

edited by CONSTANCE HOLDEN

Ph.D. Squeeze

The Association of American Universities (AAU) has seen the future and decided it does not work. In the late 1990s, according to a report published this week,* too few Ph.D.'s will be emerging from graduate schools to meet growing demands.

Universities, which will be getting more new students just as a wave of faculty retirements begins to hit, will be looking for an unprecedented number of new teachers. And the private sector, which has been stepping up its recruitment of Ph.D.'s, will add to the demand. The AAU predicts a shortfall of 7500 Ph.D.'s in science and engineering alone early in the next century.

The report urges the federal government to resume the role it played in the 1960s, when a variety of programs were launched to support graduate students. Many of these efforts petered out in the 1970s. By 1987, doctoral recipients re-



ceived only 11% of their support from Uncle Sam.

Some new programs have been started in recent years, and the feds are now providing about \$200 million a year in fellowships, traineeships, and research assistantships. But the number of graduate students supported, 47,000, is still way below the 80,000 who received government assistance two decades ago, AAU notes. It calls for a doubling of federal fellowships and traineeships, new programs to support minority students, and stepped up investment in university research infrastructure.

*The Ph.D. Shortage: The Federal Role (AAU, Washington, D.C., January 1990).

Clearing Brush in Academe's Groves

How do you define faculty incompetence? Very carefully, say professors at the University of California in Los Angeles, who worry that a definition proposed by their Berkeley colleagues might threaten academic freedom.

The Berkeley faculty last year decided to sharpen up the procedures for dismissing nonproductive professors. Concern over faculty deadwood has been spurred by the anticipated expiration, in 1993, of mandatory retirement for university professors at age 70.

UC laws allow tenure to be revoked for "good cause," but Berkeley people say that's too vague. Their solution was to provide a definition of the "grossly incompetent" professor as one who has "ceased (or virtually ceased) to engage in serious scholarship" and whose teaching "is so inadequate that it is a disservice to students to permit the faculty member to continue to teach." They called for a scheme of periodic review aimed at identifying faculty freeloaders, an assistance program for those who want help, and a plan for dismissal as a last resort.

Most of the nine UC campuses didn't bother to comment on the proposal, but the UCLA faculty balked at the definition of incompetence. UCLA philosophy professor David Kaplan believes the "good cause" clause is quite ad-



NSF supports the earth. "Think globally. . .Act locally" is the slogan of the National Science Foundation's annual "national science and technology week," 22 to 28 April. An educational gesture the agency cooked up 6 years ago, the week is supported by about \$300,000 in corporate contributions which will go mainly to developing and distributing educational materials to elementary and middle school students. This year's theme is the environment, in honor of the 20th anniversary of Earth Day.

equate and worries that the Berkeley wording might be turned into a weapon against professors who promote unpopular ideologies.

A statewide committee will try to iron out a compromise plan. Its chairman, UC Davis chemistry professor Charles Nash, said some features of the Berkeley plan, such as better defined dismissal procedures, may be adopted.

Monkey Saga Continues

The story of the famous "Silver Spring monkeys" continues to drag on as animal activists have taken a new tack in their campaign to get as much publicity as possible over the 6 monkeys remaining of the 15 originally seized by police in 1981 from the laboratory of investigator Edward Taub, following allegations of animal cruelty.

Last year, activists succeeded in getting a court in New Orleans to issue a restraining order to prevent euthanasia of the monkeys, which have spent the last 3 years at Tulane University's Delta Regional Primate Center. The monkeys have been in deteriorating health, having had their arm nerves severed for research aimed at helping stroke victims.

When a Louisiana appeals court ruled on 11 January that the university could go ahead and conduct a final experiment, followed by euthanasia, on one of the monkeys, activists switched their strategy. Abandoning their objection to euthanasia, they are claiming, in a suit filed at the U.S. District Court in Washington, that proposed experiments on the remaining monkeys amount to gross scientific misconduct. They have also filed a formal complaint to that effect with the National Institutes of Health's Office of Scientific Integrity.

At a sparsely attended press conference on Capitol Hill, the Physicians Committee for Responsible Medicine, an animal rights group, denounced the research protocol as rotten science and accused NIH of violating its promise that no "invasive" research would be performed on the monkeys. Researchers plan to insert electrodes in the monkeys' brains prior to euthanasia to see what affect denervation of their arms has had on cortical functions.

Delta chief Peter N. Gerone agrees that the procedure is invasive but argues that since it is a terminal one it does not violate the spirit of the agreement. According to Gerone, neuroscientists regard the research as an unparalleled opportunity to explore new theories about brain plasticity that did not even exist when Taub was doing his research. Evidence from Billy, the animal that was sacrificed in