, although there is not active opposition among either institutions' faculty and staff to the value of assessment, there was considerable lack of knowledge and suspicion of the program. Means of the responses to questions dealing with value were on the positive side of 3.0 on a five-point scale. (3) However, faculty and staff in both types of institutions were even less sanguine about the feasibility of assessment; the means were near or below 3.09 for most groups. (4) There was general agreement about those indicators which

should be assessed; in general faculty and administrators agreed that the most important measures were employer satisfaction and transfer success. (5) Staff in both types of institutions did not like "rising-junior examinations" or "graduate earnings." (6) There was overwhelming agreement that results of assessment should be used to improve curricula and instruction. (7) However, only 57 percent thought that assessment would improve instruction--supposedly the major reason for its imposition.

These results and others suggest that faculty and staff are relatively neutral about the idea of outcomes assessment. One gets the sense when viewing the statistical information derived from 76 questions and from volunteered comments that the major concerns rest with the methods of implementation and use of the data. Much of what faculty and staff would like to have assessed are already measured by many colleges. The data also suggest that faculty need to become actively involved in what is likely to be an expensive program in terms of dollars and time.

The study includes a set of recommendations for state and institutional activities to increase faculty involvement and for case study research.

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CHAPTER I
INTRODUCTION AND BACKGROUND

Introduction

Of the three established roles of higher education in the United States, the most publicly accepted is the production of learning (Bowen, 1974; Astin, 1982). Students enter institutions to acquire either general or specific skills; they exit semesters or years later more learned than when they entered. This, at least, is the claim of educators, the expectation of funders, and the hope of students. Yet despite such claims, those in the field of education hesitate to measure the outcomes of this learning. As Kirkwood noted in 1981, "...assessing outcomes has not been tried and found difficult;...it has been found difficult and seldom tried" (p. 65). His statement is as apt today as it was then.

As the decade of the 1990's begins, however, state governing boards are more influential in requiring institutions to develop and implement programs of assessment of educational outcomes (Ewell, 1987a). Yet few have sought to determine how those who are most intimately involved in the process of producing those outcomes feel about such an ultimatum. The existence of hesitancy and reluctance among instructional staff has been acknowledged, but few efforts

have been made to identify the scope of the phenomenon. Without a more precise awareness of the attitudes of faculty and staff toward outcomes assessment, higher education may be attempting to build a framework of quality without providing the proper base.

Problem

The current emphasis on measuring outcomes is not new, but it has drawn renewed attention over the past decade. The National Commission on Higher Education Issues brought the problem to public attention in 1982, and concern about it was intensified a year later when A Nation at Risk was published. If degrees alone could not certify learning, as the 1982 Commission claimed, then there must be a process by which the quality of higher education--in short, learning--could be identified. The link between learning and assessment was clearly made in 1985 when the Association of American Colleges (AAC) noted in Integrity in the College Curriculum that higher education had failed to assess the impacts of teaching. It seemed that postsecondary education could not, or chose not to, validate what it was all about.

Historical attempts at determining the quality of higher education often centered on sets of input and process-oriented variables. Admission requirements, scores of entering freshmen, numbers of students admitted, types of courses required, credits taken, and degrees awarded were used as measures of success. These were coupled with other assessments, which included faculty preparation, institutional reputation, and educational resources. The focus on these approaches justified Astin's (1982)

complaints about the use of reputation and resources as focal points in determining institutional quality. Now, shifts in enrollment, mounting fiscal constraints, and increasing demands for accountability from various public sectors are forcing higher education to accept, or at least function within, a new perspective on assessment.

Personnel in higher education are being required to operate in an environment that is somewhat alien to the traditionalist. Since enrollments are not increasing at rates previously common, there is less financial room to run educational systems within the old patterns. The public and administrators are becoming more inclined to base funding on measurements related to productivity and quality (Ewell, 1987a). Even where such extreme measures are absent, there is increasing pressure to show that learning outcomes are at acceptable levels.

The question is not whether there will be assessment of outcomes. This is being decided by state agencies, accrediting bodies, legislators, and the general public. More practically, the question now is what outcomes will be assessed and how they will be measured. This question is important. As outcome indicators and criteria are established, efforts of institutions become directed to those ends. In a sense, an institution becomes that which

it measures. If the number of awarded degrees is a focus, efforts are directed toward determining how an institution computes awarded degrees, how many degrees are earned, whether these levels are acceptable or at odds with peer institutions, what factors impact on the results obtained, and how to get the numbers to the desired level. Attention, efforts, and fiscal support become aimed toward the question at hand. The institution becomes defined, in part, by the number of degrees awarded, even though staff may argue that it is not a goal of major significance. Hence, it is of great importance that the outcomes to be measured be properly determined, for they may set the direction of the institution.

Traditionally, the culture and practices in academia are the products of its faculty and administrators and are strongly influenced by the concept of autonomy. This tenet implies administrative, departmental, and faculty freedom from bureaucratic restrictions and the right to be involved in major decisions (Corson, 1975). Even though there has been some erosion of this freedom over the years, key academic personnel will be major forces in determining how assessment models will develop and how they will be implemented.

Yet little is known of the attitudes and values of

faculty and administrators regarding the issue of assessment (Bok, 1986). The ability to identify these attitudes and values is crucial to helping institutions and whole states move toward reasonable and responsible programs of outcomes assessment. Without the collaboration of key academics, outcomes assessment is not likely to be implemented in a manner which will result in educational improvement. Assessment programs may become thwarted, or worse, completely undermined and any hope that instructional improvement will result from such systems will be greatly diminished. Requirements that are void of respect for the historical and legitimate roles of academia will be paper compliance only. In short, instructional advancement can not be achieved without the cooperation of faculty, department chairs, and academic officers.

Purpose of Study

The purpose of this study was to determine what certain academic staff think about outcomes assessment, because, they will influence the direction and success of assessment programs. In order to achieve this end, the following research questions were posed.

1. What attitudes exist among faculty and staff regarding the:
 - a) value of outcomes assessment,
 - b) feasibility of outcomes assessment,
 - c) scope of indicators,
 - d) intended use of assessment,
 - e) impact of assessment, and
 - f) problems inherent in the assessment process?
2. What are faculty and staff preferences concerning:
 - a) components of an assessment plan,
 - b) responsibility for assessment design,
 - c) persons to whom assessment is to be reported,
and
 - d) uses of assessment results?

To provide the basis of data, a questionnaire was administered to certain instructional staff in public, undergraduate institutions of higher education in the state of Maryland. These staff represent those who could be

expected to be directly involved in the development and implementation of assessment programs.

Significance of Study

In 1987, following about seven years of concern and study, the Maryland Higher Education Commission (then called the Maryland State Board for Higher Education) followed a growing pattern of state intervention in the process of outcomes assessment. Through its appointed task force, it completed deliberations on the issue of outcomes assessment, backed away from recommendation of a "rising-junior" exam or standardized state-wide examinations, and recommended policy and guidelines which required that assessment plans be developed by individual campuses, that the plans be approved by the governing board, and that the data resulting from the implementation of the plans be shared with specified state agencies. During the 1988 legislative session, Senate Bill 459 was introduced to provide for reorganization of higher public education within the state. As part of the subsequently passed Higher Education Reorganization law, the task force recommendations were visible in the requirement for performance accountability plans. The Maryland Higher Education Commission (MHEC) was given the responsibility to review performance accountability plans which were to be based on previously approved mission statements. The law provides that plans include a "...statement of outcomes (to be achieved and) quantifiable indices of student academic

performance and development" (Maryland, 1988). With the exception of some guidelines, further specifics are left to individual institutions.

It is apparent that educational outcomes will be assessed in Maryland. Even though the complete details of implementation awaited the newly appointed Commissioner's review of previous work, educators in the public system of higher education in Maryland found themselves at the starting line in regard to the issue of outcomes assessment. Some Maryland educators were, and are, unaware of the implications the new law may have for them, but the fact that they will be involved is working its way into consciousness.

Most authors who deal with the topic of outcomes assessment note the importance of faculty involvement, if the process is to be successful. The approach taken by Maryland may be a recognition of institutional variability and, thus, the need to provide for faculty and administrative input. Faculty are indeed crucial to identification of appropriate outcomes of the educational process, not in isolation from other users of the system, but as a highly respected and necessary component of the process. Successful implementation of any plan, whatever indicators, criteria, or methods are being proposed, rests

on faculty and staff attitudes. This study provides information about these attitudes. Such information can form the bases for program development and modification at the state and individual campus levels. Proposed models for development and program operation may be tested against the data, and policy makers may find direction for both policies and their implementation.

The state of Maryland is not alone at the cross roads. Other states are facing similar problems and are at similar points in dealing with this issue. For this reason, the results of this study will be of equal value to those outside the state of Maryland.

Significance of Outcomes Assessment

The issue of accountability in higher education, as evidenced by assessment of educational outcomes, is not new, but it is of increasing and continuing significance. A January, 1987 review of campus trends reported that 79 percent of administrators expected some form of assessment to be introduced in the next few years. Discussions were already taking place in 75 percent of the institutions surveyed (El-Khawas, 1987). Although there were only a few states which had assessment plans in place in the early 1980's, by 1986 66 percent of the states had assessment plans or were in the process of developing them (Marchese, 1987).

Historical Perspective

One would not want to assume that assessment of higher education has not occurred prior to the current emphasis. Consumers have judged the worth of colleges as they decided in which institution they would enroll. Professionals have made selections of "quality" schools based on assessments of institutional worth. The common mechanisms by which these choices have been made have operated for decades, even centuries.

In the early years of higher education, there was a much more uniform expectation of the outcome of a college

degree than there has been since World War II. Since the numbers of students dramatically increased and the expectations of the public for a college education became more influential, curricula have become varied, at times more specialized and technical, and less constant in their outcomes. This is particularly true in the United States, where the "system" of higher education is an issue of fifty different states. This variability is one of the advantages of this country's educational pattern; at the same time, it is the basis for some criticisms. What can be expected to be the outcomes of a college degree and how can their attainment be known? These questions have often been the impetus for investigation of higher education.

Inquiries and critiques have not been unique to the last few decades; they occurred as early as the first half of the nineteenth century when the 1828 Yale report culminated in a study of "...the nature of higher education"(Garfield and Corcoran, 1986). In the beginning of the twentieth century, Flexner sought reform in collegiate, as well as professional, education. More recently, Dressel, Pace, and Astin, each in slightly different ways, looked at the worth of a college education, what it should prepare the graduate to do, the "content" of the experience, and how the end results would be best

measured.

It was most common for the questions of worth and output to be answered in terms of reputational measures (Astin, 1982; 1985). Public and professional opinion has been relatively consistent in applying this technique to higher education. A small group of colleges are ranked at the top, based on the reputations they hold in the educational community. Reputation is closely related to perceived quality of academic programs and, hence, is seen as a kind of assessment.

Faculty, student, and monetary resources have also served as bases for such assessment. Faculty preparation and prestige, student-faculty ratio, student ability, and cost per FTE are commonly used measures. Additionally, institutional affluence is reflected in endowments, scholarships, salaries, library holdings, and facilities. These resource measures correlate highly with each other and with reputation. Historically, higher education has been subject to assessment of such factors. The public, professional personnel, and accrediting agencies have employed these measures to determine institutional worth.

Current Focus

Reason for Emphasis

So why is there dissatisfaction with these time-honored

means? Why is there such renewed interest in justifying the quality of higher education, and why is it aimed so directly at assessing learning outcomes? Is it, as suggested in A Nation at Risk (1983) or Quality in American Higher Education (1982), that the products of our education systems are inept, unskilled, and unable to function in society at satisfactory levels? Both reports pointed out a fifteen-year decline in academic abilities of students entering colleges. Grade inflation and a decrease in curricular rigor were viewed as by-products of this situation.

Although not unanimous, professionals set forth the opinion that higher education was in a state of decline (Enarson, 1983; Bonham, 1982). The cost of higher education had increased, more monies were directed toward developmental education, and employers complained about low skill levels of new graduates. Taxpayers and tuition payers were generally hesitant to continue on the assumption that high costs equated to high quality. Certainly such a situation could serve as a rallying point for those who wish to chastise higher education. However, some authors point, not to a decrease in quality, but to other factors as causes of the current emphasis on outcomes assessment.

Ashworth elaborated on the significance of higher education relative to the proportion of our population

enrolled. He purported that the issue of assessment was more important because higher education was no longer an experience for the elite. Less than one percent of the population of 1900 was enrolled in nonprofit, accredited colleges. Today, five percent are so enrolled, and that does not include the burgeoning numbers served by proprietary schools. More of our population is being affected by higher education and, conversely, higher education is being shaped by greater and more diverse numbers of students. Ashworth claims that, by force of numbers, the issue of educational quality is a national priority (In Stauffer, 1981).

Other components of our society are expected to operate on the basis of productivity measures, but education, particularly the postsecondary segment, has begged off such measurement practices. It has been held that the quality of education can be recognized, but it can't be clearly defined (Enarson, 1983) and certainly can't be quantified (Rossides, 1984). It was a lonely voice that countered such long-held values. However, as education became more centralized and less parochial in its operation, it could no longer claim continuing immunity from the same societal pressures exerted on other systems. Productivity measures, however they are defined and measured, are now issues in higher education.

During the past quarter century, there has been more

involvement of private industry, the federal government, and state government in the operation of higher education.

Higher education has grown, becoming more centralized and yet more diverse at the same time. Hence, it competes with other systems and within itself for the shrinking dollars. Even internally, the competition for funding hints at the need for measurement as a basis for decision making.

Political decisions certainly continue to be made, but, increasingly, effectiveness is a considered factor.

Resnick and Goulden (1987) noted a cyclical pattern in concerns about quality. Particularly following a period of rapid growth, there is a need to regroup so that the soundness of curriculum - its quality - can be enhanced or re-established. From the late seventies there has been a period of relative retrenchment. Previous to this, new colleges developed at a rapid rate. Higher education sought to, or was forced to, serve segments of the population that it had not entertained before; new degrees and programs were created to serve students and the community. Thus, it was natural, following such an expansion, to refocus energies. Instead of diversifying and expanding, it was time to re-evaluate the status of post-secondary education. Where had all the change led and did curricular integrity still exist? To varying degrees, the answers to these questions could be

found in the results of assessment. Ewell (1987b) saw the current movement as having its origins in two different traditions. First, assessment has long held a place in the process of curricular and instructional improvement. Such practices as the "senior comprehensive" exam or the use of an "examiner's" office as headed by Dressel illustrated the connection between assessment and instruction. This tradition continues through similar efforts at the universities of Chicago and Minnesota. It is found as an integral part of the NEH report, To Reclaim a Legacy (1984), and NIE's Involvement in Learning (1984).

Second, programs of assessment serve to demonstrate to the public, and its various facets, the effectiveness of higher education; it is a practice of accountability. This began in the elementary and secondary levels much earlier in this century and is seen in large-scale cognitive testing programs at those levels and more recently in higher education. It is particularly evident in fields such as teacher education and health-related professions.

Burnes and Linder (1985) perceived the increased element of control exerted by state governments on assessment as a positive factor. Reports from the several major commissions had put educational quality in question, legislators had "demanded" accountability, and students had

decried rising costs. At least the public was expressing interest in higher education. What better time was there for higher education to respond by providing assessments which validated achievement of learning and by supporting funding based on accomplishment of major goals?

Indeed, there was dissatisfaction with the assessment methods used in the past. Reputation and resources might result in consistent ranking of colleges, but they do not directly measure quality or the impact of the college experience on the student. Current requirements for assessment represent attempts to provide more direct indications of the effect of higher education.

Who Provides the Impetus

Role of state agencies. State controlling boards and legislators have become increasingly active and directive in the process of outcomes measurement. Limited for a long time to the public school arena, the interest and control is now aimed at higher education. Creation of task forces, passage of enabling legislation, creation of assessment offices, and direct establishment of state-wide tests and standards are clear evidence of the involvement of state governing boards in outcomes measurement.

A 1986 report of the National Governors' Association (NGA), Time for Results, presented six

recommendations in regard to outcomes assessment. The role of the state in defining institutional mission for publicly supported colleges led the list. As later authors reiterated, this mission was seen as underlying the establishment of goals and their subsequent evaluation. The task force urged multiple approaches to determine student learning and, further, that the data gleaned from these assessments be used to evaluate instructional components. Incentives for improving learning were part of the report, which concluded with a request that such processes and information be considered by accrediting bodies in the determination of accreditation status. While the recommendations were not in themselves dramatic or unprecedented, they did focus the educational community on the perceived and eventual role that the state and its varying units would play in the assessment.

A 1987 survey of each state was co-sponsored by the American Association for Higher Education (AAHE) Assessment Forum and the State Higher Education Executive Officers (SHEEO) (Boyer, Ewell, Finney, and Mingle, 1987). The results revealed that sixty-six percent of the states had a "formal initiative which they labeled assessment" (p. 8). The role of states was definitely increasing, but states viewed the implementation of that role at different levels

and in different ways. One third of the states claimed that they had a minimal role to play; over fifty percent upheld their responsibilities to serve as leaders and facilitators in the process; about twenty percent proclaimed their role rested in the actual development and implementation of assessment programs (p. 10).

An actual look at what individual states were doing in the arena of assessment illustrated the diversity reported above (Ewell and Boyer, 1988; Boyer, Ewell, Finney and Mingle, 1987). Several states had adopted specific testing programs and several others were in the process of reviewing this option. Florida is perhaps the most notable of this type, but its pattern of the "rising-junior" exam is not spreading to other states. While Georgia and South Dakota use a similar approach, at least six other states are reported to have rejected this format. However, assessment, particularly of incoming students, is the focus in another group of states. Early intervention based on the results of the assessment is a follow up of such assessment and it is not uncommon for this process to include interaction with public schools. A group of states claims its focus is not on the process of assessment so much as it is on improvement of quality. Assessment is a vehicle to this end and is an integral part of normal state planning. Furthermore, a

number of states encourage individual institutions to assume their responsibilities in the development of assessment programs. Relative to this latter approach, state bodies may "encourage" such institutional action by means of funding mechanisms or reporting requirements. Still, other states have adopted broad monitoring systems. Maryland is an example of such a system.

Several months after the AAHE/SHEEO survey was reported, a statement of policy was issued by the State Higher Education Executive Officers on Program and Institutional Assessment (Roaden, 1987). Partly in response to the NGA report, but not in contradiction of it, the policy statement stressed entry assessment with remediation as needed, uniform definition and use of certain outcomes (eg. certifying exams, completion rates), assessment of general education objectives, post-graduation success, and student satisfaction. The statement went further, however, in regard to the financial implications of outcomes assessment. Not only did it agree that financial incentives were appropriate, but it also admonished states to be cognizant of the cost of the assessment process itself and to incorporate this into funding.

It is clear that state agencies call for accountability in the form of assessment of educational outcomes. They

claim that right based on their regulatory powers and their role in the funding of education. Ewell (1987b) proposes that they do so in an historic effort to achieve three goals: access for its citizens, maintenance of economic development within its borders, and development of a citizenry with basic skills. The typical types of involvement noted above are, in the eyes of the states, consistent with their goals and responsibilities.

Role of accrediting bodies. The regional accrediting bodies have developed or re-emphasized criteria which relate to learning outcomes (Ewell, 1987b). These requirements for product-oriented assessments diminish the emphasis on such past measures as reputation and resources. The input or process variables still exist in accreditation guidelines, but they are more overtly accompanied by requirements for outcomes assessment.

Consistent with the direction taken by many states, regional accrediting bodies focus on statements of mission and intended outcomes related to that mission, processes to ensure goal attainment and data to support that the goals are indeed reached, and evidence of the use of such data to improve the institution.

Characteristics of Excellence in Higher Education, the standards for accreditation set by Middle States Association

of Colleges and Schools, is reflective of this direction. The standards indicate that the determination of effectiveness rests in attainment of goals and objectives. Multidimensional evaluation, both quantitative and qualitative, "is (to be) used as a basis for ongoing self-renewal" (1989, p. 18). Colleges voluntarily submit themselves to the criteria stipulated by the accrediting associations and, thereby, acknowledge the right of the body to require such validation.

Manning (1986) points out that, while outcomes are important in determining an institution's achievements, outcomes do not reveal the current status of the college nor predict how it will operate in the future. The value of outcomes assessment rests in its summative evaluation and in its ability to demonstrate the viability of alternative means to accomplish pre-set goals. If acceptable levels of achievement can be met by means not traditionally accepted, then new or alternative mechanisms have a chance to be introduced and flourish.

Consumer protection. Finally, some of the push for revitalized outcomes assessment comes from the public or those speaking for them. Former Education Secretary Bennett (1985) has served as such a spokesman. Faced with increasing costs, consumers of higher education are forced

to make choices among institutions. Yet they often must do so without the benefit of solid evidence related to institutional quality. Bennett claims that colleges must assess their ability to produce educated persons and provide the results of such assessment to their clientele. As Levine had bluntly put it, someone must protect the consumer (1980). Students, parents, and, in the broader sense, society need data on which to make judgments about the worth of specific institutions. What skills will the student derive from the experience; what chances of program completion exist; what potential for graduate work or employment will be found? These questions may be answered by processes of outcomes assessment.

Categories of Assessment

Outcomes dimensions. One of several ways to categorize assessment programs is based on what outcome dimensions are being measured (Ewell, 1987c). Knowledge outcomes are one of the areas which have dominated measurement historically. Such outcomes may be broad, as would be found in a general education core, or specific to a major field, such as electronics. Second, skill outcomes emphasize use of knowledge and often center on the basic skills of reading, writing, and computation. Higher order skills, such as critical thinking, knowledge building, and occupational

skills may also be included. A third outcome dimension is less quantitative and more controversial in nature. This incorporates student attitudes and values. Pace (1985) and Astin (1982) are proponents of including such outcomes in a systematic approach to assessment.

Astin's Talent Development model is illustrative of this focus on values, in opposition to what Astin labels the more traditional views (Astin, 1988). In Astin's approach, the important measurement to make is that which denotes change, growth, and development (p. 9). Astin would incorporate affective measurements of such characteristics as leadership and empathy as being more indicative of the potential of the individual's contribution to society.

A fourth dimension of assessment is called behavioral outcomes. Current enrollment, persistence, program completion, and course completion are examples of this category. For those no longer enrolled, by virtue of graduation or withdrawal, employment and educational history would be evaluated.

Methods of assessment. A second method of categorizing assessment is based on the approach employed. Standardized tests, for example are a common approach. Heffernan, Hutchings, and Marchese (1988) presented a thorough review of standardized tests, their purpose, and drawbacks. This

type of test may be so popular because it is relatively easy to use and the results are organized and conducive to comparisons. Unfortunately, this apparent ease results in improper use of the tests and subsequent disenchantment with the method as a whole.

Furthermore, standardized tools may not be matched to the unique goals or curricula of an individual institution or program. The selling power of various test services is strong, and the pressure to implement a program in a short period of time may be great. Succumbing to the lure of standardized tests under such conditions may produce frustration, or at best, unusable data. Faculty will often resist the use of such exams because they do not believe the tests measure what is important and because they may not have been involved in selecting the test to be used.

Locally designed instruments are an attempt to compensate for the disadvantages of standardized tests. These instruments are tailored to a specific institution or curriculum but are costly to develop, open to subjectivity, and somewhat lacking in external credibility. Schools that have collected data on their own tests over a period of years may, however, be able to counter some of these problems. It is more often that this type of tool is directed toward placement activities than toward exit

assessment.

Direct behavioral measurement may constitute a third method of assessment. Portfolios and competency-based performances are examples of this class. This type is prone to a variety of problems-- cost, subjectivity, and lack of reliability being a few. However, valuable information about the impact of the educational experience and the ability of graduates can be gained. Alverno College is perhaps the most noted institution in which this method is employed in a systematic manner. The fields of allied health, the fine arts, and teacher education are examples of situations in which this type of assessment contributes to validation of collegiate experience and protection of the public.

Timing of assessment. The issue of when the assessment is done is being discussed more now than in early days of outcomes assessment. Although education has long differentiated formative from summative evaluation, outcomes assessment in its current framework has dealt more with summative. Recent writings of Cross (1988) stress the need for formative assessment, if the end of instructional improvement is to be obtained. At the same time, summative testing, in the form of comprehensive exams, is re-emerging. The importance in dealing with varied timings of assessment

is to realize that, while each type may contribute meaningful data, the meaning and the specific use of each will vary. Formative feedback can contribute significantly to such areas as student development and classroom improvement. Summative data will provide a look at the cumulative effect of the educational process.

Whether one speaks of domains, approaches, or timing, it is difficult to envision a single technique of assessment which would provide institutions, its faculty, or its students and public with adequate information by which to judge learning outcomes. A carefully designed, multidimensional approach is a necessity.

Hesitancy Toward Assessment

Outcomes assessment, while it may reflect broad institutional parameters, most clearly and closely measures the impact of the instructional program. Faculty and other major academic staff who hold the responsibility for academic programs are most legitimately charged with the responsibility and opportunity to provide input into the design of the assessment plan and to utilize the results of the assessment. While these personnel will not necessarily be those who will actually carry out the assessment or gather the data, they may be best qualified to determine what data are to be gathered and how the results will feed

back into the instructional programs. The process is indeed cyclical. The methods must match the goals; the methods will influence the goals.

However, faculty may be resistant and even cynical about the whole concept of outcomes assessment. In 1974, Linderman noted multiple objections of higher education faculty to the issue of assessment. The judgment of whether these objections are valid is not the purpose of this study, but the perception of the reality of the objections is of importance.

The fear of loss of autonomy at the hands of controlling agencies has been voiced by faculty and noted as early as a 1971 Carnegie report. More recently, it is supported by Heffernan, et al (1988). The loss of academic freedom is a part of this objection, but there is also a concern that decreasing autonomy will interfere with the ability of higher education to achieve its goals and hence satisfy its responsibilities to society. In interviews with faculty at institutions where assessment programs are in effect this impact on autonomy is cited as a concern (Hutchings and Reuben, 1988).

Accountability may be objectionable only to the extent that the accountability is to bodies that are not viewed as able or appropriate to judge higher education.

Accountability to the public may take the form of being accountable to state agencies only. Accountability requirements may necessitate reporting to those who are seen to have little expertise in the areas for which the faculty are to be accountable. A major question according to Ewell (1987) is to whom higher education is accountable and for what.

There also exists the belief that higher education is different from and cannot legitimately be compared with other product-oriented enterprises. Systems of assessment may thus reduce higher education to focusing only on those outcomes which are quantitative in nature. They may not be at all representative of true, valid educational outcomes, which are so difficult, if not impossible, to measure. From this perception springs the often spoken fear of "teaching to the test." Not only may higher education measure less important goals, they may not even measure these validly. This objection surfaces when pre-set tests are used and when the results become part of a system which does not direct itself toward improvement.

Access to higher education, particularly for minority students, is also an issue of concern. If assessment restricts certain populations from participation in the educational experience or unfairly prevents them from

completion and progression, then bias is a possibility (Rossman and El-Khawas, 1987). This potential problem has arisen in Florida, where both systematic assessment and a large minority population exist.

Turnball (1986) cautioned against inappropriate use of data, and this warning has been echoed by others. For example, in the area of value-added assessment, gain scores may be misinterpreted or used to assign false value to certain elements of the students experience. Comparative data may not reflect the actual differences between or among various schools, with the result that false conclusions are drawn. Data made public may be grasped by media with little attempt to present the analysis which makes the information meaningful. These are examples of concerns held by staff. What is done with the data is as important as how and about what it is gathered.

Whether or not these are the valid reasons for resistance, there is a necessity to overcome the hesitancy. To the degree that faculty become meaningfully involved in a mandated process, the process will be more meaningful.

Model Programs

Several models of assessment programs, in the form of individual colleges and states, have existed for over a decade and are often proffered as examples of varying

approaches.

Northeast Missouri State University

Northeast Missouri State University provides an example of an assessment system which is aimed at determining achievement of institutional goals. The institution's current system was established in the early 1970's when the college became a university, thus abandoning its teacher education focus (McClain and Krueger, 1985; Krueger and Heisseree, 1987). This juncture provided the opportunity to focus on newly established goals and to design a system by which to evaluate the success with which the ends are met.

The value-added measure has been a strong element in its comprehensive and intricate plan. Through successive administration of standardized tests, student growth in general education is measured. Second, a "senior" test in the student's major field is given at the end of the senior year. The exam is nationally recognized and is a requirement for graduation. Student attitudes and perceptions about their growth and experiences are determined by a series of surveys given at various time throughout the student experience.

Perhaps of more importance than the tools used is the environment in which they are used. The assessment effort is presented as one which involves all major elements of the

college--students, faculty, and administration. The data are used to foster change and improvement. The data are sent directly to chairs and faculty, those staff who will be able to use them. While the system has evolved over a period of years, it has been an integral part of the college and its operation. It is not an "add-on"; it is a conscientious effort to determine that the college experience has made a positive impact on the students (Osigweh, 1986).

Alverno College

Alverno College, while quite different from NMSU in demographics, is another example of how outcomes assessment can be developed as a process tailored to a college, its goals, and its curriculum (Mentkowski and Locker, 1985). It demonstrates how faculty and students can benefit from the process. Faculty of this liberal arts college for women began by identifying specific outcomes intended to occur as the result of the college experience. The assessment system was directed toward testing those identified abilities. Provision for formative feedback to students and for input from external assessors were consistent with the college's aim of preparing students for professional careers. Assessment instruments took on creative forms and reflect the belief that abilities develop at different levels and in

a holistic way. The plan is implemented under the direction of faculty and the instructional unit.

Alverno's approach is somewhat illustrative of Astin's "talent development model" (Astin, 1985). In this approach, Astin attempted to overcome what he saw as the limitations of resource-based assessment and the shortcomings of outcome measurement which is extremely dependent on student inputs. While he originally stressed value-added measurement, he began to see that its broad scaled implementation is quite time-consuming and expensive. He now proposes a "quality assessment model" (Astin, 1982), which would focus on improving the quality of education for students. As in Alverno's approach, an underlying premise is that events which maximize the learners' knowledge of results and time on task will increase quality.

The program at Alverno was developed to meet the needs of a unique institution. The college's size, focus, and cohesion facilitate such an approach. The feasibility of such an approach in other institutions may be limited because of the uniqueness of these very factors.

University of Tennessee at Knoxville

An early project which focused on outcomes assessment was an experiment conducted by the Tennessee Higher Education Commission (THEC) and begun in 1979. Labeled a

"performance funding project", a certain percentage of an institution's annual state allocation for instruction could be awarded on the basis of the college's ability to demonstrate accomplishments in five performance areas (Banta and Fisher, 1984; Banta and Moffett, 1987). Specific variables in the state program are: 1) the percentage of accredited programs, 2) the number of programs experiencing peer review or administering a comprehensive exam to majors, 3) evidence of value-added outcomes by evidence obtained from ACT's College Outcome Measures Project (COMP) exam, 4) demonstration that quality generalizations obtained from surveys of various constituencies form the bases for improvement, and 5) implementation of campus-wide plans for instructional improvement.

The University of Tennessee at Knoxville (UTK), under a National Center for Higher Educational Management Systems (NCHEMS)-Kellogg grant, set out to implement THEC's schedule. Value-added assessment of outcomes in general education, major field achievement, and locally developed opinion surveys regarding quality were the components included. Associate deans and faculty were chosen to study each outcome area. As a result, the institution developed a plan by which to implement the state recommendations. In the implementation process, the task force upheld the

recommendations of various experts in the field of outcomes assessment. Standardized tests were selected on the basis of their suitability. Unique characteristics and goals of the college were focal points in selecting assessment methods. The data collection processes were appropriate to the resources of the college and the purpose of assessment. Those directly involved in instruction and with instructional expertise were major players in establishing the assessment plan. Finally, the plan did not rely on any single instrument or method.

There are some criticisms of this approach, related to cost and time commitments and the lack of precision in some of the criteria. Tennessee is currently revising its guidelines to place more emphasis on outcomes and is considering an increase in the percentage of the funding bonus (Hutchings, 1987). Nevertheless, even though it was in response to state initiatives, UTK developed and implemented a plan that is in concert with its goals.

State of Florida

Florida is best known for development of a statewide assessment plan that is more prescriptive in nature and closely linked to funding than most other places. The use of statewide "rising junior" exams and basic skills assessment are central to the system (Ciereszko, 1987).

Students who are unable to meet set standards must enroll in preparatory courses or, at later stages, may be unable to continue in their education, particularly at state expense. Although individual institutions may overlap the state plan with features of their own, the fact that the procedures apply to all public colleges obviates the problem of students selecting schools with different requirements, and, thus, negatively affecting enrollment.

The Florida system was established by state legislature for the purpose of making the state system more fiscally accountable. Money would be spent where it would "do the most good". However, the details of the prescriptions, eg. the "Gordon rule" which stipulates that the student will write a certain number of words, has led to the criticism that the system trivializes educational outcomes. Another major criticism of this approach is that it places most of the burden on the student and, for areas with large minority or disadvantaged populations, may deny access in a biased way. Furthermore, heavy reliance on standardized exams, even though they were developed with instructional input, results in claims of "teaching to the test." The guidelines are under continuing review and few other states have adopted a similar approach.

Other Attempts

While the above examples are well known, they are not the only instances of attempts to implement assessment plans. Other states and colleges, less well known perhaps, are involved in systematic attempts to determine what the impact of college is on their students (Hutchings, 1987). In most instances, the efforts focus on assessment of basic skills, general education, and student perceptions of their learning experiences. Each school has developed or adapted instruments and procedures which meet its own concerns. The Academic Development Survey at SUNY, Plattsburgh, James Madison's Student Assessment, or Rhode Island's survey exploring academic advising are examples of what Hutchings calls common sense applied to outcomes assessment (p.3).

What these examples and the others described above have in common are what most authors see as the basic principles of outcomes assessment: 1) methods tailored to the mission and goals of the college, 2) determination of the purpose of the process before setting forth, 3) inclusion of instructional staff in the development and implementation of the plan, 4) selection of multiple mechanisms for assessment, and 5) making assessment an integral part of the operation of the college.

Attitudes as a Theoretical Base

The theoretical bases for this study derive from the concept of attitudes and the relationship of attitudes to behavior. Attitudes were cited by Allport (1954) as being indispensable, not only to the field of social psychology, but also to the functioning of the individual. Attitudes provide an organizational scheme and meaning for the multitude of perceptions experienced and allow operation in what would otherwise be a confusing world.

Definitions

The definition of attitudes has varied, evolving from the distinction of mental from more physically oriented attitudes and progressing to Allport's 1954 definition which melded the two components (mental and physical) together. Attitudes were defined as "a neuropsychic state of readiness for mental and physical activity (Allport, 1954, p.43)." Recent definitions include other characteristics and are illustrated by the statement that attitudes are "...lasting, general evaluations (Baron and Byrne, 1987, p.116)." Today, the generally accepted model of attitudes incorporates three components: affect, behavior, and cognition. The affective component, or the emotion connected to the attitude, may be positive, neutral, or negative. Some theorists think that it is this component

that distinguishes attitudes from other mental processes. The behavioral aspect includes overt actions and inclinations to behavior. Finally, the cognitive element incorporates the beliefs and assumptions related to the attitude. For example, an attitude related to health might be illustrated by the affect of fear ("I am afraid of catching that disease"); a behavior ("I will not work with people who have AIDS"); and a cognition ("AIDS is spread from one person to another"). Underlying assumptions of this model are that the components are related to each other and that there is consistency among the three.

In an effort to further define attitudes, Green (1954) differentiated what he termed a latent or hypothetical variable from one which is observed or manifest. Where some definitions focused on the manifest attitude, Green proposed that it is the latent attitude which more directly relates to the response to stimuli. It is this latent attitude which draws a set of data together to give it unity. The behaviors are linked, not necessarily to the observed stimuli, but rather to the underlying attitude. Predominant definitions of attitude imply that there is a consistency of responses or inclinations to respond in a predictable manner. This consistency, according to Green, would stem from the latent attitude. Further, Green proposed that the

"content of an attitude is determined by the responses which constitute it (p. 336)." He termed this attitude universe. The universe is composed of the manifest attitudes. The importance of this operational definition rests in the measurement of attitudes. An attitude may be measured by sampling its universe, and it is the relation of responses within this universe that give meaning to the latent attitude.

Schuman and Johnson (1976) used Green's development to present a further refinement of the definition of attitudes. First they differentiated between elicited verbal attitudes and spontaneous verbal attitudes (p. 163). They believed that research rarely dealt with the spontaneous attitudes and, therefore, decided that elicited attitudes were those which could be measured. Since the measured attitudes are not, in themselves, the latent attitudes, the potential for measurement error is inherent. Schuman and Johnson further noted the difficulty in separating the concept of attitude from beliefs, behavioral intentions, and certain behaviors themselves. In some research the distinction is blurred, but they considered attitudes to be responses to questionnaires or interviews and other things done by a person to be actions or behavior.

Development and Change of Attitudes

Although terms may vary a bit from one author to another, it is generally accepted that attitudes are formed, to an extent, by the processes of classical conditioning, instrumental conditioning, and modeling (Baron and Byrne, 1987). These more passive forms of attitude formation occur by virtue of significant persons and institutions which the person experiences. Parents, siblings, teachers, heroes, schools, and churches are a few of the vehicles by which this process occurs.

More active attitude formation also occurs as the result of direct experience on the part of the person. Working side by side with a certain group of people, being homeless, being the direct object of prejudice, or inheriting wealth will form, strengthen, or change attitudes. This path of attitude formation is influential in determining the degree of congruence between an attitude and its concomitant behavior. Behavior and value are seen to be so closely related to attitudes that a distinction may not be made at times.

The process of attitude change has been the subject of much research. Although researchers are not entirely in agreement, some points emerge as influencing the effectiveness of such a process. A few of these that are

relevant to this study are indicated below (Baron and Byrne, 1987). First, experts have been found to be more influential in causing change than those who are not seen as experts (Hovland and Weiss, 1952). Second, people are more likely to change if they do not perceive an action as intended to persuade or manipulate (Walster and Festinger, 1962). Third, when listeners hold views which are contrary to the presenter, presenting both sides of the issue is more likely to be effective (Hovland, Lumsdaine, and Sheffield, 1949).

Not all attempts at attitude change are successful, so it is apparent that resistance can occur. Petty and Cacioppo (1985) presented an elaboration likelihood theory to illustrate two general pathways by which change or resistance can occur.. The arguments presented in an attempt to change are examined by the individual; some of them are discarded, while others of them are judged relevant. This proceeds via one of two routes. The central route involves careful consideration of the ideas and issues and has, as its central point of attention, the attitudes in question. The peripheral route to attitude change does not involve such attention. The attitude is less central to the thought process. Strong arguments with little distraction are more successful in the central elaboration route.

Conversely, weak arguments surrounded by distraction are more likely to succeed if a person uses the peripheral route.

In addition to the above theory, resistance to persuasion may occur by three methods (Baron and Byrne, 1987). One of particular interest is the process of reactance or protection of what is viewed as personal freedom (Brehm, 1966; Rhodewalt and Davison, 1983). Given a situation in which a person views his personal freedom or public image as being threatened, attitudes will tend to shift in a direction which is opposite that being presented. This may be true even when the individual is initially inclined to agree with the argument being presented. Second, prior knowledge of the intent to persuade also works to fortify a person's originally held attitude. The person attempts to protect the attitude against change. Third, inoculation may operate when individuals hear sequential situations in which contrary attitudes are presented and then refuted (McGuire and Papageorgis, 1961).

Cognitive Dissonance

It would not be appropriate to consider attitude change without touching on the concept of cognitive dissonance, held to be a factor in attitude change that is somewhat in contrast to persuasion. The theory of cognitive dissonance

was offered by Festinger (1957) in explanation of the process of resolution of conflict resulting from inconsistency between conflicting attitudes or between conflicting attitude and behavior. According to Festinger, cognitions are consonant if they are consistent with one another, dissonant if they are in contrast, or irrelevant if they are not related. For example, if one believes that human life begins at conception and, therefore does not believe in abortion, his cognitions are consonant. On the other hand, believing that human life begins at conception and approving of abortion is an example of dissonance.

Cognitive dissonance is described as a feeling of discomfort which arises because of conflicts among beliefs or between actions and attitude. Although not an uncommon feeling, it is one which represents imbalance and seeks resolution. There are three major methods of reducing dissonance. First, either the behavior or the attitude can be changed, thereby removing the difference which causes the discomfort. For example, a person having a strong belief about the dignity of the human being experiences dissonance because he is a member of a group promoting capital punishment. He may sever his relationships with the group or change his belief. Second, new information may be obtained which will allow the person to obviate the conflict

between attitude and act. An adult who has high blood pressure has been told to reduce intake of salt and cholesterol but finds himself unable to do so. While he desires good health, his behavior is contrary to it. He is able to find information which allows him to continue the behavior and see it as consistent with his desire for good health. A study reports that high salt intake is not correlated with hypertension; a favorite uncle with hypertension is 90 years old and still eats what he wants. Hence, continuing his behavior is not contrary to his beliefs and there is no conflict. Third, the importance of the conflict can be minimized so that the dissonance abates. A teenager believes that stealing is wrong. He sees a peer drop a dollar, picks it up and keeps it for himself. It is only a dollar; his peer probably gets an allowance of more than that and will not miss the money; a dollar is not a significant amount of money. The conflict is not bothersome. By whatever method, a person seeks to relieve the dissonance, even if the relief is not permanent.

In order for dissonance to exist several factors need to be present. (Baron and Byrne, 1987) There must be a choice in either the attitude or the behavior. Being forced under threat of death to engage in a behavior that is not consistent with a held attitude may not result in

dissonance. There is external justification for the behavior and there may be no need to change the attitude. Other factors include a detrimental consequence that can be foreseen and an involvement of self in a way which is important to the individual. The dissonance does not exist if the outcomes of the action are not negative or do not impact on the self-concept.

Cognitive dissonance is related to attitude change because the conflict serves as a motivational force to restore equilibrium. The individual is bound to perform in some manner to reduce the conflict. As mentioned above, one way to achieve this is to change the attitude which is in conflict. These changes are not always made in the framework of rationality, nor are they necessarily of a permanent nature, but they are made to reduce discomfort.

Festinger and Carlsmith (1959) conducted a classical experiment to test the theory of cognitive dissonance. Subjects were asked to perform boring tasks for a period of thirty minutes and then were given false explanations of the study. The experimenter then offered to hire the subjects to meet the new subjects and to tell them that what they were about to engage in was interesting or enjoyable. They were offered either \$1 or \$20. Since this action would be contrary to their beliefs about the task, the existence of

dissonance was very likely. They were engaging in counter-attitudinal behavior. Subsequent questions to the participants showed that those who were paid \$1 reported that the tasks were enjoyable and that they were willing to participate in a similar study. They had changed their attitudes about the tasks to reduce the dissonance. To explain, an incentive of such a small value would not compensate for the dissonance. The subject would rationalize the fact that he acted out of concert with a held attitude. Since he did it for such a small amount it must be "alright". Therefore the attitude can be changed. Since the attitude change has occurred, dissonance is resolved and future behavior can be in accord with the "new attitude". Those receiving \$20 had no need to make such a change because the justification resulting from receiving a larger amount of money negated the conflict. When the incentive was \$20, the subject could continue in the behavior. He could do it, even if he didn't agree with it because the reward was enough. "I'm only doing it for this reward; I don't agree and haven't changed my attitude." This person would need continuing incentives to behave contrary to his attitude.

Attitude-Behavior Relationship

One of the early studies focusing on the attitude--behavior relationship was conducted by LaPiere (1934). In the early 1930's, while traveling throughout the United States with a Chinese couple, LaPiere anticipated a problem with sleeping and eating arrangements because of predominantly negative attitudes toward Chinese at the time. He kept track of acceptance/rejection in 67 "hotels" and 184 restaurants over the 10,000 miles of travel. In only one instance did they meet with rejection; in all other instances LaPiere recorded acceptance. Six months after the travel, a questionnaire was mailed to the establishments that had been visited. The question "Will you accept members of the Chinese race as guests in your establishment?" either appeared among questions dealing with other nationalities or it stood alone (p. 233). In the 128 returns, 92 percent of the restaurants and 91 percent of the hotels responded in the negative.

The results of this study, showing virtually no agreement between the actual behavior and the "symbolic" behavior, were contrary to the general expectations of the time. LaPiere concluded that the attitude questionnaire is not a measure of the actual behavior. While he conceded that questionnaires are viable methods of gathering factual

data, he cautioned against expectations that this type of data gathering would predict specific behavior in specific situations. Behavior could not be predicted by questionnaire-assessed attitudes (Penrod, 1986, p.281).

Over the years, LaPiere's study has been criticized for methodological faults. The only criterion was agreement to provide service; the questionnaires were sent six months after the actual experience occurred; there were no controls which verified that the respondents to the questionnaires were the same persons who initially agreed to provide the service. Despite these concerns, it was difficult to totally dismiss the findings. It was not that the agreements were small; they were almost non-existent.

This did not end the debate about the relationship between attitude and behavior. Many studies reinforced LaPiere's findings; many studies contradicted LaPiere's findings (Schuman and Johnson, 1976). There was no resolution to the question and assumptions about the relationship continued. In 1969, Wicker reviewed about 46 empirical studies which dealt with whether attitudes were related to overt behaviors. His conclusion was that there was more likely to be little or no relationship than there was to be a close relationship. Rarely did the studies show a correlation coefficient of higher than .30 and, indeed,

the associations were often near zero (p. 65). The field of social psychology could not ignore these findings nor continue to make claims without some resolution. As Wicker concluded, research on the "postulated sources of influence on overt behavior were needed (p.75)." Without this and without evidence that verbal measures are linked to overt actions, researchers must deal only with that which they measure directly.

Failing an agreement to abandon previously held assumptions about the attitude-behavior relationship, researchers and theorists were left with the need to show congruence, to distinguish where the relationship existed, and to improve the measurement of attitudes. Early in the 1960's, Fishbein had conducted a study that hypothesized that an individual's attitude is a function of beliefs and evaluation of those beliefs (Fishbein, 1963). As an extension to this, Fishbein and Ajzen developed a Behavioral Intentions Model or their reasoned action theory, for predicting behavior (1975; 1980). Fishbein and Ajzen's model began with the proposal that beliefs about a behavior influence attitude about the behavior in question. Emerging from this and from normative beliefs come intentions to perform behavior. It is this intention which is linked to the overt and specific behavior. Measuring attitudes toward

behavior, rather than attitudes toward objects, will increase attitude-behavior congruence. "Furthermore, ...to maximize the correlation, behavioral intention is the variable (of choice) (Schuman and Johnson, 1976, p.172)." Additionally, the level of attitude must be of the same level as the behavior being predicted. That is, general attitudes predict general behaviors; specific attitudes predict specific behaviors. Following a review of studies, Fishbein and Ajzen (1977) similarly concluded that attitude has a strong relation to behavior when both elements are directed at the same target and involve the same action (p.913).

The theory of Self Perception (Bem, 1972) attacks the attitude-behavior relationship from a different vantage point. Bem holds that attitudes are based on an individual's perceptions of his behavior and the situational elements involved when this behavior occurs. If one spends a considerable amount of time engaged in a certain activity, one's perception of this activity would reveal the attitude. If one hunts regularly, one must have a positive attitude toward hunting. The behavior drives the attitude. Several subsequent studies support the belief that this self-perception process is more in effect when a person's attitude is not clearly or firmly formed.

The relationship of attitudes to behaviors has been addressed in other studies. The specificity of the attitude as a determining factor in the strength of the relationship between attitude and behavior was the focus of a study by Weigel, Vernon, and Tognacci (1974). The study was designed to assess whether self-reported attitudes about ecology were congruent with the willingness to participate in activities. A sample of residents was surveyed about ecological issues, which were classified into four levels of specificity. All were asked to sign a permission slip so that their name could be given to the Sierra Club, and those who agreed were systematically contacted over the next five months and asked to participate in ecological projects. Consistently, the attitudes of higher specificity were better predictors of subsequent behavior. Those who indicated a high degree of specificity in their choices were more likely to actually become involved at a later date. The predictive power of the high- mid- and low-specificity measures differed significantly from one another (p.727). In a similar study with a slightly different orientation, the relationship of degree of specificity was upheld (Weigel and Newman, 1976). Scores on an environmental concern scale were highly correlated with scores on a comprehensive behavioral index, but not with each of the separate behaviors. The

predictiveness of an attitude is higher when its level of specificity more closely matches that of the behavior.

Another realm of attitude-behavior consistency relates to the method of attitude formation (Regan and Fazio, 1977). The hypothesis was that "attitudes formed on the basis of direct personal experience" are more strongly predictive of subsequent behavior (p. 30). A survey containing items assessing attitudes toward housing crises was administered to freshmen college students who were required to live in temporary housing because of a shortage of permanent housing and a control group of freshmen who knew of the shortage, but did not experience it. Six choices for behavioral involvement were indicated, ranging from signing a petition to joining groups to resolve the situation. The relationships between attitudes and behavior were consistently higher in the group which experienced the housing shortage.

The bases for the increased strength of the attitude-behavior relationship attributed to direct experience can be found in several arenas (Fazio and Zanna, 1981). Regan and Totten (1975) and Fazio, Zanna, and Cooper (1978) suggest that different information processing occurs in direct experience. This difference involves more focus on the behavior and the likelihood that a stronger attitude will

develop and will be predictive of later behavior. Second, direct experience affords the individual greater accessibility to the attitude. Hence it is more likely to be influential in decisions about actions to take. The more accessible the attitude is, the greater its relationship to behavior.

In summary, attitude, its definition, process for development and change, and the manner in which it relates to behavior is pertinent to the current study. For the purpose of this study, attitudes are seen to incorporate the three elements of affect, behavior, and cognition. The data derived from the survey represent measured attitudes as opposed to either latent attitudes or actual behavioral acts.

Definition of Terms

Chief Academic Officer - That administrator who holds the institutional responsibility for development, implementation, and evaluation of instructional programs across disciplines.

Department/division chair - The person who relates directly with faculty in day to day implementation of the instructional program. The position may be administrative or may be one of faculty rank with additional administrative responsibilities.

Attitude - An affective feeling or emotion which is related to cognitions or thoughts and inclines one to behave in certain ways.

Basic Skills - Those abilities related to reading, writing, and computation.

Learning, Instructional, or Educational Outcomes - Those cognitive, affective, and psychomotor behaviors which are the result of the educational experience as a whole.

Outcomes Assessment - Measurement of indicators which relate to the impact of the educational process on students.

Value-Added - Change in knowledge, abilities, and affect which occur from time of entrance to exit from college, presumably from the impact of the educational experience.

Limitations

There are several limitations inherent in this study that relate to sampling and measurement.

1. Those staff most typically charged with development and implementation of instructional programs in higher education constitute the sample of this study. The study is limited to those personnel and the impact they exert on assessment. Other personnel will have a role in outcomes assessment and their impact is not addressed by this study. Legislators, staff in state agencies, chief executive officers, and boards of trustees will influence the direction of outcomes assessment. Those implementing outcomes assessment will need to integrate the influences of all staff on the final product.
2. Major purposes of higher education incorporate teaching, research, and public/community service. This study focuses on the instructional role. This study includes public two- and four-year, degree granting institutions within the state of Maryland. Only undergraduate programs are included, since the major goals of graduate schools tend to emphasize research and community

service aspects of higher education.

3. The terms accountability and institutional effectiveness are typically used to represent a broader scope of assessment than that implied in outcomes assessment. The results of this study will not address the broader parameters, even though there is some overlap.
4. Selection of the chief academic officer and division chairs was made by virtue of position. However, faculty selection was made on the basis of anticipated responses to the issue of outcomes assessment. This anticipation stemmed from assumptions that the pattern of responses to educational issues was somewhat stable, that division chairs were in a position to judge how particular faculty responded, and that the chair would identify faculty in a way which was not biased.

Most chairmen responded readily to the request to provide faculty names to match the vignettes.

They asked to have the vignette repeated; they often gave examples of behavior which matched the descriptions; on a few occasions they indicated that none of their faculty fit a particular

description. Many chairs asked whether faculty would know how they had described them and were reassured that this would be confidential information.

It is not possible to prove that bias did not exist, but there is no overt evidence to suspect that it did.

5. A major portion of the survey instrument is composed of attitude items. The measurement of attitudes by such methods is limited by the fact that the measurement is indirect. Green (1954) indicated that attitudes can be measured and the survey was constructed to contain as many elements of the attitude universe as feasible. The review of the instrument by an expert panel contributed to the inclusion of multiple items related to the attitude in question. Schuman and Johnson (1976) indicated that elicited attitudes are those that can be measured. However, since they are elicited and not latent, the potential for measurement error exists.

Further, the relationship of attitudes to actual behavior is not a perfect correlation. Although some theorists indicate that behavior can

not be predicted by questionnaire-assessed attitudes (Penrod, 1986), others hold that certain characteristics or situational factors related to the attitude-behavior relationship will influence the strength of the relationship. Therefore inferences will be necessarily limited by this.

Organization of Study

Chapter I includes the statement of the problem and the purpose and significance of the study. The significance of the issue of outcomes assessment and the theoretical basis for the study describe the focus of the study. Assumptions, definitions, and limitations conclude this chapter.

Chapter II describes on the method of the study. Specific sections present the development of the survey instrument and description of the population and sample. The method of faculty selection is described and the overall process of the survey is reviewed. Approaches to data collection and analysis are included.

Chapter III presents the data and their analyses in both narrative and tabular form. The relationship of these to the study questions is analyzed. A summary of the data concludes the chapter.

Chapter IV provides the results of the study. Major conclusions and implications are presented. Finally, recommendations for future action and study conclude the chapter.

Chapter II
Method of Study
Introduction

The purpose of this study was to answer the following questions.

- 1) What attitudes exist among faculty and staff regarding the:
 - a) value of outcomes assessment,
 - b) feasibility of outcomes assessment,
 - c) scope of indicators,
 - d) intended use of assessment,
 - e) impact of assessment, and
 - f) problems inherent in the assessment process?

- 2) What are faculty and staff preferences concerning:
 - a) components of an assessment plan,
 - b) responsibility for assessment design,
 - c) persons to whom assessment is to be reported,
and
 - d) uses of assessment results?

Research Design

This was a descriptive study which utilized the survey approach as its method of data collection. The data were

obtained from mailed questionnaires administered during the fall, 1989, semester to chief academic officers, division chairs, and faculty in public, undergraduate colleges in Maryland.

Chapter Organization

This chapter includes descriptions of the survey development, the population, identification of the sample, procedures for data collection, and, in conclusion, the approach to data analysis.

Survey Instrument

Format

The survey questionnaire is composed of five distinct parts, each one dealing with a particular element of the research question. The first part, focusing on question one of the study, is comprised of fifty-six items. It uses a Likert-like rating scale to focus on attitudes. The next portion, which addresses the second research question, consists of four items that ask respondents to select and rank their preferences about components of assessment, design of the assessment plan, reporting of results, and purposes of outcomes assessment.. The third part consists of six items dealing with the amount of experience the respondent has had with the assessment of outcomes. This section forms the basis for an experience index. The fourth section seeks specific demographic information. Finally, interspersed among the above parts are three open-ended items which provided the opportunity for respondents to expand on factors which influenced their current attitudes, specify the role of administration in the process, and add other information they believed important. See Appendix A for a complete questionnaire.

Scale

The first portion of the questionnaire was developed as

a unidimensional scale (McIver and Carmines, 1981) with the issue of outcomes assessment serving as the dimension of focus. It was designed to be typical of Likert-like scales: it is seen as a summative, subject-centered scale in which the most favorable response corresponds with the highest number (5). Approximately half of the items are phrased in the negative and some were reverse-scored in the analyses of responses.

The 56 items in this portion were classified according to the sub-sections of the first research question, i.e., attitudes about the value of outcomes assessment, feasibility of outcomes assessment, scope of indicators, intended use of results, impact of outcomes assessment, and problems with outcomes assessment. A seventh category, labeled "unable to classify", was also provided. Five professional educators were asked to classify the 56 items according to the above categories.. One classifier was an administrator in institutional research and a member of an educational outcomes committee, one was an instructional analyst and developer who has served as faculty and administrator in two- and four-year institutions, one was a faculty member who has taught in two- and four-year institutions and serves as co-chairman of an outcomes assessment committee, one was an instructional developer who

has taught in two- and four-year colleges, and one was a person who has served as faculty and administrator in two-year colleges and serves as a co-coordinator of an outcomes assessment project.

The results of the classification are shown in Appendix B. Of the fifty-six items, all but four were similarly classified by at least 60 percent of the classifiers. More specifically, 15 items were classified alike by 60 percent, 16 items were classified alike by 80 percent, and 21 were classified alike by all of the classifiers. A total of eight items, including the four for which there was not a majority agreement by the classifiers, were considered as other factors. Appendix C shows the grouping of questions which resulted. The classification facilitated analyses of the data and serves as a framework for reporting responses.

Rankings

The second portion of the questionnaire focused on the second research question and was specifically intended to determine staff preferences in regard to each of four areas: components of outcomes assessment, design of an assessment plan, reporting of results, and purposes of outcomes assessment. To elicit the information, four items were constructed to provide "preferential choice data" (Coombs in McIvers and Carmines, 1981). For each of these items, the

respondents were asked to perform a partial ranking, in the sense that they were to rank only those sub-items or choices that they believed important in reference to the question. So, from one to twelve choices may have been ranked within any one item. While such items are perceived to be more difficult than ratings, rankings ask the respondent to make choices and may therefore show stronger relationships (Converse and Presser, 1986).

Validity

The choice of specific items was guided by the research questions, but also by current questions, writings, and expressed concerns about the topic of outcomes assessment. The literature referenced in the previous chapter provided the initial base for the specific items. A major concern in the construction of a questionnaire was that it be valid. The question which validity tries to answer is " Are we measuring the variable we propose to measure." The first type of validity with which the survey development was concerned was that of content validity. As Kerlinger defines it, content validity is the "representativeness of the content...of a measuring instrument" (1973, p. 458). The attitude universe of outcomes assessment was sampled using current literature and the judgment of the researcher as references for this initial decision.

Expert Panel

Next, a panel of experts was asked to review the compiled questionnaire for its format, ease of administration, and appropriateness of content in relationship to the concept of outcomes assessment. The six people who participated in this process are listed below:

Dr. Peter Ewell, Senior Consultant, National Center for Higher Education Management Systems,
Dr. George Funaro, Deputy Commissioner, Maryland Higher Education Commission,

Dr. Theodore Marchese, Vice President, American Association for Higher Education,

Mr. Daniel McConochie, Director of Planning and Research, Maryland State Board for Community Colleges,

Dr. Lawrence Nespoli, former Assistant Executive Director, Maryland State Board for Community Colleges, and

Dr. Edgar Schick, Vice Chancellor, Policy and Planning, University of Maryland.

Each member of this group has been extensively involved in the issue of outcomes assessment on the national or state level and is recognized by his constituents as knowledgeable in the field. In addition, several of them have a

background in research which allowed them to comment specifically on the mechanics of the questionnaire and the proposed study. The comments, questions, and expressed concerns of this group were compiled and used to make specific changes in the questionnaire.

Reliability

Of equal concern to validity is reliability of the instrument. Reliability of a scale is an indication of the degree to which subsequent administrations would produce similar results. It is related to the stability and equivalence of the tool (Green, 1954; Kerlinger, 1971). Even though there may be expected shifts in attitudes over time, there must be enough stability to measure them and to use the results to look at future behavior or make adjustments in plans or policies. Hence, the question of reliability is appropriate.

Pre-test

To measure reliability, the questionnaire was pre-tested with 31 faculty and administrators in a community college in Maryland. The process used was what Converse and Presser (1986) termed a participating pre-test. That is, the respondents were told that this was a practice run of the instrument and their reactions were being sought. The relationship of this process to the basic construction of

the questionnaire will be discussed later. The intent in point here is that of reliability.

Several methods of determining reliability may be used. The split-halves method was initially used with Likert scales because of its ease, but has the drawbacks related with various methods of "splitting" the tool. Instead, a coefficient alpha was used to provide an estimate of reliability based upon the "interitem correlation matrix (McIver and Carmines, 1981, p.29)."

At the time of the pre-test, there were 54 items in the scaled portion of the questionnaire, with 25 of them reverse scored. Thirty-one persons were sent the questionnaire and a total of twenty-nine responded. Of these, one participant skipped an entire page and therefore was not included in the analysis. For the remaining 28 completed questionnaires, the coefficient alpha was 0.9278, indicating reasonable reliability. In general, a coefficient alpha of 0.6 or higher is accepted as evidence of reliability.

General Construction

In addition to review by the researcher, the panel of experts, and the participants in the pre-test, general principles of survey construction as proposed by Dillman (1978) and Converse and Presser (1986) were followed.

Several of the reviewers thought the length of the

questionnaire to be a problem. Pre-test participants reported an average of fifteen to twenty minutes required for completion. Second, the number of reversed items in the scaled portion, along with the total number of items, was questioned. In fact, after a review of all comments two items were added to this part in order to clarify statements. This length was thought reasonable; it did not interfere with returns. A decrease in the number of items might also have threatened reliability, an undesirable outcome. The number of reversed items was about half of the total, a practice consistent with the definition of a Likert scale (McIver and Carmines, 1981).

Other factors related to construction were considered. There was an attempt to word items as clearly and simply as possible, although clarity and simplicity are a matter of judgment and reaction is difficult to predict. The fact that intended respondents would be in the field of higher education probably made this factor less influential. For the most part, items of like format were grouped together to decrease the burden of response. However, to decrease the likelihood of irresponsible responses patterns, specific content areas were interspersed. The response patterns for items related to experience with assessment were consistent, even though they were not identical. In most sections of

the questionnaire, ease of response was a factor in formatting, Directions preceded each section or were repeated with individual items and written responses were minimized.

Population

The population for this study consisted of an estimated three thousand, six hundred staff members in three selected categories of academic personnel employed in public, two- and four- year, undergraduate institutions of higher education in the state of Maryland. Three categories of academic personnel were chosen, based on their actual or anticipated involvement in outcomes assessment.

Specifically, chief academic officers are those persons charged with the campus responsibility for instructional programs and activities and are singularly affected by established programs of outcomes assessment within colleges and universities. They are expected to provide the leadership for this process within the instructional component. Division or department chairs are the middle management staff who must translate the established assessment programs into operational activities as they relate to instructional arenas. Faculty implement programs on a daily basis or, by their very function, provide the data for analysis. They are most intimately aware of intended outcomes and the activities in place to achieve them.

Public higher education in the state of Maryland is controlled by a newly created Maryland Higher Education

Commission. Seventeen community colleges join with two four-year colleges, five state universities, and three campuses of the University of Maryland to comprise the undergraduate segment of postsecondary education. Most of these institutions serve identified geographic regions in the state, and some historically serve select sub-cultures of the state. Since the enactment of the 1988 Higher Education Law, all upper division public schools except two are part of the University of Maryland system. Because of the unique role played by individual colleges, and the special characteristics pertaining to so many of the institutions, all were intended to be included in this study.

In 1987, policy guidelines for institutional assessment were established by the then Maryland State Board for Higher Education, and these were followed later the same year by procedures for implementation. With the passage of the reorganization law, each institution is mandated to develop performance accountability plans based on approved mission statements. Despite the fact that specific, detailed directives are not in place, these plans must contain "quantifiable indices of student academic performance" (Maryland, 1988). The plans and the analyses of data are to be reported annually. This action linked Maryland with

other states that are mandating assessment of outcomes but are leaving the identification of specific indicators and processes to individual campuses.

Because of the above facts - the structure and size of the higher education system in Maryland and the status and direction of its assessment efforts - it was considered appropriate to limit the population of this study to institutions within Maryland. The assessment guidelines apply equally to two- and four- year public institutions but are only voluntarily assumed by private schools. Those institutions which are publicly funded for the majority of their budgets are most significantly affected and are the appropriate population for this study. The research and service components of higher education, though generally related to institutional effectiveness, are not the focus of this study. Therefore, institutions which are classified as undergraduate more aptly constitute the population for this study.

Sample of Study

The goal of the sampling design used in this study was to provide data from respondents who would be illustrative of the population as described above. To achieve this, different techniques were applied to each of the three elements surveyed.

Institutional Selection

As described above, it was the intent to include all two- and four-year, public, undergraduate colleges in Maryland, since each of them contributes unique characteristics. With an accompanying letter of support from the President of the college in which the researcher is employed, a letter requesting permission to include the college in the survey was sent to presidents of each of the twenty-seven institutions. With telephone follow-up, all but one president agreed to allow his college to be surveyed. Additionally, two institutions required that the survey be approved by their Human Rights Committee before it could be distributed. The one institution which was not included in the survey is a small, co-educational, four-year, liberal arts college. It had begun as a private college but was later assumed into the public structure. It is located in a rural area and its student body and curricula are somewhat atypical for public colleges in

Maryland. The student body of about 1,400 is more highly selected than in other public colleges. It offers 16 majors, with an emphasis on liberal arts and general education.

In instances in which multiple campuses existed, only those sites at which the entire administrative organization operated were used. In actuality, this only applied to the University of Maryland. In other colleges where there were multiple sites, but not campuses, the sites were treated as a regular part of the total college. In the end, twenty-six institutions were included in the study (see Appendix D), and the chief academic officer(s) of each of these were surveyed. Because two institutions categorized two persons as chief academic officers, there was a total of twenty-eight such persons who were surveyed.

Division/Department Selection

There are two components involved in identification of specific divisions or departments. First was the matter of which divisions were to be selected, and second was the determination of the specific chair.

In selecting the divisions, representativeness of the disciplines was considered. All divisions within a college are expected to be affected by outcomes assessment, although it might be expected that disciplines differ in the number

of past assessment experiences and their propensity toward certain types of assessment. Disciplines were selected to represent a variety and with the expectation that all chosen would be found in every institution. Even though some more specialized disciplines were excluded because of this technique, the disciplines chosen represented the bases for all other recognized disciplines. The disciplines selected were English, social sciences, mathematics, and science. In instances where the organizational structure was based on a smaller dimension, a particular discipline within that area was selected. This occurred in the areas of social sciences and science. In each instance, a sub-discipline was pre-chosen. When the area of social sciences was subdivided, history was chosen as the discipline; likewise, when the area of science was subdivided, biology was chosen as the discipline.

The selection of the division/department chair was done using information obtained from the office of the chief academic officer. The question asked was, "Who is the person who is in charge of the area and to whom the faculty are directly responsible?" The titles varied in many instances--division chair, department chair, associate dean, or head--but the elements noted above were constant. In some instances, depending on the organizational structure of

the college and its size, one person served this role for more than one discipline. There were eighty-nine chairs included in the survey.

Faculty Selection

The intent was to select three faculty members from each of the disciplines identified above. The method of selection was not random but rather was judgment or purpose sampling as described by Kalton (1983). Random sampling in this instance could have resulted in participants who were not representative of the attitudes of faculty in reference to outcomes assessment. In order to avoid this particular problem, it would have been necessary to use a sample that was of a much larger size. The time and financial constraints of the study dictated a different design.

Several possibilities existed in terms of the manner in which this sample of faculty was to be identified. The desire was to determine attitudes about specifics of outcomes assessment, but it was thought that the issue was not sufficiently public to use outcomes assessment itself as the basis of selection. The assumption was made that a similar diversity of attitude could be expected to exist in regard to other educational issues. Therefore, three vignettes were developed to describe different ways in which faculty view and handle educational issues.

Other than faculty themselves, it was judged that the chair was the next person who best knew faculty and how they respond to educational issues. Therefore, each chair was asked to select three faculty from his area, each of whom was described by one of the three vignettes. The reasonableness of the vignettes was previously verified with several chairs who were not to be included in the study. The full vignettes are found in Appendix F. Briefly, the three potential roles or approaches were labeled as the faculty leader, the compromiser, and the apolitical faculty member.

Preceding the distribution of the survey, each chair was contacted by phone. The fact that the president had approved the college's inclusion in the study and the general purpose of the study were presented. The chairs were then asked to provide three faculty names, each matching one of the vignettes. In three instances, the chairs requested that the vignettes be mailed so that they could read them. In one of these situations, the chair eventually refused to provide the faculty names. In five cases, the chairs reported that there were not three faculty positions in the areas and, in one case, all courses in the discipline were contracted out to a nearby college, which was already included in the study. In two instances, the

chairs stated they could only match the vignettes with one or two faculty. In the end, two hundred eighty-nine faculty names were received.

A summary of the sample is shown in Table 1, following.

TABLE 1
SAMPLING DESIGN

Institutional Type	Colleges	Chief Academic Officers	Disciplines	Division Chairs	Faculty
2 Year	17	19	67*	54	186
4 Year	9+	9	36	35•	103
Total	26	28	103	89	289

+ One College not approved for participation

* Science not represented at one college

• One chair declined participation

Data Collection Procedures

Data were collected through mailed questionnaires. The process used in this endeavor was, to the extent possible, fashioned after the Total Design Method (Dillman, 1978). In this method, construction and processing of the questionnaire is designed to maximize response by minimizing the cost to the respondent. "Cost" is viewed in terms of time, effort, and money. Thus, such features as stamped, return envelopes; a questionnaire that flows easily from one to the next section; an easy-to-read format; ease of response, and pertinence of items are considered less "costly". Although the instrument was somewhat lengthy, requiring an estimated fifteen to twenty minutes to complete, the usefulness of the information was stressed. An attempt was made to limit the survey to questions which were directly pertinent to the issue, and the answering format, for the most part, required little writing by the respondent. Questions which were most directly related were placed at the beginning of the instrument.

The questionnaire was mailed directly to each person, by name, with cover letters individually signed. Each cover letter was on bond paper and was personalized in terms of salutation, reference to college and its president, indication of committee clearance if appropriate, and

indication of the particular position of the respondent. This same procedure was used for all follow-up contacts, with the exception of the post card reminder.

The initial mailing to chief academic officers contained a letter of support from the deputy commissioner of Maryland Higher Education Commission, in addition to the regular cover letter. It was thought that persons in this position would be most responsive to a state official, while the predominantly faculty roles would not respond in a similar manner. Examples of cover letters are found in Appendix E.

The initial mailing of the questionnaire was planned to be received by the respondents about a third of the way into the fall semester. This was judged to be a typically less difficult time and sufficiently far from the beginning of the semester, the end of the semester, and vacations to avoid the increased demands of these times. The first mailing, as was true of subsequent ones, was timed so that it arrived toward the first of the week. A 24 percent response resulted from this mailing.

One week later, a reminder post card was sent to all from whom a response had not been received. A total of 58 percent was received as a result of the first two contacts. In another two weeks, the second follow-up was mailed. This

consisted of a letter encouraging participation along with a second questionnaire. Another 15 percent responded after this third contact.

An analysis of the returns at this time revealed a difference in returns from certain categories of institutions. Therefore, about two weeks later, a third mailing was sent to persons in small and medium sized, four-year institutions. An additional four percent were received as the result of this effort. The total response rate was 77 percent, with six percent of these judged non-usable. Table 2 shows this response pattern. A more thorough analysis of the responses will be treated in the next chapter.

TABLE 2

PATTERN OF RETURNS

Date	Type of Contact	Number Sent	Cumulative Return Rate
Oct. 6	Initial - Cover Letter Support Letter Questionnaire	406	24%
Oct. 13	Second - Post Card	342	58%
Oct. 27	Third - Cover Letter Questionnaire	180	73%
Nov. 15	Fourth - Specialized Cover letter Questionnaire	47	77%
			87

Data Analysis

Data analysis was performed using the SPSS-X software package on a personal computer. Descriptive statistics included frequencies, means, standard deviations, ranges, levels of agreement, and rankings.

Items categorized as "Value" and those categorized as "Feasibility" were treated as subscales. Coefficient alphas for the items which comprise these subscales were 0.69 and 0.60 respectively. Data analysis for research questions dealing with attitudes about "Value" and "Feasibility" used the subscales and referenced them to specific personal and institutional characteristics. For these two subscales, one-way analysis of variance was performed to determine levels of significance.

Initial inspection of returned questionnaires for completeness revealed three categories: 1) those with all items completed, 2) those with the great majority of items completed, and 3) those with large numbers of items unanswered, improperly answered, or totally unfilled out. Those returns which belonged to the third category were judged unusable and were not included in the analyses, except as noted below. They will be described in greater detail later.

Those returns which fell into the first category were

analyzed on the basis of the responses provided by the respondent. In the second category, and for those items located in the first section of the questionnaire, missing data was imputed if the number of uncompleted items did not exceed four in the fifty-six item set. The imputed number was "3", the mid point on the scale. All questionnaires which were judged as usable had no more than four missing items in this first section.

In the section calling for rankings, missing data was treated simply as missing. Some respondents checked these responses instead of ranking them and in these instances the checks were not included in determining priority assigned to the particular choice, but were included when reporting the total number of responses to an item. The maximum number of returned surveys in which any of these items was improperly answered or missing was 27 (See Table 3).

In the third section of the questionnaire, that asking for experience with outcomes assessment and demographic information, missing data was treated as missing unless the researcher was able to supply the information. This occurred in a few instances when the respondent did not respond to items about gender, role, and type of institution. This information had been obtained by initial contact made by the researcher and by the coding of the

TABLE 3
MISSING DATA
QUESTIONS # 58 - 76

Item #	Number of Missing Points	Number Improperly Answered	Total Missing Data Points
58	7	9	16
59	10	9	19
60	10	9	19
62	20	7	27
63	6		6
64	5		5
65	6		6
66	4		4
67	11		11
68	9		9
69	3		3
70	4		4
71	6		6
72	6		6
73	13		13
74	5		5
75	12		12
76	4		4

questionnaires.

Other methods of treating missing data were considered. One method would have been to compute the average of responses obtained and then assign, by random, this same distribution to the missing items. Second, the possibility of substituting by known group or by establishment of a regression line was reviewed. Of the 287 usable returns, there were 18 items with a potential for missing data. There were four items which asked for rankings (58, 59, 60, and 62). Of these, there were from 16 to 27 returns with missing or improperly assigned answers. The greatest number of these was in item 62. Of the remaining items, missing data occurred in from five to thirteen cases. The greatest number of "no answers" occurred in items 73 and 75 (age and race). After a review of the proportionately small number of missing data, it was judged that imputation of the data would not contribute significantly to the results. See Table 3 for a summary of missing data.

Three questions (57, 61, and 77) were open-ended. The responses to these items, and other narrative comments received, were summarized and reported in terms of the personal and institutional characteristics. There was a large number of respondents who did provide narrative information, sometimes quite extensive. Some of this was in

response to the three questions on the survey, while some was unsolicited or was in explanation of their answers in other parts of the questionnaire.

Additionally, there were 24 surveys which were returned with little filled out or with no information provided. In all such instances, the respondents provided reasons for not answering and often described their general thoughts on outcomes assessment. This information is summarized separately in a narrative form dealing with non-respondents.

Six items focused on the issue of the amount of experience the respondent had with outcomes assessment. This group of items, with a coefficient alpha of 0.842, was used to provide an experience index. This index was considered as a personal characteristic. A low index was from 1 to 2.5; a medium index was from 2.6-3.5; and a high index was considered to be above 3.5.

Data Reporting

Levels of agreement and disagreement were used to report data related to attitudes toward outcomes assessment (research questions 1a through 1f). Agreement combines choices 4 and 5 on the scale, while disagreement combines choices 1 and 2. Choice 3 was considered neutral and not incorporated into levels of agreement.

In reporting data related to preferences about outcomes assessment (research questions 2a through 2d) ranking of choices was used. Only respondents are represented and there is no missing data. The percent "choosing at all" is based on the total N so that the relative importance of the item is more apparent.

Summary

This study is classified as survey research, using descriptive techniques. Questionnaires were mailed to three categories of personnel in public institutions of higher education in the state of Maryland. A response rate of 77 percent was achieved. Seventy-one percent of the responses were useable and provide the data for the analyses which follow.

CHAPTER III
ANALYSIS OF DATA

Introduction

This chapter describes the analysis of the survey data. It begins with a discussion of the general characteristics of the returns. Analysis of the data that pertain to the first research question is then presented, followed by analysis of the data of the second question. It concludes with a discussion of comments included with returns and a description of those returns deemed unusable.

General Characteristics of Returns

Return Rates

Survey forms were mailed to a total of 406 subjects in public undergraduate institutions in Maryland. The overall return rate was 77 percent. Corrected to account for unusable returns, the rate was 71 percent. Thus, 287 returns provided the data analyzed in this chapter.

While all subgroups of subjects were represented among the respondents, the return rates of subgroups varied considerably. (See Table 4) Staff of four-year institutions responded at a lower rate than those of community colleges, regardless of role or size of the college. Among four-year schools, small institutions had a rate of return lower than the rates of large and medium colleges. Among two-year

TABLE 4

RETURN RATES BY SUB GROUPS

	Number in Sample	Respondents N	%
CAO	28	25	89%
Division Chair	89	65	72%
Faculty	289	197	69%
Community Colleges	259	199	77%
Small	62	49	77%
Medium	112	92	82%
Large	85	58	71%
CAO/Chairs	73	61	85%
Faculty	186	138	74%
Four-Year Colleges	147	88	61%
Small	48	*25	54%
Medium	51	*33	65%
Large	48	*27	58%
CAO/Chairs	44	28	65%
Faculty	103	60	59%

*Three responses unable to be classified

institutions, large colleges had return rates six to eleven percentage points lower than the rates of medium and small colleges. Return rates based on the role of the respondent also showed variability. Chief academic officers (CAO's) had the highest rate at 89 percent. Next highest were staff classified as chairmen, with an overall 72 percent return. Following this, faculty returns were at the overall rate of 69 percent. While faculty had been selected on the basis of probable reactions to educational issues, the return rates for each of the three different faculty groups did not vary more than two percentage points from each other. Thus, for the purpose of analysis all faculty were considered as a single group, not broken out by probable responses to issues or by disciplines represented.

The difference between response rates of institutional types was large: the rates were 77 percent for community colleges and 61 percent for four-year colleges, a difference of 16 percentage points.

Respondents

Table 5 shows the general characteristics of the respondents. They were predominantly male, white, and in a faculty role. The four disciplines of English, social sciences, mathematics, and science were equally represented in the subjects surveyed and in the returns. The

TABLE 5

CHARACTERISTICS OF RESPONDENTS

Characteristic	N	%
Gender		
Male	201	70.3
Female	85	29.7
Race		
Black	31	11.2
Caucasian	238	86.2
Hispanic	1	0.4
Oriental	4	1.4
Other	2	0.7
Role		
Chief Academic Officer	26	9.1
Div./Dept. Chair	75	26.1
Faculty	186	64.8
Experience Level		
Low	128	46.9
Medium	91	33.3
High	54	19.8
Institutional Type		
2 year	200	69.7
4 year	87	30.3
Age (years)		
Mean	48	
Range	27-67	
S.D.	7	
Years in Position		
Mean	11	
Range	1-30	
S.D.	11	

respondents averaged forty-eight years in age and eleven years in position. They were thus not to be regarded as young educators new to their jobs or to the field of higher education. Nevertheless, almost half of the respondents (46.9 percent) rated themselves as having a low experience level in reference to the issue of outcomes assessment. Slightly fewer than 20 percent reported a high level of experience with the issue, and those with the highest level of experience were in small, four-year schools and medium sized two-year colleges.

Staff Attitudes Toward Outcomes Assessment

The first 56 questions of the survey were designed to address the question of staff attitudes. The six factors considered in this question are presented below.

Value of Outcomes Assessment

Five questions were classified as focusing on the value of outcomes assessment (see Appendix C for this categorization), and these were treated as a subscale. The analyses of this factor are found in Table 6. The overall mean for the "Value" factor was 3.35 on a scale of 1 to 5, with 5 indicating the greatest valuing.

The means by type and size of institution ranged from 2.9 to 3.4, with the mean for large, four-year institutions being the lowest at 2.9. The means of the other types of colleges ranged from 3.30 to 3.49.

In most instances, chief academic officers perceived the value of outcomes assessment to be somewhat greater than did respondents in other roles. Chairmen and faculty did not differ markedly in their perceptions of the value.

Respondents with high levels of experience tended to value outcomes assessment more than respondents at lower levels of experience. This pattern did not hold for years in position, however. For example, respondents in two-year colleges with the greatest number of years in position had

TABLE 6

VALUE OF OUTCOMES ASSESSMENT,
 MEAN AND S.D. BY INSTITUTIONAL TYPE, ROLE, EXPERIENCE LEVEL AND YEARS IN POSITION

Institutional Type	Overall	Characteristics									
		Role		Experience Level			Years in Position				
		CAO	DC	FAC	Low	Medium	High	3 and Under	4-6	7-9	10 and over
Two-Year											
N	197	17	44	136	88	62	38	49	30	21	97
Mean	3.40	3.94	3.44	3.33	3.22	3.54	3.63	3.41	3.43	3.52	3.36
S.D.	.62	.33	.64	.61	.63	.59	.56	.65	.62	.60	.61
Four-Year											
N	83	8	17	58	34	29	16	16	13	7	7
Mean	3.23	3.40	3.16	3.22	3.00	3.39	3.38	3.45	3.42	3.03	3.13
S.D.	.63	.40	.49	.69	.65	.64	.46	.42	.54	.55	.70
Overall											
Mean	3.35										
S.D.	.63										

the lowest mean for value.

One-way analysis of variance pertaining to the "Value" subscale (Table 7) showed that there was a significant difference in overall means for "Value" in reference to the variables of institutional type, role, and experience with outcomes assessment. Means in two-year institutions were generally higher than in four-year colleges. Chief academic officers valued outcomes assessment more than did division chairs or faculty. Those with medium and high experience levels had a correspondingly higher mean for "value."

In two-year institutions, role and experience index had a significant impact on "value". The more administrative the position, the more value perceived. Similarly, the higher the experience index, the higher the mean for "value." There was not a significant interaction between years in position and "value," however.

In contrast, in four-year institutions the "value" means were significantly different for experience index, but there was not an increase in means with the corresponding increase in experience. There was not a significant interaction between role or years in position and "value."

Several respondents offered qualifying comments on specific items related to "value". In response to the item #2 (that it is worthwhile to measure outcomes of higher

TABLE 7

SUMMARY OF ANALYSIS OF VARIANCE FOR "VALUE"

Overall	F	df	p
Institutional type	4.583	1/279	.033
Role	6.598	2/279	.002
Experience Index	11.917	2/269	.000
Years in Position	.848	3/282	.468
Two-Year Institutions	F	df	p
Role	8.149	2/196	.000
Experience Index	8.205	2/187	.000
Years in Position	.405	3/196	.750
Four-Year Institutions	F	df	p
Role	.379	2/82	.685
Experience Index	3.768	2/78	.028
Years in Position	1.684	3/82	.177

education) six faculty and chairmen specified that some outcomes were worth measuring but that the measurement was not a precise process. Three respondents, a chief academic officer and two faculty members, indicated that the process of outcomes assessment "could be" a learning experience for students involved.

Feasibility of Outcomes Assessment

Two questions were classified as measuring "Feasibility" and these were treated as a subscale (see Appendix C for categorization). The analysis of this factor is found in Table 8. The overall mean for this factor was 2.90, while the range of means based on type of institution was from 2.25 to 3.15. As with "Value", the lowest mean for "Feasibility" was found in large, four-year institutions. There was not a clear pattern in "feasibility" based on role. In some institutional types, chief academic officers had the highest mean, in some the chairmen had the highest, and in a few others it was the faculty who had the highest mean.

There was not a consistent interaction between experience level and perceived "feasibility" of outcomes assessment. In two-year colleges, the relationship was positive, i.e., those with the highest experience levels had the highest mean. In four-year institutions, however, there

TABLE 8

FEASIBILITY OF OUTCOMES ASSESSMENT
MEAN & S.D. BY INSTITUTIONAL TYPE, EXPERIENCE LEVEL,
AND YEARS IN POSITION

Institutional Type	Overall	Role		Experience Level			Years in Position					
		CAO	DC	FAC	Low	Medium	High	3 and under	4-6	7-9	10 and over	
Two-Year												
N	198	17	45	136	90	61	38	49	31	21	97	
Mean	3.04	3.26	3.30	2.93	3.02	3.06	3.08	3.12	3.11	3.52	2.87	
S.D.	.90	.99	.93	.86	.93	.86	.97	.88	.89	.75	.91	
Four-Year												
N	84	8	17	59	35	29	16	16	13	8	47	
Means	2.56	2.38	2.68	2.55	2.50	2.88	2.38	2.97	2.62	2.75	2.37	
S.D.	.92	1.03	.98	.89	.86	.86	1.01	1.12	.89	1.04	.80	
Overall												
Mean	2.90											
S.D.	.93											

was a disjointed relationship between levels of experience and "feasibility". Those at the medium experience level had the highest mean.

More years in position did not equate to higher "feasibility" means in either two-year or four-year colleges. In two-year institutions, those with seven to nine years in position had the highest mean, while those four-year respondents with three or fewer years in position had the highest mean.

One-way analysis of variance pertaining to the "Feasibility" subscale (Table 9) indicated that there was a significant difference in means for "feasibility" only for institutional type. Those who were most positive about the "feasibility" of outcomes assessment were in two-year colleges.

In two-year institutions, means were significantly different for role and years in position. Faculty had the lowest mean and those with ten or more years in position were least positive about the "feasibility" of outcomes assessment. In four-year institutions however, there were no variables for which the differences were significant. Means for all roles, experience levels, and years in position were below 3.0.

Narrative responses pertaining to the two questions of

TABLE 9

SUMMARY OF ANALYSIS OF VARIANCE FOR "FEASIBILITY"

OVERALL	F	df	P
Institutional Type	16.648	1/281	.000
Role	2.866	2/281	.059
Experience Index	.663	2/271	.516
Years in Position	4.781	3/284	.003
TWO-YEAR INSTITUTIONS			
	F	df	P
Role	3.579	2/197	.030
Experience Index	.074	2/188	.929
Years in Position	3.491	3/197	.017
FOUR-YEAR INSTITUTIONS			
	F	df	P
Role	.298	2/83	.743
Experience Index	2.149	2/79	.123
Years in Position	1.909	3/83	.135

feasibility were few. One chairman qualified his response by specifying that "some" outcomes can be measured.

The respondents were more positive about the value of outcomes assessment than they were about its feasibility. The overall mean was lower and the standard deviation was greater for "feasibility" than for "value."

Choice of Indicators for Outcomes Assessment

The survey instrument included sixteen items that were statements of measures or indicators of outcomes assessment. The responses to these items are summarized in tables 10, 11, and 12. Respondents as a whole most favored transfer success (90.6 percent) and employer satisfaction with graduates (89.5 percent) as assessment indicators. The next four preferred indicators were critical thinking ability (84.6 percent), level of student involvement (80.0 percent), attitude change (78.6 percent), and graduate function in society (78.4 percent). Though these indicators are less easily quantifiable than the first choices, well over three-fourths of the respondents agreed that they should be included in outcomes assessment.

Next in order of preference were success on licensing exams (78 percent), drop-out rates (74.9 percent), program completion rates (74.8 percent), success in careers (69.4 percent), and course success (63.5 percent). About half of

TABLE 10
 PERCENT OF AGREEMENT AND DISAGREEMENT, MEAN, & S.D.
 WITH SPECIFIC INDICATORS

Item No.	Indicator Statement	% Agree	% Disagree	Mean	S.D.
17	Transfer Success	90.6	3.5	4.06	.65
9	Employer Satisfaction	89.5	5.6	4.03	.71
37	Critical Thinking	84.6	6.6	4.05	.82
24	Level of Student Involvement	83.0	8.3	3.92	.84
7	Changes in Student Attitudes	78.6	9.8	3.86	.86
32	Graduate Function in Society	78.4	11.5	3.85	.91
29	Success on Certifying/Licensing Exams	78.0	9.1	3.79	.80
18	Drop Out Rate	74.9	15.3	3.70	.90
13	Program Completion Rate	74.8	16.2	3.67	.91
21	Graduate Success in Careers	69.4	21.6	3.49	1.01
3	Course Success	63.5	23.8	3.47	1.12
14	Institutional Use of Funds	53.8	29.0	3.26	1.14
5	Program Cost	52.4	36.4	3.12	1.21
19	Course Completion Solely	28.9	62.8	2.61	1.07
11	Graduate Earnings	26.2	60.2	2.47	1.15
28	"Rising-juniors" exams	21.6	59.4	2.42	1.16

N=287

TABLE 11
 PERCENT OF AGREEMENT AND DISAGREEMENT, MEAN, & S.D.
 WITH SPECIFIC INDICATORS BY INSTITUTIONAL TYPE

Item No.	Indicator Statement	%Agree		%Disagree		Mean		S.D.	
		2 Yr.	4 Yr.	2 Yr.	4 Yr.	2 Yr.	4 Yr.	2 Yr.	4 Yr.
17	Transfer Success	94.5	82.4	2.5	5.9	4.13	3.90	.60	.75
9	Employer Satisfaction	88.4	91.6	6.0	4.8	4.01	4.08*	.73	.66
37	Critical Thinking	84.4	85.9	7.5	4.7	4.03	4.10	.84	.80
24	Level of Student Involvement	79.9	79.8	9.5	6.0	3.88	4.0	.84	.85
7	Changes in Student Attitudes	82.4	70.1	8.0	14.3	3.92	3.72	.82	.94
32	Graduate Function in Society	79.9	75.3	10.5	13.0	3.90	3.76	.90	.89
29	Success on Certifying Licensing Exams	82.4	68.2	7.5	31.8	3.86	3.64	.77	.79
18	Drop Out Rates	78.4	65.8	13.6	34.1	3.75	3.54	.89	.90
13	Program Completion Rate	76.8	69.0	15.1	19.1	3.70	3.59	.88	.98
21	Graduate Success in Careers	69.8	68.2	20.6	34.7	3.49	3.49	1.00	1.04
3	Course Success	65.9	57.2	20.1	32.1	3.53	3.3	1.04	1.27
14	Institutional Use of Funds	53.7	53.6	31.1	25	3.24	3.32	1.13	1.17
5	Program Cost	55.7	44.0	34.2	42.8	3.16	3.0	1.21	1.22
19	Course Completion Solely	27.1	34.1	65.3	56.5	2.59	2.67	1.01	1.21
11	Graduate Earnings	27.6	22.7	58.3	64.3	2.53	2.32	1.13	1.22
28	"Rising-juniors" exams	24.2	15.3	57.0	64.7	2.47	2.29	1.18	1.11

N=199 2 yr.; 85 4 yr.
 Range on items 1-5, except as noted
 *Range 2-5

TABLE 12

PERCENT OF AGREEMENT AND DISAGREEMENT MEAN, & S.D.
WITH SPECIFIC INDICATORS BY ROLE

Item No.	Indicator Statement	%Agree		%Disagree		Mean		S.D.					
		CAO	DC	FAC	CAO	DC	FAC	CAO	DC	FAC			
17	Transfer Success	100.0	90.5	89.8	--	6.4	3.1	4.28	3.96	4.07	.45	.71	.65
9	Employer Satisfaction	100.0	88.7	88.3	--	8.1	5.6	4.36	3.9	4.0	.49	.78	.70
37	Critical Thinking	96.7	77.7	85.7	4	9.5	6.1	4.32	3.84	4.08	.69	.91	.80
24	Level of Student Involvement	80.0	72.5	82.1	12	9.7	7.6	3.88	3.79	3.96	1.01	.89	.81
7	Changes in Student Attitudes	80.0	69.4	80.1	4	14.5	9.2	4.0	3.64	3.90	.75	.96	.83
32	Graduate Function in Society	92.0	74.6	78.1	4	15.9	10.7	4.2	3.69	3.87	.70	1.02	.87
29	Succession Certifying	92.0	77.7	76.5	4	11.1	8.7	4.32	3.69	3.76	.74	.83	.74
18	Licensing Exams	84.0	73.1	74.1	8	15.9	16.3	3.92	3.60	3.69	.75	.85	.93
13	Drop Out Rates	88.0	70.9	73.9	12	20.9	15.9	4.04	3.50	3.68	.79	.98	.89
21	Program Completion Rate	88.0	61.9	69.4	12	33.3	19.4	3.96	3.28	3.50	.84	1.12	.97
3	Careers	80.0	66.1	60.5	12	21.0	26.2	3.80	3.56	3.40	.95	1.00	1.16
14	Course Success	28.0	51.6	57.6	48	37.1	24.5	2.64	3.09	3.39	1.18	1.23	1.08
5	Institutional Use of Funds	72.0	56.5	48.4	16	37.1	39.3	3.8	3.12	3.02	1.0	1.23	1.21
19	Program Cost	24.0	38.1	27.0	72	50.7	65.3	2.36	2.82	2.58	1.03	1.05	1.08
11	Solely	40.0	27.5	23.9	40	56.5	63.7	2.88	2.53	2.40	1.20	1.25	1.10
28	Graduate Earnings	4.0	33.3	20.0	84	50.7	59.0	1.68	2.69	2.42	.98	1.24	1.12
	"Rising-juniors" exams												

CAO = Chief Academic Officer
DC = Division/Department Chair
FAC = Faculty

the respondents agreed that institutional use of funds and program cost should be included as outcome indicators. Finally, about one quarter selected sole use of course success, graduate earnings, and use of "rising-junior exams" as appropriate indicators. A parallel existed between level of agreement and mean for each item. That is, as the mean for the item increased, so did the level of agreement.

Indicators by Type of Institution

Respondents in two-year colleges exhibited a higher level of agreement with most indicators than did respondents in four-year institutions. Only three exceptions to this trend were evident. Four-year staff rated "Employer Satisfaction," "Critical Thinking," and "Sole Use of Course Success" higher than respondents in two-year colleges.

The indicators with the greatest differences in percent of agreement between two-year and four-year colleges were "Changes in Student Attitude", "Transfer Success". "Drop-out Rates", and "Success in Licensing Exams". Each of these indicators showed a difference of at least a twelve percentage points, always higher for respondents in two-year institutions.

Respondents in two-year colleges agreed most with "Transfer Success" (94.5 percent) while those in four-year colleges were most in agreement with "Employer Satisfaction"

(91.6 percent). The indicators showing the lowest level of agreement for both two-year and four-year institutions were "Graduate Earnings", "Sole Use of Course Success", and "Rising-junior Exams".

Indicators by Role

Although there were differences in level of agreement based on role, all three subgroups were consistent in their choice of the top three indicators. The top three were "Transfer Success", "Employer Satisfaction", and "Critical Thinking." For the chief academic officers, the next four highest choices were often measures by external sources-- "Success in Licensing Exams", "Graduate Functioning in Society", "Career Success", and "Program Completion". Chairmen chose three of these same indicators but favored "Level of Student Involvement" instead of "Career Success". Faculty members chose "Graduate Functioning in Society", "Success in Licensing Exams", "Level of Student Involvement", and "Changes in Student Attitudes".

In general, chief academic officers were more in favor of the indicators than were chairmen or faculty. Three items, however, showed a reverse of this pattern. Academic officers chose "Sole Use of Course Success" less frequently than chairmen or faculty and showed a remarkably lower level of agreement on "Institutional Use of Funds" and "Rising-

junior Exams". These three items were at the lowest level of agreement for the role of chief academic officer. For chairmen and faculty, "Rising-junior Exam" was at the lowest level of agreement and "Graduate Earnings" was at the next lowest level.

The subgroups of two-year colleges and chief academic officers had the higher levels of agreements for most indicators. The indicator agreed to most frequently by all subgroups was either "Transfer Success" or "Employer Satisfaction".

Narrative Responses about Indicators

Six respondents indicated uncertainty about the definition of the term "Course Success", while two chairmen commented on the appropriateness of including "Course Success" as an indicator. Several expressed concern about using factors such as cost or institutional use of funding as indicators in assessment, as well as about potential misuse of information. They saw success of students and graduates, attrition, employment, and transfer success as points of information that are not always adequate in themselves. Some said that causes, in addition to the rates themselves, were important to assessment. Finally, while acknowledging the difficulties of assessment, they noted the importance of such elements as critical thinking and

functioning in society.

Use of Results of Outcomes Assessment

The third part of the first research question focuses on attitudes of staff as regards the use of the results of outcomes assessment. Tables 13, 14, and 15 contain the data related to this question. The item with the highest level of agreement was "Revising Instruction"; 81.8 percent of all respondents agreed with this use. There was a drop of fifteen percentage points to the next use, "Evaluate the Institution" (66.4 percent). Close to this, with 61 percent, was the option to make the results public. The two uses least agreed to by all respondents were to "Compare One Institution to Another" (21.6 percent), and to "Cut Funding" (11.9 percent).

Use of Results by Institutional Type

Both two-year and four-year institutions indicated the highest level of agreement with "Revise Curricula/Instruction" (84.4 percent of two-year and 76.2 percent of four-year respondents). There was, again, a drop of about fifteen percentage points to the next highest use. "Evaluate the Institution" showed agreement by 70.8 percent of two-year college respondents and 57.1 percent of four-year respondents. Close to this was to "Make Public" the results, with which 62.8 percent of community college

TABLE 13

PERCENT OF AGREEMENT AND DISAGREEMENT, MEAN, & S.D.
WITH USE OF RESULTS

Item Number	Use Statements	Agree	Disagree	Mean	S.D.
		%	%		
30	Revise Curricula/ Instruction	81.8	9.1	3.87	.82
8	Evaluate Institution	66.4	19.5	3.52	.97
48	Make Public	61.0	18.4	3.44	.97
15	Determine Funding of Instructional Program	46.5	34.6	3.09	1.08
22	Determine Funding of Institution	43.9	38.0	3.01	1.07
50	Compare One Institution to Another	21.6	64.1	2.37	1.06
31	Cut Funding	11.9	64.8	2.23	1.01

TABLE 14

PERCENT OF AGREEMENT AND DISAGREEMENT, MEAN, & S.D. WITH
USE OF RESULTS BY INSTITUTIONAL TYPE

Item No.	Use Statement	%Agree		%Disagree		Mean		S.D.	
		2 Yr.	4 Yr.	2 Yr.	4 Yr.	2 Yr.	4 Yr.	2 Yr.	4 Yr.
30	Revise Curricula/ Instruction	81.4	76.2	7.0	23.8	3.9	3.81	.76	.88
8	Evaluate Institution	70.8	57.1	17.1	25.0	3.58	3.40	.92	1.06
48	Make Public	62.8	57.7	15.1	24.7	3.50	3.35	.92	1.03
15	Determine Funding of Instructional Program	48.7	41.6	31.1	42.9	3.15	2.96	1.01	1.22
22	Determine Funding of Institution	43.2	45.19	37.7	38.8	3.0	3.03	1.04	1.14
50	Compare One Institution to Another	35.2	21.1	64.8	62.4	2.34	2.47	1.05	1.06
31	Cut Funding	9.5	17.7	69.3	52.9	2.13	2.48	1.00	1.00

TABLE 15

PERCENT OF AGREEMENT AND DISAGREEMENT MEAN, & S.D. WITH
USE OF RESULTS BY ROLE

Item No.	Use Statement	% Agree			% Disagree			Mean			S.D.		
		CAO	DC	FAC	CAO	DC	FAC	CAO	DC	FAC	CAO	DC	FAC
30	Revise Curricula/ Instruction	100	85.7	78.5	--	11.1	9.2	4.36	3.83	3.83	.49	.79	.81
8	Evaluate Institution	88	74.2	61.8	8	16.1	22.0	4.0	3.61	3.44	.91	.85	.99
48	Make Public	72	63.5	59.2	16	20.7	17.4	3.48	3.42	3.46	.96	.97	.95
15	Determine Funding of Instructional Program	68	56.5	42.3	24	25.9	35.7	3.44	3.32	3.04	1.12	1.08	1.07
2	Determine Funding of Institution	64	42.9	41.9	28	36	36.8	3.4	2.84	3.01	.95	1.12	1.06
50	Compare One Institution to Another	16	15.9	24.0	64	76.2	60.2	2.4	2.19	2.43	1.04	.94	1.09
31	Cut Funding	8	12.7	12.3	84	69.8	60.2	1.68	2.17	2.32	.94	.95	1.02

CAO = Chief Academic Officer
DC = Division/Department Chair
FAC = Faculty

respondents agreed and 57.7 percent of four-year college respondents. The two choices with the lowest levels of agreement were also consistent with both institutional types, although the percentage of agreement varied. These two alternatives, "Compare One Institution to Another" and "Cut Funding", had 35.2 percent and 9.5 percent agreement respectively in two-year colleges while there was 21.1 percent and 17.7 percent agreement in four-year staff.

Use of Results by Role

Although there were differences of from four to twenty-seven percentage points in levels of agreement among the three roles of chief academic officer, chairman, and faculty, the ordering of agreement was consistent among them.

Narrative Comments about Uses of Results

Narrative comments in reference to use-of-results items revolved around concern that the uses be legitimate and that the persons using the data be skillful in their approach.

For use of results, levels of agreement were in the same order for each subgroup as for all respondents as a group. "Revise Curricula/ Instruction" was the most preferred use.

Impacts of Outcomes Assessment

Seven items in the survey pertained to the impact of

outcomes assessment. These data are presented tables 16, 17, and 18. This area was accorded lower levels of agreement than were the previously presented areas. Two impacts were agreed upon by more than half the respondents, however.

"Increase in Public Confidence" and "Improvement of Quality" achieved 58.2 percent and 57 percent agreement respectively. The next two lower impacts, that outcomes assessment would pose a "Threat to Academic Freedom" and that it would "Trivialize Higher Education," had agreement levels of about one third and one fourth of the respondents respectively.

The impacts which showed the lowest levels of agreement by a large difference were related to the perception that outcomes assessment would make "Institutions too Competitive" (17.4 percent), "Lead to Mediocrity" (15.8 percent), and "Be Harmful to Students" (5.5 percent).

Impacts of Outcomes Assessment by Institutional Type

Two- and four-year respondents were consistent with the total respondents in identifying the top two impacts of outcomes assessment. "Improve Quality" had 61.4 percent agreement in two-year colleges and 46.4 percent in four-year colleges. "Increase in Public Confidence" was chosen by

TABLE 16

**PERCENT OF AGREEMENT AND DISAGREEMENT MEAN AND S.D. ON
IMPACTS OF OUTCOMES ASSESSMENT**

Item No.	Impact Statement	% Agree	%Disagree	Mean	S.D.
33	Increase public confidence in higher education	58.2	17.7	3.47	.96
16	Improve quality of education	57.0	22.4	3.38	1.06
51	Threatens academic freedom	33.8	49.1	2.87	1.09
34	Trivialize higher education	26.5	59.1	2.64	1.08
6	Institutions will be too competitive	17.4	58.1	2.53	.95
27	Lead to educational mediocrity	15.8	60.7	2.47	.92
40	Harmful to Students	5.5	72.4	2.20	.74

N = 287

Range on all items 1-5

TABLE 17

PERCENT OF AGREEMENT AND DISAGREEMENT, MEAN & S.D. ON
IMPACTS OF OUTCOMES ASSESSMENT BY INSTITUTIONAL TYPES

Item No.	Impact Statement	%Agree		%Disagree		Mean		S.D.	
		2 Yr.	4 Yr.	2 Yr.	4 Yr.	2 Yr.	4 Yr.	2 Yr.	4 Yr.
33	Increase public confidence in higher education	60.3	51.7	18.1	17.7	3.53	3.30	.96	.96
16	Improve quality of education	61.4	46.4	20.1	28.5	3.47	3.16	1.03	1.12
51	Threatens academic freedom	33.6	34.1	52.7	41.2	2.81	2.97	1.09	1.09
34	Trivialize higher education	21.6	39.3	64.9	45.2	2.50	2.97	1.02	1.18
6	Institutions will be too competitive	25.1	22.7	61.9	50.0	2.45	2.70	.92	1.00
27	Lead to educational mediocrity	14.6	19.1	63.6	53.6	2.42	2.59	.89	1.01
40	Harmful to students	4.0	8.2	77.9	60.0	2.15	2.36	.69	.80

TABLE 18

PERCENT OF AGREEMENT AND DISAGREEMENT, MEAN & S.D. ON IMPACTS OF OUTCOMES ASSESSMENT BY ROLE

Item No.	Impact Statement	% Agree		% Disagree		Mean			S.D.				
		CAO	DC	CAO	DC	CAO	DC	FAC	CAO	DC	FAC		
33	Increase public confidence in higher education	80	53.9	56.1	12	17.5	18.9	3.80	3.41	3.43	.95	.99	.95
16	Improve quality of education	76	52.5	54.6	20	25.9	21.9	3.64	3.32	3.36	1.03	1.08	1.07
51	Threatens academic freedom	4	23.8	40.8	88	61.9	40.4	2.0	2.57	3.07	.81	1.01	1.07
34	Trivialize higher education	8	20.7	31.3	84	58.7	55.9	2.04	2.58	2.74	.93	.96	1.12
6	Institutions will be too competitive	8	14.5	19.4	84	72.6	50.5	2.08	2.29	2.66	.90	.93	.93
27	Lead to educational mediocrity	8	15.9	17	88	57.1	58.3	2.04	2.52	2.52	.88	.94	.92
40	Harmful to students	4	6.4	5.1	88	73	70.4	1.8	2.22	2.24	.76	.79	.70

CAO = Chief Academic Officer
 DC = Division Chairman
 FAC = Faculty

60.3 percent of community college respondents; 51.7 percent of four-year staff agreed that this was an impact of outcomes assessment. Both two- and four-year respondents rated "Threat to Academic Freedom", "Trivialize Higher Education", and "Make Institutions too Competitive" next, while "Lead to Educational Mediocrity" and "Harmful to Students" were last, as they were for all respondents.

The greatest differences between two- and four-year respondents were found in "Improve Quality", which had a difference of 15 percentage points, and "Trivialize Higher Education", which had a difference of 17 percentage points.

Impacts of Outcomes Assessment by Role

Each of the three roles of chief academic officer, chairman, and faculty had the highest levels of agreement with the impacts of "Increase Public Confidence" and "Improve Quality". The other impacts received a much lower level of agreement by all roles, but particularly by the chief academic officer. The CAO had no more than an 8 percent level of agreement for any of the other five impacts. No more than 24 percent of chairmen agreed with the same five items. Faculty members showed more variety. They saw "Threat to Academic Freedom" and "Trivialize Higher Education" at 31.3 percent and 40.8 percent, ten to seventeen percentage points higher than either of the other

two roles.

While the impacts with the highest and lowest agreement were consistent across types of institution and roles, there were differences in degree of agreement, with faculty and division chairs agreeing at a higher level with detrimental effects of outcomes assessment than did chief academic officers. Four-year respondents generally had a lower level of agreement with the positive impacts and higher levels of agreement on the negative impacts than respondents at two-year colleges.

Problems with Outcomes Assessment

Ten items among the first fifty-six of the instrument were directed at potential problems of outcomes assessment. Table 19 shows agreement levels for the total respondents. The two problems rated highest were "Results Likely to be Misunderstood" (71.7 percent) and "Statewide Programs Don't Fit Uniqueness of College" (70.7 percent). The next set of four items showed a drop in agreement of ten to twenty percentage points. "Important Learning Can't be Measured by Paper\Pencil" showed 59.4 percent agreement, "Outcomes Assessment is Forced on Us by Accrediting Bodies" 56.4 percent and "Outcomes Assessment Results in Teaching to Test" 52.8 percent. Only 41.8 percent agreed that "Faculty Bear too Much Burden" for assessment. The remainder of the

TABLE 19

**PERCENT OF AGREEMENT AND DISAGREEMENT, MEAN & S.D. ON
PROBLEMS OF OUTCOMES ASSESSMENT**

Item No.	Problem Statement	% Agree	%Disagree	Mean	S.D.
46	Results are likely to be misunderstood	71.8	11.8	3.80	.89
20	Statewide programs don't fit uniqueness of College	70.7	3.4	3.89	.79
25	Important learning can't be measured by paper/pencil tests	59.4	38.2	3.40	1.17
45	Assessment is forced on us by state and accrediting bodies	56.4	16.7	3.53	.95
42	Outcomes Assessment results in "teaching to the test"	52.8	39.0	3.35	1.07
43	Faculty bear too much burden for assessment	41.8	26.5	3.22	1.00
26	Major factors affecting learning not in classroom	29.2	59.2	2.68	1.09
38	Outcomes Assessment is too difficult to implement	26.1	56.1	2.73	.99
55	Assessment detracts from real goals of higher education	18.4	61.0	2.69	.97
23	Outcomes assessment is too costly	16.1	36.17	2.80	.86

items were agreed upon by less than 30 percent of the respondents and included "Complexity of Factors influencing Learning", "Difficulty of Implementation", "Detraction from Real Goals of Higher Education", and "Cost Involved".

Problems with Outcomes Assessment by Institutional Type

A review of the agreement level by institutional type (Table 20) showed that consistency was less obvious in terms of percentages but, that order of items was close to that chosen by the total respondents. Staff of both types of institution indicated that the two greatest problems are "Potential for Misunderstanding" and "Lack of Program Uniqueness." "Inadequacy of Paper\Pencil Measurements", "Outcomes Assessment as a Forced Issue", "Teaching to the Test, and the "Burden Placed on Faculty" were next in line. Lowest rated items for both types of institution were "Cost Involved", "Detraction from Goals of Education", "Diversity of Influencing Factors", and "Difficulty of Implementation". In all but one instance, that of "Faculty Burden", staff of four-year institutions showed a higher level of agreement on all problems than did two-year staff.

Problems with Outcomes Assessment by Role

Chief academic officers chose "Lack of Program Uniqueness" as the biggest problem(80.0 percent) and "Inadequacy of Paper\Pencil Test" (58.3 percent) as the next

TABLE 20

**PERCENT OF AGREEMENT AND DISAGREEMENT, MEAN & S.D. ON PROBLEMS
WITH OUTCOMES ASSESSMENTS BY INSTITUTIONAL TYPES**

Item No.	Problem Statement	%Agree		%Disagree		Mean		S.D.	
		2 Yr.	4 Yr.	2 Yr.	4 Yr.	2 Yr.	4 Yr.	2 Yr.	4 Yr.
46	Results are likely to be misunderstood	67.8	81.2	14.6	4.7	3.71	3.98	.93	.74
20	Statewide programs don't fit uniqueness of College	70.8	71.8	3.0	4.7	3.9	3.87	.77	.82
25	Important learning can't be measured by paper/pencil tests	58.6	60.0	33.3	33.0	3.39	3.37	1.14	1.21
45	Assessment is forced on us by state and accrediting bodies	56.8	56.5	17.1	15.3	3.53	3.56	.96	.93
46	Outcomes Assessment results in "teaching to the test"	67.8	81.2	14.6	4.7	3.71	3.98	.93	.74
43	Faculty bear too much burden for assessment	43.8	37.7	26.1	27.1	3.25	3.14	1.02	.94
26	Major factors affecting learning not in classroom	26.1	36.5	62.3	53.0	2.60	2.84	1.06	1.12
38	Outcomes Assessment is too difficult to implement	21.6	36.5	60.8	45.9	2.62	2.97	.93	1.09
55	Assessment detracts from real goals of higher education	21.1	37.6	62.8	50.6	2.57	2.95	1.06	1.19
23	Outcomes assessment is too costly	13.6	22.6	41.2	26.2	2.7	3.01	.82	.92

(Table 21). Their third and fourth choices were close in line, with "Misunderstanding of Results" at 56 percent and "Assessment being Forced by State and Accrediting Bodies" at 52 percent. The lowest three problems selected by this subgroup were "Cost Involved" (8 percent), "Difficulty of Implementation" (8 percent), and "Detraction from Education Goals" (4 percent).

Chairmen identified "Lack of Uniqueness" as their first problem (73 percent) and "Potential for Misunderstanding" as their second (69.3 percent). "Inadequacy of Paper/Pencil Tests" (57.2 percent), "Teaching to the Test" (57.2 percent), "Faculty Burden" (44.4 percent), and "Assessment as a Forced Issue" (42.4 percent) were the next highest levels of agreement for this subgroup. Chosen least frequently were "Cost Involved" (11.1 percent), "Detraction from True Goals" (27.0 percent), and "Difficulty of Implementation" (29 percent).

Faculty had the highest level of agreement on the problem of "Misunderstanding" (74.5 percent). More than 15 percentage points distanced this from their second problem, that of "Inadequacy of Paper/Pencil Tests" at 59.7 percent. This was, however, very close to the next three problems, "Lack of Program Uniqueness" (59.4 percent), "Assessment as a Forced Issue" (58.6 percent), and "Teaching to the Test"

TABLE 21

**PERCENT OF AGREEMENT AND DISAGREEMENT, MEAN & S.D. ON
PROBLEMS OF OUTCOMES ASSESSMENT BY ROLE**

Item No.	Problem Statement	% Agree			% Disagree			Mean		S.D.		
		CAO	FAC	CAO	DC	FAC	CAO	DC	CAO	DC		
46	Results are likely to be misunderstood	56	74.5	32	7.9	25.5	33.6	3.82	3.84	1.07	.85	.86
20	Statewide programs don't fit uniqueness of College	80	59.4	--	--	5.1	4.12	4.01	3.82	.72	.75	.80
25	Important learning can't be measured by paper/pencil tests	58.3	59.7	33.4	33.3	33.2	3.33	3.38	3.39	1.16	1.14	1.17
45	Assessment is forced on us by state and accrediting bodies	52	58.6	36	23.8	11.7	3.20	3.41	3.62	1.0	1.04	.90
46	Outcomes Assessment results in "teaching to the test"	56	74.5	32	7.9	25.5	3.36	3.82	3.84	1.07	.85	.86
43	Faculty bear too much burden for assessment	16	44.4	68	27.0	20.9	2.40	3.22	3.32	.86	1.05	.95
26	Major factors affecting learning not in classroom	28	30.1	64	61.9	58.2	2.64	2.66	2.68	1.15	1.10	1.07
38	Outcomes Assessment is too difficult to implement	8	30.6	84	61.9	51.0	2.24	2.60	2.83	.77	.97	1.00
55	Assessment detracts from real goals of higher education	4	28.5	88	65	53.5	2.04	2.60	2.80	.61	1.05	1.15
23	Outcomes assessment is too costly	8	18.9	56	35	34.9	2.48	2.76	2.86	.87	.83	.86

(55.3 percent). The lowest problem identified by faculty was that of "Cost Involved" (18.9 percent).

Faculty and chairmen were closer in alliance and more distant from chief academic officers on problems of "Difficulty of Implementation", "Teaching to the Test", "Faculty Burden", and "Detraction from Real Goals of Higher Education." In these instances, twenty to thirty-five percentage points difference existed.

Narrative Comments about Problems of Assessment

Comments in this section centered around concern that the problems could more or less severe depending on how assessment was implemented.

Agreement on Other Factors of Outcomes Assessment

Eight other survey items were related to outcomes assessment but were not included to the categories discussed above. (See Tables 22, 23, and 24 for these data.) In this group of factors, "Need to Relate Assessment to Institutional Goals" had the highest agreement, at 84.2 percent. Approximately three-fourths of the respondents agreed that learning is affected by faculty/student interaction and class size. Two-thirds of the respondents agreed that assessment is appropriate to all disciplines and that they were willing to participate in outcomes assessment (68.5 percent). Some 61.5 percent saw the assessment process

TABLE 22

**PERCENT OF AGREEMENT AND DISAGREEMENT, MEAN & S.D
ON OTHER FACTORS**

Item No.	Other Factors	% Agree	%Disagree	Mean	S.D.
54	Assessments methods should be related to institutional goals	84.2	3.90	4.00	.70
35	Students learning most positively affected by 1-1 faculty/student interactions	74.4	16.5	3.835	1.00
44	Class size under 30 positively affects learning	71.1	10.8	3.88	.96
56	Willing to participate in Outcomes Assessment	68.5	14.6	3.58	1.01
36	Assessment is appropriate to all disciplines	67.9	19.5	3.57	1.00
10	Outcomes Assessment result of political pressure	61.5	20.2	3.58	1.032
52	Assessment methods should be consistent from one institution to another	50.2	34.8	3.164	1.12
49	Outcomes Assessment is artificial process	39.4	38.0	3.06	1.11

TABLE 23

**PERCENT OF AGREEMENT AND DISAGREEMENT MEAN, & S.D. ON OTHER FACTORS
BY INSTITUTIONAL TYPES**

Item No.	Other Factors	%Agree		%Disagree		Mean		S.D.	
		2Yr.	4Yr.	2Yr.	4Yr.	4Yr.	2Yr.	2Yr.	4Yr.
54	Assessments methods should be related to institutional goals	83.9	84.5	5.5	1.2	3.97	4.0	.72	.65
35	Student learning most positively affected by 1-1 faculty/student interactions	74.1	75.3	16.7	24.7	3.83	3.82	1.01	.95
44	Class size under 30 positively affects learning	72.3	69.5	13.1	5.9	3.87	3.90	1.00	.86
56	Willing to participate in Outcomes Assessment	71.9	61.9	13.0	19.0	3.64	3.45	.99	1.05
36	Assessment is appropriate to all disciplines	69.9	63.5	19.6	18.9	3.60	3.52	1.02	.97
10	Outcomes Assessment result of political pressure	61.3	63.1	22.1	15.5	3.56	3.65	1.01	1.05
52	Assessment methods should be consistent from one institution to another	51.7	47.1	33.1	38.9	3.23	3.02	1.08	1.18
49	Outcomes Assessment is artificial process	34.	50.6	41.2	30.6	2.96	3.29	1.11	1.07

TABLE 24

**PERCENT OF AGREEMENT AND DISAGREEMENT, MEAN & S.D. ON OTHER FACTORS
BY ROLE**

Item No.	Other Factors	% Agree		% Disagree		Mean		S.D.					
		CAO	DC	DC	FAC	DC	FAC	DC	FAC				
54	Assessments methods should be realted to institutional goals	100	85.7	81.6	--	14.3	5.1	4.32	4.06	3.94	.47	.64	.74
35	Student learning most positively affected by 1-1 faculty/student interactions	60	66.2	79.0	36	17.7	22	3.40	3.66	3.94	1.15	1.02	.94
44	Class size under 30 positively affects learning	28	66.7	78.5	36	12.7	7.1	2.96	3.79	4.03	1.02	1.01	.86
56	Willing to participate in Outcomes Assessment	92	74.2	64.3	--	16.2	16.3	4.24	3.59	3.50	.59	1.04	1.02
36	Assessment is appropriate to all disciplines	92	69.8	64.3	4	7.9	25	4.16	3.69	3.46	.68	.79	1.07
10	Outcomes Assessment result of political pressure	44	64.5	63.3	44	16.1	18.3	3.04	3.72	3.62	1.02	1.01	1.02
52	Assessment methods should be consistent from one institution to another	20	55.2	52.6	68	31.8	31.6	2.36	3.23	3.25	1.11	1.05	1.10
49	Outcomes Assessment is artificial process	16	36.5	42.8	76	39.7	32.7	2.32	3.0	3.17	.98	1.07	1.10

CAO = Chief Academic Officer
DC = Division Chairman
FAC = Faculty

to be the result of political pressure, and about half of the respondents believed that methods of assessment should be consistent from one institution to another. Finally, 39.4 percent agreed that outcomes assessment is an artificial process.

Other Factors by Institutional Type

By institutional type (Table 23) these factors showed the same ordering of items by level of agreement and few differences in percentages from those attributed to the respondents as a whole. Furthermore, two-year and four-year institutions were in close agreement on these items. For only two items were the differences between the two types of colleges more than six percentage points. In these two instances, 50.6 percent of four-year staff agreed that outcomes assessment is an artificial process at, compared with 34.1 percent of two-year staff. Willingness to participate was at 61.9 percent for four-year staff and 71.9 percent for two-year.

Other Factors by Role

The factor with the highest level of agreement was the same for all three roles, the relationship of methods of assessment to institutional goals. The two lowest items were also consistent among the roles: "Consistency from One Institution to Another" and "Assessment as an Artificial

Process". However, there is a considerable difference on some other items when chief academic officers are compared with the chair and faculty. Where 92 percent of the CAO's agreed that assessment is appropriate to all disciplines, only 69.8 percent of chairmen and 64.3 percent of faculty agreed. Similarly, 92 percent of CAO's agreed that they were willing to participate, while only 74.2 percent of chairmen and 64.3 percent of faculty thought so.

On the other hand, there were three items for which there was considerably lower agreement on the part of CAO's than for chairmen and faculty. Faculty and chairmen perceived assessment as an artificial process, 64.5 percent and 63.3 percent respectively. Only 44 percent of academic officers agreed with this. Class size was seen as a factor in learning by 66.7 percent of chairmen and 78.5 percent of faculty but by only 28 percent of CAO's. Finally, consistency of assessment methods from one institution to another was agreed on by only 20 percent of CAO's but by 55.2 percent of chairmen and 52.6 percent of faculty.

Formation of Attitudes

Respondents were asked to indicate what factors or events most influenced the formation of their attitudes about outcomes assessment. One hundred ninety-nine respondents answered this open-ended question and, of these,

fifty-six were in four-year colleges and one hundred forty-three in two-year institutions. Responses varied from simple answers of a few words to a page of explanation. Chief academic officers, chairmen, and faculty were proportionately represented among those who responded.

Responses can be classified into three related categories. The first of these is years of experience. Many respondents cited careers of fifteen to thirty years in length. Respondents drew a comparison between their many years in teaching and administration and the issue of outcomes assessment. In this context they spoke of teaching as being aware of the students, their learning, and the outcomes of the educational process. They believed that this process was parallel to the assessment of outcomes of higher education in a broader sense. An example of the tenor expressed was one description which stressed the need to work toward stated goals and to assess effectiveness in the classroom. This process of assessment was identified as the most important task to be done and yet the most difficult to achieve. In line with this, several respondents acknowledged that faculty fear assessment, although they asserted that good teachers need not fear the process.

Some statements cited the difficulty in using "tests"

as a measure of outcomes. The problem of student performance on tests versus their ability to function in "real" situations was noted. Related to this were repeated references to "teaching to the test" and the negative effects of the Maryland public school competency requirements and the Florida CLAST model.

Some respondents noted their professional experience, other than teaching, as causes of their current attitudes toward outcomes assessment. Reading, serving on accreditation teams, participation in national conferences, conducting workshops on assessment, peer discussions, graduate study, and involvement with college committees dealing such matters as self-study and general education were all activities and events which contributed to attitude formation. However, most of these were single comments and none of them was cited to the degree that teaching experience was.

A second group of statements related to the concept of accountability. Respondents referred to the problems with the competency levels of graduates as reflected in national studies, employer feedback, and transfer ability. Lack of consensus on what educational outcomes should be, on grade inflation, dilution of content, decline in student ability, low retention rates, and allowing students to leave our

colleges unprepared for what faces them were all mentioned as reasons to proceed with processes which would make higher education more accountable. Outcomes assessment was identified as such a process.

Further, respondents cited the need to answer the concerns of taxpayers and to satisfy society's need for competent graduates. An uneducated population was identified as a problem which gave support for outcomes assessment. Yet lack of data hinders identification of the discrete problems and their subsequent solutions. Outcomes assessment, while seen by some as a fad, was seen by others as necessary. As one respondent noted, "We must embrace assessment, warts and all."

The third group of responses centered on concerns about the general issue of outcomes assessment. Some said that the real value of education cannot be measured and that its core features, which include motivation, could not be assessed. Respondents clearly indicated that their perceptions of assessment were colored by problems they had already observed in other states, New Jersey and Florida to be specific, and in other settings, such as the public school system. Further, some respondents were highly fearful that the process would be artificial and superficial. One person, in example of this, described his

own institution's tendency to hide problems and promote only those things which fostered a positive image of the college. Assessment was seen to be a "bureaucratic exercise." Distrust of administrators, the "bureaucracy," and especially politicians was stated many times. The fear that data would be misused, that negative media coverage would occur, and that assessment would be the prelude for "others" to take control of higher education were a few of the points mentioned.

The majority of the responses to this question made it clear that there are mixed feelings about the value of outcomes assessment and that there were many pathways that led to the attitudes held.

Staff Preferences Concerning Outcomes Assessment

The second research question, that of staff preferences concerning four aspects of outcomes assessment, was addressed through four items that asked respondents to rank various elements of outcomes assessment. The four aspects were: components of outcomes assessment; responsibility for the design of plans; channels for reporting results; and purposes of assessment.

Components of Outcomes Assessment

The first item pertaining to the second research question asked for preferences in regard to components of outcomes assessment. Seven broad components were presented, and respondents were asked to rank those they thought were important. Tables 25, 26, and 27 present the data of this question.

The respondents as a whole ranked "Basic Skills" first (42.7 percent), "Higher Order Skills" next (28.1 percent), and "General Education" third (18.1 percent). However, among components which were chosen at all as important, "Higher Order Skills" (88.1 percent), "Subject Matter Skills" (81.1 percent), and "General Education" (80.8 percent) were the highest. The components ranked lowest by all respondents were "Persistence and Completion Rates," "Student Satisfaction," "Student Attitudes and Values," and

TABLE 25

RANKINGS OF COMPONENTS OF OUTCOMES ASSESSMENTS

Component	%Ranking #1	%Ranking #2	%Ranking #3	Ranking at all
General Education	18.1	23.3	25.9	80.8
Success After College	7.7	6.7	8.8	67.5
Persistence and Completion rates	3.2	6.4	12.7	54.7
Subject matter skills	11.6	21.0	22.7	81.1
Basic Skills	42.7	18.3	14.6	74.2
Student Satisfaction	4.8	2.4	7.1	58.5
Higher order skills	28.1	29.6	16.6	88.1
Student attitudes and values	4.3	11.2	12.2	65.5

TABLE 26

RANKINGS OF COMPONENTS OF OUTCOMES ASSESSMENT BY INSTITUTIONAL TYPES

Component	%Ranking #1 2Yr. 4Yr.	%Ranking #2 2Yr. 4Yr.	%Ranking #3 2Yr. 4Yr.	%Ranking At All 2Yr. 4Yr.
General Education	19.8 14.4	24.2 21.7	22.3 34.7	80.5 79.3
Success after College	5.7 13.2	7.9 3.7	10.0 5.6	69.5 60.9
Persistence and Completion rates	3.5 2.3	7.1 4.6	15.1 6.9	56.0 49.1
Subject matter skills	10.4 14.7	21.4 20.5	23.9 20.5	81.5 78.1
Basic skills	47.3 32.2	19.7 15.2	14.4 15.2	76.0 67.8
Student Satisfaction	5.6 2.3	1.6 4.7	7.2 7.1	62.0 48.2
Higher order skills	25.0 36.0	28.9 32.0	18.2 13.3	88.0 86.0
Student attitudes and Values	6.7 9.4	12 3.7	10.5 16.9	66.5 60.9

TABLE 27

RANKINGS OF COMPONENTS OF OUTCOMES ASSESSMENT BY ROLE

Component	%Ranking #1		% Ranking #2		%Ranking #3		% Ranking At All					
	CAO	DC	FAC	CAO	DC	FAC	CAO	DC	FAC			
General Education	18.2	15.7	19.1	27.3	19.6	24.2	18.2	21.6	28.7	88	81	80.1
Success after College	4.8	9.5	7.8	14.3	7.1	5.4	14.3	9.5	7.8	84	66.7	65.8
Persistence and Completion rates	15.0	9.1	2.0	10.0	9.1	6.9	10	12.1	14.78	80	52.4	52.0
Subject matter skills	4.5	18.9	10.3	18.2	22.6	21.2	13.6	18.9	25.6	88	84.1	79.6
Basic skills	52.4	36.7	44.0	9.5	18.4	19.9	19.0	14.2	14.2	84	87.8	71.9
Student Satisfaction	11.1	2.8	4.5	11.1	11.1	3.6	16.7	8.3	7.1	72	57.1	57.1
Higher order skills	8.3	26.8	31.6	33.3	30.4	29.2	33.3	14.3	15.2	96	88.9	87.2
Student attitudes and values	5.0	4.5	4.1	10.0	9.1	12.3	5.0	13.6	13.1	80	69.8	62.2

CAO = Chief Academic Officer
 DC = Division Chairman
 FAC = Faculty

"Success After College." Even so, these components were chosen by one-half to two-thirds of the respondents.

Components by Institutional Type

As regards the rankings by institutional type, there were some differences from the respondents as a whole. Staff of two-year colleges ranked "Basic Skills" as highest with 47.3 percent, "Higher Order Skills" next with 25 percent, and "General Education" as third with 19.8 percent. This was the same order as that for all respondents. Four-year staff, however, placed "Higher Order Skills" first (36 percent), "Basic Skills" next (32.2 percent), and "Subject Matter Skills" third (14.7 percent). Both subgroups ranked "Persistence and Completion Rates" and "Student Satisfaction" lowest. All components, however, were chosen at least by one-half to four-fifths of the respondents.

Components by Role

Rankings by the three roles also revealed some variations. Chief academic officers showed the greatest differences from the other two roles and from the respondents as a whole. Their highest ranked components were "Basic Skills" (52.4 percent), "General Education" (18.2 percent), and "Persistence and Completion Rates" (15 percent). "Higher Order Skills" and "Subject Matter Skills," which were ranked as first or second by other subgroups,

were among the lowest ranked for this subgroup.

Chairmen and faculty members were quite consistent with each other in the rankings of the various components.

"Basic Skills" was the highest, "Higher Order Skills" next, and "General Education" third for both of these subgroups. Faculty, however, ranked each of the items higher than did the chairmen. While "Student Attitudes and Values" was next to the lowest for both subgroups, "Persistence" was lowest for faculty (2.0 percent) and "Student Satisfaction" was lowest for chairmen (2.8 percent).

It should be noted that all components except "Student Satisfaction" were chosen by between 80 percent and 96 percent of CAO's. Only four components were chosen by over 80 percent of chairmen, however. These were "Higher Order Skills" (88.9 percent), "Basic Skills" (87.8 percent), "Subject Matter Skills" (84.1 percent), and "General Education" (81 percent). Only three were chosen by 80 percent or more of faculty. "Higher Order Skills" were chosen by 87.2 percent, "General Education" by 80.1 percent, and "Subject Matter Skills" by 79.6 percent.

Occasional narrative comments were given in response to this question. Several respondents noted difficulty choosing components, while another cited the need to include quantitative and qualitative data in a program. One faculty

member expressed concern that none of the proposed components would deal with the real causes of shortcomings in the "American education system".

Design of Assessment Plans

The second item pertaining to the second research question focused on who should have responsibility for designing assessment plans. The distinctions here were clear. The respondents ranked "Broad-Based Faculty Groups" highest (50.2 percent) and dropped 20 to 30 percentage points before settling on the second and third. "Department Faculty" and "Individual Faculty" claimed these places with 29.7 percent and 20.3 percent respectively. Other choices were ranked first at a considerably lower rate, running from 2.6 percent to 11.3 percent. These same preferences held for the most part as regards the percent that chose the item "at all." The exception to this was that "Department Chairs", with 54.3 percent, was chosen ahead of "Individual Faculty" (Table 28).

Design of Assessment Plans by Institutional Type

The patterns noted above held for the most part when responses were considered by institutional type (Table 29). "Broad-based Faculty" was ranked first by 51.2 percent of two-year staff and 47.6 percent of four-year staff. "Department Faculty" was ranked next by 27.8 percent of

TABLE 28

**RANKINGS OF PREFERRED
RESPONSIBILITY FOR DESIGN OF ASSESSMENT PLAN**

Responsibility for Design	%Ranking #1	%Ranking #2	%Ranking #3	%Ranking At All
State governing or coordinating bodies	5.4	6.5	12.19	32.4
Regional accrediting associations	7.6	8.6	11.4	36.5
Specialized accrediting bodies	8.6	13.3	10.5	36.5
Institutional research departments	9.6	9.6	16.7	39.7
Institutional testing and evaluation departments	6.6	15.4	5.5	31.7
Central campus administration	11.8	8.8	9.8	35.5
Department/Division chairs	7.1	19.9	28.8	54.3
Broad-based faculty groups	50.2	17.2	17.6	77.0
Department faculty	29.7	42.1	8.7	67.9
Individual faculty	20.3	17.9	25.2	42.8
Alumni	2.6	2.6	3.9	26.8
Professional organizations	8.4	10.1	16.0	41.4

TABLE 29

**RANKINGS OF PREFERRED
RESPONSIBILITY FOR DESIGN OF ASSESSMENT PLAN BY
INSTITUTIONAL TYPES**

Responsibility for Design	%Ranking #1 2 Yr. 4 Yr.	%Ranking #2 2 Yr. 4 Yr.	%Ranking #3 2 Yr. 4 Yr.	%Ranking At Ai: 2 Yr. 4 Yr.
State governing or coordinating bodies	2.8 13.0	8.6 0	15.9 4.3	34.5 26.4
Regional accrediting associations	6.4 11.1	11.6 0	11.6 11.1	38.5 31.0
Specialized accrediting bodies	10.1 4.0	15.1 8.0	12.6 4.0	39.5 28.7
Institutional research departments	13.4 0	8.5 16.6	14.6 23.3	41.0 34.4
Institutional testing and evaluation departments	8.9 8.6	19.4 8.6	2.9 0	33.5 26.4
Central campus administration	9.7 21.4	11.1 3.5	9.7 10.7	36.10 32.1
Department/Division chairs	8.1 4.4	22.7 13.3	24.5 40.0	55.0 51.7
Broad-based faculty groups	51.2 47.6	16.0 20.6	17.9 17.4	78.0 72.4
Department faculty	27.8 33.3	39.8 46.6	11.2 3.3	66.5 68.9
Individual faculty	18.0 26.3	19.2 15.7	25.3 23.6	41.5 43.6
Alumni	1.8 4.7	1.8 4.7	1.8 9.5	27.0 24.1
Professional organizations	9.7 5.7	8.5 11.4	15.8 17.1	41.0 40.2

two-year staff and 33.3 percent of four-year, and "Individual Faculty" followed with 18 percent of two-year staff and 26.3 percent of four-year. A deviation from other data was that 21.4 percent of the four-year respondents ranked "Campus Administration" first. It should also be noted that "Department Chairmen" was chosen by more respondents (51.7 percent) than "Individual faculty" (43.6 percent).

Design of Assessment Plans by Role

"Broad-based Faculty Groups" was ranked first by 47.6 percent of the chief academic officers, whereas "Individual Faculty" and "Central Campus Administration" were both ranked first by 33.3 percent. About half (47.2 percent) of the chairmen also ranked "Broad-based Faculty" groups first, while 26.2 percent chose "Chairmen" first and 15.4 percent chose "Central Campus Administration" first. Faculty also ranked "Broad-based Faculty" groups highest (51.7 percent), followed by "Department Faculty" (33.1 percent) and "Individual Faculty" (22.1 percent). The three alternatives most frequently chosen by all roles were "Broad-based Faculty," "Department Faculty," and "Department Chairs" (Table 30).

Narrative comments were few but pointed to a need for a combination of groups to be involved in a collegial manner.

TABLE 30

RANKINGS OF PREFERRED RESPONSIBILITY FOR DESIGN OF ASSESSMENT PLANS BY ROLE

Responsibility for Design	% Ranking #1		% Ranking #2		% Ranking #3		% Ranking At All					
	CAO	DC	FAC	CAO	DC	FAC	CAO	DC	FAC			
Governing/Coordinating Body	--	9.1	4.9	--	13.6	4.9	11.1	4.5	16.4	36	34.9	31.1
Regional Accrediting Association	--	3.8	9.6	--	7.7	9.6	20	7.7	12.3	20	41.3	37.2
Specialized Accrediting	--	7.4	9.9	--	14.8	14.1	16.7	14.18	8.5	24	42.9	36.2
Institutional Research	11.8	6.5	10.9	17.6	6.5	9.4	17.6	19.4	15.6	68	49.2	32.7
Institutional Testing	10	25	8.9	10	8.3	12.5	10	4.2	3.6	40	38.1	28.8
Central Campus Administration	33.3	15.4	1.8	16.7	11.5	5.4	5.6	11.5	10.7	72	41.3	28.6
Department/Division Chairs	9.5	10.3	5.3	23.8	12.8	22.1	23.8	33.3	28.4	84	61.9	48.5
Broad based faculty	47.6	47.2	51.7	19	9.4	20	28.6	18.9	15.9	84	84.1	74.0
Department faculty	16.7	26.2	33.1	38.9	38.1	43.6	16.7	7.1	8.3	72	66.7	67.9
Individual faculty	33.3	13.8	22.1	16.7	24.1	16.3	16.7	13.8	29.1	24	46.0	43.9
Alumni	--	5.3	4.0	--	15.8	2.0	--	15.8	6.0	24	30.2	25.5
Professional organizations	12.5	7.7	9.6	12.5	3.8	12	12.5	7.7	19.3	32	41.3	42.3

CAO = Chief Academic Officer
 DC = Division Chairman
 FAC = Faculty

One respondent commented that, while faculty were the best qualified to do the job, there were few who wanted to do it.

Preferred Receiver of Results of Outcomes Assessment

By over 50 percentage points, "Faculty" was chosen as the first group to receive the results of outcomes assessment. Seventy-two percent of the respondents as a whole ranked "Faculty" first, while only 15.6 percent ranked "Campus Administration" first. All remaining offices or groups were selected by fewer than ten percent of the respondents. Regardless of ranking, "Faculty" was chosen by 91.9 percent of respondents, "Campus Administration" by 80.4 percent, "Students" by 64.8 percent, and college "Boards of Trustees" by 64.4 percent. By all groups of respondents, the lowest preference was given to "Legislatures" and "State Governing or Coordinating Bodies". "The Public", at 4.2 percent, was ranked only slightly above these two (Tables 31, 32, and 33).

Preferred Receiver of Results by Institutional Type

The pattern described above held for responses by institutional type. Staff of two-year colleges ranked "Faculty" first (70.8 percent), as did those of four year institutions (75.3 percent). "Campus Administration" was ranked first by only 15.1 percent of two-year respondents and 15.6 percent of four-year. While two-year staff ranked

TABLE 31

RANKINGS OF PREFERRED REPORTING OF OUTCOMES ASSESSMENT RESULTS

Target of Reporting Results	%Ranking #1	%Ranking #2	%Ranking #3	% Ranking At All
State governing or coordinating bodies	3.3	3.3	15.3	52.2
Legislature	1.8	3.7	1.8	37.9
Faculty	72.0	16.7	4.2	91.9
Campus Administration	15.6	51.1	16.5	80.4
Students	8.1	27.4	25.8	64.8
Public	4.2	7.8	10.8	57.8
College Board of Trustees	5.4	7.0	44.3	64.4

TABLE 32

RANKINGS OF PREFERRED REPORTING OF OUTCOMES ASSESSMENT RESULTS BY INSTITUTIONAL TYPE

Reporting Results	%Ranking #1 2 Yr. 4 Yr.	% Ranking #2 2 Yr. 4 Yr.	%Ranking #3 2 Yr. 4 Yr.	%Ranking At All 2 Yr. 4 Yr.
Governing Bodies	2.7 4.8	4.6 0.0	15.7 14.6	54.0 47.1
Legislatures	2.6 0.0	1.3 9.0	1.3 3.0	37.5 37.9
Faculty	70.8 75.3	18.9 11.6	4.3 3.8	92.5 88.5
Campus Administration	15.1 15.6	52.1 50.0	15.1 20.3	82.5 73.5
Students	7.8 8.7	26.5 29.8	27.3 22.8	64.0 65.5
Public	5.7 0.0	4.9 16.2	9.8 13.9	61.0 49.4
College Board	5.7 2.1	6.5 8.6	45.6 41.3	69.0 52.8

TABLE 33
RANKING OF PREFERRED REPORTING OF OUTCOMES ASSESSMENT
RESULTS BY ROLE

Target Reporting Results	% Ranking #1		% Ranking #2		% Ranking #3		% Ranking At all					
	CAO	DC	CAO	DC	CAO	DC	CAO	DC				
Governing bodies	--	6.1	3.0	3.0	6.1	3.0	6.7	18.2	15.8	60	54.4	51.5
Legislatures	--	4.8	2.6	3.9	14.3	3.9	10.0	4.8	1.3	40	33.3	39.3
Faculty	52.0	63.2	77.8	12.8	24.6	12.8	8.0	5.3	3.3	96	91.5	91.8
Campus Administration	33.3	19.2	11.1	52.9	51.9	52.9	12.5	17.3	17.0	96	82.5	78.1
Students	11.8	11.9	6.3	31.7	14.3	31.7	35.3	26.3	24.6	68	67.7	64.3
Public	5.9	2.6	4.5	7.3	10.5	7.3	17.6	5.3	14.5	68	60.3	56.1
College Board	5.3	9.5	4.1	7.3	10.5	4.8	52.6	45.2	43.1	76	67.7	62.8

CAO = Chief Academic Officer
DC = Division Chairman
FAC = Faculty

"Legislatures" and "State Governing or Coordinating Bodies" first least frequently, 2.6 percent and 2.7 percent, those of four-year schools ranked "Legislatures" and "Public" last, with no one selecting them as first choices. In reference to the percent of respondents who at least chose the alternative, "Faculty" and "Campus Administration" were again the highest, while "Students" and "College Boards" were next.

Preferred Receiver of Results by Role

With regard to the preferred receiver of results, the factor of roles again resulted in greater differences than did type of institution. Fifty-two percent of chief academic officers ranked "Faculty" first and 33.3 percent ranked "Campus Administration" first. The order was the same for chairmen and faculty, but there were considerable differences in percentages. While 63.2 percent of chairmen chose "Faculty" as the preferred receiver, 77.8 percent of faculty did the same. Selection of "Campus Administration" was at 19.2 percent for chairmen, and 11.1 percent for faculty, considerably lower than the 33.3 percent of CAO's. No chief academic officer chose "State Governing/Coordinating Bodies" or "Legislatures" first. Indeed, CAO's chose these least frequently. While faculty followed this same order, chairmen least frequently chose

"Legislatures" and the "Public" as their first choices.

There were only two narrative comments related to who should receive the results. One respondent said that, since the validity of assessment was at question, he was unsure who should receive them. At the other end of the spectrum, another respondent believed that everyone should receive the results.

Purposes of Outcomes Assessment

The purpose of "Instructional Improvement" was ranked first by 75 percent of the respondents as a whole, while "Identify Effective Programs" was ranked first by 13.9 percent. Both "Historical Documentation" and "Justify School or Program Closure" were ranked first by only 1.2 percent. Of purposes that were chosen by respondents regardless of rankings, "Improve Instruction" was first at 87.8 percent, "Identify and Remediate Problems" second at 77 percent, and "Identify Effective Programs" third at 65.1 percent. Least frequently chosen were "Historical Documentation" (29.9 percent) and "Justify Closure" (28.9 percent) (See Tables 34, 35, and 36).

Purposes by Institutional Type

Two-year and four-year respondents were similar in their first and total choices. Eighty-five percent of four-year staff chose "Instructional Improvement" first, while

TABLE 34

RANKINGS OF PURPOSES OF OUTCOME ASSESSMENT

Purpose	%Ranking #1	%Ranking #2	%Ranking #3	%Ranking At All
Historical documentation	1.2	4.7	15.1	29.9
Instructional improvement	75.0	14.7	3.2	87.8
Identify funding priorities	4.3	8.7	16.5	40.0
Identify and remediate problems	11.8	51.1	22.2	77.0
Identify effective programs	13.9	22.0	38.0	65.1
Justify school/program closure	1.2	3.6	4.8	28.9
Provide public accountability	8.9	8.1	14.5	43.2
Initiation of new programs	2.2	11.1	21.5	47.0

TABLE 35

**RANKINGS OF PURPOSES OF OUTCOMES ASSESSMENT
BY INSTITUTIONAL TYPE**

Purpose	%Ranking #1		%Ranking #2		%Ranking #3		%Ranking At All	
	2 Yr.	4 Yr.	2 Yr.	4 Yr.	2 Yr.	4 Yr.	2 Yr.	4 Yr.
Historical documentation	1.8	0.0	3.7	6.2	11.3	21.8	26.5	36.7
Instruction improvement	76.7	85.0	13.0	19.1	3.4	2.7	88.0	83.9
Identify funding priorities	8.5	9.3	9.7	3.1	7.3	18.75	41.0	36.7
Identify and remediate problems	13.2	8.3	54.0	45.0	18.8	30.0	79.5	68.9
Identify effective programs	11.5	20.0	20.7	27.2	41.5	30.9	65.0	63.2
Justify school program closure	1.5	0.0	3.1	5.5	6.2	0.0	32.0	20.6
Provide public accountability	8.2	10.5	8.2	7.8	14.1	15.7	42.0	43.6
Initiate new programs	2.0	2.9	12.1	8.8	27.2	5.8	49.5	39.0

TABLE 36

RANKINGS OF PURPOSES OF OUTCOMES ASSESSMENT
BY ROLE

Purpose	%Ranking #1		%Ranking #2		%Ranking #3		%Ranking At All					
	CAO	DC	CAO	DC	CAO	DC	CAO	DC				
Historical Documentation	14.3	4.5	1.8	14.3	13.6	5.4	28.6	22.7	17.9	28	34.9	28.6
Instructional Improvement	84	70.7	75.3	4.0	17.2	15.7	4.0	3.4	3.0	92	92.1	84.7
Identify funding priorities	8.3	6.3	4.3	8.3	12.5	7.1	8.3	25.0	14.3	48	50.8	35.7
Identify and remediate problems	4.8	9.3	13.9	61.9	42.6	53.5	23.8	27.8	19.4	84	86.0	73.5
Identify effective programs	33.3	17.4	15.3	42.9	28.9	18.6	14.3	28.3	41.5	84	73.0	60.2
Justify school/program closure	--	--	1.8	--	11.8	1.8	--	--	7.0	32	27.0	29.1
Provide public accountability	22.2	3.4	7.9	22.2	3.4	11.8	22.2	20.7	10.5	72	46	38.8
Initiate new programs	--	2.9	2.2	11.1	5.9	13.3	33.3	17.6	22.2	46	54	45.9

CAO = Chief Academic Officer
DC = Division Chairman
FAC = Faculty

76.7 percent of two-year staff did the same. Twenty percent of respondents in four-year colleges chose "Identify Effective Programs" first while 13.2 percent of two-year staff chose "Identify and Remediate Problems" first. The lowest ranking first choices for both types of institutions were "Historical Documentation" and "Justify Closure", both chosen by fewer than two percent.

Purposes by Role

By a wide margin, "Instructional Improvement" was the first choice for all three roles (84 percent for CAO'S, 70.7 percent for chairmen, and 75.3 percent for faculty).

"Instructional Improvement" was again most frequently chosen by all three roles, "Identify and Remediate Problems" was second most frequent, and "Identify Effective Programs" was third. The least frequently chosen purposes were "Justify Closure", "Initiate New Programs", and, except for CAO's, "Historical Documentation".

Only one narrative comment pertained to this issue. One respondent indicated that the purpose of outcomes assessment was simply to give bureaucrats something to do.

"Improving Instruction" was the first choice for all respondents and the ranking held true across all roles and types of institutions.

Preferred Role of Campus Administration

Seventy-one percent of the respondents answered the open-ended question about the role of administrators in regard to outcomes assessment. Responses, while varied, fell into several identifiable categories. Over half the respondents indicated that administration should generally oversee and coordinate the process of outcomes assessment. In their view, this responsibility should include making sure that assessment is related to college goals, developing the framework or mechanisms to be used, providing and procuring input, and working with faculty to develop and implement assessment. Several precautionary notes were offered: the process should not be allowed to get "out of hand"; administration should resist the "fad", or, if that was not possible, at least make sure that manipulative pressures did not operate; administrators should maintain assessment in a fair manner and keep various departments equal in their responsibilities.

The role of facilitator was accorded administration by many of the respondents. Respondents indicated that this role should include the following particular activities: provision of resources needed to develop, implement, and follow-up with the results. While general support was cited many times, physical facilities, time, funding, personnel,

logistical support, research assistance, and moral support were specifically mentioned as needed resources. The facilitation sought from administration also included leadership and guidance. Respondents felt that campus administrators should allow faculty to develop the assessments, and should at the same time create an innovative and non-threatening environment for this work.

Administration was also to serve as a liaison between the college and the state and between the college and the political arena. Several clear statements were made that directed the administration to "keep legislators out" of higher education. Serving as a liaison also included preparation and publication of results. Linking the results to the student population and the college goals was seen as important if misinterpretation was to be kept at a minimum.

Respondents indicated that administrators had a responsibility to use the results of outcomes assessment to strengthen the instructional process. This use included objective analyses of the data and honest interpretation. Providing funding where needed, supporting changes which were indicated, and avoiding punitive actions were examples of actions which would strengthen instruction.

Several comments seemed to suggest that administration should have little or no role in outcomes assessment. Such

statements as "Keep out of It", "Don't mess it up", and "Do as little as possible" created this impression. Some expressed fear that administrators had too vested an interest in the outcomes to be objective and that they were too obsessed with numbers. Comments such as these were almost exclusively made by faculty. As one faculty succinctly put it, "Do the grunt work; otherwise keep out of it."

Non-Usable Returns

Of the total 311 returns, 24 could not be incorporated into the previously cited analyses because the forms were incomplete or not done at all. Even though these data could not be included in the previous analyses, they provided helpful information about how subjects perceived the study and how they perceived outcomes assessment.

Characteristics of Non-Completers

Seven of the non-completers fell into the classification of either chief academic officer or division chairman, while the remaining seventeen were faculty. Non-completers were in fifteen institutions, nine four-year and six two-year. In both four-year and two-year institutions, a greater percentage of the non-completers were in large institutions, with medium and small sized schools being about equally represented. Table 37 shows this breakdown by role and type of institution.

Reasons for Non-Completion

The identified reasons for non-completion fell into five categories (See Table 38). First, six of the forms lacked large numbers of responses, entire pages or segments being left blank. No reasons were given for this behavior, and the six forms equally represented four-year and two-year colleges. Second, four of the respondents claimed lack of

TABLE 37

CHARACTERISTICS OF NON-COMPLETERS

	Role			Type of Institution					
	CAO	Division Chair	Faculty	S	4 Yr. M	L	S	2 Yr. M	L
Number	1	6	17	4	3	8	2	2	5
% of category returns	4%	8%	8%	14%	8%	24%	4%	2%	8%

N=24

TABLE 38
REASONS FOR NON-COMPLETION

Stated Reason	Role				Institutional Type	
	Chief Academic Officer	Division Chair	Faculty	Two-Year	Four Year	
Lack of time	1	1	2	3	1	
Limited Knowledge of Topic		1	6*	4	3	
Inadequacy of Survey		1	6*	3	4	
Other			1	1		
No Reason Stated		3	3		6	

N=24

*One person cited both reasons

time as the reason for non-completion. This number included one chief academic officer, one division chair, and two faculty members. A third group of seven non-completers stated that they were too unfamiliar with the issue of outcomes assessment to complete the survey form. This group consisted predominantly of faculty and was divided between two-year and four-year institutions. Two of these persons indicated that they were faculty and not directly affected by outcomes assessment, while others indicated that they were just beginning to think about the topic. Fourth, an additional seven expressed difficulty with the survey itself and cited this as the reason for non-completion. Again, this group was split fairly evenly between two-year and four-year colleges. In explaining their failure to complete the form, they offered such comments as, "I am not willing to do this kind of thing," "The process is doomed," "There is too much educational jargon (in the form)," and "The choices are too arbitrary." Finally, one person did not complete the form because it was coded.

Other Comments

The responses to the last open-ended question of the survey serve as a summary of the data. Feelings about outcomes assessment are mixed, sometimes being most strongly affected by type of institution and at other times by role. While there were some emotional and, perhaps, cynical comments, these were outnumbered by expressions of concern with the quality of higher education and the uncertainty about the feasibility and impact of outcomes assessment.

One group of respondents attested that outcomes assessment was a worthwhile process if handled properly. They implied that outcomes assessment would make education appropriately accountable to the public. They also felt that it should be used to help improve instruction and should involve faculty from the beginning of the process. On the other hand, respondents generally voiced concern with the results. Would the process be tainted by politics and manipulation? Would the results be interpreted honestly and used to improve education? Several, however, saw the process as a waste of time, an effort to trivialize education, a threat to faculty incapable of measuring the important outcomes of higher education.

In sum, outcomes assessment has potential value; its feasibility is in question.

Summary

Attitudes Toward Outcomes Assessment

The return rate for this study was 77 percent, despite the fact that some respondents reported that the survey took much longer to complete than the projected fifteen minutes. This fact may attest to the interest the topic of outcomes assessment has for the selected faculty and staff in public, undergraduate education in the state of Maryland. Respondents did not hesitate to speak out on the topic, even when the questions did not call for their specific answers. Seventy-one percent of respondents provided unsolicited comments or lengthy narratives on their returned survey forms. The tenor of the responses was one of concern about the issue, its implementation, and its impact. Whether the comments were positive or negative, they were clearly reflective of deep thought and strong emotions.

The overall question which this study attempted to address was, "What are the attitudes and preferences of the staff toward outcomes assessment?" Most of the answers were neither dramatic nor unanticipated.

On the whole, respondents saw outcomes assessment as inevitable. Whether or not individuals saw it as needed, they did see it as difficult and, as one respondent said,

"fraught with problems". Some questioned whether it could be done in a fashion which would truly benefit students, and others said that it clearly could not. Most of the other comments seemed to play into this theme: "If assessment is to be done, do it right and make it count for something". A brief summary of data follows (see also tables 39 and 40).

Value and Feasibility

Respondents saw some value to the implementation of outcomes assessment but not a great deal. An overall mean of 3.35, only slightly into the category of agreement, is not an overwhelming mandate for the process. Moreover, the mean for the factor of feasibility was only 2.89, toward the disagreement side of the scale. It may be of some value, but it may not be possible to do it. Two-year staff had higher means; four-year staff were less favorably inclined. Institutional type, role, and experience were significant in overall mean differences for "Value". Years in position was not. In four-year institutions, only experience with outcomes assessment was significant at greater than the .05 level. For "Feasibility", institutional type and years in position were significant. In two-year colleges, role and years in position were significant, while no variables were significant in four-year schools. While feelings of value are important, if a process is not viewed as feasible, it

TABLE 39

SUMMARY OF RESULTS,
"VALUE" AND "FEASIBILITY"

		<u>Means</u>			
Value		Overall	Faculty	Division Charirman	Chief Academic Officer
2 Yr. Institutions		3.4	3.3	3.4	3.9
4 Yr. Institutions		3.2	3.2	3.1	3.4
Feasibility		Overall	Faculty	Division Chairman	Chief Academic Officer
2 Yr. Institutions		3.04	2.9	3.3	3.3
4 Yr. Institutions		2.6	2.6	2.7	2.3

TABLE 40

**SUMMARY OF RESULTS
ELEMENTS OF OUTCOMES ASSESSMENT**

CATEGORY	STATEMENT	LEVEL OF AGREEMENT
Indicators	Transfer Success	90.6%
	Employer Satisfaction	89.5%
Use of Results	Revise Curricula/Instruction	81.8%
Impact	Increase Confidence	58.2%
	Improve Quality	57 %
Problems	Results Misunderstood	71.8%
Responsibility for Plan Design	Broad-based Faculty Groups	77 %
	Faculty Campus Administration	91.9% 80.4%
Purpose	Improve Instruction	87.8%

may not be carried out.

The most frequently mentioned experience which influenced attitude formation was that of teaching. Respondents stated that outcomes assessment has value when the process parallels the goals and processes of teaching. Respondents expressed concern with the product of the educational system. Students were not where they needed to be in terms of content knowledge, basic skills, and higher level skills. In reference to these concerns, respondents saw outcomes assessment as being necessary for the improvement of education.

Where outcomes assessment crossed or conflicted with accepted goals of teaching or education, it was seen as being of little use, a practice in futility. For example, if the wrong things were assessed, if they were assessed in an invalid way, if the results were improperly used, then the process was of less worth. When respondents recounted such events from their own experience, they indicated a more negative attitude toward outcomes assessment.

Coupled with little experience or negative experiences, there were repeated references to publicized assessment efforts which were seen as examples of ineffective practices. The outcomes assessment system in place in Florida was pinpointed as causing more problems than it

solved. Similarly, the Maryland competency requirements for graduates of the secondary school system were cited as doing little to improve educational outcomes. Expressions of these feelings were reinforced by many statements of mistrust toward politicians, state agencies, and college administrators who may push for image-building outcomes, may use results to point fingers at "wrong doers", and generally may not conduct the process in a manner tending to improve instruction. Even those who expressed a belief that assessment is needed could not hide an undercurrent of concern.

Indicators

The respondents were accepting of many specific indicators of outcomes but most favored those which are frequent measures of graduate performance - transfer records and graduate success. Although acknowledged to be difficult to validly measure, indicators of critical thinking, student involvement, and attitude change were also highly ranked. Faculty and administrators tended to choose those indicators which were most closely linked with cognitive, affective, and experiential outcomes of the educational process in which they were involved.

These same respondents indicated that "rising-junior exams" were not appropriate indicators. Narrative comments

expressed the belief that specific measurements were often misleading and open to too much misinterpretation. Although they saw measurements as pertinent, they also cautioned against investing particular ones with too much importance.

Use and Impact of the Assessment Results

By far, and regardless of role or type of institution, respondents expressed the belief that assessment results should be used to improve instruction and evaluate the effectiveness of the institution. The data and analyses are tools which allow those responsible for the educational process to make appropriate revisions and decisions. This process should be carried out in an objective fashion, and the results should be made public. The danger of misinterpretation exists and should be guarded against.

Although over 80 percent believed that the results should be used to revise programs and curricula, fewer than 60 percent agreed that there would be an improvement in higher education or that there would be an increase in public confidence because of outcomes assessment. The desired impact would not be attained. This disparity seems parallel to the difference between perceived value and feasibility. It attests to the repeatedly expressed cautions about misuse of data, lack of validity, political motivations, mistrust, and cynicism.

About a third of the respondents went even further to indicate that outcomes assessment would trivialize higher education and threaten academic freedom. This is not a majority of the respondents, but it can be inferred that there is a group of faculty and administrators who will not enter the process anticipating positive outcomes. These feelings were more prevalent among faculty and chairmen of four-year institutions.

Problems with Outcomes Assessment

This tone of doubt continued when respondents indicated what they perceived to be the problems associated with outcomes assessment. Danger of the results being misunderstood was the most highly rated problem, and lack of uniqueness of statewide programs was a close second. Faculty and chairmen were more concerned with being misunderstood, while chief academic officers were more concerned with the fact that statewide assessment programs did not fit particular institutions. This second concern was reiterated when over 80 percent agreed that assessment methods should be related to institutional goals. Low in the ratings of problems was difficulty of implementation. Initially, this may seem to be in conflict with the fact that the mean for feasibility was 2.89, but it may simply mean that it is not seen to be feasible for reasons other

than difficulty. Previously mentioned concerns with political pressure is one such reason.

Preferences about Outcomes Assessment

Respondents would prefer that assessment plans be designed by broad-based faculty groups; that assessments include basic skills, higher order skills, general education, and subject matter skills; that the results be reported to faculty and campus administration; and that the results be used for instructional improvement.

Faculty of two-year institutions seem to want assessment of basic skills and plans designed by broad-based faculty groups; faculty of four-year universities look for assessment of higher order skills and plans designed by department faculty. These differences may be related to differences in institutional goals and organizational patterns in the two types of colleges.

Political pressure was a force which made faculty and chairmen hesitant about the usefulness of the process and may have contributed to the perception by these same groups that the whole endeavor is artificial. In general, however, there appeared to be no strong feelings about the value and feasibility of outcomes assessment. The strongest feelings were reflected in reference to specific indicators (graduate performance), the use of results (improvement of

instruction), the need to relate outcomes to goals, and faculty role in the design of assessment plans and receipt of results.

Staff of four-year institutions tended to be less accepting of outcomes assessment, as shown in lower means for value and feasibility and lower levels of agreement on many specific items which pointed to positive results.

Administrators valued outcomes assessment more highly. They generally were more inclined to include specific indicators, except for "rising-junior exams." They were more in favor of making results public and using the results to impact funding. Administrators viewed the impacts of outcomes assessment more positively than other respondents and, in general, were more willing to become involved.

In summary, respondents indicated a willingness to participate in outcomes assessment, although at times participation was seen as a matter of no choice. As one respondent graphically put it, "Outcomes assessment is another bureaucratic albatross around the neck of faculty."

CHAPTER IV

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

Outcomes assessment for higher education institutions in one form or another is being ordered by legislatures, governors, or state governing bodies in an increasing number of states. Among these states is Maryland, with 17 public community colleges and 10 four year or more public colleges and universities, including the Land Grant Research University of Maryland. Not included in this count or the study were upper-division or professional colleges such as the University of Baltimore.

The purpose of this study was to determine the attitudes and preferences toward outcomes assessment of the faculty and staff in Maryland's public colleges and universities. It is generally agreed (see Hutchings (1987) and Ewell (1985a), for example that faculty should be involved in the development and implementation of outcomes assessment.

The study included a survey of 28 chief academic officers, 89 department chairs, and 289 faculty. There was a 77 percent response rate to the 76 item questionnaire,

which included questions on (1) demographics of the groups, (2) attitudes concerning value of outcomes assessment, feasibility, indicators (types of measures of outcomes-- e.g., transfer success, course success, and success on licensing examinations), intended use, impact (what effect it is likely to have) and anticipated problems, and (3) preferences on components (areas of assessment--e. g., basics skills, general education, and student satisfaction) plan design, reporting, and purposes. Based on the responses, a descriptive profile of faculty and administrations' view of outcomes assessment was developed, using descriptive statistics and, in two cases, one-way analysis of variance.

Findings

With two exceptions there was no major difference among the several groups--administrators or faculty (drawn from several different disciplines in the two different types of institutions {two and four-year}) about outcome assessment. Analysis of variance showed that there was significant difference among the membership of two-year and four-year faculty and administration concerning (1) the feasibility of outcomes assessment and (2) the value of outcomes assessment. While neither group was very sanguine about either, the staff in four-year institutions were significantly less optimistic about both value and feasibility. Table 39 summarizes the mean values faculty and staff in the two types of institutions assigned to value and feasibility. The means ranged from 2.3 to 3.3 on a scale of 5.0 on feasibility. The chief academic officers of four-year institutions scored feasibility lowest; while the chief academic officers of two-year institutions scored it highest. The highest score attached to the value of outcomes assessment was 3.9, given by the chief academic officers of two-year institutions, while the lowest score was 3.1 given by the division chairs in four year institutions. Generally, however, chief academic

officers as a subgroup tended to have a higher level of agreement with positive aspects of outcomes assessment and a lower agreement with associated problems. They sought to include more indicators and expressed more willingness to participate in the process.

In response to open-ended questions, many respondents supported their negative views concerning value, feasibility, and the use of results. For example, note was taken of the problems and negative outcomes being encountered with the outcome assessments instituted in Florida, New Jersey, and Maryland secondary schools. Distrust about political motivation and misuse of results were apparent in a number of statements: "Bureaucratic, political meddling," . . . "People feel that assessment is an easy way to get control of education," . . . "Assessment (will) be artificial, but perceived as significant," . . . "In theory, it's worthwhile, but political pressure will make it detrimental." However, there were indications that many staff and faculty share the concerns of taxpayers and legislators that are driving the imposition of outcomes assessment. For example, several answered the open-ended question on what "influenced attitudes toward outcomes assessment with words like the following: "Educators should

be accountable for producing learning," . . . "Students leave us unprepared," . . . "There is a decline in student ability," . . . "Society needs competent graduates," . . . "We don't teach critical thinking." These concerns are in line with those expressed in the 1982 report Quality for American Higher Education and in reports by Enarson (1983) and Bonham (1982) who have argued that the product of the present higher education system is less well prepared and less skilled than that of previous decades.

Yet faculty and administrators in both types of institutions were in agreement that the most valuable measures of outcomes were Transfer success (90.6 percent rated that important) and Employer satisfaction (89.5 percent). (See Table 40.) Similarly, there was general agreement that "rising-junior examinations" were not appropriate indicators (only 21.6 percent agreement). A high percentage of faculty and administrators in both groups of institutions (71.8 percent) were concerned that the results of outcome assessment would be misunderstood; and only 58.2 and 57.0 percent felt that the process would increase confidence or improve quality, respectively. Yet there was strong agreement that outcomes assessment's purpose should be to improve instruction (87.8 percent) and

that the results should be used for revising curricula and instruction (81.8 percent). The respondents also agreed with Ewell and Hutchings that faculty should be involved in development and implementation. Nearly 92 percent thought that faculty should receive the results of outcomes assessment. Yet only 80 percent thought administrators should be given the results.

There was also a high level of agreement by the respondents about the faculty role in design of the assessment plan and interpretation and use of the results. Faculty, whether as individuals, members of departments, or part of broadly-based groups, should have responsibility for the design of the plan and primarily should receive the results.

There are indications that experience has some influence on attitudes regarding outcomes assessment though 80 percent of the respondents had only moderate to low experience with outcomes assessment. There was a statistically significant relationship between experience with outcomes assessment and how it was valued. In the community colleges, the value placed on outcomes assessment increased progressively with experience and the relationship was statistically significant. In the four

year college sector, valuing of outcome assessment increased from low to moderate experience but declined with high experience.

Institutional type and years in position contributed most significantly to positive attitudes toward the feasibility of the process. In two-year institutions, division chairmen, those with highest experience with outcomes assessment, and those with seven to nine years in position most often saw outcomes assessment as feasible. In contrast, faculty, those with low experience with outcomes assessment, and those with over nine years in position least often viewed outcomes assessment as feasible.

In four-year institutions division chairmen, those with moderate experience with outcomes assessment, and those with under four years in position saw the greatest feasibility. Chief academic officers, those with low experience in outcomes assessment, and those with over nine years in position were least positive about the feasibility of outcomes assessment.

Conclusions

From an overall perspective or view of the descriptive profiles given above in very summary form and in detail in Chapter III, it is clear that neither faculty nor administrators are highly enthused about the implementation or effects of outcome assessment. There were no mean scores above 3.9 on any question concerning feasibility and value. Moreover, the only indicators that received scores equal to or greater than 4.0 were critical thinking, employer satisfaction, and transfer success. The latter two are more often than not given attention (measured) informally or formally by most institutions (for example in routine data collection by the state). The former --critical thinking--is enjoying a lot of popularity in educational circles as an important learning goal and assessment houses such as Educational Testing Service and American College Testing are involved in the development of tests for measuring critical thinking and problem solving.

There was concern among the respondents that assessment would follow existing patterns--that is, focusing on "easily quantifiable" outcomes. For example, several expressed fear that outcomes assessment might lead to "teaching to the test." Only 59.4% of respondents

believed that important learning can be tested by paper and pencil tests, the most prevalent form of testing. A level of distrust and concern that data would be misused were apparent in comments and the large numbers who agreed that the results are likely to be misunderstood. Respondents reiterated that the intended use of data "is not clear." They stated that the "results will be misused," even "...used to punish."

However, nowhere in the descriptive profiles is there evidence that either faculty or administrators are indignant or highly fearful about outcomes assessment. While negative responses to open-ended questions existed, there are also a substantial number of positive responses. This finding is consistent with the thrust of Heffernan, Hutchings, and Marchese, 1988; Hutchings and Reuban, 1988 who found faculty fear of outcomes assessment, but satisfaction with some of its impacts. The lowest mean score in this area was 2.8 which expressed about 33 percent of the respondent's concern that the process would threaten academic freedom. Indeed, the relationship of experience to valuing and feasibility suggest that those who had positive feelings about outcomes assessment have had generally favorable experiences, following Regan and Fazio

(1977) and Fazio and Zanna (1981). Their research supports the intuitive knowledge that attitudes are formed by direct experience and that those formed by this process are more directly related to subsequent behavior.

Implications

Based on the almost neutral feelings about values and feasibility and concerns about what will be measured, it appears likely that the implementation of outcomes assessment (at least in a meaningful rather than "artificial" way to use one respondent's language) is likely to be slow. The integration of these procedures into the culture and operations of institutions will be slow and non-pervasive. At present, the process is externally motivated and it is likely to remain so until staff develop stronger values in regard to it.

On the other hand, there probably will not be strong opposition to processes which are set in place. If dictated by governing boards and administration, practices may be accepted as a fait accompli. However, they will not be endorsed nor initiated by the staff themselves. The benefits of the process will be minimized and will focus predominantly on external uses.

Festinger's theory of cognitive dissonance (1959) is likely to operate in such situations. Holding a neutral value toward outcomes assessment yet participating in it by virtue of external requirements will result in dissonance. Resolution will be achieved by either a change in attitude

or continuing need for incentives to operate in a field in opposition to a held value.

Legislative or state board mandates in Maryland appear to recognize the validity of respondents' concerns (84 percent) that assessment should be related to institutional goals. In Maryland as elsewhere, institutions are being given the opportunity (task) to develop their own assessment plan. This should provide them with the chance to reflect on and reinforce institutional goals. This conforms to the NGA's 1986 Time for Results recommendations for colleges to link mission statements with the assessment process.

In implementing outcomes assessment, at both state and college levels, attention should be given creating a vision or belief in the integrity of the system. Written comments more than the statistics suggest that faculty and administrators are more than a bit cynical about the assessment process, in particular what will be measured for what reasons. For example, it was noted (rightly or wrongly) that "The real value of education can't be measured." And one respondent admonished against equating popularity with effectiveness." Another warned that "We will test only those things that are easy to test." Another

questioned "Who will develop bias-free testing?" Another cynic suggested that "Administrators are more interested in headcount and consumer satisfaction." "Generally (we will) assess least important aspects." These concerns are not unique to the respondents. Rossides (1984) and Rossman and El Khawas (1987) have noted the difficulties in measuring the right things and eliminating bias.

Concerns about the analysis of data should also be taken to heart by administrators of outcomes assessment. About 72 percent agreed that the results are likely to be misunderstood. And some respondents were concerned that colleges would "hide problems and only promote the good." Warnings were issued not to allow administrations to "manipulate (data)," "(Provide) meaningful data," . . . "Be honest." Some respondents concluded that "(They) may not be objective," and "Administration should have little role in interpretation; they are too vested to be unbiased."

Assessment plans should be developed with the purpose of instructional improvement in mind and faculty will need to be intimately involved in the plan development, selection of indicators, and interpretation of results. Instructional improvement will require meaningful data at

the level of instruction. Institutions should look at what data they will need in order to impact directly on instructional processes.

Faculty involvement will need to be increased and there may need to be some "back peddling" to get faculty input into selection of indicators and development of plans. However, the level of agreement on these areas is such that significant conflict should not be expected. As faculty have input, they will also need to take action on the results. They will need to render responsible judgments based on the data they receive. Resources adequate to implement the changes must be available.

Considering the level of support assigned to the value and feasibility of outcomes assessment, gaining significant and meaningful faculty involvement may require incentives not yet offered. These may be most successful if they are designed to reinforce the link between outcomes assessment and instructional improvement. Faculty involvement at these levels will serve several purposes. Placing this control with faculty may reduce the perception of outcomes assessment as a threat and lead to more acceptance or participation in the process. As pointed out by several authors (Brehm, 1966; Rhodewalt and Davison, 1983),

resistance is more prevalent when there is a threat to personal freedom. Faculty are very apt to view academic freedom in this way.

The level of expressed concern, coupled with the lack of strong attitudes toward the value and feasibility of outcomes assessment will result in a retarded implementation of assessment practices. Cooperative staff ventures in establishing outcomes assessment structures will be countered by the concerns and the mistrust toward administration.

Given this situation, it will be more difficult to get faculty involved, and the establishment and implementation of outcomes assessment will be done predominantly by administration. Once data is produced, its value will be questioned, and the tendency to accept it as a solid base for improvement will be diminished.

Summary of Conclusions

In summary, there are five major conclusions which result from this study.

1. Although there is not strong opposition to outcomes assessment, it is not highly valued nor viewed as feasible.
2. Staff in four-year institutions value outcomes assessment less than those in two-year institutions, while chief academic officers are more positive about the specifics of the process.
3. There is strong agreement that outcomes assessment should be used to improve instruction, but only moderate agreement that this will be achieved.
4. There is general agreement on the major indicators to be used, the role of faculty in design of the plan, and faculty priority for receiving the results.
5. Major concerns focus on the specifics of implementation and use of the results.

Recommendations

This section consists of two sets of recommendations. First is a set of recommendations to the State and institutions to overcome negative perceptions found in the study and summarized immediately before this section. The second set is recommendation for further research.

Recommendations to the State and Institutions

1. Even though outcomes assessment was ordered by the Maryland Legislature in 1988, and guidelines published by Maryland Higher Education Commission at that time, a number of respondents indicated they were not aware of outcomes assessment or the role they would play in the process. Therefore, in developing the plan for meeting state mandates for outcomes assessment, institutions should initiate deliberate processes to educate its faculty and administration concerning state directives and the processes by which they evolved. The institutional requirements should be clear. A statement of purpose of the data gathering should be developed with open input from all constituencies.

2. Many respondents also volunteered concern and suspicion about the requirements and how assessment data would be used. Therefore, it is recommended that faculty and administration be involved in developing the assessment plan in terms of purpose, types of data to be collected and use of the data. The responses reflected uneasiness about use of data for budget allocation and personnel decisions. It is recommended that faculty be involved in writing guidelines regarding uses of data, as these might affect department budgets, salaries, promotions, and other personnel decisions. It is also recommended that rather strict guidelines or criteria be developed and clearly articulated and published so that faculty will have a clear understanding of how the results of assessment will affect them. If this is done, it is more likely that the purpose of outcomes assessment to improve teaching and learning (among other matters) will be realized.
3. There was agreement by both administrators and faculty in two- and four-year institutions that

development of assessment plans-- goals, indicators, timeline, cost--should be done predominantly by faculty. Administrative and other staff should have input and serve as resources to faculty in this endeavor. The previous discussions regarding purpose, constraints, reporting requirements, and use of data should form the base for the assessment plan. Within the parameters of state guidelines, assessment efforts should be kept small and on a reasonable scale until a successful effort is achieved.

4. The survey ~~re~~results indicated fairly wide concern that assessment may be focused on measuring precisely what is easy to measure, but what may not be very meaningful or even antithetical to what respondents view as the primary purpose of the program--improving instruction. Therefore, it is recommended that faculty be provided with a large voice in defining what will be measured and that provisions be made for evaluating the effects of measurement on instructional behavior so that necessary revisions to measures can be

made.

5. To obtain appropriate levels of faculty involvement in planning and implementing outcomes assessment programs so that it will serve such purposes as improving instruction in a meaningful way, it is recommended that MHEC and institutions together provide the environment (including retreats and workshops) and incentives (including release time of faculty) that will facilitate effective planning and acceptance of the plan.

Recommendations for Further Study

1. It would be most useful in the short- and long-run if case study research was conducted during the planning and implementation of outcomes assessment at one or more institutions.

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APPENDIX A
SURVEY INSTRUMENT

Questionnaire

Directions

The issue of assessment of educational outcomes has experienced resurgence in higher education within the past decade. Maryland has recently legislated a program requiring colleges to develop accountability plans and it is anticipated that guidelines for implementation of this will be forthcoming. Outcomes assessment, or the determination of the impact college has had on students, will be a component of an institutional accountability plan. It is important that the thoughts of major instructional staff be known so that they can be an integral part of this development process. We therefore ask you to answer the following questions about the various components of the assessment issue.

First, we would like to ask your opinion about various aspects of outcomes assessment. Indicate your choice by circling the number that best corresponds to the degree to which you agree or disagree with the statement.

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1. Most outcomes of education can be measured.	5	4	3	2	1
2. It is worthwhile to measure the outcomes of higher education.	5	4	3	2	1
3. Course success rates should be part of assessment.	5	4	3	2	1
4. The most important outcomes of higher education cannot be quantified.	5	4	3	2	1
5. The cost of operating a program should not be a part of assessment.	5	4	3	2	1
6. Outcomes assessment will make institutions too competitive among themselves.	5	4	3	2	1
7. Changes in student attitudes and values should be assessed.	5	4	3	2	1
8. Results of assessment should be used to evaluate institutional effectiveness.	5	4	3	2	1
9. Employers' satisfaction with graduates is part of assessment.	5	4	3	2	1
10. Outcomes assessment is the result of political pressure.	5	4	3	2	1
11. Earnings of graduates are not appropriate to include in outcomes assessments.	5	4	3	2	1
12. Outcomes assessment is not a realistic requirement.	5	4	3	2	1
13. Program completion rates should be assessed.	5	4	3	2	1
14. In order to determine institutional effectiveness, the state should track an institution's use of its funds.	5	4	3	2	1
15. Assessment results should be used to help determine funding of instructional programs.	5	4	3	2	1
16. Assessment will improve the quality of education	5	4	3	2	1

	<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>No</u> <u>Opinion</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>
17. Success of graduates in transfer or graduate programs should be assessed.	5	4	3	2	1
18. Student drop-out rates need to be part of assessment plans.	5	4	3	2	1
19. Satisfactory completion of courses is an adequate assessment of learning outcomes.	5	4	3	2	1
20. State-wide assessment programs are typically not tailored to the uniqueness of each college.	5	4	3	2	1
21. Success of graduates in their careers should not be assessed.	5	4	3	2	1
22. Institutional funding should not be affected by the results of assessment.	5	4	3	2	1
23. Outcomes assessment is too costly.	5	4	3	2	1
24. The level of student involvement in the learning process is an important part of assessment.	5	4	3	2	1
25. Important learning outcomes cannot be measured by paper/pencil tests.	5	4	3	2	1
26. The major factor(s) affecting student learning is(are) not classroom teaching.	5	4	3	2	1
27. Assessment leads to educational mediocrity.	5	4	3	2	1
28. Mandatory, state-wide, standardized exams at the end of the sophomore year (a "rising junior exam") should be a part of outcomes assessment.	5	4	3	2	1
29. Success of graduates on certifying or licensing exams should be included in assessment.	5	4	3	2	1
30. The results of outcomes assessment should be used in revising curricula/instruction.	5	4	3	2	1
31. The ultimate goal of outcomes assessment is to provide a basis to cut funding.	5	4	3	2	1
32. It is important to determine the ability of the graduate to function in society.	5	4	3	2	1
33. Outcomes assessment will increase public confidence in higher education.	5	4	3	2	1
34. Assessment trivializes higher education.	5	4	3	2	1
35. Student learning is most positively affected by one-to-one faculty/student interactions.	5	4	3	2	1
36. Assessment is appropriate to all disciplines.	5	4	3	2	1
37. Critical thinking skills should be part of assessment.	5	4	3	2	1

	Strongly Agree	Agree	No. Opinion	Disagree	Strongly Disagree
38. Assessment of learning outcomes is too difficult to implement.	5	4	3	2	1
39. The ability of students to be self-directive should be assessed.	5	4	3	2	1
40. Outcomes assessment will be harmful to students.	5	4	3	2	1
41. Outcomes assessment will be widely implemented in higher education.	5	4	3	2	1
42. Outcomes assessment results in "teaching to the test."	5	4	3	2	1
43. Faculty bear too much of the burden for assessment.	5	4	3	2	1
44. Achievement of learning outcomes is positively influenced by class size of less than 30.	5	4	3	2	1
45. Assessment is being forced on us by state governing boards and accrediting bodies.	5	4	3	2	1
46. The results of assessment are likely to be misunderstood.	5	4	3	2	1
47. Assessment is another example of a passing fad in higher education.	5	4	3	2	1
48. Results of outcomes assessment should be made public.	5	4	3	2	1
49. Outcomes assessment is an artificial process.	5	4	3	2	1
50. Results of outcomes assessment should be used to compare one institution to another.	5	4	3	2	1
51. Academic freedom is threatened by outcomes assessment.	5	4	3	2	1
52. Assessment methods should be consistent from one institution to another.	5	4	3	2	1
53. The process of assessment is a learning experience for students.	5	4	3	2	1
54. Assessment measures should be related to specific institutional goals or objectives.	5	4	3	2	1
55. Assessment detracts from the real goals of higher education.	5	4	3	2	1
56. I am willing to participate in outcomes assessment.	5	4	3	2	1

57. Please briefly indicate what factors or events most influenced the formation of your attitudes about outcomes assessment.

58. The components of an assessment plan are another factor of importance. Please indicate which of the following components you would prefer be included in an assessment plan. For each of those items you select, indicate its order of importance (1 = most important, 2 = next in importance, etc.) Choose as many items as you think important. Please use a number only once.

- | | |
|--|---|
| <input type="checkbox"/> A. General education knowledges | <input type="checkbox"/> F. Student satisfaction |
| <input type="checkbox"/> B. Success after college | <input type="checkbox"/> G. Higher order skills(critical thinking, problem solving, complex applications) |
| <input type="checkbox"/> C. Persistence and completion rates | <input type="checkbox"/> H. Student attitudes and values |
| <input type="checkbox"/> D. Subject matter skills | |
| <input type="checkbox"/> E. Basic skills (reading, writing, computation) | |

59. Another important element of the assessment process is a determination of how assessment plans should be developed. Please indicate which of the following groups you would prefer to be responsible for designing assessment plans. For each of the items you select, indicate its order of importance (1 = most important, 2 = next in importance, etc.). Choose as many items as you think appropriate. Please use a number only once.

- | | |
|--|---|
| <input type="checkbox"/> A. State coordinating or governing bodies | <input type="checkbox"/> G. Department or Division chairs |
| <input type="checkbox"/> B. Regional accrediting associations | <input type="checkbox"/> H. Broad-based faculty groups |
| <input type="checkbox"/> C. Specialized accrediting bodies | <input type="checkbox"/> I. Department faculty |
| <input type="checkbox"/> D. Institutional Research departments | <input type="checkbox"/> J. Individual faculty |
| <input type="checkbox"/> E. Institutional Testing and Evaluation departments | <input type="checkbox"/> K. Alumni |
| <input type="checkbox"/> F. Central campus administration | <input type="checkbox"/> L. Professional organizations |

60. To which of the following persons or groups do you prefer the results of assessment programs go? Select as many items as you think appropriate. For each item you select, indicate its order of importance (1 = most important, 2 = next in importance, etc.). Choose as many items as you think appropriate. Please use a number only once.

- | | |
|--|--|
| <input type="checkbox"/> A. State governing or coordinating bodies | <input type="checkbox"/> E. Students |
| <input type="checkbox"/> B. Legislatures | <input type="checkbox"/> F. The public |
| <input type="checkbox"/> C. Faculty | <input type="checkbox"/> G. College Boards of Trustees |
| <input type="checkbox"/> D. Campus administration | |

61. Specifically indicate what you think the role of campus administration should be in regard to outcomes assessment.

62. Many different purposes have been stated for assessment of outcomes. Of the ones listed below, select those you think are appropriate. For each item you select, indicate its order of importance (1 = most important, 2 = next in importance, etc.). Choose as many as you wish. Please use a number only once.

- | | |
|--|--|
| <input type="checkbox"/> A. Provision of historical documentation | <input type="checkbox"/> E. Identification of effective programs |
| <input type="checkbox"/> B. Improvement of instruction | <input type="checkbox"/> F. Justification of school or program closure |
| <input type="checkbox"/> C. Identification of funding priorities | <input type="checkbox"/> G. Provision of public accountability |
| <input type="checkbox"/> D. Identification and remediation of problems | <input type="checkbox"/> H. Initiation of new programs |

We would like to know what your experience with outcome assessment has been. For items 63 through 68, please circle the number which best describes your situation.

63. How much do you know about the issue of assessment of educational outcomes?

- | | |
|-----------------------|-----------------------|
| 1. Very little. | 4. More than average. |
| 2. Some. | 5. Very much. |
| 3. An average amount. | |

64. During the past three years, how frequently have you read materials about outcomes assessment?

- | | |
|------------------------------------|--|
| 1. Never. | 4. Several times a month. |
| 2. Fewer than one time a semester. | 5. On the average of one or more times a week. |
| 3. Several times a semester | |

65. During the past three years, how frequently did you attend conferences or workshops that focused on outcomes assessment?

- | | |
|------------------------------|---------------------------|
| 1. Never. | 4. Once a year. |
| 2. One time. | 5. More than once a year. |
| 3. Two times in three years. | |

66. Over the past three years, how often have you worked on groups that dealt with developing or implementing assessment programs?

- | | |
|----------------------------------|-----------------------------------|
| 1. Never. | 4. On the average of once a year. |
| 2. One time. | 5. More than once a year. |
| 3. Two times in the three years. | |

67. Over the past three years, how many times have you used outcomes assessment practices in your area of responsibility?

- | | |
|------------------------------|-----------------------------------|
| 1. Never. | 4. On the average of once a year. |
| 2. One time. | 5. More than once a year. |
| 3. Two times in three years. | |

68. During the past three years, how often have you discussed the issue of outcomes assessment with your peers or supervisor?

1. One or fewer times in the three years.
2. About once a year.
3. About once a semester.
4. Several times a semester.
5. More than once every few months.

In conclusion, we would like to gather information about you and the institution in which you are employed. Please respond to questions 69 through 76 by circling the appropriate response or providing the information requested.

69. In which type of institution do you work?

1. Community College
2. Four-year College or University
3. Other: Specify _____

70. What position do you currently hold?

1. Chief academic officer
2. Division or Department head.
3. Faculty
4. Other: Specify _____

71. How long have you been in your current position?

_____ years.

72. What is your current academic rank?

1. Professor
2. Associate Professor
3. Assistant Professor
4. Instructor
5. Do not hold rank.

73. What is your current age?

_____ years.

74. What is your gender?

1. Female

2. Male

75. What is your race?

1. Black

4. Oriental

2. Caucasian

5. Other: Specify _____

3. Hispanic

76. What is your discipline? _____

Please write any other comments you wish to make about the topic of assessment of educational outcomes.

Thank you very much for your cooperation.

10/89

**APPENDIX B
CLASSIFICATION VERIFICATION QUESTIONS 1-56**

<i>Item No.</i>	<i>Value</i>	<i>Feasibility</i>	<i>Scope</i>	<i>Use</i>	<i>Impact</i>	<i>Problem</i>	<i>Others</i>
1		5					
2	5						
3			5				
4	3					2	
5			5				
6				4		1	
7			5				
8				5			
9			4				
10*	1				1	1	2
11				5			
12	4	1					
13				5			
14				3	1	1	
15					5		
16	1					4	
17				5			
18				5			
19				4			
20						5	
21				5			
22					3	2	
23		2					3
24			5				
25		2					3
26	1						4

APPENDIX B
CLASSIFICATION VERIFICATION QUESTIONS 1-56

<i>Item No.</i>	<i>Value</i>	<i>Feasibility</i>	<i>Scope</i>	<i>Use</i>	<i>Impact</i>	<i>Problem</i>	<i>Others</i>
27	1				3	1	
28		1	4				
29			5				
30				4	1		
31				3	2		
32	2		3				
33	2				3		
34	1				4		
35							5
36*		2	2				1
37			5				
38		1				4	
39			5				
40	1			3	1		
41	3	1		1			
42				1	4		
43					5		
44				1		4	
45	1					1	4
46						5	
47	3					1	1
48				4	1		
49*	1				1	2	1
50				5			
51				4	1		
52*	1			1		1	2
53	3				2		
54		2				3	
55	1				1	3	1
56	1						4

*Classified as "Other"

APPENDIX C

**CATEGORIZATION OF ITEMS BY
RELATIONSHIP TO OUTCOMES ASSESSMENT**

Category	Items by Number
Value of Outcomes Assessment	2, 12, 41, 47, 53
Feasibility of Outcomes Assessment	1, 4
Scope of Indicators	3, 5, 7, 9, 11, 13, 14, 17, 18, 19, 21, 24, 28, 29, 32, 37
Intended Use of Results	8, 15, 22, 30, 31, 48, 50
Impact of Outcomes Assessment	6, 16, 27, 33, 34, 40, 51
Problems with Outcomes Assessment	20, 23, 25, 26, 38, 42, 43, 45, 46, 55
Other	10, 35, 36, 44, 49, 52, 54, 56

APPENDIX D

LIST OF SCHOOLS

Four-Year Public Colleges & Universities

Bowie State University

Coppin State College

Frostburg State University

Morgan State University

Salisbury State University

Towson State University

University of Maryland,
Baltimore County

University of Maryland,
College Park

University of Maryland,
Eastern Shore

Two-Year Public Colleges

Allegheny Community College

Anne Arundel Community College

Catonsville Community College

Cecil Community College

Charles County Community College

Chesapeake College

Community College of Baltimore

Dundalk Community College

Essex Community College

Frederick Community College

Garrett Community College

Hagerstown Junior College

Harford Community College

Howard Community College

Montgomery College

Prince George's Community College

Wor-Wic Tech Community College

APPENDIX E
COVER LETTERS

Copy

March 24, 1989

Dr. Edward N. Brandt
Chancellor
University of Maryland at Baltimore
520 West Lombard Street
Baltimore, MD 21201

Dear Dr. Brandt:

I am writing to request the participation of your institution in a study being conducted by one of Howard Community College's senior academic administrators as part of her doctoral program at Virginia Polytechnic Institute and State University. Martha A. Matlick, an associate dean of instruction at HCC, is undertaking a comprehensive examination of staff attitudes and preferences about issues related to assessment of educational outcomes.

Because of the emphasis in our state on institutional effectiveness and performance accountability, Mrs. Matlick has chosen to survey the staff in Maryland undergraduate, public institutions who will directly participate in the development of accountability plans. She would like to include University of Maryland at Baltimore and I am asking that you endorse her request.

Assessment of learning outcomes is a vital issue for all of us in higher education and I am confident that Mrs. Matlick's research will prove to be extremely valuable.

Thank you for your cooperation in this matter.

Sincerely,

Dwight A. Burrill
President

DAB/mko

Copy

March 23, 1989

Dr. Ed. Lewis
President
St. Mary's College of Maryland
St. Mary's City, MD 20686

Dear Dr. Lewis:

As you know recent legislation and guidelines from the Maryland Higher Education Commission have directed colleges in this state to develop performance accountability plans. At the same time I am undertaking a study of outcomes assessment as part of my doctoral program at Virginia Polytechnic Institute and State University. My intent is to determine staff attitudes and preferences about issues related to assessment of educational outcomes.

Because of the emphasis in our state on institutional effectiveness, I have chosen to survey the staff in Maryland undergraduate, public institutions who will directly participate in outcomes assessment. I would like to include St. Mary's College of Maryland and I am writing to obtain your endorsement of your staff's participation in my study.

My plan is to distribute the enclosed questionnaire to your chief academic officer, four department or division chairs, and twelve representative faculty. I estimate that it will take only ten to fifteen minutes to complete the survey and the information received will remain strictly confidential. Summary of results will be shared with participants.

I will call you in a few days to verify your willingness to take part in this research project and to respond to any questions you may have about my dissertation. Thank you very much for your assistance.

Sincerely,

Martha A. Matlick
Associate Dean
Human Services, Humanities/
Social Science Division

Enclosure

Copy

October 11, 1989

(Address)

Dear :

As you know, the Maryland Higher Education Commission has been formulating guidelines which direct colleges to develop plans to conduct programs of outcomes assessment to determine institutional effectiveness. This action was mandated by the 1988 Higher Education Reorganization law. Implementation of the process will be monitored by the Commission and a representative higher education advisory committee. Outcomes assessment will be an issue of increasing significance in Maryland higher education.

One factor which will be important to the successful implementation of this legislation is the involvement of instructional personnel -- chief academic officers, division or department chairs, and faculty. The perceptions and preferences of these staff will influence the structure and effectiveness of assessment plans. Thus, determining staff attitudes is of interest and importance to those of us at the State level as it is at the campus level.

I encourage your support of and participation in the accompanying doctoral study, which focuses on these very aspects. Your candid responses will help build a data base. In addition to your own inclusion in the survey, questionnaires are being sent to chairmen of four selected disciplines at your college. These people have also helped to identify faculty in their areas who represent a range of faculty views on educational issues.

Should you have any questions please contact Martha Matlick as indicated in her letter.

Thank you again for your cooperation.

Sincerely,

Dr. George Funaro
Deputy Secretary
Maryland Higher Education Commission.

Copy
Vice President for Academic Affairs

October 6, 1989

Dear Dr.

As a result of the 1988 Higher Education Reorganization Law the Maryland Higher Education Commission will be issuing guidelines that direct each public institution of higher education to develop plans to assess learning outcomes and general institutional effectiveness. This activity will have a direct and significant impact on academic personnel, but little has been done to determine the relevant attitudes and preferences of those staff who must implement the plans.

I am currently undertaking a study of outcomes assessment as part of my doctoral program at Virginia Polytechnic Institute and State University. Dr. _____ has given permission for me to include _____ in this survey. As Vice President for _____ you represent an important academic constituency and are in a position to make a critical contribution to my study. The intent of the study is to examine opinions regarding outcomes assessment that exist among selected staff in public, undergraduate colleges.

I estimate that it will take you about fifteen minutes to complete the questionnaire. The information received will remain strictly confidential and no specific college or individual will be identified. The code number on the survey form will be used solely for follow-up purposes.

Please complete your survey now and return it to me by October 19, 1989. A stamped, addressed envelope is enclosed for your convenience and you can receive a copy of the results by checking the box below and enclosing this letter along with your completed questionnaire.

Thank you very much for your participation. If you have any questions, please contact me at the address below or call (301) 662-7131 (home) or (301) 992-4832 (work).

Sincerely,

/s/

Martha A. Matlick
5801 A Bell's Lane
Frederick, MD 21701

Enclosures Yes, please send me results of the study.

(Copy of Post card)

October 12, 1989

Last week a questionnaire seeking your opinions about various aspects of outcomes assessment was mailed to you. You were selected because you represent an important constituency in the implementation of assessment plans in the state.

If you have already completed and returned it accept my sincere thanks. If not, please do so today. Because I have sent it specifically to those who will be affected by implementation, it is extremely important that yours be included in the study.

If by chance you did not receive the questionnaire, or it got misplaced, please call me collect (301-622-7131) and I will get another one in the mail to you.

Sincerely,

Martha A. Matlick

October 27, 1989

Copy

Dr.
Academic Vice President

Dear Dr.

About three weeks ago I wrote to you seeking your input on various aspects of assessment of educational outcomes. As of today I have not received your completed questionnaire.

I have undertaken this study on outcomes assessment not just to fulfill a doctoral requirement. I believe the opinions and attitudes of instructional staff are very important if our State is to respond realistically to the increasing demands for accountability.

I am writing to you again because of the significance each questionnaire has to the usefulness of this study. You were selected for this study because you are in a major instructional role. In order for the results of this study to be truly representative of instructional staff, it is essential that each person return the completed questionnaire.

In the event that your questionnaire has been misplaced, I am enclosing a replacement. Please be assured that your responses will remain confidential. Your cooperation in this process is greatly appreciated.

Sincerely,

Martha A. Matlick
5801 A Bell's Lane
Frederick, MD 21701

Copy

November 15, 1989

(Address)

Dear Dr.

Several weeks ago I sent you a second copy of a survey pertaining to Outcomes Assessment. I have not yet received the completed questionnaire from you.

I realize you are quite busy and have a lot of demands on your time. I also realize that completion of the questionnaire may not be the item at the top of your list of priorities. Perhaps you even find the questions difficult to answer or the topic not of interest to you. I ask that you please reconsider these factors and take the time to complete the survey.

Higher education in the state of Maryland will be involved in outcomes assessment. As one who fills an important role in instruction, you will be significantly affected by outcomes assessment. If you want to have input into the development and implementation of assessment practices, please help by taking a short amount of time to answer the questions and return the survey.

I will be greatly appreciative of your effort. Please feel free to call me should you have any questions (301-992-4832{work} or 301-662-71312{home}).

Sincerely,

Martha A. Matlick
5801 A Bell's Lane
Frederick, MD 21701

APPENDIX F

VIGNETTES

VIGNETTE A

This faculty member typically reflects the consensus faculty view on educational issues. Faculty see this person as representative and he/she often assumes leadership roles in faculty organizations. May be labeled a Faculty Leader.

VIGNETTE B

This faculty member shares the institutional perspective. He/she is likely to see issues from a faculty perspective initially, but will listen to the rationale for administrative proposals before taking a position. May be labeled a Compromiser or Negotiator.

VIGNETTE C

This faculty member tends not to get actively involved in issues. He/she is predominantly student-oriented and is respected by peers for his/her contribution to and involvement in teaching. May be labeled as Apolitical or Non-involved.

VITA
MARTHA A. MATLICK
5801 A Bell's Lane
Frederick, Maryland 21701

I. EDUCATION:

Diploma Nursing, Mercy Hospital School of
 Nursing,
 Watertown, N.Y., 1958
B.S. Nursing, St. John's University,
 Jamaica, N.Y., 1962
M.S. Nursing Education, St. Johns
 University,
 Jamaica, N.Y., 1964
Ed.S. Completed 29 credits, University of
 Miami, Coral Gables, Florida,
 1970-1.
Ed.D Candidate, Virginia Polytechnic
 Institute and State University,
 Educational Administration, Higher
 Education, 1985 -present.

II. PROFESSIONAL EXPERIENCE:

Associate Dean, Human Services, Howard Community
College, Columbia, MD, 1986 - present.

Division Chair, Health Sciences, Howard Community
College, Columbia, MD, 1981- 1986.

Professor, Sub-Cluster Coordinator, Nursing, Howard
Community College, Columbia, MD, 1971-1981.

Faculty, Acting Chairman, Nursing, Corning
Community College, Corning, N.Y., 1964-1971.

Faculty, Nursing, Mercy Hospital School of Nursing,
Watertown, N.Y., 1962-1963.

Staff Nurse, Mercy Hospital Watertown, N.Y., 1958-
1962, full and part-time.

Staff Nurse, part-time, Mary Immaculate Hospital,
Jamaica, N.Y., 1959-1962.

III. CONSULTING:

Curriculum Development
Philosophy Development
Clinical Evaluation
Development of Alternate Teaching Strategies
Use of Conferences

IV. PROFESSIONAL ACTIVITIES

Co-presenter, AACJC Convention: Outcomes Assessment, Seattle, 1990.

Co-presenter, ACT Regional Conference: Outcomes Assessment, Baltimore, 1990.

Site Visitor, Middle States Association, 1990.

Co-coordinator, Project Cooperation, 1989 - present, Outcomes Assessment.

Co-chair, Learning Outcomes Committee, 1989-present.

Member, Steering Committee, Self Study, Howard Community College 1988-1989.

Co-presenter, NISOD: Quality Instruction, Austin, Texas, 1989. AFFACT: Quality Instruction, Columbia, MD, 1989.

Member, State Task Force on LPN Articulation and Educational Mobility, Maryland, 1986-present.

Chair, Quality Assessment Committee, 1986-1988.

Member, Subcommittee, Entry into Practice, Maryland, 1985-1988.

Project Director, W. Kellogg Grant: Improving Competencies of ADN Graduates, Columbia, MD, 1983-1985.

Member, Board of Review, National League for Nursing, Council of AD Programs, 1980-1986.

Team Chairman Accreditation Visitor, National League for Nursing: NY, 1968 - present.

Martha A. Mallick