

gineering Institute. More than 22,000 square feet have been allocated to accommodate the chemical engineering aspects of bioengineering. This building is expected to be completed and fully operational by the winter of 1990.

CONCLUDING REMARKS

In summary, these are exciting times at Rice University. The implementation of the new enhancement program is another big step toward the goal and commitment of Rice University in striving for excellence in its undergraduate and graduate education. In particular, the formation of the Biosciences/Bioengineering Institute significantly enhances our biochemical and biomedical engineering program. It creates a unique environment which fosters close interactions between life scientists and engineers. The Institute will also serve as an effective administrative body in pro-

viding all the necessary logistical support to facilitate interdisciplinary collaboration. More importantly, the potential barriers which often arise from distant physical locations of various departments across the campus will be removed by housing life scientists and engineers under the same roof. As such, it will not only create an atmosphere which promotes interaction between the students and faculty from different disciplines, but will also provide opportunities for the engineering students to work, side by side, with life scientists from other research groups. We therefore firmly believe that our program provides a unique and challenging educational environment. Students graduating from the bioengineering program will be well-equipped with fundamental training and will have had the necessary exposure in both engineering and life sciences for further professional development. □

ChE letters

STATE OF THE UNIVERSITY 1988-1989

To The Editor:

The following is excerpted from a larger document, "Faculty Perceptions of the State of the University, 1988-1989," which was prepared for the Faculty Senate at the University of Cincinnati. I chaired the committee which produced this report.

A university becomes too large when it can no longer provide members of the university community with the services or ambience they expect, without amassing such complicated bureaucracies that they actually end up preventing the very goals they are attempting to achieve. Steven Muller, President of Johns Hopkins has said, "The major research university of today is a radically different institution than its predecessors of three or four decades ago. The most obvious difference is size. There have now evolved in the United States between 50 and 100 major research universities that are megasize—numbering their students in tens of thousands, their faculty and administrative cadres in thousands, their buildings and their acreage in hundreds."

Most educators agree that "multiuniversity" is an apt description of the university of today. Twenty years ago Columbia University had three vice presidents and a budget of \$136 million; now it has 12 and a budget of \$619 million. The problem in managing such vast institutions has led to what A. Bartlett Giamatti, former President of Yale, called "the corporatization of the American

university," and then wrote, "One of the great inventions of 20th century America, the private corporation, has begun to displace, as a formal structure and as a style of management, the older ecclesiastical and academic structures and styles in which universities grew up." He suggests that the "collegial" style of shared decision-making has given way to the hierarchical style of big business. While big institutions need capable administrators, "too many people see themselves as managers first, academics second. They talk about strategy, not vision. Numbers replace rhetoric. An institution that once saw itself as connected to history now prides itself as 'at the cutting edge'. The greatest subtle, unintended effect of these trends has been to split off the managers from the faculty."

If universities are becoming corporate at a time when contemporary corporations are de-layering and decentralizing, then there ought to be a symbolic lesson learned from recent corporate history. American corporate executives often have acted as a privileged class, asking sacrifices of middle management, professionals and other workers, that upper management will not make. While the rhetoric of corporate culture stresses the need to work together, the top executives stress efficiency and impose work rules and cost cutting measures. They vote themselves raises, golden parachutes and bonuses, while workers at all levels are laid off. During the recession years of 1981 to 1983, the compensation of chief executives nearly doubled while national unemployment passed the 11% mark. In symbolic contrast to these American management practices, Japanese executives in

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LETTER TO THE EDITOR

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times of economic crisis cut their own compensation first. (In the last two years, Japanese manufacturers cut their executive salaries to absorb the external shocks of the appreciating yen.)

Many American corporations now are seeking to lessen the damage of management versus labor battles by giving more workers a chance to advise on corporate methods and strategy in the workplace. In the meantime, in the universities, there has been a proliferation of managers, the very well-paid academic and non-academic administrators who don't teach. So the universities, always about a decade behind the rest of the country, are just now discovering how privileged the management class has become and finding ways of distancing the managers and functionaries from the professors. We see administrative layer upon layer burgeoning, with proportionately less support available to serve those of the academic "production" side. This hierarchy in a university bureaucracy creates alienating conditions deterring communication between the classroom and the laboratory on the one hand and the deans, vice presidents and the president on the other.

A perception of privilege undermines a sense of

community on many campuses. University administrators in major universities around the country, for example, drive university cars, with reserved parking places. They may also have free memberships in social clubs. A clear message of power and privilege, symbolically and actually, is communicated to all. The atmosphere and class distinctions become demoralizing. Privileges are perceived not as nurturing qualities of commitment to the life of the mind, nor qualities promoting loyalty to the institution. Much of a university's energy today is invested in perpetuating the non-academic instruments of control and maintaining the structure of a self-perpetuating bureaucracy.

The heart and reputation of a university, and the affection and esteem in which it is held, do not reside solely in the dollars awarded its research professors by extramural agencies. Rather, the perceived greatness of its commitment to the education and nurturing of its students and the respect accorded faculty and their creative works, determine the long-term well-being of the university. Every student graduating from the institution, and all its faculty members, promote the university in terms cynical or laudatory, depending on his or her experiences. Thus the faculty and administrators ought to enhance their institution's well-being by promoting the self-esteem of the students and faculty. Students and faculty are inexorably linked. This means fostering collegiality, reducing the sense of an impersonal and disinterested bureaucracy. It means finding out, perhaps by exit interviews with graduates, what is actually happening within the university (rather than doing surveys on quality of life). The same ought to be done with departing faculty members. Paying attention to practical problems such as the availability and cost of parking, courtesy, maintaining clean classrooms, and promptness of response to inquiries are ways university administrations can show respect for the needs of students and faculty. It also means the president and vice presidents and deans should meet with faculty members and students at the working academic level, the basic teaching units of the university. Wanting to do these things and more would be a unifying influence. This requires, ultimately, the recognition that all administrators are temporary caretakers for the new generations of students always coming and going and respecting the teachers who transmit their learning and pursue new knowledge. The history and continuity of a university resides in the quality of work and loyalty of its students and faculty and the non-academic workers who serve in making the central purposes of the university easier to accomplish.

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