

discover from the report who has obtained what grades.

Nobody will be surprised that there is a marked correlation between the quality of an institution and the amount which it receives from the Federal Government by way of grants for academic research and development. In the early sixties, the median grant to the best institutions amounted to close on \$23 million a year, falling away to rather less than \$1 million a year at the other end of the quality scale. It is also unsurprising that fellowship awards from the National Science Foundation and other bodies should have tended to be made preferentially to students from the better institutions. In the fifteen years from 1952 to 1964, the median proportion of successes in applications for fellowships was 0.360 at grade A institutions and 0.197 at grade G institutions, with a regular decrease in between. Continuing this description of how largesse tends to improve the condition of those who are already reasonably well off, the survey shows that, in science and engineering, members of the graduate faculties at grade A institutions were able to obtain for their students a median of 0.429 doctoral awards—a ratio which falls steadily down the grades to 0.133 in grade G.

The institutions awarding graduate degrees seem to be readily distinguishable from each other by their internal structure. One striking variable is the percentage of full professors in the faculty, which ranges monotonically from 42 per cent at grade A institutions to 28 per cent at grade G institutions. In the same way, there seems to be a steady decline of median salary with grade, at least for the higher ranking academics. In 1967–68, the median salary of full professors was greater than \$19,000 at grade A institutions and just under \$14,000 at grade G institutions. In the lower ranks, however, institutions in all seven grades used in the survey seem to have paid median salaries of \$8,000 to instructors and \$10,000 to assistant professors.

A part of the objective of this painstaking analysis is to calculate the cost of improving the quality of graduate institutions. The nub of the conclusion is that promotion of a grade B institution to a grade A institution works out at \$550,000, spread out over 10 years, for each unit of annual PhD production. Judged by this criterion, it seems to be more economical to promote the quality of institutions of intermediate quality than to improve those at the bottom. Dr Hartman estimates that the years ahead will, however, see a considerable growth in the intermediate institutions, with the result that the grade A institutions will be producing 19.8 per cent of all PhD graduates compared with 32.4 per cent in 1964–65.

The report is splendidly explicit about the cost of graduate education and about the likelihood that it will become even more expensive than it is at present. In 1951–52, the annual cost per student of graduate instruction seems to have been \$2,840, divided roughly three to two for instruction and research. By 1965, the total cost had grown to \$7,280 a year per student, with research and instruction almost equally costly. By 1981, the projection goes, research will account for \$9,700 in a total cost of \$16,900. By that time, the cost of graduate education will amount to 1.39 per cent of the GNP (compared with 0.74 per cent at present) even if the GNP itself keeps on increasing at 5.4 per cent a year.

UNIVERSITIES

Harvard goes to Town

A UNIVERSITY and the town that grows up around it form a chimerical community whose head and body have no natural wish to travel in precisely the same directions. Relations between town and gown may rarely become as bad as in Cambridge, England, when Henry III was obliged to send in troops to quell the riots. But, equally, they grow no better when the university, as in Cambridge, Massachusetts, practises a policy of studious neutrality towards the city that encompasses it. A committee appointed by President Pusey has now concluded that Harvard University should develop a positive interest in the affairs of the City of Cambridge, taking steps not only to influence planning and housing prices with its real estate transactions, but also to act as an enlightened employer, landlord and neighbour (*Preliminary Report of the Committee on the University and the City*, Harvard University).

The reasons for this change of face are not far to seek. The differences in the quality of life between the Harvard campus and the several slum areas that surround it are all too visible. This and such irritants as the price of housing, inflated by the university's presence, have kindled a new animosity to replace the historical antipathy between the Boston Irish and what they saw as the Brahminical community in their midst. The alarming incidence of burglaries and crimes of violence is not a suitable part of a university atmosphere, and the Harvard faculty may already be apprehensive lest hostile hinterlands of the type that helped to engender the recent disturbances in Columbia and Chicago should grow up around the campus. Perhaps the most important impetus to change is the growing awareness of community problems among the student body. Graduate students in particular, who have to live off the campus, have been pressing for courses in urban studies and a greater concern with the city's affairs.

In its proposals the committee has been sympathetic to much of this feeling. The university, it points out, employs 13,000 people, spends \$170 million a year and occupies 350 acres of land; no institution of this size can be neutral about its environment. The committee recommends that a Vice-President for External Affairs, together with an advisory committee, should be appointed to direct the university's affairs as they affect the city. A fund, to be known as the Harvard Community Foundation, should be set up to finance social programmes in the area that might now otherwise attract support. In its staffing policies, the university should not be content with the proportion of its employees, currently three per cent, who are negro.

The committee respects the interest taken by students in urban studies, but believes it does not yet justify any radical changes in the university curriculum or organization, although existing programmes should be made more flexible and "better adapted to the proven interests of students and faculty alike". "Urban studies", the committee believes, does not have the makings of an academic discipline. Instead, a doctoral course in planning and policy analysis should be set up by the Kennedy School of Government, with central disciplines in economics, sociology and statistics.