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Graduate Education: Signs of Trouble

Graduate education in the United States is in trouble. The nation's economy, its diplomatic and defense capabilities, and its social and cultural life rely heavily on men and women with graduate preparation. When our institutions of graduate education are endangered, so is our national well-being. Only effective action by the federal government will avert a crisis.

These are the principal findings and conclusion of a report approved unanimously by the National Commission on Student Financial Assistance. The commission was composed of 12 persons appointed, four each, by President Ronald Reagan, House Speaker Thomas P. O'Neill, Jr., and Senate President Pro Tempore Strom Thurmond.

The commission identified warning signs of erosion throughout the graduate enterprise. Two factors specifically endanger the future of graduate work in engineering and the sciences: the exodus from the campus to corporation of some of our best graduate students and teachers and the decay of the facilities and equipment essential to scholars working on the frontiers of knowledge.

Many college graduates who 30 years ago would have pursued advanced studies now avoid graduate preparation because they perceive little future in it alongside the opportunities they find in business and industry. In areas such as engineering, solid-state electronics, and digital systems, faculty vacancies threaten the nation's capacity to teach the next generation of scientists and engineers.

One recent survey found that university instrumentation inventories were nearly twice as old as those of leading commercial laboratories. A review of equipment for the sciences at 15 institutions revealed that the cost to meet their needs over the next 3 years would be nearly twice what they had spent in the preceding 4 years.

Although financing graduate education is not the sole responsibility of any one sector of our society, it is the special obligation of the federal government to ensure stable and continuing support of outstanding graduate research and training. Federal support for basic and applied research at colleges and universities should grow with the economy at a rate at least sufficient to keep pace with inflation. In addition, funds should be made available both to meet national needs in fields such as physical and computer sciences and to protect other areas, such as the humanities and social sciences, that have been hard hit by the current retrenchment.

Adequate student aid—through loans, fellowships, research and teaching assistantships, and college work study—must be provided, especially to minorities and women. Because graduate training is intimately connected to research, assistance to students cannot be reduced without diminishing the entire research endeavor. The federal government should substantially increase funds for modernizing university laboratories, equipment, and instrumentation. Business and industry should be encouraged, through appropriate tax incentives, to contribute equipment to universities. New support should be provided for promising young faculty in the natural sciences and engineering as well as in the humanities and social sciences. The government should establish a mechanism to produce "educational impact statements" to evaluate the effects of federal policies and programs—particularly budgetary decisions—on the supply of educated men and women.

The purpose of the actions recommended by the National Commission on Student Financial Assistance is not to increase the size of the graduate enterprise but rather to protect and enhance its research and training functions. In the judgment of all 12 members of this commission, our graduate schools urgently require federal support. Unless they receive it, they will not, by the year 2000, be able to produce the new knowledge and trained individuals necessary to the security, prosperity, and cultural life of the nation.—JOHN BRADEMAs, *President, New York University, New York 10012*, and *Chairman, Graduate Education Subcommittee, National Commission on Student Financial Assistance*