It may be pointed out that any forecast of the need for scientific man-power may be upset at short notice by unpredictable events. An economic recession, a change in Government policy, even rapid changes of population, either by way of natural increase or selected migration, may upset the most carefully prepared estimates. The recent development of secondary industries, the growth of which has been fostered by war shortages and post-war disturbance of normal economy, may not, in the opinion of some, be a permanent feature of New Zealand life. Any radical change in present conditions will, of course, affect the demand for scientific workers. On the other hand, even if some present avenues of scientific employment should no longer be available, the need for scientific workers generally will remain; but the direction in which scientific effort should be employed may be altered.

We stress at the outset the complexity of the problem in order to define the scope of the present inquiry. In an investigation there comes a time when the use of too fine a scale of measurement, or the attempt to combine in one equation too many variants, is wasteful of effort. The early stages of the present investigation were therefore given over to a search for the limits within which useful results could be obtained. We quickly came to the conclusion that only certain broad findings could be expected from the means at our disposal and the time allotted for the investigation.

The Committee gathered its information either from existing sources (in the case of numbers and categories of scientists in training) or from specially-designed questionnaires. We are aware of the limitations of the questionnaire method, and at every point care has been taken to see that an adequate coverage has been obtained. A definition of "qualified scientific worker" was arrived at after consulting a number of people who had given considerable thought to the New Zealand problem. The Department of Labour and Employment, at the request of the Committee, extracted from available records much of the basic data that has been used. Questionnaires were sent to Government Departments and to a comprehensive and representative group of industries and other bodies employing or likely to employ scientific workers. Full information was also obtained from University institutions and from the registered private secondary schools. In arriving at an estimate of the quality of the training available to scientists we were to some extent guided by a further questionnaire inviting opinions on the causes, and possible solutions, of major problems confronting us in the course of our investigations.

Our report does not attempt to be exhaustive, but we feel confident that within the limits of the inquiry we have been able to arrive at conclusions which will be useful in the formulation of policy.

II. THE BARLOW REPORT

In Great Britain in May, 1946, a Committee, under the chairmanship of Sir Alan Barlow, reported on the scientific man-power position in that country.*

The Barlow report affirms that in Great Britain "the demand for scientists† over the next few years will exceed the possible supply not only as a whole, but separately in each major branch of science" (*op. cit.*, page 4, paragraph 5). The need

* "Scientific Man-power": Report of a Committee appointed by the Lord President of the Council. CMD 6824, H.M.S.O., 1946.

† This report adopted the following definition of the term "qualified scientists": "persons holding degrees in the mathematical, physical, chemical, and biological sciences, together with the small number of men and women who, without being University graduates, are members of recognized scientific institutions with a membership status that is accepted as the equivalent of a University degree in these subjects."