on discharged constituents, of assessing technological means of correction, of determining costs and benefits, and of understanding economic impacts. If we add the issues inherent in agency coordination and in fitting air pollution abatement into the ecology of the total environment, it is not surprising that there are unresolved problems.

Even this cursory review suggests the obvious difficulties a crash program of correction inevitably presents. For this reason recurring appraisals of our situation would seem wise, at intervals of every 5 years. An authoritative group should undertake such a task. A precedent is already available in the comprehensive contribution of 1965 made by the Air Conservation Commission of the AAAS (*17*). Much has been done since that report of 3 years ago. A recurring assessment would be helpful in evaluating results, in disclosing areas of ignorance, in developing new concepts, and, above all, in leading to improved coordination and integration of the many strategies now being pursued.

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NEWS AND COMMENT

California: Reagan, Draft Put Gloom on University's 100th Year

California. This is the centennial year of the University of California, and, by the usual measures of academic girth and quality, there is much to celebrate. U.C., with nine campuses up and down the state, breaks or presses all records for enrollments, expenditures, Nobel prizes, membership in the National Academy of Sciences, Guggenheim awards, Woodrow Wilson fellowships, and numerous other marks of scholarly scope and achievement. Though money is said to be unprecedentedly tight, great construction projects are under way on virtually every campus to accommodate an ever-growing student body. And, as symbolized by the move last year of Nobel laureate Charles Townes from M.I.T. to U.C., California still draws the stars.

Nevertheless, against this background of achievement, and, in fact, because of it, the people responsible for the affairs of U.C. today comprise what is probably the gloomiest set of administrators in all of higher education. And their mood is not without cause, for relations between Governor Ronald Reagan and the university have now settled down to a condition of subdued hostility that is steadily eroding the margin of money, elan, and confidence that made U.C. the greatest system of public higher education in the nation.

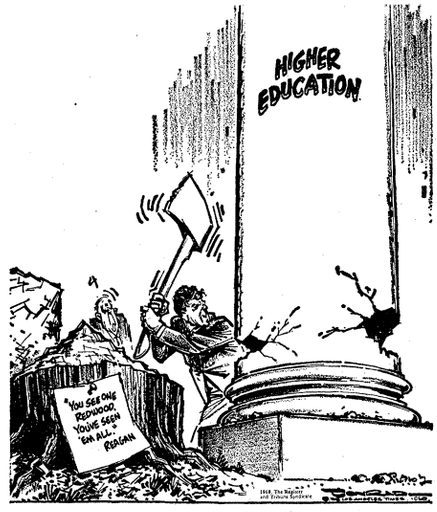
It has to be emphasized that, at its best, U.C. still stacks up well against any big university in the country. But a visitor who has been away from California for 18 months finds that, after 4 years of large and small crises at Berkeley, 2 years of unsympathetic scrutiny and budget chopping by the Governor, and, in many quarters, a never-ending anguish over the Vietnam war, vigor and stretch seem to have gone out of the statewide system. Atop all this, there are the new draft regulations, which, to an astonishing degree, have brought the war home to many faculty members and administrators who previously managed to remain more or less aloof from war-related concerns.

All but a few persons will applaud the fact that Berkeley, renowned for the volatility of its campus politics, has for some time now been relatively quiet. But this quiet, it seems, is more a result of weariness and the activists' concentration on noncampus issues, such as the war and now the draft, than of any resolution of matters that once aroused the strongest responses. Administrators who once exuded confidence about the long run welcome the placidity on campus, but, looking outward to the state government that supports their institution, they now readily admit to doubts and discouragement about the future. Thus, Berkeley chancellor Roger W. Heyns remarked in an interview with *Science*, "There has never been more statewide hostility to the University than there is now, and it shows up in the way they treat us in Sacramento." A graduate dean on one of the university's major campuses, a normally ebullient fellow who has ridden out many storms, frankly states, "I have a feeling of absolute futility. There's a general fatigue here. People are really afraid of Reagan. He's shown that he can hurt us, and that there's nothing much we can do about it. And the depth of feeling against the draft is really difficult to believe. People in large numbers are seriously saying they will leave the country or go to jail rather than be drafted." And the widely admired chancellor of one of U.C.'s fast-growing campuses remarks, "There's a sense of insecurity such as I've never seen before. There's an absence of trust that makes it very difficult for an institution to function. A lot of people simply don't trust anyone anymore. I'm not used to having people look me in the eye and say, 'I don't believe you.' "

To some extent, these administrators are merely reflecting the anxieties and frustrations that beset most man-

agers of what is fast revealing itself to be increasingly unmanageable—the modern big university. But U.C., which by most standards can properly be considered the envy of the nation, also bears the anxiety that comes with having a great deal to lose. And, with Governor Rockefeller going all out in behalf of the booming State University of New York (SUNY), and federal policies favoring the flowering of lesser institutions, U.C., confronted by Reagan, is taking on the early tinges of a déclassé complex. [Though their motives may be pure, a number of U.C. officials display a considerable curiosity about the recent and well-publicized narcotics raid on SUNY's Stony Brook campus (*Science*, 9 February).] Further adding to the gloom of U.C.'s leaders is the realization that, while it would be prudent to avoid provoking Reagan, or the increasingly violence-prone cops in the Bay area, the new draft regulations have fired up a powerful and militant antidraft movement that may well make Berkeley front-page news again throughout the world.

In a statewide education system that currently spends over a quarter of a billion dollars a year, budgetary details are too many and too complex to allow an easy assessment of the relationship between balance sheets and the real world. But money is a handy measure of political affection, and, judging from that rule, it is plain that the Governor does not feel great affection for U.C. In the last budget prepared by Reagan's predecessor, the university received a state appropriation of $240 million for the academic year 1966–67. For the budget currently in effect, which was the first to come under Reagan's review, the U.C. Regents asked the state for $278 million. Reagan, who came to office on an economy platform, settled on a figure of slightly over $230 million —and, to show his determination, vetoed a legislative attempt to add $6 million to this amount. Confronted by the realization that Reagan was adamant about the budget, the Regents threw in nearly $21 million from special funds under their control, bringing the final budget up to $11 million above what had been available in the last pre-Reagan budget. They did this, however, with the expectation that, when campaign promises had been dimmed by time, the Governor would come around to the well-established practice of generally accepting the Regents' view of how much the state should spend on U.C. That Reagan has no intention of



"You see one campus, you've seen 'em all . . . !" [Copyright The Los Angeles *Times* 1968]

so coming around is now apparent, for the budget that he submitted for the coming year repeats the pattern of his first encounter with the Regents' budget request. This time they want $311 million, and he is recommending $280 million. On the separate capital outlay budget, which was also severely battered last time, the Regents are now seeking $79.6 million, and the Governor is recommending $44.8 million.

When these figures are translated into things that will not be done for lack of money, the executive-suite gloom at U.C. becomes readily understandable. Thus, according to an analysis prepared by U.C. President Charles J. Hitch, the Regents sought funds for 474 new faculty positions; the Governor's budget allowed for only 121. Hitch reported that the cutbacks would hit all campuses, but that the impact would be especially hard on the campuses at Davis, Riverside, San Diego, and Santa Barbara, which are in the midst of rapid expansion programs. At Riverside, he stated, the staff would be insufficient for anticipated enrollments in newly introduced Ph.D. programs in sociology, anthropology, and geography; at Irvine, history and the biological sciences would be similarly affected; at Santa Barbara, funds would be insufficient to provide supervisors for students in the Graduate School of Education, and a graduate program in literature would be delayed for a second year because of lack of funds. Berkeley would have to defer establishment of a department of computer sciences and an urban technology program. Hitch reported that the Governor's budget includes nothing for new or improved programs that come under the heading of organized research. "Lick Observatory," his analysis states, "would have to reduce its support staff and will be very hard pressed to meet its responsibilities to the University's instructional program in Astronomy. The Agricultural Experiment Stations would be forced to abandon projects in crop production, mechanical harvesting, and soil and water management. Programs at Scripps Institution of Oceanography in Air/Sea Interaction and Seawater Studies would again be deferred." And so it goes, in Hitch's analysis of the effects of Reagan's budget.

In response to charges of maltreatment of the university, Reagan has come back with charges of "poor mouth talk," and statistics that purport to show that "U.C. has a greater increase in its support this year in relation to its enrollment than in the last 19 years." To which U.C. officials respond that this may be so when the proposed budget is measured against the pruned-down budget that is now in effect, but that when measured against both need and the long-term pre-Reagan trend, the proposed budget is at best a stand-still budget.

In an interview with *Science*, Hitch said, "I have no doubt that the Governor honestly feels that he's being generous to the University. He has some tough financial problems. But last year, we expected that we would have to live only with a one-year belt tightening. Now we have it for a second year, and we might as well face it that we aren't going to hire many distinguished people with this budget."

Berkeley's Heyns put the matter even more strongly. "In the past, I've been guilty of crying, 'Wolf, wolf,' about the budget, so I can understand a certain amount of skepticism. Last year, we reduced the impact of the budget cuts by using salesmanship. We told our people that the cuts were temporary. Last year, Reagan seemed to be remorseful about the budget problem, but now he's not. We attracted people here because we had a lot of spirit and an atmosphere that this was the place to come to. Now this spirit is being challenged. No one has hit the panic button," Heyns said. "There's no mass exodus or anything like that. But among the faculty there's a kind of anxiousness and sober re-appraisal." And Santa Barbara's chancellor, Vernon I. Cheadle, told *Science*, "We got a lot of good people to come here with promises of future support. In a lot of graduate programs things have just been going

'critical,' with the presence of a particular man being the factor that brings in others. But now in a lot of areas we have to stand still or cut back. And we're not so well established that people necessarily feel any great loyalty to this campus. If there are better opportunities elsewhere, they'll move on."

Since the actual impact of the proposed budget will not, in most cases, be felt for some time, concern is strongest among those responsible for long-term planning of the university's affairs. The same cannot be said, however, about the new draft regulations, which have infused all levels of the university with a vast amount of anxiety, hostility, and talk about resistance and evasion. Obviously, at this early stage of the new induction plan, talk is cheap and, when the risks of military service are weighed against the difficulties and penalties of avoiding service, many will decide that it is prudent to answer the call. Furthermore, while the draft opposition is large, its vocality probably makes it seem even larger. Thus, there are, no doubt, many students who quietly share the attitude of a graduate engineering student who remarked, "I don't want to go, but if you run away to Canada, you may not be able to come back forever, and that's a long time. On the other hand, the Army is only for two years, and the chance of getting killed is pretty small. So, I'll take that chance." To which he added, "I hope maybe that I can get attached to some research contract for the Defense Department, and get a deferment."

Those who hold to that or similar lines of strategy do not show up on petitions or at antidraft meetings. Nevertheless, there is ample evidence to indicate that there are great and growing numbers who feel otherwise, and who are energetically exploring all possible means, legal or otherwise, to stay out of the reach of the draft. At Berkeley, around 1000 persons have signed "we won't go" statements or pledges of support for those who won't go. A campus group has enlisted the services of at least 75 lawyers to give students free counsel on the ins and outs of the draft regulations. And any student who is curious about Canada as a haven from the draft can easily find an abundance of literature, as well as personal counseling on the legal aspects involved and practical information on living, working, and going to school in Canada.

On several evenings during a recent week, various departmental meetings were held on the Berkeley campus to counsel students on the draft. This writer attended one of the meetings held by a science department and found the atmosphere something between funereal and clinical. With about 60 students and a few faculty members present, the department chairman opened the session with a dispassionate assessment of various routes for avoiding the draft. "If you feel the war will be over within four or five years," he said, "medical school might be a good bet." The department, he said, would try to make a case for occupational deferments, but he wasn't too optimistic. Then a graduate student who has become something of a scholar of draft rules outlined other possibilities. Six-month enlistments were in short supply, and the refuge they offered might be threatened by a call-up; emigration, he pointed out, presented some difficulties for those interested in a research career, "since financial support is best in this country." To which he added, "Don't emigrate unless you're prepared never to come back." That might not be the outcome, he explained, but it could be.

Then, in the only show of emotion seen during the evening, a faculty member arose and said, "This dilemma has no precedent. The choice is to go to war or face the music. This is not just a student issue. It is an enormous issue of national conscience. My estimate is that thousands will go to jail and thouands will go into exile."

A student asked whether the faculty members would be willing to give up government research grants as a symbol of protest. There was no answer. Then another faculty member, one who was familiar with Canada, talked about opportunities in Canadian universities. "It is a terribly big decision to become an exile from your own country," he said. "I don't think anyone should take such a step lightly."

The meeting lasted nearly 2 hours, and then quietly broke up. A few remained to discuss a draft resistance demonstration to take place in April, and a mock commencement exercise, also in opposition to the draft, planned for May. And then they all left.

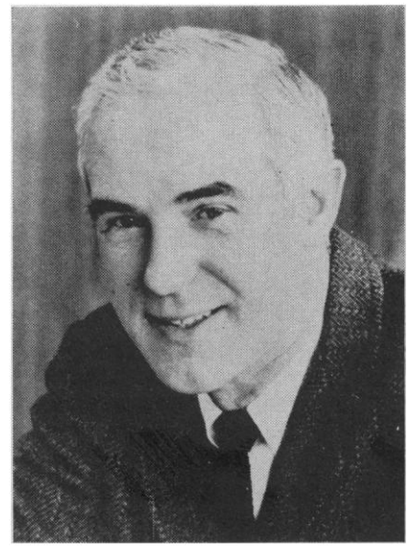
—D. S. GREENBERG

Wilson, of NSF, Named to University of Chicago Post

John T. Wilson, 54, deputy director of the National Science Foundation, has been named vice president and dean of faculties at the University of Chicago. Wilson, who has spent most of his career at NSF, served at Chicago from 1961 to 1963 as special assistant to the president, before returning to NSF to take up the deputy directorship.

Wilson, a native of Punxsutawney, Pennsylvania, received his Ph.D. from Stanford in 1949. He then became assistant executive secretary of the American Psychological Association, going from there to George Washington University as assistant professor of psychology. From 1949 to 1952 he was head of the personnel and training research branch, Office of Naval Research. He then went to NSF, where for 3 years he was program director for psychology, and later assistant director for biological and medical sciences, a position which he held until returning to Chicago.

Wilson, who will take up his new position in September, will serve under Edward H. Levi, who was named president of the University of Chicago last fall (*Science*, 22 September).



John T. Wilson

No successor to Wilson has been named.—G.P.