

# DOCUMENT RESUME

ED 098 894

EE 006 076

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**TITLE** Planning in a Changing Environment. Planning for Higher Education; Vol. 3., No. 5:4/5.  
**INSTITUTION** Society for Coll. and Univ. Planning, New York, N.Y.  
**PUB DATE** Oct 74  
**NOTE** 5p.  
  
**EDRS PRICE** MF-\$0.75 HC-\$1.50 PLUS POSTAGE  
**DESCRIPTORS** \*Decision Making; \*Educational Planning; Educational Quality; Efficiency; \*Higher Education; \*Institutional Research; Resource Allocations

## ABSTRACT

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# planning

for higher education

Vol. 3, No. 5: 4/5 October 19

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## Planning in a Changing Environment

Institutional research is an adaptive tool. It aids decision-makers in assessing an institution's efficiency, and in determining the appropriateness of the institution's goals in relation to social needs. However, given the limited resources available for planning, choices must at times be made as to whether to concentrate analytical studies on internal functioning or on the external environment. The following article, by Joan C. Tonn, assistant director of the office of educational planning at the University of Massachusetts/Boston, describes how the planning focus of one institution evolved along with changing external conditions in recent years.

If a particular university has had success in acquiring resources (students, faculty staff, and funds), that institution has probably been operating with goals that appropriately complement the demands of the external environment. In a relatively stable environment, most analytical efforts of such a university are justifiably directed towards examinations of internal functioning. Studies of effectiveness might include analyses of student characteristics, faculty workload and space utilization.

However, a university which has experienced difficulty in acquiring resources requires a different commitment of analytical studies efforts. Some difficulties might be traced to internal policies and operations (for example, rigid tenure policies) or to inappropriate goals given the environment (for example, developing a large continuing education program in a locale which already had several such programs). An inappropriate goal may result from a misreading of the environment or from recent changes in the environment. This suggests that institutional research should include means of monitoring the environment for early signs of change.

Many universities have resolved the problem by saying that the environment is simply too complicated to study in a systematic way. Such a conclusion results in the concentration of analysis on controllable factors within the university: internal policy and process. This strategy, sufficient in a stable setting, can lead to disaster in a rapidly changing environment. It puts the university in an uninformed, reactive posture and makes it almost impossible to use environmental pressures as a means of organizational change.

The University of Massachusetts at Boston, seven years after its founding, discovered that its environment had both changed and become highly unstable. Resulting decisions to plan for organizational change through a greater sensitivity to the environment, promise to have a substantial impact on the size of the institution and the nature of its programs and students.

### A Sketch of the University of Massachusetts/Boston

UMB is one of three campuses of the University of Massachusetts (the others are Amherst and the medical campus at Worcester). The Boston campus was opened in 1965 as a result of rising college enrollments in Massachusetts. The University made a commitment to provide urban residents, particularly those with low or moderate incomes, with a range and quality of educational opportunity equivalent to that available at Boston's private institutions.

Since most students would be commuters, a college plan was devised to create small units as intellectual and physical "homes". The 1969 Academic Master Plan, assuming a 1980 enrollment of 15,000 students, envisioned the eventual establishment of six colleges, each with 2,000 undergraduate and 500 graduate students. The first two units would be arts and sciences colleges, reflecting the nature of the faculty of the institution in 1968. It was widely assumed (although not specifically stated) that the other colleges would also be arts and sciences. The college structure was reflected in a physical master plan with only limited central facilities, and concentrated classrooms, faculty offices and leisure activities space in each college building.

## **The Environment in 1964-68**

The higher education environment in which this initial plan for the Boston campus was generated was characterized primarily by the extensiveness of the resources thought to be available:

**More students:** Enrollment projections made by the Board of Higher Education, based on the period 1955-67, suggested that Massachusetts higher education enrollments would increase from 1969 to 1980 by almost 80% to 524,000 students. Furthermore, the enrollments were increasing fastest in the public sector.

**Increased funding:** Massachusetts had for years ranked extremely low among the states in per capita expenditures for higher education. In New England, the private education system educated those students for whom there were places and who could afford it. However, the general rise of enrollments in the 1960's, coupled with the demands of low-income and minority groups for equal opportunity, encouraged the state to respond through University expansion and increased funding for a community college system. Recommendations were made to level off total UMass enrollment at 50,000 full-time and 10-20,000 part-time students by 1980, with a 15:1 student/faculty ratio. New campuses were to be built at Boston (\$355 million) and Worcester (\$130 million), along with substantial expansion at Amherst.

**Incentives to faculty:** The job market was just beginning to tighten up, providing a large potential applicant pool. In addition, access to the extended higher education community in Boston would be an incentive for high quality faculty to come to a new and relatively "prestige-less" institution.

## **The Environment in 1972**

In the 1960's, Massachusetts had a set of higher education institutions with fairly clearly defined roles. The private colleges served primarily out-of-state students and those Massachusetts residents who were able to afford the high tuitions. The few community colleges (none existed in the city) served a non-Boston population. The state colleges were basically teacher-training institutions. UMass/Amherst (a residential campus) served a state-wide, predominately higher income clientele in a broad range of liberal arts and professional fields.

By 1972, the private institutions were demanding state financial support for enrolling state students, two new community colleges were about to open in Boston, the state colleges were trying to broaden their range of offerings, and UMass/Amherst was trying to attract more minority and disadvantaged students. The result of all these changes was a system of higher education in the

**Commonwealth which was much more complex in terms of function and claims on state resources.**

By 1972, other factors had also changed profoundly:

- **Overestimated enrollment projections:** In retrospect, the base period used for the original BHE projections had had an unusually high growth rate; developments in surrounding states reduced the numbers of out-of-state students applying to Boston private institutions; and, in general, fewer students wanted to go to college. New projections estimated an increase in enrollments from a 1969 actual figure of 255,366 to 317,899 students by 1980—almost 206,000 fewer students than estimated in the BHE report. Even though tuition increases in the private institutions made UMB increasingly attractive to students, the political pressures which could be exerted by the private institutions made direct competition unwise.

- **Funding difficulties:** In 1972, the Trustees reduced UMB's projected 1980 enrollment to 12,500 students and eliminated two buildings from the physical master plan. After an initial expenditure of \$135 million for two college buildings, an administration and services building, a library, and a science building, the University received no capital outlay appropriations for two years.

- **Outside pressures on program development:** Job market considerations for UMB graduates and the worsening financial plight of private institutions led to a consideration of career-oriented professional programs in place of further liberal arts development. Only a fragment of the graduate program envisioned in the original campus master plan had been implemented. The opening of two new public community colleges in Boston created potential enrollment problems for UMB and encouraged thinking about enrolling more transfer students and fewer freshmen. To further complicate matters, some private institutions began a general attack on the continued development of UMB.

- **Community responsibilities:** The impending move of UMB from the downtown commercial area to a site near well-established Boston residential neighborhoods and a public housing project created other environmental issues for the campus. The community members had seen the impact on other Boston neighborhoods as college campuses had expanded. They were determined to extract guarantees from UMB that transportation and housing would not be adversely affected, and that local residents would receive special consideration in employment and admissions.

## **Campus Response: A Planning Office**

Thus, the campus in 1972 faced an environment which was heterogeneous, rapidly growing and changing, often hostile, and limited in resources. Plans had to be

made in this context for the orderly expansion of the campus from 5,000 to 12,500 students. There was a vague recognition that campus planning in the next few years would involve more than using the existing faculty to "spin off" another liberal arts college. Thus, the Office of Educational Planning (OEP) was established to "provide the campus with an administrative capacity for undertaking research and planning pointing toward the development of major new academic programs at UMB, particularly new colleges."

During the past two academic years, the OEP has coordinated planning activities by working as staff to two successive ad-hoc committees (composed of students, faculty, administrators). The planning effort during the 1972-73 academic year determined the general outlines of the program for the fourth college. During 1973-74 the scope expanded considerably as the Chancellor proposed that UMB "... commit itself to reviewing all the major claims on future resources, defining priorities among them, and establishing a plan of development through 1980."

The OEP began its work without a precisely formed planning strategy. Elements of a planning paradigm emerged during the first and second planning years. The work of the office involved:

- obtaining data inputs important to the construction of a model of programs being planned;
- outlining appropriate structures and functions for the programs;
- determining the projected outcomes of implementing programs.

The collection of *data inputs* focused on an articulation of the missions of UMB and other institutions, the experiences of former students, the needs of potential students, the needs of relatively new or underdeveloped campus programs, and areas of potential program duplication with other politically or geographically relevant institutions. On the basis of these data inputs, *models* were constructed which projected in a general way program size, personnel and facilities requirements, curriculum outlines, the time required for program development, relationships of the program to existing organizational units, and potential methods of funding. Finally, *outcomes* of the models were projected, including long-term program cost, availability of resources to other campus programs, degree and career options provided for students, and the impacts on programs already offered by existing UMB colleges and other area institutions. Successive iterations of this model-constructing process were carried out until the outcomes were seen as satisfactory.

#### Using the Planning Paradigm

This general planning process was crucial to the operations of the two planning committees.

- It provided the basis of a workplan for the committee which clearly identified the assumptions

being made and the tasks which had to be done. Many times the committee forced itself to end discussions of issues which were intriguing but outside the scope of the committee's work (such as the continuation of the college structure or the desirability of enrollment ceilings). Because the committee had limited staff resources, attention had to remain focused on specific research and information gathering areas.

- It allowed the development of a work timetable, including projected completion dates for segments of the planning process. Because most of the information came from external sources, the turn-around time from the generation of an issue or problem to the completion of a staff analysis and report was often a matter of several weeks. Thus, it was crucial to plan staff work months in advance. The schedule also aided committee members in terminating superfluous or redundant discussion. Finally, and certainly not least important, the need to complete a task by a certain date encouraged committee members to attend meetings regularly.

- While significantly involving current campus groups in long-range planning, the process focused on the external environment, rather than on existing internal interests, as the primary source of information for committee recommendations. The process could not have operated successfully without the active participation of representatives of the faculty, students, and administration. In order for new programs to complement and support existing academic and administrative functions, the committee had to discuss differences in educational philosophy, political ideology, and assessments of internal need.

However, when an existing group plans the distribution of new resources, that group tends to use these resources to benefit itself. To protect the interests of future students and faculty participants in potential programs, the need and organization of programs had to be determined independently as much as possible. Thus we were careful to estimate student demand for programs from potentially different types of students, and to construct program models based not only on the peculiarities of UMB, but also on innovative programs in existence elsewhere.

- It provided a rational means of comparing alternative program priorities and models. The committee planning the fourth college needed to assess the relative merits of various program suggestions. The committee formulating the "New Master Plan" faced an even more complicated job: comparing the "apples and oranges" of programs like graduate study and basic skills instruction. Differences of opinion and of priorities were reconciled by first reaching agreement on basic criteria for recommendations.

- It provided a basic structure to reduce unconstructive conflicts with external groups over the recommendations. The President's Office of the University of Massachusetts and the Massachusetts Board of Higher Education are developing increasingly



sophisticated program review responsibilities, particularly for new programs. Also, the private institutions of this area are very aware of developments in the public sector. Through this systematic planning process, the campus was able to demonstrate prior consultation with officials of relevant external programs, to clearly articulate the scope and intensity of need for proposed programs, and to project the impact of programs on external groups.

#### **The Impact of Environmental Analysis**

During the past two years, the OEP has coordinated decisions about the use of new resources as UMB grows. The incorporation of environmental factors into the planning process is already having an impact on the nature of the institution.

The fourth college of UMass/Boston, the College of Professional Studies, is scheduled to open in the fall of 1975. The five programs (management sciences, architecture and planning, urban technology, journalism and community health) included in the college plan are products of extensive analyses of student demand, job market projections and programs already available in this geographical area. The development of this college contributes significantly to the diversification of academic offerings beyond the liberal arts and increases the accessibility of the University to students it was formerly unable to serve.

A report proposing a new master plan examining existing admissions policy and procedures was presented a few months ago to the campus University Assembly. The recommendations flow from analyses of socioeconomic characteristics of Boston-area school districts, of characteristics of this area college-going population (including students in other area institutions), and of the program needs of community college graduates. The planning committee has proposed policies and procedures designed to identify and recruit both low and moderate income students and members of ethnic minority groups without engaging in unconstructive

competition with other institutions. On the basis of its analysis of potential student needs, the committee reaffirms previous campus decisions to diversify the academic program. The report further recommends scheduling instructional programs for potential students who can attend only in the evening, on a part-time basis, or primarily during the summer. The committee's outlined procedures for the development of graduate programs is also based, in large part, upon environmental analyses of student demand and job market projections. The committee recommends the evaluation of specific proposals upon criteria of student demand, program duplication, and the availability of jobs for graduates.

#### **The Future of Analytical Studies at UMass/Boston**

UMB will not have the luxury of analyzing the environment with the intensity shown during the program planning of the past two years. The proposals currently before the University Assembly will potentially serve as guides for specific planning. Therefore the Office of Educational Planning will be able to devote increasingly more attention to resource management: the monitoring and supervision of resources already in place. Much of the time of the OEP staff will now be spent in responding to external pressures from many sources to investigate the effectiveness of current university programs. As a result, the environment-monitoring process must be routinized, with periodic measurements made on only the most important parameters.

While the emphasis on internal studies again seems appropriate for the next few years, new conditions may once again make necessary a more rigorous environmental analysis. The successful execution of adaptive responsibilities requires that the planning staff not only be able to carry out such investigations, but also be able to anticipate the need for them in advance.

*—David C. Tonn*