

for research done outside the company in Canada; estimates of payments for research and development conducted outside the company and outside of Canada were also requested.

Total figures show considerable fluctuation in expenditures on research and development over the years surveyed. However, this fluctuation has been caused largely by variations in Federal Government contracts to the aircraft sector of the transportation equipment industry. If all funds received from the Federal Government are removed from annual expenditures, a trend of continuous expansion is revealed. In 1961, 523 firms reported research expenditures; of these, 16 accounted for one half of all intramural research expenditures.

1.—Total Research and Development Expenditures, 1955-62

Year	Expenditure on Research and Development in Canada		Expenditure on Research and Development Outside Canada	Total
	Done Within Reporting Company	Done Outside Reporting Company		
	\$'000,000	\$'000,000	\$'000,000	\$'000,000
1955.....	51.4	1.9	12.1	65.4
1957.....	124.5	4.2	19.8	148.5
1958 (estimate).....	132.5	1	27.0	159.5
1959.....	96.6	3.3	21.7	121.6
1960 (estimate).....	81.7	1	27.3	109.0
1961.....	113.3	4.3	31.2	146.4 ²
1962 (estimate).....	118.3	1	35.4	153.7

¹ Included with expenditures outside Canada.

² Since extramural payments shown for 1961 include a number of payments which become intramural expenditures for the recipient firms, the total has been adjusted to exclude duplication.

Three industries—transportation equipment, electrical products, and chemicals and chemical products—have accounted for more than one half of all research and development performed in Canada every year since 1955. In 1961, for the first time, the research and development expenditures of the transportation equipment industry, which are used largely for aircraft development, did not exceed those of every other industry. In that year the electrical products industry, which includes electronic equipment, was the leading performer of industrial research and development.

2.—Research and Development Expenditures in Canada, by Major Industrial Group, 1959 and 1961

Group	1959		1961	
	Amount	P.C. of Total	Amount	P.C. of Total
	\$		\$	
Transportation equipment.....	26,464,397	26.5	19,863,486	17.2
Electrical products.....	16,027,237	16.0	21,765,159	18.9
Chemicals and chemical products.....	14,430,145	14.4	20,970,037	18.2
Totals.....	56,921,779	56.9	62,598,682	54.3
Other industries.....	42,952,756	43.1	52,557,544	45.7
Grand Totals.....	99,874,535	100.0	115,156,226¹	100.0

¹ This total is not equal to the sum of intramural and Canadian extramural expenditures; it has been adjusted to account for those payments that are intramural for one firm but extramural for another.

Table 3 shows intramural research and development expenditures over the four years 1959-62. The transportation equipment industry is given separately because of substantial fluctuations in its expenditures. Most of the other industries have increased their research