within government establishments or supported in other sectors under the form of grants, contracts, scholarships or other agreements. Most of the resources, however, some 70%, are spent intramurally for activities performed by government employees. "General data collection" represents the largest activity in the human sciences supported by the federal government. Table 9.5 gives the breakdown of federal expenditures on the human sciences by category of activity and sector of performance.

Research constitutes the second most heavily supported activity with almost one third of the federal resources devoted to the human sciences in 1972-73. Research expenditures are about equally divided between intramural research and the support of research carried out in other sectors. Thirty-five different departments and agencies devote resources to research in the human sciences, 12 of them having research expenditures of over \$2 million (Table 9.6).

9.6.2 Provincial expenditures

Eight provinces have established research councils or foundations, each having the primary role of assisting firms with technical problems and of aiding the development of provincial natural resources. In 1971 these organizations spent \$15.6 million on scientific activities distributed as follows: scientific research 31%; experimental development 19%; resource surveys 12%; industrial engineering 10%; analysis and testing 8%; capital (buildings and equipment) 7%; library and technical information 6%; feasibility studies 4%; and other activities 3%.

These activities are financed largely by provincial governments (60%) but Canadian industry and the federal government are also important sources of funds (20% and 15%, respectively). The councils and foundations reported almost 800 employees at the end of 1971. There were 300 scientists and engineers and almost 270 technicians and technologists. The remaining personnel consisted of management, administrative and other support staff.

9.6.3 Industrial expenditures

In recent years industrial research and development has shown no real growth in Canada. Expenditures shown in Table 9.7 are in current dollars (a constant dollar series might show an actual decrease). In 1970, approximately 73% was company-financed, 13% federal government-financed, with the remaining funds supplied by other Canadian companies, foreign governments and firms. The funding distribution varied between industry groups: companies in the chemical-based group funded 81% of their own R&D whereas the contributions of companies in the machinery and transportation equipment group and the electrical group amounted to 61% and 65% of the respective totals. These last two groups received greater financial assistance from the federal government than did firms in other groups.

Sources

- 9.1 Information Services, Ministry of State for Science and Technology.
- 9.2.1 Information Services and National Science Library, National Research Council of Canada.
- 9.2.2 Technical Information Branch, Atomic Energy of Canada Limited.
- 9.2.3 Public Relations and Information Services, Department of Energy, Mines and Resources.
- 9.2.4 Information Services and Atmospheric Environment Service, Department of the Environment.
- 9.2.5 Information Services, Department of Communications.
- 9.2.6 Office of Science and Technology, Department of Industry, Trade and Commerce.
- 9.2.7 Public Affairs Directorate, Ministry of Transport.
- 9.3.1 Nova Scotia Research Foundation.
- 9.3.2 New Brunswick Research and Productivity Council.
- 9.3.3 Quebec Industrial Research Institute.
- 9.3.4 Ontario Research Foundation.
- 9.3.5 Manitoba Research Council.
- 9.3.6 Saskatchewan Research Council.
- 9.3.7 Research Council of Alberta.
- 9.3.8 B C Research.
- 9.4 Office of Science and Technology, Department of Industry, Trade and Commerce; Education Division, Institutional and Public Finance Statistics Branch, Statistics Canada.
- 9.5 Office of Science and Technology, Department of Industry, Trade and Commerce.
- 9.5.1 Pulp and Paper Research Institute of Canada.
- 9.5.2 Public Relations and Information Services, Department of Energy, Mines and Resources.
- 9.6 Education Division, Institutional and Public Finance Statistics Branch, Statistics Canada.