

190. At the national level, however, the development of diploma courses (which the Committee recommends in Section 12) will mean that there will be two main doors to the engineering profession, and that, in consequence, some co-ordination of effort will be very necessary. There must be some means of carrying out a regular audit of both ways of preparing students for the profession. To provide for close co-operation of the Education Department, the University authorities, the technical schools, and the engineering profession, and to ensure that the professional training of students undertaking either degree or diploma courses is co-ordinated and kept under review, the Committee considers that there should be established a Council of Engineering Education. The constitution and functions of this Council are set out in Section 14.

(10) RESEARCH

191. The Schools of Engineering, in common with other departments of the University, have two important functions—the extension and dissemination of knowledge. While the teaching functions of the schools must never be obscured by other functions, the Committee believes that a school of engineering which does not give a reasonable place to research and which fails constantly to enliven its teaching by inquiry is unworthy of the status of a University school. The Committee was informed that the heavy teaching load carried by many members of the staffs of the schools prevented them from engaging in research. While recording its belief that the schools should be careful to preserve a reasonable balance between teaching and research, the Committee recommends—

RECOMMENDATION—

That the staffing at both University schools of engineering be sufficiently liberal to permit of a reasonable amount of research being undertaken.

(11) THE OTAGO SCHOOL OF MINES

192. Attention has been given almost entirely in this section to the functions of the Auckland and Canterbury Schools of Engineering. There is, of course, a third school providing courses in Engineering. The School of Mines and Metallurgy, a constituent part of the University of Otago, prepares students for its own associateship and for degrees of B.E. (Mining) and B.E. (Metallurgical). During 1948 there were 53 students attending the school, some 34 of whom were following degree courses. The Committee has not considered that a full review of the work of the School of Mines came within its order of reference. It may be noted, however, that equipment and staffing at the school have been improved in recent years, and that steps have been taken to establish closer liaison with the coal-mining industry and with related New Zealand industries. Throughout its history the school has been closely associated with the Geological Survey. The Committee was informed that a Chair of Coal Mining was to be established, and that the Mines Department had in mind the establishment of a system of bursaries designed to recruit to that Department men with appropriate professional qualifications for management and development. The Committee considers that, broadly speaking, these new arrangements are all to the good. It notes with approval, too, the increased emphasis that is now placed on research.

193. Since the State is now the chief mine-owner in New Zealand, it would seem that so long as the present close liaison is preserved, any modification of intake at the school could be more readily brought about than has been possible in the other University Schools of Engineering which cater for a wider variety of courses. If, as the Committee recommends, there is set up a Council of Engineering Education, the functions of the School of Mines should be reviewed along with those of the Auckland and Canterbury schools.