

99. The above figures are useful as a guide in estimating the relative numbers at the intermediate and the first professional stages, but to ascertain the annual intake it is necessary to estimate the proportion of engineering candidates in the Intermediate Examination who ultimately succeed. On the evidence available this has been fixed at 55 per cent. An annual output of 75 graduates would require a total roll of 300 in the University schools of engineering, assuming, as explained above, that there would be an output of 25 graduates annually for every 100 students in the schools. Of these 300 there would be, it is estimated, 40 per cent. in the first professional year—*i.e.*, 120. The calculations which were necessary to arrive at the distribution of every 100 students over the course (as shown in para. 97) indicated that an intake of 100 students each year would probably result in about 130 students in the first professional year because of the number who spend more than one year on the first year of the course. In order to maintain 120 in the first professional year an annual intake of about 92 would be necessary. On the assumption that about 55 per cent. of those who began the Intermediate Examination will succeed, it is estimated that the annual intake at the intermediate level to produce 92 candidates who have completed intermediate would be 167. A final estimate is that an intake of 167 would result in a total roll in the intermediate year of approximately 250.

100. The greatest number taking the intermediate course in any one year so far was 244 in 1946. This figure dropped to 205 in 1947 and to 176 in 1948. It will probably drop a little further in 1949, by which time the carry-over from the peak years of students taking more than one year should be spent. An annual intake of 167 would constitute a substantial proportion of the youths leaving the Sixth Forms of our post-primary schools. In 1947 there were 1,480 boys leaving the Sixth Forms. Some of these would leave without completing University Entrance. Of the 1,480 boys, about 400 qualified for the Higher School Certificate. Nor is it possible to hope for any appreciable increase in the number of boys leaving the Sixth Forms during the next few years. The dominating factor, of course, is the low birth-rate during the "thirties." The number of births per year, which in 1926 had been as high as 28,473, had fallen by 1930 to 26,797. From 1930 to 1935, the period which is of particular importance for this inquiry, there was a further drop to 23,965. The downward trend was then reversed, but it was not until 1938, when the total births reached 27,249, that the 1930 figure was exceeded. The Committee would like to see as many boys as possible entering the engineering profession with the Higher School Certificate. It will be obvious, however, that many boys so qualified will wish to enter other walks of life. The number who wish to enter the engineering profession will depend in the last essence on the attractiveness of the financial and other rewards in it. This is a matter which lies beyond the Committee's province. It can only assume that others will take what measures are necessary in this direction. The Committee is concerned, however, with ensuring that adequate opportunities are given to all who are likely to succeed as professional engineers.

(iv) WHAT ACCOMMODATION PROBLEMS, IF ANY, ARE LIKELY TO BE CAUSED AT THE UNIVERSITY COLLEGES ?

101. Accommodation at the University colleges will be referred to again in Section 10. At this stage it will be sufficient to compare the anticipated roll under the plan with the numbers the colleges have in fact been accommodating recently. As mentioned earlier, an initial output of 75 graduates annually would require a total roll of 300 students in the two schools of engineering, excluding Institution membership candidates, for whom it is hoped other arrangements will eventually be made. When the number of graduates increases to, say, 100 annually there would be a roll of 400 degree students. By that time there would be very few Institution membership candidates wishing to attend University lectures.