

motes the professional development of social scientists in developing countries through training and increased opportunities for contacts with others in their profession.

Central Mortgage and Housing Corporation supports research and other activities in the field of housing and community planning. Research projects cover various aspects of problems of urban rehabilitation, community development, housing design and the housing industry. Projects are supported at both Canadian universities and Canadian non-profit institutions and the Corporation works closely with the Building Research Division of the National Research Council.

The Ministry of State for Urban Affairs supports human science research and related activities at Canadian universities and in other sectors. Projects are regionally oriented and include such areas as planning of community facilities, systems for municipal control and decision-making and the information needs of citizen advisory groups.

9.3.3 Personnel

Manpower data in this section relate to the federal fiscal year ended March 31, 1974; continuing employees are reported as at September 30, 1973, while term, casual and seasonal employees are the total for the entire fiscal year.

Personnel costs represented 74% of the reported current expenditures for 1973-74. Employees engaged in research accounted for 20% of the total manpower while research expenditures were 30% of the total expenditures for the same period. This is attributed to the higher proportion of personnel in the scientific and professional and executive categories reported for research — almost 46% compared with 20% for the related scientific activities.

Statistics Canada is the largest employer of human science personnel accounting for over half the reported total man-years, however, 5,177 man-years were engaged in related scientific activities. The Public Service Commission reported the largest number of research man-years, 294, of which 173 were in the scientific and professional category. Other major employers (employing more than 85 man-years) of research personnel include the National Museums, Statistics Canada, the Economic Council, Environment, Manpower and Immigration, Bank of Canada, National Health and Welfare, and Urban Affairs (Table 9.11).

The Economic Council employed the largest number of personnel holding doctorates (22). Other departments reporting more than one third of their research staff as holding doctorates included Agriculture, Bank of Canada, Environment, National Museums and Veterans Affairs. All the reported staff of the Bank of Canada held a minimum of a Master's degree.

9.4 Industrial research and development

The pattern of industrial research and development in Canada is complicated by many factors. Among these are the geographic distribution of population, industry and resources; the historical development of a Canadian industry and its markets; and the size distribution of Canadian firms. One outgrowth of this is the concentration of R&D efforts. In recent years, the 25 leading performers have been responsible for more than 50% of Canada's current intramural industrial R&D expenditures while the first 200 performers have accounted for approximately 88% of such expenditures.

Similarly, some 84% of the R&D establishments are concentrated in Ontario and Quebec and these account for 90% of the current intramural R&D expenditures. Another 8% of the expenditures are made in British Columbia and Alberta. The remaining 2% of the work is distributed through the Atlantic Provinces, Manitoba and Saskatchewan.

Industrial R&D expenditures showed a rapid rise during the 1960s under the favourable economic climate of the period and the growing acceptance of the value of R&D by Canadian industry. If current dollars are considered, expenditures have continued to rise but in terms of 1961 dollars the rate of increase slowed between 1965 and 1969 and declined slightly between 1969 and 1972. In terms of a percentage of the gross national product the R&D share of expenditures has slowly declined from 1969 to 1972.

Naturally, the significance of R&D varies from industry to industry. The older, more mature industries with well-developed technologies tend to do less R&D than the younger industries. During the last half-dozen years the electrical, the chemical-based, and the machinery and transportation equipment industry groups have performed more than two thirds of Canadian industrial research and development.