for example, researchers have for several years been studying the results of controlled collisions; the cars they crash are supplied by the industry. But the industry has provided only conventional sedans. The hard-top models that lack a center door pillar, and the obviously less crashworthy convertibles, have never been tested.

Lately there have been signs that the system that Nader describes is breaking down. Within the last several months the federal government has developed new safety standards to be met by manufacturers for the thousands of cars purchased annually by federal agencies. Two Senate committees and the Federal Trade Commission held controversial inquiries into various aspects of vehicle safety. New York State enacted legislation authorizing a feasibility study for a prototype safety car. In New York, a group known as Physicians for Automotive Safety picketed the auto show, for safer designs. In Washington, behind the scenes, the President's Science Advisory Committee is reported to be beginning to look into the whole traffic safety problem. To these omens must be added *Unsafe at Any Speed*. As in all works of this kind, there are plenty of statements that invite challenge, and there is no doubt that the author is very hard on several groups of people, who undoubtedly see themselves very differently from the way he sees them. The companies, the researchers, the politicians, and the bureaucrats will all find the book uncomfortable and will do their best to fight it down. But it seems likely that the public will react differently.

—ELINOR LANGER

Graduate Schools: Grants Awarded To Encourage Stronger Programs

A major goal of the Higher Education Facilities Act of 1963 was to bring about a wider distribution of high-quality graduate education in the United States. It was noted that about 75 percent of the doctoral degrees were being awarded by institutions in 12 states, which happened to include within their borders 20 of the nation's leading universities. Institutions in the other 38 states, with half the country's population, were awarding only about one-fourth of the Ph.D.'s

The imbalance was adjudged unsatisfactory, and the Congress moved to try to redress it. The higher education act authorized a graduate facilities grant-in-aid program which is now in its second year. A total of $60 million in grants had been approved for the fiscal year ending last June, and the announcement of another $14.2 million in grants is imminent. Grants may not exceed one-third of the project cost.

Years must elapse before the results of the program can be properly appraised, but the first year's experience suggests how the program's managers are interpreting their mandate. A central, though temporary, figure in directing the program is John William Ashton, who retired in January as vice president and dean of the graduate school of Indiana University to become director of graduate programs for the U.S. Office of Education. Ashton will remain at this post until next July, when he returns to Indiana to assume the position of University Professor of English and Folklore.

In an interview with *Science* last week, Ashton expressed satisfaction with the way in which the first grants have been distributed. An analysis of the 114 grants, totaling $74.2 million, for fiscal 1965 and the first five months of fiscal 1966 shows that all regions of the country have shared in them. Taking 12 states noted for having strong graduate institutions—Massachusetts and Connecticut in New England, several of the Middle Atlantic and Midwest states, and California—one finds that they got about 65 percent of the grant funds. However, the stronger institutions in these states, such as Yale, Columbia, Indiana, and Stanford, got only about 40 percent of the money.

As of early November no grant application had been received from the nine states of Alaska, Idaho, Montana, Nebraska, South Dakota, New Hampshire, Virginia, West Virginia, and Arkansas; one or more institutions in the other 41 states had requested grants, in most cases successfully. Thus, it is clear that the "developing" graduate institutions, as well as the institutions already recognized for their excellence, are receiving substantial assistance. The grants speak for themselves. The new Irvine campus of the University of California, which accepted its first students in September, was awarded a $1.5-million grant on a $9-million physical science building. The University of Alabama, whose graduate programs generally are not among the strongest even in the South, got a $420,900 grant on a building for multidisciplinary studies that will cost three times that much.

Some well-established graduate institutions are receiving aid, too, however. For example, Massachusetts Institute of Technology has been awarded a $987,000 grant toward a $2.9-million Center for Advanced Engineering Study, which will enable engineers of ability, temporarily on leave from their jobs in industry or teaching, to catch up with the rapidly advancing technology in their fields.

Ashton observed that the humanities and social sciences, left out under earlier government programs oriented toward medical and scientific fields, now are getting substantial support. (See Table 1 for the distribution of grants by field.) More than 22 percent of the first $60 million in grants is for facilities for the social sciences and education.

Grants for facilities for the humanities and fine arts amounted to about 5 percent, a share not in itself impressive. However, the 41 percent allocated for new library facilities is expected to be particularly helpful in strengthening graduate studies in the humanities and social sciences. An example of direct support of programs in these two fields is the $225,000 grant awarded Johns Hopkins University toward financing a $1.2-million building renovation project. Johns Hopkins has announced that, over the next decade, it will expand its graduate enrollment in the humanities by 70 percent. Thus far the Office of Education has not, for lack of funds, had to play favorites among fields of study. "We haven't

Table 1. Distribution by field of grants awarded for fiscal 1965 under the graduate-facilities program authorized by the Higher Education Facilities Act of 1963.

Field	Number of grants	Grant funds	Percentage of total grant funds awarded	Average grant size	Estimated total development costs (TDC)	Average percent (grant/TDC)	Average cost per gross square foot (new construction)
Libraries	23	$24,882,473	41.47	$1,081,846	$111,799,902	22.26	$30.71
Social sciences and education	26	13,554,506	22.59	521,327	60,470,781	22.41	28.30
Physical and earth sciences and mathematics	15	11,311,672	18.85	754,111	77,466,982	14.60	33.28
Engineering and environmental fields	9	5,045,402	8.41	560,600	25,417,595	19.85	29.89
Humanities and fine arts	7	3,149,277	5.25	449,896	27,304,353	11.53	27.99
Life sciences and agriculture	5	2,056,670	3.43	411,334	14,478,586	14.20	30.96
Total	85	$60,000,000	100.00	$705,882	$316,938,199	18.93	$30.18*

* Average of above averages.

had to choose between making a grant for a building in the humanities and one in the sciences," Ashton said.

One objective of the higher education act was to encourage establishment of "cooperative graduate centers." Such a center is defined as one offering a program created by two or more institutions of higher education which, acting individually, could not carry out the program with the same economy or effectiveness. The center must be governed by a board made up not only of representatives of the participating institutions but of members of the community as well. No grant request for a cooperative program meeting the specifications of the prescribed organizational structure has been received.

Ashton said that cooperative ventures formalized to the degree envisaged in the act are rare, if they are to be found at all, and that they probably will remain so for some time to come. On the other hand, the act permits consideration of joint requests by cooperating institutions whose program does not qualify as a cooperative center as defined in the law.

Although no grant had been announced as of the end of last week, the joint university libraries project, for which Vanderbilt University and Peabody College, neighboring institutions in Nashville, Tennessee, had requested $630,000, was being considered with interest. The project could have qualified as a cooperative center except for the fact that the "community members" on the governing board are trustees of the participating institutions.

The Claremont Colleges in California, consisting of five independent colleges whose joint activities are coordinated by Claremont Graduate School and University Center, long has been an outstanding cooperative enterprise. The Graduate School and University Center has been awarded $397,000 for a classrooms and library project. A grant of $200,000 for an academic building has been made to Atlanta University, which is the hub of the Atlanta University Center, composed of the university and four colleges (Morehouse, Spelman, Morris Brown, and Clark). These institutions are predominantly Negro.

Although the grant-in-aid program for graduate facilities was authorized in 1963, it was late 1964 by the time funds had been appropriated and the administrative machinery necessary to implement the act had been created. The first grant applications were not received until early February 1965. The institutions that had applied were visited by an Office of Education staff member and by one or more consultants from the academic community.

Later, panels of specialists in the academic fields in which projects had been proposed evaluated the applications. Then the Advisory Committee on Graduate Education,* chaired by Francis Keppel, the Commissioner of Education, reviewed the applications, together with all reports and recommendations. The committee made the final recommendation to the Commissioner, who awards the grants.

The criteria adopted by the Commissioner, with the advice of his committee, are such that any successful applicant for a grant should be seeking either to improve a graduate program already of high quality or to strengthen a program that shows promise of excellence. For example, an application is supposed to be viewed with an eye to whether the program is "likely to draw to the institution both graduate students and faculty of a high level of competence." One is supposed to consider, too, whether the grant would contribute significantly to increasing the quality or quantity of graduate education in a "relatively wide geographic area." The ability of the applicant to support the program financially is another factor considered.

Programs limited to the master's degree are not excluded from consideration, but, except for programs in those fields where the master's is the generally accepted terminal degree, the policy is to give preference to Ph.D. programs. A factor in the rejection of a number of applications has been the fact that the institution either had no Ph.D. program at all or had a very limited or weak program.

An institution that applies for a grant on the basis of a graduate program that is not in being but is merely on paper is likely to be turned away, though

* Members of the committee, in addition to Keppel, are: Theodore R. Sizer, dean of the Graduate School of Education, Harvard; Stephen J. Wright, president of Fisk University, Nashville; Rev. Paul C. Reinert, president of St. Louis University; Roger W. Heyns, chancellor of the University of California, Berkeley; Richard H. Sullivan, president of Reed College; Henry W. Riecken, representative of the National Science Foundation; and David Z. Robinson, representative of the White House Office of Science and Technology. Three new members from the academic community are to be named to replace others who have left the committee.

with an invitation to come back later when its plans have begun to materialize. "I think, almost inevitably, we will say, 'You've got to show us that you have the intellectual and financial resources necessary for success,'" Ashton said.

The Commissioner of Education and his advisers have shown both caution and boldness in their judgments on applications. For instance, a grant sought by a small foreign-studies school, which the site visitor described as of high quality (although its Ph.D. program was still in the planning stage), was turned down in Washington. But an application by the University of Florida for a $458,000 grant to be used in a graduate extension program that will be taught by closed-circuit television has been approved.

Although the criteria stress both the promise of high program quality and regional need, it would appear from the grants awarded to date that, while considered, these two factors are not necessarily of decisive importance. A report on a grant application for a graduate business program observed that it would not be competitive with the program of another institution nearby because the two programs attracted different types of students. In approving a library grant for Emory University in Atlanta, the Office of Education took note of the fact that Emory would not be duplicating library resources available at the Georgia Institute of Technology.

On the other hand, one state institution with strong aspirations, but relatively feeble graduate resources, was given a substantial grant even though two strong graduate institutions are not far away. Those who reviewed this application were not all in agreement as to the wisdom of the grant.

The Office of Education has kept in touch with the other agencies that support graduate education, in order to avoid conflict and confusion. Institutions applying to OE must report any grant requests submitted elsewhere. Receipt of grants from two or more federal sources is possible. For example, the University of Chicago has been awarded a $346,210 grant by the Office of Education for a chemistry research building that is to cost about $5 million; the university also is getting grants of $1 million from the National Science Foundation and $312,000 from the National Institutes of Health, neither of which is for project space to which the OE grant will be applied.

Project space for which most NIH grants are awarded is ineligible for Office of Education grants, but the area of potential overlap between OE and NSF is substantial. If a facility is to be used for graduate teaching as well as for research, it may qualify for a grant from either agency. An institution sometimes applies to NSF first, or to NSF and OE simultaneously, because it knows that NSF can pay up to 50 percent of project cost, whereas OE can pay no more than one-third. There seems no particular reason, other than that of economy, why OE grants should be less generous, and Ashton and his colleagues would like OE to be authorized to make 50-percent matching grants, too. According to Ashton, however, OE wants to limit its new budgetary requests to the most vital matters and at present does not intend to ask for the right to make larger grants when the graduate facilities program's authorization comes up for renewal next year.

The Office of Education was authorized $120 million in graduate facility grants for the current year, but only $60 million actually was appropriated. OE never asked for the larger figure, which apparently was authorized because Representative Edith Green of Oregon and her Special Subcommittee on Education felt it would be required. Ashton says OE plans to ask for an appropriation of $108 million for the fiscal year beginning next July.

The $60 million provided for the fiscal year that ended last June appears to have been quite adequate. In fact, one could argue that, had the appropriation been somewhat smaller, at least one or two of the grants awarded might have been denied or deferred without too stringent application of the criteria. Of the 92 projects adjudged worthy of support, only seven, totaling $4.2 million, were carried over into the current fiscal year; the delay entailed no hardship because the applicants themselves were not ready to proceed, for lack of the two-thirds matching funds or for some other reason, such as failure to acquire a building site. Nineteen requests, totaling about $5.8 million, were rejected as not having met the criteria.

In its recent actions the Office of Education, in addition to approving 29 requests for a total of $14.2 million, rejected or deferred action on eight requests totaling $6.7 million. Thirty-two requests, which total $17.4 million, have been received but not processed. Thus, the applications considered or received since July, when the current fiscal year began, total $38.3 million, or slightly less than two-thirds of the $60-million appropriation. Many more requests will be received before next July, but at the moment OE does not plan to ask for a supplemental appropriation.

New claims on the Johnson Administration's next budget may be heavy and insistent enough to rule out a large increase for the graduate facilities program. The new elementary and secondary school program, established this year, is an example of a major new claimant for funds. Moreover, the unpredictable but surely heavy cost of the war in Vietnam is likely to be a factor in the shaping of many administration programs.

Office of Education officials recognize that an important factor limiting the growth of the graduate facilities program is the ability of institutions to raise the matching two-thirds funds. Ashton looks with interest to 1967, when most state legislatures hold their next general session, to see whether his program has encouraged the states to respond more generously to the needs of graduate education. This year's legislative session was regarded as a poor test of the program's efficacy as a pump-primer because state budgets were made up in the fall before eligibility criteria and other details had been announced.

Ashton and other knowledgeable observers believe that, in view of the growing demands on graduate schools, a sizable graduate facilities program will be needed for a decade or more. A parallel program, sharply increasing the number of graduate fellowships awarded under the National Defense Education Act, is meant as an assurance that the new facilities will suffer from no lack of well-qualified students or of competent faculty. In time it may be possible to measure the results of these programs against the hopes that inspired them.—LUTHER J. CARTER

Speaker Ban: State Assembly Kills Law Denying Forum To Communists; U.N.C.'s Status Is Believed Safe

North Carolina's "speaker-ban" law, a unique statute which had placed in jeopardy the accreditation of the University of North Carolina and other state institutions (*Science*, 29 October and 5 November), was abolished last week by the state General Assembly. The statute made it unlawful for

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