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ACADEMIC LEADERSHIP

Early college presidents were expected to provide academic leadership. In some nineteenth-century institutions, the president was not only the most distinguished scholar but the only scholar. The intellectual influence of presidents on the faculty, the governing board, and the students was profound, as suggested by a Michigan student's admiration of President Tappan: "He was an immense personality. It was a liberal education even for the stupid to be slightly acquainted with him."¹

Today, the president's role in academic affairs remains important but must be exercised in a more delicate fashion. Technically, the shared governance policies of most universities delegate academic decisions (e.g., criteria for student admissions, faculty hiring and promotion, curriculum development, and awarding degrees) to the faculty. Hence, the faculty usually expects the university president to focus on political relations, fund-raising, and protecting their academic programs (e.g., from threats of dominance posed by intercollegiate athletics and the medical center) and to keep hands off academic matters.

Yet the most successful university presidents are capable not only of understanding academic issues but also of shaping the evolution of academic programs and enhancing the academic reputation of their

university. After all, if the success or failure of a presidency will be based on the goal of leaving the university better than one inherited it, it is hard to imagine how one could achieve this without some involvement in the core activities of the institution: teaching and scholarship. But this requires both skill and diplomacy, since faculty reaction to a president's heavy-handed intrusion into academic affairs can be fierce. Presidential influence is more generally exercised through the appointment of key academic leaders (e.g., deans or department chairs), by obtaining the funds to stimulate the faculty to launch new academic programs, or by influencing the balance among academic priorities.

There are some presidents—though they are unfortunately a rarity these days—who have had both the scholarly credentials and interests to play a significant role in shaping the intellectual direction of a university. Michigan has benefited from several such leaders. For example, James Angell attracted extraordinary scholars, such as John Dewey; Harlan Hatcher, himself a distinguished scholar and professor of English literature, raised the quality of the university even as it doubled in size; and Harold Shapiro brought his own deep understanding of the history of the university and the changing nature of a liberal education to his efforts, as provost and then as president, to enhance the quality of the university's students, faculty, and programs.

However, buried among academic programs are numerous land mines that pose serious risks to those presidents inclined to meddle in academic affairs. Again, the history of the University of Michigan provides important lessons. The university's first president, Henry Tappan, stirred the wrath of several faculty members and the local newspapers when he tried to build a true university in Ann Arbor that emphasized scholarship on a par with instruction. In the 1920s, Michigan president C. C. Little failed when his attempt to impose the Harvard model of a university college for undergraduate education was strongly resisted by the university's faculty.

As I noted earlier in this book, my own academic perspectives were shaped first by Yale, perhaps the most faithful replication of the college system of Oxford and Cambridge in America; then by Caltech, embracing a culture driven by absolute scientific brilliance in research for both faculty and students; and finally in Michigan's nuclear sci-

ence and engineering program, a truly interdisciplinary program spanning the range from the microscopic phenomena of nuclear and atomic physics to the design of such mammoth projects as billion-dollar nuclear power plants and thermonuclear fusion systems. I had learned early to distinguish the collegiate focus on the intellectual growth and socialization of young students from the broader roles of the university in creating, propagating, and applying new knowledge, so I had come to agree with Eliot's observation "A college is a place to which a young man is sent; a university is a place to which he goes!"² Hence, while I understood the University of Michigan's important role in undergraduate education, I also believed its impact went far beyond this, to encompass graduate education, professional education, scholarship and research, and an exceptionally broad array of activities in applying advanced knowledge such as medical care, international development, and promoting cultural vitality. Combining the concepts of John Henry Cardinal Newman and Henry Tappan provided my working definition of the university: a community of masters and scholars (*universitas magistrorum et scholarium*), a school of universal learning (Newman), embracing every branch of knowledge and all possible means for making new investigations and thus advancing knowledge (Tappan).³

THE ACADEMIC CLOCKWORK

It has been said that the organization of the contemporary university—its array of departments, schools, and colleges—more resembles the organization of nineteenth-century knowledge than the contemporary scholarly landscape. However, I prefer the astronomical analogy of a solar system. This Copernican view of the university places at the center its liberal arts college, including the academic disciplines of the humanities, natural sciences, and social sciences. About this academic sun orbit four very large and powerful professional schools: engineering, law, business, and medicine. Many university presidents consider the medical school to actually be a massive black hole rather than a planet, since it tends to suck resources away from both the liberal arts and other academic planets of the university solar system, never to be seen again. Moving still farther away from the liberal arts

core, one finds an array of smaller planetary bodies corresponding to various professional schools (architecture, education, social work, dentistry, public health, public policy) and schools of fine arts (art, music, dance). Here again, the massive gravitational pull of the medical school attempts to pull the smaller health sciences schools (nursing, dentistry, public health, pharmacy) into orbits about it as moons, although this is vigorously resisted by their deans. Continuing with the astronomical analogy, extracurricular activities, such as intercollegiate athletics and student activism, might be similar to comets in the Oort cloud, out of sight and out of mind—at least until they tumble into the orbits of academic planets, where they can cause great havoc, if not cosmic extinction of important academic values.

Private universities, particularly those evolving from the colonial colleges, are generally built around undergraduate colleges based on the liberal arts disciplines (e.g., Harvard College and Yale College). In contrast, public universities are built more on a foundation provided by the key professional schools, the big four being engineering, business, law, and medicine (plus agriculture in land-grant universities), with the liberal arts college primarily serving the general education needs of undergraduates. Yet, just as with private universities, the quality of the liberal arts college is generally the key factor determining the quality of the institution, since it has a profound impact on the quality of professional schools.

Of course, there is always an ebb and flow in the fortunes of particular academic programs, as university priorities shift in response to societal needs. During my years at Michigan, the university lurched from embracing the priorities of the Great Society in the 1960s by placing emphasis on the social sciences and related professional schools such as education and social work to an emphasis on the health sciences in the 1970s, with major investments in medicine, dentistry, nursing, public health, and pharmacy—culminating in the \$260 million commitment to the major new University Hospital in 1978. As both the state and the nation became concerned with such issues as economic competitiveness and industrial productivity in the early 1980s, the university once again shifted priorities, to focus on engineering and business administration. Most recently, an aging baby boomer population concerned about its health has demanded

massive federal programs in the biomedical sciences, and the university has reacted with major billion-dollar investments in an expansion of the Medical Center and the building of the Life Sciences Institute.

The academic and professional disciplines—departments, schools, colleges—tend to dominate the modern university, developing curriculum, marshaling resources, administering programs, and doling out rewards (e.g., tenure). However, the traditional disciplines can pose a major impediment to change, since in their faculty recruiting efforts, they frequently tend to clone their existing professors rather than seeking to move in new directions stimulated by bright, young minds. Despite the importance and strength of traditional departments, schools, and colleges, most campuses still have many examples of worn-out academic programs that manage to limp along, draining resources from more vital areas and constraining the university's capacity to change.

ACADEMIC LEADERSHIP

To be sure, the broad responsibilities of the president as chief executive officer of the university limit the time and opportunity to provide academic leadership. Furthermore, the academic programs of the institution report through the deans to the provost as the chief academic officer. Although other executive officers (e.g., the vice president for research or the vice president for student affairs) can influence academic activities (e.g., sponsored research and the student living-learning environment), the provost generally is regarded as the point person for academic leadership. Yet university presidents, even at large research universities or university systems, can have considerable impact on the academic programs of the university.

Perhaps the most difficult and certainly controversial administrative actions are those that establish priorities among various academic programs. A skillful president can bias the university system for resource allocation such that new proposals tend to win out over those that aim to sustain or strengthen established programs. While this requires some intellectual good taste on the part of both president and provost, it is an extremely important device for navigating the university toward the future rather than drifting along on currents

from the past. During good times with growing budgets, this amounts to picking winners and losers. During hard times, when resources are declining, this amounts to lifeboat decisions about which units will survive and which may be discontinued. Although most universities find it important to put into place well-defined policies for academic program reduction and discontinuance, with ample mechanisms for consultation, in the end the president usually shoulders the eventual blame for these decisions, whether it is deserved or not.

The triad of criteria for such decisions typically involves consideration of program quality, centrality, and cost-effectiveness. Some institutions use this in a highly quantitative way: a provost of a leading research university once told me that his institution simply plotted the national ranking of each of their academic programs versus their cost per student, then targeted those units in the lower right quadrant (e.g., low reputation and high cost) for potential elimination. For most institutions, the considerations that determine university academic priorities are far more subjective and subtle. I learned this the hard way as provost, when I had my proposal for refining the university's policies on academic program discontinuation soundly trounced by a negative vote of 80 to 2 by the faculty senate. (Harold Shapiro went ahead and implemented the proposal anyway, providing another lesson in presidential leadership.)

Presidents sometimes have the opportunity to influence broad university priorities, such as the balance between teaching and research. At large public universities, there is usually a concern about the appropriate balance between well-funded professional schools, such as business, law, and medicine, and the liberal arts disciplines, particularly in the arts and the humanities. Although many people think of such a university as Michigan as dominated by its liberal arts college and undergraduate education, these programs represent less than 30 percent of the faculty and 15 percent of the budget. In contrast, the Medical School and the associated University Hospital represent over 50 percent of the budget of the university and roughly two-thirds of its staff. One lesson that Michigan presidents soon learn is the importance of protecting the fragile academic core of the university from the potential distortion posed by health sciences due to

their unusual access to resources, such as clinical income and federal research grants. These resources fuel a constant growth (over 10 percent a year at Michigan), which can soon take over a campus and begin to intrude on the space and funds available for other academic programs.

For example, during the 1970s and early 1980s, the massive investment in the new University Hospital diverted state funding away from academic priorities into clinical facilities for almost a decade, not only at the University of Michigan but throughout the state. My administration was able to achieve some rebalancing, with a particularly intensive effort to rebuild the core academic facilities of our College of Literature, Science, and Arts (LS&A). During the early years, this was done through the provision of additional operating funds as well as through special initiatives that benefited LS&A: for example, priority given to rebuilding the natural sciences,⁴ additional funding designed to improve the quality of first-year undergraduate education, and special salary programs for outstanding faculty. However, in later years, we went beyond this to launch an ambitious program to renovate or rebuild all of the buildings housing LS&A programs, which had deteriorated during the 1970s and 1980s as the university had addressed other capital priorities, such as the University Hospital. In the decade from 1986 to 1996, the university invested more than \$350 million in capital facilities for LS&A, essentially rebuilding the entire Central Campus area.

Within a university, there is a definite hierarchy of academic prestige—or, perhaps better stated, an intellectual pecking order. In a sense, the more abstract and detached a discipline is from the real world, the higher its prestige. In this ranking, perhaps mathematics or philosophy would be at the pinnacle, with the natural sciences and humanities next, followed by the social sciences and the arts. The professional schools fall much lower down the hierarchy, with law, medicine, and engineering followed by the health professions, social work, and education.

Yet there is another pecking order in higher education, a ranking among, rather than within, institutions. Some of these are determined by popular rankings, such as those produced annually by *U.S. News and World Report*. Although academics decry these commercial

beauty pageants, which are based on such nonsensical parameters as endowment per student (which, of course, rules out all large public universities) and the fraction of students rejected (which emphasizes elitism over access), the rankings nevertheless influence the enrollment decisions of students and parents, strike terror into the hearts of admissions officers, and (most significant for *U.S. News and World Report*) sell lots of magazines.⁵

While universities tend to trumpet it when their programs are ranked highly in such comparisons and to either hide or deride the rankings when they fall, most deans, provosts, and presidents look elsewhere to measure the quality of their academic programs and institutions. Once every decade, the National Research Council (of the National Academies) conducts a very comprehensive survey of graduate programs across the disciplines, using an array of more empirical measures, such as faculty awards, frequency of citations of scholarly publications, success in winning federal research grants, and graduate-level performance on standardized tests. These rankings are taken far more seriously, so much so that within several years of their publication, many universities have changed both the leadership and the investment in those programs ranked low by the NRC survey, and the faculty of their higher-ranked programs have become recruiting targets by wealthier universities. But since the NRC rankings occur only once a decade, university leaders must also look elsewhere to assess the quality of their programs.

The most common—and, to my mind, effective—evaluation tool involves peer assessment, subjective ratings of program quality by deans, department chairs, and distinguished faculty members. Since these academic leaders are continually involved in recruiting new faculty or evaluating the promotion or tenure cases of their own faculty members, they usually have a pretty good sense of which departments are at the top (or on the way up) and which are weak (or on the way down). Presidents, provosts, and deans keep their ears to the ground to pick up on these conversations. It is not only their business to develop an accurate assessment of the quality of their own programs but also their responsibility to take action to enhance the reputation of their institution. In some cases, this amounts to putting together a package to recruit a new superstar in a particular area. In other cases,

it involves additional funds or new facilities to improve the unit.

There are also occasions—rare as they may be—when a university decides to simply throw in the towel and shut a program down for a damning trilogy of faults: it is not good enough, too expensive, and/or not central enough to the rest of the university. Since outright academic program discontinuance is difficult because of faculty tenure, the elimination of weak programs is usually accomplished by finesse. For example, a smaller unit may be merged into a larger academic unit, where it will disappear gradually; or an academic program may undergo reorganization, which is portrayed as merely renaming the program but, in effect, eliminates the box on the organization chart for the target unit.

As president, I would conduct an annual analysis of the ebb and flow of senior faculty across all of our academic units, to track our efforts to attract and retain top-notch talent. My leadership team kept a scorecard on the ability to attract (or raid) faculty talent on a department-by-department basis, along with our capacity to retain our best faculty members in the face of offers from competing institutions. This was not only a good way to evaluate the strength of our academic leadership at the level of department chairs and deans, but it was also an excellent way for the president and provost to monitor the ongoing health of the university. It also kept the pressure on me as president, since achieving competitive faculty compensation and quality environments for education and research were ultimately my responsibility.

On a more general level, we developed a comprehensive annual report, “The Michigan Metrics,” which served as a “dashboard” (in modern business parlance) on which to track a broad set of data concerning academic quality, financial integrity, and institutional leadership. While this annual snapshot of university vital signs was probably not useful in the way that a corporate balance sheet or income statement would be, the use of such longitudinal data gave a good sense of whether the university was climbing in altitude or on a downward-glide path—or, more seriously, headed for a crash. Again, with academic leadership, as in other aspects of the university presidency, one should never forget that results are what count.

One of my colleagues, Charles Eisendrath, director of the univer-

sity's Journalist-in-Residence Program, once proposed to me a "fish football theory" of faculty behavior. He noted that faculty activities are usually randomly distributed, much like fish swimming in an aquarium, and that just as fish will quickly align to go after a ball of food suspended in their tank, faculty will soon align their activities to go after new funds. All one needs to do is create financial incentives. A couple of examples illustrate.

During the 1980s, when I was dean of engineering and then provost of the university, we were concerned that the university was underrecovering the true costs of federally sponsored research through excessive institutional cost sharing and inadequate overhead (so-called indirect costs) on federal grants. The faculty did not have much sympathy with this concern, since such overhead charges usually came off the top of their research grants, at the expense of such worthy priorities as laboratory equipment, technical staff, and graduate student support. Yet indirect costs were very real costs that had to be paid by someone—if not by the federal sponsor, then by the university, from such sources as tuition revenue or state appropriation. To change the faculty perception, we used a very simple device. Each year, we would distribute back to faculty members in discretionary accounts a certain fraction of the overhead recovered on their federal grants. Although this was generally a small amount (typically 5 percent or less of the recovered funds), the accounts were totally discretionary and under the direct control of the faculty member who was the principal investigator on the grant. They could be used for supporting a graduate student, traveling to a technical meeting, purchasing a computer, or carpeting one's office—any expenditure appropriate for university funds. This very modest incentive program drove a sea change in faculty attitudes toward indirect cost recovery—as well as toward more general grant and contract support. Over the next decade, Michigan rose from eighth to first in the nation in federal research support, due to the strong entrepreneurial efforts of our faculty stimulated by strong research incentives to reward faculty grantsmanship.

Presidents can sometimes influence priorities by adjusting the balance between the sustained support for ongoing initiatives and the funding aimed at stimulating new initiatives. As the university's

provost, each year Harold Shapiro reallocated 1 percent of the base budget of all university units, both academic and administrative, into a University Priority Fund, to stimulate and support new activities in such areas as undergraduate education, diversity, and interdisciplinary scholarship. This was later augmented by a \$5 million grant from the Kellogg Foundation and a match from the university, to create a Presidential Initiative Fund aimed at providing the president with resources to stimulate new academic initiatives. As these mechanisms, which allowed small onetime allocations, were continued year after year, they resulted in rather significant reallocations from ongoing activities (which saw their budgets declining to 99 percent, 98 percent, 97 percent, etc. each year) into key university priorities—that is, from the old to the new. As provost, I continued this process, selecting as early priorities the areas of undergraduate education and diversity. For example, we created a competition for proposals to attract more senior faculty into teaching undergraduate classes. We used incentive funds to support Target of Opportunity programs for minority faculty and PhD students. Later, we added interdisciplinary scholarship, international programs, the arts, and several other priorities that benefited greatly from the grassroots interest, involvement, and creativity of faculty attracted by the potential of additional resources.

Here, a word is appropriate about a sharply contrasting approach, perhaps best captured by the phrase “presidential whim” rather than “presidential initiative.” Rather than establishing incentives of significant resources, allocated on a peer-reviewed, merit basis, some presidents instead attempt to stimulate faculty engagement by indicating their personal interest in a particular topic. While this may create a few headlines in the university press releases, the best faculty members will usually ignore such presidential whims unless they align with their own interests. The lesson to be learned here is that academic leadership is most effective and powerful if it taps into the energy, interests, and creativity of the faculty at the grassroots level. Providing an Eisendrath fish football of resources to fund faculty initiatives aimed at a broad university priority, such as undergraduate education or diversity, tends to align best with the highly entrepreneurial nature of the faculty culture.

FACULTY QUALITY

The principal academic resource of a university is its faculty. The quality and commitment of the faculty determine the excellence of the academic programs of a university, the quality of its student body, the excellence of its teaching and scholarship, its capacity to serve broader society through public service, and the resources it is able to attract from public and private sources. The quality of the faculty is determined by many factors, such as resource commitments and capital facilities, but none more critical than the standards applied in recruitment, promotion, and tenure decisions.

Each appointment to the faculty and each promotion within its ranks must be seen as both a significant decision and an important opportunity. In theory, at least, these decisions should always be made with the quality of the university always foremost in mind. Policies, procedures, and practices characterizing the appointment, role, reward, and responsibilities of the faculty should be consistent with the overall goals of the institution and the changing environment in which it finds itself. In practice, however, these decisions tend to be made at the level of individual disciplinary departments, with relatively little consideration given to broader institutional concerns or long-range implications.

Certainly the most controversial, complex, and misunderstood issue related to the faculty in higher education, at least in the minds of the public, is tenure. In theory, tenure is the key mechanism for protecting academic freedom and for defending faculty members against political attack both within and outside the university. In practice, it has become something quite different: job security, protecting both outstanding and incompetent faculty alike, not only from political intrusion, but also from a host of performance issues that could lead to dismissal in many other walks of life. Of course, it is this presumed guarantee of job security that so infuriates many members of the public, some of whom have felt the sting of corporate downsizing or job competition.

Because tenure represents such a major commitment by a university, it should only be awarded to a faculty member after a rigorous process of evaluation. Most university faculty members believe that

tenure is a valuable and important practice in the core academic disciplines of the university, where independent teaching and scholarship require some protection from criticism and controversy. This privilege should also enable tenured faculty members to accept greater responsibility for the interests of the university, rather than focusing solely on personal objectives. But even within the academy, many are beginning to question the appropriateness of current tenure practices. The abolition of mandatory retirement policies is leading to an aging faculty cohort insulated from rigorous performance accountability by tenure, a situation depriving young scholars of faculty opportunities. Increasingly, the academy itself is acknowledging that both the concept and the practice of tenure—particularly when interpreted as guaranteed lifetime employment—need to be reevaluated.

Yet only the most foolhardy would attempt to reevaluate tenure within a single institution, since the marketplace for the best faculty is highly competitive. Any challenge to the status quo of tenure must be mounted by a coalition of institutions. When I was chair of the Big Ten Conference (which is actually as much an academic organization of 12 institutions—including the University of Chicago—as it is an athletic conference), we invited the provosts and chairs of the faculty senates of our universities to a daylong conference in the mid-1990s to discuss tenure and the faculty contract. Needless to say, one workshop does not a sustained movement make, but the discussion did suggest that the faculties of at least this set of research universities are more open to considering change than one might expect.

Through active participation in tenure decisions, university presidents and provosts can have considerable impact on the quality of the faculty of their university. Harold Shapiro demonstrated this to me, first in his role as provost and then as president (see chapter 2). I continued his practice of direct and strong involvement in hiring, promotion, and tenure decisions. Once, I actually challenged over 50 percent of the recommendations from the Medical School, observing that they all looked like they had been prepared from the same word processor template.⁶ My philosophy was summarized in a communication to the school's dean and executive committee: "Put yourself in my shoes for a moment. In the course of a year I am asked to evaluate and rule

on hundreds of appointments for all conceivable academic and professional appointments. Indeed, I will be shortly receiving 70 recommendations from your school. The issue here is tenure. In my view the decision to offer tenure is the most important decision we make in this university. It is also my most important responsibility, since these decisions affect the institution for decades to come. The burden must be on the unit to demonstrate that the candidate has the degree of excellence, of achievement, necessary to merit tenure. You have not done so on many of these recommendations, and until that case has been made I am unable to support tenure for these individuals.”⁷

The faculty members of research universities are well aware that their careers—their compensation, promotion, and tenure—are determined primarily by their research productivity as measured by publications and grantsmanship, since these activities contribute most directly to scholarly reputation and hence market value. This reward climate helps to tip the scales away from undergraduate teaching, public service, and institutional loyalty, especially when quantitative measures of research productivity or grantsmanship replace more balanced judgments of the quality of research and professional work. The growing pressures on faculty to generate the resources necessary to support their activities are immense.⁸ At a university like Michigan, with roughly 2,500 faculty members generating over \$800 million of research grants per year, this can amount to an expectation that each faculty member will generate hundreds of thousands of research dollars per year, a heavy burden for those who also carry significant instructional, administrative, and service responsibilities. For example, consider the plight of the young faculty member in medicine, responsible for teaching medical students and residents; providing sufficient clinical revenue to support not only his or her salary but also the overhead of the medical center; securing sufficient research grants to support laboratories, graduate students, and post-doctoral fellows; exploiting opportunities for technology transfer and business start-ups; and building the scholarly momentum and reputation to achieve tenure. Consider as well the conflict that inevitably arises among responsibilities to students, patients, scholarship, and professional colleagues. Not an easy life!

As a consequence, the American research university has developed a freewheeling entrepreneurial spirit, perhaps best captured by the words of one university president who boasted, “Faculty at our university can do anything they wish—provided they can attract the money to support what they want to do.” We might view the university of today as a loose federation of faculty entrepreneurs, who drive the evolution of the university to fulfill their individual goals.⁹ In a sense, the research university has become a highly adaptable knowledge conglomerate because of the interests and efforts of our faculty. An increasing share of externally provided resources flow directly to faculty entrepreneurs as research grants and contracts from the federal government, corporations, and private foundations. These research programs act as quasi-independent revenue centers with very considerable influence, frequently at odds with more formal faculty governance structures, such as faculty senates. The result is a transactional culture in which everything is up for negotiation. It is *Let’s Make a Deal* writ large.

Since the academic promotion ladder is relatively short (consisting essentially of the three levels of assistant professor, associate professor, and professor), the faculty reward culture can become one-dimensional, based primarily on salary. Although faculty honors and awards (including endowed professorial chairs) are common in higher education, faculty members tend to measure their relative worth in terms of salary. Laws upholding the freedom of information require many public universities to publish faculty salaries. Even in private universities, one’s salary can usually be compared to the salaries of others either through the informal grapevine or through testing the marketplace by exploring offers from other institutions. Hence, the faculty reward structure creates a highly competitive environment that extends beyond a single institution into a national or even global marketplace for the very best faculty talent.

University presidents can have a significant impact on faculty compensation policies, which are key to recruiting, rewarding, and retaining top talent. While attracting the necessary resources and making the case for adequate faculty salaries to legislatures and trustees is an important responsibility of the president, perhaps even

more so is the articulation of an effective faculty compensation policy that achieves an optimum balance among such criteria as merit, market, and equity. At Michigan, I put into place the following general policy for faculty compensation:

1. The average compensation for full professors at Michigan was set at the top of public universities.
2. However, the best faculty members at Michigan would be compensated at levels comparable to those of the best public and private universities.
3. The average compensation for assistant professors and associate professors was set to be the highest in the nation among public and private universities, since Michigan's tradition was to develop faculty from within rather than recruit at senior ranks through raids, and hence we needed to recruit the very best junior faculty.
4. Deans and directors were compensated at levels comparable to the best public and private universities.
5. Annual salary increases were based entirely on merit (i.e., no cost-of-living increase), occasionally adjusted by market or equity considerations.

It was then my responsibility as president to attract the resources necessary to support such a policy and to make an effective case to the regents, the legislature, and the public as to why such compensation was vital to the university's quality. The success of this aggressive strategy was demonstrated by comparative data. By the early 1990s, Michigan's faculty salaries had passed those at the University of California, Berkeley, to become first among all public universities. At the level of assistant and associate professor, they were first in the nation, ahead of all public and private peers.

Faculty members learn quickly that the best way to increase compensation and rise through the ranks is to periodically test their market value by exploring positions in other institutions. Although many professors would prefer to remain at a single institution through their career, the strong market-determined character of faculty compensa-

tion may force them to jump from institution to institution at various stages in their career. Here, once again, the influence of the president can become important.

University presidents are usually not involved in routine faculty recruiting, since in the typical university, hundreds of searches are under way at any particular time. However, on occasion, the president is brought into the search process to lure a major faculty superstar to the campus. The president will also occasionally play a similar role in attempting to persuade a distinguished faculty member to remain in the face of an attractive offer from another institution. Since so many such efforts to retain a faculty member at Michigan were in competition with West Coast universities, I used to carefully place picture books on the San Francisco earthquakes or other West Coast calamities (e.g., freeway traffic) on the coffee table in my office prior to my meeting with the faculty member. As president, I would also occasionally become involved in recruiting senior minority faculty, in part because of my hands-on involvement in the Michigan Mandate, a strategic effort to increase the university's commitment to diversity.

However, perhaps my most significant impact on faculty recruiting was through particular policy initiatives. My own academic experiences at Yale and Caltech had convinced me that much of the momentum of academic institutions is driven by a few truly exceptional, visionary, and exciting appointments—what I called “essential singularities” (drawing on my mathematical background)—that set the pace for our academic programs. Hence, we created a Target of Opportunity program intended to strongly encourage academic units to recruit such candidates. Usually, faculty searches are heavily constrained by programmatic requirements, such as to search for a historian in Southeast Asian studies or a physicist in superstring theory. However, first as dean and then as provost and president, I would set aside special funds intended to fund appointments for truly exceptional candidates, regardless of area of expertise. We challenged the academic units to identify exceptional hiring opportunities and then bring us proposals for funding the necessary positions. If these proposals looked promising, we would commit from central resources the base and start-up funding necessary to recruit the candidates. We

later extended this program to the recruiting of outstanding minority faculty, with great success.

Of course, such singular scholars are not always the easiest people to accommodate. Some are demanding prima donnas, requiring high maintenance by deans, provosts, and even presidents. It was my role to stroke these folks, sometimes assisting deans in meeting their needs and demands, sometimes simply reassuring them that the university was honored to have them on our faculty and strongly supported their work. Their passion for their work, their unrelenting commitment to achievement, and the exceptionally high standards that accompanied their great talent set the pace for their students, their colleagues, and the university.

Academic leaders spend much of their time either attempting to recruit outstanding faculty members to their institution or fending off raids on their faculty by other institutions. Although there have been attempts in the past to impose certain rules of behavior on faculty recruiting (e.g., through informal agreements that institutions will refrain from recruiting faculty just prior to the start of a new academic year or avoid using the promise of reduced teaching load to lure a research star), it remains a no-holds-barred and quite ruthless competition. The wealthier and more prestigious an institution is, the more aggressively it plays the game.

There is an insidious nature to this intensely competitive market for faculty talent. First, such recruiting efforts are a major factor in driving up the costs of a college education. The competition for faculty superstars can be intense and very expensive. The size of an offer put together to lure a star faculty member away or of the counteroffer the home university puts on the table to retain the individual can seriously distort broader faculty compensation patterns. Furthermore, such offers usually go far beyond simply salary and can involve a considerable dowry including laboratory space, research support, graduate and research assistants, and, yes, sometimes even a reduced teaching load.

Not only does such an effort tax the available resources of a university, but the recruitment package may seriously distort the existing faculty reward structure and lead to the loss of key faculty who feel jilted by the offer to their new colleague. Even more serious are those instances in which an up-and-aspiring university recruits a big-name faculty mem-

ber past his or her prime—an “extinct volcano.” While the reputations of these individuals may add luster to the institution, their excessive compensation and declining productivity can discourage more junior faculty and actually harm program quality over the long term.

Beyond this, several of the wealthiest private universities play a particularly damaging role within higher education by preferring to build their faculties through raiding other institutions rather than developing them through ranks from within. Their vast endowments allow them to make offers to faculty members that simply cannot be matched by public universities. When challenged about their predatory faculty raids on public universities, the elite private institutions generally respond by suggesting a trickle-down theory. Such free-market competition, they argue, enhances the quality of all faculties and institutions. Yet this philosophy promotes the fundamental premise that the very best faculty members should be at the wealthiest institutions. Such predatory behavior can decimate the quality of programs in other universities by raiding their best faculty, who have been nurtured and developed at considerable expense. Even unsuccessful attempts to raid faculty can result in a serious distortion of resource allocation in the target institution, as it desperately attempts to retain its best faculty stars.

SELECTION AND RECRUITMENT OF ACADEMIC LEADERSHIP

University presidents can have the most direct impact on academic quality through the selection and/or recruiting of key academic leaders. After all, universities are intensely people-dependent organizations, with the faculty as the key to both the quality and the reputation of the institution. Clearly, the provost is the most important appointment by the president, since this individual serves as the chief academic officer as well as the reporting line for the deans. Beyond the provost’s responsibility as chief operating officer and second in command, the selection of a provost must take into account the president’s own role and focus. For example, for presidents who are required to devote much of their time to external matters (e.g., fund-

raising, alumni relations, and politics) or who are consumed by internal responsibilities (e.g., athletics, medical affairs, or keeping the governing board happy), the provost may assume a much more significant role in managing the affairs of the campus. At a very complex institution, such as the University of Michigan, it is difficult for outsiders to come up to speed fast enough to survive in the position. Hence, many large universities tend to appoint provosts from within, drawing from among the deans of the larger schools and colleges (particularly the liberal arts college).

The president is also responsible for the selection and evaluation of the executive officers of the university. Unlike government administrators or corporate executives, senior officers at most universities do not serve merely at the pleasure (or whim) of the president. Rather, they are regarded as members of a leadership team that provides continuity from presidency to presidency.

Most university presidents also work closely with their provosts in the selection and recruitment of deans, since these are the key line officers in determining the quality of academic programs. This is particularly critical at a deans' university—such as Michigan—where the dean's role is characterized by an unusual degree of authority (and responsibility) for the leadership of their schools and colleges. In the end, the quality of academic programs is determined more by the ability of deans than by any other factor. At Michigan, some deans lead academic units as large as most universities (e.g., the liberal arts college has over 20,000 students, and the Medical School has over 1,000 faculty). Hence, it is absolutely essential for the president to play an active role in selecting, recruiting, and evaluating deans, since mistakes can sometimes take years to correct, with rather considerable implications for academic programs.

Since deanships are such critical appointments, Michigan developed a practice in which the president, provost, and other senior officers kept their eye out for junior colleagues with leadership potential, providing them with opportunities for leadership development. Just as with deans, changes in executive officers can become complex, particularly when the motivation was a poor performance evaluation or a necessary change in institutional direction. Increasingly, institu-

tions are choosing to negotiate contracts with senior officers that not only spell out conditions of the appointment (e.g., authority and compensation) but also specify exit strategies, along with golden parachutes (taking a lesson from football coaches).

TINKERING WITH TIME BOMBS

Presidents with strong academic backgrounds can become so fascinated with the myriad academic programs of the university that they are tempted to tinker with its academic mechanisms. Such was my own case, since after roughly two decades of experience at Michigan, I had accumulated a large inventory of ideas about the academic organization of the university. Although my many years as a faculty member, dean, and provost had provided ample warning of the hazards that await those academic leaders venturing down the path of academic transformation, the temptation to tinker was simply too great.

Like most new presidents, I inherited a broad array of here-and-now academic issues that simply could not be ignored or delayed. For example, the university was only beginning to emerge from a decade-long trauma of budget cuts and reallocation—the “smaller but better” days of the early 1980s—and there were still difficult decisions about which units would win (i.e., survive) and which would lose (and perhaps disappear). So, too, there was a clear imbalance between supporting administrative and auxiliary activities (notably the massive growth of the Medical Center) and meeting the needs of core academic units, particularly in Michigan’s large liberal arts college. There were deans to appoint—and deans to replace. There was a new executive officer team to build. And of course, there were the inevitable battles, on behalf of the quality and integrity of the university, that only the president could fight—battles against external threats from legislators, governors, Congress, and the media and even against internal threats, such as the Athletic Department.

Yet my real interests concerned more fundamental and strategic academic issues, although prying loose the time from the in-box and the travel calendar to consider academic issues was always a challenge. Among the first issues to draw my attention was undergraduate education. My own experiences in graduate and professional education

provided a very broad view of Michigan as predominantly a university rather than a college dominated by undergraduate education. To some degree, I agreed with such predecessors as Henry Tappan and James Angell that the considerable intellectual assets of a great university can sometimes be wasted on the socialization of young students. Yet I also realized that the University of Michigan had an important responsibility to provide high-quality undergraduate education—indeed, we enrolled over 22,000 students in our undergraduate programs. Furthermore, recent studies had suggested that the institution was too reliant on large lecture courses and teaching assistants and was failing to take advantage of the student residential environment as a potential learning opportunity.

Hence, improving the quality of the undergraduate experience became one of my earliest priorities as both provost and president. Following the Eisendrath fish foodball theory, my leadership team created the Undergraduate Initiative Fund to provide over \$1 million each year of grants to faculty projects at the grassroots level aimed at improving undergraduate education. We created a group of distinguished university professorships to honor outstanding undergraduate teaching. Major investments were made in restructuring introductory courses, particularly in the sciences. We built into the base budget \$500,000 per year to methodically upgrade and maintain the quality of all classrooms for our undergraduate programs. We launched a massive effort to rebuild the physical environment for undergraduate education. Efforts were made to create more learning experiences outside of the classroom through student research projects, community service, and special learning environments in the resident halls. Perhaps most important, the deans began to include rigorous evaluations of teaching in faculty recruiting, promotion, and tenure.

Similar efforts were launched to improve the quality of graduate and professional education. The Medical School completely restructured the medical curriculum to provide students with early clinical experience. The School of Business redesigned its MBA program to stress teamwork and community service. The College of Engineering introduced new professional degrees at the master's and doctorate level to respond to the needs of industry for practice-oriented professionals. The School of Dentistry underwent a particularly profound

restructuring of its educational, research, and service programs. The Institute for Public Policy Studies was restructured into a new School of Public Policy (later named after Michigan alumnus Gerald R. Ford). And under the leadership of Dan Atkins, a colleague from my days as dean of the College of Engineering, the School of Library Science was transformed into a new School of Information—the first of its kind in the nation—developing entirely new academic programs in the management of knowledge resources.

International education was also given high priority. Following planning efforts led in the 1980s while I was provost, a series of steps were taken to broaden and coordinate the university's international activities. The university created a new International Institute to coordinate international programs. It continued to expand its relationship with academic institutions abroad, with particular emphasis on Asia and Europe. Of particular note were the distance-learning efforts of the School of Business, which used computer and telecommunications technology, along with corporate partnerships, to establish overseas campuses in Hong Kong, Seoul, Sao Paulo, Paris, and London.

Yet even as our leadership team successfully implemented this broad agenda, it was becoming increasingly clear to many of us that we needed to ask some more fundamental questions about the nature of learning and scholarship at such a major research university. For example, most of our efforts to improve the quality of undergraduate education were working within the traditional paradigm of four-year degree programs in disciplinary majors designed for high school graduates and approached through solitary (and, all too frequently, passive) pedagogical methods. Yet society was demanding far more radical changes. Hence, as president, I began to challenge our faculty to consider bolder initiatives.

For example, it was clear that in a world in which our graduates would be required to change careers many times during their lives, a highly specialized undergraduate education became less and less appropriate. Instead, more emphasis needed to be placed on breadth of knowledge, on critical thinking, and on the acquisition of learning skills—that is, on a truly liberal education. In a sense, an undergraduate education should prepare a student for a lifetime of further learning. Yet how could we create a truly coherent undergraduate learning

experience as long as we allowed the disciplines to dominate the academic undergraduate curriculum? How could we address the fact that most of our graduates are quantitatively illiterate, with a totally inadequate preparation in intellectual disciplines that will shape their lives, such as science, mathematics, and technology?

The challenge was to develop a rigorous undergraduate degree program that would prepare students for the full range of further educational opportunities, from professions including medicine, law, business, engineering, and teaching to further graduate studies across a broad range of disciplines from English to mathematics. Far from being a renaissance degree, such a “bachelors of liberal learning” would be more akin to the type of education universities once tried to provide a century ago, before the deification of academic disciplines took over our institutions and our curriculum.

To this end, I suggested that the university broaden the responsibility for undergraduate education beyond our liberal arts departments, to include the faculties of our professional schools. While well received by the faculties of the schools of medicine, business, and engineering, these efforts were strongly resisted, perhaps understandably, by the faculty of our liberal arts disciplines. Of course, this should not be surprising to those familiar with Michigan’s institutional saga and with C. C. Little’s failed efforts to develop a “university college” (see chapter 1). To counter these concerns, my leadership team came up with a major project, the Gateway Campus, which was intended to become the focal point of undergraduate education at Michigan, if we had been able to get it funded.

The plan was to build a major cluster of facilities on the university’s Central Campus that would provide a physical space that would be clearly identified by students, faculty, and alumni as the university’s focal point for undergraduate education. It would include major facilities for undergraduate instruction, including lecture halls, classroom clusters, and multimedia spaces. It would also house several of our most important museum collections. We referred to the complex as the Gateway Campus both because of its role in providing students with the gateway to their undergraduate education and because of its function as a gateway to the campus for various external communities attracted by Michigan’s museum collections and performing arts.

A financing plan was developed for the Gateway Campus, using a combination of private gifts, state support, and internal university funds. However, we were unable to raise the nucleus private support (estimated at \$75 million) to launch the project. Today, instead of being a space marked by commitment to undergraduate education, the proposed site for the Gateway Center has become the location of the massive Life Sciences Institute, a complex primarily devoted to research and postgraduate education (and representing, to many, a beachhead for the Medical School on the university's liberal arts campus).

Far more successful was a similar effort to build a multidisciplinary center on the university's North Campus. The Media Union was developed with a somewhat different theme: creativity and innovation. The university's North Campus is characterized by a very unusual collection of academic programs: art, architecture, engineering, music, the theatrical performing arts (drama, dance, musical theater), the new School of Information, and computer science. In contrast to many professional and academic disciplines that stress the analysis of what is or has been, these programs attempt to create or synthesize what has only been imagined. Hence, the deans of the schools containing these North Campus programs came up with a theme captured by the term "the Renaissance Campus"¹⁰ and sought a major center to integrate and support the multidisciplinary activities supporting these creative activities.

Working closely with the governor I was able to obtain a commitment of \$70 million of state funds for the project, along with unusual flexibility in its planning. This enabled me to pull together a highly creative team of faculty and deans and challenge them: "Here is \$70 million. Design us a facility for a twenty-first century university!" Together, they came up with a fascinating new concept, best captured by the name of the new Media Union, which was a play on the name of the Michigan Union of the Central Campus (the nation's first student union) but also suggested the merging of various media (art, music, architecture, engineering) and senses (sight, hearing, touch, etc.) into a space designed to stimulate creativity and innovation. I found written in one of my notebooks from the time: "This could well be the most important project the university will undertake in the decade ahead, since it could well define what the twenty-first-cen-

tury university will become. But we need to keep it low key to avoid scaring people. Let's keep it on track by just using an occasional nudge, a 'just trust me,' or 'humor your president.'"

Our \$2 billion effort to rebuild the campus gave us many other opportunities to stimulate new intellectual activities, even though the Gateway Center on the Central Campus remained only a dream. An array of new research laboratories in the health sciences integrated clinical research with molecular genetics and proteomics. New facilities were created for interdisciplinary centers, such as the Institute for the Humanities, the International Institute, the Tauber Manufacturing Institute, and the Davison Institute for Developing Economies. And we continued to sprinkle the campus with new facilities aimed specifically to support undergraduate education.

We also sought to make more use of novel organizational structures. Michigan has long been a leader in establishing interdisciplinary centers and institutes that reach across disciplinary boundaries. However, we believed we needed to go further than this. We tried to create alternative virtual structures that drew together students, faculty, and staff in new ways. The Global Change Program and the Center for Molecular Medicine were such efforts. Some of these ideas worked. Others stayed on the drawing board, such as the concept of reorganizing disciplines to better link together academic and professional disciplines in key areas (e.g., linking the humanities with the visual and performing arts; the social sciences with professional schools, such as business, law, and education; or the physical sciences with engineering). The only linkage that eventually succeeded was that between the biological sciences and clinical disciplines, in part because the university's massive investment in the Life Sciences Institute enabled the integration of the basic sciences in the Medical School with the biological sciences in our liberal arts college.

Many lessons spill out of this array of triumphs and failures in academic leadership. First, it is difficult for the university leadership, at least at the level of the president, to have sufficient understanding of intellectual issues to determine the optimum organization of an academic institution. Top-down reorganization, while perhaps the quickest way to respond to present challenges, might just create new empires that would eventually dominate the institution and constrain

change, just as our present discipline-based units sometimes do. Furthermore, it was clear that technology itself was challenging the basic organization of the University of Michigan. Such information and communications technologies as e-mail, instant messaging, and more sophisticated collaborative tools (known collectively as cyberinfrastructure) are allowing the formation and evolution of new types of knowledge communities engaged in learning and scholarly pursuits that are increasingly detached from both traditional academic units and the campuses themselves.

Hence, I became convinced that the most effective route to change for the long term was to encourage experimentation driven by our best faculty. Universities need to break the stranglehold of existing organizational structures dictated by traditional disciplines, and this can be accomplished by creating new grassroots incentives and opportunities to allow the institution to evolve more rapidly along changing intellectual lines. The Eisendrath fish football approach is always a good place to start.

THE CHALLENGES TO ACADEMIC LEADERSHIP BY THE PRESIDENT

The most serious challenges to the efforts of university presidents to provide academic leadership involve time and perception. All too many people—including faculty, trustees, and the public—view the president’s primary job as “going downtown to get the money.” Academic matters are presumed best left to the faculty. Some of the responsibility for this perception must rest with those presidents who have intentionally distanced themselves from the academic enterprise to focus more of their efforts on off-campus activities, such as private fund-raising, government relations, and corporate boards. Yet many university presidents remain quite active in academic affairs, at least on educational issues of major national import, such as diversity, student access, and undergraduate education. Others have taken on broader issues in their areas of expertise, such as international development, bioethics, and technological change. While it is true that some presidents simply do not have the time, the inclination, the experience, or the credibility to speak out on national issues, others

have taken courageous stances on key issues of importance to higher education. Here, it is important to stress again the importance of the governing board, both in selecting presidents with a deep understanding of the academic nature of the university and in clearly charging them with the academic leadership of the institution as among their most important duties. Furthermore, the governing board plays a key role in both empowering and enabling the university president to provide broader leadership on behalf of higher education, defending the important values and traditions of higher education and articulating the importance of the university to contemporary society.

Those presidents associated with prominent universities have opportunities to represent the interests of higher education at the national level through such organizations as the Association of American Universities, the National Association of State Universities and Land-Grant Colleges, and the American Council on Education. Because of my background in science and engineering, I also had the opportunity to provide leadership through the National Academies and through such federal bodies as the National Science Board. However, like many presidents, I occasionally encountered regents uncomfortable with these broader roles—including one regent who actually tried to block my acceptance of the chairmanship of the National Science Board.

Many university presidents have served with great distinction as teachers and scholars and developed a strong understanding of academic values and culture. Yet the broader responsibilities of the university presidency—its executive role and its responsibility for managing the myriad external relationships of the universities with governments, donors, the media, and the public—lead many, particularly among the faculty, to assume that their president has set aside academic values in favor of corporate behavior as a chief executive officer. From time to time, most university presidents are criticized for accepting the “corporate” nature of the university administration or of their actions as chief executive officer of the institution. Woe be to the president who mistakenly uses terms from the business world, such as *employee* or *customer* or even *productivity*. Once, while I was in a foul mood after being beaten up at a meeting of my faculty senate for presumably using such business language, I went back to my office and used computer technology to run a word search on every one of

my speeches, essays, and letters over my years as president (over 2,200 files), searching for the words *corporation* and *corporate*. To my surprise, I found that I had never referred to the university as a corporation. The computer search found only two instances of the use of the word *corporate*. In one, I suggested that the “corporate style of top-down management was totally inappropriate for a university.” In the other, I suggested that the “corporate culture” of the university needed to be reexamined, actually referring to the “collective culture.”

Quite in contrast to negative perceptions, I made a special effort to restructure the university administration so that it was more attentive to academic values, by seeking to appoint executive officers with academic experience. In most university administrations (including those before and after mine at Michigan), only the provost, the vice president for research, and (occasionally) the president have academic experience and credibility. However, by the end of my tenure, every one of my vice presidents—including those in such areas as finance, development, state relations, and secretary of the university—were experienced academics with doctorates and faculty appointments. Furthermore, most of our deans also had long records of distinction in scholarship and teaching. In this sense the Michigan administration provided a good example of true faculty governance, since we were all faculty members ourselves.

Although many people both within and external to the institution tend to evaluate university presidents on dollars raised through fundraising or state appropriation, buildings built, football championships won, and perhaps trustee desires fulfilled, the true impact of a president on the academic quality of an institution is generally not apparent for years afterward, usually long after most presidents are gone and forgotten. The real key to an effective university presidency is the ability to attract and support talented people—students, staff, faculty, and particularly academic leaders. This people-focused character of academic leadership requires considerable experience with the core activities of the university: teaching and scholarship. It also requires good taste in identifying talent, strong recruiting skills in attracting it, the insight to develop it, and the persuasive ability to retain it. And it is almost never understood or acknowledged as the most critical role of the university president.