Integrated Business Statistics Program (IBSP)

# 2018 Annual Survey of Research and Development Expenditures and Personnel in Canadian Higher Education Sector Organizations

#### CONFIDENTIAL once completed.

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This information is collected under the authority of the *Statistics Act*, Fevised Statistes of Canada, 1985, Chapter S-19.

COMPLETION OF THIS QUESTIONNAIRE IS A LEGAL REQUIREMENT UNDER THIS ACT.

## Introduction

#### Survey purpose

This survey's purpose is to collect information on the scientific activities of higher education sector organization in Canada. This sector is composed of all universities colleges of technology and other institutions providing formal tertiary education programs, as well as all research institutes, centres, experimental stations and clinics that are affiliated with higher education institutions.

The research and development expenditures and personnel information is used by federal provincial and tentitorial governments and agencies, a arientics and international organizations for statistical arraiys es and policy purposes.

Your information may also be used by Statistics Canada for other statistical and research purposes.

# Security of emails and exes

Statistics Canada advises you that there could be a risk of disclosure during facsimile of email. However upon receipt, Statistics Canada will provide the guaranteed level of protection afforded all information collected under the authority of the Statistics Act.

**Note:** Our unline questionnaires are secure, there is no risk of data interception when responding to Statistics Canada online su veys.

#### Confidentiality

The Statistics Act protects the confidentiality of information collected by Statistics Canada.

## **Data-sharing agreements**

To reduce respondent burden, Statistics Canada has entered into data-sharing agreements with provincial and territorial statistical agencies and other government organizations, which have agreed to keep the data confidential and use them only for statistical purposes.

Information on confidentiality, data-sharing agreements and record linkages can be found on the last page of this questionnaire.

# Please return the questionnaire within 21 days.

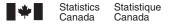
Please mail the completed questionnaire in the enclosed envelope or fax it to Statistics Canada at 1-888-883-7999.

If you are unable to complete within 21 days **or** if you need help, call us at **1-877-604-7828** or **TTY 1-800-363-7629**.

Statistics Canada
Operations and Integration Division
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Ottawa, Ontario K1A 0T6

Visit our website, www.statcan.gc.ca

5-3600-5109.1: 2019-08-06





В	usiness or organization and contact informa	ation
1.	Verify or provide the business or organization's legal and op Note: Legal name modifications should only be done to correct a spelling error	
	Legal name	Operating name (if applicable)
2.	Verify or provide the contact information of the designated and correct where needed.  Note: The designated contact person is the person who should receive this qu	business or organization <b>contact person</b> for this questionnaire
	actually completes the questionnaire.	
	First name	Last name
	Title	Preferred language of communication
		English
	Mailing address (number and street)	\(\sigma_1\)\(\sig
	City	Province, territory of state
	Postal code or ZIP code Example: A9A 9A9 or 12345-1234	<b>40</b>
	Country	
	Email address	
	Example: user@example.gov.ca	
	Telephone number (including area lode)  Extension (if applica	n number
	(ii applice	
	Fax number (including area code) Example: 123-123-1234	

3. <b>Verify or provide the current operational status</b> of the business or organization identified by the legal and operating name above.  800323
¹ Operational → Go to question 4
Not currently operational  e.g., temporarily or permanently closed, change of ownership
Why is this business or organization not currently operational?
<sup>2</sup> Seasonal operations → Go to question 3a
<sup>3</sup> Ceased operations → Go to question 3b
<sup>4</sup> Sold operations → Go to question 3c
<sup>5</sup> Amalgamated with other businesses or organizations → Go to question 3d
6 Temporarily inactive but will re-open → Go to question 3e
No longer operating due to other reasons → Go to question > St
3a. Seasonal operations
When did this business or organization close for the season?
Date  YYYY MM DD  Date
When does this business or organization expect to resume operations?  Date  → So to question 4
3b. Ceased operations
When did this business or organization cease operations?
Date B00211
Why did this business or organization cease operations?
<sup>1</sup> Bankruptcy
<sup>2</sup> Liquidation
<sup>3</sup> Dissolution → Go to question 4
Other Specify the other reasons why the operations ceased  B00312
<b>→</b>

3c.	Sold operations	
	When was this business or organization sold?  YYYY MM DD	
	Date	
	Date	
	What is the legal name of the buyer?	
	800406	
		→ Go to question 4
3d.	Amalgamated with other businesses or organizations	
	When did this business or organization amalgamate?  YYYY MM DD	
	Date	
	Date	2
	What is the legal name of the resulting or continuing business or organization?	
	B00407	
	What are the legal names of the other amalgamated businesses or organizations?	
	B00408	
		→ Go to question 4
0		
3e.	Temporarily inactive but will re-open	
	When did this business or organization become temporarily inactive?	
	B00214	
	Date	
	When does this business or organization expect to resume operations?	
	800215	
	Date	
	Why is this business or croanization temporarily inactive?	
	B00313	
		→ Go to question 4
3f.	No longer operating due to other reasons	
	When did this business or organization cease operations?	
	YYYY MM DD 800216	
	Date	
	Why did this business or organization cease operations?	
	B00314	

4.	Verify or provide the current main activity of the business or organization identified by the legal and operating name.  Note: The described activity was assigned using the North American Industry Classification System (NAICS).
	This is the current main activity → Go to next section
	This <b>is not</b> the current main activity  Provide a <b>brief but precise description</b> of this business or organization's <b>main activity e.g.,</b> breakfast cereal manufacturing, shoe store, software development  B05003
5.	Was this business or organization's main activity ever classified as:
	B05111
	¹ Yes ² No → Go to next section
6.	When did the main activity change?
	Date  YYYY MM DD
	Date
	ani 15

# Reporting instructions

- Please print in ink.
- Report dollar amounts in thousands of Canadian dollars.
- Exclude sales tax.
- Percentages should be rounded to whole numbers.
- Exclude sales tax.
- Report dollar amounts rounded to the nearest dollar.
- Consult the reporting guide at www.statcan.gc.ca/guides-e for further information.
- If this organization performs in-house research and development (R&D) and makes payments for R&D performed by other organizations, complete all questions.
- If this organization performs in-house research and development (R&D) and does not make payments for R&D performed by other organizations, complete questions 1 9, 11, 12 22.
- If this organization makes payments for R&D performed by other organizations and does not perform in-house R&D, complete questions 1 7, 9 11, 16, 20 22.
- If this organization does not perform in-house R&D and does not make payments for R&D performed by other organizations, complete questions 1 7, 9, 11, 16, 20 22.

Cł	naracteristics	
Re	porting period	
	YYYY	MM DD
1.	What is the end date of this organization's fiscal year?	
	Note: For this survey, this organization's fiscal year end date should fall on or before August 31	, 2019.
	Here are some examples of fiscal periods that fall within the targeted dates:	
	May 1, 2017 to <b>April 30, 2018</b> July 1, 2017 to <b>June 30, 2018</b> October 1, 2017 to <b>September 30, 2018</b> January 1, 2018 to <b>December 31, 2018</b> February 1, 2018 to <b>January 31, 2019</b> April 1, 2018 to <b>March 31, 2019</b>	
	*THIS FISCAL YEAR WILL BE REFERRED TO AS 2018 THROUGHOUT THE QUESTIONNAIRE*	
Or	ganization status	
2.	What is this organization's business number? (e.g., GST number or charitable registration number)	
3.	Is this organization affiliated with a hospital, a university or a government agency or department?	
	B30006 1 Yes	
	<sup>2</sup> No	<b>CAN\$ '000</b> E40001
4.	In 2018, what were this organization is "otal expenditures within Canada? (If precise figures are not available, please provide your best estimate)	\$ ,000
5.	In 2018, what were this organization's total wages and salaries within Canada? (If precise figures are not available, please provide your best estimate)	F61525 \$ ,000
6.	In 2018, what was the average number of employees in full-time equivalents (FTE) within Canada for this organization?	Number of employees
	(If precise figures are not a vailable, please provide your best estimate in full-time equivalents (FTE))	•
Fo	r this survey	
	'In-house R&D' refers to	
	Expenditures within Canada for R&D performed within this organization by:  • employees (permanent, temporary or casual)  • self-employed individuals or contractors who are working on-site on this organization's R&D pr	ojects.
	'Payments for R&D performed by other organizations' refers to	
	Payments made within or outside Canada to other organizations, individuals or companies to fur  • grants • fellowships • contracts.	nd <b>R&amp;D</b> performance:

witl	<b>2018, 2019 and 2020,</b> did this organization I hin Canada?	nave or does	it plan to have	expenditures for R&	D perfo	ormed in-house
	<b>clude</b> payments for <b>R&amp;D</b> performed by others ( <b>e.</b> question 10.	<b>g.</b> , funding, gra	nts or contracted	d out <b>R&amp;D</b> expenditure	s), which	should be reported
	Yes					
	No <b>Go to question 9</b>					
	2018, 2019 and 2020, what are this organization Canada?	ation's actual	and planned e	xpenditures for <b>R&amp;D</b>	perfor	med in-house
	ase report all amounts in thousands of Canadian port '0' for no R&D expenditures.	n dollars.				
·	·	Made in	2018	Planned in 2019		Planned in 2020
	rrent in-house R&D expenditures hin Canada	CAN\$	'000	CAN\$ '000	X	CAN\$ '000
a.	Wages, salaries of permanent, temporary and casual <b>R&amp;D</b> employees <b>Include</b> fringe benefits	E45077_sr1	000	1 0 k		
b.	Services to support <b>R&amp;D</b> Include services of self-employed individuals or contractors who are working on-site on this organization's <b>R&amp;D</b> projects.  Exclude contracted out or granted expenditures to other organizations to perform <b>R&amp;D</b> (report in question 10)	E45077_sr2		24		
c.	R&D materials	\$	,000			
d.	All other current <b>R&amp;D</b> costs <b>Include</b> overhead costs	E4507 _sr4	,000			
	Total current in-house RNL expenditures within Canada	E45050	,000 \$	E45079	000 \$	E45082
	pital in-house R&D expenditures					
	hin Canada	E45078_sr1				
e.	Software  Exclude capital depresiation	\$	,000			
f.	Land	E45078_sr2				
	Exclude capital depreciation	E45078_sr3	,000			
g.	Buildings and structures  Exclude capital depreciation	£43076_513	,000			
h.	Equipment, machinery and	E45078_sr4				
	all other capital  Exclude capital depreciation	\$	,000			
	Total capital in-house R&D	E45060	000 (	E45081	nnn \$	E45083
	expenditures within Canada	<b>5</b>	,000 \$	,	000 \$	,00

Pa	yme	ents for R&D performed by other organizations						
9.	Incl	1018, did this organization make payments to other organizations to ude: • funding or grants provided to other organizations to perform R&D • contracted out expenditures for R&D.  Ilude services of self-employed individuals or contractors who are working on a reported earlier as part of in-house R&D expenditures in question 8.						
	B05152	<sup>2</sup> -ψ¹  Yes						
		No ▶ Go to question 11						
10.	Plea	018, what were this organization's R&D payments to other organiz ase report all amounts in thousands of Canadian dollars.  Ort '0' for no R&D expenditures.	ati	ons within Canada o	r ou	tsi	de Canada?	
				Within Canada			Outside Canad	la
			5	CAN\$ (000) E46096_sr1			<b>CAN\$ '000</b>	
	a.	Companies	\$	, ( E-196-12	000	\$	E43039_sr2	,000
	b.	Private non-profit organizations	\$	,( \$46096 sr3	000	\$	F40000 and	,000
	c.	Industrial research institutes or associations	\$	_	000	\$	E43039_sr3  E43039_sr4	,000
	d.	Hospitals	\$		000	\$	E43039_sr5	,000
	e.	Universities	\$	,( E46096_sr6	000	\$		,000
	f.	Federal government departments and agencies	\$	,( E46096_sr7	000			
	g.	Provincial or territorial government departments, ministries and adoncies	\$		000			
	h.	Provincial or territorial research organizations	\$	,(	000			
	i.	Other organizations e.g., individuals, non-university educational institutions, foreign governments	\$	E46096_sr9	000	\$	E43039_sr6	,000
		2018 – Total payments for R&D performed by other organizations	\$	E46210	00	\$	E43030	,000
11.	or c	2019 and 2020, what are this organization's planned payments to ot outside Canada?	hei	r organizations to <b>pe</b>	rforı	n I	R&D within Canad	la
	Rep	ort '0' for no R&D expenditures.		Within Canada			Outside Canad	la
				E46097			E43041	
		2019 – Total payments for R&D performed by other organizations	\$	,(	000	\$		,000

2020 – Total payments for R&D performed by other organizations

E46098

E43042

,000 \$

# Geographic distribution of in-house R&D expenditures within Canada in 2018

12. **In 2018**, how were this organization's total expenditures for **R&D performed in-house** distributed by province or territory? Report all amounts **in thousands of Canadian dollars**.

Exclude: • payments for R&D performed by others (e.g., funding, grants or contracted out R&D expenditures), which should be reported at question 10

• capital depreciation.

			Current in-house R&D expenditures	Capital in-house R&D expenditures	
			CAN\$ '000		CAN\$ '000
			E45077_g1		E45078_g1
a.	Newfoundland and Labrador	\$	,000	\$	,000
			E45077_g2		E45078_g2
b.	Prince Edward Island	\$	,000	\$	,000
			E45077_g3		E45078_g3
c.	Nova Scotia	\$	,0.0,	\$	,000
			L 5077_g4	Ф	E45078_g4
d.	New Brunswick	\$	,000	\$	,000
		φ		\$	E45078_g5
e.	Quebec	Ф	,000	Ф	,000 E45078 q6
r	Outside		,000	\$	,000
f.	Ontario		E45077_g7	Ψ	E45078_g7
g.	Manitoba	\$	,000	\$	,000
9.	Wallioba	Ψ	E45077_g8	Ψ	E45078_g8
h.	Saskatchewan	\$	,000	\$	,000
			E45077_g9		E45078_g9
i.	Alberta	\$	,000	\$	,000
	,		E45077_g10		E45078_g10
j.	British Columbia	\$	,000	\$	,000
			E45077_g11		E45078_g11
k.	Yukon	\$	,000	\$	,000
			E45077_g12		E45078_g12
l.	Northwest Territories	\$	,000	\$	,000
			E45077_g13		E45078_g13
m.	Nunavut	\$	,000	\$	,000
			E45100		E45110
	2018 - Total current and capital in-house R&D expenditures	\$	,000	\$	,000
			<b>A</b>		<b>A</b>
			Should equal total current		Should equal total capital
			in-house R&D expenditures		in-house R&D expenditures
			from question 8		from question 8

	ase report all amounts in thousands of Canadian dollars.  ude Canadian and foreign sources.						
EXC	<ul> <li>• payments for R&amp;D performed by others (e.g., funding, grants or contracted out R&amp;D expenditures), which should be reported at question 10</li> </ul>		From within	Canada		From outside Ca	ınada
	capital depreciation.		CAN\$	000		CAN\$ '000	
a.	Funds from this organization		E64047			E63037	
	Include interest payments, fundraising and other income	. \$	E65048	,000	\$	E63038	,00
b.	Companies	\$		,000	\$		.00
C.	Federal government grants or funding	. Ψ	E64048	,000	Ψ		,00
	<b>Include R&amp;D</b> grants or funding or <b>R&amp;D</b> portion only of other grants or funding	\$		,000			
d.	Federal government contracts	Φ	E65049				
	Include R&D contracts or R&D portion only of other contracts	. Þ	7				
	ographic distribution of provincial or territorial governm	ei.t	grants or	undir g and	pr	rovincial or ter	ritori
90	reminent contracts	go	Provincial or	territorial		Provincial or terr	
	, O	<b>3</b> -	C.KN\$			CAN\$ '000	
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		- 4049_g1			E65051_g1:	
e.	Newfoundland and Labrador	9	E64049_g2	,000	\$	E65051_g2	,00
,	B: 51 111 1	\$	L04043_g2	000	\$	L03031_gz	00
f.	Prince Edward Island	Ф	E64049_g3:	,000	Ф	E65051_g3	,00
~	Nova Scotia	\$		,000	\$		.00
g.	Nova Scotia	Ψ	E64049_g4	,,000	Ψ	E65051_g4	,00
h.	New Brunswick	\$		,000	\$		.00
			E64049_g5			E65051_g5	
i.	Quebec	\$		,000	\$		,00
	12, 12,		E64049_g6			E65051_g6	
i.	Ontario	\$		,000	\$		,00
			E64049_g7			E65051_g7	
k.	Manitoba	\$		,000	\$		,00
			E64049_g8:			E65051_g8	
l.	Saskatchewan	\$		,000	\$		,00
			E64049_g9			E65051_g9	
m.	Alberta	\$	FC4040 =10	,000	\$	F0F0F1 +10	,00
		Φ.	E64049_g10		Φ.	E65051_g10	
n.	British Columbia	\$	E64049_g11	,000	\$	E65051_g11	,00
	Voltage	Φ		000	Φ		00
0.	Yukon	\$	E64049_g12	,000	\$	E65051_g12	,00
_	Nowth west Tawitavias	Φ		000	Φ		00
p.	Northwest Territories	\$	E64049_g13	,000	\$	E65051_g13	,00

ae. GST number (9-digit business number (BN) or charitable registration number)  Organization name  ###################################	Funds	from private non-profit organizations		
ae. GST number (9-digit business number (BN) or charitable registration number)  Organization name  Briting and  Briting and			From within Canada	From outside Canada
af. GST number (9-digit business number (BN) or charitable registration number)  Organization name  BYTHE ACC  ORGANIZATION NAME  ACC  ORGANIZATION NAME  ACC  DEBOME ACC  BESSEZ ACC  BESSEZ ACC  DEBOME AC				
af. GST number (9-digit business number (BN) or charitable registration number)  BY1013 yrd  Organization name  BY1013 yrd  ag. GST number (9-digit business number (BN) or charitable registration number)  BY1013 yrd  Corpanization name  BY1013 yrd  An. Other sources  e.g., universities foreign givernments, individuals  \$ 0,000  2018 - Total in-house R&D expenditures by sources of funds by origin (sum of questions a. to ah.)  \$ 0,000  E60000  E	ae.	or charitable registration number)		
or charitable registration number)  Briefs _mcs  Crganization name  Briefs _mcs  GST number (9-digit business number (BN) or charitable registration number)  Briefs _mcs  Bri				
or charitable registration number)  Briefs _mcs  Crganization name  Briefs _mcs  GST number (9-digit business number (BN) or charitable registration number)  Briefs _mcs  Bri				
ag. GST number (9-digit business number (BN) or charitable registration number)  B71013_mc5  B50052_mc3  B50052_mc3  B50052_mc3  B50008_mc3  B50008_mc	af.	or charitable registration number)	E65052 nc2	
or charitable registration number)  E65092_nc3  Corganization name  B71013_nc5  An. Other sources e.g., universities, foreign governments, individuals.  E64051  E65092_nc3  E		Organization name B71013_nc4	X O	Ψ ,,,,,,,,
or charitable registration number)  E65092_nc3  Corganization name  B71013_nc5  An. Other sources e.g., universities, foreign governments, individuals.  E64051  E65092_nc3  E	20	GST number (0 digit business number (RN)	PK.	
ah. Other sources e.g., universities, foreign governments, individuals.  2018 - Total in-house R&D expenditures by sources of funds by origin (sum of questions a. to ah.)  2018 - Total in-house R&D expenditures (Canadian and foreign sources)	ay.	or charitable registration number)		
ah. Other sources e.g., universities, foreign governments, individuals		Organization name B71013_nc6	Ψ ,000	,,000
ah. Other sources e.g., universities, foreign governments, individuals		160,01	FRANCE	50004
2018 - Total in-house R&D expenditures by sources of funds by origin (sum of questions a. to ah.)	ah.			
2018 - Total in-house R&D expenditures (Canadian and foreign sources)			Φ.	
(should equal total in-house R&D expenditures from question 8)				
		(should equal total in-house R&D expenditures from q	uestion 8)	\$ ,000

uis	<b>2018,</b> how were this organization's <b>total expenditures</b> for <b>R&amp;D performed in-house</b> within Canastributed by fields of research and development?	da	
	ease report all amounts in thousands of Canadian dollars.		
	<ul> <li>eport '0' for no R&amp;D expenditures.</li> <li>cclude: • payments for R&amp;D performed by others (e.g., funding, grants or contracted out R&amp;D expenditures), which should be reported at question 10</li> </ul>		
	capital depreciation.	CAN\$ '000	
M	edical and health sciences	E45084_y1	
a.	Basic medicine	\$	,000
		E45084_y2	
b.	Clinical medicine	\$	,000
		E45084_y3	
c.	Health sciences	\$	,000
		E45084_y4	
d.	Medical biotechnology	\$	,000
		E45084_y5	
e.	Other medical sciences	\$	,000
		E45120	
	Total medical and health sciences in-house R&D expenditures	\$	,000
	$\sim$		
Ot	ther fields of research and development	E45085	
f.	Natural and formal sciences	\$	,000
		E45086	
g.	Engineering and technology	\$	,000
		E45087	
h.	Software-related sciences and technologies	\$	,000
		E45088	
i.	Agricultural sciences	\$	,000
		E45089	
j.	Social sciences and humanities	\$	,000
	2018 - Total in-house Fox Expenditures within Canada	E45130	
	by field of research and development		
	(should equal total in nouse R&D expenditures from question 8) (sum of questions a. to j.)	\$	,000

## Nature of R&D for in-house R&D expenditures within Canada in 2018

15. **In 2018,** how were this organization's **total expenditures** for **R&D performed in-house** within Canada distributed by nature of **R&D**?

**Basic research** is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view.

**Applied research** is original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific, practical aim or objective.

**Experimental development** is systematic work, drawing on knowledge gained from research and practical experience and producing additional knowledge, which is directed to producing new products or processes or to improving existing products or processes.

		R&D expenditures
		E45091_y1
a.	Basic research	%
	7 6.	E45091_y2
b.	Applied research	%
		E45091_y3
c.	Experimental development	%
		E45140
		1 0 0 %
	Total percentage	/0

# Results of R&D expenditures from 2016 to 2018

16. During the three (3) years 2016, 2017 and 2019, did this gardzation's total expenditures for R&D performed in-house and payments for R&D made within or outside Canada lead to new or significant improvements to the following?

		162		NO
a.	Goods Include goods developed through next knowledge from research discoveries	B10033 1	2	
b.	Services Include on going knowledge transfer to physicians, first responders, patients and the general public	B10034 1	2	
C.	Methods of manufacturing or producing goods and services	B10035 1	2	
d.	Logistics, delivery or distribution methods for this organization's inputs, goods or services	B10036 1	2	
e.	Supporting activities for this organization's processes, such as maintenance systems or operations for purchasing, accounting or computing.	B10037 1	2	

Percentage

# In-house R&D personnel in 2018

17. **In 2018,** how many **in-house R&D personnel** within Canada did this organization have in the following **R&D** occupations? Please report in **full-time equivalents (FTE)**.

Include on-site consultants and contractors in line e.

#### Full-time equivalent (FTE)

**R&D** may be carried out by persons who work solely on **R&D** projects or by persons who devote only part of their time to **R&D**, and the balance to other activities such as testing, quality control and production engineering. To arrive at the total effort devoted to **R&D** in terms of personnel, it is necessary to estimate the full-time equivalent of these persons working only part-time in **R&D**.

Full-time equivalent (FTE) = Number of persons who work solely on R&D projects + the time of persons working only part of their time on R&D.

**Example calculation:** If out of four scientists engaged in **R&D** work, one works solely on **R&D** projects and the remaining three devote only one quarter of their working time to **R&D**, then: FTE = 1 + 1/4 + 1/4 + 1/4 = 1.75 scientists.

	Res	searchers and research managers	Number of full-time equivalents
	a.	Scientists, social scientists, engineers and researchers Include software developers and programmers	B20045_y1
	b.	Senior research managers	
		Total researchers and research managers	B20045_y3 ●
	R&E	O technical, administrative and support staff	
	C.	Technicians, technologists and research assistants Include software technicians	B20045_y4
	d.	Other <b>R&amp;D</b> technical, administrative and support staff	
		Total R&D technical, ad nin strative and support staff	B20045_y6
		er R&D occupations	B20045_y7
	e.	On-site R&L concultants and contractors	● B20040
		Total in-house RaD prrsonnel within Canada (sum of questions a. to e.)	
8	Of tl	his organization's total in-house R&D personnel reported above, what percentage	Percentage B20046
Ο.		formed software-related activities?	%

19. In 2018, how were the total in-house R&D personnel distributed by province or territory? Please report in full-time equivalents (FTE). Number of Number of R&D technical, Number of on-site researchers and administrative and **R&D** consultants research managers support staff and contractors B20048\_g1 B20047\_g1 B20049\_g1 Newfoundland and Labrador . . . . . . B20047\_g2 B20048\_g2 B20049\_g2 Prince Edward Island ..... B20047\_g3 B20048\_g3 B20049\_g3 Nova Scotia ..... B20047\_g4 B20048\_g4 B20048\_g4 New Brunswick ..... B20047\_g5 B20049\_g5 B20048\_g5 B20047\_g6 B20049\_g6 B20047\_g7 B20049\_g7 Manitoba ..... B20049\_g8 B20047 a8 Saskatchewan ..... B20048\_g9 B20049\_g9 B20048\_g10 B20049\_g10 British Columbia. B20048\_g11 B20049\_g11 Yukon 20047\_g12 B20048\_g12 B20049\_g12 Northwest Territoria B20047\_g13 B20048\_g13 B20049\_g13 Nunavut B20050 B20060 B20070 **Total in-house R&D** personnel within Canada Should equal Should equal Should equal total researchers total R&D technical, total on-site and research administrative consultants managers and support staff and contractors from question 17 from question 17 from question 17

# Technology and technical assistance payments in 2018

20. **In 2018**, how much did this organization **pay to other organizations** for technology and technical assistance? Report all amounts **in thousands of Canadian dollars**.

Report '1' for payments made between \$1 and \$999.

			Payments made within Canada	•		Payments made outside Canada	
Pay	ments made to affiliated organizations		<b>CAN\$ '000</b> E46099_pc1			<b>CAN\$ '000</b> E43043_pc1	
a.	Patents	\$	E46099_pc2	,000	\$	E43043_pc2	,000
).	Copyrights	\$	E46099_pc3	,000	\$	E43043_pc3	,000
	Trademarks	\$		,000	\$		,00
l.	Industrial designs	\$	E46099_pc4	,000	\$	E43043_pc4	,00
٠.	Integrated circuit topography	\$	E46099_pc5	,000	\$	E43043_pc5	,00
	Original software	\$	E46099_pc6	.00.	\$	E43043_pc6	.00
	Packaged or off-the-shelf software	\$	E46.790 µC7	,000	\$	E43043_pc7	.00
J.			515099_pc8		*	E43043_pc8	
١.	Databases (useful life exceeding one year) Other technology and technical assistance	•	E46099_pc9	,000	\$	E43043_pc9	,00
	Include technical assistance, industrial processes and know-how	¢	E46220	,000	\$	E43040	,00
	Total payments made to affiliated organizations (sum of questions a. to i.)	\$	240220	.000	\$	243040	,00
Pay	ments made to other organization; companies or in lividua	als	E46101_pc1			E43044_pc1	
	Patents	\$	E46101_pc2	,000	\$	E43044_pc2	,00
ί.	Copyrights	\$	E46101_pc3	,000	\$	E43044_pc3	,00
	Trademarks	\$	E46101_pc4	,000	\$	E43044_pc4	,00
n.	Industrial designs	\$		,000	\$		,00
١.	Integrated circuit top graphy	\$	E46101_pc5	,000	\$	E43044_pc5	,00
).	Original software	\$	E46101_pc6	,000	\$	E43044_pc6	,00
).	Packaged or off-the-shelf software	\$	E46101_pc7	,000	\$	E43044_pc7	,00
1.	Databases (useful life exceeding one year)	\$	E46101_pc8	,000	\$	E43044_pc8	,00
ı.	Other technology and technical assistance	т	E46101_pc9	,000	_	E43044_pc9	,00
	Include technical assistance, industrial processes and know-how	\$	E46230	,000	\$	E43050	,00
	Total payments made to other organizations, companies or individuals (sum of question j. to r.) .	\$		,000	\$	2.3000	,00
To	otal payments made to other organizations		E46260			E43060	
	r technology and technical assistance um of question a. to r.)	\$		,000	\$		,00

		Payments from withir		Payments from outsid	
Pay	ments received from affiliated organizations	<b>CAN\$</b> E46102_pc1	<b>'000</b>	<b>CAN\$</b> E63042_pc1	<b>'000</b>
a.	Patents	\$	,000	\$	,C
	Copyrights	E46102_pc2	.000	E63042_pc2	.0
).	Сорупупиз	E46102_pc3	,000	E63042_pc3	, (
).	Trademarks	\$ E46102_pc4	,000	\$ E63042_pc4	,(
d.	Industrial designs	\$ E46102_pc5	,000	\$ E63042_pc5	,(
€.	Integrated circuit topography	\$ E46102_pc6	,000	\$ E63042_pc6	,(
f.	Original software	\$ E46102-rc7	,000	\$ E63042_pc7	,0
g.	Packaged or off-the-shelf software	\$	000	\$	,(
า.	Databases (useful life exceeding one year)	E46 12_pc8	.000	E63042_pc8	,(
	Other technology and technical assistance Include technical assistance, industrial processes	E46101 pc9	,,,,,,	E63042_pc9	
	and know-how	E462_0	,000	\$ E63030	,(
	Total payments received from affiliated organizations (sum of question a. to j	\$	,000	\$	,(
Pay	ments received from other organizations,	•			
cor	npanies or individuals	E46103_pc1		E63043_pc1	
	Patents	\$E46103_pc2	,000	\$ E63043_pc2	,(
۲.	Copyrights	\$	,000	\$	,(
	Trademarks	E46103_pc3	,000	E63043_pc3	,(
		E46103_pc4	,,,,,,	E63043_pc4	,
n.	Industrial designs	\$ E46103_pc5	000 \$	\$ E63043_pc5	,(
١.	Integrated circuit topography	\$ E46103_pc6	,000	\$ E63043_pc6	,(
).	Original software	\$ E46103_pc7	,000	\$ E63043_pc7	,(
٥.	Packaged or off-the-shelf software	\$ E46103_pc8	,000	\$ E63043_pc8	,(
٦.	Databases (useful life exceeding one year)	\$	,000	\$	,(
1.	Other technology and technical assistance	E46103_pc9	,000	E63043_pc9	,
	Include technical assistance, industrial processes and know-how	\$	,000	\$	,(
	Total payments received from other organizations,	E46250		E63040	
	companies or individuals (sum of question j. to r.)	\$	,000	\$	,(
	otal payments received from other organizations r technology and technical assistance	E46270		E63050	
-10	i teerinology and teerinical assistance	\$		\$	

Changes or events	
<ol> <li>Indicate any changes or events that affected the reported values for this business or organization compared with the last reporting period.</li> <li>Mark all that apply.</li> </ol>	
B00316_r1	
Outsourcing of <b>R&amp;D</b> project(s)	
B00316_r2	
Initiation of new R&D project(s)	
B00316_r3	
Completion of existing R&D project(s)	
B00316_r4	
Major change in funding of <b>R&amp;D</b> project(s) (loss of funding)	
B00316_16	
Major change in funding of <b>R&amp;D</b> project(s) (increase in funding)	
major orialige in randing or rial project(e) (increase in randing)	
B00316_r6	
Organizational change that affected <b>R&amp;D</b> activities (expansion, reduction, restructuring)	
B00316_r7	
Economic change that affected R&D activities	
B00316_r11	
Lack of availability of qualified R&D personnel	
B0U316_R8	
Other reason — specify:	
OR	
B00316_r10	
No changes or events	
V 20°	

Co	ontact person
1.	Statistics Canada may need to contact the person who completed this questionnaire for further information.
	If the contact person is the same as on cover page, please check → Go to "Feedback"
	Otherwise, who is the <b>best person to contact</b> about this questionnaire?
	First name
	Last name
	Title
	A R
	Email address (Example: user@example.gov.ca)
	Telephone number (including area code)  Extension number  Example: 123-123-1234  Extension number  (if applicable)  Example: 123-123-1234
Fe	eedback
2.	Hours Minutes How long did it take to complete this trues ionnaire? Include the time spent gathering the nates are information.
	Hours Minutes How long did it take to complete this was ronnaire?
2.	Hours Minutes How long did it take to complete this investionnaire? Include the time spent gathering the massary information.  We invite your comments about mis questionnaire  800002
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#### **General information**

#### Confidentiality

#### Your answers are confidential.

By law, Statistics Canada is prohibited from releasing any information it collects that could identify any person, business, or organization, unless consent has been given by the respondent, or as permitted by the *Statistics Act*.

Statistics Canada will use information from this survey for statistical purposes.

# **Data-sharing agreements**

To reduce respondent burden, Statistics Canada has entered into data-sharing agreements with provincial and territorial statistical agencies and other government organizations, which have agreed to keep the data confidential and use them only for statistical purposes. Statistics Canada will only share data from this survey with those organizations that have demonstrated a requirement to use the data.

Section 11 of the Statistics Act provides for the sharing of information with provincial and territorial statistical agencies that meet certain conditions. These agencies must have the legislative authority to collect the same information, on a mandatory basis, and the legislation must provide substantially the same provisions for confidentiality and penalties for disclosure of confidential information as the Statistics Act. Because these agencies have the legal authority to compel respondents to provide the same information, consent is not requested and respondents may not object to the sharing of the data.

For this survey, there are **Section 11** agreements with the provincial and territorial statistical agencies of Newfoundland and Labrador, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia and the Yukon. The shared data will be limited to information on in-house research and development expenditures (Question 18) and inhouse research and development personnel (Question 26) pertaining to higher education sector organizations located within the jurisdiction of the respective province or territory.

**Section 12** of the *Statistics Act* provides for the sharing of information with federal, provincial or territorial government organizations. Under **Section 12**, you may refuse to share your information with any of these organizations by writing a letter of objection to the Chief Statistician and returning it with the completed questionnaire. Please specify the organizations with which you do not want to share your data.

For this survey, there are **Section 12** agreements with the statistical apericles of Prince Edward Island, the Northwest Territories and Nunavut. The shared data will be limited to information on in-house research and development expenditures (Question 18) and in-house research and development personnel (Question 26) pertaining to higher education sector organizations located within the jurisdiction of the respective province or territory.

#### **Record linkages**

To enhance the data from this survey and to reduce the reporting burden, Statistics Canada may combine the acquired data with information from other surveys or from administrative sources.

Thank you for completing this questionnaire.

Please retain a copy for your records.

Visit our website, www.statcan.gc.ca