

# Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces



National estimates 2003 to 2013  
and Provincial estimates 2007 to 2011



Statistics  
Canada

Statistique  
Canada

Canada

## How to obtain more information

For information about this product or the wide range of services and data available from Statistics Canada, visit our website, [www.statcan.gc.ca](http://www.statcan.gc.ca).

You can also contact us by

**e-mail** at [infostats@statcan.gc.ca](mailto:infostats@statcan.gc.ca)

**telephone**, from Monday to Friday, 8:30 a.m. to 4:30 p.m., at the following toll-free numbers:

- Statistical Information Service 1-800-263-1136
- National telecommunications device for the hearing impaired 1-800-363-7629
- Fax line 1-877-287-4369

### Depository Services Program

- Inquiries line 1-800-635-7943
- Fax line 1-800-565-7757

## To access this product

This product, Catalogue no. 88-221-X, is available free in electronic format. To obtain a single issue, visit our website, [www.statcan.gc.ca](http://www.statcan.gc.ca) and browse by "Key resource" > "Publications."

## Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner. To this end, this agency has developed standards of service that its employees observe. To obtain a copy of these service standards, please contact Statistics Canada toll-free at 1-800-263-1136. The service standards are also published at [www.statcan.gc.ca](http://www.statcan.gc.ca) under "About us" > "The agency" > "Providing services to Canadians."

Statistics Canada  
Investment, Science and Technology Division

# Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces

National estimates 2003 to 2013  
and Provincial estimates 2007 to 2011

Published by authority of the Minister responsible for Statistics Canada

© Minister of Industry, 2013

All rights reserved. Use of this publication is governed by the Statistics Canada  
Open License Agreement.

<http://www.statcan.gc.ca/reference/licence-eng.html>

November 2013

Catalogue no. 88-221-X

ISSN 1916-2561

Frequency: Annual

Ottawa

Cette publication est également disponible en français.

---

#### **Note of appreciation**

*Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.*

# User information

---

## Symbols

The following standard symbols are used in Statistics Canada publications:

- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0<sup>s</sup> value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- p preliminary
- r revised
- x suppressed to meet the confidentiality requirements of the *Statistics Act*
- E use with caution
- F too unreliable to be published
- \* significantly different from reference category ( $p < 0.05$ )

# Table of contents

---

<b>Highlights</b>	<b>5</b>
<b>Analysis</b>	<b>6</b>
<b>Related products</b>	<b>10</b>
<b>Statistical tables</b>	
1 Gross domestic expenditures on research and development	13
1-1 In current dollars, in 2007 constant dollars and as a percentage of gross domestic product	13
1-2 By performing sector and funding sector	14
2 Provincial distribution of gross domestic expenditures on research and development	15
2-1 By performing sector, 2011	15
2-2 By funding sector, 2011	16
3 National gross domestic expenditures on research and development, in the total sciences, Canada	17
4 Provincial gross domestic expenditures on research and development, in the total sciences	19
4-1 Newfoundland and Labrador	19
4-2 Prince Edward Island	20
4-3 Nova Scotia	21
4-4 New Brunswick	22
4-5 Quebec	23
4-6 Ontario	24
4-7 Manitoba	25
4-8 Saskatchewan	26
4-9 Alberta	27
4-10 British Columbia	28
4-11 Yukon, Northwest Territories and Nunavut	29
5 National gross domestic expenditures on research and development, in the natural sciences and engineering, Canada	30

## Table of contents – continued

6	Provincial gross domestic expenditures on research and development, in the natural sciences and engineering	32
6-1	Newfoundland and Labrador	32
6-2	Prince Edward Island	33
6-3	Nova Scotia	34
6-4	New Brunswick	35
6-5	Quebec	36
6-6	Ontario	37
6-7	Manitoba	38
6-8	Saskatchewan	39
6-9	Alberta	40
6-10	British Columbia	41
6-11	Yukon, Northwest Territories and Nunavut	42
7	National gross domestic expenditures on research and development, in the social sciences and humanities, Canada	43
8	Provincial gross domestic expenditures on research and development, in the social sciences and humanities	45
8-1	Newfoundland and Labrador	45
8-2	Prince Edward Island	46
8-3	Nova Scotia	47
8-4	New Brunswick	48
8-5	Quebec	49
8-6	Ontario	50
8-7	Manitoba	51
8-8	Saskatchewan	52
8-9	Alberta	53
8-10	British Columbia	54
8-11	Yukon, Northwest Territories and Nunavut	55

## Data quality, concepts and methodology

How to read the gross domestic expenditures on research and development (GERD) matrix	56
Data sources and methodology	58

## Appendix

I National Capital Region table	63
---------------------------------	----

# Highlights

---

## Gross domestic expenditures on research and development (GERD), 2013 Intentions

Gross domestic expenditures on research and development (R&D) are anticipated to total \$30.4 billion in 2013, a 0.9% decrease from 2012.

While 2013 GERD intentions are below the \$30.8 billion peak recorded in 2008, they are 23.3% higher than the \$24.7 billion spent in 2003.

## R&D expenditures by performing sectors

In 2013, business enterprises expect to spend \$15.6 billion on R&D, down 2.8% from the previous year, and 6.8% below the pre-recession peak of \$16.8 billion in 2007. This anticipated expenditure accounts for 51% of total spending on R&D by all performing sectors.

The higher education sector's R&D spending intentions are \$11.9 billion, maintaining its position as the second largest R&D performing sector. This sector does not anticipate a significant change between 2012 and 2013 spending levels.

The federal government, the third largest performing sector, anticipates R&D spending at \$2.5 billion, up 1.4% from 2012. However, between 2011 and 2012 federal R&D spending fell 8.0% reflecting the conclusion of federal science and technology stimulus spending.

The remaining R&D performing sectors – provincial governments, provincial research organizations and private non-profit organizations – intended to spend about half a billion dollars in combined R&D for 2013. That total would be a 2.1% increase over 2012.

## R&D funding by sector

For R&D funding, the business enterprise sector is expected to finance \$14.4 billion in 2013, followed by the federal government sector at \$6.0 billion and the higher education sector at \$5.3 billion.

R&D funding also includes the foreign sector, which is anticipated to finance \$1.8 billion in 2013, relatively unchanged from 2012.

Internationally comparable science and technology data for 2011 are currently available from the Organization for Economic Cooperation and Development (OECD) Main Science and Technology Indicators (MSTI). In 2011, Israel had the highest gross domestic expenditures on research and development as a proportion of its gross domestic product at 4.38, while the OECD average was 2.37 (Volume 13/1 OECD MSTI). This indicator for Canada is now updated to 1.74 for 2011 and 1.69 for 2012.

### Note to readers

Provincial government R&D expenditures were obtained from provincial government participants to the 2010 Provincial Scientific Activities Survey. 2012 and 2013 provincial government data are based on an estimation model. Provincial research organization data are collected by a survey.

GERD data presented are performance based, this means funding sector data are derived from the source of funds indicated by the performing sectors. As a result GERD funding sector values will not equal funding data collected and released by individual sectors.

# Analysis

---

## Gross domestic expenditure on research and development

The 2013 publication release of gross domestic expenditure on research and development (GERD) in Canada represents national actual expenditure for 2011; preliminary data for 2012, intentions data for 2013; and, historical data from 2003. This publication also shows research and development (R&D) expenditure by province from 2007 to 2011.

For 2013 Canada's anticipated GERD is \$30.4 billion, 0.9% less than in 2012. Out of all of the performing sectors, the federal government, higher education and private non-profit sectors are anticipating positive growth in GERD while the rest of the sectors expect negative growth.

In 2011 Canada's GERD expenditure was \$30.7 billion, a 1.6% increase from the 2010 expenditure of \$30.2 billion. The growth rate for GERD between 2010 and 2011 was affected by increases in the business (3.2%) and higher education (3.4%) sectors. During the same period, federal government expenditure on R&D decreased 11.9%.

## Canada and OECD countries

Internationally, a country's gross domestic expenditure on research and development (GERD) as a percentage of its gross domestic product (GDP) is considered an indicator of the country's degree of R&D intensity and is a commonly used summary statistic for international comparisons. This statistic is also compared with GERD and GDP per capita values as it is influenced by a nation's economic and demographic structure, as well as its propensity to perform R&D in particular sectors.

- The Organisation for Economic Co-operation and Development (OECD) publishes international statistics on R&D in its Main Science and Technology Indicators. Their most recent online statistics contain comprehensive OECD countries' data for 2011.<sup>1</sup> Combined OECD country estimates measured in current purchasing power parity (PPP) indicated an overall growth rate in GERD between 2010 and 2011 of 2.1%, with the business enterprise sector's growth at 2.8% and 2.5% for the higher education sector, while government R&D growth declined -1.2%.
- In 2011, Israel remained the OECD country with the largest GERD as a percentage of GDP at 4.38, followed by Korea at 4.03 and Finland at 3.78. In comparison, Canada's investments in R&D as a percentage of GDP in 2011 was 1.74 ranking lower than the United States' reported 2.77 and the OECD average of 2.37. Among the G8 countries, Canada ranked sixth followed by Italy and the Russian Federation.
- At 1.74, Canada's 2011 GERD as a percentage of GDP was at its lowest level of the past decade, in contrast with the high of 2.04 it attained in 2001. The lower value indicates that R&D investments in Canada diminished as a percentage of gross domestic product.
- Canada's GERD per capita at current prices and PPP in 2011 was \$704.4 US dollars and the OECD average was \$833.5 US dollars. The 2011 indicator in Canada declined by 2.5% from \$722.7 US dollars in 2010, while for all OECD countries it rose 3.4% from \$806.3 US dollars.<sup>2</sup>

1. Source: Main Science and Technology Indicators, <http://www.oecd.org/sti/msti.htm>

2. Source: Main Science and Technology Indicators: Volume 2013/1 - OECD. Table 4



## National estimates

GERD is often displayed as a matrix of performing and funding sectors. GERD is performance-based meaning it is constructed by adding together the intramural expenditure on research and development (R&D) as reported by the performing sectors. The funding sectors are derived based on the sources of funds reported by the performing sectors.

## Performing sector data

In 2011, business enterprises spent almost \$16 billion on R&D, up 3.2% from the previous year, and 6.8% below the pre-recession peak in 2007. This expenditure accounted for 52% of total spending on R&D in 2011. 2013 intentions data show business enterprise R&D expenditure decreasing by 2.8%, from \$16.1 billion in 2012 to \$15.6 billion in 2013.

- In 2011 the higher education sector's R&D spending was \$11.6 billion, maintaining its position as the second largest R&D performing sector. 2012 preliminary data report \$11.8 billion in spending by this sector. For 2013, higher education institutions and affiliated research hospitals anticipate R&D spending to reach \$11.9 billion.
- The third largest performing sector, the federal government, reported their R&D expenditure in 2011 at \$2.6 billion, down 11.9% from 2010. Federal governments reported an 8.0% decrease in spending between 2011 and 2012. For 2013, federal R&D spending is anticipated to be \$2.5 billion.
- In 2011, provincial governments and provincial research organizations recorded expenditures of \$332 million, down 7.8% from 2010. Between 2011 and 2012 these combined sectors show a 3.3% increase in R&D spending. In 2013, provincial governments and provincial research organizations expenditures are expected to remain relatively unchanged with expected spending of \$334 million in 2013.
- 2011 R&D spending of private non-profit organizations was \$127 million, 5.9% less than in 2010. For 2013, this sector is expected to increase their total R&D performance to \$144 million, up 15.2% from 2012.

## Funding sector data

- As with R&D performing, the business enterprise sector continues to be the largest funding sector. In 2011 the business enterprise sector provided \$14.7 billion, up 5.0% from the previous year. Business enterprise funding is expected to increase in 2012 to \$14.9 billion, but decrease in 2013 to \$14.4 billion.
- In 2011, federal government sector funding was \$6.1 billion, a 5.3% decrease from 2010. In 2013, this sector's funding expenditure is anticipated to decline to \$6.0 billion.
- In 2011 the higher education recorded \$5.2 billion in funding. For 2013 this sector is expected to increase funding to \$5.3 billion.
- R&D funding data includes the foreign sector, as entities outside of Canada have been reported by R&D performers as sources of R&D funding. In 2011, the foreign sector provided \$1.8 billion in funding, a 9.1% decrease from the previous year. For 2013 this sector does not anticipate significant changes in its provision of funding.

## Field of science

- Canada's GERD is separated into two fields of science: natural sciences and engineering, and social sciences and humanities. Over the last decade natural sciences and engineering has consistently accounted for over 90% of total national expenditure on R&D. It should be noted that all R&D expenditures for the business enterprise sector, the largest performing R&D sector, are undertaken in the natural sciences and engineering field. As a result, most R&D expenditures occur in natural sciences and engineering.
- In 2011, total R&D expenditure in natural sciences and engineering was \$28.1 billion, up 1.8% from the previous year. For 2013, R&D expenditure in this field of science is expected to decline by 1.1% to \$27.8 billion or 91% of total GERD compared to 2012.
- R&D spending in the social sciences and humanities was \$2.6 billion in 2011, down 0.3% from 2010 expenditure. In 2013 R&D expenditure in the social sciences and humanities are expected to increase to \$2.7 billion.
- In 2013, the share of GERD expenditure in the social sciences and humanities is expected to increase from 7.1% in 2003 to 8.7%. The majority of R&D expenditure in this field of science is performed in the higher education sector.

## Data by Province and Territory

Provincial and territorial expenditures are assigned to the province or territory in which the performing organization is located. Provincial and territorial funding sector expenditure represent R&D funding distributed in a province or territory. The funds do not necessarily originate from within the province. Data on the provincial distribution of GERD spending are available to 2011.

- Historically Ontario has been the province with the largest expenditure on R&D. In 2011, just under (47.6%) of R&D activity amounting to \$14.6 billion occurred in Ontario. This is followed by Quebec with \$7.9 billion, which accounted for 25.7% of the total share of 2011 GERD.

## Performing sector data

- In 2011, business enterprises were the largest performing sector within Ontario, Quebec, Alberta, British Columbia and the territories. For all other provinces, the largest performing sector was higher education. (Table 2-2 and CANSIM table 358-0001).

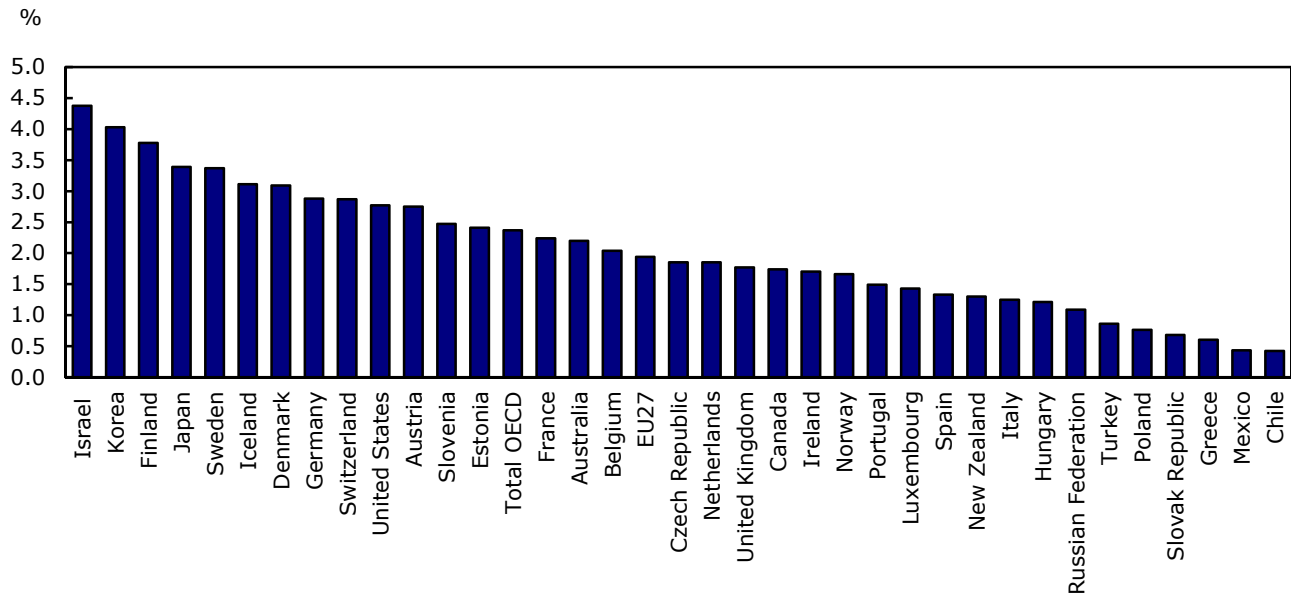
## Funding Sector data

- In 2011, the business enterprise sector was the largest funding sector in Quebec, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia. In all other provinces the higher education sector was the largest funding sector. In the territories the federal government sector slightly edged out the business enterprises sector as the largest funding sector. (Table 2-2 and CANSIM table 358-0001).

## Field of Science

- Since Ontario and Quebec are the provinces where the greatest proportion of R&D expenditure occurs, this is also the case for expenditure by science type. In 2011, almost three quarters of natural sciences and engineering activities took place in Ontario (47.8%) and Quebec (26.0%). In comparison for R&D activities in the social sciences and humanities field just over two-thirds were performed in these two provinces in 2011.
- On a provincial basis, most provinces in 2011 showed an increase in the share of social sciences and humanities activities to their respective provincial GERD total, with the exception of New Brunswick, Quebec, Ontario, Saskatchewan and Alberta.

**Chart 1**  
**Gross Domestic Expenditures on R&D as a percentage of GDP, 2011**



**Note:** Or latest year.

**Source:** Organisation for Economic Co-operation and Development (OECD) Main Science and Technology Indicators, Volume 2013/1.

## Related products

---

### Selected publications from Statistics Canada

---

88-001-X	Science Statistics
88-202-X	Industrial Research and Development Intentions
88-204-X	Federal Scientific Activities
88F0006X	Business Special Surveys and Technology Statistics Division Working Papers

---

### Selected CANSIM tables from Statistics Canada

---

358-0001	Gross domestic expenditures on research and development, by science type and by funder and performer sector, annual
358-0024	Business enterprise research and development (BERD) characteristics, by industry group based on the North American Industry Classification System (NAICS), annual
358-0026	Intellectual property management, by federal departments and agencies indicators, annual
358-0142	Federal expenditures on science and technology and its components in current dollars and 2002 constant dollars, annual
358-0143	Federal expenditures on science and technology and its components, by type of science and performing sector, annual
358-0144	Federal expenditures on science and technology and its components, by activity and performing sector, annual
358-0145	Federal intramural expenditures on science and technology and its components, by type of science for the National Capital Region, annual
358-0146	Federal personnel engaged in science and technology activities, by type of science and personnel category, annual
358-0147	Federal personnel engaged in science and technology and its components, by type of science and personnel category, annual
358-0148	Federal personnel engaged in science and technology and its components, by type of science, personnel category, Canada, provinces and territories, annual
358-0149	Federal expenditures on science and technology and its components, by type of science, performing sector, Canada, provinces and territories, annual

358-0150	Federal extramural expenditures on science and technology and its components, by type of science, performing sector, type of payment, Canada, provinces and territories, annual
358-0151	Federal expenditures on science and technology and its components, by socio-economic objectives, annual
358-0163	Federal expenditures on science and technology, by major departments and agencies
358-0164	Federal extramural expenditures on science and technology, by performing sector and major departments and agencies
358-0165	Federal personnel engaged in science and technological activities, by occupational category and major departments and agencies
358-0166	Federal personnel engaged in science and technological activities, by major departments and agencies

---

### **Selected surveys from Statistics Canada**

---

4201	Research and Development in Canadian Industry
4204	Research and Development of Canadian Private Non-Profit Organizations
4208	Provincial Research Organizations
4212	Federal Science Expenditures and Personnel, Activities in the Social Sciences and Natural Sciences
5109	Higher Education Research and Development Estimates

---

### **Selected summary tables from Statistics Canada**

---

- *Domestic spending on research and development (GERD), performing sector, by province*
- *Domestic spending on research and development (GERD)*
- *Research and development performed by the business enterprise sector*
- *Domestic spending on research and development (GERD), funding sector, by province*

# Statistical tables

---

---

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

Table 1-1

Gross domestic expenditures on research and development — In current dollars, in 2007 constant dollars and as a percentage of gross domestic product

	Current dollars		Gross domestic expenditure on research and development as a percentage of Gross domestic product	Gross domestic product implicit price index <sup>2</sup>	2007 constant dollars, Gross domestic expenditure on research and development <sup>3</sup>
	Gross domestic expenditure on research and development	Gross domestic product <sup>1</sup>			
	millions of dollars		percent	index=2007	millions of dollars
2003	24,693	1,243,829	1.99	88.5	27,902
2004	26,679	1,324,940	2.01	91.4	29,189
2005	28,022	1,410,710	1.99	94.3	29,716
2006	29,031	1,486,918	1.95	96.9	29,960
2007 <sup>r</sup>	30,031	1,565,900	1.92	100.0	30,031
2008 <sup>r</sup>	30,757	1,645,974	1.87	103.9	29,602
2009 <sup>r</sup>	30,129	1,567,007	1.92	101.7	29,625
2010 <sup>r</sup>	30,219	1,662,757	1.82	104.4	28,945
2011	30,696	1,760,011	1.74	107.7	28,501
2012 <sup>p</sup>	30,727	1,819,967	1.69	109.5	28,061
2013 <sup>p</sup>	30,448	..	..	..	..

1. CANSIM, table 380-0064

2. CANSIM, table 380-0102

3. Gross domestic expenditure on research and development data are deflated by the gross domestic product implicit price index.

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 1-2**  
**Gross domestic expenditures on research and development — By performing sector and funding sector**

	Federal government	Provincial governments <sup>1</sup>	Business enterprise	Higher education	Private non-profit organizations	Foreign	Total
millions of dollars							
<b>Performing sector</b>							
2003	2,083	278	14,094	8,144	93	...	24,693
2004	2,084	290	15,144	9,058	104	...	26,679
2005	2,414	303	15,638	9,518	149	...	28,022
2006	2,496	332	16,474	9,625	152	...	29,031
2007 <sup>r</sup>	2,532	392	16,756	10,187	164	...	30,031
2008 <sup>r</sup>	2,599	402	16,644	10,926	179	...	30,757
2009 <sup>r</sup>	2,762	385	16,038	10,818	125	...	30,129
2010 <sup>r</sup>	3,007	360	15,467	11,249	135	...	30,219
2011	2,649	332	15,960	11,628	127	...	30,696
2012 <sup>p</sup>	2,437	343	16,063	11,760	125	...	30,727
2013 <sup>p</sup>	2,471	334	15,621	11,878	144	...	30,448
<b>Funding sector</b>							
2003	4,527	1,354	12,427	3,589	638	2,158	24,693
2004	4,651	1,285	13,388	4,147	735	2,389	26,679
2005	5,252	1,358	13,827	4,341	784	2,460	28,022
2006	5,223	1,467	14,834	4,435	827	2,246	29,031
2007 <sup>r</sup>	5,477	1,468	14,776	4,574	957	2,779	30,031
2008 <sup>r</sup>	5,709	1,552	15,210	5,054	1,015	2,211	30,757
2009 <sup>r</sup>	5,951	1,662	14,618	4,824	944	2,131	30,129
2010 <sup>r</sup>	6,467	1,705	14,034	4,970	1,068	1,975	30,219
2011	6,123	1,745	14,729	5,188	1,117	1,795	30,696
2012 <sup>p</sup>	5,934	1,773	14,864	5,246	1,129	1,781	30,727
2013 <sup>p</sup>	6,014	1,787	14,415	5,299	1,144	1,788	30,448

1. Includes provincial research councils and foundations.

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

**Source(s):** CANSIM, table 358-0001



Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 2-1**  
**Provincial distribution of gross domestic expenditures on research and development — By performing sector, 2011**

	Canada <sup>1</sup>	Newfound-land and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
millions of dollars											
<b>All sectors</b>	<b>30,696</b>	<b>299</b>	<b>65</b>	<b>504</b>	<b>294</b>	<b>7,888</b>	<b>14,601</b>	<b>683</b>	<b>553</b>	<b>2,822</b>	<b>2,977</b>
Federal government	2,649	19	13	53	35	293	1,866	103	63	101	102
Provincial governments <sup>2</sup>	332	0	2	0	3	97	52	10	22	128	16
Business enterprise	15,960	66	13	78	95	4,669	7,713	219	179	1,340	1,584
Higher education	11,628	214	38	374	161	2,829	4,969	351	289	1,252	1,275
Private non-profit organizations	127	..	..	..	..	..	..	..	..	..	..
percent											
<b>Canada total as a percentage</b>											
<b>All sectors</b>	<b>100.0</b>	<b>1.0</b>	<b>0.2</b>	<b>1.6</b>	<b>1.0</b>	<b>25.7</b>	<b>47.6</b>	<b>2.2</b>	<b>1.8</b>	<b>9.2</b>	<b>9.7</b>
Federal government	100.0	0.7	0.5	2.0	1.3	11.1	70.4	3.9	2.4	3.8	3.9
Provincial governments <sup>2</sup>	100.0	0.0	0.6	0.0	0.9	29.2	15.7	3.0	6.6	38.6	4.8
Business enterprise	100.0	0.4	0.1	0.5	0.6	29.3	48.3	1.4	1.1	8.4	9.9
Higher education	100.0	1.8	0.3	3.2	1.4	24.3	42.7	3.0	2.5	10.8	11.0
Private non-profit organizations	100.0	..	..	..	..	..	..	..	..	..	..
<b>Provincial total as a percentage</b>											
<b>All sectors</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Federal government	8.6	6.4	20.0	10.5	11.9	3.7	12.8	15.1	11.4	3.6	3.4
Provincial governments <sup>2</sup>	1.1	0.0	3.1	0.0	1.0	1.2	0.4	1.5	4.0	4.5	0.5
Business enterprise	52.0	22.1	20.0	15.5	32.3	59.2	52.8	32.1	32.4	47.5	53.2
Higher education	37.9	71.6	58.5	74.2	54.8	35.9	34.0	51.4	52.3	44.4	42.8
Private non-profit organizations	0.4	..	..	..	..	..	..	..	..	..	..

1. Canada includes the Yukon, Northwest Territories and Nunavut, therefore the sum of the provinces will not equal the Canada total.

2. Includes provincial research councils and foundations.

**Note(s):** Components may not add to totals due to rounding. Quebec and Ontario figures include federal government expenditures on research and development performed in the National Capital Region. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

**Source(s):** CANSIM, table 358-0001.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 2-2**  
**Provincial distribution of gross domestic expenditures on research and development — By funding sector, 2011**

	Canada <sup>1</sup>	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
millions of dollars											
<b>All sectors</b>	<b>30,696</b>	<b>299</b>	<b>65</b>	<b>504</b>	<b>294</b>	<b>7,888</b>	<b>14,601</b>	<b>683</b>	<b>553</b>	<b>2,822</b>	<b>2,977</b>
Federal government	6,123	75	25	157	79	1,319	3,167	185	143	415	552
Provincial governments <sup>2</sup>	1,745	27	3	14	6	536	558	38	46	377	139
Business enterprise	14,729	66	13	112	96	4,177	7,078	227	191	1,363	1,403
Higher education	5,188	113	22	196	98	1,142	2,238	173	154	521	531
Private non-profit organizations	1,117	11	1	19	14	243	545	47	16	96	125
Foreign	1,795	7	0	7	1	472	1,015	13	3	49	228
percent											
<b>Canada total as a percentage</b>											
<b>All sectors</b>	<b>100.0</b>	<b>1.0</b>	<b>0.2</b>	<b>1.6</b>	<b>1.0</b>	<b>25.7</b>	<b>47.6</b>	<b>2.2</b>	<b>1.8</b>	<b>9.2</b>	<b>9.7</b>
Federal government	100.0	1.2	0.4	2.6	1.3	21.5	51.7	3.0	2.3	6.8	9.0
Provincial governments <sup>2</sup>	100.0	1.5	0.2	0.8	0.3	30.7	32.0	2.2	2.6	21.6	8.0
Business enterprise	100.0	0.4	0.1	0.8	0.7	28.4	48.1	1.5	1.3	9.3	9.5
Higher education	100.0	2.2	0.4	3.8	1.9	22.0	43.1	3.3	3.0	10.0	10.2
Private non-profit organizations	100.0	1.0	0.1	1.7	1.3	21.8	48.8	4.2	1.4	8.6	11.2
Foreign	100.0	0.4	0.0	0.4	0.1	26.3	56.5	0.7	0.2	2.7	12.7
<b>Provincial total as a percentage</b>											
<b>All sectors</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Federal government	19.9	25.1	38.5	31.2	26.9	16.7	21.7	27.1	25.9	14.7	18.5
Provincial governments <sup>2</sup>	5.7	9.0	4.6	2.8	2.0	6.8	3.8	5.6	8.3	13.4	4.7
Business enterprise	48.0	22.1	20.0	22.2	32.7	53.0	48.5	33.2	34.5	48.3	47.1
Higher education	16.9	37.8	33.8	38.9	33.3	14.5	15.3	25.3	27.8	18.5	17.8
Private non-profit organizations	3.6	3.7	1.5	3.8	4.8	3.1	3.7	6.9	2.9	3.4	4.2
Foreign	5.8	2.3	0.0	1.4	0.3	6.0	7.0	1.9	0.5	1.7	7.7

1. Canada includes the Yukon, Northwest Territories and Nunavut, therefore the sum of the provinces will not equal the Canada total.

2. Includes provincial research councils and foundations.

**Note(s):** Components may not add to totals due to rounding. Quebec and Ontario figures include federal government expenditures on research and development performed in the National Capital Region. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

**Source(s):** CANSIM, table 358-0001.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 3**  
**National gross domestic expenditures on research and development, in the total sciences, Canada**

Funding sector	Performing sector						Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	Private non-profit organizations	
millions of dollars							
<b>2013 P Total sciences</b>							
<b>Total</b>	<b>2,471</b>	<b>303</b>	<b>31</b>	<b>15,621</b>	<b>11,878</b>	<b>144</b>	<b>30,448</b>
Federal government	2,413	..	1	425	3,142	34	6,014
Provincial governments	5	303	16	157	1,237	65	1,784
Provincial research organizations	.	..	3	.	.	.	3
Business enterprise	53	..	10	13,386	958	8	14,415
Higher education	.	..	.	.	5,299	.	5,299
Private non-profit organizations	.	..	0 <sup>s</sup>	.	1,115	29	1,144
Foreign	.	..	1	1,653	127	8	1,788
<b>2012 P Total sciences</b>							
<b>Total</b>	<b>2,437</b>	<b>311</b>	<b>32</b>	<b>16,063</b>	<b>11,760</b>	<b>125</b>	<b>30,727</b>
Federal government	2,377	..	1	416	3,111	30	5,934
Provincial governments	5	311	17	157	1,225	56	1,770
Provincial research organizations	.	..	3	.	.	.	3
Business enterprise	55	..	10	13,844	948	7	14,864
Higher education	.	..	.	.	5,246	.	5,246
Private non-profit organizations	.	..	0 <sup>s</sup>	.	1,104	25	1,129
Foreign	.	..	1	1,647	126	7	1,781
<b>2011 Total sciences</b>							
<b>Total</b>	<b>2,649</b>	<b>300</b>	<b>32</b>	<b>15,960</b>	<b>11,628</b>	<b>127</b>	<b>30,696</b>
Federal government	2,572	..	1	444	3,076	30	6,123
Provincial governments	4	300	16	153	1,211	57	1,741
Provincial research organizations	.	..	4	.	.	.	4
Business enterprise	74	..	10	13,700	938	7	14,729
Higher education	.	..	.	.	5,188	.	5,188
Private non-profit organizations	.	..	0 <sup>s</sup>	.	1,091	26	1,117
Foreign	.	..	1	1,663	125	7	1,795
<b>2010 P Total sciences</b>							
<b>Total</b>	<b>3,007</b>	<b>325</b>	<b>35</b>	<b>15,467</b>	<b>11,249</b>	<b>135</b>	<b>30,219</b>
Federal government	2,932	6	3	426	3,074	26	6,467
Provincial governments	5	266	13	166	1,193	57	1,700
Provincial research organizations	.	..	5	.	.	.	5
Business enterprise	70	53	13	13,048	842	8	14,034
Higher education	.	..	.	.	4,970	.	4,970
Private non-profit organizations	.	..	0 <sup>s</sup>	.	1,029	38	1,068
Foreign	.	..	1	1,827	141	7	1,975
<b>2009 P Total sciences</b>							
<b>Total</b>	<b>2,762</b>	<b>352</b>	<b>33</b>	<b>16,038</b>	<b>10,818</b>	<b>125</b>	<b>30,129</b>
Federal government	2,684	1	2	305	2,932	27	5,951
Provincial governments	5	304	12	148	1,144	44	1,657
Provincial research organizations	.	..	5	.	.	.	5
Business enterprise	73	47	14	13,583	896	5	14,618
Higher education	.	..	.	.	4,824	.	4,824
Private non-profit organizations	.	..	0 <sup>s</sup>	.	901	42	944
Foreign	.	..	0 <sup>s</sup>	2,003	120	8	2,131
<b>2008 P Total sciences</b>							
<b>Total</b>	<b>2,599</b>	<b>364</b>	<b>38</b>	<b>16,644</b>	<b>10,926</b>	<b>179</b>	<b>30,757</b>
Federal government	2,523	2	3	319	2,811	51	5,709
Provincial governments	9	321	11	71	1,105	35	1,552
Provincial research organizations	.	..	..	.	.	.	..
Business enterprise	68	40	22	14,173	892	14	15,210
Higher education	.	..	.	.	5,060	.	5,054
Private non-profit organizations	.	..	1	.	949	65	1,015
Foreign	.	..	1	2,082	114	14	2,211

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

Table 3 – continued

National gross domestic expenditures on research and development, in the total sciences, Canada

Funding sector	Performing sector						Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	Private non-profit organizations	
millions of dollars							
<b>2007 † Total sciences</b>							
<b>Total</b>	<b>2,532</b>	<b>335</b>	<b>57</b>	<b>16,756</b>	<b>10,187</b>	<b>164</b>	<b>30,031</b>
Federal government	2,456	2	2	253	2,720	44	5,477
Provincial governments	9	295	10	97	1,034	24	1,468
Provincial research organizations	.	.	.	.	.	.	.
Business enterprise	67	38	44	13,744	870	13	14,776
Higher education	.	.	.	.	4,574	.	4,574
Private non-profit organizations	.	.	.	.	890	67	957
Foreign	.	.	1	2,663	99	16	2,779
<b>2006 Total sciences</b>							
<b>Total</b>	<b>2,496</b>	<b>310</b>	<b>22</b>	<b>16,474</b>	<b>9,625</b>	<b>152</b>	<b>29,031</b>
Federal government	2,434	4	1	257	2,488	39	5,223
Provincial governments	7	274	10	155	993	29	1,467
Provincial research organizations	.	.	0	.	.	.	0
Business enterprise	55	33	10	13,907	808	21	14,834
Higher education	.	.	.	.	4,435	.	4,435
Private non-profit organizations	.	.	.	.	776	51	827
Foreign	.	.	0 <sup>s</sup>	2,107	126	13	2,246
<b>2005 Total sciences</b>							
<b>Total</b>	<b>2,414</b>	<b>280</b>	<b>23</b>	<b>15,638</b>	<b>9,518</b>	<b>149</b>	<b>28,022</b>
Federal government	2,341	4	1	323	2,542	41	5,252
Provincial governments	9	246	12	90	973	28	1,358
Provincial research organizations	.	.	0 <sup>s</sup>	.	.	.	0 <sup>s</sup>
Business enterprise	64	30	10	12,899	803	21	13,827
Higher education	.	.	.	.	4,341	.	4,341
Private non-profit organizations	.	.	.	.	742	42	784
Foreign	.	.	0 <sup>s</sup>	2,327	116	17	2,460
<b>2004 Total sciences</b>							
<b>Total</b>	<b>2,084</b>	<b>265</b>	<b>25</b>	<b>15,144</b>	<b>9,058</b>	<b>104</b>	<b>26,679</b>
Federal government	2,028	2	1	271	2,337	12	4,651
Provincial governments	7	236	14	59	1,039	15	1,285
Provincial research organizations	.	.	0 <sup>s</sup>	.	.	.	0 <sup>s</sup>
Business enterprise	49	26	10	12,535	755	13	13,388
Higher education	.	.	.	.	4,147	.	4,147
Private non-profit organizations	.	.	.	.	685	50	735
Foreign	.	.	0 <sup>s</sup>	2,280	96	13	2,389
<b>2003 Total sciences</b>							
<b>Total</b>	<b>2,083</b>	<b>254</b>	<b>24</b>	<b>14,094</b>	<b>8,144</b>	<b>93</b>	<b>24,693</b>
Federal government	2,027	2	1	299	2,182	15	4,527
Provincial governments	8	226	14	70	1,018	17	1,354
Provincial research organizations	.	.	0 <sup>s</sup>	.	.	.	0 <sup>s</sup>
Business enterprise	48	25	9	11,651	679	14	12,427
Higher education	.	.	.	.	3,589	.	3,589
Private non-profit organizations	.	.	.	.	599	39	638
Foreign	.	.	0 <sup>s</sup>	2,073	76	8	2,158

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

**Table 4-1**  
**Provincial gross domestic expenditures on research and development, in the total sciences — Newfoundland and Labrador**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Total sciences</b>						
<b>Total</b>	<b>19</b>	..	..	<b>66</b>	<b>214</b>	<b>299</b>
Federal government	19	.	.	10	47	75
Provincial governments	0 <sup>s</sup>	..	.	1	26	27
Provincial research organizations	.	.	.	.	.	..
Business enterprise	1	.	.	49	17	66
Higher education	.	.	.	.	113	113
Private non-profit organizations	.	.	.	.	11	11
Foreign	.	.	.	7	0 <sup>s</sup>	7
<b>2010 Total sciences</b>						
<b>Total</b>	<b>22</b>	..	..	<b>72</b>	<b>165</b>	<b>258</b>
Federal government	22	.	.	10	35	67
Provincial governments	0 <sup>s</sup>	..	.	1	3	3
Provincial research organizations	.	.	.	.	.	..
Business enterprise	1	.	.	52	25	78
Higher education	.	.	.	.	97	97
Private non-profit organizations	.	.	.	.	5	5
Foreign	.	.	.	8	0 <sup>s</sup>	8
<b>2009 Total sciences</b>						
<b>Total</b>	<b>25</b>	..	..	<b>87</b>	<b>152</b>	<b>264</b>
Federal government	24	.	.	8	34	67
Provincial governments	0 <sup>s</sup>	..	.	1	4	6
Provincial research organizations	.	.	.	.	.	..
Business enterprise	1	.	.	69	23	93
Higher education	.	.	.	.	85	85
Private non-profit organizations	.	.	.	.	5	5
Foreign	.	.	.	8	1	9
<b>2008 Total sciences</b>						
<b>Total</b>	<b>19</b>	<b>5</b>	..	<b>90</b>	<b>146</b>	<b>259</b>
Federal government	19	.	.	4	36	59
Provincial governments	0 <sup>s</sup>	5	.	0 <sup>s</sup>	8	13
Provincial research organizations	.	.	.	.	.	..
Business enterprise	0 <sup>s</sup>	.	.	73	17	91
Higher education	.	.	.	.	77	77
Private non-profit organizations	.	.	.	.	6	6
Foreign	.	.	.	12	1	13
<b>2007 Total sciences</b>						
<b>Total</b>	<b>28</b>	<b>5</b>	..	<b>89</b>	<b>140</b>	<b>261</b>
Federal government	27	.	.	7	46	80
Provincial governments	0 <sup>s</sup>	5	.	0 <sup>s</sup>	6	11
Provincial research organizations	.	.	.	.	.	..
Business enterprise	1	.	.	75	12	87
Higher education	.	.	.	.	71	71
Private non-profit organizations	.	.	.	.	5	5
Foreign	.	.	.	6	1	7

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 4-2**  
**Provincial gross domestic expenditures on research and development, in the total sciences — Prince Edward Island**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Total sciences</b>						
<b>Total</b>	<b>13</b>	<b>2</b>	..	<b>13</b>	<b>38</b>	<b>65</b>
Federal government	12	..	.	1	12	25
Provincial governments	..	2	.	0 <sup>s</sup>	1	3
Provincial research organizations	.	.	.	.	.	..
Business enterprise	0 <sup>s</sup>	..	.	12	2	13
Higher education	.	.	.	.	22	22
Private non-profit organizations	.	.	.	.	1	1
Foreign	.	.	.	0 <sup>s</sup>	..	0 <sup>s</sup>
<b>2010 Total sciences</b>						
<b>Total</b>	<b>12</b>	<b>3</b>	..	<b>10</b>	<b>42</b>	<b>68</b>
Federal government	12	..	.	2	14	28
Provincial governments	0 <sup>s</sup>	3	.	0 <sup>s</sup>	2	5
Provincial research organizations	.	.	.	.	.	..
Business enterprise	0 <sup>s</sup>	..	.	8	1	10
Higher education	.	.	.	.	23	23
Private non-profit organizations	.	.	.	.	1	1
Foreign	.	.	.	0 <sup>s</sup>	..	0 <sup>s</sup>
<b>2009 Total sciences</b>						
<b>Total</b>	<b>15</b>	..	..	<b>13</b>	<b>41</b>	<b>69</b>
Federal government	15	..	.	2	13	30
Provincial governments	0 <sup>s</sup>	..	.	0 <sup>s</sup>	1	2
Provincial research organizations	.	.	.	.	.	..
Business enterprise	0 <sup>s</sup>	..	.	10	1	11
Higher education	.	.	.	.	24	24
Private non-profit organizations	.	.	.	.	1	1
Foreign	.	.	.	0 <sup>s</sup>	0 <sup>s</sup>	0 <sup>s</sup>
<b>2008 Total sciences</b>						
<b>Total</b>	<b>14</b>	..	..	<b>15</b>	<b>37</b>	<b>66</b>
Federal government	13	..	.	0 <sup>s</sup>	12	25
Provincial governments	0 <sup>s</sup>	..	.	0 <sup>s</sup>	1	2
Provincial research organizations	.	.	.	.	.	..
Business enterprise	0 <sup>s</sup>	..	.	14	2	15
Higher education	.	.	.	.	22	22
Private non-profit organizations	.	.	.	.	1	1
Foreign	.	.	.	1	0 <sup>s</sup>	1
<b>2007 Total sciences</b>						
<b>Total</b>	<b>13</b>	..	..	<b>13</b>	<b>34</b>	<b>60</b>
Federal government	13	..	.	1	12	26
Provincial governments	0 <sup>s</sup>	..	.	0 <sup>s</sup>	2	2
Provincial research organizations	.	.	.	.	.	..
Business enterprise	0 <sup>s</sup>	..	.	12	1	14
Higher education	.	.	.	.	19	19
Private non-profit organizations	.	.	.	.	..	..
Foreign	.	.	.	0 <sup>s</sup>	0 <sup>s</sup>	0 <sup>s</sup>

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 4-3**  
**Provincial gross domestic expenditures on research and development, in the total sciences — Nova Scotia**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Total sciences</b>						
<b>Total</b>	<b>53</b>	..	..	<b>78</b>	<b>374</b>	<b>504</b>
Federal government	51	.	..	4	102	157
Provincial governments	0 <sup>s</sup>	..	..	2	12	14
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	66	45	112
Higher education	.	.	.	.	196	196
Private non-profit organizations	.	.	.	.	19	19
Foreign	.	.	..	6	1	7
<b>2010 Total sciences</b>						
<b>Total</b>	<b>69</b>	..	..	<b>85</b>	<b>372</b>	<b>526</b>
Federal government	68	.	..	5	105	178
Provincial governments	0 <sup>s</sup>	..	..	2	10	12
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	71	40	112
Higher education	.	.	.	.	190	190
Private non-profit organizations	.	.	.	.	26	26
Foreign	.	.	..	7	1	8
<b>2009 Total sciences</b>						
<b>Total</b>	<b>67</b>	..	..	<b>110</b>	<b>346</b>	<b>523</b>
Federal government	66	.	..	7	95	168
Provincial governments	0 <sup>s</sup>	..	..	2	8	10
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	94	33	128
Higher education	.	.	.	.	185	185
Private non-profit organizations	.	.	.	.	24	24
Foreign	.	.	..	7	1	8
<b>2008 Total sciences</b>						
<b>Total</b>	<b>77</b>	..	..	<b>105</b>	<b>345</b>	<b>528</b>
Federal government	76	.	..	2	93	172
Provincial governments	0 <sup>s</sup>	..	..	1	8	9
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	85	37	123
Higher education	.	.	.	.	179	179
Private non-profit organizations	.	.	.	.	27	27
Foreign	.	.	..	18	0 <sup>s</sup>	18
<b>2007 Total sciences</b>						
<b>Total</b>	<b>77</b>	..	..	<b>106</b>	<b>330</b>	<b>513</b>
Federal government	76	.	..	2	81	159
Provincial governments	0 <sup>s</sup>	..	..	0 <sup>s</sup>	7	7
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	84	39	125
Higher education	.	.	.	.	170	170
Private non-profit organizations	.	.	.	.	32	32
Foreign	.	.	..	19	0 <sup>s</sup>	19

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 4-4**  
**Provincial gross domestic expenditures on research and development, in the total sciences — New Brunswick**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Total sciences</b>						
<b>Total</b>	<b>35</b>	<b>..</b>	<b>3</b>	<b>95</b>	<b>161</b>	<b>294</b>
Federal government	34	.	0 <sup>s</sup>	8	37	79
Provincial governments	0 <sup>s</sup>	..	0 <sup>s</sup>	2	3	6
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	2	85	8	96
Higher education	.	.	.	.	98	98
Private non-profit organizations	.	.	0 <sup>s</sup>	.	13	14
Foreign	.	.	0 <sup>s</sup>	1	0 <sup>s</sup>	1
<b>2010 Total sciences</b>						
<b>Total</b>	<b>35</b>	<b>..</b>	<b>3</b>	<b>98</b>	<b>157</b>	<b>293</b>
Federal government	35	.	0 <sup>s</sup>	5	39	79
Provincial governments	0 <sup>s</sup>	..	0 <sup>s</sup>	0 <sup>s</sup>	6	6
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	2	91	6	100
Higher education	.	.	.	.	94	94
Private non-profit organizations	.	.	0 <sup>s</sup>	.	12	12
Foreign	.	.	0 <sup>s</sup>	1	0 <sup>s</sup>	1
<b>2009 Total sciences</b>						
<b>Total</b>	<b>37</b>	<b>11</b>	<b>2</b>	<b>127</b>	<b>163</b>	<b>341</b>
Federal government	36	.	0 <sup>s</sup>	5	44	85
Provincial governments	0 <sup>s</sup>	11	0 <sup>s</sup>	1	6	18
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	2	120	9	132
Higher education	.	.	.	.	96	96
Private non-profit organizations	.	.	0 <sup>s</sup>	.	6	6
Foreign	.	.	0 <sup>s</sup>	1	2	4
<b>2008 Total sciences</b>						
<b>Total</b>	<b>36</b>	<b>11</b>	<b>2</b>	<b>121</b>	<b>156</b>	<b>326</b>
Federal government	36	.	0 <sup>s</sup>	1	40	77
Provincial governments	0 <sup>s</sup>	11	0 <sup>s</sup>	0 <sup>s</sup>	6	17
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	1	117	4	124
Higher education	.	.	.	.	91	91
Private non-profit organizations	.	.	0 <sup>s</sup>	.	12	12
Foreign	.	.	0 <sup>s</sup>	1	3	5
<b>2007 Total sciences</b>						
<b>Total</b>	<b>46</b>	<b>10</b>	<b>2</b>	<b>122</b>	<b>149</b>	<b>330</b>
Federal government	45	.	0 <sup>s</sup>	4	38	88
Provincial governments	0 <sup>s</sup>	10	0 <sup>s</sup>	0 <sup>s</sup>	7	17
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	2	115	6	123
Higher education	.	.	.	.	87	87
Private non-profit organizations	.	.	..	.	11	11
Foreign	.	.	0 <sup>s</sup>	3	0 <sup>s</sup>	4

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.



Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 4-5**  
**Provincial gross domestic expenditures on research and development, in the total sciences — Quebec**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Total sciences</b>						
<b>Total</b>	<b>293</b>	<b>86</b>	<b>11</b>	<b>4,669</b>	<b>2,829</b>	<b>7,888</b>
Federal government	282	.	0 <sup>s</sup>	234	803	1,319
Provincial governments	0 <sup>s</sup>	86	8	62	379	536
Provincial research organizations	.	.	..	.	.	..
Business enterprise	10	..	3	3,921	243	4,177
Higher education	.	.	.	.	1,142	1,142
Private non-profit organizations	.	.	..	.	243	243
Foreign	.	.	0 <sup>s</sup>	452	20	472
<b>2010 Total sciences</b>						
<b>Total</b>	<b>308</b>	<b>95</b>	<b>11</b>	<b>4,691</b>	<b>2,824</b>	<b>7,928</b>
Federal government	296	.	0 <sup>s</sup>	191	810	1,297
Provincial governments	2	95	8	70	386	560
Provincial research organizations	.	.	..	.	.	..
Business enterprise	10	..	3	3,952	227	4,193
Higher education	.	.	.	.	1,137	1,137
Private non-profit organizations	.	.	..	.	244	244
Foreign	.	.	0 <sup>s</sup>	478	20	498
<b>2009 Total sciences</b>						
<b>Total</b>	<b>367</b>	<b>88</b>	<b>11</b>	<b>4,757</b>	<b>2,650</b>	<b>7,872</b>
Federal government	355	.	0 <sup>s</sup>	113	794	1,262
Provincial governments	2	88	8	82	361	541
Provincial research organizations	.	.	..	.	.	..
Business enterprise	12	..	3	4,041	221	4,277
Higher education	.	.	.	.	1,018	1,018
Private non-profit organizations	.	.	..	.	230	230
Foreign	.	.	0 <sup>s</sup>	520	25	545
<b>2008 Total sciences</b>						
<b>Total</b>	<b>413</b>	<b>87</b>	<b>8</b>	<b>4,794</b>	<b>2,816</b>	<b>8,118</b>
Federal government	399	.	0 <sup>s</sup>	178	749	1,326
Provincial governments	2	87	5	35	256	385
Provincial research organizations	.	.	..	.	.	..
Business enterprise	12	..	3	4,033	254	4,302
Higher education	.	.	.	.	1,289	1,289
Private non-profit organizations	.	.	0 <sup>s</sup>	.	244	244
Foreign	.	.	0 <sup>s</sup>	548	23	572
<b>2007 Total sciences</b>						
<b>Total</b>	<b>368</b>	<b>81</b>	<b>9</b>	<b>4,881</b>	<b>2,631</b>	<b>7,971</b>
Federal government	357	.	0 <sup>s</sup>	103	780	1,240
Provincial governments	2	81	4	41	262	391
Provincial research organizations	.	.	..	.	.	..
Business enterprise	10	..	4	3,952	224	4,191
Higher education	.	.	.	.	1,155	1,155
Private non-profit organizations	.	.	..	.	190	190
Foreign	.	.	0 <sup>s</sup>	785	19	804

**Note(s):** Components may not add to totals due to rounding. Quebec and Ontario figures include federal government expenditures on research and development performed in the National Capital Region. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D. Data for the National Capital Region (NCR) are now available in Appendix 1 at the end of this publication.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 4-6**  
**Provincial gross domestic expenditures on research and development, in the total sciences — Ontario**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Total sciences</b>						
<b>Total</b>	<b>1,866</b>	<b>52</b>	<b>..</b>	<b>7,713</b>	<b>4,969</b>	<b>14,601</b>
Federal government	1,811	..	..	101	1,256	3,167
Provincial governments	2	52	..	56	447	558
Provincial research organizations	..	..	..	..	..	..
Business enterprise	53	..	..	6,605	420	7,078
Higher education	..	..	..	..	2,238	2,238
Private non-profit organizations	..	..	..	..	545	545
Foreign	..	..	..	951	64	1,015
<b>2010 Total sciences</b>						
<b>Total</b>	<b>2,181</b>	<b>54</b>	<b>..</b>	<b>7,039</b>	<b>4,644</b>	<b>13,918</b>
Federal government	2,128	..	..	104	1,237	3,469
Provincial governments	2	54	..	56	426	538
Provincial research organizations	..	..	..	..	..	..
Business enterprise	50	..	..	5,827	355	6,232
Higher education	..	..	..	..	2,088	2,088
Private non-profit organizations	..	..	..	..	475	475
Foreign	..	..	..	1,051	63	1,114
<b>2009 Total sciences</b>						
<b>Total</b>	<b>1,839</b>	<b>51</b>	<b>..</b>	<b>7,384</b>	<b>4,581</b>	<b>13,855</b>
Federal government	1,786	..	..	118	1,168	3,072
Provincial governments	2	51	..	31	386	471
Provincial research organizations	..	..	..	..	..	..
Business enterprise	50	..	..	6,081	443	6,575
Higher education	..	..	..	..	2,109	2,109
Private non-profit organizations	..	..	..	..	412	412
Foreign	..	..	..	1,154	62	1,216
<b>2008 Total sciences</b>						
<b>Total</b>	<b>1,668</b>	<b>62</b>	<b>..</b>	<b>7,883</b>	<b>4,605</b>	<b>14,218</b>
Federal government	1,616	..	..	90	1,100	2,806
Provincial governments	6	62	..	9	405	482
Provincial research organizations	..	..	..	..	..	..
Business enterprise	46	..	..	6,687	413	7,146
Higher education	..	..	..	..	2,199	2,199
Private non-profit organizations	..	..	..	..	435	435
Foreign	..	..	..	1,097	54	1,151
<b>2007 Total sciences</b>						
<b>Total</b>	<b>1,624</b>	<b>57</b>	<b>..</b>	<b>8,065</b>	<b>4,353</b>	<b>14,098</b>
Federal government	1,571	..	..	85	1,098	2,754
Provincial governments	6	57	..	19	357	439
Provincial research organizations	..	..	..	..	..	..
Business enterprise	47	..	..	6,627	432	7,106
Higher education	..	..	..	..	1,983	1,983
Private non-profit organizations	..	..	..	..	426	426
Foreign	..	..	..	1,334	56	1,390

**Note(s):** Components may not add to totals due to rounding. Quebec and Ontario figures include federal government expenditures on research and development performed in the National Capital Region. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D. Data for the National Capital Region (NCR) are now available in Appendix 1 at the end of this publication.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 4-7**  
**Provincial gross domestic expenditures on research and development, in the total sciences — Manitoba**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Total sciences</b>						
<b>Total</b>	<b>103</b>	<b>10</b>	<b>..</b>	<b>219</b>	<b>351</b>	<b>683</b>
Federal government	102	.	.	3	80	185
Provincial governments	0 <sup>s</sup>	10	..	2	27	38
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	205	20	227
Higher education	.	.	.	.	173	173
Private non-profit organizations	.	.	.	.	47	47
Foreign	.	.	.	9	5	13
<b>2010 Total sciences</b>						
<b>Total</b>	<b>107</b>	<b>10</b>	<b>..</b>	<b>212</b>	<b>362</b>	<b>691</b>
Federal government	106	.	.	4	80	190
Provincial governments	0 <sup>s</sup>	10	..	1	32	43
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	186	30	217
Higher education	.	.	.	.	166	166
Private non-profit organizations	.	.	.	.	35	35
Foreign	.	.	.	22	18	40
<b>2009 Total sciences</b>						
<b>Total</b>	<b>112</b>	<b>8</b>	<b>..</b>	<b>209</b>	<b>353</b>	<b>683</b>
Federal government	111	.	.	1	83	195
Provincial governments	0 <sup>s</sup>	8	..	1	26	36
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	201	17	220
Higher education	.	.	.	.	164	164
Private non-profit organizations	.	.	.	.	54	54
Foreign	.	.	.	6	10	15
<b>2008 Total sciences</b>						
<b>Total</b>	<b>85</b>	<b>10</b>	<b>..</b>	<b>182</b>	<b>334</b>	<b>611</b>
Federal government	84	.	.	5	76	164
Provincial governments	0 <sup>s</sup>	10	..	0 <sup>s</sup>	21	31
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	163	19	184
Higher education	.	.	.	.	149	149
Private non-profit organizations	.	.	.	.	65	65
Foreign	.	.	.	13	5	18
<b>2007 Total sciences</b>						
<b>Total</b>	<b>85</b>	<b>6</b>	<b>..</b>	<b>207</b>	<b>314</b>	<b>611</b>
Federal government	83	.	.	2	78	163
Provincial governments	0 <sup>s</sup>	6	..	1	20	26
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	180	24	205
Higher education	.	.	.	.	142	142
Private non-profit organizations	.	.	.	.	43	43
Foreign	.	.	.	25	7	32

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 4-8**  
**Provincial gross domestic expenditures on research and development, in the total sciences — Saskatchewan**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Total sciences</b>						
<b>Total</b>	<b>63</b>	<b>6</b>	<b>16</b>	<b>179</b>	<b>289</b>	<b>553</b>
Federal government	61	.	0 <sup>s</sup>	8	74	143
Provincial governments	0 <sup>s</sup>	6	6	4	26	42
Provincial research organizations	.	.	4	.	.	4
Business enterprise	2	.	5	166	19	191
Higher education	.	.	.	.	154	154
Private non-profit organizations	.	.	0 <sup>s</sup>	.	16	16
Foreign	.	.	0 <sup>s</sup>	2	1	3
<b>2010 Total sciences</b>						
<b>Total</b>	<b>67</b>	<b>22</b>	<b>19</b>	<b>150</b>	<b>328</b>	<b>586</b>
Federal government	65	.	1	3	87	157
Provincial governments	0 <sup>s</sup>	22	4	4	34	64
Provincial research organizations	.	.	5	.	.	5
Business enterprise	2	.	8	131	10	152
Higher education	.	.	.	.	157	157
Private non-profit organizations	.	.	0 <sup>s</sup>	.	38	39
Foreign	.	.	0 <sup>s</sup>	12	1	13
<b>2009 Total sciences</b>						
<b>Total</b>	<b>72</b>	<b>31</b>	<b>18</b>	<b>155</b>	<b>310</b>	<b>586</b>
Federal government	70	.	1	3	102	175
Provincial governments	0 <sup>s</sup>	31	3	3	33	70
Provincial research organizations	.	.	5	.	.	5
Business enterprise	2	.	9	143	10	164
Higher education	.	.	.	.	150	150
Private non-profit organizations	.	.	0 <sup>s</sup>	.	14	14
Foreign	.	.	0 <sup>s</sup>	6	1	7
<b>2008 Total sciences</b>						
<b>Total</b>	<b>64</b>	<b>5</b>	<b>12</b>	<b>146</b>	<b>314</b>	<b>541</b>
Federal government	62	.	0 <sup>s</sup>	2	87	152
Provincial governments	0 <sup>s</sup>	5	4	1	45	55
Provincial research organizations	.	.	..	.	.	..
Business enterprise	2	.	7	139	16	164
Higher education	.	.	.	.	146	146
Private non-profit organizations	.	.	0 <sup>s</sup>	.	20	20
Foreign	.	.	0 <sup>s</sup>	3	1	5
<b>2007 Total sciences</b>						
<b>Total</b>	<b>63</b>	<b>5</b>	<b>11</b>	<b>194</b>	<b>230</b>	<b>503</b>
Federal government	62	.	0 <sup>s</sup>	6	68	135
Provincial governments	0 <sup>s</sup>	5	4	2	22	33
Provincial research organizations	.	.	..	.	.	..
Business enterprise	2	.	7	168	10	186
Higher education	.	.	.	.	117	117
Private non-profit organizations	.	.	..	.	13	13
Foreign	.	.	0 <sup>s</sup>	18	1	19

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 4-9**  
**Provincial gross domestic expenditures on research and development, in the total sciences — Alberta**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Total sciences</b>						
<b>Total</b>	<b>101</b>	<b>128</b>	<b>..</b>	<b>1,340</b>	<b>1,252</b>	<b>2,822</b>
Federal government	100	..	..	25	290	415
Provincial governments	0 <sup>s</sup>	128	..	10	238	377
Provincial research organizations	.	.	..	.	.	..
Business enterprise	2	..	..	1,265	97	1,363
Higher education	.	.	.	.	521	521
Private non-profit organizations	.	.	.	.	96	96
Foreign	.	..	..	40	10	49
<b>2010 Total sciences</b>						
<b>Total</b>	<b>106</b>	<b>124</b>	<b>..</b>	<b>1,474</b>	<b>1,227</b>	<b>2,930</b>
Federal government	104	6	..	18	287	415
Provincial governments	0 <sup>s</sup>	64	..	11	239	315
Provincial research organizations	.	.	..	.	.	..
Business enterprise	2	53	..	1,409	87	1,550
Higher education	.	.	.	.	504	504
Private non-profit organizations	.	.	.	.	100	100
Foreign	.	..	..	36	10	45
<b>2009 Total sciences</b>						
<b>Total</b>	<b>108</b>	<b>138</b>	<b>..</b>	<b>1,571</b>	<b>1,186</b>	<b>3,004</b>
Federal government	106	1	..	9	261	378
Provincial governments	0 <sup>s</sup>	89	..	10	248	347
Provincial research organizations	.	.	..	.	.	..
Business enterprise	2	47	..	1,478	83	1,610
Higher education	.	.	.	.	502	502
Private non-profit organizations	.	.	.	.	88	88
Foreign	.	..	..	74	4	78
<b>2008 Total sciences</b>						
<b>Total</b>	<b>126</b>	<b>152</b>	<b>..</b>	<b>1,618</b>	<b>1,171</b>	<b>3,067</b>
Federal government	124	2	..	4	273	403
Provincial governments	0 <sup>s</sup>	108	..	18	259	385
Provincial research organizations	.	.	..	.	.	..
Business enterprise	2	41	..	1,522	89	1,654
Higher education	.	.	.	.	447	447
Private non-profit organizations	.	.	.	.	93	93
Foreign	.	..	..	74	10	84
<b>2007 Total sciences</b>						
<b>Total</b>	<b>116</b>	<b>141</b>	<b>..</b>	<b>1,449</b>	<b>1,036</b>	<b>2,741</b>
Federal government	114	2	..	7	228	351
Provincial governments	0 <sup>s</sup>	101	..	5	240	346
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	38	..	1,340	85	1,464
Higher education	.	.	.	.	400	400
Private non-profit organizations	.	.	.	.	74	74
Foreign	.	..	..	96	8	104

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 4-10**  
**Provincial gross domestic expenditures on research and development, in the total sciences — British Columbia**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Total sciences</b>						
<b>Total</b>	<b>102</b>	<b>16</b>	<b>..</b>	<b>1,584</b>	<b>1,275</b>	<b>2,977</b>
Federal government	98	.	..	51	403	552
Provincial governments	0 <sup>s</sup>	16	..	14	108	139
Provincial research organizations	.	.	..	.	.	..
Business enterprise	3	..	..	1,323	76	1,403
Higher education	.	.	.	.	531	531
Private non-profit organizations	.	.	.	.	125	125
Foreign	.	.	.	196	32	228
<b>2010 Total sciences</b>						
<b>Total</b>	<b>93</b>	<b>19</b>	<b>..</b>	<b>1,632</b>	<b>1,263</b>	<b>3,006</b>
Federal government	90	.	..	84	405	579
Provincial governments	0 <sup>s</sup>	19	..	20	112	151
Provincial research organizations	.	.	..	.	.	..
Business enterprise	3	..	..	1,316	67	1,386
Higher education	.	.	.	.	513	513
Private non-profit organizations	.	.	.	.	131	131
Foreign	.	.	.	211	34	246
<b>2009 Total sciences</b>						
<b>Total</b>	<b>115</b>	<b>25</b>	<b>..</b>	<b>1,620</b>	<b>1,160</b>	<b>2,920</b>
Federal government	111	.	..	38	366	515
Provincial governments	0 <sup>s</sup>	25	..	17	113	156
Provincial research organizations	.	.	..	.	.	..
Business enterprise	3	..	..	1,340	59	1,401
Higher education	.	.	.	.	492	492
Private non-profit organizations	.	.	.	.	109	109
Foreign	.	.	.	226	22	247
<b>2008 Total sciences</b>						
<b>Total</b>	<b>93</b>	<b>33</b>	<b>..</b>	<b>1,685</b>	<b>1,187</b>	<b>2,998</b>
Federal government	90	.	..	32	396	519
Provincial governments	0 <sup>s</sup>	33	..	6	133	173
Provincial research organizations	.	.	..	.	.	..
Business enterprise	3	..	..	1,334	54	1,391
Higher education	.	.	.	.	461	461
Private non-profit organizations	.	.	.	.	111	111
Foreign	.	.	.	313	31	344
<b>2007 Total sciences</b>						
<b>Total</b>	<b>108</b>	<b>30</b>	<b>..</b>	<b>1,616</b>	<b>1,136</b>	<b>2,890</b>
Federal government	105	.	..	36	335	475
Provincial governments	0 <sup>s</sup>	30	..	29	134	194
Provincial research organizations	.	.	..	.	.	..
Business enterprise	3	..	..	1,181	50	1,234
Higher education	.	.	.	.	431	431
Private non-profit organizations	.	.	.	.	162	162
Foreign	.	.	.	370	23	394

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

**Table 4-11**  
**Provincial gross domestic expenditures on research and development, in the total sciences — Yukon, Northwest Territories and Nunavut**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Total sciences</b>						
<b>Total</b>	<b>2</b>	.	<b>3</b>	<b>4</b>	<b>3</b>	<b>11</b>
Federal government	2	.	0 <sup>s</sup>	..	2	<b>5</b>
Provincial governments	0 <sup>s</sup>	.	2	0 <sup>s</sup>	..	<b>2</b>
Provincial research organizations	.	.	..	.	.	..
Business enterprise	0 <sup>s</sup>	.	0 <sup>s</sup>	4	0 <sup>s</sup>	<b>4</b>
Higher education	.	.	.	.	.	.
Private non-profit organizations	.	.	0 <sup>s</sup>	.	1	<b>1</b>
Foreign	.	.	..	0 <sup>s</sup>	.	<b>0<sup>s</sup></b>
<b>2010 Total sciences</b>						
<b>Total</b>	<b>6</b>	.	<b>2</b>	<b>4</b>	<b>2</b>	<b>15</b>
Federal government	6	.	1	..	0 <sup>s</sup>	<b>7</b>
Provincial governments	0 <sup>s</sup>	.	2	0 <sup>s</sup>	0 <sup>s</sup>	<b>2</b>
Provincial research organizations	.	.	..	.	.	..
Business enterprise	0 <sup>s</sup>	.	0 <sup>s</sup>	4	1	<b>5</b>
Higher education	.	.	.	.	.	.
Private non-profit organizations	.	.	..	.	1	<b>1</b>
Foreign	.	.	0 <sup>s</sup>	0 <sup>s</sup>	.	<b>0<sup>s</sup></b>
<b>2009 Total sciences</b>						
<b>Total</b>	<b>5</b>	.	<b>1</b>	<b>6</b>	<b>0<sup>s</sup></b>	<b>12</b>
Federal government	5	.	1	0	0 <sup>s</sup>	<b>6</b>
Provincial governments	0 <sup>s</sup>	.	0 <sup>s</sup>	0 <sup>s</sup>	0 <sup>s</sup>	<b>0<sup>s</sup></b>
Provincial research organizations	.	.	..	.	.	..
Business enterprise	0 <sup>s</sup>	.	0 <sup>s</sup>	5	..	<b>6</b>
Higher education	.	.	.	.	.	.
Private non-profit organizations	.	.	..	.	0 <sup>s</sup>	<b>0<sup>s</sup></b>
Foreign	.	.	..	0 <sup>s</sup>	.	<b>0<sup>s</sup></b>
<b>2008 Total sciences</b>						
<b>Total</b>	<b>4</b>	.	<b>16</b>	<b>6</b>	<b>0<sup>s</sup></b>	<b>26</b>
Federal government	3	.	3	..	0 <sup>s</sup>	<b>7</b>
Provincial governments	0 <sup>s</sup>	.	1	..	0 <sup>s</sup>	<b>1</b>
Provincial research organizations	.	.	..	.	.	..
Business enterprise	0 <sup>s</sup>	.	11	6	..	<b>17</b>
Higher education	.	.	.	.	.	.
Private non-profit organizations	.	.	1	.	0 <sup>s</sup>	<b>1</b>
Foreign	.	.	0 <sup>s</sup>	1	.	<b>1</b>
<b>2007 Total sciences</b>						
<b>Total</b>	<b>4</b>	.	<b>34</b>	<b>15</b>	<b>0<sup>s</sup></b>	<b>54</b>
Federal government	4	.	1	0	0 <sup>s</sup>	<b>5</b>
Provincial governments	0 <sup>s</sup>	.	1	0 <sup>s</sup>	0 <sup>s</sup>	<b>1</b>
Provincial research organizations	.	.	..	.	.	..
Business enterprise	0 <sup>s</sup>	.	32	10	..	<b>42</b>
Higher education	.	.	.	.	.	.
Private non-profit organizations	.	.	..	.	..	..
Foreign	.	.	..	5	.	<b>5</b>

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 5**  
**National gross domestic expenditures on research and development, in the natural sciences and engineering, Canada**

Funding sector	Performing sector						Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	Private non-profit organizations	
millions of dollars							
<b>2013 P Natural sciences</b>							
<b>Total</b>	<b>2,259</b>	<b>266</b>	<b>31</b>	<b>15,621</b>	<b>9,480</b>	<b>139</b>	<b>27,796</b>
Federal government	2,201	..	1	425	2,619	34	5,278
Provincial governments	5	266	16	157	990	65	1,499
Provincial research organizations	.	.	3	.	.	.	3
Business enterprise	53	..	10	13,386	905	8	14,362
Higher education	.	.	.	.	3,925	.	3,925
Private non-profit organizations	.	.	0 <sup>s</sup>	.	915	27	942
Foreign	.	..	1	1,653	127	6	1,787
<b>2012 P Natural sciences</b>							
<b>Total</b>	<b>2,224</b>	<b>272</b>	<b>32</b>	<b>16,063</b>	<b>9,386</b>	<b>120</b>	<b>28,098</b>
Federal government	2,164	..	1	416	2,593	29	5,202
Provincial governments	5	272	17	157	980	56	1,486
Provincial research organizations	.	.	3	.	.	.	3
Business enterprise	55	..	10	13,844	896	7	14,811
Higher education	.	.	.	.	3,886	.	3,886
Private non-profit organizations	.	.	0 <sup>s</sup>	.	906	23	929
Foreign	.	..	1	1,647	126	6	1,779
<b>2011 Natural sciences</b>							
<b>Total</b>	<b>2,420</b>	<b>260</b>	<b>32</b>	<b>15,960</b>	<b>9,281</b>	<b>122</b>	<b>28,075</b>
Federal government	2,343	..	1	444	2,564	30	5,381
Provincial governments	4	260	16	153	969	57	1,459
Provincial research organizations	.	.	4	.	.	.	4
Business enterprise	74	..	10	13,700	886	7	14,677
Higher education	.	.	.	.	3,842	.	3,842
Private non-profit organizations	.	.	0 <sup>s</sup>	.	896	24	920
Foreign	.	..	1	1,663	125	6	1,794
<b>2010 P Natural sciences</b>							
<b>Total</b>	<b>2,726</b>	<b>283</b>	<b>35</b>	<b>15,467</b>	<b>8,950</b>	<b>127</b>	<b>27,588</b>
Federal government	2,651	6	3	426	2,556	24	5,667
Provincial governments	5	224	13	166	955	54	1,417
Provincial research organizations	.	.	5	.	.	.	5
Business enterprise	70	53	13	13,048	803	8	13,995
Higher education	.	.	.	.	3,649	.	3,649
Private non-profit organizations	.	.	0 <sup>s</sup>	.	846	36	883
Foreign	.	..	1	1,827	141	5	1,973
<b>2009 P Natural sciences</b>							
<b>Total</b>	<b>2,546</b>	<b>314</b>	<b>33</b>	<b>16,038</b>	<b>8,641</b>	<b>117</b>	<b>27,690</b>
Federal government	2,468	1	2	305	2,452	25	5,253
Provincial governments	5	266	12	148	915	43	1,389
Provincial research organizations	.	.	5	.	.	.	5
Business enterprise	73	47	14	13,583	854	5	14,576
Higher education	.	.	.	.	3,567	.	3,567
Private non-profit organizations	.	.	0 <sup>s</sup>	.	732	38	771
Foreign	.	..	0 <sup>s</sup>	2,003	120	6	2,129
<b>2008 P Natural sciences</b>							
<b>Total</b>	<b>2,388</b>	<b>327</b>	<b>38</b>	<b>16,644</b>	<b>8,716</b>	<b>169</b>	<b>28,283</b>
Federal government	2,312	2	3	319	2,342	49	5,028
Provincial governments	9	284	11	71	884	34	1,293
Provincial research organizations	.	.	..	.	.	.	..
Business enterprise	68	40	22	14,173	856	14	15,173
Higher education	.	.	.	.	3,745	.	3,745
Private non-profit organizations	.	.	1	.	775	58	833
Foreign	.	..	1	2,082	114	14	2,211



Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

Table 5 – continued

National gross domestic expenditures on research and development, in the natural sciences and engineering, Canada

Funding sector	Performing sector						Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	Private non-profit organizations	
millions of dollars							
<b>2007<sup>†</sup> Natural sciences</b>							
<b>Total</b>	<b>2,360</b>	<b>301</b>	<b>57</b>	<b>16,756</b>	<b>8,125</b>	<b>151</b>	<b>27,750</b>
Federal government	2,284	2	2	253	2,272	43	4,856
Provincial governments	9	261	10	97	827	22	1,225
Provincial research organizations	.	.	..	.	.	.	..
Business enterprise	67	38	44	13,744	834	13	14,740
Higher education	.	.	.	.	3,368	.	3,368
Private non-profit organizations	.	.	..	.	725	57	782
Foreign	.	..	1	2,663	99	16	2,779
<b>2006 Natural sciences</b>							
<b>Total</b>	<b>2,340</b>	<b>280</b>	<b>22</b>	<b>16,474</b>	<b>7,714</b>	<b>137</b>	<b>26,918</b>
Federal government	2,278	4	1	257	2,086	37	4,664
Provincial governments	7	243	10	155	794	26	1,235
Provincial research organizations	.	.	0	.	.	.	0
Business enterprise	55	33	10	13,907	775	21	14,801
Higher education	.	.	.	.	3,302	.	3,302
Private non-profit organizations	.	.	..	.	631	40	671
Foreign	.	..	0 <sup>s</sup>	2,107	126	13	2,246
<b>2005 Natural sciences</b>							
<b>Total</b>	<b>2,289</b>	<b>252</b>	<b>23</b>	<b>15,638</b>	<b>7,627</b>	<b>139</b>	<b>25,968</b>
Federal government	2,217	4	1	323	2,126	40	4,710
Provincial governments	9	219	12	90	779	26	1,134
Provincial research organizations	.	.	0 <sup>s</sup>	.	.	.	0 <sup>s</sup>
Business enterprise	64	30	10	12,899	774	21	13,797
Higher education	.	.	.	.	3,229	.	3,229
Private non-profit organizations	.	.	..	.	603	35	638
Foreign	.	..	0 <sup>s</sup>	2,327	116	17	2,460
<b>2004 Natural sciences</b>							
<b>Total</b>	<b>1,965</b>	<b>241</b>	<b>25</b>	<b>15,144</b>	<b>7,280</b>	<b>99</b>	<b>24,753</b>
Federal government	1,909	2	1	271	1,960	11	4,154
Provincial governments	7	212	14	59	831	14	1,052
Provincial research organizations	.	.	0 <sup>s</sup>	.	.	.	0 <sup>s</sup>
Business enterprise	49	26	10	12,535	728	12	13,360
Higher education	.	.	.	.	3,110	.	3,110
Private non-profit organizations	.	.	..	.	556	48	604
Foreign	.	..	0 <sup>s</sup>	2,280	96	13	2,388
<b>2003 Natural sciences</b>							
<b>Total</b>	<b>1,964</b>	<b>229</b>	<b>24</b>	<b>14,094</b>	<b>6,545</b>	<b>88</b>	<b>22,944</b>
Federal government	1,907	2	1	299	1,846	14	4,070
Provincial governments	8	202	14	70	814	15	1,124
Provincial research organizations	.	.	0 <sup>s</sup>	.	.	.	0 <sup>s</sup>
Business enterprise	48	25	9	11,651	654	13	12,401
Higher education	.	.	.	.	2,669	.	2,669
Private non-profit organizations	.	.	..	.	485	37	523
Foreign	.	..	0 <sup>s</sup>	2,073	76	8	2,158

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

**Table 6-1**  
**Provincial gross domestic expenditures on research and development, in the natural sciences and engineering**  
**— Newfoundland and Labrador**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Natural sciences</b>						
<b>Total</b>	<b>19</b>	..	..	<b>66</b>	<b>156</b>	<b>242</b>
Federal government	19	.	.	10	36	64
Provincial governments	0 <sup>s</sup>	..	.	1	21	22
Provincial research organizations	.	.	.	.	.	..
Business enterprise	1	.	.	49	17	66
Higher education	.	.	.	.	80	80
Private non-profit organizations	.	.	.	.	4	4
Foreign	.	.	.	7	0 <sup>s</sup>	7
<b>2010 Natural sciences</b>						
<b>Total</b>	<b>22</b>	..	..	<b>72</b>	<b>124</b>	<b>218</b>
Federal government	22	.	.	10	26	58
Provincial governments	0 <sup>s</sup>	..	.	1	2	3
Provincial research organizations	.	.	.	.	.	..
Business enterprise	1	.	.	52	25	78
Higher education	.	.	.	.	70	70
Private non-profit organizations	.	.	.	.	1	1
Foreign	.	.	.	8	0 <sup>s</sup>	8
<b>2009 Natural sciences</b>						
<b>Total</b>	<b>25</b>	..	..	<b>87</b>	<b>116</b>	<b>228</b>
Federal government	24	.	.	8	27	59
Provincial governments	0 <sup>s</sup>	..	.	1	3	5
Provincial research organizations	.	.	.	.	.	..
Business enterprise	1	.	.	69	23	93
Higher education	.	.	.	.	60	60
Private non-profit organizations	.	.	.	.	1	1
Foreign	.	.	.	8	1	9
<b>2008 Natural sciences</b>						
<b>Total</b>	<b>19</b>	<b>5</b>	..	<b>90</b>	<b>109</b>	<b>222</b>
Federal government	19	.	.	4	28	51
Provincial governments	0 <sup>s</sup>	5	.	0 <sup>s</sup>	6	11
Provincial research organizations	.	.	.	.	.	..
Business enterprise	0 <sup>s</sup>	.	.	73	17	91
Higher education	.	.	.	.	54	54
Private non-profit organizations	.	.	.	.	2	2
Foreign	.	.	.	12	1	13
<b>2007 Natural sciences</b>						
<b>Total</b>	<b>28</b>	<b>4</b>	..	<b>89</b>	<b>104</b>	<b>224</b>
Federal government	27	.	.	7	35	70
Provincial governments	0 <sup>s</sup>	4	.	0 <sup>s</sup>	5	9
Provincial research organizations	.	.	.	.	.	..
Business enterprise	1	.	.	75	12	87
Higher education	.	.	.	.	50	50
Private non-profit organizations	.	.	.	.	2	2
Foreign	.	.	.	6	1	7

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

**Table 6-2**  
**Provincial gross domestic expenditures on research and development, in the natural sciences and engineering**  
**— Prince Edward Island**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Natural sciences</b>						
<b>Total</b>	<b>13</b>	<b>2</b>	<b>..</b>	<b>13</b>	<b>26</b>	<b>53</b>
Federal government	12	..	.	1	8	21
Provincial governments	..	2	.	0 <sup>s</sup>	1	3
Provincial research organizations	.	.	.	.	.	..
Business enterprise	0 <sup>s</sup>	..	.	12	2	13
Higher education	.	.	.	.	15	15
Private non-profit organizations	.	.	.	.	1	1
Foreign	.	.	.	0 <sup>s</sup>	..	0 <sup>s</sup>
<b>2010 Natural sciences</b>						
<b>Total</b>	<b>12</b>	<b>2</b>	<b>..</b>	<b>10</b>	<b>30</b>	<b>55</b>
Federal government	12	..	.	2	10	24
Provincial governments	0 <sup>s</sup>	2	.	0 <sup>s</sup>	2	4
Provincial research organizations	.	.	.	.	.	..
Business enterprise	0 <sup>s</sup>	..	.	8	1	10
Higher education	.	.	.	.	16	16
Private non-profit organizations	.	.	.	.	1	1
Foreign	.	.	.	0 <sup>s</sup>	..	0 <sup>s</sup>
<b>2009 Natural sciences</b>						
<b>Total</b>	<b>15</b>	<b>..</b>	<b>..</b>	<b>13</b>	<b>29</b>	<b>57</b>
Federal government	15	..	.	2	9	26
Provincial governments	0 <sup>s</sup>	..	.	0 <sup>s</sup>	1	1
Provincial research organizations	.	.	.	.	.	..
Business enterprise	0 <sup>s</sup>	..	.	10	1	11
Higher education	.	.	.	.	17	17
Private non-profit organizations	.	.	.	.	1	1
Foreign	.	.	.	0 <sup>s</sup>	0 <sup>s</sup>	0 <sup>s</sup>
<b>2008 Natural sciences</b>						
<b>Total</b>	<b>14</b>	<b>..</b>	<b>..</b>	<b>15</b>	<b>25</b>	<b>54</b>
Federal government	13	..	.	0 <sup>s</sup>	8	21
Provincial governments	0 <sup>s</sup>	..	.	0 <sup>s</sup>	1	2
Provincial research organizations	.	.	.	.	.	..
Business enterprise	0 <sup>s</sup>	..	.	14	2	15
Higher education	.	.	.	.	14	14
Private non-profit organizations	.	.	.	.	0 <sup>s</sup>	0 <sup>s</sup>
Foreign	.	.	.	1	0 <sup>s</sup>	1
<b>2007 Natural sciences</b>						
<b>Total</b>	<b>13</b>	<b>..</b>	<b>..</b>	<b>13</b>	<b>25</b>	<b>51</b>
Federal government	13	..	.	1	9	23
Provincial governments	0 <sup>s</sup>	..	.	0 <sup>s</sup>	1	1
Provincial research organizations	.	.	.	.	.	..
Business enterprise	0 <sup>s</sup>	..	.	12	1	14
Higher education	.	.	.	.	13	13
Private non-profit organizations	.	.	.	.	..	..
Foreign	.	.	.	0 <sup>s</sup>	0 <sup>s</sup>	0 <sup>s</sup>

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 6-3**  
**Provincial gross domestic expenditures on research and development, in the natural sciences and engineering — Nova Scotia**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Natural sciences</b>						
<b>Total</b>	<b>52</b>	..	..	<b>78</b>	<b>289</b>	<b>419</b>
Federal government	51	.	..	4	84	139
Provincial governments	0 <sup>s</sup>	..	..	2	10	11
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	66	44	111
Higher education	.	.	.	.	133	133
Private non-profit organizations	.	.	.	.	18	18
Foreign	.	.	..	6	1	7
<b>2010 Natural sciences</b>						
<b>Total</b>	<b>67</b>	..	..	<b>85</b>	<b>289</b>	<b>441</b>
Federal government	65	.	..	5	86	157
Provincial governments	0 <sup>s</sup>	..	..	2	8	10
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	71	39	111
Higher education	.	.	.	.	130	130
Private non-profit organizations	.	.	.	.	25	25
Foreign	.	.	..	7	1	8
<b>2009 Natural sciences</b>						
<b>Total</b>	<b>67</b>	..	..	<b>110</b>	<b>261</b>	<b>438</b>
Federal government	66	.	..	7	76	149
Provincial governments	0 <sup>s</sup>	..	..	2	7	8
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	94	32	127
Higher education	.	.	.	.	122	122
Private non-profit organizations	.	.	.	.	23	23
Foreign	.	.	..	7	1	8
<b>2008 Natural sciences</b>						
<b>Total</b>	<b>77</b>	..	..	<b>105</b>	<b>264</b>	<b>447</b>
Federal government	76	.	..	2	74	152
Provincial governments	0 <sup>s</sup>	..	..	1	6	7
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	85	37	123
Higher education	.	.	.	.	120	120
Private non-profit organizations	.	.	.	.	26	26
Foreign	.	.	..	18	0 <sup>s</sup>	18
<b>2007 Natural sciences</b>						
<b>Total</b>	<b>77</b>	..	..	<b>106</b>	<b>253</b>	<b>435</b>
Federal government	75	.	..	2	65	143
Provincial governments	0 <sup>s</sup>	..	..	0 <sup>s</sup>	6	6
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	84	38	124
Higher education	.	.	.	.	114	114
Private non-profit organizations	.	.	.	.	29	29
Foreign	.	.	..	19	0 <sup>s</sup>	19

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

**Table 6-4**  
**Provincial gross domestic expenditures on research and development, in the natural sciences and engineering**  
**— New Brunswick**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Natural sciences</b>						
<b>Total</b>	<b>35</b>	<b>..</b>	<b>3</b>	<b>95</b>	<b>111</b>	<b>244</b>
Federal government	34	.	0 <sup>s</sup>	8	29	71
Provincial governments	0 <sup>s</sup>	..	0 <sup>s</sup>	2	3	5
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	2	85	8	95
Higher education	.	.	.	.	59	59
Private non-profit organizations	.	.	0 <sup>s</sup>	.	12	12
Foreign	.	.	0 <sup>s</sup>	1	0 <sup>s</sup>	1
<b>2010 Natural sciences</b>						
<b>Total</b>	<b>33</b>	<b>..</b>	<b>3</b>	<b>98</b>	<b>108</b>	<b>241</b>
Federal government	32	.	0 <sup>s</sup>	5	30	68
Provincial governments	0 <sup>s</sup>	..	0 <sup>s</sup>	0 <sup>s</sup>	5	5
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	2	91	6	100
Higher education	.	.	.	.	56	56
Private non-profit organizations	.	.	0 <sup>s</sup>	.	10	10
Foreign	.	.	0 <sup>s</sup>	1	0 <sup>s</sup>	1
<b>2009 Natural sciences</b>						
<b>Total</b>	<b>36</b>	<b>7</b>	<b>2</b>	<b>127</b>	<b>111</b>	<b>284</b>
Federal government	35	.	0 <sup>s</sup>	5	33	73
Provincial governments	0 <sup>s</sup>	7	0 <sup>s</sup>	1	5	13
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	2	120	9	132
Higher education	.	.	.	.	57	57
Private non-profit organizations	.	.	0 <sup>s</sup>	.	4	4
Foreign	.	.	0 <sup>s</sup>	1	2	4
<b>2008 Natural sciences</b>						
<b>Total</b>	<b>36</b>	<b>9</b>	<b>2</b>	<b>121</b>	<b>106</b>	<b>273</b>
Federal government	35	.	0 <sup>s</sup>	1	30	66
Provincial governments	0 <sup>s</sup>	9	0 <sup>s</sup>	0 <sup>s</sup>	4	13
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	1	117	4	124
Higher education	.	.	.	.	54	54
Private non-profit organizations	.	.	0 <sup>s</sup>	.	10	10
Foreign	.	.	0 <sup>s</sup>	1	3	5
<b>2007 Natural sciences</b>						
<b>Total</b>	<b>46</b>	<b>8</b>	<b>2</b>	<b>122</b>	<b>102</b>	<b>281</b>
Federal government	45	.	0 <sup>s</sup>	4	30	79
Provincial governments	0 <sup>s</sup>	8	0 <sup>s</sup>	0 <sup>s</sup>	6	14
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	2	115	6	123
Higher education	.	.	.	.	52	52
Private non-profit organizations	.	.	..	.	9	9
Foreign	.	.	0 <sup>s</sup>	3	0 <sup>s</sup>	4

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 6-5**  
**Provincial gross domestic expenditures on research and development, in the natural sciences and engineering — Quebec**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Natural sciences</b>						
<b>Total</b>	<b>280</b>	<b>60</b>	<b>11</b>	<b>4,669</b>	<b>2,280</b>	<b>7,300</b>
Federal government	269	.	0 <sup>s</sup>	234	677	1,180
Provincial governments	0 <sup>s</sup>	60	8	62	305	436
Provincial research organizations	.	.	..	.	.	..
Business enterprise	10	..	3	3,921	213	4,148
Higher education	.	.	.	.	877	877
Private non-profit organizations	.	.	..	.	189	189
Foreign	.	.	0 <sup>s</sup>	452	20	472
<b>2010 Natural sciences</b>						
<b>Total</b>	<b>288</b>	<b>66</b>	<b>11</b>	<b>4,691</b>	<b>2,265</b>	<b>7,321</b>
Federal government	276	.	0 <sup>s</sup>	191	681	1,148
Provincial governments	2	66	8	70	311	456
Provincial research organizations	.	.	..	.	.	..
Business enterprise	10	..	3	3,952	209	4,175
Higher education	.	.	.	.	854	854
Private non-profit organizations	.	.	..	.	190	190
Foreign	.	.	0 <sup>s</sup>	478	20	498
<b>2009 Natural sciences</b>						
<b>Total</b>	<b>351</b>	<b>66</b>	<b>11</b>	<b>4,757</b>	<b>2,168</b>	<b>7,353</b>
Federal government	338	.	0 <sup>s</sup>	113	676	1,127
Provincial governments	2	66	8	82	291	448
Provincial research organizations	.	.	..	.	.	..
Business enterprise	12	..	3	4,041	201	4,256
Higher education	.	.	.	.	793	793
Private non-profit organizations	.	.	..	.	182	182
Foreign	.	.	0 <sup>s</sup>	520	25	545
<b>2008 Natural sciences</b>						
<b>Total</b>	<b>399</b>	<b>66</b>	<b>8</b>	<b>4,794</b>	<b>2,284</b>	<b>7,551</b>
Federal government	385	.	0 <sup>s</sup>	178	635	1,198
Provincial governments	2	66	5	35	206	314
Provincial research organizations	.	.	..	.	.	..
Business enterprise	12	..	3	4,033	240	4,288
Higher education	.	.	.	.	985	985
Private non-profit organizations	.	.	0 <sup>s</sup>	.	194	194
Foreign	.	.	0 <sup>s</sup>	548	23	572
<b>2007 Natural sciences</b>						
<b>Total</b>	<b>357</b>	<b>59</b>	<b>9</b>	<b>4,881</b>	<b>2,114</b>	<b>7,420</b>
Federal government	346	.	0 <sup>s</sup>	103	654	1,103
Provincial governments	2	59	4	41	211	317
Provincial research organizations	.	.	..	.	.	..
Business enterprise	10	..	4	3,952	210	4,177
Higher education	.	.	.	.	872	872
Private non-profit organizations	.	.	..	.	148	148
Foreign	.	.	0 <sup>s</sup>	785	19	804

**Note(s):** Components may not add to totals due to rounding. Quebec and Ontario figures include federal government expenditures on research and development performed in the National Capital Region. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D. Data for the National Capital Region (NCR) are now available in Appendix 1 at the end of this publication.

**Table 6-6**  
**Provincial gross domestic expenditures on research and development, in the natural sciences and engineering — Ontario**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Natural sciences</b>						
<b>Total</b>	<b>1,655</b>	<b>47</b>	<b>..</b>	<b>7,713</b>	<b>3,997</b>	<b>13,412</b>
Federal government	1,600	..	..	101	1,051	2,751
Provincial governments	2	47	..	56	366	471
Provincial research organizations	..	..	..	..	..	..
Business enterprise	53	..	..	6,605	402	7,061
Higher education	..	..	..	..	1,644	1,644
Private non-profit organizations	..	..	..	..	469	469
Foreign	..	..	..	951	64	1,015
<b>2010 Natural sciences</b>						
<b>Total</b>	<b>1,933</b>	<b>49</b>	<b>..</b>	<b>7,039</b>	<b>3,689</b>	<b>12,710</b>
Federal government	1,881	..	..	104	1,023	3,008
Provincial governments	2	49	..	56	346	454
Provincial research organizations	..	..	..	..	..	..
Business enterprise	50	..	..	5,827	340	6,217
Higher education	..	..	..	..	1,513	1,513
Private non-profit organizations	..	..	..	..	404	404
Foreign	..	..	..	1,051	63	1,114
<b>2009 Natural sciences</b>						
<b>Total</b>	<b>1,640</b>	<b>46</b>	<b>..</b>	<b>7,384</b>	<b>3,670</b>	<b>12,740</b>
Federal government	1,587	..	..	118	980	2,685
Provincial governments	2	46	..	31	314	393
Provincial research organizations	..	..	..	..	..	..
Business enterprise	50	..	..	6,081	426	6,558
Higher education	..	..	..	..	1,543	1,543
Private non-profit organizations	..	..	..	..	343	343
Foreign	..	..	..	1,154	62	1,216
<b>2008 Natural sciences</b>						
<b>Total</b>	<b>1,473</b>	<b>56</b>	<b>..</b>	<b>7,883</b>	<b>3,684</b>	<b>13,097</b>
Federal government	1,421	..	..	90	924	2,435
Provincial governments	6	56	..	9	325	396
Provincial research organizations	..	..	..	..	..	..
Business enterprise	46	..	..	6,687	395	7,128
Higher education	..	..	..	..	1,628	1,628
Private non-profit organizations	..	..	..	..	359	359
Foreign	..	..	..	1,097	54	1,151
<b>2007 Natural sciences</b>						
<b>Total</b>	<b>1,464</b>	<b>52</b>	<b>..</b>	<b>8,065</b>	<b>3,502</b>	<b>13,082</b>
Federal government	1,411	..	..	85	927	2,423
Provincial governments	6	52	..	19	286	363
Provincial research organizations	..	..	..	..	..	..
Business enterprise	47	..	..	6,627	414	7,088
Higher education	..	..	..	..	1,465	1,465
Private non-profit organizations	..	..	..	..	354	354
Foreign	..	..	..	1,334	56	1,390

**Note(s):** Components may not add to totals due to rounding. Quebec and Ontario figures include federal government expenditures on research and development performed in the National Capital Region. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D. Data for the National Capital Region (NCR) are now available in Appendix 1 at the end of this publication.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 6-7**  
**Provincial gross domestic expenditures on research and development, in the natural sciences and engineering**  
**— Manitoba**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Natural sciences</b>						
<b>Total</b>	<b>99</b>	<b>6</b>	<b>..</b>	<b>219</b>	<b>268</b>	<b>592</b>
Federal government	97	.	.	3	66	167
Provincial governments	0 <sup>s</sup>	6	..	2	22	29
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	205	19	225
Higher education	.	.	.	.	118	118
Private non-profit organizations	.	.	.	.	39	39
Foreign	.	.	.	9	5	13
<b>2010 Natural sciences</b>						
<b>Total</b>	<b>102</b>	<b>6</b>	<b>..</b>	<b>212</b>	<b>288</b>	<b>608</b>
Federal government	101	.	.	4	67	171
Provincial governments	0 <sup>s</sup>	6	..	1	26	33
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	186	29	217
Higher education	.	.	.	.	116	116
Private non-profit organizations	.	.	.	.	31	31
Foreign	.	.	.	22	18	40
<b>2009 Natural sciences</b>						
<b>Total</b>	<b>112</b>	<b>6</b>	<b>..</b>	<b>209</b>	<b>277</b>	<b>603</b>
Federal government	111	.	.	1	68	180
Provincial governments	0 <sup>s</sup>	6	..	1	21	28
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	201	17	219
Higher education	.	.	.	.	112	112
Private non-profit organizations	.	.	.	.	48	48
Foreign	.	.	.	6	10	15
<b>2008 Natural sciences</b>						
<b>Total</b>	<b>85</b>	<b>4</b>	<b>..</b>	<b>182</b>	<b>264</b>	<b>535</b>
Federal government	84	.	.	5	64	152
Provincial governments	0 <sup>s</sup>	4	..	0 <sup>s</sup>	17	22
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	163	19	183
Higher education	.	.	.	.	103	103
Private non-profit organizations	.	.	.	.	56	56
Foreign	.	.	.	13	5	18
<b>2007 Natural sciences</b>						
<b>Total</b>	<b>85</b>	<b>5</b>	<b>..</b>	<b>207</b>	<b>248</b>	<b>544</b>
Federal government	83	.	.	2	65	150
Provincial governments	0 <sup>s</sup>	5	..	1	16	21
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	.	..	180	24	205
Higher education	.	.	.	.	99	99
Private non-profit organizations	.	.	.	.	37	37
Foreign	.	.	.	25	7	32

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.



**Table 6-8**  
**Provincial gross domestic expenditures on research and development, in the natural sciences and engineering**  
**— Saskatchewan**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Natural sciences</b>						
<b>Total</b>	<b>63</b>	<b>4</b>	<b>16</b>	<b>179</b>	<b>236</b>	<b>498</b>
Federal government	61	.	0 <sup>s</sup>	8	64	133
Provincial governments	0 <sup>s</sup>	4	6	4	21	35
Provincial research organizations	.	.	4	.	.	4
Business enterprise	2	.	5	166	18	191
Higher education	.	.	.	.	117	117
Private non-profit organizations	.	.	0 <sup>s</sup>	.	16	16
Foreign	.	.	0 <sup>s</sup>	2	1	3
<b>2010 Natural sciences</b>						
<b>Total</b>	<b>67</b>	<b>20</b>	<b>19</b>	<b>150</b>	<b>271</b>	<b>528</b>
Federal government	65	.	1	3	74	144
Provincial governments	0 <sup>s</sup>	20	4	4	27	56
Provincial research organizations	.	.	5	.	.	5
Business enterprise	2	.	8	131	10	151
Higher education	.	.	.	.	122	122
Private non-profit organizations	.	.	0 <sup>s</sup>	.	38	38
Foreign	.	.	0 <sup>s</sup>	12	1	13
<b>2009 Natural sciences</b>						
<b>Total</b>	<b>72</b>	<b>30</b>	<b>18</b>	<b>155</b>	<b>252</b>	<b>526</b>
Federal government	70	.	1	3	87	160
Provincial governments	0 <sup>s</sup>	30	3	3	26	62
Provincial research organizations	.	.	5	.	.	5
Business enterprise	2	.	9	143	10	164
Higher education	.	.	.	.	114	114
Private non-profit organizations	.	.	0 <sup>s</sup>	.	13	13
Foreign	.	.	0 <sup>s</sup>	6	1	7
<b>2008 Natural sciences</b>						
<b>Total</b>	<b>64</b>	<b>4</b>	<b>12</b>	<b>146</b>	<b>251</b>	<b>477</b>
Federal government	62	.	0 <sup>s</sup>	2	70	134
Provincial governments	0 <sup>s</sup>	4	4	1	36	45
Provincial research organizations	.	.	..	.	.	..
Business enterprise	2	.	7	139	15	164
Higher education	.	.	.	.	110	110
Private non-profit organizations	.	.	0 <sup>s</sup>	.	20	20
Foreign	.	.	0 <sup>s</sup>	3	1	5
<b>2007 Natural sciences</b>						
<b>Total</b>	<b>63</b>	<b>5</b>	<b>11</b>	<b>194</b>	<b>188</b>	<b>461</b>
Federal government	62	.	0 <sup>s</sup>	6	59	127
Provincial governments	0 <sup>s</sup>	5	4	2	18	28
Provincial research organizations	.	.	..	.	.	..
Business enterprise	2	.	7	168	9	186
Higher education	.	.	.	.	88	88
Private non-profit organizations	.	.	..	.	13	13
Foreign	.	.	0 <sup>s</sup>	18	1	19

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 6-9**  
**Provincial gross domestic expenditures on research and development, in the natural sciences and engineering — Alberta**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Natural sciences</b>						
<b>Total</b>	<b>101</b>	<b>128</b>	<b>..</b>	<b>1,340</b>	<b>1,032</b>	<b>2,601</b>
Federal government	99	..	..	25	248	372
Provincial governments	0 <sup>s</sup>	128	..	10	191	329
Provincial research organizations	.	.	..	.	.	..
Business enterprise	2	..	..	1,265	95	1,361
Higher education	.	.	.	.	409	409
Private non-profit organizations	.	.	.	.	80	80
Foreign	.	..	..	40	10	49
<b>2010 Natural sciences</b>						
<b>Total</b>	<b>105</b>	<b>122</b>	<b>..</b>	<b>1,474</b>	<b>1,007</b>	<b>2,708</b>
Federal government	103	6	..	18	247	373
Provincial governments	0 <sup>s</sup>	63	..	11	192	266
Provincial research organizations	.	.	..	.	.	..
Business enterprise	2	53	..	1,409	83	1,547
Higher education	.	.	.	.	394	394
Private non-profit organizations	.	.	.	.	82	82
Foreign	.	..	..	36	10	45
<b>2009 Natural sciences</b>						
<b>Total</b>	<b>108</b>	<b>137</b>	<b>..</b>	<b>1,571</b>	<b>968</b>	<b>2,784</b>
Federal government	106	1	..	9	221	338
Provincial governments	0 <sup>s</sup>	88	..	10	199	297
Provincial research organizations	.	.	..	.	.	..
Business enterprise	2	47	..	1,478	81	1,608
Higher education	.	.	.	.	389	389
Private non-profit organizations	.	.	.	.	73	73
Foreign	.	..	..	74	4	78
<b>2008 Natural sciences</b>						
<b>Total</b>	<b>126</b>	<b>150</b>	<b>..</b>	<b>1,618</b>	<b>956</b>	<b>2,850</b>
Federal government	124	2	..	4	226	356
Provincial governments	0 <sup>s</sup>	108	..	18	210	336
Provincial research organizations	.	.	..	.	.	..
Business enterprise	2	40	..	1,522	87	1,651
Higher education	.	.	.	.	344	344
Private non-profit organizations	.	.	.	.	80	80
Foreign	.	..	..	74	10	84
<b>2007 Natural sciences</b>						
<b>Total</b>	<b>115</b>	<b>139</b>	<b>..</b>	<b>1,449</b>	<b>841</b>	<b>2,543</b>
Federal government	113	2	..	7	186	309
Provincial governments	0 <sup>s</sup>	99	..	5	194	298
Provincial research organizations	.	.	..	.	.	..
Business enterprise	1	38	..	1,340	83	1,462
Higher education	.	.	.	.	306	306
Private non-profit organizations	.	.	.	.	64	64
Foreign	.	..	..	96	8	104

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

**Table 6-10**  
**Provincial gross domestic expenditures on research and development, in the natural sciences and engineering**  
**— British Columbia**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Natural sciences</b>						
<b>Total</b>	<b>101</b>	<b>15</b>	..	<b>1,584</b>	<b>1,003</b>	<b>2,704</b>
Federal government	98	.	..	51	329	478
Provincial governments	0 <sup>s</sup>	15	..	14	87	116
Provincial research organizations	.	.	..	.	.	..
Business enterprise	3	..	..	1,323	75	1,402
Higher education	.	.	.	.	391	391
Private non-profit organizations	.	.	.	.	92	92
Foreign	.	.	.	196	31	227
<b>2010 Natural sciences</b>						
<b>Total</b>	<b>92</b>	<b>17</b>	..	<b>1,632</b>	<b>1,003</b>	<b>2,744</b>
Federal government	89	.	..	84	336	509
Provincial governments	0 <sup>s</sup>	17	..	20	89	127
Provincial research organizations	.	.	..	.	.	..
Business enterprise	3	..	..	1,316	66	1,385
Higher education	.	.	.	.	379	379
Private non-profit organizations	.	.	.	.	99	99
Foreign	.	.	.	211	33	244
<b>2009 Natural sciences</b>						
<b>Total</b>	<b>115</b>	<b>24</b>	..	<b>1,620</b>	<b>908</b>	<b>2,666</b>
Federal government	111	.	..	38	300	449
Provincial governments	0 <sup>s</sup>	24	..	17	91	132
Provincial research organizations	.	.	..	.	.	..
Business enterprise	3	..	..	1,340	57	1,400
Higher education	.	.	.	.	359	359
Private non-profit organizations	.	.	.	.	81	81
Foreign	.	.	.	226	20	246
<b>2008 Natural sciences</b>						
<b>Total</b>	<b>93</b>	<b>32</b>	..	<b>1,685</b>	<b>942</b>	<b>2,752</b>
Federal government	89	.	..	32	333	455
Provincial governments	0 <sup>s</sup>	32	..	6	107	145
Provincial research organizations	.	.	..	.	.	..
Business enterprise	3	..	..	1,334	53	1,390
Higher education	.	.	.	.	332	332
Private non-profit organizations	.	.	.	.	85	85
Foreign	.	.	.	313	31	344
<b>2007 Natural sciences</b>						
<b>Total</b>	<b>107</b>	<b>30</b>	..	<b>1,616</b>	<b>900</b>	<b>2,654</b>
Federal government	104	.	..	36	284	424
Provincial governments	0 <sup>s</sup>	30	..	29	107	166
Provincial research organizations	.	.	..	.	.	..
Business enterprise	3	..	..	1,181	49	1,234
Higher education	.	.	.	.	310	310
Private non-profit organizations	.	.	.	.	127	127
Foreign	.	.	.	370	23	394

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

**Table 6-11**  
**Provincial gross domestic expenditures on research and development, in the natural sciences and engineering — Yukon, Northwest Territories and Nunavut**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Natural sciences</b>						
<b>Total</b>	<b>2</b>	.	<b>3</b>	<b>4</b>	<b>3</b>	<b>11</b>
Federal government	2	.	0 <sup>s</sup>	..	2	5
Provincial governments	0 <sup>s</sup>	.	2	0 <sup>s</sup>	..	2
Provincial research organizations	.	.	..	.	.	..
Business enterprise	0 <sup>s</sup>	.	0 <sup>s</sup>	4	0 <sup>s</sup>	4
Higher education	.	.	.	.	.	.
Private non-profit organizations	.	.	0 <sup>s</sup>	.	1	1
Foreign	.	.	..	0 <sup>s</sup>	.	0 <sup>s</sup>
<b>2010 Natural sciences</b>						
<b>Total</b>	<b>6</b>	.	<b>2</b>	<b>4</b>	<b>2</b>	<b>15</b>
Federal government	6	.	1	..	0 <sup>s</sup>	7
Provincial governments	0 <sup>s</sup>	.	2	0 <sup>s</sup>	0 <sup>s</sup>	2
Provincial research organizations	.	.	..	.	.	..
Business enterprise	0 <sup>s</sup>	.	0 <sup>s</sup>	4	1	5
Higher education	.	.	.	.	.	.
Private non-profit organizations	.	.	..	.	1	1
Foreign	.	.	0 <sup>s</sup>	0 <sup>s</sup>	.	0 <sup>s</sup>
<b>2009 Natural sciences</b>						
<b>Total</b>	<b>5</b>	.	<b>1</b>	<b>6</b>	<b>0<sup>s</sup></b>	<b>12</b>
Federal government	5	.	1	0	0 <sup>s</sup>	6
Provincial governments	0 <sup>s</sup>	.	0 <sup>s</sup>	0 <sup>s</sup>	0 <sup>s</sup>	0 <sup>s</sup>
Provincial research organizations	.	.	..	.	.	..
Business enterprise	0 <sup>s</sup>	.	0 <sup>s</sup>	5	..	6
Higher education	.	.	.	.	.	.
Private non-profit organizations	.	.	..	.	0 <sup>s</sup>	0 <sup>s</sup>
Foreign	.	.	..	0 <sup>s</sup>	.	0 <sup>s</sup>
<b>2008 Natural sciences</b>						
<b>Total</b>	<b>4</b>	.	<b>16</b>	<b>6</b>	<b>0<sup>s</sup></b>	<b>26</b>
Federal government	3	.	3	..	0 <sup>s</sup>	6
Provincial governments	0 <sup>s</sup>	.	1	..	0 <sup>s</sup>	1
Provincial research organizations	.	.	..	.	.	..
Business enterprise	0 <sup>s</sup>	.	11	6	..	17
Higher education	.	.	.	.	.	.
Private non-profit organizations	.	.	1	.	0 <sup>s</sup>	1
Foreign	.	.	0 <sup>s</sup>	1	.	1
<b>2007 Natural sciences</b>						
<b>Total</b>	<b>4</b>	.	<b>34</b>	<b>15</b>	<b>0<sup>s</sup></b>	<b>54</b>
Federal government	4	.	1	0	0 <sup>s</sup>	5
Provincial governments	0 <sup>s</sup>	.	1	0 <sup>s</sup>	0 <sup>s</sup>	1
Provincial research organizations	.	.	..	.	.	..
Business enterprise	0 <sup>s</sup>	.	32	10	..	42
Higher education	.	.	.	.	.	.
Private non-profit organizations	.	.	..	.	..	..
Foreign	.	.	..	5	.	5

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 7**  
**National gross domestic expenditures on research and development, in the social sciences and humanities, Canada**

Funding sector	Performing sector						Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	Private non-profit organizations	
millions of dollars							
<b>2013 P Social sciences</b>							
<b>Total</b>	<b>212</b>	<b>37</b>	..	..	<b>2,397</b>	<b>5</b>	<b>2,651</b>
Federal government	212	..	..	..	523	1	736
Provincial governments	..	37	..	..	247	1	285
Provincial research organizations	..	..	..	..	..	..	..
Business enterprise	..	..	..	..	53	0 <sup>s</sup>	53
Higher education	..	..	..	..	1,374	..	1,374
Private non-profit organizations	..	..	..	..	200	2	202
Foreign	..	..	..	..	..	1	1
<b>2012 P Social sciences</b>							
<b>Total</b>	<b>213</b>	<b>38</b>	..	..	<b>2,374</b>	<b>4</b>	<b>2,629</b>
Federal government	213	..	..	..	518	1	731
Provincial governments	..	38	..	..	245	1	284
Provincial research organizations	..	..	..	..	..	..	..
Business enterprise	..	..	..	..	52	..	52
Higher education	..	..	..	..	1,361	..	1,361
Private non-profit organizations	..	..	..	..	198	2	200
Foreign	..	..	..	..	..	1	1
<b>2011 Social sciences</b>							
<b>Total</b>	<b>229</b>	<b>40</b>	..	..	<b>2,347</b>	<b>5</b>	<b>2,621</b>
Federal government	229	..	..	..	512	1	742
Provincial governments	..	40	..	..	242	1	283
Provincial research organizations	..	..	..	..	..	..	..
Business enterprise	..	..	..	..	52	0 <sup>s</sup>	52
Higher education	..	..	..	..	1,346	..	1,346
Private non-profit organizations	..	..	..	..	196	2	198
Foreign	..	..	..	..	..	1	1
<b>2010 r Social sciences</b>							
<b>Total</b>	<b>280</b>	<b>42</b>	..	..	<b>2,299</b>	<b>9</b>	<b>2,630</b>
Federal government	280	..	..	..	518	1	800
Provincial governments	..	42	..	..	239	3	284
Provincial research organizations	..	..	..	..	..	..	..
Business enterprise	..	..	..	..	39	0 <sup>s</sup>	39
Higher education	..	..	..	..	1,321	..	1,321
Private non-profit organizations	..	..	..	..	183	3	185
Foreign	..	..	..	..	..	2	2
<b>2009 r Social sciences</b>							
<b>Total</b>	<b>216</b>	<b>38</b>	..	..	<b>2,177</b>	<b>8</b>	<b>2,439</b>
Federal government	216	..	..	..	480	2	698
Provincial governments	..	38	..	..	229	1	268
Provincial research organizations	..	..	..	..	..	..	..
Business enterprise	..	..	..	..	42	0 <sup>s</sup>	42
Higher education	..	..	..	..	1,257	..	1,257
Private non-profit organizations	..	..	..	..	169	4	173
Foreign	..	..	..	..	..	1	1
<b>2008 r Social sciences</b>							
<b>Total</b>	<b>211</b>	<b>37</b>	..	..	<b>2,215</b>	<b>10</b>	<b>2,474</b>
Federal government	211	..	..	..	469	2	682
Provincial governments	..	37	..	..	221	1	259
Provincial research organizations	..	..	..	..	..	..	..
Business enterprise	..	..	..	..	37	0 <sup>s</sup>	37
Higher education	..	..	..	..	1,315	..	1,315
Private non-profit organizations	..	..	..	..	174	8	182
Foreign	..	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

Table 7 – continued

**National gross domestic expenditures on research and development, in the social sciences and humanities, Canada**

Funding sector	Performing sector						Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	Private non-profit organizations	
millions of dollars							
<b>2007 † Social sciences</b>							
<b>Total</b>	<b>172</b>	<b>34</b>	..	..	<b>2,062</b>	<b>13</b>	<b>2,281</b>
Federal government	172	..	..	..	448	1	621
Provincial governments	..	34	..	..	207	2	242
Provincial research organizations	..	..	..	..	..	..	..
Business enterprise	..	..	..	..	37	0 <sup>s</sup>	37
Higher education	..	..	..	..	1,206	..	1,206
Private non-profit organizations	..	..	..	..	165	10	175
Foreign	..	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
<b>2006 Social sciences</b>							
<b>Total</b>	<b>156</b>	<b>31</b>	..	..	<b>1,911</b>	<b>15</b>	<b>2,113</b>
Federal government	156	..	..	..	401	1	559
Provincial governments	..	31	..	..	199	2	232
Provincial research organizations	..	..	..	..	..	..	..
Business enterprise	..	..	..	..	33	0 <sup>s</sup>	33
Higher education	..	..	..	..	1,133	..	1,133
Private non-profit organizations	..	..	..	..	145	11	156
Foreign	..	..	..	..	..	0 <sup>s</sup>	1
<b>2005 Social sciences</b>							
<b>Total</b>	<b>124</b>	<b>28</b>	..	..	<b>1,891</b>	<b>10</b>	<b>2,054</b>
Federal government	124	..	..	..	416	2	543
Provincial governments	..	28	..	..	195	2	224
Provincial research organizations	..	..	..	..	..	..	..
Business enterprise	..	..	..	..	30	1	30
Higher education	..	..	..	..	1,111	..	1,111
Private non-profit organizations	..	..	..	..	139	7	146
Foreign	..	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
<b>2004 Social sciences</b>							
<b>Total</b>	<b>118</b>	<b>24</b>	..	..	<b>1,778</b>	<b>5</b>	<b>1,926</b>
Federal government	118	..	..	..	377	1	497
Provincial governments	..	24	..	..	208	1	233
Provincial research organizations	..	..	..	..	..	..	..
Business enterprise	..	..	..	..	27	1	28
Higher education	..	..	..	..	1,037	..	1,037
Private non-profit organizations	..	..	..	..	129	2	131
Foreign	..	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
<b>2003 Social sciences</b>							
<b>Total</b>	<b>120</b>	<b>24</b>	..	..	<b>1,599</b>	<b>6</b>	<b>1,749</b>
Federal government	120	..	..	..	336	1	457
Provincial governments	..	24	..	..	204	2	230
Provincial research organizations	..	..	..	..	..	..	..
Business enterprise	..	..	..	..	25	1	26
Higher education	..	..	..	..	920	..	920
Private non-profit organizations	..	..	..	..	114	1	115
Foreign	..	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

**Table 8-1**  
**Provincial gross domestic expenditures on research and development, in the social sciences and humanities**  
**— Newfoundland and Labrador**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Social sciences</b>						
<b>Total</b>	..	..	..	..	57	57
Federal government	..	..	..	..	11	11
Provincial governments	..	..	..	..	5	5
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	33	33
Private non-profit organizations	..	..	..	..	8	8
Foreign	..	..	..	..	..	..
<b>2010 Social sciences</b>						
<b>Total</b>	..	..	..	..	40	40
Federal government	..	..	..	..	9	9
Provincial governments	..	..	..	..	1	1
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	28	28
Private non-profit organizations	..	..	..	..	3	3
Foreign	..	..	..	..	..	..
<b>2009 Social sciences</b>						
<b>Total</b>	..	..	..	..	36	36
Federal government	..	..	..	..	8	8
Provincial governments	..	..	..	..	1	1
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	24	24
Private non-profit organizations	..	..	..	..	3	3
Foreign	..	..	..	..	..	..
<b>2008 Social sciences</b>						
<b>Total</b>	..	0 <sup>s</sup>	..	..	37	37
Federal government	..	..	..	..	8	8
Provincial governments	..	0 <sup>s</sup>	..	..	2	2
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	23	23
Private non-profit organizations	..	..	..	..	4	4
Foreign	..	..	..	..	..	..
<b>2007 Social sciences</b>						
<b>Total</b>	..	0 <sup>s</sup>	..	..	36	37
Federal government	..	..	..	..	10	10
Provincial governments	..	0 <sup>s</sup>	..	..	1	2
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	21	21
Private non-profit organizations	..	..	..	..	4	4
Foreign	..	..	..	..	..	..

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 8-2**  
**Provincial gross domestic expenditures on research and development, in the social sciences and humanities**  
**— Prince Edward Island**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Social sciences</b>						
<b>Total</b>	..	0 <sup>s</sup>	..	..	12	13
Federal government	..	..	..	..	4	4
Provincial governments	..	0 <sup>s</sup>	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	7	7
Private non-profit organizations	..	..	..	..	1	1
Foreign	..	..	..	..	..	..
<b>2010 Social sciences</b>						
<b>Total</b>	..	0 <sup>s</sup>	..	..	12	12
Federal government	..	..	..	..	4	4
Provincial governments	..	0 <sup>s</sup>	..	..	0 <sup>s</sup>	1
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	7	7
Private non-profit organizations	..	..	..	..	1	1
Foreign	..	..	..	..	..	..
<b>2009 Social sciences</b>						
<b>Total</b>	..	..	..	..	12	12
Federal government	..	..	..	..	4	4
Provincial governments	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	8	8
Private non-profit organizations	..	..	..	..	1	1
Foreign	..	..	..	..	..	..
<b>2008 Social sciences</b>						
<b>Total</b>	..	..	..	..	12	12
Federal government	..	..	..	..	4	4
Provincial governments	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	7	7
Private non-profit organizations	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Foreign	..	..	..	..	0 <sup>s</sup>	..
<b>2007 Social sciences</b>						
<b>Total</b>	..	..	..	..	9	9
Federal government	..	..	..	..	3	3
Provincial governments	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	5	5
Private non-profit organizations	..	..	..	..	..	..
Foreign	..	..	..	..	..	..

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.



**Table 8-3**  
**Provincial gross domestic expenditures on research and development, in the social sciences and humanities — Nova Scotia**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	..	..	..	<b>85</b>	<b>85</b>
Federal government	0 <sup>s</sup>	..	..	..	18	18
Provincial governments	..	..	..	..	2	2
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	1	1
Higher education	..	..	..	..	63	63
Private non-profit organizations	..	..	..	..	1	1
Foreign	..	..	..	..	..	..
<b>2010 Social sciences</b>						
<b>Total</b>	<b>2</b>	..	..	..	<b>83</b>	<b>85</b>
Federal government	2	..	..	..	19	21
Provincial governments	..	..	..	..	2	2
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	1	1
Higher education	..	..	..	..	60	60
Private non-profit organizations	..	..	..	..	1	1
Foreign	..	..	..	..	..	..
<b>2009 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	..	..	..	<b>85</b>	<b>85</b>
Federal government	0 <sup>s</sup>	..	..	..	19	19
Provincial governments	..	..	..	..	2	2
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	1	1
Higher education	..	..	..	..	63	63
Private non-profit organizations	..	..	..	..	1	1
Foreign	..	..	..	..	..	..
<b>2008 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	..	..	..	<b>81</b>	<b>81</b>
Federal government	0 <sup>s</sup>	..	..	..	19	19
Provincial governments	..	..	..	..	2	2
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	59	59
Private non-profit organizations	..	..	..	..	1	1
Foreign	..	..	..	..	..	..
<b>2007 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	..	..	..	<b>77</b>	<b>77</b>
Federal government	0 <sup>s</sup>	..	..	..	16	16
Provincial governments	..	..	..	..	1	1
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	1	1
Higher education	..	..	..	..	56	56
Private non-profit organizations	..	..	..	..	3	3
Foreign	..	..	..	..	..	..

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 8-4**  
**Provincial gross domestic expenditures on research and development, in the social sciences and humanities**  
**— New Brunswick**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	..	..	..	<b>50</b>	<b>50</b>
Federal government	0 <sup>s</sup>	..	..	..	8	8
Provincial governments	..	..	..	..	1	1
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	39	39
Private non-profit organizations	..	..	..	..	1	1
Foreign	..	..	..	..	..	..
<b>2010 Social sciences</b>						
<b>Total</b>	<b>3</b>	..	..	..	<b>49</b>	<b>52</b>
Federal government	3	..	..	..	9	11
Provincial governments	..	..	..	..	1	1
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	38	38
Private non-profit organizations	..	..	..	..	2	2
Foreign	..	..	..	..	..	..
<b>2009 Social sciences</b>						
<b>Total</b>	<b>1</b>	<b>4</b>	..	..	<b>52</b>	<b>57</b>
Federal government	1	..	..	..	11	12
Provincial governments	..	4	..	..	1	5
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	38	38
Private non-profit organizations	..	..	..	..	1	1
Foreign	..	..	..	..	..	..
<b>2008 Social sciences</b>						
<b>Total</b>	<b>1</b>	<b>3</b>	..	..	<b>49</b>	<b>53</b>
Federal government	1	..	..	..	10	11
Provincial governments	..	3	..	..	1	4
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	37	37
Private non-profit organizations	..	..	..	..	2	2
Foreign	..	..	..	..	..	..
<b>2007 Social sciences</b>						
<b>Total</b>	..	<b>2</b>	..	..	<b>47</b>	<b>49</b>
Federal government	..	..	..	..	9	9
Provincial governments	..	2	..	..	1	3
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	35	35
Private non-profit organizations	..	..	..	..	2	2
Foreign	..	..	..	..	..	..

**Note(s):** CComponents may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

**Table 8-5**  
**Provincial gross domestic expenditures on research and development, in the social sciences and humanities — Quebec**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Social sciences</b>						
<b>Total</b>	<b>13</b>	<b>26</b>	..	..	<b>548</b>	<b>588</b>
Federal government	13	..	..	..	126	139
Provincial governments	..	26	..	..	74	100
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	29	29
Higher education	..	..	..	..	265	265
Private non-profit organizations	..	..	..	..	54	54
Foreign	..	..	..	..	..	..
<b>2010 Social sciences</b>						
<b>Total</b>	<b>21</b>	<b>29</b>	..	..	<b>559</b>	<b>608</b>
Federal government	21	..	..	..	130	150
Provincial governments	..	29	..	..	75	104
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	18	18
Higher education	..	..	..	..	283	283
Private non-profit organizations	..	..	..	..	54	54
Foreign	..	..	..	..	..	..
<b>2009 Social sciences</b>						
<b>Total</b>	<b>15</b>	<b>22</b>	..	..	<b>482</b>	<b>519</b>
Federal government	15	..	..	..	118	134
Provincial governments	..	22	..	..	70	92
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	20	20
Higher education	..	..	..	..	225	225
Private non-profit organizations	..	..	..	..	49	49
Foreign	..	..	..	..	..	..
<b>2008 Social sciences</b>						
<b>Total</b>	<b>14</b>	<b>21</b>	..	..	<b>532</b>	<b>567</b>
Federal government	14	..	..	..	114	128
Provincial governments	..	21	..	..	50	70
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	14	14
Higher education	..	..	..	..	304	304
Private non-profit organizations	..	..	..	..	50	50
Foreign	..	..	..	..	..	..
<b>2007 Social sciences</b>						
<b>Total</b>	<b>11</b>	<b>22</b>	..	..	<b>518</b>	<b>551</b>
Federal government	11	..	..	..	126	137
Provincial governments	..	22	..	..	51	73
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	14	14
Higher education	..	..	..	..	283	283
Private non-profit organizations	..	..	..	..	43	43
Foreign	..	..	..	..	..	..

**Note(s):** Components may not add to totals due to rounding. Quebec and Ontario figures include federal government expenditures on research and development performed in the National Capital Region. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D. Data for the National Capital Region (NCR) are now available in Appendix 1 at the end of this publication.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 8-6**  
**Provincial gross domestic expenditures on research and development, in the social sciences and humanities — Ontario**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Social sciences</b>						
<b>Total</b>	<b>210</b>	<b>5</b>	..	..	<b>973</b>	<b>1,188</b>
Federal government	210	..	..	..	205	415
Provincial governments	..	5	..	..	81	86
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	17	17
Higher education	..	..	..	..	594	594
Private non-profit organizations	..	..	..	..	76	76
Foreign	..	..	..	..	..	..
<b>2010 Social sciences</b>						
<b>Total</b>	<b>247</b>	<b>5</b>	..	..	<b>955</b>	<b>1,208</b>
Federal government	247	..	..	..	214	462
Provincial governments	..	5	..	..	79	84
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	15	15
Higher education	..	..	..	..	576	576
Private non-profit organizations	..	..	..	..	71	71
Foreign	..	..	..	..	..	..
<b>2009 Social sciences</b>						
<b>Total</b>	<b>199</b>	<b>6</b>	..	..	<b>912</b>	<b>1,116</b>
Federal government	199	..	..	..	187	387
Provincial governments	..	6	..	..	72	78
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	17	17
Higher education	..	..	..	..	566	566
Private non-profit organizations	..	..	..	..	69	69
Foreign	..	..	..	..	..	..
<b>2008 Social sciences</b>						
<b>Total</b>	<b>196</b>	<b>6</b>	..	..	<b>921</b>	<b>1,122</b>
Federal government	196	..	..	..	176	372
Provincial governments	..	6	..	..	80	86
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	18	18
Higher education	..	..	..	..	571	571
Private non-profit organizations	..	..	..	..	75	75
Foreign	..	..	..	..	..	..
<b>2007 Social sciences</b>						
<b>Total</b>	<b>160</b>	<b>5</b>	..	..	<b>851</b>	<b>1,016</b>
Federal government	160	..	..	..	171	331
Provincial governments	..	5	..	..	71	76
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	18	18
Higher education	..	..	..	..	518	518
Private non-profit organizations	..	..	..	..	73	73
Foreign	..	..	..	..	..	..

**Note(s):** Components may not add to totals due to rounding. Quebec and Ontario figures include federal government expenditures on research and development performed in the National Capital Region. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D. Data for the National Capital Region (NCR) are now available in Appendix 1 at the end of this publication.

**Table 8-7**  
**Provincial gross domestic expenditures on research and development, in the social sciences and humanities**  
**— Manitoba**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Social sciences</b>						
<b>Total</b>	<b>4</b>	<b>4</b>	..	..	<b>83</b>	<b>91</b>
Federal government	4	..	..	..	14	18
Provincial governments	..	4	..	..	5	9
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	1	1
Higher education	..	..	..	..	55	55
Private non-profit organizations	..	..	..	..	7	7
Foreign	..	..	..	..	..	..
<b>2010 Social sciences</b>						
<b>Total</b>	<b>5</b>	<b>4</b>	..	..	<b>74</b>	<b>83</b>
Federal government	5	..	..	..	13	18
Provincial governments	..	4	..	..	6	10
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	1	1
Higher education	..	..	..	..	50	50
Private non-profit organizations	..	..	..	..	3	3
Foreign	..	..	..	..	..	..
<b>2009 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	<b>3</b>	..	..	<b>77</b>	<b>80</b>
Federal government	0 <sup>s</sup>	..	..	..	15	15
Provincial governments	..	3	..	..	5	7
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	51	51
Private non-profit organizations	..	..	..	..	5	5
Foreign	..	..	..	..	..	..
<b>2008 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	<b>5</b>	..	..	<b>70</b>	<b>76</b>
Federal government	0 <sup>s</sup>	..	..	..	12	12
Provincial governments	..	5	..	..	4	9
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	46	46
Private non-profit organizations	..	..	..	..	9	9
Foreign	..	..	..	..	..	..
<b>2007 Social sciences</b>						
<b>Total</b>	..	<b>1</b>	..	..	<b>66</b>	<b>67</b>
Federal government	..	..	..	..	12	12
Provincial governments	..	1	..	..	4	5
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	43	43
Private non-profit organizations	..	..	..	..	6	6
Foreign	..	..	..	..	..	..

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 8-8**  
**Provincial gross domestic expenditures on research and development, in the social sciences and humanities**  
**— Saskatchewan**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	<b>2</b>	<b>..</b>	<b>..</b>	<b>53</b>	<b>55</b>
Federal government	0 <sup>s</sup>	..	..	..	10	10
Provincial governments	..	2	..	..	5	7
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	37	37
Private non-profit organizations	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Foreign	..	..	..	..	..	..
<b>2010 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	<b>1</b>	<b>..</b>	<b>..</b>	<b>57</b>	<b>58</b>
Federal government	0 <sup>s</sup>	..	..	..	13	13
Provincial governments	..	1	..	..	7	8
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	36	36
Private non-profit organizations	..	..	..	..	1	1
Foreign	..	..	..	..	..	..
<b>2009 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	<b>1</b>	<b>..</b>	<b>..</b>	<b>58</b>	<b>60</b>
Federal government	0 <sup>s</sup>	..	..	..	15	15
Provincial governments	..	1	..	..	7	8
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	36	36
Private non-profit organizations	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Foreign	..	..	..	..	..	..
<b>2008 Social sciences</b>						
<b>Total</b>	<b>..</b>	<b>1</b>	<b>..</b>	<b>..</b>	<b>63</b>	<b>64</b>
Federal government	..	..	..	..	17	17
Provincial governments	..	1	..	..	9	10
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	36	36
Private non-profit organizations	..	..	..	..	1	1
Foreign	..	..	..	..	..	..
<b>2007 Social sciences</b>						
<b>Total</b>	<b>..</b>	<b>1</b>	<b>..</b>	<b>..</b>	<b>42</b>	<b>42</b>
Federal government	..	..	..	..	8	8
Provincial governments	..	1	..	..	4	5
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Higher education	..	..	..	..	29	29
Private non-profit organizations	..	..	..	..	0 <sup>s</sup>	0 <sup>s</sup>
Foreign	..	..	..	..	..	..

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 8-9**  
**Provincial gross domestic expenditures on research and development, in the social sciences and humanities — Alberta**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	<b>1</b>	..	..	<b>220</b>	<b>221</b>
Federal government	0 <sup>s</sup>	..	..	..	43	43
Provincial governments	..	1	..	..	47	48
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	2	2
Higher education	..	..	..	..	112	112
Private non-profit organizations	..	..	..	..	16	16
Foreign	..	..	..	..	..	..
<b>2010 Social sciences</b>						
<b>Total</b>	<b>2</b>	<b>1</b>	..	..	<b>219</b>	<b>222</b>
Federal government	2	..	..	..	40	42
Provincial governments	..	1	..	..	47	49
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	4	4
Higher education	..	..	..	..	110	110
Private non-profit organizations	..	..	..	..	17	17
Foreign	..	..	..	..	..	..
<b>2009 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	<b>1</b>	..	..	<b>218</b>	<b>220</b>
Federal government	0 <sup>s</sup>	..	..	..	39	39
Provincial governments	..	1	..	..	49	51
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	1	1
Higher education	..	..	..	..	113	113
Private non-profit organizations	..	..	..	..	15	15
Foreign	..	..	..	..	..	..
<b>2008 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	<b>1</b>	..	..	<b>215</b>	<b>216</b>
Federal government	0 <sup>s</sup>	0 <sup>s</sup>	..	..	47	47
Provincial governments	..	0 <sup>s</sup>	..	..	48	49
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	0 <sup>s</sup>	..	..	3	3
Higher education	..	..	..	..	104	104
Private non-profit organizations	..	..	..	..	13	13
Foreign	..	..	..	..	..	..
<b>2007 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	<b>2</b>	..	..	<b>195</b>	<b>198</b>
Federal government	0 <sup>s</sup>	..	..	..	42	42
Provincial governments	..	2	..	..	47	49
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	3	3
Higher education	..	..	..	..	94	94
Private non-profit organizations	..	..	..	..	10	10
Foreign	..	..	..	..	..	..

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

Gross Domestic Expenditures on Research and Development in Canada (GERD), and the Provinces – National estimates 2003 to 2013 and Provincial estimates 2007 to 2011

**Table 8-10**  
**Provincial gross domestic expenditures on research and development, in the social sciences and humanities**  
**— British Columbia**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	<b>1</b>	..	..	<b>272</b>	<b>273</b>
Federal government	0 <sup>s</sup>	..	..	..	74	75
Provincial governments	..	1	..	..	22	23
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	1	1
Higher education	..	..	..	..	140	140
Private non-profit organizations	..	..	..	..	33	33
Foreign	..	..	..	..	1	1
<b>2010 Social sciences</b>						
<b>Total</b>	<b>1</b>	<b>1</b>	..	..	<b>260</b>	<b>262</b>
Federal government	1	..	..	..	68	70
Provincial governments	..	1	..	..	23	24
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	1	1
Higher education	..	..	..	..	134	134
Private non-profit organizations	..	..	..	..	32	32
Foreign	..	..	..	..	2	2
<b>2009 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	<b>1</b>	..	..	<b>252</b>	<b>254</b>
Federal government	0 <sup>s</sup>	..	..	..	66	66
Provincial governments	..	1	..	..	23	24
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	1	1
Higher education	..	..	..	..	133	133
Private non-profit organizations	..	..	..	..	28	28
Foreign	..	..	..	..	1	1
<b>2008 Social sciences</b>						
<b>Total</b>	<b>0<sup>s</sup></b>	<b>1</b>	..	..	<b>245</b>	<b>246</b>
Federal government	0 <sup>s</sup>	..	..	..	63	63
Provincial governments	..	1	..	..	27	27
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	1	1
Higher education	..	..	..	..	129	129
Private non-profit organizations	..	..	..	..	26	26
Foreign	..	..	..	..	..	..
<b>2007 Social sciences</b>						
<b>Total</b>	<b>1</b>	<b>1</b>	..	..	<b>235</b>	<b>237</b>
Federal government	1	..	..	..	51	52
Provincial governments	..	1	..	..	27	28
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	1	1
Higher education	..	..	..	..	121	121
Private non-profit organizations	..	..	..	..	35	35
Foreign	..	..	..	..	0 <sup>s</sup>	..

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.



**Table 8-11**  
**Provincial gross domestic expenditures on research and development, in the social sciences and humanities — Yukon, Northwest Territories and Nunavut**

Funding sector	Performing sector					Total
	Federal government	Provincial governments	Provincial research organizations	Business enterprise	Higher education	
millions of dollars						
<b>2011 Social sciences</b>						
<b>Total</b>	0 <sup>s</sup>	..	..	..	..	0 <sup>s</sup>
Federal government	0 <sup>s</sup>	..	..	..	..	0 <sup>s</sup>
Provincial governments	..	..	..	..	..	..
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	..	..
Private non-profit organizations	..	..	..	..	..	..
Foreign	..	..	..	..	..	..
<b>2010 Social sciences</b>						
<b>Total</b>	0 <sup>s</sup>	..	..	..	..	0 <sup>s</sup>
Federal government	0 <sup>s</sup>	..	..	..	..	0 <sup>s</sup>
Provincial governments	..	..	..	..	..	..
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	..	..
Private non-profit organizations	..	..	..	..	..	..
Foreign	..	..	..	..	..	..
<b>2009 Social sciences</b>						
<b>Total</b>	..	..	..	..	..	..
Federal government	..	..	..	..	..	..
Provincial governments	..	..	..	..	..	..
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	..	..
Private non-profit organizations	..	..	..	..	..	..
Foreign	..	..	..	..	..	..
<b>2008 Social sciences</b>						
<b>Total</b>	0 <sup>s</sup>	..	..	..	..	0 <sup>s</sup>
Federal government	0 <sup>s</sup>	..	..	..	..	0 <sup>s</sup>
Provincial governments	..	..	..	..	..	..
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	..	..
Private non-profit organizations	..	..	..	..	..	..
Foreign	..	..	..	..	..	..
<b>2007 Social sciences</b>						
<b>Total</b>	..	..	..	..	..	..
Federal government	..	..	..	..	..	..
Provincial governments	..	..	..	..	..	..
Provincial research organizations	..	..	..	..	..	..
Business enterprise	..	..	..	..	..	..
Higher education	..	..	..	..	..	..
Private non-profit organizations	..	..	..	..	..	..
Foreign	..	..	..	..	..	..

**Note(s):** Components may not add to totals due to rounding. The private non-profit (PNP) sector appears in both the performing and funding sector for the gross domestic expenditure on research and development (GERD) for Canada. Commencing with reference year 2000 the data for the private non-profit sector performing research and development are not distributed by provinces or territories. The national totals of research and development by performing sector include the PNP sector. The data for the private non-profit sector funding research and development continue to be distributed by provinces and territories. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D.

# How to read the gross domestic expenditures on research and development (GERD) matrix

---

**Introduction to GERD terminology** - Research and development expenditures in Canada are estimated annually by type of sector, by sources of funds and by science type using a series of surveys supplemented by modelling:

- Type of sector – Research and development (R&D) expenditures can be spent by organizations within six sectors in Canada: federal government organizations; provincial government organizations; provincial research organizations; business enterprises; higher education organizations (including universities and affiliated teaching hospitals); and private non-profit organizations.
- Sources of funds – Intramural research and development (R&D) expenditures are spent within organizations performing the R&D. The organizations can fund their own R&D or undertake R&D on behalf of other organizations. The R&D performing organizations indicate the source of funds, by sector, for their intramural R&D expenditures. In the GERD matrix, the source of funds data are shown by funding sector.
- Science type – Research and development (R&D) expenditures are spent by organizations performing in either the natural sciences and engineering or the social sciences and humanities. Only intramural R&D expenditures in the natural sciences and engineering for the provincial research organisations and business enterprises are included in the GERD.

Organizations of any type can perform and/or fund R&D at any time. GERD data include intramural R&D expenditures only. Therefore, the payments of organisations for R&D performed by other organisations, or extramural R&D expenditures, are not included.

**Definition of GERD** - Gross domestic expenditures on Research and Development (GERD) is the total value of *intramural* research and development expenditures (R&D) of all organizations in *performing* sectors. As there are two dimensions to the reporting of R&D expenditures (by performing sector and by funding sector) the data are presented in a matrix. GERD data are based on the source of funds provided by the performing sector.

**Tabular results** - The table below contains total R&D expenditures for each of the performing sectors' columns (federal government, provincial governments, provincial research organizations, business enterprises, higher education and private non-profit organizations).

Each of the performing sectors indicates the funding sectors for their intramural R&D expenditures. This is an important distinction because it explains the financial sources of performers' R&D activities. The funding sectors include all of the performing sectors and foreign sources of funds.

**Data sources used to populate the tabular results** - Federal government intramural R&D expenditures are estimated by the annual Federal Science Expenditure and Personnel survey. Intramural R&D expenditures represent spending on R&D performed by federal departments and agencies. As the GERD matrices within the publication indicate, federal departments and agencies receive funding for intramural R&D performance from provincial governments and from the business enterprise sector.

The provincial governments' intramural R&D expenditures are derived from annual provincial surveys of scientific activities. The surveys are conducted on a cost-shared basis, and are collected under the authority of the provincial governments, which means each province can choose when to participate. Survey-based expenditures for the most recent reference year are available for the following provinces: Newfoundland and Labrador, New Brunswick, Ontario, Manitoba, Alberta and British Columbia. The provincial government of Quebec conducts a survey of its intramural R&D activities which it shares with Statistics Canada to construct the GERD matrix.

The annual survey of the Research and Development Activities of Provincial Research Organizations is the source of expenditure data displayed in the column for provincial research organizations.

The annual survey of Research and Development in Canadian Industry is the source of the business enterprise sector's R&D expenditure data.

An estimation model is used to populate R&D intramural expenditures for the higher education sector.

The annual survey of Research and Development in Private Non-Profit Organizations provides national R&D expenditure data for this sector.

**Reference documents** - Users interested in total R&D spending for a sector such as the federal government are referred to the intramural and extramural R&D spending published in Science Statistics (88-001-X), and Federal Scientific Activities (88-204-X).

**Tabulation notes** - Funding sector R&D expenditures shown in the GERD matrix do not equal extramural R&D spending of individual funding sectors for a number of reasons including: differences in financial years of the organisations funding the R&D and the organisations performing the R&D; the time it takes to perform the R&D; organisations sub-contracting parts of the R&D work to organisations in other sectors; payments for work that is related to the R&D but not part of the contracted R&D; differences in the costs of performing the R&D and the payments for the R&D work; and R&D performing organisations not indicating accurately their sources of funds by funding sector.

GERD data are presented separately for total sciences, for natural sciences and engineering, and for social sciences and humanities. Total sciences is the sum of natural sciences and engineering and social sciences and humanities. Only natural sciences and engineering data are collected and published for the business enterprise sector and provincial research organizations.

GERD data presented in these matrix tables are used to compare Canada's R&D performance internationally. They are assembled based on guidelines presented in the Organisation for Economic Co-operation and Development's *Frascati Manual* (2002). For a graphical representation similar to the one shown below, see page 122 of the manual.

This table is for reference purposes only.

# Data sources and methodology

---

## Definitions

Gross domestic expenditure on research and development (GERD) is a statistical series, constructed by adding together the intramural expenditures on research and development (R&D) as reported by the performing sectors. As a term used by OECD Member countries, it is defined as "total intramural expenditure on R&D performed on the national territory during a given period. GERD includes R&D performed within a country and funded from abroad but excludes payments for R&D performed abroad".<sup>1</sup> GERD is constructed by adding together the intramural expenditures of the performing sectors.

GERD is often displayed as a matrix of performing and funding sectors. The GERD and GERD matrix are fundamental to the national and international examination of R&D expenditures.

The matrix illustrates three aspects of a country's R&D effort:

- it shows how much R&D each sector performed over a 12-month period;
- it shows the amount of R&D each sector financed over a 12-month period (as indicated by the R&D performing sector); and
- it indicates the flow of funds between sectors.

The GERD is an indicator of science and technology (S&T) activities; it is appropriately used as a summary of R&D activities and the basic flow of funds. General guidelines to follow when using a summary statistical series such as the GERD, include:

- Such series provide only a summary of very complex patterns of activities. The series should, therefore, be used in conjunction with other relevant information;
- Users generally refer to R&D data with a question in mind: "Is our national university research effort declining?" "Does my firm spend a higher proportion of its funds on R&D than the average for my industry?" etc. It is, therefore, necessary to identify the basic data relevant to each question in order to know which R&D indicator is best suited to answering the question. The user should keep in mind that the data used for the R&D indicator may be accurate enough to answer one question but not another.

## Provincial estimates of GERD

In a country as large as Canada it is useful to have a general idea of where R&D activities are located to indicate the level of scientific and technical endeavour in a particular area and to use the statistics in association with other provincial data. For these reasons, an estimate of the provincial distribution of the Canadian GERD has been prepared.

The definition of GERD in a provincial context is similar to that provided above.

The expenditures are assigned to the province in which the performing establishment is located. Personnel may live in an adjoining province (e.g., the National Capital Region) and materials and equipment will often come from another province or country; these factors must be taken into consideration when using GERD as a provincial indicator of S&T activity.

---

1. The Measurement of Scientific and Technological Activities - Proposed Standard Practice for Surveys of Research and Experimental Development, Frascati Manual 2002. OECD, Paris, 2002, p. 121.

The funding shown is of R&D carried out in a province; it is not R&D funding from a province. For example, when the federal government is shown as the funder for R&D in a province, the funds are received from the central government and are to be spent on R&D in an establishment in that province. The federal government, of course, raises funds from many sources, outside of that province. Similarly, when R&D is shown as being funded by the business enterprise sector, the funds are not necessarily raised from activities within the province. Most provincial governments provide minimal funding towards federal government performance, so statistical zeros are applied.

The provincial and territorial R&D expenditures for the business enterprise sector are collected on the Research and Development in Canadian Industry Survey. This survey does not collect sources of funds by province or territory. The provincial and territorial distribution by sources of funds of the business enterprise sector R&D expenditures is derived through a modeling system, which prorates values based on reported business enterprise provincial and territorial R&D. The provincial and territorial distribution of total R&D is proportionally distributed to the reported national sources of funds.

## Limitations of GERD

The GERD, like any other social or economic statistic, can only be approximately true. Different components are of different accuracy: sector estimates probably vary from 5% to 15% in accuracy. However, the GERD estimates are sufficiently reliable for their main use as an aggregate indicator for science policy.

One of the most important problems relating to GERD concerns its definition. There remains some ambiguity in defining precisely what constitutes R&D or, for example, in a continuing project, determining the precise point at which the project passes the boundary of R&D and becomes exploitation of a process or product on which it may be said that the R&D stage has been completed. This ambiguity is perhaps less serious in internal time series, where it may be expected that the year-to-year application of the definitions by the same reporting units are at least consistent.

A second difficulty arises with regards to survey design. The people best qualified to apply the R&D definitions and classifications - scientific and technical personnel engaged in the direct management of S&T activity - rarely participate in the statistical agency's data collection process. Because the data collected are concerned not with scientific and technical content, but financial and labour inputs to achieving this content, the questionnaires tend to be addressed to and completed by financial and management staff. This is a fundamental problem of all surveys addressed to large organizations, whether they are public or private.

These two problems account for the limited amount of geographic and scientific detail in the published GERD. The amount of detail presented, for example, in the Canadian GERD as published by Statistics Canada is limited by the nature of the surveys, and the other data collection and analysis instruments. Nor is it possible to increase the amount of detail because this would require switching to new kinds of data collection instruments in a vastly expanded survey operation.

Another reason for the limited detail about sectors stems from the fact that R&D is often a secretive endeavour. Private sector companies usually want to surprise competitors with a new product. Thus the money spent on the R&D may be reported, but details about R&D projects would not. Similarly, a government department such as National Defence might report R&D expenditures but not the nature and detail of the respective R&D projects.

To summarize, the GERD serves as a general indicator of R&D activity and not as a detailed inventory of R&D projects within an organization, sector, or province. It is an estimate and as such can show trends in R&D expenditures by sector and sub-sector, by province and country, from year-to-year. In this capacity, the GERD estimates are sufficiently reliable for their main use as an aggregate indicator for science policy.

## R&D performers and funders categorized

### Sectoring

Considering that the GERD is the aggregate of the total R&D expenditures of the performing sectors, it is useful now to look at these sectors individually. Sectors are reviewed in terms of an international (OECD) framework for measuring R&D expenditures. There are four major sectors of R&D performance and five for funding:

- Government;
- Business enterprises;
- Higher education;
- Private non-profit organizations;
- Foreign (funding only).

The sectors for the GERD, as chosen and defined by the OECD, are based largely on existing United Nations classifications and in particular, the System for National Accounts (SNA). Under the general heading of "Institutional classifications", the OECD approach focuses on the characteristic properties of the performing and funding institutions. Each statistical unit is classified according to its principal economic activity and, consequently, the whole of the R&D resources of the unit classified are allocated to one sector or sub-sector.

### Government

The OECD definition of this sector is: "All departments, offices and other bodies which furnish, but normally do not sell to the community, those common services, other than higher education, which cannot otherwise be conveniently and economically provided, as well as those that administer the state and the economic and social policy of the community. (Public enterprises are included in the business enterprise sector)".<sup>2</sup>

Public enterprises such as Petro-Canada and Ontario Hydro are excluded from this sector and included in the business enterprise sector. Many non-profit organizations and bodies, however, are included in this sector if they either serve or are controlled by government, or both.

In Canada the distribution of GERD amongst the government sub-sectors is published. The sub-sectors are the federal government, the provincial governments and the provincial research organizations (PRO's). Currently Canada has seven PRO's. They are the New Brunswick Research and Productivity Council, the "Centre de recherche industrielle du Québec (CRIQ)", the Industrial Technology Centre (Manitoba), the Saskatchewan Research Council, the Northern Research Institute (Yukon), the Nunavut Research Institute and the Aurora Research Institute (Northwest Territory).

### Business enterprise

This sector is composed of all firms, organizations and institutions whose primary activity is the production of goods or services for sale to the general public at a price intended approximately to cover at least the cost of production as well as non-profit institutes serving such firms. Included are government-owned enterprises such as Ontario Hydro and Canadian National Railways.

---

2. Ibid., p. 62.

## Higher education

This sector is composed of all universities, colleges of technology and other institutes of post-secondary education, whatever their source of finance or legal status. It also includes all research institutes, experimental stations and clinics operating **under the direct control of or administered by** higher education establishments.

A major source of data for the HERD estimation model is the Canadian Association of University Business Officers (CAUBO) Financial Information on Universities and Colleges (FIUC) survey. Of particular importance is sponsored research.

## Private non-profit organizations

This sector comprises private or semi-private organizations which are not established primarily with the aim of making a profit.

It consists of voluntary associations (scientific and professional societies, health-oriented groups), philanthropic foundations and research institutes supported by the associations and foundations. These kinds of institutions are usually maintained by fees, dues and donations from members and sponsors and by grants from governments and enterprises. They may also obtain revenue from the sale of their products such as publications or special studies.

Non-profit institutes and organizations excluded from this sector are those which are controlled by enterprises, government, or higher education. Such non-profit institutes and organizations are included with the respective sectors whose interests they mainly serve.

The PNP sector appears in both the performing and funding sector for the GERD for Canada. Commencing with reference year 2000, the data for the PNP sector performing research and development are not distributed by provinces, territories or the NCR. However, the national totals of research and development by performing sector include the PNP sector. The PNP sector continues to be distributed for the funding sector.

## Foreign

This sector consists of: "All institutions and individuals located outside the political borders of a country, except vehicles, ships, aircraft and space satellites operated by domestic entities and testing grounds acquired by such entities."<sup>3</sup>

This sector also includes all international organizations (except business enterprises), including facilities and operations within the country's borders. Foreign-owned subsidiaries are not included in this sector (e.g., Ford Canada is, for the purposes for measuring R&D expenditures, a domestic organization in the Canadian business enterprise sector, even though its parent company is the Ford Motor Company of the United States).

The foreign sector is included in the GERD only as a funding sector (see matrix), since by definition the GERD includes R&D performed within a country and **funded from abroad** but excludes payments made abroad for R&D. Thus, funding from the foreign sector is implicitly included in the intramural expenditures of the four performing sectors.

## Science type

### Definition of natural sciences and engineering

The natural sciences and engineering field embraces the disciplines of study concerned with understanding, exploring, developing or utilizing the natural world. Included are the engineering, mathematical, life and physical sciences.

---

3. Op cit., p.72.

### **Definition of social sciences and humanities**

The social sciences and humanities field embraces all disciplines involved in studying human actions and conditions and the social, economic and institutional mechanisms affecting humans. Included are such disciplines as anthropology, demography, economics, geography, history, languages, literature and linguistics, law, library science, philosophy, political science, psychology, religious studies, social work, sociology, and urban and regional studies.



# Appendix I

## National Capital Region table

Text table A

Gross domestic expenditures on research and development - National Capital Region (NCR) Quebec/Ontario

	National Capital Region		Total
	Quebec	Ontario	
	millions of dollars		
<b>Total sciences</b>			
2007	58	1,076	1,134
2008	105	1,041	1,146
2009	108	1,118	1,227
2010	64	1,270	1,334
2011	75	1,179	1,254
<b>Natural sciences and engineering</b>			
2007	48	919	968
2008	93	851	944
2009	96	925	1,021
2010	53	1,033	1,085
2011	64	970	1,034
<b>Social sciences and humanities</b>			
2007	10	157	166
2008	12	191	202
2009	12	194	206
2010	12	237	249
2011	11	208	219