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#### The emerging metropolitan university faces a diversity of issues and challenges occurring in a rapidly evolving social, economic, and demographic environment. To meet these challenges and serve the residents of its region, it must be able both to adapt and to adopt: adapt to change and adopt new ways of doing things. This article discusses the environment within which planning to meet the needs of the metropolitan university student occurs. It goes on to discuss a general planning model capable of providing the necessary feedback for institutional learning. More specifically, it discusses how such a planning process has been put in place and is evolving in the St. Louis metropolitan region.

# The Metropolitan Students

Metropolitan universities of the twenty-first century face issues and challenges that distinguish it from its predecessor of the twentieth century. Unlike the more traditional role of the rural, public, or private university located in a city, the modern, public, metropolitan university must respond to vastly different challenges due to its diverse setting and rapidly evolving economic and demographic circumstances. It also must meet the different educational needs of urban students. The term "nontraditional," which has come into use to describe many urban, public university students, has taken on a very responsive ring.

We have witnessed during the past quarter century the emergence of a new breed of higher education institutions. Set in our nation's cities and serving the needs of an older, less affluent, largely minority, commuter student body, these institutions fill what previously was an educational void. They share several characteristics that integrate them into their community differently than the private and rural institutions that dominated American higher education well into the twentieth century.

First, as a nation of cities the majority of our population, business and economic activity is concentrated in the relatively small land area of urban America. The emergence and development of urban and more recently suburban areas provide a different milieu for higher education. Public institutions play a pivotal role in promoting and enhancing the economic development of our nation's cities and their residents. This role will become even more pronounced as we approach the year 2000 and the location, composition, and structure of our population and workforce evolve even further.

Second, due to the inherent diversity of urban areas, the metropolitan university must face the challenge of educating a much less traditional and vastly more diverse student population. No longer drawn primarily from the usual 18–21 age cohort, higher education is sought increasingly by older students. Many are the first generation in their families to go to college and enter the world of higher education with some trepidation and little family-based exposure. Others are seeking to upgrade their expertise and talents to remain competitive in a fast-changing labor force. Many seek education intermittently, transfer among institutions, and may take five or more years to complete their studies.

Third, a substantial proportion of urban residents are placebound. They are geographically limited in the sense that existing family, work, and personal commitments keep them from seeking further education beyond a reasonable commuting distance from

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where they live or work. The provision of an appropriate program mix, locational proximity, and an accommodating atmosphere—thus allowing the place-bound student educational advancement—becomes a major challenge for the metropolitan university. Without accessibility within a reasonable distance and for a reasonable cost many, per-

haps most, would not be able to avail themselves of the personal and economic benefits derived from higher education.

Access becomes a key operative word in the context of the metropolitan university; it assumes several forms. First, the geographical proximity that allows meaningful educational involvement for students who are not able to relocate to obtain either first-time or additional schooling. Second, financial access for potential students whose economic status precludes the high-cost education of a private school even though it may be located close by. Third, and crucial in many respects to individual student advancement and the overall economic development of a region, access to a diverse and responsive program mix that can accommodate a changing economy.

Metropolitan universities also have a role in providing opportunity for minority and disadvantaged students seeking to break the bondage of the unequal opportunities of the past. In this context, it must strive to move beyond passively providing courses and degrees; it must actively promote greater awareness of and involvement with diverse higher education offerings for these clientele groups. At the very least one can consider this duty as exercising good citizenship in the community; more fundamentally, it is crucial to the economic renewal and vitality of both our cities and nation.

The promotion of educational opportunities for the disadvantaged can be an effective medium through which the fruits of our economic system may be more equitably distributed.

Fourth, because many of its students are already in the work force, the metropolitan university must seek to integrate more fully the classroom experience with the needs of the workplace. No longer is it possible, nor indeed does it make good sense, to view education as occurring distinctly in one arena and employment in another, with no meaningful connection or association between them. This is not to say that economics alone should dominate the educational experience; there is far more to an education than money. It does, however, recognize that most students at metropolitan universities are there to obtain the education and experience that will allow them to fit into a very competitive labor market.

Of course not every program offered by a metropolitan university should be workplace driven. Traditional degrees and programs will always constitute a curriculum core at any university. However, linking the knowledge derived from higher education directly to on-the-job experience by building on this core curriculum in conjunction with innovative and adaptive new programs, is far too valuable an opportunity to forego. The range of already existing examples is vast; the future holds even greater potential. Some general cases help to illustrate this point.

Students may use their classroom experience at work the very next morning, for example with computer technology or business applications such as accounting and management information systems. Student internship opportunities offered in cooperation with public and not-for-profit agencies provide invaluable on-the-job experience combined with weekly (or more frequent) classroom feedback and faculty guidance. Scientific businesses often work with faculty members and students in a laboratory setting. This may occur on campus or at the business. In the latter instance, students may have access to state-of-the-art equipment and technology not available elsewhere. Clearly all participants benefit. It should be noted that only in an urban area would the possibility of such a diversity of experience and opportunity be possible. Only at a public institution might it be affordable for so many.

### Accommodating a Rapidly Changing Environment

The students, actual or potential, and the environment provide a context of diversity and change that challenges metropolitan universities. Social change; demographic shifts in population; an ever evolving economic environment locally, nationally, and globally—all provide the setting within which these universities must

function and to which they must respond. The question is how to accommodate such change in a constructive manner.

There are two approaches: one is passive and reactive, the other is proactive. If a university adopts the former, it essentially avoids being a positive, directive influence for the community and simply responds. This option more closely models a traditional university and education. If the latter option is chosen, a university can become a new and directive force in the community and help to align the changing needs of metropolitan residents with a rapidly evolving environment. To fit in the latter, proactive mode, an institution must have a clearly articulated notion of where it has been, where it is now, and where it wants to be in the future.

Students are the focus of a university. Programs are the medium for meeting their educational needs. The faculty, research and support facilities, and staff are the linkage between the two. A careful meshing of these components leads to the accomplishment of a metropolitan university's educational objectives. They do not, however, mesh easily and automatically. This requires careful thought, consideration, and analysis; in a word, it mandates planning.

Planning for the metropolitan university must recognize the nontraditional nature of the student body and the diversity of the urban setting. The considerations and trade-offs are many and might manifest themselves in a large variety of specific programs. The key is that these programs, whatever is determined through the planning process, anticipate and accommodate educational needs by accounting for an area's student demographic profile; the local economic environment and its opportunities; and a balance across the spectrum of full- versus part-time, day versus evening, and on-versus off-campus offerings.

The following outlines a general set of planning steps for promoting greater success in using all facets of a university to promote improved educational outcomes. The critical elements throughout are awareness, clear articulation, involvement, direction, and institutional learning. A specific application of this general framework for a metropolitan university will follow.

The general framework is intended as an analytical guide to the formulation of clearly articulated plans for a university in the context of its mission. Naturally, any plan for an institution as complex as a metropolitan university will contain myriad, interrelated programs and activities. Each, however, needs to relate to an overall mission for the university and can be subject to the specific application of the general planning model described below.

What do you hope to accomplish? The first component of planning strategy is to state with precision those goals and

objectives that are reasonable within a certain time frame and given expectations about resource constraints. Care must be exercised here to define goals and objectives that are within the realm of reason, that fit with institutional mission, and that are clearly stated. Being too grandiose can doom one to failure and waste resources that could have been put to better use elsewhere. The intent here is to alter the status quo, to improve, to move from the present status to some future state based on the knowledge necessary to induce the type of change desired. Conscious decisions must be made.

Who is the clientele to be served? The second step entails a clear identification of the group to be educated. Obviously, not every student at a university has the same needs. A strategy devoid of "for whom" at best lacks accuracy and direction and at worst is wasteful. A clear and precise definition of the clientele group allows a program to be more targeted, the outcomes to be more effective, and scarce resources to be most efficiently allocated. For example, the educational requirements of part-time, working students differ from those who attend school full time. Week-end and evening classes better serve the needs of the former group.

Choosing the best approach. Having specified goals and objectives and identified the clientele group, the next step is to determine how best to accomplish what has been proposed. The most serious mistake that can be made in any planning endeavor is to fail to weigh carefully all reasonable options. The educational landscape is rife with alternatives and is being enriched by rapid advances in communication and computer technology. For example, the instructional format can range from the large lecture class of 300 to individualized attention to self-learning. The instructional medium can vary from use of teaching assistants to junior and senior faculty, from hands-on experience to the video classroom, from simple verbal exchange to complex interactive computer learning systems. No one option is a panacea; each has strengths and weaknesses vis-a-vis an educational objective.

Careful expression of alternatives simply reflects the need to make quality choices. Each action has a cost associated with it in dollars, time, and energy. Each action also has associated benefits. Borrowing for a moment the economist's jargon, universities can, conceptually at least, do a cost/benefit analysis of available alternatives to decide which is most suitable. This does not mean always performing a complete technical analysis but at least engaging consciously in the analytical exercise of specifying ways in which something might be accomplished.

The choice of any one alternative has a built-in cost that is related to what might have been accomplished by doing something

else (i.e., an opportunity cost). Being aware of this trade-off and choosing an option based on quality information enhances the educational effectiveness for students and the efficiency of an institution.

Evaluating the outcomes of action. If planning were to stop at this point, certainly more rationality would be built into the process, but the ability to learn would have been foregone. Learning in this context is derived from specifying an objective and identifying for whom it is intended, reviewing and selecting an appropriate action after careful consideration, and then observing what has happened as a result. While the time frame for the assessment of outcomes will vary with the type of program, universities must consciously inaugurate the process with assessment as a stated objective. Feedback is important and the key to truly creative planning and achieving an improved student experience.

Each educational action taken will have an outcome. Awareness of the outcome and the ability to examine it qualitatively and/or quantitatively provide the necessary feedback for appropriate evaluation. First, goals and objectives must be stated in a manner that allows for evaluation. Unless this is done, determination of success or failure becomes a predominantly subjective interpretation that may or may not relate to any impact on students. Vagueness and broadly sweeping statements can seriously muddy the planning waters and undermine the wise use of limited funds. Second, be certain that the outcome of the alternative selected to accomplish some objective can be observed and measured. If not, then you have no way of knowing what has been done or how well.

Admittedly, measurement of educational outcomes is an area rife with conceptual and empirical pitfalls. However, to fail to monitor and take outcomes into account, both intended and unintended, at best relies on good fortune and at worst may allow for actions that might be counterproductive to the stated educational objective. Do the outcomes fit the goals and objectives? How much progress has been made? How long will it take to get there? All are difficult but necessary questions worthy of careful attention.

Developing institutional learning through feedback. The learning process commences at this stage. The essence of good policy, educational or otherwise, is to be able to benefit from both success and failure. We do this as individuals, albeit perhaps unconsciously; educational institutions can likewise benefit. This is analogous to the marketplace where the entrepreneur examines a balance sheet in terms of profit and loss.

A loss signals that some action is necessary to correct for the failure of past decisions, a failure to use scarce resources at your

command effectively. A profit, on the other hand, indicates a success and the need to examine whether or not to commit additional resources to existing activities that have proven to be successful. Both profit and loss are thus valuable signals calling for appropriate action.

In the planning arena, the terminology may change to success (i.e., profit) and failure (i.e., loss), but concern over outcomes, choices, effectiveness, and judicious use of scarce resources remains. Many questions surface. What is the link between specified goals and objectives and outcomes? Are the goals and objectives stated in a way that allows for meaningful evaluation? Are the goals reasonable? Is further pursuance a waste? Is the clientele group receiving what was intended? Is adequate progress in a timely manner being accomplished? Will some refinement of alternatives produce a better outcome?

The answer to each of these questions forms the essence of the learning process for a planning activity. Feedback from each provides the iterative context for developing, refining, and improving educational programs and experiences for students. It also provides the setting for institutional responsiveness to community and student needs and efficiency in use of limited funds for support of higher education.

# An Application of the Planning Model

The University of Missouri-St. Louis typifies a metropolitan university. It is young, founded twenty-five years ago and is the only public university in the heavily urbanized, Missouri portion of the St. Louis metropolitan area. It provides a full range of educational opportunities, from certificates to the Ph.D., for a large nontraditional student body. All students commute and many are placebound to the St. Louis area for work or family reasons. The average student age is twenty seven. It enrolls the largest number of minority students of any higher education institution in the state of Missouri. About eighty-five percent of its current 33,000 graduates remain in the St. Louis area. Finally, many students are transfers from a community college or other university and may attend only intermittently, thus perhaps taking six years or more to complete a degree.

The St. Louis area provides an excellent model for developing programs that link the university with the students and their needs on the one hand and with the community on the other. This link creates an educational laboratory in which the social and economic richness of the city provides an opportunity for adaptive, creative, and educational endeavors. This can be viewed as the core of a metropolitan university's challenge.

To help refine and accomplish its educational mission, UM-St. Louis has developed a detailed planning process. From it has emerged a new focus and an associated array of new programmatic and degree offerings that respond to the educational needs of St. Louis area residents.

The key to the success of this process during its three-year history has three facets. First, it builds from the bottom up. Each year changes to existing programs are reviewed and new options proposed. This starts at the level of individual faculty or with staff involved directly with students and then moves to departmental or unit deliberations through a school or college and ultimately into the overall campus plan. At every stage proposals are carefully reviewed by departmental, school, or college, and campus committees and priorities are established prior to advancement to the next stage. Financial requirements are specified for a proposal and considered at each step in light of available resources.

Second, a formal planning document called *Vision for the 21st Century* is distributed. It describes on an annual basis the programs and activities that have emerged from the faculty and unit level, how available funds have been distributed, and to which components they have gone. Ownership by the campus community is thus enhanced since the actual use of funds is reported annually. Rather than just another report to gather dust on a shelf, this document explains to the members of the campus community where new resources have been applied and how this expenditure affects them.

This ties directly into the third facet. Planning and budgeting for the campus are formally linked and located in a separate unit that reports directly to the chancellor. Rather than planning occurring in one arena, or being widely dispersed without any coordination or

Metropolitan universities can become a new and directive force in their communities.

connection to resource allocation, *Vision* shows the connection. As new funds become available, they are directed toward those areas providing the greatest promise, that build on existing strengths of the university and its community, and that fulfill student needs.

This formal link of budgeting with planning has a clear importance for rational campus ventures. It also allows for much more effective coordination of campus activities with budgetary mandates occurring elsewhere. *Vision* becomes the foundation from which the annual campus budget request is developed for submission to the University of Missouri system and then for the state Coordinating

Board for Higher Education and the Missouri legislature. Unless an item is contained in the planning document, which means it has been through careful scrutiny at all campus levels, it cannot be included in a formal budget request for new funding in the next fiscal year. This adds another layer of both importance and credibility. Being included in *Vision* is not a pointless planning exercise, but a necessity for budgetary consideration.

This type of planning also has improved credibility on campus with faculty and students, within the university system, in the St. Louis business community, and with the legislature. It demonstrates that careful thought, analysis, and involvement provide the basis for all new programmatic development and budget requests.

# Adaptive Planning and Innovative New Programs

The outcome of this comprehensive planning process has been an entirely new, programmatic focus for the campus, one concerned with articulating student requirements and with new efforts to address them. The overall plan has been placed under the rubric Partnerships for Progress, which is organized around three major project areas or programmatic groupings. While these project areas are identified separately, they are not independent; their content emerged from the overall planning process. They are clustered not to reflect how they deal with different facets of the campus educational mission, but according to how they interrelate with the overall campus mission.

The Partnerships for Progress rubric reflects the mission of the university and recognizes explicitly the needs of an urban area and its residents. Each priority in the plan (of which there are sixty eight) relates to a broader theme, called a project. Each project, in turn, relates to the overall mission of the university.

Thus, the individual priority items identified by the planning process, the major project areas, and the overall partnerships theme all relate to each other and provide the programmatic structure through which the university serves the community. Full application of the general planning model must occur at the individual component level since any overall statement of a university's mission is necessarily too broad to be precisely evaluated.

The following paragraphs discuss the major project areas and provide examples of specific priority components within each area that has been identified through the planning process.

Project Compete identifies thirteen program areas that focus on different facets of promoting the talent and potential of St. Louis area young people at the elementary and secondary level. These 76

program areas are designed to help prepare economically disadvantaged students for higher education, to offer in-service training to teachers through the School of Education, and to improve the training of teachers in mathematics and the sciences at the elementary and secondary level. Each of the thirteen areas represents another dimension to improving the training of elementary and secondary teachers and to promoting the active involvement of pre-college students with higher education.

One component, the Bridge Program, is a cooperative venture with local schools in the St. Louis area. It seeks to increase the number of students who complete high school and take college courses in math, science, and technology. It works both with students and teachers in area high schools to promote this objective. Thus, it offers a bridge between secondary and higher education. The program has been acclaimed nationally and receives financial support from major national corporations located in the St. Louis area, such as Monsanto, General Dynamics, Emerson Electric, and Anheuser-Busch.

The focus of Project Advance is different. It builds on existing strengths at UM-St. Louis and in the St. Louis community by identifying new programs to enhance science, technology, and management skills. Thirty-six such areas were specified in the most recent plan. An excellent example of planning responding to local needs is a proposed new undergraduate engineering program. This builds on the fact that 70 percent of all engineers in Missouri live or work in the St. Louis area. It will make available affordable public education in engineering (not now available) to meet future needs, as well as offering further educational opportunities for those already in the profession.

Other notable facets of this project are: a Ph.D. degree in biology offered cooperatively with a world-class research facility, the Missouri Botanical Gardens; a wider range of offerings in the health professions—which builds on St. Louis's status as a major medical center; a cooperative physics partnership with the St. Louis Science Center; and a cooperative physics Ph.D. degree offered with another University of Missouri campus located at Rolla.

This segment of the Vision plan responds programmatically to the fact that UM-St. Louis is the largest supplier of professionally trained personnel for the St. Louis metropolitan area. It looks to broaden the scope and depth of the university's response to filling this demand.

The third area, Project Succeed, works to promote greater collaboration among education, industry, and business in advanc-

ing the economic well-being of the St. Louis region and its residents. The eight program areas identified in this portion of the plan promote access to education for nontraditional students and establish research centers to better link the university, including its faculty and students, with the community. They include a Center for Science and Technology to work with the almost 40,000 scientists and engineers in the St. Louis area and enhancement of the Evening College to better accommodate the schedules and locational needs of nontraditional, working students. Also, the university's Continuing Education Extension division serves 52,000 students each year by providing credit and noncredit courses throughout the metropolitan area. It is one of the largest such programs in the nation.

## Planning and the Metropolitan University's Mission

Fulfilling the role of the modern metropolitan university requires the ability to adapt and respond to an ever changing environment and diverse student needs. A comprehensive planning process formally linked with budget allocation decisions has served to promote efficiency in accomplishing carefully articulated educational objectives. The components of a general planning model and an application of it at UM-St. Louis have already been described.

While the plan will continue to evolve in form, coverage, and substance, a great deal of progress has been made. New degrees, programs, and activities already in place enhance the nontraditional student's access to quality, affordable higher education. Other endeavors identified in *Vision* will be implemented or expanded as new funding becomes available. Faculty involvement and commitment has grown through the clear articulation of needs combined with visible funding outcomes. The community views the university's role more clearly as a result of seeing the yearly Visions plan and recognizing the work that goes into preparing it. As a result, far greater support has been forthcoming from corporate St. Louis, private donors, and alumni of UM-St. Louis. While the time and effort expended in developing and implementing the planning process have been substantial, the returns to the university and its students and faculty have also been impressive.

#### Suggested Readings

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