The literature on strategic planning, and the capabilities of Massachusetts system of public postsecondary education were assessed, as part of a 1981 leadership seminar. Teams from all public postsecondary education institutions in the state reviewed the basic concepts of strategic planning; critically analyzed the environment external to their institutions; observed a method to evaluate certificate and degree programs based on the criteria of quality, centrality, and viability; and listened to a presentation on various aspects of integration related to strategic planning. Materials and articles distributed to seminar participants contained detailed information about a broad range of demographic, social, political, and economic forces, trends, and their effects and impacts. Projects started by national organizations and the results of implementation in two- and four-year colleges and universities were also examined. Tools for external environment assessment were needs assessment, trend analysis, environment scanning, and market analysis. Data gathering and analysis, which are designed to reveal the options for an institution, were addressed. After review of resources and examples, tools, and options, campus teams participated in a SWOT (strength, weakness, opportunity, threat) analysis: an exercise to assist institutions to capitalize on strengths, minimize weaknesses, take advantage of opportunities, and eliminate or reduce threats. Lists of these concerns along with demographic, social, political, or economic factors, are included. It is recommended that there is a need for: institutions to be versed in the strategic planning literature, guidelines for data collection and analysis, and additional workshops. Appendices include a seminar program, a bibliography, and an evaluation format for diagnosing stages of institutional development. (SW)
STRATEGIC PLANNING TECHNIQUES:
MATCHING EXTERNAL ASSESSMENT WITH INTERNAL AUDIT

by
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a report of the
American Council on Education Leadership Seminar on
"Strategic Planning Techniques for Massachusetts Postsecondary Education"
presented in conjunction with
The Council of Public Presidents and Chancellors
and
The Chancellor's Office of the Massachusetts Board of Regents
Worcester, Massachusetts
November 30 - December 1, 1981.
ABSTRACT

Sections 103 through 134 of Chapter 3.29 of the Massachusetts Acts of 1980 provided enabling legislation enacting reorganization which replaced state-wide segmented boards (i.e., community colleges, state colleges, universities) with a Board of Regents of Higher Education and a local board of trustees at each of the 3 universities, 10 state colleges, and 15 community colleges. The purpose and function of the Board of Regents is "to develop, foster, and advocate a comprehensive system of public higher education of high quality, flexibility, responsiveness, and accountability." Selected duties of the Board of Regents include the development of a five-year master plan for public higher education in the commonwealth which takes into account the five-year plans submitted by individual boards of trustees and includes standards for admissions, program excellence, promotion of research, and public service activities.

To help achieve these goals, the Chancellor's Office of the Massachusetts Board of Regents and the Council of Public President's and Chancellors asked the American Council on Education to conduct a leadership seminar on the topic "Strategic Planning Techniques for Massachusetts Postsecondary Education on November 30-December 1, 1981. Presidential led teams from all public post-secondary education institutions in the state reviewed the basic concepts of strategic planning; critically analyzed the environment external to their institutions, listed strengths, weaknesses, and threats, and prioritized options available to them; observed a method to evaluate certificate and degree programs based on the criteria of quality, centrality, and viability; and listened to a presentation on various aspects of integration related to strategic planning. This paper presents an overview of that strategic planning process.
Background

Sections 103 through 134 of Chapter 329 of the Massachusetts Acts of 1980 provided enabling legislation enacting reorganization which created a Board of Regents of Higher Education with a local board of trustees at each institution. This action abolished state-wide a board for community colleges and a board for state colleges. Section 1 of Chapter 15A states the following:

It is hereby declared to be the policy of the commonwealth that the purpose and function of the board of regents shall be to develop, foster, and advocate a comprehensive system of public higher education of high quality, flexibility, responsiveness, and accountability.

To achieve these goals it shall be the responsibility of the board of regents to preserve and promote diversity of institutional mission and function within the public system, ranging from research and graduate instruction on the highest level of academic quality to community service activities appropriate for a publicly supported system, and including the full range of instructional activities appropriate for a comprehensive system of higher education. The board shall further recognize that the desired differentiation and diversity of institutional mission must take into account such issues and concerns as regional needs and characteristics, staffing appropriate to level and type of institution and program, and the needs of changing student population.

The board shall encourage an economic and effective use of the resources of the commonwealth with particular emphasis upon the development of regional and local consortia and related cooperative arrangements by and between public and independent institutions of higher education.

The Acts of 1980 gave the board of regents governing authority over 3 universities, 10 state colleges, and 15 community colleges. Section 5 specified duties and powers of the board of regents. Selected duties and powers are as follows:

(c) analyze the present and future goals, needs and requirements of public higher education in the commonwealth and establish overall goals in order to achieve a well-coordinated quality system of public higher education in the commonwealth; (d) prepare a five-year master plan for public higher education in the commonwealth, which plan shall take into account the five year plans submitted by individual boards of trustees. The master plan shall include, but needs not be limited to, enrollment projections, utilization of existing facilities, promotion of research, programmatic excellence, and public service activities, recommendations for closing of facilities
or the construction or acquisition of new facilities, program distribution and the need for program revision, including the termination of obsolete or unnecessary duplicative programs. The master plan shall be filed with the clerk of the house of representatives, the clerk of the Senate and the secretary of administration and finance; (e) annually file a detailed progress report on the five year master plan with said clerks and secretary by the first Wednesday in December; (f) require boards of trustees to submit admission standards and program standards, which shall be subject to the approval of the board of regents.2

Strategic Planning Leadership Seminar

The Council of Public Presidents and Chancellors and the Chancellor's Office of the Massachusetts Board of Regents asked the American Council on Education to conduct a leadership seminar on the topic "Strategic Planning Techniques for Massachusetts Postsecondary Education" on November 1 - December 1, 1981. Thomas A. Emmet, Director of ACE Leadership Seminars and Assistant to the President and Professor of Education at Regis College in Denver, worked with CPPC and the Chancellor's Office and consultants Robert G. Cope and Warren H. Groff in developing the agenda for the leadership seminar. (See Appendix A) Cope and Groff have made numerous presentations on comprehensive planning and management at national conferences, published on the topic, and conducted a week-long Snowmass Institute on Strategic Planning and Management on July 5-10, 1981, an Institute to be repeated again on July 11-16, 1982.3

George E. Ayers, President of Massasoit Community College, served as moderator of the first general session. During that session Tom Emmet discussed the topic "Strategic Planning and Management in the Context of Higher Education: An Agenda for the 1980s" and Chancellor John Duff discussed "Strategic Planning for Postsecondary Education in Massachusetts." These two presentations set the stage for presentations on (1) basic concepts of strategic planning, (2) external environment assessment, (3) internal assessment, (4) integration concepts in strategic planning, and (5) summary. Packets
Basic Concepts of Strategic Planning

During the post World War II years institutional planning had a focus on acquiring more resources and building facilities for the increased number of students resulting from the equal right demand for access to postsecondary education. Planning in postsecondary education during the 1960s was undertaken in response to immediate needs with minimum regard to the future. During the 1970s the influx of traditional 18 to 22 year old students began to stabilize. Many private and public senior institutions began to experience the impact of a broad range of demographic, social, political, and economic forces. As a result, organizations such as The Council of Independent Colleges (formerly The Council for the Advancement of Small Colleges), the Academy for Educational Development, the American Association of State Colleges and Universities launched programs relating to comprehensive institutional planning. These projects and others like it all stressed the need to assess the external environment. The literature began to reflect descriptions of institutional planning processes including some way to assess the external environment.

The literature also began to reflect articles intended to clarify the concept of strategic planning. The term "strategy" is used to refer to long-term intentions transcending annual or biannual operations planning. Ellison states:
It is within the framework of strategy that annual budget planning and preparation take place. Alfred D. Chandler, in his business history *Strategy and Structure*, defined strategy as "determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals." Strategic decision-making is concerned with the long-term health of an organization rather than with day-to-day operations. Also, a strategy is not in force until an institution has made a resource commitment to support carrying out the strategy.

Peters states:

Strategic planning is a process that directs an organization's attention to the future, thereby enabling the organization to adapt more readily to change.

The major contribution of the planning process to good management is the rationality it imposes on an organization's efforts to anticipate its future.

Creative organizations are able to examine the basic assumptions under which they operate and to adapt them to new situations. Creativity is a basic tool for good planning and not some poetic appendage to the process.

Thieme states:

Real strategic planning does not start with assumptions about institutional mission. Mission can only be realistically set after a careful assessment of the external environment and the internal strengths and weaknesses of the institution and after identification of practical options.

Ross states:

Planning is no more than a conscious, rational process of deciding upon a desired future state and committing resources to achieve it. When speaking about planning, it is necessary to differentiate between informal planning, which everyone does, and formal strategic planning. Even the most unsophisticated manager gathers and organizes data, makes assumptions about the specific universe, establishes goals and objectives, and sets priorities for activity. Informal planning differs from formal planning in that in the first case the manager makes the decisions alone. The informal plan lacks a multi-disciplinary perspective, and has no rigorous methodology.
Côllier indicates there are five essential elements in the strategic planning concept:

1. Strategic planning involves the explicit consideration of a set of decisions which determine the future of the entire organizational entity.

2. The total strategic planning process is comprised of the initial strategy formulation process (in which the set of strategic decisions are made) and the implementation/budgeting process (in which the initial strategy is reformulated and an emergent strategy evolves).

3. One of the primary criteria used in making strategic decisions is the achievement of a simultaneous match among (1) the organization's resources, (2) its proximate environment, and (3) certain inherent characteristics of the organization.

4. Strategic planning encourages organizations to take the initiative in creating their own future and to consider the future they are creating for themselves.

5. The set of strategic decisions should be synergistic and they should increase organizational flexibility.\(^8\)

Thieme suggests there are seven key objectives of the strategic planning process:

1. Challenge the prevailing assumptions about the role and purpose of the institution.

2. Identify service area needs that are not adequately met.

3. Develop a plan that recognizes both external and internal realities.

4. Achieve consensus among key organization members on future strategies.

5. Favorable influence the perspective of internal and external constituent groups.

6. Link strategic planning to operational management.

7. Educate key people as to the external and internal realities as well as to the values and aspirations of key groups.\(^9\)

Shirley and Caruthers specify six strategic decision areas as (1) basic philosophy and values, (2) goals and objectives, (3) program or service mix, (4) clientele, (5) geographic service area, and (6) comparative advantage.\(^10\) They detail each area in order to indicate how administrative and operational...
decisions take their direction from strategic decisions. Three major determinates of an organization's strategy consist of (1) external opportunities and constraints, (2) internal capabilities, and (3) the personal values of key constituencies. Strategic decisions grow out of a matching process of a critical analysis of what the organization (1) might or cannot do, (2) can do, and (3) wants to do. This model is displayed in Figure 1.

Cope states that "Strategic planning assumes an open system in which organizations are dynamic and constantly changing as they integrate information from turbulent environments. Strategic planning focuses on the external environment, on qualitative information and intuitive decisions regarding resource commitments, and on integrated, participatory involvement." Planning, however defined, has a focus on designing and shaping the future as opposed to merely changing. Strategic planning must consider a critical analysis of forces, trends, and their effects and must be firmly based on demographic, social, political, and economic data sets. Data are the foundation upon which to build the multi-year institution/system Plan, a document containing a grand design representing intelligent anticipation of activities, events, and experimental observations carefully specified in advance to move from one point to another. The data analysis process must strive to produce meaning as it relates to efficiency and effectiveness of relating resources to institutional goals and objectives. Planning, then, is critical analysis and requires the development of an analytical capability to collect, array, and analyze a large number of variables in an effort to portray a system of relationships, causality in some cases.
THREE MAJOR DETERMINANTS OF AN ORGANIZATION'S STRATEGY

Environmental Opportunities and Constraints

"Matching" Process

Internal Capabilities

Personal Values

Strategic Decisions
External Environment Assessment

Resources and examples of the evolution of strategic planning and management as well as sources of trend analysis information were reviewed as a prelude to (1) discussing tools for external environment assessment, (2) reviewing options for postsecondary education, and (3) participation of campus teams in an exercise designed to assist them to apply the concepts.

The materials and articles distributed to seminar participants contained detailed information about a broad range of demographic, social, political, and economic forces, trends, and their effects and impacts. These materials covered examples of projects launched by national organizations and the results of their implementation in two- and four-year colleges and major universities.

Tools for external environment assessment were listed as needs assessment, trend analysis, environment scanning, and market analysis. Ahmann indicates that needs assessment is a generic term to describe a process "for determining the discrepancy between existing and desired levels of attainment with respect to specific educational goals." He describes types of needs assessment and the state of the art which has shifted from informal to formal, systematic efforts beginning in the early 1970s attributable primarily to the accountability movement stimulated by federal legislation. Vlahos traces several changes in needs assessment techniques including its application to perceptions of the community and business and industry.

Trend analysis consists of the systematic review of comparable data over time in order to determine direction. Environmental scanning consists of periodic sampling of data which may ultimately form the foundation of trends. An example of such a scan is the College Entrance Examination Board study indicating that 36 percent of the population between the ages of 16 and 65, more than 40 million Americans, are in a career transition status. Research by
the College Board, however, indicates that only about \( \frac{1}{4} \) of the 58,400,000 persons in postsecondary education are enrolled in colleges and universities.

Market analysis consists of obtaining detailed information about markets or market segments served or unserved by the institution. Market analysis is an organized effort to identify the relationship between specific wants and needs of people and the way the institution meets or could meet them. Market analysis is, in its simplest description, a more coherent way to plan institutional responses to conditions within the College’s service area.

The purpose of the data gathering and analysis function is to gain insights into which of several options an institution will choose in charting a course of action over the next several years. Data from one source indicate that change in the number of high school graduates between 1979 and 1995 will range from a decline of \( 59\% \) in Washington D.C. to an increase of \( 58\% \) in Utah. Eleven states will experience a decline of more than \( 30\% \) in the number of high school graduates during that period. Bowen indicates that colleges experienced enrollment declines in 1934, 1944, and 1952 and suggests four options: (1) redirect resources toward higher quality, (2) redirect resources toward research and public service, (3) redirect resources toward new student clientele, and (4) retrenchment.\(^{15}\)

Following the review of resources and examples, tools, and options, campus teams participated in a SWOT analysis. SWOT is an exercise to assist institutions to capitalize on STRENGTHS, minimize WEAKNESSES, take advantage of OPPORTUNITIES, and eliminate or reduce THREATS. Strengths, weaknesses, opportunities, and threats were listed by campus teams and labeled demographic, social, political, or economic. Campus teams rank ordered the options of higher quality, research, public service, new student clientele, and retrenchment with 5 as high and 1 as low. In a third related exercise, campus teams evaluated their stage of institutional development relative to tools for external environment assess-
ment - needs assessment, market analysis, trend analysis, and environmental scanning.

Institutions and systems vary in their ability and capacity to collect and analyze data about their external environment. Regardless of degree of sophistication of the data collection and analysis function, however, judgments are made relative to the strengths, weaknesses, opportunities, and threats in the external environment. Strengths, weaknesses, opportunities, and threats identified by state colleges and universities and community colleges are displayed in Figures 2, 3, 4, and 5. They are labeled demographic, economic, social, or political.

Figure 6 is a display of the rank order of options of higher quality, research, public service, new student clientele, and retrenchment chosen by four state colleges and universities and four community colleges. Higher quality was the preferred option of most colleges in this array, with new student clientele and public service placing second and third respectively. While retrenchment was listed as the least desirable option by most colleges, one college viewed it as being a distinct possibility and ranked it third. Generally, there tended to be agreement among the representatives from a single institution on the rank order of options for that institution.

Institutions diagnosed the stage of development relative to using the tools of external environment assessment. If an institution is unfamiliar or only vaguely familiar with the literature on needs assessment, it should score a "0". If the institution participated in a needs assessment or critically analyzed several needs assessment instruments or studies, it could be ranked "1". Conducting one or more needs assessments yields a "2" and critically evaluating data from needs assessments nets a "3". Feeding the data back into the planning process merits a "4". To score a "5", the institution fed the data into the planning process, implemented change, and evaluated the results.
FIGURE 2

STRENGTHS IDENTIFIED BY STATE COLLEGES AND UNIVERSITIES

D Location in growth population area
D Location close to major centers of population
P Major access roads
E Diversity of industry located within area and region
S Upward mobility expectations of people located within the region
S Strong and cooperative activities and programs with other institutions
D Centrally located in commonwealth
D Urban location
E Health care center
S Positive city outlook
S Ethnic diversity
P Growing public identification
S Strong alumni interest and support
S Favorable support by local community

STRENGTHS IDENTIFIED BY COMMUNITY COLLEGES

D Diversified population
D Large service area population
D Location
E Business and industry
E Health care industry
E Highway network
D Space for growth in the region
E Good network of roads
P Active political leadership
S Good community support
S Reputation
S Ethnic mix with high value on education
P Political/community network
E Labor market needs
FIGURE 3

WEAKNESSES IDENTIFIED BY STATE COLLEGES AND UNIVERSITIES

P
Lack of legislative interest
E
Lack of external funding, financial support - state and local
P
Collective bargaining - external and internal
S
Public perception of public higher education
S
Limited "image" of diversity of the institution
S
Cultural impact on educational aspirations
D
Need for hard-data for planning purposes
S
Declining birth rates, drop in high school graduates
E
Changing job opportunities
S
Biased media
D
Commuter college
P
Power politics of private sector
S
Identity crisis
E
Ties with industry
P
Lack of regional economic plan
D
Distance from Boston
P
Lack of regional identification
S
Conservative tendencies
E
Competition from private industry
E
Economic trends - proposition 2½
S
Perceptions as teachers' colleges

WEAKNESSES IDENTIFIED BY COMMUNITY COLLEGES

P
Funding system, diminishing resources
P
Lack of political clout statewide
P
Lack of media support
D
Mass transportation
D
Rural location
D
Limited pool of qualified part-time faculty
P
Lack of lead time in allocation of resources
E
Lack of varied job opportunities
P
Lack of system direction, lack of planning
D
Dependance on traditional students
E
Lack of seed money
S
Staffing dilemma
S
Traditional attitudes
E
Industrial infrastructure
P
Absence of statewide mission statement
D
Population decline
D
Information on external environment
D
Lack of information on employment projections
E
High unemployment
FIGURE 4

OPPORTUNITIES IDENTIFIED BY STATE COLLEGES AND UNIVERSITIES

S  Excellent alumni support
E  Excellent business and industry support
D  Articulation with local two-year public and private institutions
E  Potential redirection of institution because of changing job market
P  Growth in area due to access roads
E  Rapidly expanding opportunities
E  Public support from foundations and corporations
E  Business-industry-college cooperation
S  Health-related programming
S  Urban needs responsiveness
D  Non-traditional students
P  Regional cooperation
E  Industrial growth
D  Expansion of external education opportunities
S  Increased development of institution as a cultural center
D  Development of statewide data base
P  Opportunity to register influence with legislatures
P  Opportunity to develop planning model for Massachusetts
F  Respond to industry research needs

OPPORTUNITIES IDENTIFIED BY COMMUNITY COLLEGES

E  Occupational training
D  Ethnic groups
D  Aging population
S  Social service agencies
E  Conferences
E  Space in industrial parks
E  Growth of cable TV, programming
E  Growth of electronics
E  High demand for nurses
S  High demand for cultural programs
E  Available pool of untrained labor
E  Cooperative education
E  High technology
S  Build on transfer reputation
D  Serving non-traditional students and elderly
S  Community linkage
P  Cooperation with nearby institutions including technical schools
S  Consortium with community
D  Shift to more white collar jobs
E  More effective stewardship with local business and industry
D  Milltown cultural vacuum
E  High cost of private education
FIGURE 5

THREATS IDENTIFIED BY STATE COLLEGES AND UNIVERSITIES

P Decreasing fiscal support from legislature
E Changing federal policies toward higher education
P Loss of fiscal autonomy
P Public support of private colleges
D Decline of traditional age students
P Reorganization of higher education, uncertainty
S Overall loss of public esteem for public higher education
P Private - public competition
P Public - public competition
P Institutional mergers
P Lack of state mission
E Industrial educational programming
P Program development limitations
S Uncertainty of 21/2
P Inexperienced Regents
E Depression
P Forced decision-making without appropriate analysis

THREATS IDENTIFIED BY COMMUNITY COLLEGES

P Uncertainty of reorganization impact, merger
P Legislative process
P State financial support uncertainty
S State philosophical commitment to higher education
S Lack of public confidence
P Encroachment in key programs by other educational institutions
D Decline high school population
E Inflation
S Negative perception by citizens of all state agencies
S Lack of promotional opportunities
S Public apathy toward higher education
D Poor public transportation
E Potential loss of industry
P The Boston reorganization process
S Duplication of programs
S Quality of high school programs
E State tax cutting syndrome
E Reagonomics - cutbacks
P Possible freezing of capital outlay
P Collective bargaining under Board of Regents
FIGURE 6
A DISPLAY OF OPTION BY EIGHT PUBLIC INSTITUTIONS OF POSTSECONDARY EDUCATION

HQ - Higher Education
PS - Public Service
NS - New Student Clientele
R - Retrenchment
R - Research
The results are displayed in Figure 7.

Internal Audit

Materials distributed to seminar participants in the packets included organizational elements such as theories of organizational functioning, stages of organizational development, sophistication with strategic planning tools, a model of a management information systems necessary for strategic planning, and human resource development including stages of leadership development.

Campus teams were then provided with a method of program evaluation on the basis of quality, centrality, and market viability. Quality is a function of faculty, students, library holdings, support services, program characteristics, program advisory committees, and other variables. Centrality relates to the degree of closeness to the central mission of the institution. An institution can evaluate the quality of its programs on the basis of the above criteria and divide them into three equal groups labeled high, medium, and low quality. The institution can then divide its programs in a similar way based on centrality and array them in the matrix in Figure 8.

The next step is to rank the programs on market viability. Market viability is defined as demand in the market place, competition, and comparative advantage. The external environment assessment plays a major role in this step. Programs in cell 1 of the Q/C Matrix are distributed in cells 1, 4, and 7 in the Q/C-Market Viability Matrix in Figure 9. Programs in cells 2, 4, and 5 of the Q/C Matrix are distributed in cells 2, 5, and 8 of the Q/C-MV Matrix. Programs from cells 3, 6, 7, 8, and 9 of the Q/C Matrix are distributed in cells 3, 6, and 9 of the Q/C-MV Matrix. This technique can be extended to include support programs. The diagnostic information can lead to a variety of continuation decisions as well as discontinuation of programs.
FIGURE 7
DIAGNOSIS OF STAGE OF DEVELOPMENT OF INSTITUTIONAL DEVELOPMENT
RELATIVE TO EXTERNAL ENVIRONMENT ASSESSMENT

<table>
<thead>
<tr>
<th>Institution</th>
<th>Needs Assessment</th>
<th>Market Analysis</th>
<th>Trend Analysis</th>
<th>Environmental Scanning</th>
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</table>
FIGURE 9
Q/C-MARKET VIABILITY MATRIX

Program Quality/Centrality

High | Medium | Low
--- | --- | ---
1 | 2 | 3
4 | 5 | 6
7 | 8 | 9

Matching and Integration

Strategic planning and management is essentially the matching of opportunities in the external environment with institutional strengths. Demographic data indicating a decline in the number of high school graduates, which might be listed as a "threat", can be balanced against the "opportunity" of accessing more of the 36% of the population between the ages of 16 and 65 who are in career transition. The social expectation force of equality of opportunity to a quality education and the political/economic forces of the right to retraining and to continuing education will yield additional lifelong learners who will be offered education and training by one of several postsecondary education providers.

Programs of high quality, centrality, and market viability should not be deprived of the resources necessary to insure their maximum impact on the institution's service area. Programs of low quality, centrality, and market viability should yield to programs designed to take advantage of opportunities in the external environment such as retraining the unemployed or technology transfer.

Programs between these two extremes must be dealt with individually. For example, programs with high centrality and market viability but medium or low in quality must be examined in terms of faculty, students, library holdings, support services, program characteristics, degree of active participation by program advisory committee, and other variables. It is possible that a program may be low in quality simply because it is in the early stages of development or integration such as robotics or rehabilitative engineering, programs which are multi-disciplinary in nature.

Integration concepts extend beyond combining disciplines to interrelatedness between institutional planning, institutional research, the management information system, public relations, marketing, and development or fund raising.

In addition, integration goes beyond a single institution. It extends to how an institution fits into a larger system of providers of postsecondary education services.
Summary and Recommendations

The external environment assessment, internal audit, and integration exercises were based on impressions of top level administrators from post-secondary education institutions. The limitations include (1) use of impressionistic data as opposed to hard data; (2) participation restrictions excluding other key leaders within and outside the institutions; and (3) focus on a limited number of diagnostic variables. Nevertheless, the leadership seminar did provide an opportunity (1) to review concepts fundamental to strategic planning; (2) to diagnose the current stage of evolution of the Massachusetts public postsecondary education system; and (3) to gain insight into a more specific plan of action that can be taken by the Massachusetts Board of Regents, the Council of Public Presidents and Chancellors, and the individual institutions.

Organizations pass through various stages of development and have different characteristics of organizational functioning. Stages of organizational development were listed as emergence, growth, development, regeneration, and decline. Types of organizational functioning can be listed as hierarchical, Theory X; collegial, Theory Y; and political, collective bargaining. In addition, tools of strategic planning can be labeled needs assessment, trend analysis, environmental scanning, and market analysis. These three dimensions form a model to help assist institutions to diagnose where they are in the evolutionary process. (See Figure 10) The challenge to postsecondary institutions is to diagnose where they are with regard to the first two dimensions and develop elements of strategic planning appropriate for their context.

Management information systems in the past have tended to focus on data elements relating to the internal operations of the institution such as registration, scheduling, class rosters, space utilization, grade reporting, student
FIGURE 10
MODEL FOR CATEGORIZING DIMENSIONS OF STRATEGIC PLANNING
BY STAGE OF ORGANIZATIONAL GROWTH AND CHARACTER OF ORGANIZATIONAL FUNCTIONING

Tools of Strategic Planning

Needs Assessment  Trend Analysis  Environmental Scanning  Market Analysis

Character of Organizational Functioning

Political (Collective Bargaining)

Collegial (Theory Y)

Hierarchical (Theory X)

Emergence/Growth

Development

Regeneration

Decline

Stages of Organizational Growth
aid, payroll, budgeting, and other administrative applications. Data have been collected and grouped in files labeled student, personnel, financial, and space. Sometimes the data elements are similar for various reporting agencies and occasionally the independent files can be integrated to produce meaningful reports on topics such as program cost analysis and student longitudinal studies. Occasionally independent file reports or integrated file reports are synchronized with decision points in the annual planning/budgeting cycle but usually stop short of strategic planning. Management information systems of the future must include the integration of internal and external data sets.

Recommendation 1 relates to the literature on strategic planning. It can be concluded that the Massachusetts system of public postsecondary education is in the early stages of development. Furthermore, it can be concluded that many of the institutions within the Massachusetts public postsecondary education system are in the early stages of development relative to a capability for strategic planning. Therefore, it is recommended that the literature on strategic planning be collected and disseminated to institutions within the system. This would include models of institutional and statewide system planning appropriate to the contents of the institutions represented within the system. Copies of articles could be disseminated to institutions and distributed to key persons within the institution as well as placed in a notebook in a central location where planning activities take place within the institution.

Recommendation 2 relates to data base analysis. Institutions and systems vary in their ability and capacity to collect and analyze data about their external environment. Planning, however defined, has a focus on designing and shaping the future as opposed to merely changing. Strategic planning must consider a critical analysis of forces, trends, and their effects and must be firmly based on demographic, social, political, and economic data sets. Data are the foundation upon which to build the multi-year institution and system.
Plan, a document containing a grand design representing intelligent anticipation of activities and events carefully specified in advance to move from one point to another. The data analysis process must strive to produce meaning as it relates to efficiency and effectiveness of relating resources to institutional and system goals and objectives. Planning, then, is critical analysis and requires the development of an analytical capability to collect, array, and analyze a large number of variables in an effort to portray a system of relationships, causality in some cases.

The project by the American Association of State Colleges and Universities uses a cross-influence matrix of 12 societal trends and 12 values to bring planning assumptions into focus before setting goals in 10 areas. The 12 societal trends are population, government, global affairs, environment, energy, economy, science and technology, human settlements, work, lifestyle, women and participation. The 12 societal values are change, freedom, equality, leisure, interdependence, pluralism, localism, ethics, knowledge, quality, goals and foresight. The 10 goal areas are finance, students, research and development, public service, facilities, faculty, curricula, administration, resources, and athletics.21

Another way to categorize data about a college's service area is by industry. The list of industries could include textiles, auto, shipbuilding, mining, electronics, telecommunications, biotechnology, health care, insurance, and education.22 Information analyzed by the Bureau of the Census includes social indicators such as population and the family; health and nutrition; housing and the environment; transportation; public safety; education and training; work; social security, and welfare; income and productivity; social participation; culture, leisure and use of time.23 The project by the Academy for Educational Development used the categories of demographic trends, social expectations, economic trends, and governmental planning.24
It is recommended that guidelines be developed for data collection and analysis. If the categories of demographic trends, social expectations, economic trends, and governmental planning are used, it is possible to use the social indicators produced by the Census Bureau under social expectations and a list of industries under economic trends. A "Table of Contents" for a Strategic Planning and Management Data notebook is displayed in Figure 11.

The purpose of the external environment assessment is (1) to formulate assumptions which guide the institutional decision-making process, particularly in the areas of goal setting and human resource development, and (2) to identify strengths, weaknesses, opportunities, and threats in the external environment. The heart of an institution is its certificate and degree programs. Faculty actively participating in gathering and analyzing data about the external environment keep curricula current and relevant. These data can be fed into the institutional strategic planning process which includes the specification of assumptions. A definition of assumption is as follows:

An assumption is a proposition describing future conditions, some of which the institution has little control over. The level of certainty assigned to an assumption determines the level of precision it is allowed in subsequent planning. The greater the uncertainty about the assumption the greater must be the range of flexibility/hedging/options the institution retains against the non-assumed condition. Raising the certainty level of an assumption yields greater planning precision, better long term goal effectiveness and improved cost efficiency and program effectiveness. A planning assumption proposition can be internal to the institution or external to it. One criterion which is used in making a decision about inclusion or exclusion of a specific proposition at the institutional or department levels rests on whether or not the assumption has a direct bearing on setting goals and objectives at that level.

Selected examples of planning assumptions are displayed in Figure 12.

The guidelines should include a definition of an assumption, how to state and reference assumptions and selected assumptions. In addition, the guidelines should include definitions of a goal and an objective and categories for
FIGURE 11
STRATEGIC PLANNING AND MANAGEMENT DATA

TABLE OF CONTENTS

I. Demographic Trends
   A. The World
   B. The United States
   C. The State
   D. The Region or Service Area

II. Social Expectations
   A. Population and the Family
   B. Health and Nutrition
   C. Housing and the Environment
   D. Transportation
   E. Public Safety
   F. Education and Training
   G. Work
   H. Social Security and Welfare
   I. Income and Productivity
   J. Social Participation
   K. Culture, Leisure and Use of Time

III. Economic Trends (By Industry)
   A. Textile Industry
   B. Auto Industry
   C. Shipbuilding Industry
   D. Mining Industry
   E. Electronics Industry
   F. Telecommunications Industry
   G. Biotechnology Industry
   H. Health Care Industry
   I. Insurance Industry
   J. Education Industry
   K. Agriculture Industry
   L. Airline Industry
   M.
   N.
   O.

IV. Governmental Planning
   A. The United Nations
   B. The World Health Organization
   C. North Atlantic Treaty Organization
   D. Organization of Petroleum Exporting Countries
   E. Organization of American States
   F. The United States
   G. The State
   H. The County
   I. School Districts
   J. Municipalities
   K.
FIGURE 12

SELECTED PLANNING ASSUMPTIONS

It is assumed that the change in occupations in petroleum refining and electronic computing equipment (+196% and 109%, 1976-1985) will continue to impact on educational opportunities over the next five years.

Nationwide, 80% of new jobs are created by establishments that employ twenty or fewer people and are less than four years old. It is assumed that these statistics apply to Massachusetts and that there are persons with ideas like those of Kenneth Olsen (founder of Digital Equipment Corp. in Maynard in 1957; Digital now employs 45,000 people and is a $2 billion corporation) who could benefit from nurturing public service provided by Massachusetts public colleges.

It is assumed that rebuilding the United States Navy will affect the 3 commercial shipyards in New England (Bath, Quincy, and Groton) capable of doing military work and the repair yards in Boston; Newport, R.I.; and Portsmouth, N.H. This has implications for education and training needs as well as technology transfer.

It is assumed that the growth of business and industry in education will continue and that large corporations will increasingly seek regional accreditation status for baccalaureate and masters programs.

The textile industry has migrated around the world in search of cheap labor moving from England to New England to the South to Hong Kong to Mexico and Thailand and now to Bangladesh and Egypt. International competition will be intensified for national markets related to high technology and high skill output. It is assumed that high technology will be attracted and retained in areas where the critical mass and mix of engineers, researchers, and scientists can be supported by skilled technicians and workers.

It is assumed that the decline in secondary enrollments will produce unused capacity in vocational programs with equipment and space suitable to train mechanical engineering technicians, electronic engineering technicians and other two-year postsecondary education technicians necessary to support high technology industry.

Although 65% of the students in Massachusetts postsecondary education are enrolled in private institutions, it is assumed that most persons residing in the state will be educated and trained in public institutions.

It is assumed that the potential excess capacity of the Massachusetts public postsecondary education system would match the needs of Third World countries and that a strategic planning capability designed to diagnose such needs can be developed within the reorganization mandate.
specifying them. Categories for goals and objectives could be those by AASCU.

One institution uses the goal categories of (1) mission attainment, (2) functional relationships, (3) qualitative improvements, (4) market analysis, (5) professional development, (6) public relations, and (7) funding sources to specify goals and objectives at institutional and departmental levels.

Recommendation 3 relates to dedicating space and time to strategic planning. A room could be dedicated for that purpose. A large map of the college's service area can be located on one wall and used for a variety of purposes including market analysis and technology transfer overlays. A detailed chart dedicated to annual operational planning and decision-making can be displayed on a second wall. That display could list major activities on the vertical axis of a matrix with the 12 months on the horizontal axis. Major activities and events could be charted for the next fiscal year. A third wall could be dedicated to multi-year strategic planning. Here, too, activities could be listed on the vertical axis and charted across time on the horizontal axis. Around the room could be tables, work areas, and bookcases for books, documents, sources of trends, materials, and supplies to support the planning, management, and evaluation activities. Such a room layout is diagrammed in Figure 13.

Another useful tool is the workbook for multi-year planning and management. A college will tend to develop a series of concept papers and plan for planning documents before launching a comprehensive planning effort. After a period of time, progress will be made toward improvement in planning and management. As the process matures, a structure will be specified and more detailed charts, diagrams, and displays are developed. These materials can be assembled in notebooks for persons having responsibility for planning and management activities. Support materials can be added to the notebooks from time to time. Materials relating to market analysis can be added to that section of the notebook which
FIGURE 13

STRATEGIC/OPERATIONAL PLANNING WORKROOM

CATEGORIES OF ACTIVITIES

MULTI-YEAR/STRATEGIC PLANNING ACTIVITIES CHART

<table>
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<tbody>
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<td>Q1</td>
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<td>Q4</td>
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</table>

COLLEGE DISTRICT OR SERVICE AREA MAP

CATEGORIES OF ACTIVITIES

OPERATIONAL PLANNING/DECISION-MAKING FLOW CHART

<table>
<thead>
<tr>
<th></th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
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</table>
deals with that goal area. The same holds true for materials relating to human resource development and other major goal area.

Time must be dedicated to strategic planning. Tasks within an institution have been labeled routine, problem solving, and developmental. Developmental activities require integration of concepts, creation of conceptual frameworks, and analysis and synthesis of data sets quite different from those required to coordinate the ongoing activities of the institution. Strategic planning is developmental in character and requires time for the process to catch on and mature within an institution or system.

Recommendation 4 relates to a series of workshops. The leadership seminar on "Strategic Planning Techniques for Massachusetts Postsecondary Education" provided an overview of the concepts of strategic planning including an exercise on external environment assessment and internal assessment. It is assumed that leaders and participant teams will begin to analyze the implications of strategic planning for their institutions. Individual campuses may elect to conduct strategic planning workshops. Over the next several months a great deal of human resources will be dedicated to developing five-year plans. Each institution will, in fact, use ideas relating to an external environment assessment and an internal audit. This activity will provide the raw material for a follow-up workshop or workshops on strategic planning. If deans, division or department chairpersons, and support staffs are involved, perhaps 3 workshops should be held, one each for the 3 universities, 10 state colleges, and 15 community colleges. During the workshops the demographic, social, political, and economic data and assumptions derived from the data would be critically analyzed in order to specify goals and objectives for the system, individual institutions, and consortia or regional groupings. The purpose of the workshops would be to assist the institutions and the system to clarify directions that can be taken.
unilaterally and directions that will be taken in concert with other organizations.

With regard to an internal audit, it is recommended that an evaluation format be designed to diagnose stages of institutional development for a full array of functions such as (1) planning, research, and evaluation; (2) enrollment, retention, and financial aid; (3) program development—academic and student services; (4) personnel management and development; (5) fiscal resources management and development; and (6) reporting and outcomes analysis. A model format is displayed in Figure 14. By adding scale and specific criteria to the model, an institution can diagnose with some degree of accuracy the stage of institutional development for each area. By actually completing the exercises of external environment assessment and internal audit, institutions should be able to clarify their options.

A second workshop would focus on market analysis. Next to higher quality, new student clientele was the most frequently chosen option by seminar participants. Population based planning received a great deal of impetus from The National Health Planning and Resources Development Act (P.L. 93–641 and P.L. 96–79). Several colleges have developed sophisticated systems and techniques for penetrating traditional and non-traditional markets via comprehensive marketing plans. Techniques and models would be reviewed and developed during this workshop.

A third workshop would focus on technology transfer. Public service was the option ranking third by seminar participants. South Carolina, Wisconsin, and Ohio are states which are engaged in technology transfer within the state. Research indicates that 80% of the new jobs in this country are being created by establishments that employ 20 or fewer people and are less than 4 years old. Small companies start where the people who run them live. Everything suggests that postsecondary education ought to focus "public service" development efforts.
**FIGURE 14**

EVALUATION FORMAT FOR DIAGNOSING STAGE OF INSTITUTIONAL DEVELOPMENT

<table>
<thead>
<tr>
<th>I. Planning, Research and Evaluation</th>
<th>5 4 3 2 1 0</th>
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<tbody>
<tr>
<td>1. External Environment</td>
<td></td>
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<tr>
<td>a. Needs Assessment</td>
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<tr>
<td>b. Market Analysis</td>
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<tr>
<td>c. Trend Analysis</td>
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<tr>
<td>d. Environmental Scanning</td>
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<tr>
<td>2. Planning Process</td>
<td></td>
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<tr>
<td>a. Institutional Goals</td>
<td></td>
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<tr>
<td>b. Specific Objectives</td>
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<tr>
<td>3. Institutional Research</td>
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<td>4. Management Information System</td>
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<td>5. Institutional Self-Study</td>
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<tr>
<td>6. Annual Evaluation Process</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Enrollment, Retention, and Financial Aid</th>
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<tbody>
<tr>
<td>1. Manual of operations for admissions</td>
</tr>
<tr>
<td>2. Inquiry System</td>
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<tr>
<td>3. Marketing plan</td>
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<tr>
<td>4. Communication tools</td>
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<tr>
<td>5. Professional development</td>
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<tr>
<td>6. Faculty understanding</td>
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<tr>
<td>7. Manual of operations for financial aid</td>
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<tr>
<td>8. Enrollment projections</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>III. Program Development (Academic and Student)</th>
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</thead>
<tbody>
<tr>
<td>1. Student characteristics</td>
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<tr>
<td>2. Identifying outcomes</td>
</tr>
<tr>
<td>3. Certificate and degree programs</td>
</tr>
<tr>
<td>4. Career planning</td>
</tr>
<tr>
<td>5. Guidance/placement</td>
</tr>
<tr>
<td>6. Non-traditional options</td>
</tr>
<tr>
<td>7. Curricular patterns</td>
</tr>
<tr>
<td>8. Community education</td>
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</tbody>
</table>

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<tr>
<th>IV. Personnel Management and Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Policies/practices</td>
</tr>
<tr>
<td>2. Institution organization</td>
</tr>
<tr>
<td>3. Professional development</td>
</tr>
<tr>
<td>4. Management development</td>
</tr>
<tr>
<td>5. Interpersonal skills</td>
</tr>
<tr>
<td>6. Sense of community</td>
</tr>
<tr>
<td>7. Staff management</td>
</tr>
<tr>
<td>8. Advisory committees</td>
</tr>
</tbody>
</table>

38
V. Fiscal Resources Management and Development

1. Cash flow analysis
2. Budget planning systems
3. Budget control
4. Donor cultivation
5. Planning college revenues
6. Gift record keeping system
7. Cost effectiveness
8. Proposal development/grants administration

VI. Reporting and Outcomes Analysis

1. Internal communications mechanisms
2. External communications mechanisms
3. Output analysis system
4. Impact analysis system

**KEY:**

5\* Outstanding, far exceeds reasonable expectations
4\* Good, generally exceeds reasonable expectations
3\* Satisfactory
2\* Doubtful, generally falls short of reasonable expectations
1\* Unsatisfactory, totally inadequate
0\* Non-existent
on enhancing the possibilities of start-ups. Specific ways in which post-secondary education can assist small business include (1) develop evaluation formats to assist small business and industry to diagnose their stage of development; (2) assist business and industry to understand their external environment; (3) assist them to conduct an internal audit; (4) assist them to develop a strategic plan; (5) conduct specialized training programs on managerial, technical, and career centered topics; and (6) assist them to prepare bids for federal and other contracts. This workshop could involve representatives from some of the federal laboratories such as the National Aeronautics and Space Administration which has an application team for the public sector based in Cambridge, MA, and an industrial application center based in Storrs, CO.

A fourth workshop would focus on human resource development. The options of higher quality, new student clientele, and public service will require infrastructure modifications. Gould, Chickering, Levinson, Sheehy, Knowles, and McCoy have written about the stages of adult development and how postsecondary education can be more responsive to their needs. The commitment to public service requires an understanding of concepts such as cycles and stages of corporate development, leadership development, and matching individual and organizational needs.

A fifth workshop would focus on accountability by reporting to regents, trustees, and legislators. SWOT analysis clearly indicated concern about relationships with the above named groups. The five year plans produced during the first year will undoubtedly uncover areas in need of refinement. For example, it is unlikely that each institution in the Massachusetts postsecondary system will have all the data necessary to make enlightened decisions for all aspects of the system. In addition, it is highly unlikely that a coherent...
section on impact analysis can be assembled during the first year of planning. Ultimately, the fate of the Massachusetts public postsecondary education system lies in the ROI — "Return On Investment." To deal with this issue, the Massachusetts Board of Regents will have to produce incontrovertible and irrefutable evidence that the ROI in public postsecondary education is worth it in terms of access, quality, and cost, that it has an impact on the quality of life of the people of Massachusetts and New England. The New England Board of Higher Education indicates "higher education is one of the most important industries in New England. Yet, higher education is rarely viewed as an industry that vigorously contributes directly and indirectly to the very economic health of the region."27

The multi-year design of workshops and technical assistance is displayed in Figure 15 and a planning worksheet in Figure 16. The emphasis during the first year will be on producing a plan, the issue of standards of excellence and quality will probably receive attention in the second year.
FIGURE 15

THE MULTI-YEAR DESIGN OF WORKSHOPS AND TECHNICAL ASSISTANCE

For

DESIGN FOR THE EIGHTIES

Year 1
1981-82

Statewide

A. This Workshop
B. External Environment Assessment
C. Internal Assessment
D. Recommendation of Options

Institutions

1. Campus Strategic Planning Workshops
2. External Environment Assessment
3. Internal Assessment
4. Selection of Options

Year 2
1982-83

Human Resources Development Regents, Trustees and Legislators

E. Provide Technical Assistance to Institutions Developing Multi-year Plans of Action
F. Resource Allocation and Technical Assistance

R. Aggregate, Review and Direct

Review Standards of Excellence and Quality

1 2 3 4 5 6

1. Develop Multi-Year Plan of Action
2. Resource Allocation & Implementation
<table>
<thead>
<tr>
<th>PRE-WORKSHOP</th>
<th>1st DAY</th>
<th>2nd DAY</th>
<th>FOLLOW-UP</th>
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<tbody>
<tr>
<td><strong>Workshop on Strategic Planning</strong></td>
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<tr>
<td>Categories of Assumptions</td>
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<tr>
<td>Packets of Assumptions</td>
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<tr>
<td>Categories of Goals</td>
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<tr>
<td>Specific Goals and Objectives</td>
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<tr>
<td><strong>Workshop on Market Analysis</strong></td>
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<tr>
<td>Literature on Market Analysis</td>
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<tr>
<td>Inventory of Market Analysis Techniques By Institution</td>
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<tr>
<td><strong>Workshop on Technology Transfer</strong></td>
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<tr>
<td>Literature on Models of Technology Transfer</td>
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<tr>
<td>Analysis of Industry By Institutional Service Area</td>
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<tr>
<td><strong>Workshop on Human Resources Development</strong></td>
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<tr>
<td>Literature on Stages of Adult Development</td>
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<tr>
<td>Diagnoses of Stages of Adult Development at Institutions</td>
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<tr>
<td>Career Life Planning in Business</td>
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Conclusion

Massachusetts was the birthplace of postsecondary education in these United States. Historically, Massachusetts has led the nation in the percentage of its population who have had some college education. Although the projected decline of high school graduates in Massachusetts for the next decade is considerably above the national average, it is not the first time the state has faced the potential for unused capacity in higher education or the state's economy has passed through a metamorphosis.

The challenge to the Massachusetts system of postsecondary education, the whole and its parts, is to diagnose its external and internal environment and chart a course of action. It will require an entrepreneurial spirit and refinement of strategic planning and management tools, particularly if the external environment includes assisting Massport with its small business export program; helping the Organization of American States in technical education and vocational training; assisting Egypt in curriculum design, teacher training, educational planning, or cost analysis; or helping a developing nation with technology transfer. Higher education has the tools. Does it have the spirit?
Leadership Seminar Series of American Council On Education
in conjunction with
The Council of Public Presidents and Chancellors
and
The Chancellor's Office of the Massachusetts Board of Regents
presents
A Leadership Seminar
STRATEGIC PLANNING TECHNIQUES FOR MASSACHUSETTS POSTSECONDARY EDUCATION
November 30-December 1, 1981
Pleasant Valley Country Club
Sutton, Massachusetts
(Note: all general sessions will be held in the Main Dining Room. Meals will be served on the Porch and at the rear of the Main Dining Room.)

Monday, November 30
9:00 - 9:30 a.m.  Registration and Coffee
9:30 - 11:00 a.m.  First General Session
Introduction to the Seminar

Moderator: George E. Ayers, President, Massasoit Community College

"Strategic Planning and Management in the Context of Higher Education: An Agenda for the 1980s"

Thomas A. Emmet, Director, Leadership Seminars, American Council on Education; and Special Assistant to the President and Professor of Education, Regis College, Denver, Colorado

"Strategic Planning for Postsecondary Education in Massachusetts"

John Duff, Chancellor, Massachusetts Board of Regents

11:00 - 11:15 a.m.  Refreshment Break
11:15 a.m. - 12:30 p.m.  Second General Session
Chair: Sister Janet Eisner, Regent, Massachusetts Board of Regents
"Basic Concepts of Strategic Planning and What Is In It for Us?"
Robert G. Cope, Associate Professor of Higher Education, University of Washington, Seattle, Washington

12:30 - 1:30 p.m. Luncheon

1:45 - 3:00 p.m. Small Group Discussion I (as assigned)
(Discussion of First and Second General Sessions)

<table>
<thead>
<tr>
<th>Group</th>
<th>Location</th>
<th>Leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>West Room</td>
<td>Harold Shively, President, Bunker Hill Community College</td>
</tr>
<tr>
<td>B.</td>
<td>West Room</td>
<td>James Nolan, President, Massachusetts College of Art</td>
</tr>
<tr>
<td>C.</td>
<td>West Room</td>
<td>Francis Pilecki, President, Westfield State College</td>
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<tr>
<td>D.</td>
<td>Club Room</td>
<td>Robert Corrigan, Chancellor, University of Massachusetts at Boston, Harbor Campus</td>
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<tr>
<td>E.</td>
<td>Club Room</td>
<td>George Traicoff, President, North Shore Community College</td>
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<tr>
<td>F.</td>
<td>Club Room</td>
<td>Justin McCarthy, President, Framingham State College</td>
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<tr>
<td>G.</td>
<td>East Room</td>
<td>William Hogan, President, University of Lowell</td>
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<tr>
<td>H.</td>
<td>East Room</td>
<td>Robert Tranquada, Chancellor, University of Massachusetts Medical School at Worcester</td>
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<tr>
<td>I.</td>
<td>East Room</td>
<td>Adrian Rondileau, President, Bridgewater State College</td>
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<tr>
<td>J.</td>
<td>East Room</td>
<td>Jonathan Daube, President, Berkshire Community College</td>
</tr>
</tbody>
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Consultants will move from group to group.

3:00 - 3:15 p.m. Refreshment Break

3:15 - 4:30 p.m. Third General Session
Chair: Joseph Orze, President, Worcester State College
"External Environment Assessment"
Warren H. Groff, Vice President for Academic Affairs, North Central Technical College, Mansfield, Ohio
4:30 - 5:45 p.m. **Small Group Discussion II**

Campus teams will meet to discuss implications of the external environmental assessment session in relation to their respective campus planning. Consultants will be available for individual questions.

5:45 - 6:30 p.m. Social Hour and Cash Bar

6:30 - 7:45 p.m. Dinner and Introduction to Third Small Group Discussion by George Ayers

8:00 - 9:30 p.m. **Small Group Discussion III** (as assigned) (locations and group leaders same as I)

Discuss "General Planning -- Massachusetts Assumptions"

**Tuesday, December 1**

7:30 - 8:30 a.m. Breakfast

8:30 - 10:00 a.m. **Fourth General Session**

Chair: Eileen Farley, President, Bristol Community College

"Internal Assessment"

Warren H. Groff

10:00 - 10:15 a.m. Refreshment Break

10:15 - 11:30 a.m. **Small Group Discussion IV**

Each institution will meet as a team to discuss the Fourth General Session and its application to the existing or proposed institutional plan. An exercise will focus on this. Consultants will be available for clarification or to answer questions.

11:30 a.m. - Luncheon

12:30 p.m.

12:45 - 2:00 p.m. **Fifth General Session**

Moderator: Donald Walker, President, Southeastern Massachusetts University

"Integration Concepts in Strategic Planning: Planning Z to A"

Robert G. Cope
"Integration of Strategic Planning Exercise Applied to Massachusetts"

Laura Clausen, Director of Planning, Research, and Development, Massachusetts Board of Regents

2:00 - 3:15 p.m. **Small Group Discussion V**

Participants will meet in Regional Clusters to discuss implications of the Fifth General Session with respect to beginning some regional and cluster planning strategy based upon materials distributed in packets and reviewed in Fifth General Session.

<table>
<thead>
<tr>
<th>Group</th>
<th>Location</th>
<th>Leader</th>
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<tr>
<td>I.</td>
<td>West Room</td>
<td>William Hacs, President, North Adams State College (North Adams State College, Berkshire Community College, Greenfield Community College)</td>
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<tr>
<td>II.</td>
<td>West Room</td>
<td>Leonard Collamore, President, Springfield Technical Community College (Springfield Technical Community College, University of Massachusetts at Amherst, Westfield State College, Holyoke Community College)</td>
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<td>III.</td>
<td>Club Room</td>
<td>Clifford Peterson, President, Quinsigamond Community College (Quinsigamond Community College, Fitchburg State College, Mount Wachusett Community College, Worcester State College, University of Massachusetts Medical School at Worcester)</td>
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<tr>
<td>IV.</td>
<td>Club Room</td>
<td>James Amsler, President, Salem State College (Salem State College, University of Lowell, Northern Essex Community College, Middlesex Community College, North Shore Community College)</td>
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<tr>
<td>V.</td>
<td>East Room</td>
<td>Robert McCarthy, President, Boston State College (Boston State College, Bunker Hill Community College, University of Massachusetts at Boston, Harbor Campus, Massachusetts College of Art, Roxbury Community College, Framingham State College, Massachusetts Bay Community College)</td>
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</table>
VI. East Room  James Hall, President, Cape Cod Community College
(Cape Cod Community College, Massasoit Community College, Bridgewater State College, Bristol Community College, Southeastern Massachusetts University, Massachusetts Maritime Academy)

3:15 - 4:00 p.m. Sixth General Session

Moderator: Nancy Goodwin, President, Greenfield Community College

"The Consultants' View of the Pleasant Valley Experience"

Robert G. Cope
Thomas A. Emmet
Warren H. Groff

"The Chancellor's View of the Pleasant Valley Experience"

John Ruff
FOOTNOTES


3. Articles on strategic planning by the author:


Thieme, op. cit.


"OAS Inter-American Cooperation In the Field of Technical Education and Vocational Training And Its Future Relationship With the Programs of the Community Colleges of the United States," Study presented at the convention of the American Association of Community and Junior Colleges, April 20-22, 1981.