ment Agency is the major spender in this area with a $9 million budget for 1973-74.

Amounts reported as scholarships include only those programs intended to assist the scientific education of the recipients. Awards designated as scholarships but which actually support the recipient in a research project are considered to be funds for R&D. In 1973-74 such research fellowships amounted to $9 million while scholarship programs accounted for $15 million. Scholarship programs are funded almost entirely by the National Research Council, the Medical Research Council and the Canadian International Development Agency.

9.2.2 Performers

The "performer" in this context is the sector in which the scientific activity is being conducted. The basic distinction is between in-house, intramural and extramural performance. In-house performance describes work carried out by units using their own personnel and facilities. Intramural is in-house work plus the cost of administration of extramural programs. Extramural work is financed by the government in other sectors to utilize special resources or to develop special personal and institutional capabilities.

Most federal government scientific activities continue to be carried on within its own establishments. However, since 1964-65 when in-house work accounted for 70% of the current expenditures, the proportion of in-house funding has slowly decreased; in 1973-74 approximately 61% of the current expenditures were in-house. Increased funding of extramural R&D accounted for most of the change. In 1964-65 in-house expenditures for R&D were 63% of the current expenditures; for 1973-74, 51% of these expenditures were for in-house work. Most of the related scientific activities funded by the federal government are conducted in its own establishments (86% of current expenditures in 1973-74).

In 1972 the federal government adopted a new policy to accelerate the trend toward extramural performance of R&D work. Known as the Make-or-Buy policy it requires that federal departments contract their R&D work to Canadian industry; details of this policy are discussed in Section 9.4. Since the policy applies only to new programs or additions to existing ones it is not expected to have a noticeable impact on scientific expenditures before 1974-75. There is, however, an already definite trend toward the support of Canadian industry among extramural performers. During the 1960s the emphasis in funding was on support of Canadian universities — payments increased from 36% of the extramural total in 1964-65 to 51% in 1969-70. Since that time, however, the share of this sector has declined steadily with a corresponding increase in payments to Canadian industry. Thus, in 1973-74 Canadian industry received 51% of the extramural payments and Canadian universities and non-profit institutions 42%.

Table 9.4 shows the distribution of current expenditures on scientific activities by sector of performance for 1973-74. Most of the payments for extramural scientific activities go either to Canadian industry or Canadian universities and non-profit institutions. The other Canadian sector includes provincial research councils and foundations, provincial and municipal governments and individuals not working in any other sector.

The entire range of scientific activities is performed in the establishments of the federal government. From free basic research to the development of highly specialized technology, these activities constitute a major portion of the total scientific effort in Canada. Some departments have whole programs devoted to scientific activities, for example, the Department of Agriculture's Research Program with a budget of $72 million for 1973-74. In other departments, research is but a small proportion of the total budget.

The Department of the Environment is the principal performer of in-house research and development as well as related scientific activities. The various elements which now make up the Department of the Environment were themselves major performers of scientific activities; it is the merging of all these components into one large department rather than any new allocations which has made Environment the principal performer of scientific activities.

The diverse interests of the Department are expressed in the variety of research carried out in departmental laboratories. A major performer of R&D is the Fisheries and Marine Service with $33 million for research and development in 1973-74. The Service operates nine establishments across Canada, with headquarters in Ottawa and research vessels on both coasts. Research activities are concerned with the use and conservation of freshwater and marine resources. Along with its research program the Fisheries and Marine Service con-