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## Toward a Public Policy for Graduate Education in the Sciences

The first Annual Report of the National Science Board under the Daddario bill\* sets the goal that the federal government should accept a significant, and perhaps major, share of the total support of graduate education, not by indirect subvention but by intention. The report urges a six-part coordinated system of federal funding, including (i) substantial institutional sustaining grants and a restricted program of prestige fellowships under a single unnamed agency; (ii) developmental, departmental, and graduate facilities programs administered by several agencies; and (iii) continued multiagency support of individual research projects. Implicit is the general applicability of this policy for the arts and humanities. Such a major restructuring of the federal granting system will be challenged by scientists, spurned by bureaucrats, and welcomed by university administrators. It merits more thoughtful examination by all.

There is urgent need for wise planning of this fastest-growing and most costly segment of American higher education, in order to instill quality and assure just opportunity for all, in all regions. The report makes recommendations to educational institutions, to state and regional planning groups, and to the federal government: that the government should supplement, not replace, nonfederal funding; that the institutions should be entrusted with building the quality of education; and that each metropolitan area with population over 500,000 should have graduate-education resources. The almost exponential growth of graduate education affords a unique opportunity to redress the inequitable distribution of federal funds and to foster the growth of new centers of excellence in needed areas, both urban and regional. The responsibilities must be shared by the institutions, the state and regional planning groups, and the federal government. Federal support must be incremental, not just redistributive, and it must be provided in the name of graduate education, not just in that of research and development.

The cost of quality is high. Institutions moving into graduate work are warned to build only on existing strength. Enrichment of the master's degree and development of multidisciplinary graduate programs are urged. A companion volume† analyzes the characteristics of graduate education and the correlates of quality, as well as the maze of present financial support. Unless drastic measures are taken, one-third of the output of Ph.D.'s in 1980 will be from institutions that fail to meet minimum standards. The remedy is not indiscriminate proliferation of graduate centers but selective expansion of those with existing strengths and the creation in some metropolitan areas of new institutions of high quality.

The choice is not easy, but it is upon us. The current hearings on the Miller Bill, the recent cutbacks in research funding, and the unease of the Congress about geographical maldistribution will force an early change in the patterns of federal funding. Personal perquisites and institutional rivalries must be subordinated in a search for a long-range national policy for graduate education. The National Science Board Report points the way.—FRANK W. PUTNAM, *Division of Biological Sciences, Indiana University, Bloomington*

\* Public Law 90-407. The report is entitled *Toward a Public Policy for Graduate Education in the Sciences* (Government Printing Office, Washington, D.C., 1969; 40¢).

† *Graduate Education: Parameters for Public Policy* (National Science Board Report) (Government Printing Office, Washington, D.C., 1969; \$1.25).