

Ninth consecutive annual increase for spending on research and development in higher education sector

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Spending on research and development (R&D) activities in Canada's higher education sector totalled \$15.1 billion in 2018/2019, up 5.2% from the previous year. This was the ninth consecutive annual increase, and the largest since 2012/2013. R&D makes an important contribution to enhancing a country's standard of living and its competitiveness.

Canada's proportion of R&D spending in higher education has been a strong component of its overall gross domestic expenditures on R&D. As far back as 2008, higher education accounted for over 35% of Canada's gross domestic expenditures on R&D. This has risen to around 40% in recent years.

Canada remains a world leader in higher education research and development performance

As of 2018, Canada spent the greatest proportion on higher education R&D among G7 member countries, by a considerable margin, and one of the greatest among Organisation for Economic Co-operation and Development (OECD) member nations. Canada has consistently ranked in the top six among OECD member countries in higher education R&D expenditures since 2002.

Research and development spending in higher education is up for all six funding sectors

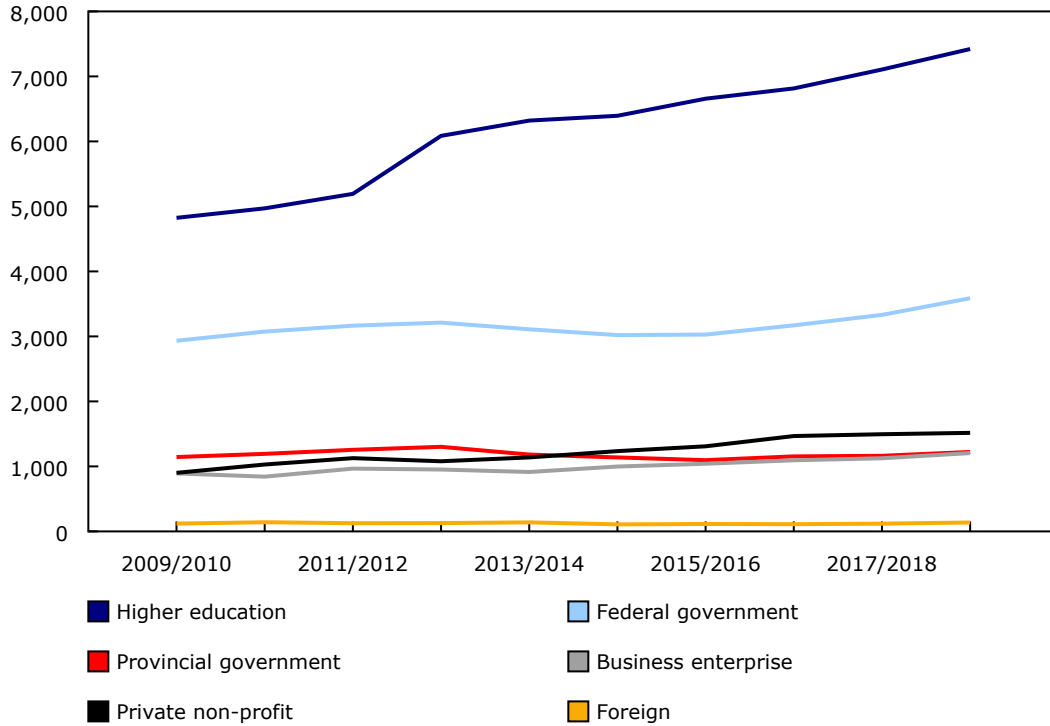
In 2018/2019, similar to the previous year, almost half of higher education R&D was funded internally—that is, by the higher education sector itself. In this period, R&D expenditures by this funding sector rose 4.4% to \$7.4 billion.

Funding from all external sectors also advanced for the second year in a row in 2018/2019. These sectors include the federal government, provincial governments, private non-profit organizations, business enterprises and the foreign sector. The federal government was the largest of these funding sectors, providing \$3.6 billion, a 7.7% increase from the previous year.



Chart 1
Higher education research and development funding sectors over time

millions of current dollars



Source(s): Table 27-10-0025-01.

Over three-quarters of research and development is performed in natural sciences and engineering

The natural sciences and engineering category accounted for 75.9% of all higher education R&D spending, with expenditures reaching \$11.5 billion in 2018/2019, up 4.9% from the previous period. Excluding the higher education sector, the remaining five funding sectors allocated at least 80% of their funds to natural sciences and engineering. Alberta (82.1%) and Newfoundland and Labrador (79.3%) led the provinces with the highest percentage of higher education R&D funding allocated to natural sciences and engineering.

The social sciences and humanities category accounted for the remaining 24.1% of spending, which rose 6.3% to \$3.6 billion in 2018/2019. New Brunswick (35.8%) and Prince Edward Island (31.8%) led the provinces with the highest percentage of funding allocated to this category. Within the funding sectors, the higher education sector accounted for almost two-thirds (66.0%) of social sciences and humanities spending.

Research and development spending is up in eight provinces

Every province except Manitoba and Nova Scotia recorded an increase in R&D expenditures in the higher education sector in 2018/2019. Ontario and Quebec, which account for 65.0% of all higher education R&D spending, saw the largest increases in total spending (+\$198.4 million and +\$196.7 million, respectively).

Note to readers

Concepts for expenditures on research and development in the higher education sector

The higher education sector is composed of all universities, colleges of technology and other institutions that provide formal tertiary education programs, as well as all research institutes and centres, experimental stations and clinics that are affiliated with higher education institutions.

Total expenditures on research and development (R&D) are classified into two fields of science: natural sciences and engineering, and social sciences, humanities and the arts.

There are six funding sources for R&D expenditures in the higher education sector: business enterprises, private non-profit organizations, the federal government, provincial governments, the foreign sector, and internal funding from the higher education sector.

For further information on concepts and definitions relating to R&D expenditures in the higher education sector, please see this release's "Related information" tab.

Available tables: table [27-10-0025-01](#).

Definitions, data sources and methods: survey number [5109](#).

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; STATCAN.infostats-infostats.STATCAN@canada.ca) or Media Relations (613-951-4636; STATCAN.mediahotline-ligneinfomedias.STATCAN@canada.ca).