

part of the capital cost of buildings and facilities is often included in operating expenditures, e.g., when financed from grants for assisted research. Most research equipment is provided through such grants. Indirect costs are not normally broken out in university accounts and are covered primarily from general funding of university education by the provincial governments. However, in accordance with the Federal-Provincial Fiscal Arrangements Act, 1967, the federal government reimburses the provinces for at least 50% of the operating costs of all post-secondary education. It follows that one half of the above indirect cost of research is, in the end, covered by federal funding.

Assisted research funds represent part of the direct costs of research and include all funds channelled through universities, even though most of them are assigned to individual researchers. These funds are intended to pay for equipment, materials, travel and research assistance, including student assistance, and cannot be used to provide or supplement the salaries of the staff. Scholarships and fellowships provide personal incomes for some staff members and for graduate students or postdoctorate fellows; some are tenable abroad and some are reserved for foreign students in Canada as a part of foreign aid.

Most of the assisted research funding is granted for specific purposes, mainly in response to proposals made by the universities. These grants have the most direct influence on both the magnitude and the nature of university research. Because of this direct link their total monetary allotment can be used as a gauge of research activities in Canadian universities. During the past decade, assisted research funds rose gradually from \$26.5 million in 1961-62 to \$152 million in 1970-71, representing about 12.5% of total operating expenses throughout this period.

Assisted research funds are derived from several sources. The major source in 1970-71 was the federal government, contributing \$105 million, or 69.1% of the total; \$23 million (15.1%) came from provincial sources and \$24 million (15.8%) from foundations, business enterprises and other sources. This distribution has varied only slightly over the past few years and indicates the predominant influence of federal financing on university research in Canada. This would still be true if direct awards to individuals (research scholarships and fellowships) were included in the above figures. Assisted research funds include the support of the social sciences and the humanities but that part represents only a small percentage of the total shown here, particularly since most of such support is in the form of direct awards, by-passing university accounts.

Federal support for research in universities can be divided into three main components coming from two types of sources. The main elements are the grants and contracts program, the awards (scholarship and fellowship) program and the support of related scientific activities including research publications, acquisition of research collections and symposia. The major sources of support in 1972-73 were the National Research Council (NRC) and the Medical Research Council (MRC), contributing \$58.4 and \$33.6 million, respectively. Other significant sources included the Department of National Health and Welfare (\$19.1 million), the Atomic Energy Control Board (\$7.5 million), Environment Canada (\$3.4 million), and the Defence Research Board (\$3.4 million). All other departments and agencies combined contributed \$6.4 million for an over-all total of \$131.8 million. The above data include the allocation of funds to non-profit organizations and cover development as well as research. The development component is small and the line between research and development is difficult to draw in many fields, such as health sciences. The non-profit institutions for the most part consist of hospitals and research institutes where research is carried out mainly by academics. On the other hand, scholarships supporting primarily education rather than research, fellowships tenable abroad, and support of some related activities are excluded.

An extremely important role is played by the NRC and the MRC in support of university research, since about 70% of the federal funding comes from these two Councils. The National Research Council has the responsibility for supporting research in the natural sciences and in engineering; it is the largest sponsor of research in Canada. The Medical Research Council, under a new Act adopted in 1969, assumes responsibility for research support in all the disciplines in the health sciences exclusive of the public health field. This represents an extension of its former terms of reference which encompassed only medical research.

The purpose of support for research by both Councils is to achieve a healthy and balanced development of knowledge in Canadian universities rather than to support any particular mission of their own. They award grants largely in response to initiatives from the universities