

present and prospective rates of increase in economic development, imposes a heavy burden on all efforts to improve human welfare. Moreover, since we live in an interconnected world, it is an international problem from which no one can escape.

"In our judgment, this problem can be successfully attacked by developing new methods of fertility control and implementing programs of voluntary family planning throughout the world. . . . In pursuit of these objectives, many different kinds of institutions in the United States, both public and private, have important contributions to make. Other than the search for lasting peace, no problem is more urgent."

Addressing itself to the argument that accelerated economic development can of itself accommodate population growth, the report states: "the realistic question in the short run does not seem to be whether some increases in per capita income are possible while the population grows rapidly, but whether rapid population growth is a major deterrent to a rapid and continuing increase in per capita income."

In India, it notes, failure to reduce the birth rate will probably cause the population to double in the next 25 to 30 years, to about 900 million persons. "In the same period, the output of the non-agricultural part of the Indian economy probably would be slightly more than doubled if the birth rate remains unchanged. For a generation, at least, then, India's economic output probably can stay ahead of its maximum rate of population increase. This bare excess over the increase in population, however, is scarcely a satisfactory outcome of India's struggle to achieve economic betterment. The real question is: Could India and other less-developed areas of the world do substantially better if their birth rates and thus their population growth rates were reduced? Economic analysis clearly indicates that the answer is yes. Any growth of population adds to the rate of increase of national output that must be achieved in order to increase per capita output by any given amount. . . . Moreover, rapid population growth and a heavy burden of child dependency divert investment funds to less productive uses—that is, less productive in the long run. To achieve a given level of literacy in a population, much more must be spent on schools. In an expanding population of large families, construction effort must go

into housing rather than into factories or power plants."

" . . . a short-term increase in per capita income may be possible in most less-developed areas, even if the fertility rate is not reduced. Nevertheless, even in the short run, progress will be much faster and more certain if the birth rate falls. *In the longer run, economic progress will eventually be stopped and reversed unless the birth rate declines or the death rate increases* [italics supplied]. Economic progress will be slower and more doubtful if less-developed areas wait for the supposedly inevitable impact of modernization on the birth rate. They run the risk that rapid population growth and adverse age distribution would themselves prevent the achievement of the very modernization they count on to bring the birth rate down."

As for the means of achieving a lower birth rate, the report stresses that to convince rural, illiterate populations of the need for family limitation will require a meshing of a broad range of disciplinary skills. "In no other social problem is the interconnection between human and technical factors so critically important as in fertility regulation. The better the contraceptive—better in ease of use and effectiveness—the less the social resistance to the acceptance of family planning and the greater the efficiency of implementing voluntary fertility regulation where it is needed. Thus, the two sets of factors, the social and the bio-medical, are closely interwoven, and the social acceptability of family planning depends heavily on the development of applied knowledge in the bio-medical field. . . ."

In its specific recommendations the report calls for greatly expanded programs of fertility research and for support of graduate training in demography and in the social and biomedical sciences concerned with population problems. In making these recommendations, it closely parallels the proposals that were originally contained—but later removed in a curious fit of fear—from a National Institutes of Health survey of fertility research. That survey, which was at first withheld from publication and later released without the research proposals, reported that government, industry, and private foundations spent \$6.1 million on fertility-related research in 1961. It recommended a minimum annual program of \$4.6 million for

training, \$7 million for research and \$5 million for field and clinical trials; in addition, a single expenditure of \$4 million to help finance the construction of eight research centers was recommended. With NIH now in the midst of presenting its requests for congressional appropriations, none of its officials is eager to discuss the implementation of these proposals, but it is generally felt to be likely that increased funds will go into fertility research and training.

The Academy report also suggests that the United States Government seek to promote international cooperation on "studies concerned with voluntary fertility regulation and family planning," through the United Nations as well as other intergovernmental and nongovernmental organizations.

Another recommendation calls for the United States to "improve and enlarge" training programs for "family-planning administrators." Noting that "the effectiveness of family-planning programs in both highly developed and less-developed areas is limited by the lack of administrators skilled in carrying such programs to the people," it states, "this country can perform a most useful service now by training administrators who will become instructors in their own countries."

And, finally, the report recommends that the Academy assume an active and continuing role in the population field by establishing a committee that would stimulate and coordinate "programs directed toward the solution of problems of uncontrolled growth of population."

McElroy's fellow panel members are William Allen, Washington University; Bernard Berelson and Warren Nelson, the Population Council; Ansley Coale, Princeton University; Harold Dorn, NIH; Clement L. Markert, Johns Hopkins University; and Albert Tyler, California Institute of Technology.

—D. S. GREENBERG

Cambridge's Revenge: Dons Say Hailsham Threatens U.S. Support, Block Honorary Degree for Him

The senior faculty at Cambridge University has had its vengeance on Lord Hailsham, the British Minister for Science, who last February denounced this country for what he described as looting of Britain's scientific manpower resources (*Science*, 8 March 1963). Stressing good taste

and the possible perils of offending their grant-giving American friends, the dons manifested their displeasure by blocking an honorary degree for Hailsham.

After their victory they issued a statement, explaining, "We believe Lord Hailsham's view is incorrect and impolite to the Americans who pay for so much research in Britain. It evades tackling the main issue of the need for adequate finance from the government for education and research in the interests of the community as a whole."

The controversy has been marked by a mixture of good and bad marksmanship, as far as the real issues are concerned. Whether lured or self-propelled, the British are coming in fairly large numbers, and Hailsham did not hurt anything but precious sensibilities when he brought this courteously disregarded fact out into the open. But he would be hard put to defend his theory that the westward flow reflects nothing so much as the inadequacy of American scientific education. Scientists, like other people, tend to flock to money and opportunity, both of which are abundant here and in relatively short supply there.

Moreover, it is extremely unlikely that the flow of American support for British research will be responsive to Hailsham's petulant remarks. The federal agencies and foundations that finance science abroad do so for a variety of reasons, but principally because they feel there is good work to be had in foreign laboratories. The main countervailing force to the eastward flow of funds—at least as far as the federal government is concerned—is the American balance of payments problem. The administration is deeply worried about this matter, and it has asked federal agencies—including those that finance foreign research—to look into cost-cutting possibilities. The outcome may be a reduction of American support for foreign scientists, but that has nothing to do with Hailsham's rocking the boat.—D.S.G.

Moscow Embassy: Officer Named To Fill Science Liaison Post

The State Department has tentatively assigned a Foreign Service Officer to serve as a scientific representative at the American Embassy in Moscow. At other major American embassies, the function is usually assigned to a science attaché, who is generally a senior sci-

entist. But the Soviets, for reasons that are not clear, have not been receptive to the presence of a full-fledged science attaché at our Moscow Embassy.

The Russians have a "scientific counselor" at their Washington Embassy, but his role appears to be very much along the lines of most science attachés in Washington, and differs from the American concept of the job. While other nations regard the science attaché as a collecting point for scientific publications and general information about scientific activities, the State Department is seeking to use our science attachés as a means for bringing scientific advice into the mainstream of foreign policy formulation. It has not always worked out too well but that is the goal.

Present plans call for assigning the Moscow post to Glenn Schweitzer, a 1953 West Point graduate who joined the Foreign Service in 1956 after resigning from the Army. Schweitzer, who is currently assigned to the science and technology office of the Arms Control and Disarmament Agency, served at the American embassy in Belgrade in 1957. He subsequently studied nuclear engineering at the California Institute of Technology and the Argonne National Laboratories.

His function in Moscow, according to the State Department, will include assisting American scientists in exchange arrangements with their Soviet colleagues. It is expected that he will take up the post late in the summer.

—D.S.G.

Civil Defense: Congress Refuses Funds To Complete Shelter Survey and Stocking Program This Year

Congress generally does not give civil defense the openhanded treatment it accords other aspects of defense, and last week civil defense suffered another rebuff on Capitol Hill when the House rejected an administration request for \$61.9 million to complete a program of stocking fallout shelters.

The action attracted little notice in the press, since the money for civil defense was part of a mixed bag of measures in a \$1 billion supplemental appropriations bill and attention was diverted by a floor battle over a \$450 million item for the so-called emergency public works bill, which was approved by the Appropriations Committee's deficiencies subcommittee, knocked out by the full committee, and restored

by a 228 to 184 House roll-call vote.

The \$61.9 million asked by the administration was to be used to pay the cost of the last 25 percent of the work of marking and stocking shelter space already existing in buildings and in caves, mines, and other underground structures around the country. In federal bookkeeping terms, the money was to be a supplement to the \$111 million appropriated in the last session of Congress for civil defense for the current fiscal year, which ends 30 June.

In rejecting the civil defense item the House followed the recommendations of the Appropriations deficiencies subcommittee, whose chairman is Representative Albert Thomas (D.-Tex.), a very influential member of the House, who has been a resolute skeptic in regard to civil defense.

Thomas's stand on civil defense is of strategic importance to the program because the Texan is also chairman of the Appropriations independent offices subcommittee which oversees regular appropriations for civil defense.

It was the Thomas subcommittee which in March of 1962, in the ebb of the Berlin crisis of the previous summer, killed proposals for a "shelter incentive" program and thus effectively set Congressional policy against a major program of new shelter construction.

Thomas and his colleagues have generally gone along with a federal-state-local cooperative program to identify, mark, and stock shelters in existing structures, and Congress, in fiscal years 1962 and 1963, appropriated a total of \$175 million for the effort. The program, according to official estimates, would result finally in the stocking of some 70 million shelter spaces with austere rations for about 2 weeks and basic medical, sanitation, and radiological kits.

In testimony at hearings on the supplemental appropriation before the Thomas subcommittee last month, Stuart L. Pittman, the assistant secretary of defense who directs the civil defense program, argued that failure to provide the funds would not only interrupt completion of the shelter survey, disrupt the flow of supplies to shelters at a critical time, and cut back delivery and production schedules, but would also prejudice the whole civil defense effort, since building owners and local governments would be left uncertain about the federal government's intentions and a hard-won spirit of cooperation would be undermined.