

the White House." And there is the question of geography and women and minorities. In Ballenger's view, "The agencies may be doing better in these areas than they used to, but they're not doing good enough." If NIH sends in a slate of nominees that does not include women, for example, it must also send a written justification that includes the names of specific individuals whom it considered but declined to nominate and why. Usually, problems occur when an institute is looking for an adviser with some particular scientific expertise in a field that may not have many specialists of either sex.

Two things can happen when NIH nominees are turned down. One is that NIH can submit more names, as it often does. The other is that HEW will suggest persons drawn from its own extensive lists. The latter solution is particularly irksome to NIH officials when they are dealing with scientific rather than lay candidates. As one staffer said, "We'll concede their right to appoint lay people if they'll let us make judgments about qualified scientists."

Ballenger, however, is not about to make any concession. He sees the initiation of nominees from his office as a "positive" rather than "reactionary" action,

even though he realizes that agency people are "insulted when we send them names." But he says he has his own problems with respect to drawing up slates of nominees, problems agencies do not share. Suggestions for advisory committee members come pouring in to his office from members of Congress, from special interest groups, from state legislatures, from the White House. He listens to them all and says that, in the general scheme of things, NIH has more clout than any of the rest. But, he declares, the scientific community can be "incestuous and inbred" at times and that his office, searching more broadly for qualified people, finds individuals that are first-rate that the scientific establishment never heard of—just as he has never heard of some of science's establishment, including Pellegrino, Bennett, and others. It would appear that they were rejected more because Ballenger's office wishes to put its own candidates in place than because of any Machiavellian plot against the scientists as individuals.

Furthermore, Ballenger notes that HEW Secretary David Mathews does not necessarily share the scientists' opinion that a vacancy must be filled with an individual of some particular scientific expertise. Ma-

thews, for instance, recently wanted to put a coal miner on a committee of HEW's Center for Communicable Diseases on coal miners' health and safety. CDC scientists apparently said no coal miner could understand the issues. Ballenger claims there was a compromise: no coal miner was appointed this round but one will be when other vacancies occur.

While Ballenger is unwilling to concede any of his and the Secretary's authority, he told *Science* he can promise there will be no more "Sinatra incidents." A few years ago, heart institute officials woke up one day to learn that Spiro Agnew's buddy Frank Sinatra had been appointed to the heart council. They had not been asked, or even told. And it was never quite clear whether Sinatra personally had accepted the invitation to fill an unexpired term. Nevertheless, for a year, a seat was kept waiting for him at council meetings. Ballenger states he will not "force" anyone onto a scientific advisory committee against an agency's will but he sums up his position by saying, "Secretarial committees are not the private preserve of the agencies." Now, if someone would just fill those 36 vacancies. . . .

—BARBARA J. CULLITON

## Higher Education and Regulation: Counting the Costs of Compliance

It is no news that inflation has unbalanced the budgets of many colleges and universities, but the financial crisis has a hidden dimension. Compliance with multiplying federally mandated programs is not only imposing added administrative costs but, in the view of some, is seriously compromising traditional academic autonomy.

The record is clear on the rapid rise of the price of fuel, of faculty and staff salaries and fringe benefits, and of the cost of virtually everything the institutions buy and use. It is also easy enough to trace the increase in payments to federal contributory programs, such as unemployment insurance and Social Security. But in the case of new federal social legislation, particularly the so-called "affirmative action" programs to implement antibias laws, it is much more difficult to pin down the costs entailed in satisfying the law and its interpreters.

A different set of problems is posed by

the administering of programs of "federal aid" to higher education. Student aid programs involve costs which the institutions say they can't recover. And, not surprisingly, in a period when research funds are declining in terms of constant dollars, the old controversy over the adequacy of indirect cost allowances on federal research grants and contracts has been rekindled. But the sorest point currently seems to be the affirmative action legislation, which carries sanctions providing for the cutoff of *all* federal funding to institutions which do not comply with antibias laws. In addition, the laws not only require that institutions not discriminate against minorities, women, the aged, and the physically handicapped, but that they fully document this nondiscrimination. This boosts administrative costs and also puts demands on the time of administrative staff and faculty members which are virtually impossible to compute.

Why hasn't a hue and cry been raised?

In fact, higher education administrators seem universally aware and worried, and the tocsin has been sounded, notably by Yale president Kingman Brewster, Jr., and Stanford president Richard W. Lyman. But, for a number of reasons, the side effects of federal programs are only now emerging as a full-blown national issue.

First, because most of the social programs were enacted in the later 1960's, the regulations took time to write and put into effect, and their impact has only recently been felt. And, the effect is a cumulative one; the implementation of a single program might be endured as a minor irritation, but the combination of programs has had a syndrome result. Besides, the sheer size of the gap between revenue and expenditures facing many institutions distracts attention from problems which, no matter how serious, account for only a portion of the deficit.

Then too, complaining too loudly about programs aimed at achieving social justice puts university officials in an awkward posture. Not only do university people generally support the equalitarian goals of the laws, but they are conscious that many institutions of higher education in the past treated groups of employees—maintenance staff, clerical help, and women in general—rather cavalierly. Criticism of federal programs might make the critics

sound racist, sexist, or simply like stand-pat champions of things as they were. Furthermore, while plenty of anecdotal evidence has been offered along with some minor prophecies of doom, there has been generally a dearth of hard data of the sort that registers with Congress.

A start at filling this data gap will be made with a study of six institutions of assorted types by the American Council on Education (ACE), the biggest and most comprehensive of the national higher education associations.

The origins of the study go back 2 years or so to discussions between ACE staff and A. Kenneth Pye, now dean of the Duke law school, an early spotter of developing difficulties. Impetus to undertake the study was provided last fall when a panel of university presidents testifying on Capitol Hill were unable to provide detailed information on the problem.

The ACE policy analysis service, which designed and carried out the project, decided on a study in depth of a small number of institutions. The study focused on the cost of social legislation over the last 10 years in six representative institutions picked for their willingness to go to the considerable lengths necessary to gather the data required. The sample is composed of a large state university, a big community college, two private research universities which operate hospitals, and two private liberal arts colleges.

The study aimed at ascertaining the costs of implementing the following pieces of social legislation: equal employment opportunity provisions of the Civil Rights Act, the Equal Pay Act, affirmative action programs based on a 1965 Executive Order, the Age Discrimination in Employment Act, the Occupational Safety and Health Act of 1970, minimum wage law, unemployment insurance, Social Security, the Health Maintenance Organization Act, pension reform law, wage and salary controls, and environmental protection laws. This litany of legislation conveys some idea of the Topsy-like growth of such programs.

The general conclusions reached as a result of the study have been made known to the ACE constituency, but the details of the study, which are likely to be even more interesting, will be made public after the participating institutions have reviewed the completed study. Publication is expected by the middle of November. The six participating institutions are expected to be identified then.

The study designers opted for what they insist are conservative cost estimates, using only costs that could be firmly identified. The cost of faculty time required to carry out some provisions of affirmative action

programs, for example, was generally omitted. And the cost of implementing state regulations was not included. The most easily computed and also the heaviest costs of the social programs are in the federal contributory programs, notably Social Security, which accounts for perhaps half the total costs identified in the study.

In the six institutions surveyed, the costs of implementing social programs ranged between 1 and 4 percent of their respective operating budgets. An ACE summary notes that "These costs, though small in comparison to the total institutional operating budgets, are large relative to the operating deficits experienced by some institutions in recent years, and are greater than the budgets of some academic departments that may face extinction through shifts in institutional budget priorities." Implementation costs increased an estimated 20-fold in the last decade.

While the institutions find the added administrative costs onerous, some leaders in higher education are more concerned by federal interference with institutional prerogatives. In April 1974, for example, Stanford president Richard W. Lyman fired off a letter to Department of Health, Education, and Welfare (HEW) Secretary Caspar W. Weinberger to protest a section of the draft regulations for the implementation of Title IX of the 1972 amendments to the Higher Education Act. Lyman made this point:

[The section] would require institutions of higher education to "establish and use internal procedures for reviewing curricula, designed both to ensure that they do not reflect discrimination on the basis of sex and to resolve complaints concerning allegations of such discrimination, pursuant to procedural standards to be prescribed by the Director of the Office of Civil Rights." In all of my experience as a university professor and administrator I have never seen a proposal seriously made by a Federal agency that would intrude so directly into the substance of education, into what students read and what professors say. The drafters of this provision recognize, as the summary indicates, that the result they seek—ideological purification of the curriculum—cannot be reached directly, because, among other reasons, the First Amendment would prohibit direct Federal censorship. The "solution" that is proposed to that problem is for us to ignore the fact that the First Amendment obstacle was erected for good reasons, and for the government to insist that institutions do to themselves—"pursuant to procedural standards to be prescribed by the Director of the Office of Civil Rights"—what the government is prohibited from doing to them. Not satisfied with that device—in itself of dubious constitutionality—the drafters invite comment "upon the appropriateness of including provisions which specifically define discriminatory content of curricula or curricular materials."

Weinberger wrote back thanking Lyman for bringing the matter to his attention and noted that the section was "deleted and will not appear again in any regu-

lations that I sign—nor will any facsimile, reasonably accurate or not."

Lyman last February again entered the lists against the regulation writers when, in a letter to Treasury Secretary William E. Simon, he recorded his "absolute dismay" at proposed regulations drafted by the Internal Revenue Service (IRS) to implement legislation designed to revoke the tax-exempt status of private schools found to have racially discriminatory policies. The IRS wanted to impose record-keeping requirements on private institutions which Lyman described as "unnecessary and ill-conceived." Private institutions, for example, would have been compelled to keep all applications for admission, financial assistance, and employment for 3 years, and in cases where an applicant was rejected, a record of reasons for rejection was to be kept. Lyman observed that the IRS was ignoring the fact that private institutions were already monitored by several other federal and state agencies and that, by disregarding adequate data available, the IRS was creating a "paper nightmare." Simon wrote back assuring Lyman that he was sympathetic with Lyman's position and that "the proposed rules will be modified to eliminate for institutions such as yours the duplicative burdens your letter describes."

Perhaps the most widely noticed comment on the broader implications of compliance was made by Yale president Kingman Brewster, Jr., last February to the fellows of the American Bar Foundation. Speaking as a lawyer to lawyers, Brewster put his remarks in a constitutional context. He said that what bothered him now was not a "dramatic invasion of clearly protected constitutional rights," as might have been the case even during the late 1960's. He expressed his concern as follows:

My fear is that there is a growing tendency for the central government to use the spending power to prescribe educational policies. These are matters which they could not regulate were it not for our dependence on their largesse. I am worried that maybe we do not have any obvious constitutional basis on which to resist this encroachment. It will always be asserted that the government as grantor, lender, or contractor, has a legitimate interest in all aspects of our behavior, once they have financed any part of our activity.

Later in his remarks, Brewster had this to say about legislation sponsored last year by Senator James L. Buckley, Conservative of New York:

The farthest outreach of federal regulation under the banner of the spending power is the Family Educational Rights and Privacy Act, the so-called Buckley Amendment to the Education Act. Again, the purpose is laudable. Schools and colleges and universities should not be able to build up prejudicial files on students against which the student has no redress if he has no

way of knowing what is in them. But it does not follow that the end justifies the means in this case either.

To use the vernacular of judicial dissent, I would have thought that the one member of the United States Senate wearing the Conservative Party label would have been especially alert to the evil of expanding federal regulatory power beyond its constitutional bounds simply because the spending power opens the gate. I doubt if anyone would assert that the student records of local schools and colleges are within the reach of direct federal criminal law. Under the Buckley Amendment, however, we forfeit our federal support for research as well as students from the Office of Education if we do not comply with the regulatory requirements of access to student files imposed by legislation introduced by the Senator from New York.

A more highly particularized example of what some see as happening was described this summer by John H. Bunzel, president of San Jose State University in a letter to his fellow presidents in the California state university and college system (CSUC). Bunzel said that federal auditors from HEW's San Francisco field office were demanding changes in San Jose's personnel and payroll practices to satisfy requirements for "effort reporting" on federal research projects. Bunzel predicted that the changes would affect the whole CSUC system and, in what to an outsider reads like a bureaucratic *reductio ad absurdum*, describes the auditors' demands as follows:

In brief, they are demanding that effort expended on a Federal project be expressed as a percentage of a person's total effort, on a monthly after-the-fact basis, and that payment

be made only for the certified percentage of effort, with an upper limit being the percentage budgeted. If, for instance, a faculty member works a 90 hour week, and is to be paid for 50% of his effort by Federal dollars, it is expected that 45 hours will be on the project. On the other hand, if he works only a 20 hour week, he is expected to spend 10 hours on the Federal project, and the pay is the same as it was for the 45 hour stint! (The auditors are reluctant to equate effort with hours, but there seems to be no other way to express it.)

It can be argued that the federal auditors and regulation writers are only doing their job carrying out the will of Congress. As it happens, the will of Congress is often imprecisely expressed in legislation, and by the time the law is transmuted into administrative regulations, the spirit and the letter have often parted company.

Nobody argues that colleges and universities should not be held strictly accountable for the federal funds they spend or should be exempt from social legislation. But institutions of higher education, increasingly, are being taxed and regulated like business and industry. They, however, cannot pass on the full costs to customers, with the result that their operating styles and values can be significantly affected.

The problems of the hidden costs of federal programs are beginning to receive attention in Washington. Congressional staff members say that only in the past year have the problems become definable "issues." Last fall, for example, the Senate Labor and Public Welfare Committee's subcommittee on education chaired by

Senator Claiborne Pell (D-R.I.) heard from a panel of university presidents about the negative side of the federal impact on campus, but the presidents were unable to quantify their complaints. Legislators are expecting the witnesses from academe to come back with data to make their case more compelling. At Pell's behest, a bill is now being drafted which will address the matter of cost allowances to remunerate institutions for administering federal programs. And the House Appropriations Committee is looking again into the old issue of "cost sharing" on research projects, but there is no early prospect of relief. And the Big Brotherly implications which some see in federal regulatory activities have so far caused little alarm in Washington.

Of potential significance in the matter is the accession of David Mathews as HEW secretary. In his former post as president of the University of Alabama, he characterized federal regulations as threatening

to bind the body of higher education in a Lilliputian nightmare of forms and formulas. The constraints emanate from various accrediting agencies, Federal bureaucracies, and state boards, but their effects are the same: a diminishing sense of able leadership on the campuses, a loss of institutional autonomy, and a serious threat to diversity, creativity, and reform. Most seriously, that injection of more regulations may even work against the accountability it seeks to foster, because it so dangerously diffuses responsibility.

Mathews will be reminded often of those words.—JOHN WALSH

## Nicholas Georgescu-Roegen: Entropy the Measure of Economic Man

*Nashville, Tennessee.* Nashville styles itself the Athens of the South, and sports a perfect concrete replica of the Parthenon to establish the point. Another local temple, the Hall of Fame, attests to Nashville's position as the national focus of country music. Yet despite its 14 centers of higher learning, the city cannot even support a decent orchestra, grumbles Nicholas Georgescu-Roegen, a long-time resident who is professor of economics at Vanderbilt University.

Georgescu-Roegen, a Romanian by birth and a statistician by early training, is himself one of the ornaments of Nashville, though probably few of its citizens have

ever heard of him. Only in the last few years has his name become known beyond the select fraternity of mathematical economists. There he has long been regarded as one of the specialty's pioneers. His colleagues consider his work to be Nobel prize material. Nobelist Paul Samuelson of the Massachusetts Institute of Technology, in the foreword to a collection of Georgescu-Roegen's essays, describes him as "a scholar's scholar, an economist's economist," a man whose ideas "will interest minds when today's skyscrapers have crumbled back to sand."

In the last few years Georgescu-Roegen has left the ivory tower altitudes of the

pure theory of consumer choice and begun to adumbrate a theory of Malthusian comprehensiveness and all-but-Malthusian gloom. It implies, in brief, that unless man can reorient his technology and economy toward the energy that comes directly from the sun, his life as a species will be sharply limited by his "terrestrial dowry" of low entropy materials.

The theory has received less attention than it almost certainly merits. For one thing, Georgescu-Roegen believes that economic activity must not merely cease to grow, as the Club of Rome suggested in its *Limits to Growth*, but will eventually decline. Neither sentiment is at the pinnacle of economic intellectual fashion. For another, the full implications of the thesis have become apparent only within the last year. Its theoretical basis was laid out in 1971 in *The Entropy Law and the Economic Process*, a stimulating but difficult book which is probably more often praised than read. The practical consequences are described in "Energy and economic myths," a paper published this January in