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Encouraging Improved Performance in Higher Education

CARDINAL CUSHING COLLEGE died last year. New York University closed a campus. New College lost its private status. These are extreme manifestations of serious developments within higher education as a whole. If colleges and universities are to maintain the vigor of their intellectual leadership and the quality of their pedagogic pursuits, they had best undertake practical methods to deal with these developments.

A program to encourage improved performance would be a good way to begin. An institution undertaking such a program would be compelled to engage in the somewhat unfamiliar exercise of both deciding and describing precisely what it wants to accomplish, in other words, of formulating pursuable objectives. Perhaps even more important, it would have to organize itself to seek these objectives. To do this, it would have to create incentives to foster improved performance.[1]

Not everybody in higher education will greet this proposal with enthusiasm. Many will feel that it smacks of anti-intellectualism: attention to performance may be appropriate to General Motors; it is not generally assumed to be applicable to colleges and universities. Some will believe that such initiatives will only open the door to external or nonacademic control of their institutions, with academic freedom being the ultimate, if unintended, victim.

The dangers and drawbacks to an objectives-and-incentives policy are very real, but there are severe hazards to continuing in the old ways. Demands for accountability by higher education are being heard with increasing frequency. Fiscal pressures are exacting significant sacrifices from many institutions and individuals within them. There is a competition between the risks of change and those of the status quo. This suggests that any effort to encourage performance should be calibrated to achieve the greatest net improvement, as indicated by expected accomplishments minus attendant losses. A carefully gauged program to improve performance may conceivably help a college or university contend with some uncomfortable realities.

From the standpoint of many of its supporters, higher education may not have been accomplishing enough of the right things. Students have discovered that a college education may not prepare them for rewarding employment. Alumni have learned that even with generous support, students may tramp on, not cherish, revered values. Government policymakers have found that a multi-billion dollar research community cannot supply satisfactory answers to such pressing problems as poverty, energy, and managing the economy.

Why should supporter satisfaction be an issue now? In part, with the rapid changes within and outside higher education, many programs have been rendered out of date.[2] But the preeminent reason for paying attention to supporters' desires is simply dollars. The margin of survival for some colleges and universities has become perilously narrow. Many are having difficulty securing the funds for functioning effectively.

The major problem is not, as it is sometimes asserted, that levels of traditional support have been curtailed. Private donations to support higher education have never been greater. Actual federal outlays are increasing at a faster rate than at any time in the past five years. State expenditures continue their rapid expansion, and tuition dollars are growing as well.[3] The crisis-inducing factors are three: diminished student enrollment due to the reduction in the college-age population and the elimination of the draft; the rapid inflation in costs transmitted from the general economy; the plunge in the stockmarket that has seriously reduced endowments and forebodes dwindling contributions from nongovernmental donors. Higher education institutions have few weapons for combating any of these pressures. If these institutions are to maintain their vitality, one requirement is clear: they must secure more funds from their supporters.

The major supporters of higher education—governments, foundations and students (past, present, and future)—have a vast array of needs and desires, including, fortunately, the wish to keep higher education alive and well. Colleges and universities must select from among these needs those which they can most successfully and beneficially meet. This is not a call to accountability stemming from dissatisfaction with past performance. It is simply the recognition that higher education's years of affluence have run out.

Though colleges and universities are not in an enviable financial situation, neither are many of them on the very borderline of solvency. Some programs will be curtailed, some projects foresaken, some promotions foregone, but the major events in higher education will not be chronicled as obituaries. Institutions of higher education and the subunits within them, once they are well established, can survive remarkably trying circumstances. Indeed, a key problem in these times of scarce resources may be to find merciful means for curtailing the lives of some of them. The major benefits deriving from an improvement in performance will come not to the relatively small number of schools attempting to stave off bankruptcy, but rather to the many whose financial situation is simply less than prosperous. Its purpose lies in making a period of inevitable contraction as painless as possible by increasing funding beyond what would otherwise be available, by accomplishing more with what resources can be secured, and by assuring that the sacrifices that must be made are the least damaging.

When, in 1973, the Carnegie Commission ended its six-year labors, it settled on the following purposes for higher education: (1) "the education of the individual student and the provision of a constructive environment for developmental growth," (2) "advancing human capability in society at large," (3) "educational justice for the postsecondary age group," (4) "pure learning—supporting intellectual and artistic creativity," (5) "evaluation of society for self-renewal—through individual thought and persuasion."[4] It would be difficult to quarrel with these lofty aims (or comparable ones set forth by other blue ribbon panels), which serve admirably as vehicles for exhortation.

To perform more effectively, however, institutions of higher education are going to require objectives that they can pursue as well as those they can revere. The new United States Commissioner of Education, Dr. Terrell Bell, made the point bluntly: "Every key person in a school district or at a college should know what the objectives and performance priorities are before each academic year begins" (*New York*

Times, June 23, 1974). From this perspective, rhetorical phrases may be more of a hindrance than a help. They tend to create targets so broad that any well-intentioned program or institution can hardly fail to hit the mark. Hortatory objectives are difficult to pursue; they will be of little use in guiding performance.[5]

If objectives are to be pursuable, there must be ways to measure progress. The failure to develop adequate performance measures in the past does not necessarily reflect slack efforts or stunted imagination. The task is immensely difficult; it should not be approached as an exercise in precision. Many of the products of higher education are not readily susceptible to measurement. Others, such as a student's career development or a research finding, may require a lifetime or more to make their impacts evident. When, as is frequently the case, schools are unable to monitor precisely what they are seeking, they will have to accept a second-best possibility and investigate which observable surrogates will best do the job.

Through careful planning certain common errors can be avoided, such as measuring the wrong things. Colleges and universities are supposed to contribute something to their students, faculties, and society at large. Simply detailing what emerges from a particular school does not indicate how it is doing; it is essential to know what it started with, so that its contribution can be determined. For example, if test scores are used as one indicator of achievement, students' matriculating and final test scores should be compared. While this point may seem obvious, a large proportion of all the usual indicators of educational performance examines only one end of the pipeline.[6]

Another potential error, a mistake less of logic than of lassitude, is leaving out valued objectives simply because they cannot be easily measured. Given such omissions, no overall assessment of progress can be accurate. Stagnant situations may be allowed to persist, since excessive claims of achievement on omitted objectives cannot be evaluated. If a remedy is sought to this problem by making measured progress important, the converse problem of "teaching for the test" will arise: performance on the unmeasured attributes will be sacrificed to those that can be tallied. At a minimum, schools should attempt to develop procedures that register, at least approximately, gains and losses that elude precise measurement. In particularly intractable circumstances, rather than omit an objective, a few paragraphs of evaluation from experienced, impartial observers may be most acceptable. If such evaluations were collected on a regular basis, the series could give some indication of direction. Measures even this crude will provide helpful information if an institution of higher education seeks to bolster its performance.

It is particularly important that those objectives that cannot be appropriately quantified or readily put to a market test be identified and clearly delineated. If they were not protected this way, whether or not there is a program to encourage performance, these objectives would in all likelihood become the most easily sacrificed.

A school may be concerned, for example, with the advancement of cultural opportunities in its community. If so, it might draw up an informal status sheet listing concerts, plays, lectures and indicating the levels of attendance from the general public. This rough procedure obviously could not take into account gains in quality that offset declines in participation, neither could it balance an hour at a student poetry reading against an evening of Shakespeare. But it could indicate an area of institutional interest, and insure that its contribution there will not be overlooked.

Many institutions might wish to protect or promote scholars whose academic interests are not presently—and perhaps will never be—in vogue. These schools should state explicitly their desire to maintain scholarly excellence in certain non-popular fields, even at the cost of sacrifices elsewhere.

While the failure to develop pursuable objectives and adequate performance measures in the past might have been justified on the grounds of extraordinary difficulty, such an argument is no longer compelling. University administrators are faced with serious financial problems; competition for dollars among existing programs is great. Where programs and payrolls may have to be cut, attention to objectives is mandatory.

Apart from concerns of internal management, there is another excellent reason why colleges and universities should establish their own pursuable objectives. If they do not do so, their outside supporters—who are increasingly eager to learn of relevant objectives, measures, and performance—may create goals for them.[7] Once this happens, however innocent the original intention may have been, there will be a tendency to tie continued support to previous performance, inflicting a loss of autonomy on colleges and universities and producing some woefully inappropriate definitions of objectives. If institutions wish to fend off outside surveyors, it is imperative that they assume the obligation of creating measures to evaluate themselves. This will require some self-examining research. Such research has been surprisingly absent to date. Given the penchant of academics for judging so many other social institutions, it is remarkable they do so little by way of judging themselves.

Higher education has concerned itself little with the development of mechanisms to guarantee that its objectives, once formulated, will indeed be pursued. The mere espousal of objectives, however concrete and measurable, accomplishes nothing. Even if there were a schoolwide or nationwide consensus on objectives, hundreds of individuals or thousands of institutions must still be induced to work towards them. As well-intentioned as they might be, they are no exception to the incentives-produce-performance rule.

The publish-or-perish system in operation at many colleges and universities provides a remarkable example of the power of incentives. Myriads of individuals spend multitudes of hours writing unremunerated and frequently unimportant articles for only one reason: within their institutions there are no significant competing management incentives. No task other than the publishing of research, however well performed, leads to promotion.

Incentives other than tenure have rarely been employed as a conscious tool of management within higher education. The best illustrations of their capabilities in this area come not from their judicious employment by internal administrators, but rather from their use and abuse by others. Alumni have at times exerted significant influence on institutional initiatives in return for contributions that were relatively small in comparison to total budgets. Student pressures that could be alleviated through concession have wrought significant changes. The federal government has sent researchers scampering from field to field as research dollars were made available first one place and then another. When, on the other hand, the government made good its threat to hold back funds, it forced universities to efforts on behalf of affirmative action.

The importance of incentives as a means to improve performance is also made evident when they are not used. For example, there is virtually universal agreement within many universities that the quality of undergraduate teaching needs to be improved. But so long as classroom performance is virtually ignored in decisions about promotions and salaries, whatever the wording of unanimous faculty resolutions, no gains can be expected.

The role of rewards as a means of achieving performance has been weakened in the past by several factors.[8] First, in their privileged status, institutions of higher education received support without being required to provide evidence of genuine accomplishment. This beneficence allowed freedom of operation to supersede internal management as a desideratum. Knowledge and cultural values were established as the overriding concern. Financial considerations were kept in the background, being thought almost too tawdry for consideration. Furthermore, major decision-makers, having almost invariably come out of scholarly rather than managerial positions, were seldom trained to the use of rewards for inducing achievement. In addition, because college-age youths were so numerous, and their subsidies for attending college so substantial, full enrollment was virtually guaranteed and the need to respond to student interests minimal. Finally, reward systems were frequently not designed to secure maximum performance. Rewards, status in particular, have traditionally come from securing brighter students and more celebrated faculty, acquiring more abundant grant monies and support funds, but only rarely from what institutions did with these "stars" and dollars.

The sensible implementation of an objectives-and-incentives system starts with the question: What do you want to accomplish? The answer should be provided by the formulation of pursuable objectives. The next question is: Whom do you want to accomplish it? Incentives can be directed to individual students or faculty members through such obvious rewards as national scholarships and reduced teaching loads; colleges or universities can be influenced by grants specifically made for the launching of new programs; higher education as a whole may be pressed through a well-communicated message from Congress that it bears the responsibility to serve as a primary agent for social mobility.

The loose organization of higher education in this country makes it fruitless to tie rewards for schools or individuals to the performance of higher education as a whole. No institution or individual would modify his behavior, since his actions would have so little effect on the measure (nationwide performance) for which he is being rewarded. National groups, such as the American Association of University Professors (AAUP) or the Association of American Colleges, have neither the coordinating tools nor the internal incentives to coerce better performance from their members.

Incentives should be applied where an individual's or institution's performance is important, and where that performance can be monitored and rewarded. This would imply that, however great the rewards to all, unless incentives operate at the level of the individual or institution, it is useless to continue our calls to improve higher education. To give only one example, the cry for greater diversity will be met only when it is in the interest of individual schools to specialize. This may be accomplished by rewarding them for achievement. Such rewards would induce them to specialize by adopting the procedures or curricula that make maximum use of whatever particular resources and capabilities they possess.

The use of incentives to encourage performance in higher education will not always prove beneficial. Incentives are only a means of influencing actions, but this generally implies an element of control. Higher education, with its horizontal structure and consensus-rule orientation, traditionally views with suspicion any kind of control, however laudable the underlying intentions may be. Further, incentives systems are subject to misuse, and their widespread application will sometimes generate unfortunate byproducts. The principal hazard is not incentives schemes developed to achieve undesirable purposes; these can generally be fought on the inappropriateness of their avowed ends. The danger is in the well-intentioned but misapplied incentives mechanism, one which is not sufficiently thought out at the start.

The federal effort to manipulate capitation grants to medical schools to correct the uneven geographic distribution of health professionals provides an example of the type of program to be avoided. The medical schools simply do not have appropriate leverage to influence where their graduates choose to practice. The schools would have to make significant sacrifices, perhaps in the integrity of admissions or the design of curricula, to ensure the program's objectives. It would have made better sense for the federal government to provide direct subsidies to individuals who choose to go to undermanned areas. Direct incentives of this sort offer an important additional advantage. The provider, the government in this instance, learns automatically how much it is costing him to achieve an improvement in performance and can shift or modify policies accordingly.

Inattention to the relationship between cost and achievement has also been a primary failing of federal efforts designed to secure faculty hiring of both minorities and women. According to the recent report by Richard Lester to the Carnegie Commission, some individuals within universities have felt their independence and scholarly traditions threatened by those efforts; yet the supposed beneficiaries of the programs have in fact secured relatively few positions. Investigation at the outset would have made it evident that without an accompanying increase in the supply of qualified individuals, hiring incentives (or non-hiring penalties) would produce little beyond a recruitment competition for the same few people.

If the program had been structured so that there was an incremental reduction in penalties in return for any improvement in performance, the cost of progress or non-progress would have been evident. As it was, because the penalties were administered on a massive all-or-nothing basis, they were too harsh to be widely employed. Little was learned, and the few schools that were in fact punished were punished excessively, and, in a comparative sense, punished unjustly.

The doctor-distribution and affirmative-action examples demonstrate how poorly conceived incentives mechanisms can produce unfortunate results. Most such situations can be avoided through thoughtful formulation, but even the most sophisticated pay-for-performance program cannot judiciously price all valued attributes or accurately monitor all relevant information about behavior and performance. Institutions and individuals will find it profitable to undertake strategic actions that capitalize on these weaknesses. Such actions will hinder the program's performance. More important, strategic behavior, whatever its effects, is likely to be considered unattractive within a college or university setting.

Confronted with reward mechanisms, faculty members and administrators will find ways to manipulate their supporters' incentives systems to their own benefit. New illustrations will be provided for old lessons such as: Don't waste good behavior if it will be better rewarded at some future juncture or in a different arena. Play up unsatisfactory circumstances that can be corrected for a price. Camouflage penalizable blunders, and spend some time advertising compensatable successes. This will not be teaching old dogs new tricks, just encouraging them to perform some of their less satisfying old tricks more often.

Those who provide incentives, whether internal or external to the college or university, will find it worthwhile to develop a few ploys of their own. In paying for what they want, they will be sure to consider what they would have gotten anyway. (Economists would phrase this as looking at the elasticity of the supply curve.) For example, whether an Arts and Sciences dean concerned with declining enrollments should or should not reward departments for attracting outstanding undergraduates as majors depends on whether he thinks they are being pulled from other colleges or merely from other departments.

Not only will people become more devious in their behavior in seeking or administering rewards, the rewards themselves will change. Institutions of higher education have heretofore run on subtle incentives that are frequently screened from view. In a community where two promotions make a career and salary differentials are narrow, a pat on the back from the dean, warm applause at the conclusion of a course, or a few extra minutes with the president may seem very significant. Once incentives are made explicit, many of these nuances will be lost. Some of the most valuable present currencies will have been depreciated.

The most alarmist opponents of the conscious structuring of new incentives will argue that the whole aura of a college or university would be destroyed if performance rewards are introduced. The institution will be turned from a place where scholarly, educational, and cultural values are sought to a bazaar where everything has its price. This seems an extreme point of view. Our purpose is not to propose that students and professors should scramble to maximize their revenues; our society expects more and rewards more from a university than mere economic efficiency.

If higher education moves to an incentives-for-performance system, the bases for support will change. The present system rewards handsomely those programs and individuals that can generate an atmosphere of creative excellence and productivity. Most that do well under this system should continue to thrive if performance measures are made much more explicit. But there will be some losers, some because they deserve to lose, others because the system makes errors. Prominent among the losers will be those that cannot substantiate legitimate claims for support. Among these, certain valuable activities will doubtlessly be sacrificed. On the positive side, institutions or individuals who are not presently favored will find that they are able to do a good job and be rewarded. For example, under such circumstances New College, which by many accounts was performing creditably, might have retained its private status.

Some will lose because the system works well. If demand does not expand apace, greater efficiency may mean fewer jobs for professors.[9] Academic positions will be scarce no matter which course is followed, but purposeful inefficiency, whatever the circumstances, is hardly a comfortable basis for keeping one's job. If employment maintenance becomes a key objective, colleges and universities may undertake alternative, more attractive methods to bolster demand—universal free access or more individualized education as a minimum standard may become more common. With their attention turned to performance, a number of institutions that presently concentrate on the single output "undergraduate receiving a liberal arts education" will find it worthwhile to generate other services of value. Adult and continuing education, paraprofessional training, cultural services to the community are only a few of the areas where these colleges might make a contribution as well as help to employ some professors.

The final question for any objectives-and-incentives scheme is: How should you reward performance? A variety of currencies is available. Some may take advantage of the exceptional importance of prestige within the academic community. Depending on what modifications are made in the tenure system, job security may become a more flexible means of reward. Still, America is accustomed to financial incentives. Dollars for achievement is perhaps the most promising way to secure improved performance from colleges and universities and those who work within them.

If dollars are to be employed as a reward for achievement, institutions will have to make an effort to secure more freedom in the allocation of funds. The tenure system, legal restrictions on funds, and the tradition that avoids cuts in support have left institutions remarkably little room to maneuver. Any major gains in flexibility will have to come from the use of incentives that are not always positive. In past times of affluence, there was not much need to use penalties. But when resources are restricted, one group's gain may have to be another's loss, not just its lesser gain. (Some currencies, such as prestige, may not allow all recipients to gain simultaneously.) Since institutions of higher education can offer relatively few incentives, and since the status quo is already acceptable to many of their inhabitants, the threat of a lesser gain in the few areas where incentives do operate is unlikely to be very powerful. If colleges and universities wish to improve their performance, they will have to subject their faculty members and administrators to more significant risks. Even tenured faculty members can be subjected to a meaningful penalty in these times of rapid inflation: a salary increase can be withheld.

Incentives schemes require information. If someone is to be rewarded, his performance must be monitored. If he is evaluated skillfully and rewarded equitably, this monitoring is more likely to be regarded as a useful form of communication than as an unpleasant act of intrusion. Incentives schemes through their very operation also convey information. If professors were paid bonuses to take on additional undergraduate thesis advisees, administrators would soon find what value that task carried. This would be very useful information indeed if the university were deciding whether more students should be encouraged to participate in a thesis-writing honors program.

Incentives schemes also transmit information from provider to recipient. When a provider tells how much he is willing to pay for improved performance in each of a variety of tasks, he is in effect describing his willingness to make tradeoffs among them. (If he will pay three dollars for another unit of A, and two dollars for a certain performance gain on B, he suggests that he is willing to sacrifice the gain on B if he can secure another two-thirds of a unit of A.) Surprisingly, when objectives for higher education are delineated, there is almost never any indication of the importance of achievement in one relative to achievement in another. Putting incentives into the system automatically raises the critical tradeoff issue which might otherwise be overlooked.

In some circumstances, incentives can reduce formal information requirements; freedom of operation may be enhanced. For example, a department may place twice the value on the task "teaching a one-semester graduate seminar" than it does on "directing an undergraduate thesis." If these comparative values are employed as weights in computing workload and tallied on a two-for-one basis, there may no longer be a struggle to secure thesis advisers for undergraduates. The chairman's arm twisting and close supervision of his faculty may be replaced by imposing certain minimal accounting chores on the departmental secretary.

How will the type of incentives discussed here perform? There is little experience to serve as a guide. Colleges and universities are extraordinarily complex;

the individuals within them are no less so. It is hazardous to make predictions about their behavior. Before formulating policies that structure incentives, policymakers might be tempted to spend thousands of hours spinning out theories about participants' behavior and institutional responses. A more profitable approach would seem to be to try out a few incentives schemes and see how well they work.

A hypothetical experiment suggests that the coupling of incentives with a pursuable objective might give a strong and beneficial push for improved performance. The professors at a mythical college are in almost unanimous agreement on their desire to improve the quality of teaching. They recognize the limitations of their capabilities for internal coordination and the administration of rewards. Rather than proceed directly—say by monitoring and criticizing each other's teaching—they might choose to invoke an incentives system, and in the process relinquish some control to undergraduates and the administration. They may request the administration to limit salary increases to two-thirds of the expected amounts, with the remaining third placed in a pool to be reallocated on the basis of teaching performance. Admittedly, student evaluations or whatever measurement tool is employed will not be totally reliable, and the faculty may be tempted to curry favor with students. But if pedagogic performance were truly sought, an incentives system such as this may well produce an improvement.

Many institutions may feel that they need not even consider a program to encourage performance, an attitude which under the present circumstances does not seem wise. If there were a document as informative to a college or university as a profit-and-loss statement is to a corporation, it might well indicate that many schools have incurred substantial losses in the last few years. A performance effort designed to contain these losses and control their impact might prove beneficial.

Administrators, in their efforts to maintain morale and extract donations, may not fully have acknowledged the decline. Perhaps they suffered from some self-delusion as well. Crass statistics, for instance, declining college board scores, were always known to be misleading. Every school is having trouble getting good jobs for its graduates. And if a few exciting programs cannot be undertaken this year, they will just be a bit delayed. These rationalizations cannot forever hide what is likely to become an increasingly gloomy situation. Many universities have turned their balance sheets from black to red. But shorter library hours, fewer acquisitions, declines in faculty real incomes, sharply curtailed professorial appointments, reduced research opportunities, and more meager scholarship aid may be only some of the losses on the ledger. There is the danger that administrators, with money matters their most pressing concern, will take too much solace from their success in producing a financial turnaround. To accomplish this, they may have set in motion factors that, unless soon corrected, will precipitate the long-run decline of their institution.

A school for which this portrayal is at least suggestive might well benefit from a program to foster improved performance. Enhanced performance would enable the school to achieve more of its stated objectives, employing only the resources presently at its command. This improved capability in turn should appeal to the areas from which it draws support. Greater support should be its reward.

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A prospective success story provides a hopeful concluding note. In the coming years, universities will have to be frugal when granting new professorial appointments at any level. There is a danger that the intellectual freshness provided by younger faculty will be lost. Merely lowering the retirement age is not the solution; many of the most valuable professors are senior in years.

Stanford University has developed an incentive scheme that encourages the early retirement of its less productive older faculty. A faculty member who is sixty years or over and has at least fifteen years of service to the university is offered what may be a substantial continuing bonus to leave Stanford or retire before he or she reaches the age of sixty-five. The size of the bonus is greater where the salary is smaller relative to those of senior faculty colleagues. High-salaried individuals are offered no bonus. Since Stanford provides differential faculty salaries "on the basis of individual promise and achievement," the early-retirement incentive is strongest for the least productive faculty members.[10]

This plan works only through a well-considered incentives mechanism that builds in turn on a more general rewards system. It may deal effectively with what is likely to prove a thorny problem elsewhere. No faculty committees or administrative boards will be called upon to review an individual's work, no one will be forced to retire against his will, the most valued people will have every incentive to stay on, yet new places will be created for younger people.

References

1. Improvement implies not only increasing output, but also influencing its composition to be more appropriate to objectives.

2. The Carnegie Commission, *The Purposes and Performance of Higher Education in the United States*, June 1973, pp. 9-10, noted the major changes: "Higher education is moving to universal access. . . . New knowledge is more central to the conduct of society. . . . Intellectuals are both more numerous within society and more essential to its performance. . . . Society is in the process of reexamining values and life styles, with the campus heavily involved in the process of this examination. . . . Students are changing . . . more oriented in college toward their developmental process in its totality. . . . Many of them are more activist toward conditions on the campus and toward the societal environment within which they find themselves."

3. Recent estimates drawn from diverse sources are: private giving at $2.24 billion for fiscal 1973; actual federal outlays of $9.2 billion in fiscal 1972; state expenditures totaling $9.7 billion in 1973-74; absolute tuition dollars at $6.1 billion in fiscal 1973.

4. *The Purposes and the Performance of Higher Education in the United States*, June 1973, p. v.

5. Recent experience suggests that they have other drawbacks. Inspirational goals have tended to suggest, or have been interpreted as implying, that each institution should attempt to do all things for all people. This may have led certain colleges and universities to avoid differentiating themselves and limiting their missions. Many institutions have tried to do by themselves what only the higher education system in concert could achieve. Too many have tended to follow the prestigious leaders because they had no way of telling whether they were achieving worthwhile objectives. It is not surprising that 2,500 institutions of higher learning use mostly the same teaching methods, and that innovation is, for the most part, the preserve of those at the extreme ends of the spectrum: high-status universities, with prestige and endowment cushions, and schools in trouble.

6. Economists attempt to avoid this problem in the area of student gains with rate-of-return calculations. If the labor market were perfect, these calculations would be valid. The market is in fact so imperfect that the primary economic gain from attending college may be that it serves as a screening and sorting device. This implies that an individual's economic gain from going to college may substantially overstate the total gain to all members of society.

7. The National Center for Higher Education Management Systems (NCHEMS), which is generously supported by federal funds, has recently organized a Design Committee and Task Force on the Out-

comes of Higher Education. NCHEMS has prepared a twenty-four-page list of standardized measures designed to evaluate the outcomes of diverse institutions with different objectives. The list concentrates heavily on students and on the more formal aspects of their learning (e.g., degrees awarded, transfers, and satisfaction with vocational preparation). It also includes some measures designed to reveal the quality of the educational experience, the expansion of knowledge through research, and the extent of public and community service. Although NCHEMS does raise appropriate questions, it rarely includes adequate scales for measurement. Its principal weakness may rest with its underlying premise that a standardized inventory can capture the quality of diverse institutions of higher education.

8. An analyst of organizational behavior might observe that the very structure of institutions of higher education works against efficient operation. They are usually organized by departments rather than along functional lines such as undergraduate teaching, research, community service, etc. Furthermore, the internal organization of most colleges and universities, and particularly of their faculties, is remarkably shallow. Thousands of employees may be absorbed into a few levels in an institutional hierarchy. Moreover, as between administrators and faculty, it has been difficult to know who is responsible to whom. In many institutions, upward information flows, the monitoring of personnel performance, and other management techniques are felt best to be avoided.

9. The elasticity of demand for the services of an individual school is much greater than it is for higher education as a whole. This implies that each school may gain professorial slots as it individually increases its efficiency, but higher education generally might end up losing positions if all schools were to become more efficient.

   If efficiency efforts are not proportional but rather directed at particular resources, the analysis of gains and losses to individual resources such as assistant professors becomes complicated. Institutions that are attempting to conserve resources would be well advised to get into these complications.

10. David S. P. Hopkins, "Making Early Retirement Feasible," *Change Magazine*, June 1974, pp. 46-7, 64. Though the Stanford administration started the plan on the more restrictive 60-and-over basis, it was initially developed for individuals 55 and over with ten years of service. Calculations for the original formulation showed eighty-two early retirements over the five years 1972-7 (there would be seventy-nine normal retirements), produced at a net cost of $595,000 in 1972 dollar terms. The plan in operation is expected to cut these estimates of early retirements and costs in half.