

cludes contributions to scientific journals (whether subsidies or subscriptions), grants to assist in the publication of doctoral theses and other research papers, support of learned and professional societies, scientific exhibits, films, conferences and symposia, and scientific libraries.

Education support, for the federal government, consists of grants to individuals or institutions specifically intended to support the education of students in the human sciences. Grants intended primarily to support the research activities of individuals are considered research (e.g. postdoctoral fellowships).

Operations studies include all studies of programs, policies and operation of departments and agencies aimed at the optimal utilization of committed resources. This would include the analysis and assessment of present programs, projects and policies and the development of standards, procedures and classification systems. Much of the work carried out by federal government departments in units with names implying research activity (e.g. Research and Development Section, Development and Integration Unit) actually falls into this category.

9.3.1 Expenditures

Federal government expenditures for activities in the human sciences was \$256 million in 1973-74 (Table 9.7). Expenditures were reported by 46 departments and agencies; however, two of these, Statistics Canada and the Canada Council, together account for more than one third of the reported total.

There has been a substantial increase in expenditures for human science activities since 1970-71, the first year for which comparable data are available. Current expenditures for 1973-74 represented a 113% increase over 1970-71. During the same period, natural science current expenditures increased by 29%. Approximately 30% of the current expenditures in 1973-74 were for research, the remainder for related scientific activities.

Total expenditures for activities in the natural sciences for 1973-74 were \$1,010 million (5.0% of total federal spending); for human sciences expenditures were \$256 million (1.3% of the total). Thus although human science expenditures have increased significantly since 1970-71, they remain a relatively small proportion of federal government expenditures for all scientific activities.

The pattern of intramural and extramural performance is about the same for the two groups of sciences. Almost 45% of the federal funds for R&D in the natural sciences in 1973-74 were spent outside the government; for the human sciences extramural research accounts for 45% of the current research expenditures. Most of the related scientific activities for both sciences are conducted intramurally. However, there is a major difference in the relative importance of the related scientific activities to total activities. In the natural sciences, related scientific activities represented 28% of the 1973-74 current expenditures, while in the human sciences they were 69% of the total. This reflects the importance of the collection of socio-economic data as a base for research in the human sciences.

For six of the 10 largest spenders, human science estimates accounted for more than half their total estimates for 1973-74 and these six agencies were responsible for 54% of the total human science estimates. Intramural human science activities are heavily concentrated in the National Capital Region (83%), but extramural payments are distributed more evenly.

9.3.2 Performers

Most of the expenditures of the federal government on scientific activities continue to be for work done in its own establishments. However, since 1965, when intramural work accounted for 70% of the current expenditures, the proportion of intramural funding has slowly decreased. In 1973-74 approximately 62% of the current expenditures were intramural. Canadian universities will receive the largest share of the extramural support (48% of all extramural funds) in 1973-74. Table 9.8 shows the distribution of current expenditures by sector of performance.

9.3.2.1 Intramural activities

Almost one half of the 1973-74 current expenditures for in-house scientific activities were spent by Statistics Canada, mainly for general data collection. The National Library was the next largest spender for in-house research in 1973-74, with over \$7 million in current expenditures. Other major federal performers of research include Manpower and Immigration, National Health and Welfare, the Economic Council and Urban Affairs. Each devoted more than \$3 million to in-house research in 1973-74.