

the current demand for primary products and gives details of international agreements which are in force. Eleven primary products, ranging from petrol and metals to tea and coffee, are discussed in detail in terms of the nature and importance of the product, countries of supply, importing areas and national production figures, and the state of the market. British, United States and Common Market policies for trade with the less developed countries are discussed with a mass of information on the trade of the countries concerned. The guide concludes with a résumé of the work of the UNCTAD board and committees, and makes three proposals—a cocoa agreement, a scheme for tariff preferences for less developed countries and a scheme for supplementary financial measures, which could well be important talking points at the New Delhi meeting next month.

No Change at Caltech?

THE annual report of the president of the California Institute of Technology for the academic year now past provides the usual detailed and absorbing account of the institute's recent achievements. Although, this year, Dr Lee DuBridge has much to say about the launching of the institute's public appeal for \$85 million, his account of events does less than justice to the questions increasingly being asked among the faculty at Pasadena and their contemporaries elsewhere—is the pursuit of excellence, or pre-eminence, as Dr DuBridge calls it, in conflict with the educational needs of the undergraduates, now almost outnumbered by the faculty?



Dr Lee DuBridge, president of the California Institute of Technology.

Like many other institutions, the California Institute of Technology is the continuing victim of what is now called sophistication. Simply staying still costs an extra 6 or 7 per cent a year. The institute wants to spend some of the \$85 million which it hopes to raise on new buildings, while some of it will be added to the endowment, which amounted to a comparatively modest \$129 million in 1967. Within the running budget, which included expenditure of \$30.35 million

in 1967, federal research plays a prominent part. Thus the direct cost of federally sponsored research worked out at \$11.22 million, compared with \$9.24 for what is described as "instruction and research". In practice, the institute seems not too heavily dependent on any one agency for its funds—the US Navy provided \$2.13 million and the US Air Force \$1.74 million in 1967, with roughly comparable amounts from the Public Health Service (\$3.21 million), the AEC (\$2.69 million), the NASA (\$2.17 million) and the NSF (\$2.01 million). It should fare as well as any other institution if, in the months ahead, there is a sharp reduction of the scale on which federal funds are made available. Whether the institute will be affected indirectly by the straitened NASA budget in the years ahead is another matter, for annual expenditure at the Jet Propulsion Laboratory which is managed on behalf of federal agencies by the institute grew by less than 1 per cent (to \$248 million) between 1966 and 1967, and could conceivably decline in the years immediately ahead.

Financial considerations have not, however, impeded the sustained if modest growth of the institute in the recent past. The faculty, for example, has grown from 515 to 600 in five years, with the number of full professors almost unchanged at 142 but with a rapid increase from 159 to 206 in the number of research fellows. The intake of undergraduates, by contrast, has been constant for some years at 200 or so, but outsiders will be a little surprised that the rate of application for entry is only five times as great. Drop-outs account for 39 per cent of the student body over a four year undergraduate course, though no doubt some of these people complete their undergraduate degrees elsewhere. No doubt the rate of dropping out will be taken merely as a proof that even the more rigorous processes of selection cannot be a cast-iron assurance of academic success. At Caltech, as the Swann Committee has found in Britain, however, academic success begets academic temperament. Thus the production of PhD degrees is running at about 100 a year, and has not yet been much affected by the increase of the graduate school from 660 to 770 in the past three years. In 1967, for example, 70 per cent of those graduating with PhD degrees found jobs at universities or at research institutions.

Decline of Bone Strontium

A CONTINUING decline of the concentration of radioactive strontium in human bones in the British Isles is recorded in the most recent of the reports on the subject by the Medical Research Council (*Assay of Strontium-90 in Human Bone*, HMSO, 3s.). The results are based on analyses carried out separately by the UK Atomic Energy Authority and by a group based on Scottish hospitals. Bone samples were obtained from the vertebrae of individuals dying between July and December 1966, and the results obtained by the two groups are shown in the following table.

	UKAEA		Glasgow	
	1965	1966	1965	1966
Newborn and stillborn	2.5	2.2	3.4	2.7
Under 5 years (excluding newborn)	6.7	5.1	8.2	6.5
6-23 months	9.1	6.2	11.0	8.3