ABSTRACT

The increasing complexity of management and planning within institutions of higher education has fostered the development of more sophisticated theories of management in higher education. Such complexity has also encouraged the development of a number of academic planning tools and models to aid administrators in management through access to data and projections of the consequences of their decisions. The use of such models and the need for increasingly sophisticated planning seems bound to increase if institutional vitality is to be insured in a period of reduced resources. Such management complexity increases the specialized skills required to manage institutions and seems likely to result in additional conflicts between administrators and faculty over governance issues. Academic planning does not produce solutions to all the problems that confront institutions, especially those that relate to social issues such as access and sexual equality. Yet by understanding the complexities of academic management and by the ability of academic planning to provide a means for the development of incremental change reflecting the concerns of the university community, an arena for the resolution of conflict within the university can be established. It is toward such ends that academic planning and academic management must strive. (Author/MSE)
More recently, Beach (1968) discussed the historical roots of the conflict between faculty and administrators over specialized management skills and issues of faculty autonomy that developed in this century. Beach describes these historical conflicts as products of the emerging disciplines, which had explicit and constantly changing goals and skills and required new roles and techniques that were clearly understood, in contrast to the university, whose goals were becoming increasingly broad. His prescription for improvement was to develop a more rationalized approach to institutional objectives, rewards, and procedures.

In the early seventies, a series of studies supported by the Carnegie Commission on Higher Education attempted to identify the major issues to prepare the higher education community for the anticipated hard times ahead. Kerr in 1971 framed the terms of continued discussions of planning and management and set forth the ingredients of continued conflict.

Today, colleges and universities are pushed simultaneously to change on the one hand and to fight for survival on the other by concerned critics both on and off the campus. Some of these critics urge colleges to reform the infrastructural emphasis, with which enrollment has been increasing. Others warn the universities against financial disaster and urge prudence in daily cost, in every possible way (Clark Kerr quoted in Bowen and Douglas 1971, p. 46). Bowen and Douglas (1971) developed concepts of educational efficiency that had particular relevance to liberal arts institutions. Special attention was given to methods and costs of instruction, internal cost calculation, faculty workloads, and innovations already available that could contribute to efficiencies considered necessary for institutional progress and to avoid institutional stagnation.

In fact, these Carnegie-sponsored studies from the early seventies presage the mode and tone of current developments in planning and management that appear in the more recent literature. The Carnegie Commission's prescription of more efficient use of resources seems as valid today as when it was first articulated (1977). The Commission predicted that more effective resource use would have certain consequences for higher education institutions.

It will cause conflicts—of department versus department, of faculty against administration, of administration versus state authorities. Costs will confront quality, the poor will challenge the old, the welfare of the total institution will be in the balance against the status quo of the parts. Unification becomes more likely as faculty members face some unpleasant changes, as they seek to defend what they have or what they have come to expect. Consolidation is more likely when the heavy burden of money is less serious.

It will cause a greater degree of centralization of authority and power—perhaps also on the college or university level. Some will argue that this will lead to the unification or the integration of institutions, which had explicit and sometimes conflicting missions. And it will cause conflict of department versus department, of faculty against administration, of administration versus state authorities. Costs will confront quality, the poor will challenge the old, the welfare of the total institution will be in the balance against the status quo of the parts. Unification becomes more likely as faculty members face some unpleasant changes, as they seek to defend what they have or what they have come to expect. Consolidation is more likely when the heavy burden of money is less serious.

This governance and management were predicted to and have become more difficult, and the necessary institutional adjustments are beginning to be reflected in the literature devoted to management and planning. Further observations stressing the development of management efficiency were offered by Mood et al. in 1972 in supplemental studies. This set of documents remains remarkably fresh in outlook and in the accuracy of its predictions for the direction of planning and management alternatives to be taken up in higher education institutions.

**Management Perspectives**

Modern approaches to academic management developed from attempts to apply systematic analysis to problems of colleges and universities such that rational decisions could be arrived at.
nerved at regarding continued development of academic institutions. A number of theories and approaches are discussed in the recent literature. While it appears that Bech's (1968) pleas for greater rationalization about university purposes have been ignored, the Carnegie Council's suggestions for management departments and movement of decision-making to central offices certainly seem to have been realized, especially when state-wide enrollment levels have dropped or fiscal stringencies have been imposed

Cohen and March (1974) separated the problems of management, planning and decision-making in university organizations from those in other formal organizations by noting the fundamentally ambiguous nature of higher education institutions. Nonacademic organizations can be more simply defined through the problems they address and their solutions. This simplicity is missing in university organizations. In fact, Cohen and March propose that management decision-making in such an ambiguous environment represents a "garbage can into which various problems and solutions are dumped by participants when a 'choice opportunity' appears (defined as occasion when a decision must be produced):" (Cohen and March 1974, p. 81). Under such conditions management decisions are compounded by degree of difficulty and the relative volatility of both the problem situation and attitudes of the policymakers called in to solve the problems of organizations.

Resolution of the problem or making a decision is only one of three options available in Cohen and March's theory. The other three are (1) light or change of context from the original problem, and (2) own light, when decisions are complicated by other choices and one of those other choices by transference makes the first decision unnecessary. Under such a theory, the original problem often is not resolved.

This very complex model of university management, characterized by Cohen and March as "organized anarchy," is used to advance a theory of university management in which the problems of academic and curricular design, budget decisions, academic personnel decisions, and planning are seen as all basically ambiguous areas of choice in which actual decisions are made as much by the manner in which the issues are presented to the decision-makers as by choices among rational alternatives for the use of resources by academic leaders. Under such a theory, planning is reduced to a symbolic exercise as an excuse for inaction, out of which decisions sometimes are made based on manner of presentation.

Other perspectives (as should be below) advance less complex explanations of the administrative management processes and give more importance to academic planning. Other theorists (constructions) tend generally to emphasize the uniqueness of the academic enterprise and suggest that management techniques adopted in other management situations in which the problems of management, curricular design, budget decisions, academic personnel decisions, and planning are viewed as essentially less ambiguous areas of choice in which actual decisions are made as much by the manner in which the issues are presented to the decision-makers and, as such, vary among rational alternatives for the use of resources by administrative leaders. Under such a theory, planning is reduced to a symbolic exercise as an excuse for inaction, out of which decisions sometimes are made based on manner of presentation.

In a later work (Michalak 1977), Balderson offers some perceptive views of the gap between academic management and the views of such management by the faculty. He also broadens his analytical framework to account for continued difficulties in implementing statewide systems of management coordination. Balderson suggests that "very important, very significant, very real problems of administration and management skills are increasingly necessary to respond to accountability, justification and fiscal constraints with which colleges and universities will be forced to live." (Michalak 1977, p. 91)

The development of planning models as major elements in academic planning has paralleled the development of a more sophisticated understanding of academic management. Problems confronting college and university administrators grew in complexity so did the need for academic planning. This need for management models of future projections that would allow some sense of the consequences of management decisions.

In a study concerned with the assessment of higher education outcomes, Bowser (1974) presents a list of planning process elements in a study concerned with the assessment of higher education outcomes. He sees the planning of quantitative and judgmental evaluation methods as inevitable to deal with the variety and complexity of both higher education outcomes and higher education planning.
cation management. These elements in planning for institutions are:

1. To define the goals and to order them priorities.
2. To identify and measure the output.
3. To compare the goals and the outcomes and then to judge the de-
gree to which the goals are being achieved.
4. To measure the cost and judge the degree to which it approaches a
reasonable minimum.

As Bowen points out, to actually put these elements into prac-
tice requires extraordinary powers of identification, measure-
ment, and judgment and in the end probably still requires sub-
terior and judgmental decisions to be made by administrators.

In a later work, Bowen (1977) notes the difficulty in quanti-

ing the goals for planning but also for purposes and efficiency these values associat-
ed with higher education that are not measured in financial

terms. He suggests that academic planning must make provi-
ditions in human terms for outcomes that may not be quantifi-
able.

Bergquist and Shoemaker (1976) and Fuller (1977) offer sim-
ilar elements necessary to the planning process. Bergquist and
Shoemaker concern themselves with developing a cyclical process
that moves in academic planning from reconsideration to the

determination of goals. They also stress the continuous nature of
academic planning and suggest the usefulness of opening the process to various political

elements that make up university communities. Wilson (1978) discusses how informa-
tion and data developed in response to academic planning needs can be integrated into the

process of academic planning and how it can best be interpreted to meet the

goals of institutions.

A variety of planning models have been developed over the
decade that assist in the collection, presentation, and analy-

sis of planning information. These models are described in

a number of analytical studies (Korey, 1975; Dresch, 1975;
Mason 1976, Richardson et al. 1977) and will not be dis-

cussed in detail here except to note their continued refinement.

Since 1979, there have been criticisms and renotations of
planning models that incorporate the need to be flexible. A th.
model in his view, should allow the user to add, delete, or
substantially reverse the functions of individual elements without causing changes in the principal function of the model. He identifies

two basic models that have become available—the generalized

and comprehensive. Either can be tailored to the planning di-

mensions and needs of a particular institution.

The powers of identification and measurement that Bowen

spoke of in 1974 have become increasingly used on campus

and a number of analyses of their use are now in the literature.

Lawrence and Seskin (1977) suggest that the development of

such planning systems is of equal importance to and is a matter of influence on academic man-

agement.

Lawrence and Seskin (1977) work reviews the elements

needed within planning models, such as surveys, goal investo-

ries, and outcome measures, along with their development and

use on campuses. The importance of initial steps is stressed as

necessary to assemble all the elements of the models needed in planning

that allow quantitative measurement of goals, out-
comes, and cost. This permits the elements to be constructed into

planning models that will allow ambiguous elements to be

used more precisely in academic management.

A variety of planning models are now available (see Law-

rence and Service, 1977, Mason 1976, Richardson et al. 1977,

and Updegrove 1979). Watkins (1980) and Miller (1978) note the

success Stanford University has enjoyed with a model that

stresses the importance of faculty and student involvement, ad-

ministrative commitment, and campus familiarity with the

model that promotes its effective use. Porter et al. (1979) review

a number of planning models that are available and comment

on varying degrees of satisfaction with their use. As Wirtman

(1978) points out, the basic decision in the choices of such models is

between comprehensive models that must be tailored to indi-

vidual institutions and individual models that require a signifi-
cant amount of administrative expertise in their construction

and use.

Recently, EDUCOM, a consortium of colleges and univer-
sities dedicated to the development of computer and informa-
tion technology, has developed a new planning model, the

EDUCOM Financial Planning Model (EPFM), which combines in-
stitutional specificity with the comprehensiveness developed in

the larger models. It does this through the use of an operating
program whose variables are specified by the institution using

the model (Updegrove 1978, Updegrove et al. 1979). Some 63
institutions are currently engaged in the development and use of

this model, which requires little on-campus computing ca-
pacity, relying instead on shared use of a larger computer sys-
tem made available through EDUCOM.

While budgeting and financial planning have been the

primary impetus behind the development of such models, applica-
tions beyond budgeting such as faculty tenure planning, hous-
ing, and facilities use are becoming available. The University of

Southern California has developed a Faculty Planning Model

(1977, Miller et al.) that combines budget projections with an

analysis of hiring tenure, promotion, and retirement

trends. This allows academic planners to focus on analyses of

the faculty in determining future directions for institutional poli-

cies.

The National Center for Higher Education Management Sys-

tems (NCHEMS) continues to be a primary resource for those in-
stitutions working to improve planning, budgeting, and manage-
ment functions at all types of institutions. One recent publica-

tion (NCHEMS 1979) describes institutional resources to delin-

eating enrollments and the need to closely coordinate academic

and program planning and budgeting practices.

Among other researchers who have examined academic

planning from comprehensive approaches, including the use of

models, are Bess (1979), Liler (1980), Hildowood (1979), Lewis and

Kellogg (1979), Bandt and Harnott (1980), SRI B (1979),

Neynow (1980), and Zemsky (1978).

Conclusions

The increasing complexity of management and planning

within institutions of higher education has fostered the de-

velopment of more sophisticated theories of management in

er education. Such complexity has also encouraged the de-

velopment of a number of academic planning tools and models to

aid university administrators in management through access to

data and projections of the consequences of their decision-

ing. The use of such models and the need for increasingly sophis-

ticated planning seems bound to increase; if institutional vitality

is to be insured in a period of reduced resources.

Such a large management complexity increases the specialized

skills required to manage higher education institutions and

seems likely to result in additional conflicts between admin-

istrators and faculty over governance issues within institutions.

As has been discussed, such conflicts have been endemic to high-
er education institutions, and are likely to be resolved in the

1980s. The development of planning tools, the requirement of

specialized skills in planning and management, and the emer-
gence of more complex theoretical understanding of university

management does suggest that knowledge and skills relating to

planning, management, and budgeting will be in demand for the

future. Crossing the line between faculty and administra-

tors is more difficult and conflicts over policy choices and

planning models are likely to be much more prevalent than in

the past.

Colleges and universities have a certain slow and seemingly

ponderous nature, particularly when contrasted to the manage-

ment of other types of organizations. As academic planning does

not produce solutions to all the problems that confront a
campus, planners, especially those that relate to social issues

such as access and sexual equity (Liler 1980), yet, in under-

standing the complexities of academic management and by the

ability of academic planning to provide a means for the develop-

ment of an additional source of change reflecting the concerns of the

university community, an arena for the resolution of confl}
within the university can be established. It is toward such ends that academic planning and academic management must strive.

The growing complexity of academic management makes it likely that the use of models to assist in the academic planning process will continue to expand. EDUCOM estimates that only 15 to 20 percent of higher education institutions are currently using simulation models for some phase of future planning (most commonly for financial estimates).

The most significant argument in favor is that they bring the tools of analysis and of future projection to the daily tasks of campus management. Knowing more about the elements that will make up future budgets, including the needs of staffing, facilities, and personnel costs, can make the future implications of present decisions available as considerations during the decision-making process. Such tools as the models now available can suggest new techniques to bring about these changes.

Increasingly, academic management needs to examine not just current implications of management and administrative decisions but also their future effects. In an expected era of tight resources this information will be critical. Thus emphasis on academic planning, with an increased use of modeling as an essential element within it, is a major response to the tasks of professional management in colleges and universities.

Continued refinement of the tasks of academic management as well as the use of new analytical tools are not just themselves a recipe for success but also important in maintaining the viability of the data but of individuals seeking knowledge. For management to be successful in such an environment there must be movement in that way so that policies are fostered, and the assumptions on which they are based are shared. All of the elements that make academic management complex—students, faculty, staff—must be involved in the planning process if it is to be successful. Professional management, to be successful in an academic environment, must not only be able to use the tools available but to involve those who are competing in the tasks of administration and management.

Bibliography

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