

to keep their own educational programmes intact by vigorously complaining that curtailment would reduce the numbers of trained doctors at a time when shortages already serious are likely to become even more apparent.

Although the budget of the NIH as a whole has continued to grow over the years, the direct benefit to research and to universities has tended to stagnate for several years. Thus the total amount to be spent on research grants if the new ship comes home will be \$546 million, nearly £10 million less than two years ago. Much of the increase to be expected will be spent on what is called collaborative research and development, chiefly by letting contracts. (An extra \$50 million is earmarked for this purpose, while the cost of research carried out at the national institutes themselves will increase by merely \$10 million.) With the sustained growth of the NIH since the early sixties, contracts have played an increasingly important part in the pattern of research financing, not merely no doubt because there are limits to the work which can be done by a necessarily limited group of people, but also because there is more scope for this method of working in circumstances when research programmes are aimed at specific goals.

EDUCATION

New Plans for Students

URGED on by the ubiquitous Mr Daniel P. Moynihan, who has been in hot water in the past few days for suggesting in a private memorandum that the colour problem would profit from a period of "benign neglect", President Nixon announced last week a programme intended to improve the quality of education in American schools. One important development is the setting up of a National Institute of Education intended to carry out and to sponsor educational research to the tune of as much as \$250 million a year. There is also a Commission on School Finance to study the financial problems of the school system, public and otherwise. In the hope of replacing some of the welfare projects of the last Administration, Project Headstart in particular, by more effective programmes, President Nixon has also suggested a programme of financial assistance, costing \$200 million in the year ahead, to help states and local communities teach children to read and there is to be another programme of what are called "child development projects".

The National Institute of Education is plainly destined to become the focus for most kinds of federally sponsored educational research in the United States. Much of its work will be concerned with curriculum development and with the evaluation of new kinds of curricula. Much of the work will be undertaken by universities and other organizations under contract, but it is intended that there should be a National Advisory Council to guide the development of policy. Among the particular subjects mentioned in the message to Congress on March 3 were the search for more effective means of "compensatory education", the search for new methods of putting flesh on the bones of Dr James E. Allen's slogan "Right to Read", partly by helping school libraries to buy books and by helping school systems provide special teaching programmes, and the investigation of the use of television in education.

One of the oddest features of this proposal is that it now seems somewhat old fashioned. Ten years ago, curriculum development was all the rage and programmes such as that of the Physical Sciences Study Committee were widely acclaimed. More recently, in the mid-sixties, there seemed to be great enthusiasm for the application of television and management techniques to the learning situation. In the past few years, however, much of the enthusiasm for these programmes seems to have been turned in other directions, as if the first wave of really self-conscious curriculum development had been diffused into the practical problems of how best to organize the application of the new techniques, still far from complete—a tendency no doubt accelerated by the shortage of funds in the educational budget. The efforts of the National Science Foundation in this direction have been shrinking for the past few years. Although the Administration is now plainly concerned with a different part of the educational system from that in which curriculum development began in the nineteen fifties, the success of the National Institute of Education will plainly be intimately dependent on the chance that able people are ready to participate.

The proposals for helping with the analysis of the financial plight of school systems, through a commission already appointed, are still somewhat an unknown quantity. At present, states are responsible for 38 per cent of the cost of operating school systems, and 54 per cent of the cost is met from local funds. The federal sources provide only 8 per cent. One of the problems to be tackled is to find some way of channelling more federal money into the school systems, but there have already been complaints that President Nixon's promise to make a study does not do away with the urgent need for financial assistance to prevent some school systems from collapsing altogether. The fact that the United States spends more on education than the rest of the world put together, according to President Nixon's statement, may not be a sufficient guarantee of health. On the other hand, it seems to be agreed that there will be great profit if great uncertainty in some of the schemes that are being talked about for helping to improve the educational environment of those not yet at school.

ECLIPSE

Observations Galore

THE solar eclipse last Saturday was a great success and, if these things were regulated by the wishes of astronomers and even of the general public, there would evidently be more of them. In Mexico, the 300 observational astronomers who had gathered for the occasion were provided with almost perfect conditions for observing the eclipse. As the track crossed Florida and the coast of Georgia, clouds obscured the view, but as it reached the cleverly sited station of the National Aeronautics and Space Administration at Langley air force base and Wallops Island in Virginia, conditions could not have been improved on. At Langley air force base, photography of the flash spectrum of the chromosphere is said to have been successful. At Wallops Island, the staff managed somehow to launch 31 sounding rockets before, during and after the total eclipse. The only failure was the