

as should be necessary. The Committee has in mind, as already set out in Section 7, that the number of non-graduates will be negligible at the end of twenty years or so, but it is very doubtful whether there will be sufficient students offering for the degree courses to make possible any substantial increase in the number of graduates during the first few years of the plan.

96. Figures obtained showed that of 419 students beginning the first professional course in the period 1920–1939, 202 completed the degree in three years, 159 in a longer period, and 58 failed to qualify—that is, 48 per cent. qualified in the minimum period, 38 per cent. in a longer period, and 14 per cent. not at all. Figures covering the period from 1940 to 1948 are considerably affected by the interruption to studies on account of the war and by the considerable increase in numbers towards the end of the war and since. Information obtained about those taking the final professional year showed the following. From 1937–1942, both years inclusive, the annual rolls for final year students totalled 103. During the same period 102 (not necessarily entirely the same group) completed the degree. From 1943–1946 the respective totals were 107 and 78. In 1947 only 55 completed the course, although there were 91 on the rolls. In 1948 there were 74 out of 105. More students are taking honours courses each year, but this would not account for the difference between the position up to 1942 and since then. Either more students are taking more than one year to complete the final year or the mortality rate has increased because increasing numbers have affected the general standard. Possibly both factors are operating. The Committee considers that under normal conditions the great majority of students in the final year will complete the course in the minimum period, especially if more stringent conditions are laid down in the earlier years requiring students to complete each year's work before proceeding to the next. It considers, too, that when conditions become stable the percentage of failures will not be much greater than during the period 1920–1939. It must be remembered that the Intermediate Examination is a severe test and those who pass it should not experience difficulty later provided they have a real desire to become professional engineers.

97. The following distribution of every 100 students over the course, excluding the intermediate year, should be reasonably correct:—

First professional year	..	..	..	..	..	40
Second professional year	..	..	..	..	..	30
Third professional year	..	..	..	..	..	27
Fourth professional year (Chemical and Honours)	..	..	..	..	..	3
Graduates	..	..	..	..	..	25

That is to say, there will be 25 graduates annually for every 100 students in the schools, so that 300 students will be needed to obtain 75 graduates per year.

(iii) IS IT POSSIBLE TO OBTAIN A SUFFICIENT NUMBER OF THESE STUDENTS?

98. It is necessary now to consider what the above figures for degree students mean in terms of intake into the various University colleges. Mortality at the intermediate stage is very high. The total rolls of students at the four University colleges who stated that they were engineering students (the Intermediate Examination is similar for various professions) for the years 1941–47, both years inclusive, amounted to 1,038. The rolls of first professional year students for the years 1942–48 totalled 624, or 60 per cent. of the other figure. Some students are counted at least twice in both totals. The proportion is probably considerably larger in the total of intermediate students because at this stage students can be part-time, in which case they would not take all four subjects in a year. Moreover, the change from post-primary school to the University often necessitates a period of adjustment during which failures tend to be higher. On the other hand, returned servicemen taking up the first professional year would affect the totals for that class.