

Section 5.—Federal Government Expenditures on Scientific Activities

The Federal Government spent a total of \$222,600,000 during the year ended Mar. 31, 1959* on all scientific activities, including the conduct of research-development, planning and administering research, capital expenditures on research-development plant, scientific data collection, scientific information and scholarship and fellowship programs. For the year ended Mar. 31, 1960,† such expenditures were estimated to be \$212,300,000. The decrease of 4.6 p.c. was mainly accounted for by a decline in development contracts for the Armed Forces; the civilian branches of government (all departments and agencies other than the Department of National Defence‡) actually showed an increase of 16.3 p.c. from \$127,000,000 to \$147,700,000. With the Defence Research Board included, the increase was 14.1 p.c. from \$156,300,000 to \$178,300,000.

In the 1958-59 fiscal year, approximately 93 p.c. of the total funds for scientific activities were "departmental or agency funds available as a result of annual estimates", and the remainder was from other sources such as funds received direct from non-federal sources, net transfers of funds within the government, etc. For 1959-60, department or agency funds available as a result of annual estimates were estimated to account for 95 p.c. of the total funds available for scientific activities. However, the amount of such funds was lower in that year by \$5,500,000, decreasing to \$202,000,000 from \$207,500,000 in 1958-59.

Of the total expenditures for scientific activities in 1958-59, \$162,300,000 or 72.9 p.c. was for those carried on by personnel directly employed by the departments or agencies concerned; this intramural expenditure increased to an estimated \$176,700,000 in 1959-60 when it accounted for 83.2 p.c. of the total. Conversely, funds for scientific activities performed by non-federal employees at outside facilities but financed by the Federal Government were substantially lower in 1959-60, profit organizations receiving \$21,100,000 compared with \$48,700,000 in 1958-59. On the other hand, more funds were available for educational institutions—\$12,100,000 compared with \$9,500,000 in 1958-59.

Funds for the physical sciences increased from \$45,500,000 in 1958-59 to \$55,400,000 in 1959-60, the largest portion of the increase going to the engineering group. Expenditure for the life sciences increased from \$35,300,000 to \$40,400,000, the most significant relative increase being for the medical sciences.

Capital expenditures on research-development plant for all departments and agencies (including the Defence Research Board but not the Armed Forces) increased from \$30,600,000 in 1958-59 to \$33,000,000 in 1959-60. Together, Atomic Energy of Canada Limited, the Defence Research Board, the Department of Agriculture, the Department of Mines and Technical Surveys and the National Research Council spent 90.9 p.c. of the total in 1958-59 and 93.5 p.c. in 1959-60. Armed Forces development, being largely in the form of contracts, requires little research-development plant expenditure.

Funds for other scientific activities, i.e., scientific data collection, scientific information, and scholarship and fellowship programs, amounted to \$23,500,000 in 1958-59 and an estimated \$27,500,000 in 1959-60. In the two years, such expenditures accounted for 10.6 p.c. and 13.0 p.c., respectively, of total funds for all scientific activities.

Excluding the Armed Forces, the Federal Government employed 14,698 persons on the conduct of research-development. Of this total, 3,871 represented professional staff and 10,827 represented supporting staff. Of the professionals, 1,504 had bachelor degrees, 994 had master degrees, and 1,373 had doctorate degrees.

* Actual—based on expenditures or payments made and accounted for in annual reports for the year ended Mar. 31, 1959.

† Estimates—based on the requirements for the year ended Mar. 31, 1960, tabled in the House of Commons.

‡ Includes the Defence Research Board and the Armed Forces; the former is responsible for scientific activities and the latter for development work, administration of development contracts and the collection of scientific data.