neur no longer enjoys the freedom of action he once did. Nevertheless, in environmental cases some courts still have not progressed far beyond the kind of "balancing of interests" that characterized the ruling in the Tennessee case just cited. For example, as Roberts has noted, a New York court recently allowed a new cement plant, which had been erected in an Albany neighborhood, to continue polluting the air with cement dust, provided it gave money damages to residents of the area.

With concern about the environment now widespread, it seems likely that the public and most elected officials would support strong court action to curb pollution and other forms of environmental degradation. The "new conservation," calling for the rational use of the environment in the interest of a high quality of life, is as much concerned with the urban environment as it is with wilderness and other natural areas. The conservation movement no longer can be regarded as a "special interest" of concern chiefly to sportsmen, wilderness "preservationists," and the like. On the contrary, conservation has a fast broadening constituency.

Problems such as noise and air pollution bear especially heavily on low-income people who cannot escape from industrial districts and who cannot afford air-conditioned homes or weekends at Aspen or Sea Island. These people, and in many cases their labor unions, are becoming increasingly concerned about environmental issues. Political careers are being built on the environmental protection issue. For example, Representative Bob Eckhardt (D–Texas), before his election to Congress in 1966, had made a record in the state legislature as a crusader on that issue. Many of Eckhardt's constituents are workers who suffer daily the odors and eye-smarting fumes that are emanating from plants along the Houston ship canal.

There is even a strong possibility that the conservation and civil rights movements may form an alliance. Controversies growing out of urban freeway projects, for example, already are bringing together black people threatened with displacement and others who are concerned about worsening air pollution, traffic congestion, and other problems. A leader of the National Association for the Advancement of Colored People in Texas recently joined with several Texas conservation groups, such as the local chapters of the Sierra Club and the National Audubon Society, in a suit to block construction of a golf course in Meridian State Park. The complaint alleges in part that the project would impose a kind of "de facto segregation"—by taking a public park area open to all races and income groups and replacing it with a golf course open only to those with money enough to pay green fees and buy golfing paraphernalia.

Further evidence of the growing interest in environmental protection can be seen in the recent adoption by New York voters of a "conservation bill of rights" as an amendment to the state constitution. If it is true, as Oliver Wendell Holmes once said, that judges must respond to the "felt necessities of the times," it would seem that the time has come when the courts will begin to play an important role in helping to resolve the environmental crisis.

—LUTHER J. CARTER

Ecology is giving conservation its scientific rationale, and scientists are playing a major role in conservation law cases. This will be discussed in a later article, which also will review gains made thus far in environmental law and will consider some potentialities.

Marquette School of Medicine: State Aid and Self Improvement

Milwaukee. When the Wisconsin legislature in October voted a 2-year, $3.2 million appropriation for the Marquette School of Medicine, it provided a crucial transfusion of state funds to a school that financially was on the critical list. The state money will cover an anticipated annual deficit of $1.6 million for the next 2 years but will hardly banish all the medical school's problems, for, in addition to its financial difficulties, the school is in the throes of administrative regenesis and an internal debate about how major policy shall be made.

Marquette is a private medical school which in 1967 severed ties with Marquette University. Separation from the Jesuit university resolved the church-state issue, and cleared the way for a state supreme court decision in September establishing the legality of state aid to the private medical school. The legislature's subsequent action in voting funds obviously created an important precedent but stopped far short of any assumption by the state of responsibility for the school's destiny. Like several other medical schools, Marquette depends on a combination of local, state, federal, and private funds —which makes it a thoroughly mixed enterprise.

Marquette in many ways is a paradigm of a particular group of medical schools. In budget, number of entering and graduating students, and size of faculty, Marquette comes uncannily close to the national average for medical schools. Marquette enrolls about 395 medical students in its four classes and has a full-time faculty numbering some 280, including about 40 on the staff of the local veterans hospital. The last annual budget was about $10.5 million.

The school was a fairly typical product of the Flexner revolution in medical education. It was formed by the combination of two proprietary medical schools and was launched in 1918 with a state charter and a Carnegie grant. Through World War II most of the school's graduates entered general practice rather than specialties or research. Symptomatically, Marquette was rather late in giving up reliance on part-time faculty, and the move to "geographical full-time" faculty in the clinical departments really began in the early 1950's. Once begun, however, Marquette's effort to join the mainstream of academic medicine seems by most indices to have flourished, particularly in the last decade. By the criteria of credentials and publications the faculty has been decidedly upgraded. Until 1960 no doctorates in the basic sciences had been produced. Since then the pharmacology and physiology departments alone have turned out about 30 Ph.D.'s. On the Medical

College Admissions Test, medical students' scores have risen from below to above the national median in the past 4 or 5 years, and now Marquette graduates are being accepted for more attractive internships and residencies than they were formerly offered. It seems fair to say that Marquette is representative of a group of schools that have moved in the last 20 years from the bottom third to a middle position among medical schools.

Paying for this upgrading has required both optimism and audacity, because an era of deficit financing coincided with the upgrading efforts. At first, appeals to the community served to make up the difference, but in recent years the school's endowment was liquidated to meet the deficits. The medical school's main building on the Marquette campus has even been transferred to the university to settle accounts, and the medical school now rents the building. This summer the school had to raise $600,000 from private sources to keep the doors open into the fall. Despite the appalling state of the balance sheet, the school's budget was steadily increased during this period. The school's decision-makers were not out of touch with reality but were operating in the confidence that a new basis of financing would be found. The sequence of separation from Marquette and the decision on state aid took a year longer than its proponents had hoped and, therefore, so did the school's period of living dangerously.

Degree of Autonomy

The separation from the university actually required no major surgery. Since 1918 the medical school has had its own board of directors, and the school has always been self financing. The medical school was operated as a department of the university but in practice had wide latitude to conduct its own affairs. Unquestionably there were mutual benefits in the association, but after World War II an uneasiness developed. The university was involved in its own projects for development and improvement, and the increasing costs of medical education worried university officials, particularly because of the medical school's large degree of autonomy.

On the medical school's side there seems to have been a general feeling that there would be no cure for chronic underfinancing of the medical school while it was still linked to the university. And as soon as the ties to the university were cut in September of 1967, the medical school applied for state aid. The separation was amicable, and relations between university and medical school in respect to graduate work in the sciences have continued essentially unaltered on a cooperative basis.

For the medical school, however, the transition proved traumatic. The provost of the university, J. W. Cowee, was appointed operating vice president of the medical school by the president of the university. In part because lines of authority were never clearly drawn, Cowee came into conflict with the dean of the medical school, Gerald A. Kerrigan. Both men were types unfamiliar under the old Jesuit dispensation. Cowee had come to Marquette from Berkeley with expertise in financial affairs. Kerrigan was educated at Harvard and Harvard Medical School and did his residency in pediatrics at Peter Bent Brigham Hospital; he is described in personality and temperament by one faculty member friendly to him as "prep school Irish." He was one of the new breed on the faculty and moved into the deanship in 1965, first as acting dean.

As one close observer put it, "we had two deans," and the conflicts focused on the bylaws being developed by the board of directors. A showdown occurred when the president and vice president of the board asked the dean to resign in the spring of 1968. Most of the department chairmen backed Kerrigan, and in a countermove the medical school executive faculty asked the dean not to resign. When the board announced that the dean had resigned, seven department chairmen requested the counsel of the liaison committee of the American Medical Association–Association of American Medical Colleges (AMA–AAMC), which acts in accreditation matters. And a bloc of department chairmen indicated that they would resign if Kerrigan were removed.

In ensuing negotiations the board shifted position, eventually swinging to support of Kerrigan. It seems to have been impressed by faculty support for the dean and also seems to have acknowledged the role of the dean in improving the academic program. In addition, the board was increasingly aware of the seriousness of the school's financial plight and was anxious to pursue the matter of state aid. Cowee's tie with the university was regarded by some as incompatible with obtaining state support for the school. The administrative crisis, in effect, ended last spring with the formation of a new board, to which six public members were appointed by Wisconsin's governor. Cowee resigned shortly before the new board was constituted.

With the impasse resolved the effort to obtain state aid got top priority. Wisconsin judicial and legislative machinery ground remarkably fast. A friendly suit was filed and disposed of by the state supreme court in September and within a month the legislature had voted the appropriation.

The next major objective for the medical school is the establishment of a medical center in Milwaukee in which the medical school and the county hospital would be the central institutions.

Consolidation of Facilities

In a limited sense, the creation of an academic medical center in Milwaukee means the building of a new basic sciences building for the medical school and the consolidation of teaching, research, and clinical facilities on one site, a large tract of public land about 5 miles from the center of the city on which the general hospital and other county institutions are located. But in the Milwaukee context, a medical center has special meaning.

In Milwaukee, a 19th-century, middle-European social-democratic tradition was transplanted to the Middle West—the city had a socialist mayor until 1960. And part of the gestalt was the provision of good medical care for the indigent sick. Because Milwaukee was a pioneer in metropolitan government, this medical care was provided in county-wide institutions. Milwaukee County General Hospital became the main teaching hospital for Marquette's medical school, and all members of the hospital staff had to hold appointments to the medical school faculty. For services to the hospital, the county supported faculty salaries, in the last budget to the tune of $1.8 million.

Under the old regime, the principle of free medical care to the poor was carried to the point where the hospital did not even collect medical insurance or Medicaid or Medicare benefits. Private patients could not utilize the facilities of the public institutions. As a consequence, physicians on the faculty could practice privately in the community, but there was no pattern of referrals made by physicians in the community, which is normal where there is an academic medical center. Among the 25 largest standard metro-

politan areas Milwaukee is one of only three which do not have a comprehensive medical center.

Changes in the system were hastened by the advent of the Medicare and Medicaid programs and the increasing costs of hospital care. In providing for the billing of patients, the way was opened for the treatment of private patients. (A local philanthropist's unexpended bequest of about $10 million for a teaching and research facility could provide the major financing for a private pavilion.

Support for the concept of a comprehensive medical center had been growing for some time, and real impetus for the idea was given at about the time of the separation of the medical school from the university by a report, entitled "Need for a Comprehensive Medical Center," issued by the Greater Milwaukee Committee, a chief civic bellwether.

A governor's task force on medical education, reporting in December 1967, called for expansion of the Marquette and University of Wisconsin medical schools and for establishment of a second medical school in Milwaukee linked to the University of Wisconsin in Milwaukee. Wisconsin is one of the states with a net annual outmigration of physicians; in ratio of doctors to population it falls below both national and midwestern averages. The task force backed the development of a "Southeastern Wisconsin Medical Center" at Milwaukee and the redevelopment of the University of Wisconsin medical center in Madison.

The Milwaukee medical center is seen by its proponents in terms of programs, not of buildings. Only in a comprehensive medical center, they argue, will there be the facilities to attract high quality teachers or to provide the programs to protect local physicians from obsolescence. A new basic sciences building is regarded as essential if the size of the medical school classes is to be increased.

The rise of a comprehensive medical center to replace the hospital for the indigent poor will mean a change in town-and-gown relations in the medical community. Until now there has been no real conflict of interest between local medical men and the medical faculty. As a medical center began to attract larger numbers of private patients, local physicians and private hospitals might begin to feel frozen out. It is not impossible that opposition to the medical center idea in its present form could develop.

Senators Discuss Postwar Economy

In the midst of a rush to complete Senate business by Christmas, the Senate Labor and Public Welfare Committee took time out last week to begin hearings on "Conversion of War Production to Peacetime Uses."

After 2 days of testimony—from economists, planners, and labor officials—the hearings were adjourned, subject to the call of the chair, and are expected to start again early in the next session of Congress.

Conversion, long a subject of scholarly interest among economists, is now beginning to be talked about more as a question of public interest. On 3–5 December, a National Conference on Social and Economic Conversion was held at M.I.T., sponsored jointly by the Science Action Coordinating Committee (an activist group particularly interested in converting M.I.T. to nondefense activity) and the Fund for New Priorities (which has sponsored several Washington conferences for members of Congress and others, most recently on the subject of environment). The M.I.T. conference brought together a wide spectrum of people, including participants from both Students for a Democratic Society and the American Telephone & Telegraph Company.

At the opening of the Senate hearings, Senator Ralph Yarborough (D–Tex.), chairman of the committee, summarized his idea of their purpose: "How can we use the productive capacity (and jobs) which fueled the war machine to make peacetime America a better place for all citizens?" After testimony from a few witnesses, however, it became clear that there was disagreement not only about how to convert but about how much defense production capacity would be available for conversion.

Reduction of Budget Is Questioned

Some witnesses aimed their remarks at the problem of adjusting the economy only to the reduction in defense spending (and increase in the civilian labor force) which would result from ending American involvement in Vietnam. Several of them noted that there would be no substantial budget reduction because the Pentagon has many projects and weapons systems that have been deferred or decelerated because of the war. Other witnesses thought in terms of a much more substantial reduction in the "war machine." Seymour Melman of Columbia, for example, favored cutting the Pentagon budget by more than half. This would, all witnesses agreed, create a substantially different economic problem.

The "how" of conversion divided the witnesses into two basic camps. Warren Smith of the University of Michigan, a member of the Council of Economic Advisors under President Johnson, took the macroeconomic view expressed in the Council's report prepared for the President in December 1968. With "suitable fiscal and monetary policies," Smith testified, "most areas and most industries will be able to make a prompt and healthy adjustment; special assistance will undoubtedly be needed in a few instances, but its magnitude should be quite modest." In answer to a question, Smith added, "I wouldn't underestimate the skill and imagination of some of these firms in reconverting to peacetime markets either." Senator Thomas Eagleton (D–Mo.) disagreed with Smith about the modesty of local problems, citing southern California. And Walter Reuther was diametrically opposed to Smith on the question of industry cooperation. Stating that corporations are "most responsive only when their profit position is threatened," Reuther recommended that an arbitrary portion—he chose 25 percent—of each company's defense profits be impounded in a conversion trust fund held by the federal government. Each contractor would be required to submit to a National Economic Conversion Commission a plan detailing how he intends to deal with the problems of conversion of his plant. Trust monies would be used toward conversion; if the firm could convert adequately for less, the remainder of the money would be refunded.

—JOEL R. KRAMER

For the medical school, probably the major item of unfinished business is the question of participation of faculty and students in the making of policy. Power at the medical school has been distributed in a typical post-Flexner pattern, with department chairmen exercising considerable independence of action and with policy being made essentially by the dean and executive faculty—principally the chairmen. In separating from the university, the medical school lost some supporting services, and it became even more clear that the school was administratively underpowered.

The AMA-AAMC committee and the board were strongly critical of this weakness, and last spring a layer of associate and assistant deans was added to bolster the administration. But these men were essentially adding administrative responsibilities to faculty duties, and the problem of administrative manpower has not been solved.

The liaison committee also pressed for a new plan of faculty organization which would allow the faculty real participation in policy decisions. Marquette is apparently moving toward a form of governance in which a faculty senate has considerably more power than has been customary in medical schools. Under the proposal now being discussed, the general faculty would elect a president and other officers and name half the members of standing committees. The dean would appoint the other half. The committees would formulate major policy proposals, which would go to the general faculty and then to the executive faculty for approval. As it now stands, the executive faculty could make changes in the proposals, but the general faculty would be empowered to override these changes by a two-thirds vote. Negotiations are by no means over. Such issues as faculty wishes to become involved in the selection of department chairmen and the question of whether the dean or the president of the faculty should preside at faculty meetings are apparently still under debate. But the general effect of the plan would be to have the executive faculty concentrate on long-range planning; the dean would continue to handle the day-to-day administration of the school and also act to a greater extent as intermediary between the faculty and board.

Marquette students, in common with their contemporaries at other medical schools, are showing stronger interests in social problems but on the whole seem far from radicalized. They have lobbied for better counseling and guidance services and some are interested in curriculum change, but so far no barricades spirit has been evident. It is very possible that the recent financial crisis and the specter of loss of accreditation or even of a sheriff's sale has been a temporizing influence.

Action has been deferred in other sectors, perhaps for similar reasons. A curriculum reform committee, headed by the chairmen of the biochemistry department, has been meeting for a year, but it appears that no bold initiatives are likely until the faculty reorganization is carried through.

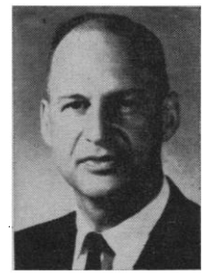
Marquette seems to have maintained its balance and momentum through a period of severe financial and administrative turbulence. It now faces problems that appear to be in the normal range for medical schools today. Reductions in federal research funds and training grants cause serious frustrations, particularly among junior faculty. Perennial arguments continue about what share of clinical faculty fees should go into medical school coffers and about the differential between salaries of the clinical and the basic sciences faculty. Demands from inside and outside the school for new kinds of service multiply. State funds have balanced the budget, but there are no guarantees for the future nor agreement on what state aid will cost the school in terms of self determination.

In its own right, Marquette School of Medicine can now claim some significant advantages. Separation from the university should make it easier to raise funds in the community. The school's budget for the first time provides for a development office, and the business manager's and controller's operations have strengthened. Most important, the board of directors has been revitalized and seems to have a clear idea of its tasks and how to go about them. Particularly important is the job of persuading the public to transfer support of a hospital for the sick poor to support for a comprehensive medical center. Marquette's travail has confirmed the optimists, of course. Nobody forecloses on a church, orphanage, or medical school. But the real lesson is that there is growing recognition in the state and the city that a medical school is not just a worthy public institution but part of an indispensable community resource, and for that reason the prognosis for Marquette is promising.

—JOHN WALSH

APPOINTMENTS

R. J. Glaser



G. M. Low

Robert J. Glaser, vice president for medical affairs and dean, School of Medicine at Stanford University, to vice president, The Commonwealth Fund. . . . **George M. Low**, manager, Apollo Spacecraft Program, NASA's Manned Spacecraft Center, Houston, to deputy administrator of NASA. . . . **J. Myron Atkin**, associate dean, College of Education, University of Illinois, Urbana-Champaign, to dean of the college. . . . **William R. Ferrante**, acting dean, Graduate School, University of Rhode Island, appointed dean. . . . **S. Victor Radcliffe**, professor of metallurgy, Case Western Reserve University, to head, division of metallurgy and materials science at the university. . . . **Julian R. Rachele**, professor of biochemistry, Cornell University Medical College, appointed associate dean, Graduate School of Medical Sciences, Cornell, New York City, and assistant dean, Graduate School of Cornell, Ithaca. . . . **Arthur E. Schwarting**, professor of pharmacognosy, University of Connecticut, to dean, School of Pharmacy at the university. . . . **Sam L. Clark, Jr.**, member, cell biology section, NIH, to chairman, anatomy department, University of Massachusetts. . . . **Reginald W. Butcher**, associate professor of physiology, Vanderbilt University, to chairman, physiology department, University of Massachusetts. . . . **Edward C. Moore**, vice president for graduate studies and research, State University of New York, Binghamton, to chancellor, Massachusetts Board of Higher Education. . . . **John A. Waldhausen**, associate director, Clinical Cardiovascular Research Center, and associate professor of surgery, University of Pennsylvania School of Medicine, to chairman of surgery, the Milton S. Hershey Medical Center, Pennsylvania State University. . . . **Rowland Pettit**, professor of chemistry, University of Texas, Austin, to chairman, chemistry department at the university.