From the Editor's Desk

The moment of truth is approaching. In a few days, after a last check of details—is the material complete; are the articles in their proper order; are all the i's dotted, the t's crossed?—the content of the first issue of the first volume of *Metropolitan Universities* will go off to its publisher. The editor's work is done. It is too late to make any but the most minor changes: the die is cast, and the fledgling product of our labors is on its way. An exhilarating moment, and also a frightening one. Our hopes and our expectations are high, as is our excitement about our new adventure. Will our excitement be justified, our hopes realized? Will *Metropolitan Universities* reach its intended audience? And will that audience be pleased by what it receives?

We won't know for several months, and in the meantime we will be working on the next issues, about which more details will be offered presently. What we do know, as of this moment, is the extraordinarily positive response we have had from all sides with regard to the creation of a journal devoted to the nature and the challenges of metropolitan universities. We were, all along, convinced that there exists a *need* for such a journal. The reaction to the announcement of its creation encourages us to believe that there exists, as well, a *demand*. We have heard from many colleagues that they welcome a forum for the discussion of issues germane to metropolitan universities. They also tell us that a journal with that title and content will help to enhance the recognition of the special mission of these institutions.

Note throughout these remarks and elsewhere in the journal, including its title, the use of "metropolitan universities" not "the metropolitan university." There exists no single model for the metropolitan university, no uniquely defined set of programs and activities, no blueprint for the ideal organization and mode of operation. Among the several hundred institutions that fall into this broad rubric, both in this country and abroad, one finds not only a great variety in detail, but differences as well with regard to some basic issues, if not in kind then in degree. Few would cavil at the statement that metropolitan universities have a special obligation toward the population of their region, but there exists a range of views as to the degree of this relationship. Broad consensus exists, as well, about the need for metropolitan universities to pay attention to the dissemination and application of new knowledge and to contribute to the economic and cultural development of their area. But on this issue as well one finds differences of opinion as to the degree of emphasis, and a wide variety in the proposed manner of implementation. The content of *Metropolitan Universities* will reflect

this diversity, as indeed is shown by the articles in this inaugural issue.

The Content of the First Issue

The theme of this initial issue is identity and culture. We hope that the content will provide a broad-brush overview of the nature and mission of metropolitan universities, a sense of their basic institutional character. In their aggregate, the articles in the issue indicate a number of common attributes shared by all these universities, in spite of their many differences. All are characterized by diversity: diversity of students, diversity of scholarly and professional activity, diversity of constituencies. All accept, albeit to different degrees, the challenge of responsiveness to scholarly and instructional needs of this multiple clientele. All insist on retaining their most basic characteristic: that of being true universities.

It has been said that the decline of the railroad companies in this country came about because these enterprises failed to recognize that their basic mission was transportation, not railroading. They confused the mode of implementation of their mission, which of necessity must change with technological and societal change, with the mission itself, which remains essential. Metropolitan universities are determined not to fall into a similar error. Their fundamental mission is that of all universities: the disinterested pursuit and promulgation of knowledge. They must retain their central purpose and focus if they are to remain the principal societal mechanism for the objective criticism of prevailing views and practices. But metropolitan universities recognize that they must change the way in which this knowledge-centered mission is pursued. The nature, uses, and clientele for knowledge are evolving; the effective interpretation and dissemination of knowledge have become as important as its creation, and an ever more diverse clientele needs university-level education. The form must adapt as the function changes.

The initial article by Charles Hathaway, Paige Mulhollan, and Karen White sounds this basic theme clearly and eloquently. It is central to their vision of metropolitan universities as the pivotal institutions of higher education of the next century. Henry Winkler's contribution reinforces both the basic conception of the character of metropolitan universities as well as their growing importance within the system of higher education, as indicated by the rapid increase in the attention they have received during the past ten years. Mayor Jean Doré of Montreal provides an explanation of why this has happened: he and his counterparts in cities everywhere are increas-

ingly looking to their metropolitan universities for a broad variety of knowledge-based services. Daniel Perlman expands on this concept with his description of the multiple and diverse relationships of metropolitan universities with their communities. And John Bardo's sociological analysis explains our choice of label for our institutions and for the title of the journal: neither the problems of the city nor their solutions can be confined within the traditional urban boundaries. We need a metropolitan perspective that subsumes but is not limited to an urban focus.

The faculty is, of course, central to the endeavor of any academic institution. In metropolitan universities, members of the faculty bear the principal burden of institutional change, having to adapt and expand their scholarly and pedagogical skills to meet a diversity of challenges for which their traditional training has not prepared them. Gordon Haaland, Neil Wylie, and Daniel DiBiasio call for adaptation in institutional organization, the definition of scholarship, and modes of faculty assignments and evaluation. Patricia Plante expands on these issues by asking a two-part question: What should a contemporary metropolitan university expect of its faculty? What should a contemporary faculty expect of its metropolitan university?

The challenges to the faculty of a metropolitan university exist in its two principal areas of professional practice: the direct instruction it provides and the scholarly activities in which it engages. Both are substantially more varied and in many ways more difficult and more intellectually demanding than in more traditional institutions. The next issue of *Metropolitan Universities* will address itself to the implications of the diversity of its students. The theme of the third issue will be the range of scholarly and professional activities through which a metropolitan university contributes to the development of its region. In anticipation of these extensive treatments, the current issue contains only two pertinent articles. Marguerite Barnett and Donald Phares describe one implication of the diversity of individuals who look to the metropolitan university for instruction: the need to plan and set institutional priorities while yet retaining optimal flexibility of response. William Muse discusses the role a metropolitan university can play in strengthening local industry and points out some of the problems inherent in this role.

Future Issues

Subsequent issues of *Metropolitan Universities* will each deal with one major dimension of the institutions. The second issue will focus on the challenge of the student diversity faced by metropolitan

universities. It will carry articles that explore questions of access and recruitment, of assessment, developmental programs and support services, of institutional adaptation, and of other dimensions of this complex subject.

The role of metropolitan universities in regional development will be emphasized in the third issue. It will explore external needs and internal capacities, discuss ways of communication between the university and its region, examine problems of intellectual property and conflicts of interest, and describe ways of involving students in a variety of outreach activities.

The fourth issue of *Metropolitan Universities* will be primarily devoted to faculty matters: topics such as the pedagogic challenges of a diverse student body; the professional challenges of outreach; and the need for new conceptions of scholarship, new measures and documentation of excellence, and new criteria for promotion and tenure—as well as questions regarding the ongoing development of current faculty and the preparation of future academics.

Tentative themes for our second volume include the interaction of metropolitan universities with local schools; issues of professional and occupational education in metropolitan universities; metropolitan universities as cultural and intellectual resources for their region; and the role of metropolitan universities in continuing professional education, employee development, and other aspects of lifelong learning. Future issues will also provide a variety of opportunities to discuss pervasive matters such as institutional organization, uses of telecommunication and other educational technology, and implications of the emerging internationalization of all spheres of activity.

Each of these aspects of metropolitan universities, inevitably, interacts and overlaps with all other institutional dimensions. To attempt any neat separation of topics would be both futile and unhelpful. The thematic focus of future issues is intended, merely, to provide better insight into the multifaceted nature of our institutions. We hope to further this, as well, by broadening our perspective beyond the campuses and beyond the borders of the United States. We will not limit ourselves to articles by academics for academics, nor to contributions by Americans for Americans. Mayor Doré's contribution to the present issue is a first step toward this goal, which will be furthered by the presence on our editorial board of distinguished individuals from other countries and from nonacademic settings.

Contributions to Metropolitan Universities

Metropolitan Universities welcomes contributions in various categories, as described in some detail elsewhere in this issue.

Such contributions, especially articles, should reflect the basic goal of the institutions after which the journal is named: to be useful while maintaining the highest possible intellectual standards. We are looking for articles that reflect excellent scholarship, but we do not consider the journal to be a scholarly publication of the traditional kind. Articles will not have footnotes or a detailed bibliography. But assertions should be justified, arguments explained, pivotal work of others mentioned, and useful additional reading listed.

Metropolitan Universities wishes to serve the needs and interests of administrators and faculty members within the institutions after which it is named, as well as their external constituencies and stakeholders. It intends to publish articles that clarify the nature and function of these institutions; stimulate changes and developments (both within and outside metropolitan universities); enhance the mission of these institutions, and provide guidance regarding challenges, problems, and pitfalls.*Metropolitan Universities* wishes to become a forum for action as well as analysis, for prognosis and prescription as well as diagnosis and evaluation. It welcomes contributions that are normative, but insists that they be based on a thorough assessment of past experiences and existing alternatives.

Articles that deal with broad issues, such as educational access or regional development, need to contain sufficient specificity to provide a degree of guidance to those readers who intend to take pertinent action. Descriptions of specific programs, policies, or organizational models developed at a given institution should stress generalizable aspects that are applicable to other institutions.

We welcome, as well, contributions that are of sufficient interest and timeliness to be carried in an issue even though they may not relate directly to the principal theme. We also solicit input into a number of features that will constitute regular components of future issues.

The journal will contain a section of letters in which we welcome critical and constructive comments from our readers regarding the content and plans of the journal. We intend, as well, to carry guest editorials or the equivalent of op-ed pieces and would in particular like to publish contrasting views on complex and contentious issues.

Another regular feature will be called Interactive Strategies. It will carry short descriptions of new projects and programs at specific institutions that are likely to be of interest to other metropolitan universities. Please share with us and with your colleagues elsewhere exciting and promising innovations being developed on your campus. The journal will also publish book reviews, as well as shorter book notes.

One further promise about future issues is in order: comments "From The Editor's Desk" will be shorter!

We want to make *Metropolitan Universities* exciting, interesting, and useful to all who have a stake in these institutions. We need your help to succeed in this venture.

Ernest A. Lynton

Charles E. Hathaway, Paige E. Mulhollan, and Karen A. White

Metropolitan Universities

Models for the Twenty-First Century

Some universities today are presented with an unusual opportunity to evolve toward a model that addresses the contemporary challenges our nation faces, while at the same time seeking prestige and eminence. With eighty percent of the population of our nation living in metropolitan centers, opportunity occurs primarily for those institutions serving these areas. These metropolitan universities will be defined not so much by common characteristics as by the interactive philosophy from which these institutions establish significant, symbiotic relationships with their metropolitan areas. The metropolitan university concept is an inclusive and enabling model that may be adapted for institutions located in the central city, on the periphery of metropolitan areas, and within more broadly distributed population centers. Metropolitan universities will transform and be transformed by the society of which they are a part.

Our society increasingly expects public universities to address relevant contemporary problems: economic competitiveness, improved public education, and governmental leadership and efficiency. As a result, many universities, particularly those located in metropolitan areas where the problems are most severe, are responding with increased emphasis on career-oriented education, collaboration with industries and public education, and research that contributes to the well-being of the city, state, and country.

It is true that the university is and must remain an independent institution within the society of which it is a part. The responsibility of the university in the sharing, pursuit, and application of knowledge ensures that our basic culture and heritage will be preserved. The university must guard its existence as an independent institution in order to achieve these primary functions. However, the university must not stand apart from its society and its immediate environment but must be an integral part of that society. The university best serves itself and society by assuming an active leadership role, as opposed to its traditional stance of somewhat passive responsiveness.

In his insightful book *Academic Strategy,* George Keller writes: "For decades, most colleges and universities have been inner-directed, formulating their aims on the bedrock of their own religious commitments, tradition, faculty desires, and ambitions for growth, largely ignoring the world outside. . . . Colleges are switching from a self-assertion model of their existence to a biological mode of continuous adaptation to

their powerful changing social environment." (Baltimore: Johns Hopkins University Press, 1983, p. 3) The tension between the traditional view held by academics and the expectations of society for its universities can be either a creative or a counter-productive force for the continued evolution of the university, depending on how the academy responds.

It is a myth, sometimes promulgated by the academy, that universities are cloistered halls of reflection and learning, apart and immune from society. Our origins are embedded primarily in the twelfth and thirteenth centuries, when the first universities, located primarily in the great cities of Europe, came into being. These early universities were formed to train students in the professions of law, theology, and medicine, as well as to study the rediscovered works of the Greek and Arabic scholars. These institutions, from Salerno in the ninth century to Paris in the twelfth century, were thus highly specialized and responsive to societal needs.

It was in the United States in relatively modern times that the liberal arts college first appeared extensively as a separate institution apart from other professional elements traditionally associated with universities. The origins of many of our most prestigious institutions known today for their commitment to the liberal arts were related primarily to professional training.

Probably the most widely known American contribution to the evolution of universities occurred with passage of the Morrill Act of 1862, when the federal government extended its financial support to stimulate the creation of our land-grant institutions. The new public universities were specifically charged to help solve the new nation's economic problems through emphasis on agricultural and engineering teaching and research. Subsequent extensions of federal policy, particularly the Hatch Act of 1887, from which came our agricultural experiment stations, made the "practical" relationship of land-grant institutions to contemporary society even more explicit.

However, the greatest contribution of this nation to the evolution of higher education is its concept that all citizens have the right to access—an idea initiated boldly in the Northwest Ordinance of 1787. The evolution of this concept has produced an open-door policy for essentially all high school graduates and created new institutions and branches located in major metropolitan areas to serve place-bound populations. The placement of universities in population centers to ensure access to higher education for all citizens represents a major commitment unique to our country.

After World War II, the evolutionary forces born of this concept accelerated as veterans, carrying with them federal educational

benefits, flocked to universities to ensure their economic future. Thus began a period of rapid growth in the number and size of higher education institutions, that escalated during the sixties when we added a commitment to educate previously underserved student populations. The new students, representing a broader cross section of our society, were agents of transformation for our campuses. From increased numbers of different kinds of students and significant federal support of research initiated during World War II, the current multiversity was born.

Throughout the postwar period, or at least through the 1960s, states sought to meet the demand for access to higher education by creating new types of institutions to serve major population centers. During the twenty-year period from 1955 to 1975, they created 573 community colleges. At the same time, states built new or absorbed existing four-year institutions into complex state systems. Whereas states had traditionally built colleges as residential entities away from major population centers, states now sought to create universities to serve a nonresidential, place-bound student. This movement peaked in the sixties. A cursory examination of the *1988 Higher Education Directory* indicates that at least four dozen new institutions offering four-year baccalaureate programs were established in population centers in that decade. These institutions, along with others formerly private or municipal, have become a significant but not fully recognized force in higher education.

Four different types of universities serve our population centers today:

1. Institutions born as a part of a central city prior to World War II (e.g., the University of Cincinnati and the University of California, Los Angeles).
2. Institutions created as wholly independent universities after World War II for the specific purpose of serving the needs of a population center (e.g., George Mason University and Wright State University).
3. Institutions established as branches of major university systems in order to serve metropolitan populations (e.g., the University of Illinois at Chicago, the University of New Orleans, and the University of Missouri at Saint Louis).
4. Institutions originally created for a more specialized purpose, frequently as normal schools, today have an expanded mission in serving a population center (e.g., the University of Tennessee at Chattanooga, Towson State University, and Southwest Missouri State University).

Universities located in the population centers of our country now have a privileged role to play as we approach and move into the

twenty-first century. To comprehend the significance of these institutions in the future, we must understand their immediate surroundings and the symbiotic relationship between these universities and their environment.

The concentration of our population into major centers has continued unabated and will not be reversed. The 1990 census will likely describe the following situation:

- The nation's metropolitan populations exceed 200 million, with approximately 80 percent of all Americans living in the metropolitan areas.
- The most rapid growth in the metropolitan areas is in peripheral areas and in the beltways connecting our cities.
- The greatest challenges faced by the nation occur in the metropolitan setting.

Thus, as we approach the twenty-first century, metropolitan areas have become our greatest resource and our greatest challenge. For those institutions located in this environment, the opportunities and expectations will be formidable.

Andrew Young, mayor of Atlanta, has spoken for leaders in every state and city:

> at the local level, there's a crying out in urban America for people to do for urban America what state universities did in the last century for rural America. We have the most productive agricultural system in the history of the world. It did not come about by accident. It came about through land-grant colleges. It came about through state farm programs. It came about as a result of the integration of the university system with the agricultural community. The benefits that accrued from that relationship fed not only America but the entire world.
>
> A similar kind of relationship between universities and the cities is necessary. ("Public Expectations of Higher Education Beyond 1984," *American Association of State Colleges and Universities Studies,* 2:3–11)

We believe that those universities best suited to respond to this need, universities we classify as metropolitan universities, will emerge as very significant institutions in the twenty-first century.

A metropolitan university is defined first and foremost by its philosophy. It accepts its relationship to the surrounding metropolitan region as its essential rationale, its reason for being. A metropolitan university is not defined solely by its location, its student population, or any other characteristic. A university may be located within the metropolitan area, even in the central city, and yet not be *of* that city. A university may even draw an appreciable

enrollment of students from its metropolitan area and yet not be philosophically a part of that city.

Although metropolitan universities are likely to share certain characteristics, such as a high enrollment of commuter and minority students, metropolitan universities are best recognized by an interactive philosophy by which these institutions establish symbiotic relationships with their metropolitan areas. In some institutions, such interaction is focused primarily in a few well-defined units, such as a college of education or a center for urban studies; however, we envision a metropolitan university as an institution where the commitment to interaction with the metropolitan area permeates the entire institution. At such universities, applying resources to improve the metropolitan quality of life must be an institution-wide commitment.

The distinguishing element of a metropolitan university is its philosophy, not its characteristics.

The phrase or descriptor used to identify a model of a university is much less important than its operational mission statement and philosophy. At Wright State University, we have chosen the descriptor "metropolitan university" for a multitude of reasons, not the least of which is to use a term that is broadly inclusive of many institutions located in or near population centers. The term urban, not used much until the nineteenth century to describe population centers, refers in the minds of many of our constituents only to the core or central city. For too many, the term "urban university" refers only to a set of shared *characteristics*. The metropolitan university must address the challenges presented by the inner city as one facet of its overall responsibility, but those challenges do not exist in isolation from those of the whole metropolitan area, nor can they be addressed successfully in isolation. The important element that distinguishes a metropolitan university is its philosophy, not characteristics such as size, student profile, and program mix.

Recent metropolitan growth is far different from the classic urban development that characterized the earlier part of this century. Where once urbanization began with a highly centralized core and spread outward in a concentric circle, the emergence of our system of transportation has given rise to the rapid development of highly localized nodes of industrial and commercial activity, related to and dependent on the whole of the metropolitan area. Rapid development now occurs in villages and towns peripheral to the core area and along the major arteries connecting them. Ironically, the construction of interstate bypass highways, originally

intended to allow traffic to flow around major urban concentrations, has given rise in many instances to substantial commercial and industrial development away from the core city. In addition, the interstate highway system has promoted intracity growth, causing the rapid coalescing of two or more substantial population centers into a metroplex, such as Dallas-Fort Worth. Regional planners forecast a similar megalopolis in Ohio stretching from Cincinnati on the south through Dayton to Springfield and east to Columbus. Similar "metropolitan strips" are developing elsewhere. Within this environment, many states have located major educational facilities near the core city, e.g., Cleveland State University. However, those institutions created in more recent years are more likely to be placed on the periphery of the metropolitan area, such as the University of Texas at San Antonio. Only by addressing the manifold needs of the extended metropolitan area can UT-SA and similar institutions truly serve the needs of their inner city. Quite frequently, the new institutions themselves stimulate yet another center of commercial and industrial development. It is to this environment, a complex governmental and cultural environment, that the metropolitan university, be it in the core city or on the periphery, must seek to relate. George Mason University is an outstanding example of an institution that understands the necessity and the wisdom of addressing the needs of the multitude of population centers that are occurring in the complex metropolitan area in northern Virginia around Washington, D.C.

Frank Newman, in *Choosing Quality*, identifies the establishment of an appropriate niche as a prerequisite to achieving institutional excellence. One's niche depends on many factors, including the rationale for founding the university, the university's location, and its response to changes in society and the development of knowledge. Metropolitan universities should seek to develop an identity that recognizes not only the academic and scholarly values common to all universities, but also the empowering concept of a strongly interactive relationship with the metropolitan area around it. The metropolitan university shares the same commitment to the discovery, transmittal, and application of knowledge as do the institutions that represent the older land-grant and liberal arts institutions. Ultimately, the success of a metropolitan university will depend on its response to both the historical values that define a university and its interactive relationship to its metropolitan area. One does not preclude the other; in striving toward one, we naturally achieve the other.

The vision of becoming an eminent metropolitan university is an enabling one. By choosing to fit into the metropolitan university

model, a university accepts the added obligation to extend its resources to the surrounding region, to provide leadership in addressing regional needs, and to work cooperatively with the region's schools, municipalities, businesses, industries, and the many other institutions and organizations in the public and private sectors. By accepting this mission, a university affirms that it not only accepts the academic and scholarly obligations and responsibilities incumbent upon all excellent universities but that it intends to extend the expertise and energies of the university to the metropolitan region in somewhat the same way that land-grant institutions served the agricultural society during the nineteenth century.

While it is useful to draw an analogy to the land-grant university, we must take care not to extend the analogy too far in speaking of metropolitan universities. The mission of the land-grant institution was narrowly focused compared to the mission that metropolitan universities seek to address. In establishing interactions with the metropolitan environment, we must think creatively of how we might utilize the entire body of the university as an urban-based experiment station. The challenge for the metropolitan university is to transform itself by empowering the entire campus to utilize the metropolitan area as a living laboratory. As the metropolitan university concept evolves, we will see many variations in the model emerge. There can be no single interpretation of the model for a metropolitan university.

The time has come to advance the metropolitan model among a national constituency to create a defined peer group of metropolitan universities, among which program excellence can be measured and by which external evaluators, federal funding agencies included, can appropriately judge the institutions. In the process, we may arrive at definitions of excellence that will shape new priorities and directions for higher education in America.

Ernest Lynton and Sandra Elman have written: "The existing, narrowly defined mold into which almost all universities have tried to cast themselves is not adequate to the expanding needs of our contemporary, knowledge-based society. A large number of institutions are failing to realize their full potential because their internal system of values, priorities, and aspirations primarily emphasizes and rewards traditional modes of teaching for which the clientele is shrinking and basic research for which most of these institutions cannot receive adequate support. This has resulted in a real crises of purpose. By believing themselves to be what they are not, these institutions fall short of what they could be. This . . . deprives society of the substantial intellectual services that these universities could

provide." (*New Priorities for the University,* San Francisco: Jossey Bass, 1987, pp. 12-13)

Acceptance of a new model in higher education will not be easily or quickly achieved. Too many people recognize as worthy only the traditional higher education models that were part of their own educational development. This attitude characterizes both faculty—mostly educated at comprehensive research institutions—and citizens in the community itself, few of whom attended metropolitan universities and many of whom view regional and commuter emphasis as trivial. As a result, a primary task in establishing a new model is educating the university community. Endorsement of the model and commitment to the philosophy within the institution enhances the success of acceptance in the broader society, and performance—success in useful institutional interaction with the community—will gradually produce public recognition and appreciation. And we have the advantage that more and more recent graduates, who are taking their places in metropolitan power structures, attended our institutions.

The metropolitan concept provides a worthy vision for institutions seeking institutional pride and success.

New definitions of academic prestige and eminence must be formed to accommodate the new model. The Carnegie Foundation taxonomy of higher education institutions provides no adequate niche for this large group of institutions. Other popular classifications, such as the annual ranking of institutions by *U.S. News and World Report,* categorize rankings on bases that do not serve the academy well.

This new journal, *Metropolitan Universities,* will seek to provide an opportunity for dialogue on the metropolitan university model in order to clarify better the philosophical variations on the model, to discuss the challenges we face both internally and externally, and to share successful and not so successful interactive strategies between the university and its environment. The dialogue will of necessity encompass all of the issues that our society faces, plus those that are unique to the academy.

This article is not intended to speak at length to the various implications that flow from accepting the metropolitan model, but more simply to bring to the attention of the many potential metropolitan universities the significance of the role they can assume as we approach the twenty-first century. All institutions cannot fit easily within the model. All that might do so will not choose the model. But the vision of the metropolitan model is one in which many institutions may seek recognition and prestige. The vision can be a liberating one, allowing us to be evaluated on the basis of what we

choose rather than against criteria established for other institutions at other times. It can free us to cooperate enthusiastically with other institutions (public and private) whose mission differs from ours but with whom a combination of resources can bring mutual rewards. It can free us from destructive competition with dissimilar institutions within our state systems and thus enable us to respond to appropriate public concerns regarding unnecessary duplication. Finally, the vision can be a satisfying one by allowing us to achieve eminence based not on being second- or third-tier copy of someone else's vision, but excelling within our own.

Metropolitan universities are agents of change. These institutions must play a role in the transformation of society, but the transformation is not unilateral. Just as the university is a transformer of the society of which it is a part, so it will be transformed by that society.

It is important for the metropolitan university to define clearly and to control the interactions that occur within the metropolitan environment. Only if the university is willing to assume leadership in defining such interactions can the institution guard and maintain the independence that is essential and necessary for all universities. This independence cannot be yielded. The university must develop a clear understanding of when it should turn down what may appear to be a window of opportunity. The metropolitan university must be able to say "no" in its own best interest. However, the metropolitan university must also remain constantly in contact with its environment and be alert to opportunities to say "yes" by creating interactive initiatives that serve the interests of both the university and the metropolitan area.

Protecting traditional values must not be defined as maintaining the status quo. The transformation of metropolitan universities is likely to involve a basic reconsideration of our traditional discipline-centered mentality. Solutions to current metropolitan problems will not come via a breakthrough in an isolated laboratory but through the patient application of skills by scholars working together in a variety of disciplines.

In the course of our transformation, our metropolitan universities will have to reconsider internal priorities and reward systems. Our institutions owe their existence to the need for access, and teaching must therefore be our first priority.

More than any other institutions, universities located in the metropolitan areas have a special role to assume in preparing our students to live in our pluralistic society. Historically, minority and disadvantaged groups have migrated to our cities, and the metropolitan universities will always have a large population of

diverse students. We will face the challenge of helping students, not always well prepared, to succeed in university studies. As these new populations enter metropolitan universities, we must develop the necessary support structures to ensure their success. And we must broaden the understanding by our majority students in order that they may accept and appreciate the diversity of a more pluralistic society.

Our reward system will have an important impact on determining faculty activity. The current policies on promotion, tenure, and merit salary increases served our institutions well in the past but now require serious reconsideration. All research has always been for some purpose, some ultimate application. But the time lapse between inquiry and application has so shortened as to make the distinction between pure and applied research meaningless. The importance of the problem tackled and the quality of the work performed must become more significant factors in evaluations than is the artificial, traditional distinction between pure and applied scholarship. Similarly, professional service—the application of one's disciplinary skills to real problems in the real world—must receive more than the lip service it has traditionally been accorded.

In *New Priorities for the University*, Lynton and Elman make the case clearly and convincingly: "The institutionalization of a reward structure for faculty engaged in such activity does not imply a reduction in the importance of traditional scholarship. Rather it elevates to a comparable level of esteem—and subjects to a comparable level of quality control—a broad continuum of knowledge-related scholarly activities. We believe that the quality of the academic environment will be enhanced through close reciprocal relationships between strong teaching, traditional scholarship, and externally oriented professional activities, with the whole being greater than the sum of the parts." (ibid, pp. 148-149) Surely the time has come to cease talking about a more appropriate reward system and to begin demonstrating to faculty *by performance* that we are serious about a change.

Though it is not likely that all disciplines within the academy will share equally in interaction with the metropolitan area, we must hold out the vision for all. One might anticipate that colleges and schools that offer professional programs will most easily establish symbiotic relationships with the region. However, all disciplines should be challenged to consider the possibility of such interactions, must be encouraged to shape the nature of their interactions, and must be nurtured and rewarded for their effort.

The disciplines that resonate to a more conservative and traditional form of scholarship and service must not be punished or

restricted but can and should be challenged to reexamine their current assumptions. They must be challenged not to withdraw toward a more conservative (or defensive) stance but instead to play an active role in defining the measures by which we will judge contributions to scholarship and professional service on this broader basis.

Elman and Lynton point out that this asks a great deal of the academy: "If universities are to respond more systematically to external knowledge needs they must raise, rather than diminish, the intellectual standards and challenges for both their institutions as a whole and for participating members. . . . For universities to carry out their expanded scholarly function and to provide competence-oriented teaching, faculty must be *more* than scholars in a discipline, not *less;* they must be scholars with a broad perspective on the interrelationship of disciplines and their practical applications." (ibid, p. 134)

Metropolitan universities will not come into full being without the leadership of the president, chief academic officer, deans, and key faculty. The president and chief academic officer must assume the responsibility of educating the faculty on the wisdom of embracing the metropolitan model, helping to shape a mission statement clearly stating the purpose of the institution with respect to the metropolitan environment and devising a strategic plan to achieve the mission. Both leaders must join together to assure that budgetary allocations are directed toward the strategic plan. George Keller has put it well: "An academic strategy asserts that neither willfulness nor acquiescence to the fashions and temporary external conditions is an appropriate course. Rather a university's own directions and objectives need to be shaped in light of an emerging national situation and new external factors as well as the perennial needs of youth, truth, and intelligence. And because the external environment is in constant flux, strategic planning must be continuous, pervasive and indigenous. . . ." (Academic Strategy, p. 145)

The university best serves itself and society by assuming an active leadership role.

The concept of the metropolitan university can provide a worthy vision for many institutions that seek a niche within which they can provide opportunities for faculty and students, while at the same time providing the prospect of institutional pride and success. Committing an institution to the model does not require vast new resources. Although Title XI may hold some promise of funds for universities to provide for the needs of our population centers, metropolitan universities cannot afford to wait for federal funding to

begin those interactions with metropolitan areas that are needed now. The tenor of our times is such that significant funding of Title XI is not likely to occur, and metropolitan universities must selectively focus their own resources toward building symbiotic partnerships.

A frequently misattributed Old Testament Proverb (29:18) advises us, "Where there is no vision, the people perish." We in higher education can continue doing business in the same old ways, and we are not likely to perish. But the metropolitan vision can afford us the opportunity to help our students and faculty achieve their highest potential while at the same time improving the quality of life for most Americans—and can bring institutional success and satisfaction, as well.

Suggested Reading

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Keller, George C. *Academic Strategy: The Management Revolution in American Higher Education.* Baltimore: Johns Hopkins University Press, 1983.

Lynton, Ernest A., and Sandra Elman. *New Priorities for the University.* San Francisco: Jossey Bass, 1987.

Newman, Frank. *Choosing Quality: Reducing Conflict Between the State and the University.* Denver: Education Commission of the States, 1987.

Henry R. Winkler

Ten Years of Progress

During the past decade, initiatives by groups such as the Urban Affairs Division of the National Association of State Universities and Land-Grant Colleges have helped bring the concept of the urban university to the fore. Conferences, workshops, and publications have addressed specific topics such as school-college collaboration or minority recruitment and retention, as well as more broad-ranging issues related to the urban agenda of the future. But much remains to be done. Curricula will have to reflect the growing diversity of students. Schedules will have to be made much more flexible. Greater cooperation with public authorities and the private sector will be required if urban universities are to make their proper contribution to the economic development of their regions. And of course these urban institutions must be first and foremost universities, retaining their academic integrity, in order to adequately fulfill their potential in the years ahead.

There are various ways to evaluate the accomplishments and shortcomings of our urban universities—perhaps as many ways as there are observers trying to understand them and to assess their experiences. In the United States we could look back to the great municipal establishments of the early part of our century, comparing their role in the acculturation of the children of European immigrants with that of our contemporary urban institutions in a world that has changed dramatically in the meantime. Or we could focus on the 1960s, when social turmoil reached the flash point and urban universities responded by trying to address the issues as they surfaced on the campus and by offering assistance to the troubled cities. We might note the often unrecognized progress made in educating students with a variety of cultural and physical disadvantages, while recognizing that such successes seldom resulted in enhanced prestige for the urban institutions. And we would have also to note how accessibility was restricted by the fiscal constraints of the 70s and the basic missions of the urban universities made more difficult to fulfill.

In this article I am undertaking a task that is at the same time more modest and more ambitious: to look at the past ten years or so and comment on what we have been able to do to define and further the special responsibilities of the universities in our metropolitan conurbations. I also want to suggest some of the initiatives we need to undertake in the future. My frame of reference is the National Association of State Universities and Land-Grant Colleges (NASULGC) and its Urban Affairs Division, because details of the creation and subsequent development of this division are a good illustration of the struggle to establish the identity of universities that are involved with their

cities. In this account I will use the term urban universities to echo the title of the division. But my remarks in general are of course intended to include the wide range of metropolitan universities in the United States, as well as elsewhere.

The Urban Affairs Division of NASULGC came into existence in 1979 after an uphill campaign waged by a handful of interested administrators. NASULGC had been established in 1963 by a marriage of the association of land-grant institutions and the major state research universities in a way that ensured the central role, proper for its time, of the agricultural interests led by the officers of the great land-grant universities. To be sure, many of these presidents and deans apprehended that urbanization had created a whole new spectrum of teaching, research, and service needs. But for the most part, they resisted the notion that certain institutions, the urban universities, were uniquely equipped—or should become so—to deal with urban educational issues, just as the colleges of agriculture had dealt peerlessly with their specialized concerns. Eventually, the campaign to recognize the special role of the urban universities bore fruit.

The establishment of the Urban Affairs Division was an important achievement. However, thus far it has been a limited one. For reasons that are very complex, it has not even begun to achieve that parallelism with the Division of Agriculture that some of us hoped for at its inception. Indeed, the creation of the Marine Division, important as it is, in some ways has relegated the Urban Division to a somewhat ancillary role when everything we know about the constantly changing character of our society cries out that it must be a genuinely major element of our organization, on a parallel with the Division of Agriculture at the very least. The organizational campaign, in other words, is not yet a part of our history—it needs to go on.

Still, we have managed to come a long way in the past decade. Most importantly, whatever may be the imbalance in our professional organization, its Urban Affairs Division has succeeded in bringing the concept of the urban university to the forefront of attention, not only in NASULGC, but increasingly in the broader educational spectrum as well. From the beginning, the division has conceived its role as being substantially more than that of a mere lobbying arrangement. It has sponsored a series of projects to encourage constructive action on a variety of urban issues. Quite early on, the school project enabled a group of universities to compare their experiences in collaborating with neighboring urban school districts in tackling some of the stubborn problems of urban education. Participants in the project would be the first to concede

that they had scarcely scratched the surface, but the initiative has pointed the way towards a cooperation that is likely, I think, to be more and more useful as time goes on.

Meetings such as the recent Fourth International Urban University Conference held in Montreal or the forthcoming program on the urban universities and the arts to be held at Wayne State University under the cosponsorship of the Urban Affairs Division and the Commission on the Arts of NASULGC foster a healthy exchange of information and experiences among the members of our division. And a series of regional conferences, such as the one at my institution on minority recruitment and retention, and a number of one-day workshops are helping to give greater coherence, including a sharper perception of what we can and cannot do, to the tasks of our urban universities within their urban environment.

Equally valuable has been the publication program of NASULGC's Urban Division. Its monographs on faculty reward systems and student support services address practices that will increasingly have to be improved if urban higher education is to achieve anything like its full potential. Papers such as "The American University in the Urban Context" or "Professional Service in Urban Universities" appear to have attracted a wider, if still modest, range of readers than simply our own membership. Recently, "America's People: An Imperiled Resource," subtitled "National Urban Policy Issues for a New Federal Administration," proposed to stimulate discussion of national urban policy as the nation prepared, under new leadership, to enter the 1990s. The product of long and serious deliberation by six working groups, the report discussed problems connected with economic development, environmental protection, housing, poverty, education, and health—problems of concern to all of America, but particularly important to the majority of the population that lives in metropolitan areas. There is little evidence, to be sure, that a new federal administration or indeed a not-so-new Congress is prepared to tackle some of these issues with imagination and the sense of urgency they require. There are no easy answers, but certainly easy rhetoric alone is not likely to get us very far. As the major collection of public institutions that provide many of the essential services—technical training and assistance, hospital care—required by the people and the governments of our urban areas, we are collectively demanding that attention be paid to those needs and to our importance in helping to address them.

We have come a long way, yet we have scarcely begun.

All in all, we have come a long way since 1979. Yet we have

scarcely begun. Everyone of us, no doubt, has a long agenda of concerns that need to be tackled in the years ahead. I am no exception, and I would like to address briefly—and probably unsystematically—some of my specific concerns.

But first a word on a more general level. Urban public universities are no different from other public bodies. Unless they receive adequate public support, it will be difficult for them to answer increasing public demands, whether for service to the local school systems, government agencies, businesses, or others. Increased state support would provide some help, but it is frequently subject to economic and political uncertainties, making long-range plans and commitments virtually impossible.

Are there alternatives? One that was first proposed in the 1950s is an urban-grant program modelled on the land-grant legislation of the nineteenth century. By 1980, amendments to the Higher Education Act of 1965 had brought into existence such a program, thanks to the efforts of a newly created Association of Urban Universities, which had both private and public institutions among its members, together with the help of the Urban Affairs Division of NASULGC and the recently established Council on Urban Affairs of the American Association of State Colleges and Universities (AASCU). As the Morrill Act had concentrated on agricultural and industrial concerns and the Sea Grant Act of the 1950s had directed university efforts toward the problems of the oceans, the new legislation was designed to bring the urban universities' "underutilized reservoir of skills, talents, and knowledge" to bear on "the multitude of problems that face the nation's urban centers."

But a word of caution is in order. The problems of the city revolve around human needs and, as such, are infinitely more complex than the agricultural concerns addressed by the Morrill Act. The urban university cannot solve the problems of the city directly, and it cannot become enmeshed in the inner workings of municipal or state governments. Urban universities can advise, support, initiate, and encourage—not control. Even though urban universities do possess certain technologies and knowledge, experience has demonstrated that we simply cannot take on the job of local governments and remain institutions of higher learning. In any event, though funds were finally authorized for urban grant support, they were never appropriated. The renewal of the program and the appropriation of those funds would help urban universities enhance their urban commitments through the 90s, but it is impossible to predict whether that support will ever come.

Within the constraints I have mentioned, what are we doing that we could do better, and what should we be doing that we are hardly

doing at all? Certainly we have to do a much more effective job of getting minority students into the mainstream of our institutions, particularly at the graduate and professional levels. In the United States minorities already account for twenty to twenty-five percent of our total population, and the percentage is growing. Population shifts in the next twenty years will force urban universities to adapt constantly. As in the past, the city, with the urban university at the hub, will have to serve as the assimilator and the provider of opportunity.

In the meantime, the median age of the population is rising, and as this happens societal expectations will change. Fewer and fewer white, middle-class students of the "traditional" college age will be seen on the urban campuses. Older adult students, already a hallmark of the urban institution, will become increasingly commonplace, and as they do, the concept of adult education will fade. Separate courses, secondary to the university's mission, will no longer be set aside for the adult learner. Instead, I believe, the curriculum will have to reflect—and to incorporate—the diversity of students in the classroom.

Not only the curriculum but the manner in which it is presented must be modified in the years ahead. With a few notable exceptions, we have tended to imprison ourselves in traditional notions of time and place. Because we have not been bold enough in our responses to changing needs, we have been too frequently outthought and out-imagined by businesses and industries that have set up their own wide-ranging educational (not merely training) programs. More and more, we will have to expand our timid experiments, with offerings at odd hours and in a great variety of places, moving, for example, into the workplace on a scale that might be awkward and even inappropriate for more traditional institutions.

Even more generally, we in higher education—and once again especially in the urban areas—need to talk much more systematically with our counterparts in business about common concerns. We need, for example, to pay more attention to the kinds of teaching—and teachers—required for tasks that will be quite different from the standard models in all of our institutions today.

Although it will never become the basis of our institutions, we are all heavily into continuing education. Our faculty preparation for working with an adult population is still in its early infancy, however. Men and women in mid-career who come seeking new skills, broader perspectives, and fresh information cannot be taught as though they were young people of seventeen to twenty-one, certainly not by teachers whose preparation for teaching even young adults often leaves a good deal to be desired.

In addition, it will be necessary, in my view, for the urban universities to develop, together with business groups, joint ventures—mostly at the local level—to address the whole question of the constant and recurring upgrading of our national work force—the unskilled and semiskilled no less than the managers and technicians who come in the first instance from our colleges and universities.

There is also substantial room for improvement in our collaboration with government and private enterprise in applied research. It would seem axiomatic that urban universities should have a major role in helping to develop the resources that create jobs and satisfy essential needs. I have just completed a six-year stint as a member of Ohio's Industrial Technology and Enterprise Advisory Board, whose task it is to oversee and fund a fairly extensive collaborative program of the kind I have just mentioned. What struck me again and again was how much the initiative for an imaginative or risky venture was taken by the business groups, large and small. Too often faculty members, even in such areas of applied research as engineering, saw proposals for cooperation as little more than a chance to get some additional funding for their conventional—and sometimes even important—investigations.

My point is a simple one. Our urban universities are well-positioned to work closely with the private sector and with public authorities to contribute substantially to the economic development of their regions. I have no illusions about such matters. The West German and the Japanese examples have made abundantly clear that a thoughtful *national* strategy for economic growth should ideally be harnessed to a three-way *national* cooperative program. But in the absence of such a strategy, it would appear that our urban institutions have the potential to expand greatly their local and regional roles in the initiatives upon which future economic health will rest.

It is a truism of our rhetoric that the human capital of our country is its most valuable resource. Some of us, to be sure, have devoted countless hours and a variety of skills to helping deal with the intractable problems of student illiteracy and indifference, the almost hopeless conditions that condemn large segments of our population to lives of poverty and ultimate hopelessness. Our departments of education have, of course, tackled one facet of the problem, but too often they have not been accompanied by their colleagues in the rest of the institution. The crisis in inner-city education quite evidently is too demanding to be left to the professional teacher educators, no matter how dedicated and well-motivated. However, for the most part, neither the humanists,

nor most of the social scientists, and few of the scientists and technologists in our urban universities have ventured to play a major role in attacking the educational illness that may be a greater threat to our future than even the contemporary drug culture.

On the whole, our institutions, with a few honorable exceptions, have left it to the major businesses, and occasionally to local or state government, to take the lead in building coalitions to deal with the most fundamental issues in early childhood and adolescent education. The universities have followed along and have been more than willing to cooperate, but too often they have followed, not taken the lead. And one result, if some of the most prominent initiatives are typical, is that the job is being done badly and with little prospect of effective results.

The problem of balance between vocational preparation and liberal learning will remain.

Positioned as we usually are deep within the metropolitan conurbations, we yet manage to do a miserable job in helping to promote understanding of, and a sense of responsibility toward, what may be called the "civic enterprise." To illustrate, I would venture that teaching about local government, to say nothing of research and service in this area, is among the things we do most poorly of all. More broadly, as one of my correspondents has put it, "The urban university is itself an essential and important element of this 'civic enterprise,' which it ignores at its peril. . . ." We must do more, he suggests, to raise awareness both within our urban institutions and among potential external constituencies of ways in which the urban university and its urban surroundings can and should enrich one another. Somehow the university must become more than a major intellectual and cultural resource for its immediate community, just as that community must be more than a laboratory in which to conduct the research and teaching of the university. Of course my colleague holds up a warning flag. This symbiosis, he cautions, "raises a substantial challenge: how to eschew isolation and lack of interest but retain detachment and disinterest. That's not easy."

It is not easy because the problem of balance will always be with us—balance between the development of knowledge and its applications, between vocational preparation and liberal learning. Critics of contemporary higher education too often set up a false dichotomy between training (a bad thing at a university) and education (a good thing). Both are essential and both have always been functions of the proper university, let alone the urban university. Still, we must constantly remind ourselves that our urban universities are first and foremost universities, not social service

agencies, dispensers of intellectual fast food, or even part of the entertainment industry of their communities.

Forgive me if I conclude by quoting myself, but the caveat is heartfelt and based on long years of struggle to maintain the balance we seek: "If the urban university does not remain, as do universities of quality wherever they may be located, primarily an academic institution, if it does not remember always that its central tasks are teaching and research, then its ability to be effective, other than as another agency of government, will be seriously compromised." And conversely, those institutions, like many represented here, with the wisdom and the character to preserve their academic integrity while maintaining a commitment to public service will, I believe, assume an ever greater role, not only in higher education but in all our lives in the years that lie ahead.

Jean Doré

A City and Its Universities

A Mayor's Perspective

This essay examines the role and function of metropolitan universities, with an analysis of future needs as related to the city and its growth. To this end, the essay reviews demographics, technology development, quality of life, resource needs, and the role of local, state, and federal governments in supporting the growth of metropolitan universities. These statistics indicate that broad dimensions of this partnership between metropolitan universities and their cities must move beyond limited research agreements.
A call for expanded agreements in research and development, contracted education, and basic research requires new visions by those who plan for expanded involvement between metropolitan universities and cities.

The borders between countries no longer have the full importance they once possessed, and the role of national governments is also being reduced. The large cities have become the real centers of exchange of goods and services and of that resource on which increasingly depends their competitive edge: knowledge.

While the developing countries are increasingly becoming the locus of activities that make intensive use of unskilled labor, the industrialized countries orient themselves more and more toward activities of high added value, that require a skilled workforce, state-of-the-art techniques, and hence a constant actualization of knowledge and technology.

To the extent that knowledge has become an essential ingredient of a dynamic economy in Canada, it is evident that those cities that contain concentrations of places where *knowledge* is developed possess a competitive advantage. Universities and research centers provide large urban agglomerations at least five advantages:

- They permit the development of a workforce that is skilled and able to adapt to change or, preferably, to initiate it.
- They allow local industry to benefit from the products of their research activity, and in turn they can take advantage of the expertise developed in the industrial sector.
- The presence of a skilled work force and the intensive technology transfer between universities and industry attract new enterprises. This creates a critical mass in certain sectors that can, therefore, become real centers of excellence for the city.
- In addition, academic institutions contribute to the international connections of their city, which further

enhances the growth of commercial and cultural exchanges between the city and its partners.

- Finally—and one often tends to forget this in our culture, which is focused too exclusively on the quest for economic improvement—universities and other places of advanced knowledge contribute in a very striking fashion to a city's *quality of life* by providing people access to the cultural and intellectual riches the city produces.

In terms of all of the dimensions that I have just described, Montreal can pride itself on being a real university city that puts to good use in its developmental efforts the activities of its academic institutions. The location of most of these institutions near the center of the city facilitates their interaction with the principal economic sectors, which are also found there. In this way, research in medicine, biotechnology, and technology in all of its aspects (computers as well as aeronautical and space industry) constitutes both academic and industrial centers of excellence in the region.

This dynamic network, well integrated into its community, affects areas well beyond the city limits. One can cite not only the international reputation achieved by the best known researchers of Montreal, but also—as I have experienced all over the world—the fact that the approximately 5,000 foreign students whom each year we welcome in our universities occupy leading positions once they return to their countries of origin. We must therefore continue to give them a warm welcome to facilitate their integration into the local setting and to promote Montreal as a university city, which contributes to the reputation of the city at the international level.

In addition, universities reach out, and one must praise them for this, through programs of international cooperation: arriving anywhere in the world, one can be sure to have been preceded by an emissary coming either from a Montreal firm of consultants or from one of our universities. Conversely, the links that the university network has established throughout the world have attracted to Montreal important scientific conferences that produce benefits in terms of money, knowledge, and reputation.

With regard to the contribution of Montreal universities to the quality of life, one needs to mention only the libraries, art galleries, conservatories, and museums that they make available to the public, as well as the publishing activities, theater, music, and lectures they offer. Does this mean that the situation of the university network in Montreal is ideal and requires no change? Certainly not! The system is experiencing a crisis of growth, which is quite understandable if one considers the incredible speed with which it has developed during the past twenty years.

In the province of Quebec, and particularly in Montreal, we have rapidly moved from a traditional society, which reserves the privilege of higher education for its elite, to a modern one in which access to knowledge has become one of the foundations of democracy, of importance equal to equality of individuals before the law and to freedom of expression. The exponential growth of university resources during the past two decades has brought about the creation of new institutions, such as the University of Quebec at Montreal and Concordia University, as well as the enlargement of our older ones: the Universities of Montreal and McGill.

Between 1961 and 1987, the student population has increased by a factor of ten, going from 22,750 to 235,300 in the combined universities in Montreal. Indeed the emphasis in recent years has been on providing access for larger numbers of individuals to undergraduate studies. However, in contemporary Quebec, priority must henceforth be given to the development of graduate studies, with a focus on advanced research activities.

Today's context has changed: the consequences of the demographic explosion that followed the second world war are fading. One must, therefore, expect a stabilization or perhaps even a reduction in the number of undergraduate students. In addition, societal needs with respect to higher education have also evolved: after having prepared a good number of public administrators and generalists for positions in a public sector that itself was growing strongly, the current mission of the universities is more to create the staff of experts able to take hold of the regional economy, with all this implies in terms of administrative, scientific, and technical competence. Universities must also respond to the need for further education and the renewal of competence of the totality of this work force.

This development of society and universities results, as well, in new financing needs. All constituents in Montreal, from the municipal administration to business associations and unions, agree that with the end of the recession of the past decade and its sequence of cutbacks in public expenditures, it is now urgent to ensure adequate financing of our academic institutions. But from where should this financial support come?

A first conclusion becomes evident: the support of universities by the private sector must be enhanced. The contribution of private enterprise to higher education, be it through the creation of endowed chairs, preferential giving by foundations, financing of buildings, or by other means, seems to me all the more desirable because our large enterprises, whether in the area of consulting,

telecommunications, or transport, have often profited from the competences of local graduates. Furthermore, these enterprises also benefit from the possibilities arising from technology transfer, the further education of their employees, and the training of the local work force, all of which are the consequences of a more productive university network.

Urban universities constitute a reservoir of human and technical resources that the cities can use.

State and national governments also have their substantial part to play. State governments must recognize that a significant increase in the financial support for its universities is an integral part of any strategy for developing a metropolitan region, which constitutes the economic motor for the entire state.

With regard to the federal government, it is evident that one expects from it a minimum level of research support corresponding to the relative importance of a given metropolitan region among the country's large university cities. But, of course, in order to obtain a fair share of such support, the metropolitan university must, in turn, devote an appropriate fraction of research projects to urban problems. And in this as in other matters, it again benefits from the partnerships that it can develop.

One could stop the description of the interaction between university and city at this point, and could say, with justification, that the situation in Montreal resembles that of many other large cities on this continent. But Montreal contains a special dimension that it is about to initiate on the basis of its own resources.

We hope to create a new dynamic that is quite unique in terms of the contributions of universities to the community. The municipal administration has begun, only a few years ago, to contribute actively to the development of the system of universities and to the emergence of new sectors of excellence. It has done so by actively linking the universities and the research centers of the region to the study of major urban problems.

This, then, is a further potential advantage that urban universities can offer their host cities: they constitute a reservoir of human and technical resources that the cities can use to deepen their understanding of the social, cultural, and economic phenomena that characterize the urban environment, and hence to further the cities' appropriate development.

This partnership between the city and the universities can serve as an example for the private sector of the city. For example, Montreal has signed agreements with the National Research Institute on Urbanization to develop a socio-economic data bank and

assume the responsibility for scientific studies requested by the city. Studies of the socio-economic profile of one part of Montreal and long-range transportation plans are examples of activities under this agreement.

Another agreement links the city and the University of Quebec at Montreal. The scientists of this institution are exploring alternative modes of waste disposal and are developing scenarios for the rational management of this issue on the basis of a information model they have created. This work supports activities of the city, which is currently adopting an integrated management plan for waste disposal.

Under an agreement with McGill University, scientists are studying how fluoride will be diluted in the river if added to the drinking water of Montreal. This project also includes scientific staff of the Ecole Polytechnique and Concordia University.

Other similar agreements have been drawn up more recently. One of them gives formal status to the collaboration between the Botanical Garden of Montreal and the Department of Biological Sciences of the University of Montreal, through the creation of a Center of Vegetal Biotechnology. Another agreement affects the Center for Building Studies of Concordia University, where simulation of wind conditions will lead to the establishment of construction norms in this field.

In addition, the city and McGill University have negotiated an agreement through which the School of Planning and the Institute of Criminology will establish a cartography of urban zones where certain categories of citizens do not feel safe. Currently, discussions are taking place between the Ecole Polytechnique with regard to a program of applied research on new modes of snow removal.

As you see, the scope of these agreements is already quite diversified. But in order to move beyond these limited areas of research, the city has begun to intensify its organic links with the university network, to meet the needs of the municipal administration in the years to come.

Anyone even marginally sensitive to the situation facing the large urban agglomerations of North America recognizes the major challenges they face during the foreseeable future: problems related to urban spread, the deterioration of the environment, the quality of life available to their residents, the renewal of their infrastructure and their adaptation to new technologies, the continuing updating and upgrading of their work forces, and the modernization of their management systems.

Montreal will ensure the collaboration of its university network in the totality of these problem areas. Collaboration will consist of

agreements regarding research and development in urban planning, regional development, environmental technology, and management systems that respond to the needs created by the decentralization of services to the citizens of the region.

The city also intends to make full use of university resources with regard to contracted education for its employees, to ensure that they are capable of adapting to change. Conversely, the systematic placement of university students as interns in public offices will enable them to experience the workings of a major public administration.

In addition to these missions of instruction and applied research, the city also intends to make use of the basic research mission of the university system. In the crucial domain of managing the urban environment, the thinking of the large cities and their experts is in its initial stages. It is still necessary to create a model applicable to viable urban development that reconciles economic activity, protection of the ecosystem, and the quality of life. This constitutes a major area of reflection for anyone willing to take the risk of embarking on such research.

We anticipate that the totality of these areas of collaboration will create a field of excellence in urban research and will therefore open the door to the exchange of expertise between Montreal and other great cities of the world. With regard to this, one particular dimension of outreach is already being planned: to transpose these local experiments to the level of international cooperation with developing countries.

Until now, programs of international cooperation have focused primarily on agricultural activity, because such activity has constituted the major part of the economy of the developing countries. But cooperative programs must adapt to the radical changes taking place there. Primary among these is the uncontrolled urbanization. It engenders enormous needs and triggers incalculable consequences. Montreal intends, therefore, to participate actively in the activities of universities in urban development at the international level.

As a result of the growing urbanization not only in the Northern but also in the Southern Hemisphere, our global quality of life will be increasingly determined by urban agglomerations throughout the world. The greenhouse effect, the deterioration of the ozone layer, and other critical environmental issues are affected by urbanization everywhere. Finding ways of sharing with metropolitan areas in developing countries the know-how and insights developed through the collaboration between cities and their universities in industrialized countries may well constitute the most important long-range

challenge to our cooperation. We need to develop an effective international effort in order to accomplish this.

This, then, has been a summary overview of what we have already undertaken with you who are in universities and of the directions in which we wish to proceed together with you. The commitment of the city toward its system of universities is a measure of the esteem and the confidence that the municipal administration, leader of development in Montreal, accords to one of its favorite partners.

Note

This article was translated by Ernest A. Lynton from a speech before the Fourth International Urban Universities Conference in Montreal, Canada on September 29, 1989.

John W. Bardo

University and City

From Urban to Metropolitan

During the 1980s, American urban areas have experienced rapid change associated with expansion of activities by multinational and multilocational corporations, shifts in the significance of new communications technologies, and the residential and locational preferences of people and organizations. These processes have led to a restructuring of the American city that has major implications for many metropolitan universities. This article presents recommendations for revising the missions of metropolitan universities to account for these changes.

America and its cities are again in transition. Since 1970, there have been sweeping changes in the position we occupy in the world political economy, and this has had major implications for the ways in which we organize our lives in cities. International trade is dominated by corporations that are at once multinational and multilocational. Their operations and interests span a globe that is linked by instantaneous visual and oral communications. Computer networks such as BITNET allow immediate transfer of information internationally. It is now possible through satellite communications to link computer processors on different continents so that they can work on the same problem at the same time. Problems are now solved in telecommunications-based meetings of top professionals housed in sites as disparate as Tokyo, New York, and Edinburgh.

American Cities

These and other world and national trends have had their impact on the organization of American life and especially on the structure of American cities. It is no longer reasonable to think of American cities as merely urban; they are best typified as metropolitan. To be sure, our cities have urban cores, but the core is not the city. The City (writ large) is a variegated, segmented, highly differentiated region composed of core, suburbs, exurbs, and satellite cities that are all interlinked with one another in a host of mutually interdependent, symbiotic relationships. This has been true of most large cities since widespread use of

the automobile began in the 1920s. What has happened most recently are changes in the organization and location of production; shifts in technologies of communication and transportation; and the evolution of rapidly changing, highly complex technologies and their applications across the economy, leading to rapid transformations in the fundamental nature of the symbiotic relationships both within the elements of a particular metropolitan area and between the metropolitan area and outside elements.

It is the thesis of this article that these changes in the nature of our urban areas require a rethinking of the role and positioning of many of our urban institutions of higher education: their missions should be recast in terms of the educational needs of metropolitan areas. Furthermore, it will be argued that the historical missions of urban universities are not in conflict with this notion of metropolitanism; but instead, the term "urban" designates a focus on a subset of metropolitan issues. In this regard, it is most important that we not abandon the inner city or the problems facing it. Recent research on American cities has provided ample evidence that rhetorically defined "center city problems" are misconceptualized; these issues are typical of many portions of our urban areas (including many suburbs). Moreover, the causes and "cures" for many center city ills can only be addressed within the broader context of the functioning of the entire metropolitan area.

Metropolitan and Urban

Americans tend to think of urban areas as being composed of politically differentiated communities. Decisions are often made within a particular political jurisdiction without regard to the needs or interests of people who live in communities on their boundaries. Older central cities such as Chicago, New York, Cincinnati, or St. Louis have great difficulty maintaining a tax base to pay for the urban services demanded both by their residents and commuters who inhabit the cities during working hours. More recently, central cities have found that their economic base has continued to erode and that even the commuters no longer come in the same numbers. In the South and West, center cities are often choked in a transportation circulation noose in which residents commute from one suburb to another for employment and entertainment, leaving the center to disadvantaged and minorities.

To fully understand the processes and needs of today's cities, it is important to focus on the entire metropolitan region, which is composed of at least one central city (there may be more than one) and the hinterland with which it is interdependent. Cities and their surrounding territories are so socially, politically, and economically

intertwined that shifts in living patterns, employment, locations of businesses, shopping patterns, or other major changes in any one part can affect the conditions and future of all other parts. While there is general agreement as to the importance of metropolitan regions, there is much less consensus among social scientists as to exactly which variables should be highlighted in creating formal definitions of a metropolitan region's boundaries. However, most social scientists have focused on definitions that emphasize the functional unity and interdependence of the various cities, suburbs, and other components that constitute a metropolis.

Since 1970, there have been several major trends that have typified the evolution of American cities; each of these trends has had a significant impact on the ways in which cities function:

1. *Many of the nation's largest metropolitan areas, especially in highly industrialized regions, are losing population at a rapid rate.* For example, the New York metropolitan area suffered a net out-migration of more than 50,000 people between 1980 and 1987, while the Detroit area lost more than 300,000. Loss of population in these areas has tended to exacerbate problems associated with a declining tax base, spreading blight, and an increase in the percentage of the population who are unable to support themselves.

2. *Urban populations have been shifting particularly to middle-size and smaller metropolitan areas, to metropolitan areas in the South and West, and to nonmetropolitan residences.* Between 1980 and 1986, there was a 7.4 percent increase in the number of Americans living in metropolitan areas. During the first seven years of the decade, the largest metropolitan areas (those with over 2.5 million residents) had grown by approximately 5.5 million people, compared to a growth of more than 9.2 million for smaller areas. This growth has been differentially distributed so that, while the metropolitan population in the Midwest and Northeast has grown slightly, there are rapid increases in the South and West. For example, the Miami-Ft. Lauderdale area grew by approximately 237,000, the San Francisco area by 269,000, and Dallas-Ft. Worth by over 500,000.

3. *Within metropolitan areas, people have continued the process of suburbanization.* More urban Americans live outside center cities than reside within them. The trend toward lower density suburban housing, despite the rehabilitation and gentrification of some inner city neighborhoods, shows no sign of abating.

4. *Although suburbs are stereotyped as havens for the white middle class; suburbs are highly differentiated, housing the wealthy, middle classes, workers, and the poor and ethnic minori-*

ties. Outlying areas of metropolitan regions are highly differentiated in terms of population characteristics, economic development, and growth potential. It would be a great mistake to consider the growth of the suburbs to be a white-only phenomenon. In 1980, blacks represented 5.9 percent (over 5.91 million people) of the suburban population while people of Spanish origin constituted over 5.1 percent (approximately 5.11 million people). Recent research further suggests that the rate of growth of the black suburban population is greater than or equal to that of the white population.

5. *There is a significant increase in the number of individuals living alone and a continuing decline in the average size of households across metropolitan areas.* Nationally, it has been estimated that one in four households located in American metropolitan areas is composed of a single individual. In San Francisco, which is something of a unique case, over half of all adults report living alone. This trend is the result of both population aging and changing norms governing marriage and divorce. In addition, the number of two person households and households headed by single individuals who have children is also increasing.

6. *Corporations and other businesses continue to decentralize and deconcentrate their operations so that more and more activities are developing in peripheral areas.* The number of corporate headquarters leaving New York exceeded those moving in by a ratio of 4 to 1. Many of the relocatees were moving to peripheral locations in adjoining areas. Nationally, in 1982, the majority of retail establishments and nearly half of all taxable service industries and wholesale establishments found in metropolitan areas were located outside the central city.

7. *Development across various segments of metropolitan areas is very uneven; industrial suburbs, older employing and residential suburbs, and many satellite cities are being bypassed by development.* While there is clearly a trend to peripheral development of metropolitan areas, this trend is highly uneven. Many of the problems historically associated with decline of the central city (including an eroding tax base, high building vacancy rates, high unemployment and underemployment, rapid increases in violent crime, and the spread of slums) are typical of older, industrial, and blue collar areas outside the metropolitan core. As John Stahura has shown in his extensive research on suburbs, the status of particular suburbs tends to persist for decades. Thus, industrialized suburbs and satellite cities that once boomed on the periphery of older metropolitan areas such as Cincinnati, Kansas City, Pittsburgh, Boston, St. Louis, and Detroit, are now as blighted

as any center city. Like many center cities, they have been passed over by developers and are suffering stagnation and economic decline.

The causes of these changes in the structure of American cities can be attributed to many factors. The most important among them are discussed in the following paragraphs.

Decline in the importance of transportation networks as determiners of location, due to changes in communications technologies. Historically, ease of access to major population centers and nearness to a radial transportation network within a metropolitan area were some of the most critical factors in determining where a business or other employer would locate. Because of the widespread use of telecommunications and the wide, nearly universal, access to automobiles, many functions that previously had to cluster together in order to work, now can be located more diffusely. Manuel Castells argues that this shift is so pervasive that we need to reconceptualize the functional and economic aspects of metropolitan areas "from a space of localities to a space of flows." Communications technologies have allowed us and our activities to flow across what were previous barriers and boundaries and to restructure our thinking about our cities, places, and ways of life.

Persistent consumer preferences for low density and smaller location, due to changes in communications technologies. Quite simply, where people have a choice, they tend to relocate in smaller and less crowded places. This preference has given rise to both the suburbanization of American metropolitan areas and the more recent shift away from the largest American cities.

The increasing significance of multilocational corporations, which are integrated into national and international networks. As has been noted by Christopher D. Ross: "Clearly the network of metropolitan... relations is evolving in response to organizational changes taking place within corporations as they adapt to a variety of new constraints and opportunities, as well as to ecological [human land use] changes occurring at the metropolitan, regional, and national levels." ["Organizational Dimensions of Metropolitan Dominance: Prominence of the Network of Corporate Control, 1955-1975," *American Sociological Review,* 52 (April 1987) p. 265.]

The forces that shape America's cities have changed, as have the shapes of the cities themselves. In terms of their impact on higher education, these transformations suggest that new modes of thinking about our institutions and their missions are in order.

Metropolitanization of the University

The metropolitan character of American cities has significant implications for higher education and especially for many of the universities that consider themselves urban. Focus on metropolitanism does not require abandonment of an urban mission or de-emphasis of critical urban issues. Instead, metropolitanization allows reconceptualization of the possible causes and solutions for these problems.

Historically, urban universities have had particular concern for issues of minority and nontraditional student access, economic and social development, the need for general and professional education, applied and basic research, and service (remunerated or not) that benefitted the local area. Under the metropolitan rubric, all of these issues are of major importance as the university reconceptualizes its role with regard to its place in the city, state, nation, and international scene. The term "urban university" has generally implied a central city focus with an emphasis on access, job-related professional education, and applied as well as basic research. Yet, the need for educational intervention transcends this limited focus and circumscribed political boundary. Suburban minorities (more than ten million people) require access; poverty in the suburbs is still a travesty; suburban and satellite city blight is as persistent as any in a central city, and employers on the periphery require trained personnel as much as do those who are more centrally located. We may be much better served if we recast these issues as human problems of our urban society rather than the unique problem of a particular political jurisdiction.

The causes and "cures" for many center city ills can be addressed only within the broader context of the entire metropolitan area.

Reconceptualizing the mission of universities as metropolitan speaks to the need for inclusiveness in defining the problems with which we will deal. Far from abandoning the issues defined by an urban focus, metropolitanization recognizes the interdependencies among the various elements of our cities that may ultimately lead to solution of their problems. The concept of metropolitanism brings our academic focus in line with the realities of city structure: we are bound together in networks of social, economic, and political symbiotic relationships. We are not likely to solve the problems of the central city until we adequately define how that city is linked to other portions of its metropolitan area and to other cities, regions, and nations.

The term "metropolitan" is in common use in the literature on cities. It denotes an entire urbanized region that is functionally linked to other urban areas, regions of the country, and international zones. To adequately service a metropolitan population, metropolitan universities must cast their future with an eye to linkages, both national and international. Key decisions that affect the future of the local area are increasingly being made in other cities and often in other countries. To accept the role for metropolitan education requires increased attention to international education and to the examination of broad systemic conditions that may entail a world socioeconomic system that transcends any one nation.

This broader canvas of metropolitanism also establishes the backdrop for reconceptualizing universities' roles in social and economic development. As was noted by Sheila Kaplan, universities are involved in whole community development, not merely economic development. To improve the quality of life, provide cultural activities, give access to education, and provide direct technological and educational support for the entire metropolitan area, not merely a segment of it, is to enhance the economic development potential of the entire area. But more importantly, the notion of metropolitanism focuses the university on full-fledged human development, not merely on the economy. Thus, it logically ties together the long tradition of American higher education as the molder of the human spirit and the mission of the metropolitan university.

Finally, there is a second great tradition of American higher education that is reemphasized by the notion of a metropolitan university. In the early 1900s, the University of Chicago established the importance of the tie between higher education and the city. In his seminal work, Robert Park in 1915 defined the significance of the city as a natural laboratory for the study of human behavior. It is in the city, with its full complement of humanity, that we gain a more complete understanding of human nature and behavior. So, too, the metropolitan university draws its life from the people of the urban system that it serves. A metropolitan university is not merely a university *in* a city, it is *of* the city. Its focus is on the total educational needs of its area and the interlinkages of those needs with the changing and shifting conditions in the world at large.

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Faculty and Scholarship

The Need for Change

The traditional functions of American universities—teaching, research, and service—have become too hierarchical, with research receiving the highest priority. In order to achieve a better balance among these functions, universities of the twenty-first century should consider four strategies: 1) organizing the institution to be more compatible with interdisciplinary research, 2) broadening the definition of scholarship, 3) recognizing that faculty change over time, and 4) revising the method and practice of faculty evaluation. In so doing, faculty are more likely to have greater flexibility in their careers and sustain their vitality for their entire professional lives.

The university is one of the longest surviving institutions of society, and a central reason for this longevity is its capacity for change. Throughout history, universities have experienced the full continuum of change, on occasion showing a willingness to make slight adjustments, while at other times boldly making major changes. Pressures for both kinds of changes have come from inside and outside the academy. As American universities prepare for the turn of another century, it is timely to consider the changes that are needed to ensure their continued value to society.

The Modern American University

In the last half of the nineteenth century, American universities emerged as an amalgam of the English "Oxbridge" tradition, the German research influence, and the American penchant for utilitarianism. As a result, American universities were the first to exist for the threefold purpose of teaching, research, and service. Today, the best American universities have achieved worldwide preeminence, and as a subset of all higher education institutions, they are unrivaled for their quality, diversity, and access.

One of the most important features of American universities is academic specialization, a characteristic that found expression in the creation of disciplinary departments and that has given both form and substance to the university ideal. Academic departments quickly became key organizational units within universities; their development provided a locus for disciplinary scholarship and nurtured in faculty a fierce loyalty and devotion to their disciplines.

Academic specialization has contributed significantly to the success of the academy, and it will continue to in the future. However, there have been negative consequences associated with specialization as well, including placing an inordinate value on traditional research and narrowing the definition of what constitutes research. These problems have tended to diminish the role of teaching and service.

Others who have examined the current status of higher education notice a similar imbalance. In a recent issue of *Educational Record,* Alexander W. Astin makes a useful distinction between an institution's explicit values and its implicit values. Explicit values find expression in university mission statements and institutional charters, almost all of which attach equal weight to teaching, research, and service. Implicit values, on the other hand, are the motives that actually drive institutional policies. Most people in research universities, he writes, subscribe to their institutions' implicit value system, which includes teaching, research, and service, with research receiving the most emphasis by far.

Astin maintains that several problems arise when there is a significant imbalance between an institution's explicit and implicit values. The implications for faculty are obvious. Research is important, but teaching less so. And disciplinary research is far more critical than interdisciplinary or multidisciplinary research. Ironically, the incredible success of the modern American university has led to devaluing teaching, especially undergraduate teaching, and to imposing a limiting definition of research. Both trends must be reversed in the universities of the future.

Reversing the Trends

Although we believe that all universities would benefit from placing a greater emphasis on teaching and by encouraging more interdisciplinary and multidisciplinary scholarship, certain types of institutions are ideally suited for implementing these changes. Land-grant universities and comprehensive urban universities in particular have a special obligation to serve their states, their regions, and the nation through direct programs, research, and other forms of scholarship and by preparing new generations of students to understand, appreciate, and solve today's problems.

The traditional mission of land-grant universities—teaching, research, and service—gives these institutions a mandate for implementing the changes discussed in this article. Many modern metropolitan universities also have a strong identity with their community, as well as a national focus. By reclaiming teaching as a

central activity and expanding the boundaries of scholarship and service, these universities would be acting within the scope of their institutional charters. They would, in effect, be restoring a needed balance to the traditional functions of American universities.

In order to achieve better balance among teaching, research, and service, universities of the twenty-first century must consider a variety of approaches and strategies. We suggest four in particular: organizational change to create greater compatibility with interdisciplinary research, broadening the definition of scholarship, recognizing that faculty careers change over time, and revising the method and practice of faculty evaluation.

Organizational Change

Universities will engage in more interdisciplinary and multidisciplinary research in the future. This assumption rests on the fact that the issues and problems we face as a nation and a world are far more difficult and complex than they have ever been. In addition, the stakes are getting progressively higher. Terms and phenomena such as AIDS, biotechnology, the greenhouse effect, deforestation, and global economics are becoming commonplace. And what they all share in common is a level of complexity that is best understood and addressed through interdisciplinary inquiry.

A good example of interdisciplinary work in the area of medical technology is provided by the magnetic resonance imaging machines now found in most research hospitals. These machines are the direct result of investigations in quantum mechanics and computer science. While these fields developed independently for many years, they finally came together in the 1970s to better serve the needs of medical research.

Universities can do far more to bring disciplines together, and one structural approach designed to accomplish this is the establishment of interdisciplinary centers. While this is not a new idea, it is still one that is not easily realized on many campuses. Campus politics, resistance to change, and other local factors can conspire to make the creation of interdisciplinary centers difficult. Nonetheless, these types of structures will become as important to the universities of the future as disciplinary departments were to institutions in the past.

The University of New Hampshire, for example, established an Institute for the Study of Earth, Oceans, and Space five years ago. It was founded on the basis of scientific study that reveals that the earth functions as a global system—sun, atmosphere, oceans, fresh water, ice cores, and continents all interact to maintain a delicate yet dynamic balance. Faculty research in the institute

reflects the fields of study that will be more prominent in coming decades, fields such as space science, biogeochemistry, glaciology, and paleo-meteorology, to name a few. To work effectively on the problems posed by global change, the knowledge and expertise of faculty from a variety of disciplines are required.

Similar examples can be found at other universities. Centers and institutes in humanities, business, social sciences, and health sciences are becoming more common, and they will continue to grow in number and influence.

A residual benefit of establishing interdisciplinary centers is the visibility that they can give to complex issues. These issues become more real to students, and students are more likely to grasp the importance of developing skills that come from interdisciplinary study, i.e., the integration and synthesis of information. These skills will only increase in importance and will serve students who strive to be active participants in our society.

Academic leaders must do more to encourage and reward interdisciplinary scholarship. They should provide needed incentives and resources and work with faculty to expand opportunities for interdisciplinary effort.

Broadening the Definition of Scholarship

The university is an institution committed to scholarship, including learning and discovering new things, integrating ideas in a different and perhaps novel fashion, and exploring old themes in new ways. The scholar communicates this learning and understanding in a variety of ways—by teaching students in the classroom; writing in journals, books and the popular press; and helping others apply what is known in factories, farms, and forests. Such a broad conception of the work of the scholar is necessary because of the many ways in which scholarship is manifest in universities.

Accordingly, we propose that the modern university adopt a single mission—scholarship. Scholarship is both knowledge acquisition and communication. The one cannot exist without the other. Scholarship can include several diverse forms of knowledge acquisition; in their work in progress, R. Eugene Rice and Ernest Boyer are examining a related framework for ways of knowing:

- Scholarship is understanding. More particularly, scholarship is the understanding of a particular body of knowledge, a basic expectation for all faculty. To be a scholar is to be an expert.
- Scholarship is the search for new knowledge. Traditional academic research focuses on the new idea and represents what most academics consider scholarship. Although this approach has been

highly successful in the modern American university for all disciplines, the exclusive focus on this form of scholarship has led to a degree of trivialization.

- Scholarship is the integration of knowledge. Almost every field and discipline now has a journal devoted to work on the integration of existing knowledge. In addition, one of the most important forms of scholarly communication among peers involves symposia, workshops, and other meetings dedicated to the integration of information on some phenomenon. With the proliferation of new knowledge, this form of scholarship is becoming ever more important.
- Scholarship is both product and performance in the visual, performing, and creative arts. Universities provide an environment to permit creative scholars to write, perform, or paint. Their scholarship is meant to test the intellectual future as surely as the results of laboratory experimentation.
- Scholarship is problem solving. The application of current knowledge to a real-world problem, whether in traditional agriculture, modern business, or technology, is a form of scholarship that enlightens those who use it. As the scholar applies knowledge, new learning often occurs that enhances future applications.

If scholarship is so diverse, what then is teaching? Teaching represents many forms of expressing scholarship and is a necessary part of the activity of the university scholar. The communication of scholarship is central to its existence. If scholarship is not communicated in some form, it has no value. There is no teaching process apart from research, nor from the application of that knowledge. As Robert J. Oppenheimer observed, the role of the scholar is not complete until he or she teaches.

Scholarship is expressed through all forms of teaching, as much as it is through writing. Such teaching may be intended for a fairly limited group of highly focused scholars in a particular area of study; to undergraduate students directly or through an effective textbook; or, even more generally, to a lay public through a magazine article. All these varieties of teaching can be based on very sophisticated scholarship.

Likewise, consulting, which results in the transfer of technology or information, can represent a significant form of intellectual activity based on scholarship. One would not expect modern scholars to transmit old techniques or outdated information, but rather to utilize the most modern understandings of their field, be it organizational culture, control of pests, or the technology of modern materials.

Both teaching and consulting are valid forms of the expression of scholarship. They are each equally valid, and together with

scholarship itself, they represent the range of the intellectual activity of the modern university.

How does this discussion of scholarship help us to understand the problems of the modern university? The problem is that universities have come to focus almost exclusively on published work for peers in fairly narrow fields, as if it were the highest form of scholarship. Indeed, sometimes it appears that this is the only definition of scholarship allowable.

This call, then, is for a different approach to assessment, which may include different individual career patterns. Universities must develop a broader definition of scholarship that can contribute to the quality of institutions, while providing the best scholarship and development opportunities.

Faculty Careers

The faculty form the core of the university enterprise. They are the source of energy and stability in university programs and represent a long-term commitment and institutional investment. It is not uncommon for a faculty member to serve in one of our institutions for three or even four decades, and since in the course of a faculty member's career, many new issues can be expected to arise that cannot be predicted at the beginning of it, we must create an environment for our faculty where flexibility is the norm and where scholarship in new areas is as valued and encouraged as continuing scholarship in old ones.

The traditional model of the academic profession is derived from the most successful national research universities, and the fit with most academic careers at other academic institutions is awkward. Faculty careers are conceptualized as generally linear, following a single specialized research area, wherever it leads. However, we know that faculty members often go through a number of different phases in their careers:

- The enthusiasm of a new faculty member just emerging from graduate school may be tempered through experience, resulting in new perspectives on his or her discipline.
- Priorities for scholarship may change—at one time for teaching graduate seminars and pursuing a single line of research, at other times for more direct public service, exploring new scholarly areas, or teaching more undergraduate courses.
- New discoveries or new perspectives in the discipline may require new scholarship and necessitate changes in service programs and in undergraduate teaching.

To realize the best return on their investment in their faculties by sustaining faculty vitality over the long run, institutions must actively encourage flexibility within academic careers. To achieve the greatest levels of faculty productivity and responsiveness necessary to address the emerging problems of society, it may be necessary to invest university resources in faculty in new ways and to eliminate or alter some university practices that tend to inhibit flexibility in faculty careers.

Faculty learning styles. David A. Kolb has developed a scheme for describing the learning styles of different people, which may help us to understand the changes which occur in faculty careers. Learning style preferences develop as a result of experience, and people in widely different disciplines typically exhibit different preferred modes of thinking and learning. For example, many engineers are individuals who prefer to deal with abstract concepts and apply them to real world problems. On the other hand, people in humanities disciplines often prefer learning opportunities that permit them to reflect and form conclusions based upon individual concrete experiences. According to Kolb, it is a normal part of human development for learning style preferences to change as people mature and for individuals to want to seek different types of intellectual challenges.

A period of specialization emphasizing a particular learning style typically extends through formal education and into the early years of a professional career. Specialization is succeeded in midcareer by a stage of integration in which the individual begins to undertake activities that use ways of knowing other than those characteristic of his or her early professional life. Because faculty come to seek integration and undergo changes in preferred learning styles over time, anticipating that these changes will occur may make it possible to more effectively maintain faculty vitality over an entire career.

Faculty career stages. Certain types of dilemmas are characteristic, even if not universal, of faculty members at various career stages. The following characterizations may apply to faculty at various career stages at the land-grant and comprehensive metropolitan universities:

- All faculty probably struggle with defining what it means to be professional at their institutions. Because the professional model taken from the national research universities is not completely satisfactory, lacking as it does a broader conceptualization of scholarship that includes teaching and service—tensions between the expectations of the university and of the profession commonly arise.

- New untenured faculty may in some ways experience the greatest professional tension between disciplinary and university expectations. Since they are at the pinnacle of their formal professional training, they may also be the most specialized of all the university faculty in terms of preferred learning style. Although very good at their disciplinary specialty, their degree of specialization may make it relatively difficult for them to teach beginning undergraduates, and they may not understand or value the service commitments of the university.
- Midcareer faculty who seek integration in their professional activities may experience serious institutional resistance. When the opportunity to explore a new line of scholarship is desired for the second sabbatical, for example, departmental colleagues and university standards may require that the individual continue to pursue a line of research that is the same as, or very closely related to, what has been done in the past.
- Senior faculty, if they have not been previously encouraged to seek new sources of intellectual stimulation, may simply withdraw from earlier professional disciplinary activities without engaging new ones.

There is an alternate professional model or viewpoint for faculty members that is probably more appropriate for those who work at land-grant and comprehensive metropolitan universities. It takes into account the many sources of vitality and satisfaction experienced by successful faculty members at these institutions. It acknowledges that academic careers may be linear, as in traditional research universities, but it also explicitly recognizes that careers may be much more diversified and that faculty members may express their scholarly proclivities in a variety of worthwhile ways. From an administrative viewpoint, the important question is how to encourage the desired diversity of expressions of scholarship while at the same time maintaining high standards of quality in all areas.

Faculty Assessment and Career Growth

If we are going to encourage faculty to grow intellectually in a variety of directions, we need to look critically at the way faculty are evaluated. Current evaluation procedures are almost exclusively the prerogative of the department and discipline and often are biased by undervaluing information about anything but the quantity and quality of scholarly publication in the discipline. If we are to view scholarship as the core of the university enterprise and if we are to maintain high standards for that scholarship in all of its manifestations, we need to develop evaluation procedures to mirror our expectations. Suggested changes in evaluation procedures are outlined for consideration.

First, we need to adopt a flexible set of criteria against which to evaluate faculty members. Although it may be completely appropriate for some faculty at certain points in their careers to be evaluated against the most rigorous publication standards of their own discipline, at other times it may not be. Faculty who seek to emphasize teaching or service should also be evaluated stringently, but against other appropriate evaluation criteria.

Second, to avoid chaos and encourage planning, individual faculty decisions to move in a particular direction or to emphasize one aspect of scholarship rather than another need to be negotiated and agreed upon in advance with the department and the institution. Individual growth contracts, approved at the departmental and institutional level, have been successful at a few institutions in creating an atmosphere for diversification and deserve to be used more. For some faculty, an agreement to use an interdisciplinary evaluation process may be appropriate. Periodic individual evaluations that have a developmental rather than simply summative objective are appropriate and can be helpful for tenured as well as untenured faculty.

Third, we need to seek institutional ways to make excellence in all aspects of scholarship visible to the university and to the larger public community. For example, annual awards might be given by each college of the university to honor faculty who exemplify excellence in the scholarly areas of research, teaching, and service. Special awards could also be given for significant interdisciplinary work. An annual series of invited public events might also effectively highlight faculty who exemplify the new spirit and mission of the university.

Fourth, presidents, provosts, and deans should take frequent opportunities to articulate and affirm the underlying scholarly mission of the university in all of its manifestations. Tangible evidence of their commitment to this vision of the metropolitan university could take the form of supporting professional development centers for faculty. These centers would serve to encourage excellent teaching and research, as well as various entrepreneurial and service activities. Establishment of various centers for interdisciplinary and applied scholarship would serve to demonstrate the universities' priorities in these areas.

Implicit in the preceding paragraphs is the view that faculty need to be seen as individuals, and treated accordingly. As we move away from the national research university standard for evaluating all faculty at the land-grant and comprehensive metropolitan universities, so ought we also move away from the unrealistic 'super-faculty' model, which asserts that all faculty should always

be excellent in, and by implication be able to devote unlimited time to, research, service, and teaching.

Not all techniques for promoting sustained faculty vitality and career growth will be effective for all faculty. Insofar as assessment is concerned, the evaluation process ought to be seen as the process of constructing an individual evaluation template for each faculty member and measuring his or her accomplishments against it. While some techniques for assisting faculty might be most appropriate for certain groups, such as mentoring for junior faculty or curricular and teaching workshops for midcareer and senior professors, it is important not to stereotype even these groups.

We need to develop and keep a long-term perspective on the professional lives of our faculty members. While affirming that scholarship is the glue that holds the university together, we need to encourage faculty members to diversify and grow intellectually in their own ways, share their experiences with one another, and recognize that everyone experiences changes in intellectual interests and motivation over time. To enhance all of the scholarly functions of the university and to respond effectively to the challenges that the twenty-first century will surely bring, we must find institutional ways to permit faculty more flexibility in their careers, to assist in sustaining their professional vitality, and to ensure that they are not locked into the same narrow pattern of scholarship for their entire professional lives.

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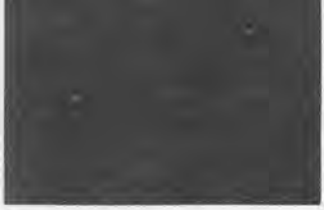

Patricia R. Plante

Form and Texture of a Professional Life

Since the end of World War II, universities and their faculties have changed in noteworthy ways. Some deplore the present and take pleasure in romantic backward glances. However, nostalgia for the snows of yesteryear will not move higher education forward. The two-part question worth asking now that the changes have taken place is: What should a contemporary metropolitan university expect of its faculty? What should a contemporary faculty expect of its metropolitan university? In creating the form and texture of professional lives, both faculty and administrators should elude three traps designed specifically to ensnare academic climbers and/or those prone to seek in apathy refuge from the hierarchical intellectual world. One, serious scholarship is the exclusive province of research university faculty. Two, the nature of scholarship pursued by faculty in metropolitan universities is less worthy than that pursued by faculty in research universities. And three, metropolitan university faculty should structure and teach courses of study that are of immediate economic usefulness—even to the neglect of those that are of long-term intellectual importance.

Something in all of us thrills to the drama of the death knell. Students continue to feel as if they were engaging in a subversive act by discussing Nietzsche's death of God; professors continue to feel as if they were flirting with the avant-garde by lecturing on Roland Barthes' death of the novel, and administrators, politicians, and pundits of varied hues now cultivate an apocalyptic tone when speaking of the death of the traditional professoriat as proclaimed, for example, by a Charles Sykes in *Profscam: Professors and the Demise of Higher Education.*

However, what inspires many to keep talking and writing long after the impact of the notion of finality should have faded is that "death" in these cases is followed by a transmigration of souls; "death" does not really end the story for God, the novel, or the professor. God is spotted working through Mother Teresa; critics await the fiction of Saul Bellow, and ever more students of all ages attend classes taught by faculty in over three thousand institutions of higher learning across the country. In the case of the professor, at least, "death" in this context is a synonym for change.

Change as a threatening element in our lives has become a staple of pop psychology, and acceptance of change, a virtue widely prescribed as the medicine of choice for emotional malaise. However, the gradual transformation of the professor from shepherd of souls and dedicated, though severe, pater familias to sophisticated intellectual and worldly individualist has precipitated a rock slide of criticism of far greater magnitude than that occasioned by a common ho-hum fear of change. Upon occasion, legislators, alumni, administrators, journalists, each bear witness to the transformation in such impassioned rhetoric that one

would think the bounds of nature themselves had been violated. It is as if they had watched their favorite espalier walk away from the wall to which it had been carefully tied and begin to freely wave its branches in the breeze. The metaphor is apt, for faculty in all American colleges and universities now know their worth and have indeed declared their own forms.

In part, the outsized anger that follows this declaration of independence has two sources. One, the change is both recent and truly profound. Older alumni still speak of professors as secular monks whose central pleasures were limited to the successes, even modest, of their students; older administrators still describe a past where these same secular monks bowed before the authority of abbot-presidents; older legislators and trustees still remember dedicated faculty with a monk-like disdain for worldly goods. And anyone of a certain age can recall the self-image burnished, perhaps in self-defense, by the professors themselves: the impracticality, the absent mindedness, the aloofness from political and larger community concerns, the chilly reviews of all things American as opposed to European, the slightly anarchical choices in matters of dress, automobiles, and home furnishings.

Unquestionably, most if not all contemporary faculty members are leagues away from their older, monkish selves and have the past three decades polished to a brilliant sheen a more professional, more sophisticated image. Their lives are no longer circumscribed by campus walls; their ambitions soar above that of spurring others to great heights; their acceptance of authority is very nearly limited to that of persuasion, and, to paraphrase the poet Richard Wilbur, their loves, both spiritual and worldly, call them joyfully to the things of this world. They are no more impractical or absent minded than bankers or physicians or lawyers, and they are detached only in the special way associated with protecting their teaching and their research from influences that might taint one or the other or both. That they can tell the difference between fair remuneration and abusive remuneration and that they can appreciate the difference between a Hyundai and a Honda has caused serious distress to those who believe strongly in the beauty of monastic living—for others.

The second source of anger derives, quite touchingly, from the sentimental attachment of so many to the romanticized image of their former selves striding across one quad or another toward Lecture Hall 207 where Professor X or Y, in baggy tweeds and rumpled hair, and floating above everything but the text in hand to which he was obsessively attached, inspired them to read Keats or Spinoza for the first time. Even Americans who have no such

memory to decorate have imagined the scene as it might be played with their children seated in the front of the class. As cynical a middle-aged narrator as the one encountered in John Barth's *The Floating Opera,* who claims never to expect very much from himself or from his fellow animals, has this to say about his former professors at the Hopkins:

> It was the men, the professors, the fine, independent minds of Johns Hopkins—the maturity, the absence of restrictions, the very air of Homewood, that nourished the strong seeds of reason in our ruined bodies; the disinterested wisdom that refused even to see our ridiculous persons in the lecture halls; that talked, as it were, to itself, and seemed scarcely to care when some of us began to listen, to listen intently, fiercely, passionately. (New York: Avon Books, 1956, pp.137–38)

Such nostalgic revisitings are what daydreams are made of, and few can shake a daydreamer's shoulder with impunity. However, "Where are the snows of yesteryear?" is not the question that will move a contemporary metropolitan university forward or create and support a professional faculty willing and equipped to do so. Furthermore, it may be worth noting that while the professoriat in such universities, indeed in all universities, has changed significantly since, say, the end of World War II, so have the colleges and universities in which they work, the students whom they teach, the administrators with whom they plan, the communities in which they live, and the publishers for whom they write. That being the case, and focusing in this instance on metropolitan universities, the two-part question that might justifiably interrupt all daydreams of the way we were is the following: What should a contemporary metropolitan university expect of its faculty? What should a contemporary faculty expect of its metropolitan university?

Senior administrators, members of search committees, and members of tenure committees in metropolitan universities should seek and retain faculty who are passionately committed to learning and to teaching. Faculty who apply for initial appointments and who present themselves for tenured positions should seek metropolitan universities that are passionately committed to creating and maintaining conditions that encourage and support learning and teaching of the highest order. While many might be tempted to dismiss these statements as the traditional genuflecting before the altar of higher education, all experienced academicians know that in some instances both faculty and institutions have allowed routine to veil their distinguished mission. In such cases a dutiful calendrical repetition has replaced passion, and those in question cease to see

very clearly or to care very deeply about discovering the new, preserving the old, and sharing both.

One of the threats in the professional life of a faculty member is identical to one of the threats in life itself, namely, everydayness. Scholarship and teaching demand intellectual intensity, and they demand it year after year after year. They demand it in sickness and in health, before students and colleagues who are responsive and nonresponsive, when worries besiege the mind with distractions, in times of success and in times of failure. While all faculty are energized by a deep interest in a particular discipline, a neophyte scholar/teacher is further sustained by novelty and the natural exuberance of youth. However, as one academic term follows another, both novelty and youth go the way of all novelty and youth, and the faculty member is left occupying a very large house with interest alone. It is at that moment, whenever it is reached, that intellectual intensity holds and gains strength or dissolves and begins to be replaced by mechanical responses.

Colleges and universities are amazingly resilient institutions that can for years survive mechanical faculty, for good machines do have a number of characteristics that are valuable, even if efficiency is not the queen of virtues. Here is one of Max Frisch's fictional characters praising the qualities of the robot as described in *Homo Faber*:

> Above all, however, the machine has no feelings, it feels no fear and no hope, which only disturb, it has no wishes with regard to the result, it operates according to the pure logic of probability. For this reason I assert that the robot perceives more accurately than man, it knows more about the future, for it calculates it, it neither speculates nor dreams, but is controlled by its own findings (the feedback) and cannot make mistakes; the robot has no need of intuition. . . . (New York: Harvest/ Harcourt Brace Jovanovich, 1959, p. 76).

However, any university peopled by robots will discover over time that while faculty meet their classes and students attend them, its spirit has died. Orientation programs point nowhere; commencements begin nothing. It will discover that while it feels no fear, it feels no hope, and that while dreams are no substitute for logic, logic is no substitute for dreams. The faculty of a metropolitan university, perhaps more than any other faculty, must guard against the diminution of intellectual intensity in and out of the classroom, for it is to their public urban institutions that turn in great numbers the poor, the minorities, the disenfranchised, the newly arrived immi-

grants—all those who truly need to be pulled back from leading lives of quiet desperation.

Central, therefore, to the challenges of a metropolitan university is the wisdom of attracting and selecting faculty who, throughout their professional careers, can give a novel, a theory, a rendition, a performance, a solution "more life than life has"—to use Toni Morrison's fine phrase. Central to the challenges of a metropolitan university faculty is the stamina to sustain an intellectual vigor that refuses to be ravaged not only by time, but, upon occasion, by political chicanery, by administrative indifference, and by student apathy. A monkish Mr. Chipps, however nostalgically endearing, will not do. The times and the broad mission of a metropolitan university, with its rainbow curricula, heterogeneous population, and demanding complex communities, call for faculty who are both worldly and idealistic, who are both sophisticated and caring, who are both aware of their own worth and the worth of their students.

When the concept of research is broadened . . . hierarchical notions are let loose upon the land.

It follows, therefore, that a metropolitan university faculty and the administrators who support them will neither patronize their students nor accept with equanimity someone patronizing them. Effective resistance to patronizing in either case depends in part on an understanding of the hierarchical nature of the academy.

A few years back, the avant-garde composer Philip Glass had his opera, *Einstein at the Beach,* produced at the New York Metropolitan Opera House at Lincoln Center. Overheard in the lobby during intermission, as reported by the *New Yorker,* were the remarks of one bejewelled matron to another who had just expressed approval of the first act: "But, surely, darling, you saw the premiere performance in Avignon last summer."

Academics, for a set of complex sociological reasons, now work in that kind of Metropolitan lobby world, a world as intellectually hierarchical as a British club is socially hierarchical, a world wherein the technique of staying ahead of others—however one defines "ahead"—has become a source of both jubilation and anxiety. It may be grand to have seen the New York production, but it is grander still to have seen it earlier in Avignon.

Edward Shils, professor of sociology and social thought at the University of Chicago, in a perceptive, fifty-year backward glance at the university world, tells us that this passion for distinguishing an academic aristocracy from a haute bourgeoisie from a petite bourgeoisie is a fairly recent phenomenon. One that, quite ironically, has grown in the same household as the passion against what

is perceived to be elitism. In recalling his student days at the University of Pennsylvania, he writes: "We never thought about Harvard or Columbia or Princeton. Nor did we feel inferior to them. . . . Each university was sui generis" (*The American Scholar*, Spring, 1982, pp.164–65). And in referring to his early days as an instructor at the University of Chicago, which was somewhat more self-conscious than others about its place in the sun, he nevertheless points out that: "There was a vague sense of the hierarchy of universities, but it was not acutely felt. A person who had a doctorate from Chicago did not think that he was exiled from the Elysian Fields if he took a post at Vanderbilt or Utah. The hypersensitivity to rank, which is characteristic of the 'anti-elitist' decades in which we are now living, had not yet appeared." (Ibid)

Neither ignorance nor denial of the academic culture's class conscious mind-set will do. In defining and ordering the form and texture of their professional lives, metropolitan university faculty—and the institutions to which they are committed—must, therefore, dismantle at least three traps designed specifically to ensnare academic climbers and/or those prone to seek in apathy refuge from hierarchical systems.

1. Serious scholarship is the exclusive province of research university faculty. The desertion of scholarship or the limitation of it to the preparation of classes should be a matter of grave concern to all those who care about the long-term growth of metropolitan universities. To care so little about the advancement of one's discipline as to abandon it to the sole care of others is to come dangerously close to leading an intellectually parasitic life and most certainly to arousing doubts as to the size of the flame carried into classrooms. All faculty who submitted to the rigors of a doctoral program were at one time presumably alive with the wonders of their field. To become so disengaged from that field as to cease to contribute to it is to give evidence of a detachment that may at worst point to anomie and at best to a serious diminution of interest. For scholarship, broadly defined to include not only frontier research, but synthesizing of discoveries and explication of texts, not only sustains the intellectual vigor of the scholar him/herself, but makes possible as nothing else can a sense of solidarity and common cause with colleagues everywhere. A scholar who masters and then synthesizes, explicates, collates, traces, and applies frontier research is a scholar who collaborates with the most creative, the most imaginative, and the most perceptive world-class researchers. Such collaboration is of immense worth, for many balls would be lost in the sun were it not for the trained eye of a commentator who directs our gaze to their trajectories.

Furthermore, in most if not all cases this sense of being au courant, of being poised to receive what might happen next generates an intellectual excitement in classrooms that many students identify as inspirational and influential. For in such classrooms students not only master the subject at hand but appropriate an understanding of what gifts the spurring of intellectual curiosity can bring to man/woman's eternal search for a life with meaning.

Anyone of a certain age can point to an individual who boasts defensively of never having written a line "because he/she came here to teach." And, in fact, a very few of the "quick" *seem* to have remained both knowledgeable and spirited. However, exceptions in this instance, as in so many others, prove the rule and do not contradict it: one who remains passionately interested in a discipline contributes to it. And metropolitan universities will succeed as centers of learning for everyone to the extent that their faculty remain passionately interested and intellectually committed.

Metropolitan university faculty are called upon to direct this interest and this commitment toward meeting external as well as internal needs. Hence, metropolitan university faculty roam far beyond any single campus and develop concerns that include but also extend far beyond the strictly local ones. While such a faculty care deeply about the welfare and growth in quality of their own institution, they care equally deeply about state and national and international environmental conditions that either advance or hamper the advancement of knowledge everywhere and that either ease or curtail the dissemination of information and insights. They eschew the intellectually restrictive and provincial, for their students come from varied cultures carrying gifts of assorted premises. They greet change and discovery with confidence because they have cultivated a robust life of the mind that welcomes unexpected perspectives, and their students fill the classrooms with multicolored views.

2. The nature of scholarship pursued by faculty in metropolitan universities is less worthy than that pursued by faculty in research universities. The fundamental importance of "pure" research, that which extends the frontiers of a discipline, is not seriously disputed by the knowledgeable anywhere, and faculty at metropolitan universities as well as faculty at research universities engage in it with beneficial results to us all. However, when the concept of research is broadened to include the application of new knowledge, the synthesizing of new information, and the creative interpretation of texts, hierarchical notions are let loose upon the land.

This phenomenon might well be dismissed as yet another amusing characteristic of the academic culture if it were not for two damaging consequences. One, many metropolitan university faculty, whose talent and temperament favor a broad definition of scholarship, feel compelled by word and deed and manner to apologize and to seek forgiveness, at times on their own campuses and nearly always in the world of academe beyond, for engaging in activities that can make a significant difference in the biography of an idea or an institution or a community. And this felt need to explain to themselves and others over and over again why they decided to assault Everest by its northern as opposed to its southern route can affect adversely the progress of their climb by diverting energies that should remain well concentrated. Two, these tell-tale signs of insecurity given by the practitioners themselves can, ironically, strengthen the opinion of those who dismiss anything short of "pure" research as inappropriate for those capable of producing vintage works. In turn, that reaffirmation of academe's great chain of being weakens the resolve of faculty whose gifts would allow them to make worthwhile contributions to a field of study, but whose interest can only be sustained by the approbation and collaboration of colleagues. Such faculty are frequently those marked for defeat by time.

Many metropolitan universities are slightly anarchical places.

Metropolitan university faculty and administrators are perhaps the only professionals in higher education in a position to bestow intellectual prestige and significant rewards upon scholarship that is not so narrowly defined as to exclude everything but the addition of truly new knowledge. For the mission and identity of research universities are all too well defined and too well established to don characteristics that might render them unrecognizable, and those of colleges of liberal arts and community colleges place such institutions hors de combat. What is sorely needed is the conviction that solutions to regional community problems; insights into the formulations of public policies; contributions to the artistic life of the city that the university calls home; directions for the reform of public school curricula; gathering and dissemination of important data regarding the challenges of health care, waste disposal, and environmental pollution are, along with innumerable other areas of concern and importance, worthy of the intellectual attention of a faculty well trained to share its considerable expertise. What is additionally needed is the confidence to proclaim the conviction.

A metropolitan university campus that reaches consensus on a

definition of extended scholarship/research and that finds the means to reward its faculty for engaging in it must attend to other important related matters. It must, for example, stop counting and start reading. The number of papers published and the number of papers delivered at professional conferences are not where the mind's eye should rest. The quality of those works should be the focus of attention and evaluation. Search committees and tenure and promotion committees should examine a colleague's scholarship with care and judge it with courage. Is the book or the article or the government report alive? Imaginative? Does it point to future promise? Or is the book or the article or the report humdrum? Pedestrian? Does it give evidence of being the product of one merely fulfilling a duty?

As a way of underscoring the sincerity of its convictions in favoring quality over quantity, a metropolitan university might consider establishing the following policy. "For the purpose of evaluating colleagues, no search or review committee or senior administrator will examine more than four works by assistant professors, more than six works by associate professors, and more than eight works by professors. The works submitted for appraisal will be of the candidates' choosing and will be accompanied by a short essay describing the significance and purpose of each submission." The very act of choosing and defending would in itself reveal certain qualities of mind and point to certain characteristics of imagination.

Deans, academic vice-presidents, and presidents of metropolitan universities, who play a large role in determining and applying any reward system also owe it to their faculty to read their publications, attend their concerts and theater productions, view their exhibits, and promote their expertise. While certain twigs off the branches of technical and highly specialized studies may be beyond the reach of many administrators, it does not follow that a broadly educated dean or president whose own field is, say anthropology, cannot come to some broad judgments regarding the worth of a book describing weaknesses in public policies regarding health care for the poor, or one tracing the influence of African art on the paintings and sculptures of Picasso. At the very least, an educated administrator knows whether the book is gracefully or awkwardly written, whether it reveals an interesting and witty voice or a dull and tedious one, whether it carries a reader to conclusions persuasively or weakly. To deny this knowledge is to fall into unbecoming timidity if not inappropriate humility.

A metropolitan university must also give time and solitude their due. Faculty will begin to trust those who have converted from

counting to reading, not only when the quality of their scholarship begins to be discussed seriously, but when certain other additional conditions obtain. Two of these relate to the respect a metropolitan university accords time and solitude. It will, for example, discourage abreviated probationary periods before a faculty member comes up for tenure, not only because it wants time for careful evaluation, but because it wants to afford the faculty member in question time for careful scholarship and time for visions and revisions of creative projects. It will, as another example, review works in progress and take these as seriously as works that have reached completion, whether yet published, performed, exhibited, or presented. For what the metropolitan university wants above all else is for its faculty to remain interested in and committed to their disciplines and to the knowledge and insights they can bring to students and colleagues everywhere. So the first question asked in evaluations is not "What is the date on the last publication or performance?" The first question asked is "What is the quality of the scholarship now being pursued and how steady is the chase?"

A contemporary metropolitan faculty's need for time is perhaps exceeded only by its need for solitude. Montaigne's advice was to prepare a little back shop all our own wherein we might establish solitude. The counsel is wise, for journeys to the land of intellectual insights are essentially solitary adventures; group tours rarely produce prize slides or diaries. Indeed, the biographical account of all lasting contributions to any discipline points to a scholar's ability to retreat deep within him/herself and to return bearing the individual voice, the individual view. The unconvinced might attempt to imagine *Waiting for Godot* written as a group exercise or Mendelssohn's "Quartet in F minor" composed by a class in chamber music.

Many metropolitan universities are hurly-burly, crowded, noisy, slightly anarchical places where the newly arrived faculty often speak of feeling overwhelmed and where the older faculty often indulge in a remembrance of things past when campus life seemed becomingly leisurely and spacious. The isolating walls, both real and imaginary, have come down: business entrepreneurs walk the halls of Old Main, engineers from local high-technology firms inspect the laboratories, state development officers search the offices for consultants, superintendents of schools and directors of hospitals establish cooperative ventures with schools of education and nursing, and students of all ages, backgrounds, and levels of talent rightfully expect guidance and nurturing. And however vibrant academe in a metropolitan setting has become, all faculty, by temperament and vocation inclined to favor meditation and contem-

plation, give signs that this splendid world is occasionally too much with them.

Hence, metropolitan university administrators who understand and respect the intense and demanding nature of the work of faculty will take seriously their need for solitude and will whenever and wherever possible seek ways and means of nourishing it. For example, it will provide single, well-appointed offices; it will assign teaching schedules that allow blocks of time devoted to study; it will support generous sabbatical leaves; it will call only meetings and assemblies that have an important purpose and are well prepared; it will encourage faculty to share their expertise with the larger community and to do so generously, but never at the cost of excluding from their professional life a solitude that is essential to its continued vitality. For a faculty that spends all of their time repeating what they already know, will eventually know little.

3. Metropolitan university faculty should structure and teach courses that are of immediate economic usefulness—even to the neglect of those that are of long-term intellectual importance. A faculty, much in the manner of all professionals, can succeed in preserving their elan vital and then direct it toward unworthy ends. A danger as grave as the two cited above lurks on metropolitan university campuses. And since this danger is infrequently, if ever, recognized by even the severest critics of the professoriat and but occasionally acknowledged by many universities themselves, faculty and administrators alike may not be shielding campuses against its potentially hurricane-wind force. This danger lurks behind euphemisms that would have faculty who teach all but the top-tier pupils believe that equal access is to be equated with equal opportunity—that curricula designed to meet immediate economic needs are as valuable as those designed to meet the long-term needs of both the students themselves and the nation they will inherit.

In short, this third trap forgoes a belief in knowledge as spiritual power for everyone and substitutes a creed that justifies establishing curricula especially structured for the poor and the unaware. In the 1990s, one of the major responsibilities of metropolitan university faculty everywhere will be to protect themselves and their students from being pulled into that trap. For those who live by economics will perish by economics.

Faculty who have remained enthusiastic and dedicated, faculty who have looked a hierarchical culture in the eye and not blinked, faculty who now spend long hours structuring courses of study in metropolitan universities must not have taken apart traps one and two only to fall into the maw of trap three. They must guard against

being lulled by the cliche du jour into concluding that all obligations have been met when a curriculum prepares the poor and the newly arrived immigrants, the intellectually naive, and all those yearning for rebeginnings to enter the economic mainstream and to help the nation's economy remain competitive.

Let no one misinterpret this cri de coeur as sounding a retreat to days when aristocrats let their fingernails grow to prove that they never engaged in manual labor. Of course, universities must prepare and prepare well agronomists and chemists and nurses and accountants. Of course, universities must place these disciplines within their historical contexts, examine their contemporary ethical dilemmas, and charge them with fervor for quality and values. Educating students for the practice of law, the marketing of software, the building of bridges, and the designing of urban centers is both appropriate and worthy of the mission of any university. The conviction that strobe lights this third trap, however, is as simple as it may be controversial: a zest for work *succeeds* a zest for life. And a better means of achieving a zest for life than long intense treks with linguists and philosophers and artists through the forests, meadows, and caverns of the human spirit—one has yet to invent.

A valuable curriculum allows all students to share the joys of creativity and perspective.

Hence, a valuable curriculum allows all students to share the exclusively human joys that derive not only from analysis but from creativity and perspective. Why should the moments of heightened consciousness occasioned by truly seeing (because someone taught you to see) the windows of Sainte Chapelle be the exclusive domain of those who attend liberal arts colleges or enroll in the better research universities? Why should the turn of a phrase, the structure of an argument, the allusions to the past, or the music of a poem make only those of a privileged background feel intensely alive? Metropolitan university faculty must find ways to empower their students to discover satisfying patterns not only at the end of syllogisms, but also at the end of rainbows.

In all discussions centering on matters as complex as the form and texture of the professional life of a metropolitan university faculty, there are, of course, no formulas. There can, however, be principles. Three that seem worthy of deliberation are: (1) long-term vitality in teaching is inextricably linked to long-term vitality in scholarship; (2) scholarship broadly defined so as to include synthesis and dissemination of the new and explication of both the old and the new is of serious import and worthy of support and reward; and (3) teaching for short-term economic returns should

neither displace nor outrank teaching for long-term intellectual growth.

According to Fowlie, the French philologist, Ernest Renan, believed that "good and evil, pleasure and pain, the beautiful and the ugly, reason and madness, have as many indiscernible shadings as those we see on the neck of a dove." (Fowlie, p. 254) Metropolitan university faculty across the nation are happily dedicated to an examination and explication of these innumerable shadings, and the conviction that this probing and interpreting will lead to further examinations and explications is the very source of both their joy and their devotion. No work can boast of a more elegant colophon.

Suggested Readings

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The Metropolitan Students

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.

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

Metropolitan universities must educate a much less traditional and vastly more diverse student population.

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 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.

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

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

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.

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William V. Muse

A Catalyst for Economic Development

With their concentrations of scientific talent and other resources, metropolitan universities can be significant catalysts for economic development in their communities. In order for metropolitan universities to make an impact, however, they must be very selective, building upon traditional or emerging program strengths that are consistent with the character and needs of the local or regional economy. This article describes strategies, ranging from internal policy making to creating forums for industry-university ties, for preparing a metropolitan university for this role.

Last June, Robert Winer, president of the Akron Polymer Container Corporation, unveiled the Akro, a non-aerosol container he believes could replace the ordinary spray can. He is now negotiating international licensing agreements, locating production facilities, and contemplating marketing applications, and feels that he is on the road to launching a successful new product.

While the Akro appears to promise prosperity for Winer, it also is an example of the tangible results that can be forged through university partnerships with the public and private sector. Two years ago, as a former marketing executive, Winer brought his idea to polymer engineers at The University of Akron. Supported by a $220,000 industrial development loan through Ohio's Thomas Edison Program, university researchers and Winer teamed together to develop the unique concept of using rubber as a propellant, instead of environmentally harmful gases such as chlorofluorocarbons. Industry observers predict that such a product, if it is produced and marketed successfully, could provide an ecologically sound, lower cost alternative to the aerosol can.

Stories like the development of Akro are becoming more common today as colleges and universities assume a greater role in the economic development of their communities. In this role, the university acts as a catalyst, using its research capabilities to help translate lab discoveries into commercial reality.

While cooperation between industry and higher education is not new, the idea of higher education as an instrument of economic development is of relatively recent vintage. Until recently, higher education's in-

volvement took an indirect route, following the longstanding notion that education in and of itself will produce a better society. That implicitly is a very slow process.

Now instead of merely counting on instruction to spark economic development and seeing research primarily as a creative exploration, faculty are being asked to see their work as a means to a new end—that of bringing a new knowledge and technology to fruition. Obviously, that is a fundamental change in the way higher education operates.

Whether it is fair or not, universities have long been characterized as ivory towers, existing as insulated and isolated enclaves, sheltered from the harsh 'real world.' In too many cases, that characterization has been accurate.

Selectivity a Key

Having the tools and the motives, however, is not enough. Each university must carefully choose areas in which it can make an impact. It must be very selective, building upon traditional or emerging program strengths that are consistent with the character and needs of the local or regional economy. In the farm belt, a university might select priorities related to agriculture, as indeed has been done by the agricultural units of our land-grant universities since 1887, when the Hatch Act established experiment stations. In highly industrialized areas, a university might emphasize fields related to certain key industries or commercial operations. In coastal areas, priorities might be geared toward serving the needs of fisheries or other marine resources.

In theory, it sounds simple enough. However, in accepting a role in economic development, the university must also be prepared to cope with internal change and to meet an entirely new set of expectations that come with the territory.

While corporations have embraced strategic planning for years, it can be a difficult, even painful process for universities. One of the central and cherished ideals of higher education is that of a democracy, treating all colleagues and programs as equals. When universities plan strategically, some programs receive priorities. Others—not accorded the same attention and support—are likely to be viewed by faculty as having been de-emphasized. That goes against the grain of many faculty, spawning internal dissension and the lack of a cohesive commitment to the university's role in economic development.

Dissension can be reduced, however, by ensuring broad-based participation in the setting of priorities. Planning should involve faculty and administrators from throughout the university.

Generally, people are more likely to accept priorities if they participate in decision making and understand the rationale for final conclusions. Some resentment will occur, but the key is to keep it from being counterproductive.

To gain widespread involvement in economic development activities at the University of Akron, a strategic planning and review committee, known as SPARC, was formed to direct long-range planning efforts. SPARC is chaired by the president to ensure involvement and guidance from the chief executive officer and includes all vice-presidents. The committee's membership also includes representatives from the deans, faculty, students and staff.

In its first year, SPARC met biweekly for about nine months before issuing a revised statement of the university's mission and goals, a set of major institutional objectives, and parameters for the long-range plan. With the aid of an academic planning and priorities committee appointed by the University of Akron's University Council, 13 academic programs out of a total 240 at the university were targeted for special enhancement. Further, each operating unit was required to develop a five-year plan within the overall framework and priorities.

One academic area selected for priority enhancement was polymer science and engineering. Much of the remainder of this paper will describe the university's efforts in pursuing this goal.

Coping with great expectations. Externally, expectations also change as a university becomes involved in economic development efforts. By taking a leadership position, the university becomes increasingly accountable to the public and private sector who invest in the research and want to see a return on their investment.

The problem is not being able to produce results as much as it is producing results within a realistic time frame. When politicians invest in university research centers, they look for short-term results to pacify their constituents. That means the university is expected to deliver in as little as two to four years. Frankly, those expectations are simply unrealistic. The process of research, development, testing, and licensing is apt to take much longer. Imposing an expectation of quick returns is analogous to asking a marathoner to change events and compete as a sprinter. As well trained as the marathoner is, he simply is out of his element in a dash. Likewise, if the university is to play an integral part in economic development, it must also be allowed to do so within a reasonable time frame. A quick fix is not an event in which universities excel.

But at the same time, universities that receive funding from the public sector must accept, understand, and effectively deal with the

context in which decisions are made in the political arena. Since political leaders who have supported spending on research and development need 'ammunition' to justify major investments of public funds and to strengthen their efforts for reelection, universities must be willing to provide progress reports for projects that are still in early stages of development. These reports must not promise more than can or will be delivered, and they should be stated in terms that politicians and the general public can understand.

Polymers: chains that bind. The University of Akron has employed a strategy of capitalizing on its comparative advantage in polymer research, building upon the city's long-time standing as the Rubber City. With the entrepreneurial efforts of Harvey Firestone, Frank Seiberling, and Benjamin Franklin Goodrich, among others, Akron established itself as the rubber and tire manufacturing capital of the world at the turn of the century.

Naturally, as the rubber industry paced Akron's economy, the university responded to meet the city's educational needs. The University of Akron offered the first course in rubber chemistry in the country by 1909, and its scientists performed much of the pioneering research in the field, particularly in the development of synthetic rubber.

Subsequently, the University of Akron formed the Office of Rubber Research in the mid-40s, and a decade later, the Institute of Rubber Research. Both served as mechanisms for advancing research in the field. Even after the rubber industry matured and moved its production facilities to other parts of the country and world, eventually shutting down its last tire production line in Akron three years ago, the impetus for a continuing relationship between the university and the business community remained. And when things were at their bleakest in northeast Ohio, the community looked squarely to its local university to engineer a recovery.

The University of Akron has been able to contribute to that recovery for a number of reasons. When the community suffered from an overreliance on the rubber and tire industry, the university saw the writing on the wall. Consequently, the institution diversified its research agenda, and the Institute of Rubber Research evolved into the Institute for Polymer Science, which essentially studies a wide range of materials made from macro-molecules. With its strong roots and broadened agenda, the university's polymer science program became one of the nation's finest. The University of Akron currently has the nation's largest graduate enrollment in polymer science and has produced more Ph.D.'s in this field than any other institution.

In the last five years, the University of Akron has developed a department and research center for polymer engineering, expanding the agenda to methods and technology by which polymers are manufactured and processed. And just last year, the College of Polymer Science and Polymer Engineering was created. It is the only collegiate unit of its kind in this country.

Creating the college was a bold move for the university, uniting the basic and applied aspects of polymer education and research. The synergy of combining the disciplines, formerly split between two colleges, should lead to more significant advances in the long run. The college gives polymers much greater visibility on and off campus, with minimal additional costs of administration.

As these organizational changes occurred, the university vastly expanded physical facilities for the polymer disciplines. To construct a 146,000 square-foot polymer science center, the state granted $15 million, which was supplemented by more than $3 million from private industry. Slated for completion in mid-1990, the architecturally-innovative building will house state-of-the-art research labs, classrooms, and faculty offices. Polymer materials were used extensively in its construction.

Private support came not only from Akron-based firms such as Goodyear, BF Goodrich, Firestone, and GenCorp but also from other national and international companies such as Bridgestone, At&T, Monsanto, and BP America. An additional $4 million was invested in the renovation of the university research center housing polymer engineering.

In a related effort, the university joined the city, county, and the local private industry council to establish a business incubator on the edge of campus. True to its name, the incubator provides a means of life support for small and newly created businesses. Started in 1983, it has nurtured twenty-two companies with life support in the form of lower-than-market rents, accounting, and legal and managerial assistance. Eight firms have matured and moved to larger quarters, and the entire incubator soon will be relocated to a much larger facility off campus. Most of the companies launched in the incubator have been polymer related.

Along with expanding facilities and strengthening the program's organizational structure and stature, the university aggressively pursued endowments to bring world-class researchers to the faculty. Over the past five years, the institution secured three $1 million chairs in polymer science and polymer engineering. Two thirds of these funds, or $2 million, came from private donors. The state contributed $500,000 each for two of the chairs under an

Eminent Scholars program, which establishes chairs on a competitive basis to bring world-class scholars to Ohio.

It is important to note that costs of the university's polymer initiative increasingly have been borne by external sources. The university simply would not have had the resources to allocate toward emerging priorities without support from the public and private sectors. Last year, for example, the polymer program generated income of $6.8 million, including nearly $4 million from external sources. Its expense budget of $6 million (including faculty salaries and scholarships) contained an internal operating budget allocation of only $360,000.

The principal university support for polymer education and research has not come in the form of dollars. The designated priority status of the field has brought access to other resources such as space, capital improvements, university selective excellence grants, fund raising, and public relations services.

Forging a regional consortium. While the University of Akron played to its strong suit, Case Western Reserve University in downtown Cleveland, only forty miles north of Akron, developed similar capabilities in macro-molecular science. By most accounts, Akron and Case Western are ranked among the top three polymer programs in the U.S. A few years ago, the schools recognized this tremendous comparative advantage for northeast Ohio and enlisted the region's polymer-related industries in a venture to capitalize on this combined technological leadership. The result emerged as the Edison Polymer Innovation Corporation or EPIC.

The impetus to establish EPIC was provided by the state of Ohio through the Thomas Edison Partnership Program. Under the Edison program, applied technology centers were established at several state universities. The centers broke institutional barriers, linking universities and private industry to effectively exploit emerging science and technology areas that could boost Ohio's economy in the future.

Akron and Case Western established EPIC, one of the first Edison centers, with a $4.3 million state grant. Charter corporate partners were twelve polymer-related firms based in northeast Ohio; EPIC now comprises 70 corporate members.

Despite the complexity and politics—linking two major universities, one public, one private, as well as private industry and the state of Ohio—EPIC is an excellent example of how universities can serve as a catalyst in sparking economic development. EPIC has attracted over $1 million in support so far from the likes of Monsanto, Shell, Goodyear, BF Goodrich, Dow, and DuPont—companies that usually square off as fierce rivals. Their contributions have sup-

ported dozens of research projects at both universities, and a number of those are currently under consideration for commercial application.

Negotiating the Future

One project under the direction of Daniel Smith, a chemistry professor at the University of Akron, illustrates both the potential and some avoidable pitfalls in consortium-funded research. Smith created polymer dressings to act as a shock absorber for the foot ulcers of diabetic patients and discovered that the healing process increased dramatically with exposure to these dressings. In addition, his product has the potential to work better, cost less, and last longer than any product with similar properties currently on the market. It is even adaptable enough to be manufactured in the form of the common adhesive bandage.

Because of its incredible market potential, Smith's work attracted the attention of several EPIC members. For the first time, companies in the consortium wanted to compete for the technology. But EPIC organizers had not hammered out agreements in advance of Smith's discovery, governing how the first claim to any licensing rights would be determined.

Eventually, it was agreed that first rights would go to the highest bidder. But the ensuing debate had stalled Smith's research. Specific agreements covering the terms of rights for licensing and royalties should be signed in advance, especially when research is funded by a group rather than one clear corporate sponsor. Currently, all university research agreements—whether or not any patentable invention is anticipated—include these terms. Negotiations are relatively simple when one company is involved and, obviously, become more complex when research is funded by a consortium of companies. But up-front agreements are critical to stave off delays and disagreements over future discoveries.

Strategies that work. In summary, the basic point here is a rather simple one: When a university decides to utilize its resources to stimulate economic development, it must be strategic and selective. Four steps are required to build a path to greater impact:

1. Selectively develop academic programs building upon traditional or emerging strengths. Identify program strengths—in terms of faculty, student resources, laboratory, and other research facilities, among other factors—and develop strategies for exploiting their potential. Careful, strategic planning is needed to select the areas for development.

2. Analyze the university's external environment. Scan the local and regional business environment for key needs and charac-

teristics. Match the needs of the region with the key strengths of the university. The model that the University of Akron has followed with its polymer science program offers a good example.

3. Review and change, where necessary, internal policies regarding faculty research. Ensure that university policies provide incentives for faculty participation in applied research. Is applied research, which may result in a patent rather than an article in a refereed journal, valued in the evaluation process? If not, evaluation criteria should be revised to recognize these achievements.

Other forms of institutional support also are needed: forums for interaction between university scientists and industry decision makers, so they may assess ideas for commercial potential before work progresses, and research support services that assist faculty in securing funding, completing record keeping, and other administrative functions. Revenues resulting from faculty research, such as indirect cost recovery and royalties, should be shared with researchers and their departments. For example, the University of Akron changed its policies to give fifty percent of royalty income from any patented invention to the inventor and share ten percent of the indirect costs recovered from funded research with the principal investigator.

It is important that university policies concerning the sharing of income from inventions be clearly established at the beginning. In some cases, such as the Akro container, the university merely performs a function for which it is paid via a research contract. In that case, there is no resulting income to the institution or the researchers. In other cases, as in Dr. Smith's polymer dressing, the institution and Dr. Smith will share royalty income that results from the licensing agreements on a 50/50 basis.

4. Establish partnerships with industry and governmental agencies. Beginning with the president, high-ranking university officials should participate in forging these ties. Hopefully, the governor, state legislators, and key industrial leaders will see the importance of university-industry-government consortiums in advancing regional development. As these bonds are cemented, all parties should agree to the terms up front: who owns any resulting discoveries, who licenses the technology, how royalties would be determined and shared. Such agreements should help keep research in the lab and out of the courtroom.

In summary, some traditionalists still argue that external partnerships threaten the integrity of higher education. I believe such ties are absolutely essential and can be highly productive, providing that sponsors have a proper understanding of the re-

search process. Public universities today, particularly metropolitan universities, do not operate in a vacuum. They depend upon the public for their support and must be responsive to the needs of the region and the constituencies they serve. This should include directing a university's research and service missions toward perceived local needs.

In many segments of the university, the ideal of scholarship for its own sake still reigns. But in the sciences, business, engineering, and many other fields where research is more likely to be aimed at real-life problems or opportunities, external partnerships are extremely worthwhile.

First, such interaction helps researchers focus their efforts in areas most needed by the region and state and where the potential for commercial application is the greatest. As an example of such a forum, EPIC awards grants upon the recommendation of an industry committee that evaluates proposals on their commercial possibilities.

Second, most universities simply do not have the resources to fund all of the services and research their faculty could provide. Metropolitan universities in particular face considerable demands for services, usually with scarce resources. Few institutions have a large pool of uncommitted dollars available for new priorities. And, student tuition should not be driven up to subsidize economic development programs. The state and private industry must join higher education as partners in advancing economic initiatives.

America's setbacks in the world market in recent years have shown that long-term investments are essential to achieving and sustaining greater competitiveness. Universities can operate as a catalyst, taking the knowledge once reserved for argument in academic journals and translating it into products of incredible potential.

For metropolitan universities, the need for cooperation is particularly acute. They must forge partnerships to enhance economic development in their communities and regions, enhancing the quality of life for their citizens and ensuring a meaningful, dynamic future for themselves.

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Diverse Communities

Diverse Involvements

Metropolitan universities are characterized by extensive involvement with various constituencies and communities, including their contiguous neighborhood, the metropolitan business community, the minority communities, the local public schools, local governmental agencies, the professional communities, and area colleges and universities. The limits and costs of this involvement are discussed, and recommendations for planning are provided. Metropolitan universities, while primarily centers for teaching and research, also serve as cultural centers for the community, as employers and consumers, as providers of social services, and as catalysts for social and economic development. The ivory tower metaphor of detached scholarship simply does not characterize metropolitan universities.

One characteristic of a metropolitan university that distinguishes it from other institutions of higher learning is its extensive involvement with and its impact on the metropolitan community it serves. A metropolitan university may be located on a campus in the downtown area of the city, as is Roosevelt University in Chicago, or it may be slightly outside the business district on its own separate campus, as are the University of Massachusetts at Boston and the University of Illinois at Chicago. It may be bordered by an affluent residential community, such as Beacon Hill in Boston or Georgetown in Washington, or an impoverished one; it may be proximate to commercial or industrial neighbors. Metropolitan universities are either independent or are intimately connected with the larger metropolitan community.

Extensive involvement with the community is often initiated by the metropolitan university, and some is initiated by others who seek to have it serve a specific purpose with which they are involved, such as improved schools, neighborhood stabilization, or economic growth. Most community involvement is cordial, cooperative, and collaborative as the university and the community work together to advance parallel and mutually beneficial interests. Community interaction can involve negotiated agreements or litigation where competing interests are at stake. Far from being an ivory tower removed or detached from the surrounding world, the metropolitan university is an enterprise embedded in the community and linked to its environment by a complex web of relationships, expectations, mutual needs, and opportunities for benefit. The extent and intensity of these involvements distinguish

the urban or metropolitan university from other categories of American higher education.

Ways in Which Metropolitan Universities Interact with Their Communities

A metropolitan university's involvements with and its service to its many communities derive from the various aspects of the university. Primarily it is an institution of higher education that provides instruction in many disciplines. A metropolitan university serves undergraduate, graduate, and professional students of all ages, levels, and backgrounds, reflecting the variety of the wider community. It assists in the development and application of new knowledge and in technology transfer, providing continuing education to many constituencies and advice to businesses small and large, to government agencies, and to community groups. Metropolitan universities also serve as cultural centers, providing concerts, plays, lectures, readings, and films that are open to the public, often free or with nominal charge. They frequently provide consulting services of various kinds: for example, aiding the public school system and reaching out to primary and secondary school students; stimulating volunteer service by students, faculty, staff, and alumni; and serving as a neutral convener or coordinator for bringing together interested parties who have no history of working together.

A metropolitan university constitutes a substantial physical and economic presence with substantial economic impact: as a large and relatively stable, progressive, and environmentally clean employer; as a consumer of goods and services including large scale expenditures for construction, renovation, and equipment; and through secondary spending by students, faculty, staff, as well as parents and other visitors. A metropolitan university may also be a partner in local real estate development and in the commercial application of new knowledge. Each of these multiple aspects or dimensions of a metropolitan university affects its interaction with the constituencies of its region. In turn, in each aspect of their many-faceted relationships, metropolitan universities must take into account the ethnic and racial diversity of their regions. Most metropolitan areas In this country, as well as many such conurbations abroad, contain several distinct communities of color as well as a number of white ethnic groups. Each of these groups is likely to have its own leadership, community activities, and social service organizations. In order to be successful as academic institutions and as neighbors, employers, and consumers, metropolitan universities need to be sensitive to different and at times competing priorities and needs of these multiple constituencies. They should

reflect the diversity of the metropolitan area in their faculty and staff, as well as in their student body, and they should reach out to the diverse groups in many different ways.

By inviting the leaders of the various ethnic and racial minority communities to visit the campus and speak to student groups, by encouraging the parents and families of current and prospective minority students to visit the campus and share in the celebration of special holidays and festivals, by meeting with minority business groups and hiring their members, by becoming personally visible in the minority communities, and by showing that cultural diversity is not only tolerated but actively encouraged and cherished, presidents of metropolitan universities can promote a climate that will enhance the effectiveness of their institutions both in their academic roles as well as in their function as neighbor, employer, and consumer.

Metropolitan Universities and Their Neighbors

Most metropolitan universities are located in areas adjacent or contiguous to non-university neighbors. Prior to the l950s the urban university's relations with its neighbors tended to be characterized either by mutual disinterest or tolerance. If the university desired to acquire and develop an additional piece of property or city block, the surrounding community was not organized to express objections or concerns, and tenants were resigned to such treatment, as the history of Suffolk University demonstrates.

When Gleason Archer, the founding president of Suffolk University, in 1920 bought a parcel of land in Boston, behind the State House in what was then "the West End," on which he planned to build a new building for his law school, no one expressed concern when he evicted the nineteen families then living on the site. He voluntarily but grudgingly offered modest assistance in helping some of the families relocate in order to gain earlier access to the property and accelerate the demolition schedule but didn't consider them as having any rights in the situation.

By the mid-50s, a protracted period of neighborhood neglect extending through the depression and war years, together with the demographic shift due to immigration from the rural south to the inner cities of the north, led to the conclusion that many urban neighborhoods had become blighted and that cities could be saved by excising such decay before it spread. Congress passed urban renewal legislation that was used by cities, by universities, and by developers to level large parcels of shabby housing. Occupants were relocated either to fortress-like public housing units or dispersed to outlying suburbs.

By the 1960s, tenants and home owners began to organize to oppose urban renewal and university expansion. Often students sided with local residents in town-gown confrontations with the community. For the first time, urban and campus planners encountered organized opposition to university expansion and relocation, and Suffolk University felt this shift too. In 1968 Archer's successor, Judge John Fenton, the fifth president of Suffolk University, assumed that he could ignore community concern over his plans to develop and occupy a building proximate to the university's other buildings. To his surprise, he was blocked in court by the local residents.

Thus, as a reaction to the unconstrained dislocation of people during the 1950s and the empowerment of neighborhood groups, the "Robert Moses era" of campus planning came to an end. Some universities learned the lesson more slowly and painfully than others: it is imperative for metropolitan universities to establish cordial relations with their neighbors and to negotiate a mutually agreeable modus vivendi. In some settings, so high a level of suspicion, animosity, and antagonism had developed that a decade or more was necessary to restore a climate in which the parties could begin to work together effectively to resolve lingering disputes and develop an agenda of mutual interests and common goals. Indeed, it took two decades to the month after Suffolk University acquired a lot and building on Cambridge Street in Boston, where it had expected to construct without delay a multistory academic building, for a settlement agreement with abutters and other litigants to be signed, paving the way for a project of more modest scale and vastly greater sensitivity to the surrounding architecture and to neighborhood concerns.

Metropolitan universities have come to appreciate that they cannot take neighborhood relations for granted or attend to them only when the institution desires to expand or has a public relations crisis. Community leaders and neighbors are a constituency that cannot be neglected. Most of the larger metropolitan universities have offices of community relations, often headed by a vice-president, to maintain dialogue, handle extensive negotiations between the university and the community, and seek to have university's neighbors experience the university in positive ways, as a provider of cultural activities, jobs, public safety, and other benefits. At smaller metropolitan universities the president is apt to be directly involved in community relations on a weekly and sometimes daily basis, attending community events and social functions and inviting community leaders to the campus for public lectures and theatrical programs.

If the university is on a campus created by demolishing homes in the community, it may take a generation before good relations are restored. If a metropolitan university is insensitive to the impact that the comings and goings of students, delivery trucks, and service vehicles have on the neighborhood or if the university allows subcontractors working on campus construction or renovation to operate noisy equipment during evening hours, convenient perhaps to the contractor but grossly inconvenient to the residents, the university risks a permanent state of crisis and tension between itself and its neighbors.

The circumstances are considerably different, of course, if the university's neighbors are commercial or industrial or if it is walled off from its neighbors by highways and other urban obstacles. If the university is in a particularly deteriorated area or adjacent to an industrial zone, it may want to initiate economic development activities in conjunction with other stakeholders to revitalize and upgrade its neighborhood. These activities may take the form of investment in local real estate or shopping centers, the creation of a research park, or improvements in the urban streetscape.

For example, in 1976 Suffolk University, working with the City of Boston, local residents, the State House, and a local architect sensitive to the issues of urban design, used funds made available to the city under a HUD block grant to transform Temple Street, a narrow, early nineteenth century street fronting several of Suffolk University's buildings, from a congested parking strip for legislators' cars into an attractive and award-winning, brick lined pedestrian walkway with trees, flowers, and a pocket park, enjoyed by area residents as well as by students and legislators strolling to classes and offices. Temple Street residents and the university together maintain the plantings and appearance of the street, which is featured in many of the university's publications. In 1989 Suffolk University took steps to initiate a Main Street Project (a program of the National Trust for Historic Preservation for the rehabilitation of urban shopping strips) together with local merchants and residents, a city councilor, and merchants from other successful Main Street projects, as a means of improving Cambridge Street, a rundown commercial artery bordering the Beacon Hill historic district and Suffolk University.

Neighbors should experience a university in positive ways.

Whatever the specific circumstances, relations with the contiguous community are of paramount importance for a metropolitan university. They are a significant part of its activities; they require high-level and highly trained personnel and adequate resources,

and they must be factored by the university into virtually every development decision.

Metropolitan Universities as Employers and Consumers

Metropolitan universities with substantial budgets are major economic enterprises. It is not uncommon for an urban or metropolitan university to be among the larger and more progressive employers in the city. Although untenured faculty, as well as individuals in support positions and those dependent on "soft money" may occasionally feel the impact of enrollment shortfalls (in the independent sector) or reduced appropriations (in the public sector), university employment is on the whole relatively stable. Universities can often compensate for their inability to compete in direct salaries with private industry or law firms for professional and support personnel by providing such indirect benefits as academic environment, tuition benefits, and ready access to courses, concerts, films, and lectures that make the universities attractive places to work. Moreover, many metropolitan universities have been on the forefront of such issues as child care, personal leave for family health needs, staff development, and the recruitment of minorities.

Metropolitan universities also contribute significantly to the local economy through their direct purchases of goods and services, through secondary spending by their staff and students, and through auxiliary and spinoff enterprises.

Relations with the Metropolitan Business Community

The local business community is a significant constituency for a metropolitan university. It hires the university's graduates; provides students with part-time employment, internships, and placements for cooperative education programs; and is a source of participants in instruction designed for individuals with full-time jobs, such as MBA programs and offerings in continuing education. The private sector can benefit a metropolitan university in many other ways. It can provide helpful advice in program development, enter into contractual agreements for specialized training programs for its employees, and be a source of adjunct faculty and guest lecturers. It can, as well, provide direct support of funds and equipment.

The advantages flow in the opposite direction as well. The business community has much to gain from a vigorous metropolitan university of high quality. Such an institution is a source of highly skilled employees who will be increasingly in demand. It can contribute much to the maintenance of employees' competence through a variety of advanced courses and specialized in-service

programs. Furthermore, metropolitan universities can be an important source of state-of-the-art expertise in a great variety of fields. Its meetings and conferences, as well as its library and data bases, are readily accessible to members of local business. The university's faculty as well as its advanced students can provide technical assistance, policy analysis, and technology transfer that can help new industrial ventures to gain a foothold and existing enterprises to keep up to date. Strong metropolitan universities often are magnets that attract commerce and industry to their region, because of these potential benefits they can provide. It should also be mentioned that in many metropolitan areas, the local universities and the business community are partners in school reform and in urban revitalization.

Indeed, metropolitan universities can have so many points of interaction with local businesses that a special effort is needed to keep track of these contracts in a systematic fashion. When a senior university administrator visits a corporate executive, that administrator would be embarrassed not to be aware of existing relationships. Therefore, Suffolk University developed a monthly coordinating meeting at which the various university officers who have extensive contacts with the business community share information. Regular participants in these meetings include the dean of the School of Management, the director of management training programs, development, and alumni office staff, and the directors of career services and cooperative education, among others.

To foster mutually beneficial interaction, the presidents of metropolitan universities should become acquainted with other major business leaders in a variety of ways, including participation in activities of the Chamber of Commerce and similar groups. They should, as well, invite members of the business community onto their campuses to better acquaint them with the role, scope, and capabilities of their institutions; to explore potential areas in which cooperation would bring advantages to both sides; and to discuss issues of mutual concern.

Relations with the Local School Systems

Another "community" with which a metropolitan university interacts, often in conjunction with the business community, is the public school system. Historically, few colleges and universities made a strong effort to relate to the public schools in their community, other than to place student teachers. In metropolitan university areas this has now begun to change. Metropolitan universities have recognized their stake in the improvement of urban schools. The schools are the source of students going on to college, a fact so obvious that it would hardly need stating, had it not

been overlooked for so long. If the urban schools are not assisted in their efforts to improve, metropolitan universities will be drawn ever more heavily into remedial work and will fail to receive a major segment of urban students who might have benefited from a college education but instead became drop-out casualties. Much more devastating than the effect on the colleges is the effect on those whose learning is stifled by the multiple troubles besetting urban education in most of the nation's large cities.

Boston serves as an example of what is beginning to happen in school-university-business collaboration in various cities and is a model for other cities where there are educators and business leaders forging new alliances for their mutual advantage. In 1974, as part of a court-initiated settlement of a desegregation suit, the public schools in Boston were each paired with one or more of the local universities and colleges. The pairings were supported with state funds, but came to be supported as well by foundation and other grants raised by the universities for this purpose. The collaborative programs made possible by these pairings provide assistance to teachers and school staff, special instruction and tutoring of students, aid to the central administration, and even programs for parents. The twenty-three Boston-area colleges and universities participating in these pairings form the Boston Higher Education Partnership, which now has its own executive director. Each university appoints a coordinator to manage the relationship between the participating university faculty and the schools. The university presidents, the coordinators, and the director of the Partnership meet regularly with the superintendent of schools and other school personnel to discuss priorities, plan new programs, and air concerns.

There are limits on the abilities, resources, and responsiveness of metropolitan universities.

In 1984, a formal agreement was signed between the colleges and the schools calling for an increased commitment by the colleges to helping the schools and their college-bound graduates, as well as attention to improving the retention rates of students, both in the schools and in the colleges. Since then, over $35 million has been invested by the participating Boston-area universities and colleges in the form of scholarships for graduates of the Boston Public Schools, non-state funds raised for collaborative programs, and other direct aid. Retention of Boston high school graduates attending universities in the partnership had also improved, although not by as much as had been desired.

Complementing the agreement between the universities and the schools is an agreement between the business community and

the schools. Many of the major businesses are also paired with a local school and provide direct assistance of various kinds, as well as instructional equipment. An endowment of approximately $13 million has been contributed by the business community to provide "last-dollar scholarships" for Boston high school graduates going on to college, counselors in the high schools to help students complete the various college application and financial aid forms and meet the necessary deadlines, and grants to teachers for supplemental instructional funds not available in the regular school budget.

Faculty members at Suffolk University have provided for its high school partner supplemental instruction for physics students in computer technology. The school gets to keep the computers assembled by the students during the semester. Faculty members also offer instruction in political science and international affairs. Under the federal Literacy Corps program, a dozen Suffolk University students are tutoring elementary school students in basic reading skills in a multi-racial inner city school in which many children of new immigrant families are learning English before their parents do. Suffolk University is also working with a group of school parents and teachers and provides scholarships for the graduates of the Boston public schools and local community colleges.

The set of agreements among the business community, higher education institutions, and schools is known as The Boston Compact. Higher education leaders and business leaders work directly with the superintendent of schools and the mayor as a steering committee for the compact. This joint effort has already had a significant impact on the quality of the educational opportunity available to Boston Public School students and graduates. It has encouraged, fostered, and facilitated collaboration and beneficial contact among the universities, the schools, and the business community.

Relations with City and County Governments

Many metropolitan universities have developed close ties and productive working relations with local governmental bodies and agencies. The universities undertake sponsored research for these agencies; they provide policy analysis and other forms of expertise, conduct training programs for their employees, and collaborate with them in various ways. Local government agencies are also sources of funding as well as sources of necessary approvals needed by metropolitan universities for their development. It is important for the president of a metropolitan university to be on good terms with local government leaders and agency heads. In the case of certain municipally sponsored metropolitan universities, such as Washburn

University in Topeka, the mayor serves as an ex-officio member of the governing board.

Some cities, particularly those without a large industrial base, have pressed the colleges and universities within their borders for annual payments in lieu of taxes. Boston has been particularly aggressive in such requests, particularly targeting the tax-exempt independent universities and hospitals. Boston zoning is hostile to higher education, requiring that every change in a college or university's use of property it owns must be granted a specific variance by the Zoning Board of Appeal. The zoning appeal process provides an opportunity for the city and neighborhood groups to make requests of the institution that are often tantamount to demands. Typically, zoning appeals are granted only when the institution agrees to participate in the city's "PILOT" (payments in lieu of taxes) program. Recent regulations require that approval of construction projects in excess of 100,000 square feet be contingent on "linkage" payments to the city, to be used for neighborhood development. Most of the colleges and universities in Boston have thus been required to make agreements with the city either for direct payments in lieu of taxes based on enrollment or indirect payments that include scholarships for the graduates of the Boston public high schools and city employees. At least one metropolitan institution, Emerson College, has made plans to move out of Boston, in part to avoid pressure of this sort.

Relations with Professional Communities

A metropolitan university interacts with the many professional groups present in every urban area—lawyers and legal aids, health professionals, accountants, and others—to provide initial and continuing education, and interacts with professional artists and arts groups to provide a place for the performance, exhibition, and teaching of the arts. Representatives of these groups often serve on departmental or school advisory committees, speak to classes, counsel students or serve as mentors, judge student competitions, help recruit students, sponsor scholarships, and hire graduates. Close links with the professional communities are another hallmark of metropolitan universities.

Relations with Other Area Colleges and Universities

In a listing of the groups and organizations with which the president and other officers of a metropolitan university are involved, mention should be made of the other colleges and universities in the urban area. Many cities have developed formal mechanisms for collaboration among the colleges and universities in the

area. In addition, there are often regular meetings of subgroups of these colleges and universities. The public college presidents and those of the independent universities and colleges generally each have regular meetings to plan and coordinate government relations and to participate in common or jointly sponsored activities. These activities may include cross-registering courses, serving on the board of an educational television station, or protecting civil rights, literacy, volunteerism, or drug awareness. Although competition among colleges continues in many ways, collaboration has come to be the more dominant mode of interaction in many settings and is the stance most commonly taken by the university presidents towards one another.

Limitations and Cost of a University's Involvement

Although metropolitan universities are characterized by their interest in and involvement with their communities and although they are eager to be of service as centers of knowledge and culture and helpful in other ways too, there are limits on the abilities, resources, and responsiveness of metropolitan universities. Moreover, a university as an enduring institution may have a long-range time perspective, and its faculty as scholars of their disciplines may have a detachment that will give them a viewpoint or perspective different from others'.

Tensions between any of the metropolitan constituencies and the university often arise because of unrealistic or unreasonable demands on the institution to remedy the community's economic and social problems. During the 1960s, encouraged or emboldened by government or foundation funding, some universities undertook educational, social-welfare, or applied research projects that promised more than could be delivered, heightening community expectations beyond what could be achieved and causing a frustration, cynicism, or anger. Caution, candor, and circumspection must be exercised in this respect.

A metropolitan university's involvement with the community, however desirable, and whether self-initiated or imposed, is not without cost. There are staff costs, for full-time community relations specialists and for the part-time involvement of many others in the university, not least the president; there are such additional financial costs as payments-in-lieu-of-taxes, scholarships for the graduates of local schools, and the operation of day care centers or other facilities, including the library, which may be accessible or available to non-university neighbors and the wider community. Suffolk University, for example, has maintained a policy of keeping its libraries open and accessible to residents of the neighboring

Beacon Hill community, local businesses, alumni, and the students of other universities in the Boston area—except during the period immediately before and during final exams.

There are also public relations costs that are incurred from time to time, especially if there are misunderstandings, unfulfilled or unrealistic expectations, clashes of competing interests and "offers that can't be refused." All of these things are part of the complexity of administering a contemporary metropolitan university.

Metropolitan Universities Are Where the Action Is

The difficulty and cost that result from multiple tasks and the many interactions of metropolitan universities should not be minimized. But it is important, as well, to realize that these institutions are at the cutting edge of American higher education. Their overall impact, in terms of the number and diversity of students served and their ability to positively affect the wider community, is unsurpassed by other sectors of higher education. Because of the multiple opportunities they have to serve, metropolitan universities are gaining increased attention, influence, prominence, and recognition, and they are having an expanded and beneficial impact.

It is the extensive community involvement of metropolitan universities and the creative energies they liberate that makes them such exciting and interesting places for their students, the faculty who teach in them, and those who administer them.

Suggested Readings

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