

Service bulletin

Software Development and Computer Services

2012



Highlights

- Operating revenue generated by businesses in the software development and computer services industry advanced by 5.2% from 2011, to \$47.3 billion in 2012. Over the same period, operating expenses increased 4.2% to \$41.6 billion. The operating profit margin rose to 12.0% in 2012, up from 11.2% in 2011.
- Revenue was generated mainly in four provinces: Ontario (50.9%), Quebec (22.0%), Alberta (11.1%), and British Columbia (10.9%).
- The software development and computer services industry group comprises three industries: computer systems design; software publishing; data processing, hosting and related services.
- The largest industry of the group, computer systems design, accounted for over three-quarters of the overall industry revenue, followed by software publishing (16.0%), and data processing and hosting (7.8%).
- Exports by the software publishing industry grew 5.6% in 2012. An increase in exports was also observed in the computer systems design industry (4.0%) as well as in data processing, hosting and related services industries (13.2%).

Statistical tables

Table 1

Summary statistics for computer systems design and related services, by province and territory, 2010 to 2012

	Operating Revenue	Operating expenses	Salaries, wages and benefits	Operating profit margin
	millions of dollars			percent
2012 ^p				
Newfoundland and Labrador	128.8	123.0	58.4	4.5
Prince Edward Island	x	x	x	x
Nova Scotia	445.0	391.4	191.8	12.1
New Brunswick	x	x	x	x
Quebec	8,428.0	7,216.3	3,530.5	14.4
Ontario	18,150.5	16,175.2	7,446.9	10.9
Manitoba	519.8	454.9	220.9	12.5
Saskatchewan	431.2	357.2	185.1	17.2
Alberta	4,101.1	3,481.9	1,491.3	15.1
British Columbia	3,417.6	2,964.3	1,399.8	13.3
Yukon	x	x	x	x
Northwest Territories	x	x	x	x
Nunavut	x	x	x	x
Canada	36,038.7	31,541.5	14,709.9	12.5
2011 ^r				
Newfoundland and Labrador	159.4	153.9	59.9	3.5
Prince Edward Island	58.2	53.8	30.3	7.6
Nova Scotia	433.0	377.7	186.1	12.8
New Brunswick	x	x	x	x
Quebec	7,685.1	6,643.6	3,253.0	13.6
Ontario	17,774.0	15,909.8	7,330.4	10.5
Manitoba	488.6	432.8	207.4	11.4
Saskatchewan	392.5	329.5	174.3	16.1
Alberta	3,939.9	3,422.6	1,459.0	13.1
British Columbia	3,190.3	2,784.5	1,281.5	12.7
Yukon	x	x	x	x
Northwest Territories	x	x	x	x
Nunavut	x	x	x	x
Canada	34,524.9	30,488.9	14,154.8	11.7
2010 ^r				
Newfoundland and Labrador	138.6	134.8	56.6	2.8
Prince Edward Island	54.2	49.7	26.0	8.4
Nova Scotia	484.5	417.8	196.6	13.8
New Brunswick	x	x	x	x
Quebec	7,292.8	6,311.2	2,994.6	13.5
Ontario	16,715.5	14,876.9	6,721.2	11.0
Manitoba	444.0	393.6	175.5	11.3
Saskatchewan	355.8	302.1	149.7	15.1
Alberta	3,413.6	2,968.9	1,306.7	13.0
British Columbia	3,020.1	2,682.2	1,236.5	11.2
Yukon	x	x	x	x
Northwest Territories	x	x	x	x
Nunavut	x	x	x	x
Canada	32,285.1	28,467.0	13,010.0	11.8

Note(s): The results in this table are for firms classified under the North American Industry Classification System (NAICS) category 54151. With the release of reference year 2012 preliminary estimates, revisions have been applied to estimates from reference years 2007 to 2011 to reflect updates in industry classification and respondent information. See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, components may not add to total. Scaling may also affect the calculation of ratios.

Table 2
Summary statistics for software publishers, by province and territory, 2010 to 2012

	Operating Revenue	Operating expenses	Salaries, wages and benefits	Operating profit margin
	millions of dollars			percent
2012 ^p				
Newfoundland and Labrador	x	x	x	x
Prince Edward Island	x	x	x	x
Nova Scotia	34.0	31.9	13.6	6.1
New Brunswick	49.9	45.3	16.3	9.3
Quebec	1,724.9	1,563.1	817.6	9.4
Ontario	3,454.1	3,118.1	1,319.6	9.7
Manitoba	104.7	89.1	44.7	14.9
Saskatchewan	x	x	x	x
Alberta	817.8	716.4	310.0	12.4
British Columbia	1,319.7	1,281.6	644.9	2.9
Yukon	..	..	..	..
Northwest Territories	..	..	..	..
Nunavut	..	..	..	..
Canada	7,548.9	6,887.7	3,192.1	8.8
2011 ^r				
Newfoundland and Labrador	x	x	x	x
Prince Edward Island	x	x	x	x
Nova Scotia	32.8	30.3	13.1	7.4
New Brunswick	63.2	59.6	20.0	5.7
Quebec	1,524.0	1,408.4	735.6	7.6
Ontario	2,996.9	2,809.0	1,164.1	6.3
Manitoba	96.6	81.9	42.7	15.3
Saskatchewan	x	x	x	x
Alberta	725.4	646.2	284.8	10.9
British Columbia	1,393.5	1,338.2	662.2	4.0
Yukon	x	x	x	x
Northwest Territories	x	x	x	x
Nunavut	..	..	..	..
Canada	6,874.0	6,417.8	2,950.1	6.6
2010 ^r				
Newfoundland and Labrador	x	x	x	x
Prince Edward Island	x	x	x	x
Nova Scotia	22.9	19.4	10.0	15.6
New Brunswick	65.3	60.5	20.6	7.3
Quebec	1,392.1	1,256.0	632.8	9.8
Ontario	2,656.2	2,370.8	1,093.2	10.7
Manitoba	79.4	68.3	40.0	14.0
Saskatchewan	x	x	x	x
Alberta	662.6	569.6	245.5	14.0
British Columbia	1,334.8	1,275.2	657.8	4.5
Yukon	x	x	x	x
Northwest Territories	x	x	x	x
Nunavut	..	..	..	..
Canada	6,250.4	5,660.3	2,723.6	9.4

Note(s): The results in this table are for firms classified under the North American Industry Classification System (NAICS) category 51121. With the release of reference year 2012 preliminary estimates, revisions have been applied to estimates from reference years 2007 to 2011 to reflect updates in industry classification and respondent information. See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, components may not add to total. Scaling may also affect the calculation of ratios.

Table 3
Summary statistics for data processing, hosting and related services, by province and territory, 2010 to 2012

	Operating Revenue	Operating expenses	Salaries, wages and benefits	Operating profit margin
	millions of dollars			percent
2012 ^p				
Newfoundland and Labrador	x	x	x	x
Prince Edward Island	x	x	x	x
Nova Scotia	x	x	x	x
New Brunswick	x	x	x	x
Quebec	257.5	227.6	95.6	11.6
Ontario	2,470.0	2,054.2	856.6	16.8
Manitoba	x	x	x	x
Saskatchewan	x	x	x	x
Alberta	319.0	284.3	143.7	10.9
British Columbia	436.0	405.0	157.5	7.1
Yukon	x	x	x	x
Northwest Territories	..	..	..	..
Nunavut	..	..	..	..
Canada	3,670.9	3,142.9	1,343.6	14.4
2011 ^r				
Newfoundland and Labrador	x	x	x	x
Prince Edward Island	x	x	x	x
Nova Scotia	x	x	x	x
New Brunswick	x	x	x	x
Quebec	242.3	216.3	94.2	10.8
Ontario	2,420.9	1,983.8	812.0	18.1
Manitoba	x	x	x	x
Saskatchewan	x	x	x	x
Alberta	312.1	277.2	139.6	11.2
British Columbia	402.7	369.9	151.1	8.2
Yukon	x	x	x	x
Northwest Territories	x	x	x	x
Nunavut	..	..	..	..
Canada	3,544.6	2,997.6	1,277.5	15.4
2010 ^r				
Newfoundland and Labrador	x	x	x	x
Prince Edward Island	x	x	x	x
Nova Scotia	x	x	x	x
New Brunswick	x	x	x	x
Quebec	234.3	211.6	93.3	9.7
Ontario	2,082.3	1,843.6	750.6	11.5
Manitoba	x	x	x	x
Saskatchewan	x	x	x	x
Alberta	298.8	268.2	132.0	10.2
British Columbia	360.3	349.4	130.5	3.0
Yukon	x	x	x	x
Northwest Territories	..	..	..	..
Nunavut	..	..	..	..
Canada	3,104.5	2,791.7	1,167.7	10.1

Note(s): The results in this table are for firms classified under the North American Industry Classification System (NAICS) category 51821. With the release of reference year 2012 preliminary estimates, revisions have been applied to estimates from reference years 2007 to 2011 to reflect updates in industry classification and respondent information. See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, components may not add to total. Scaling may also affect the calculation of ratios.

Table 4
Operating expenses for computer systems design and related services, Canada, 2010 to 2012

	2010 ^r	2011 ^r	2012 ^p
	percent		
Total labour remuneration	46.1	46.6	46.9
Commissions paid to non-employees	F	F	F
Professional and business service fees	5.2	5.6	5.1
Subcontract expenses	8.6	9.3	9.4
Charges for services provided by head offices	2.0	1.2	1.3
Cost of goods sold	15.2	15.4	15.0
Office supplies	1.6	1.1	1.0
Rental and leasing	2.4	2.3	2.4
Repair and maintenance expenses	2.5	2.2	2.4
Insurance	F	F	F
Advertising, marketing and promotions	1.0	F	1.0
Travel, meals and entertainment	1.7	1.8	1.8
Utilities and telecommunications	1.9	2.1	1.9
Property and business taxes, licences and permits	F	F	F
Royalties, rights, licensing and franchise fees	F	F	1.0
Delivery, warehousing, postage and courier	F	F	F
Financial services fees	F	F	F
Amortization and depreciation of tangible and intangible assets	3.0	2.9	3.0
Bad debts	F	F	F
All other expenses	6.5	6.6	6.5

Note(s): The results in this table are for firms classified under the North American Industry Classification System (NAICS) category 54151. Data presented in this table are from the surveyed portion only. The survey portion excludes the smallest firms in terms of revenues earned. These firms account for a relatively small portion of total industry revenues and are not included in the estimates of this table. With the release of reference year 2012 preliminary estimates, revisions have been applied to estimates from reference years 2007 to 2011 to reflect updates in industry classification and respondent information. See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, components may not add to total. Scaling may also affect the calculation of ratios.

Table 5
Operating expenses for software publishers, Canada, 2010 to 2012

	2010 ^r	2011 ^r	2012 ^p
	percent		
Total labour remuneration	48.6	46.2	46.7
Commissions paid to non-employees	F	F	F
Professional and business service fees	3.7	4.1	4.1
Subcontract expenses	1.8	2.3	2.3
Charges for services provided head offices	F	1.0	F
Cost of goods sold	16.2	15.7	15.8
Office supplies	F	1.1	1.1
Rental and leasing	2.3	2.4	2.4
Repair and maintenance expenses	2.9	3.0	3.0
Insurance	F	F	F
Advertising, marketing and promotions	2.0	2.0	2.0
Travel, meals and entertainment	2.1	2.1	2.2
Utilities and telecommunications	1.0	1.3	1.3
Property and business taxes, licences and permits	F	F	F
Royalties, rights, licensing and franchise fees	4.5	4.1	4.1
Delivery, warehousing, postage and courier	F	F	F
Financial services fees	F	F	F
Amortization and depreciation of tangible and intangible assets	3.5	3.5	3.4
Bad debts	F	F	F
All other expenses	9.0	9.6	9.8

Note(s): The results in this table are for firms classified under the North American Industry Classification System (NAICS) category 51121. Data presented in this table are from the surveyed portion only. The survey portion excludes the smallest firms in terms of revenues earned. These firms account for a relatively small portion of total industry revenues and are not included in the estimates of this table. With the release of reference year 2012 preliminary estimates, revisions have been applied to estimates from reference years 2007 to 2011 to reflect updates in industry classification and respondent information. See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, components may not add to total. Scaling may also affect the calculation of ratios.

Table 6
Operating expenses for data processing, hosting and related services, Canada, 2010 to 2012

	2010 ^r	2011 ^r	2012 ^p
	percent		
Total labour remuneration	42.0	43.1	43.0
Commissions paid to non-employees	F	F	F
Professional and business service fees	2.9	1.8	1.8
Subcontract expenses	2.1	2.5	2.5
Charges for services provided by head offices	F	x	F
Cost of goods sold	8.8	9.4	9.1
Office supplies	1.1	1.7	1.8
Rental and leasing	3.4	3.4	3.2
Repair and maintenance expenses	5.6	6.9	6.7
Insurance	F	F	F
Advertising, marketing and promotions	1.6	1.7	1.7
Travel, meals and entertainment	1.1	F	1.0
Utilities and telecommunications	1.3	2.2	1.9
Property and business taxes, licences and permits	F	F	F
Royalties, rights, licensing and franchise fees	2.6	2.5	2.4
Delivery, warehousing, postage and courier	F	x	F
Financial services fees	F	F	F
Amortization and depreciation of tangible and intangible assets	10.8	10.0	10.4
Bad debts	F	F	F
All other expenses	15.8	12.9	13.3

Note(s): The results in this table are for firms classified under the North American Industry Classification System (NAICS) category 51821. Data presented in this table are from the surveyed portion only. The survey portion excludes the smallest firms in terms of revenues earned. These firms account for a relatively small portion of total industry revenues and are not included in the estimates of this table. With the release of reference year 2012 preliminary estimates, revisions have been applied to estimates from reference years 2007 to 2011 to reflect updates in industry classification and respondent information. See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, components may not add to total. Scaling may also affect the calculation of ratios.

Table 7
Distribution of operating revenue by type of client, for software development and computer services, Canada, 2010 to 2012

	Clients in Canada	Businesses	Individuals and households	Governments and public institutions	Clients outside Canada
	percent				
Computer systems design and related services					
2012 ^p	79.3	59.3	F	F	20.7
2011 ^r	79.0	58.5	F	F	21.0
2010 ^r	79.7	60.6	F	F	20.3
Software publishers					
2012 ^p	59.0	52.2	x	x	41.0
2011 ^r	57.1	51.0	x	x	42.9
2010 ^r	56.2	48.6	x	x	43.8
Data processing, hosting and related services					
2012 ^p	80.2	70.0	F	F	19.8
2011 ^r	81.8	71.9	F	F	18.2
2010 ^r	83.5	73.5	F	F	16.5

Note(s): The results in this table are for firms classified under the North American Industry Classification System (NAICS) categories 54151, 51121 and 51821. Data presented in this table are from the surveyed portion only. The survey portion excludes the smallest firms in terms of revenues earned. These firms account for a relatively small portion of total industry revenues and are not included in the estimates of this table. With the release of reference year 2012 preliminary estimates, revisions have been applied to estimates from reference years 2007 to 2011 to reflect updates in industry classification and respondent information. See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, components may not add to total. Scaling may also affect the calculation of ratios.

Table 8
Breakdown of sales, for software development and computer services, Canada, 2010 to 2012

	2010 ^r	2011 ^r	2012 ^p
	percent		
Computer systems design and related services (NAICS 54151)			
Information technology (IT) technical consulting services	31.8	31.7	34.2
Website design and development services	3.6	3.0	3.0
Database design and development services	3.3	2.4	2.5
Customization and integration of packaged software	5.5	5.9	5.6
Other custom software development services	11.0	11.2	11.1
Network design and development services	5.4	6.7	6.3
Computer systems design, development and integration services	7.0	6.8	6.4
IT technical support services	9.9	7.5	7.0
Software publishing	2.8	3.5	3.2
Data processing, hosting and related services	7.5	9.8	10.1
Other sales	12.2	11.6	10.7
Total	100.0	100.0	100.0
Software publishers (NAICS 51121)			
System software	18.4	15.7	15.0
Application software	44.5	42.5	48.0
Computer systems design and related services	22.5	25.6	21.1
Data processing, hosting and related services	2.7	3.6	3.3
Other sales	11.9	12.5	12.6
Total	100.0	100.0	100.0
Data processing, hosting and related services (NAICS 51821)			
Hosting and information technology infrastructure provisioning services	68.6	65.6	67.6
Network management services	1.2	1.2	1.5
Computer systems management services	1.7	2.2	1.7
Information and document transformation services	15.1	11.4	12.1
Computer systems design and related services	8.7	11.8	12.1
Software publishing	F	F	1.0
Other sales	4.5	7.4	4.0
Total	100.0	100.0	100.0

Note(s): The results in this table are for firms classified under the North American Industry Classification System (NAICS) categories 54151, 51121 and 51821. Data presented in this table are from the surveyed portion only. The survey portion excludes the smallest firms in terms of revenues earned. These firms account for a relatively small portion of total industry revenues and are not included in the estimates of this table. With the release of reference year 2012 preliminary estimates, revisions have been applied to estimates from reference years 2007 to 2011 to reflect updates in industry classification and respondent information. See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, components may not add to total. Scaling may also affect the calculation of ratios.

Table 9
Exports by industry, for software development and computer services, Canada, 2010 to 2012

	2010 ^r	2011 ^r	2012 ^p
	millions of dollars		
Exports by industry			
Total exports, all industries	8,758.0	9,518.6	9,993.8
Computer systems design and related services	5,950.9	6,414.5	6,669.3
Software publishers	2,333.2	2,506.5	2,648.0
Data processing, hosting and related services	473.9	597.7	676.5

Note(s): The results in this table are for firms classified under the North American Industry Classification System (NAICS) categories 54151, 51121 and 51821. Data presented in this table are from the surveyed portion only. The survey portion excludes the smallest firms in terms of revenues earned. These firms account for a relatively small portion of total industry revenues and are not included in the estimates of this table. With the release of reference year 2012 preliminary estimates, revisions have been applied to estimates from reference years 2007 to 2011 to reflect updates in industry classification and respondent information. See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, components may not add to total. Scaling may also affect the calculation of ratios.

Data sources, definitions and methodology

Description

This annual sample survey collects data required to produce economic statistics for the software development and computer services industry in Canada.

Data collected from businesses are aggregated with information from other sources to produce official estimates of national and provincial economic production for this industry.

Survey estimates are made available to businesses, governments, investors, associations, and the public. The data are used to monitor industry growth, measure performance, and make comparisons to other data sources to better understand this industry.

Target population

The target population consists of all establishments classified to the Computer Systems Design and Related Services (NAICS 541510), Software Publishers (NAICS 511210) and Data Processing, Hosting and Related Services (NAICS 518210) according to the North American Industry Classification System (NAICS) during the reference year. This industry comprises establishments primarily engaged in software development and computer services.

Sampling

This is a sample survey with a cross-sectional design.

The frame is the list of establishments from which the portion eligible for sampling is determined and the sample is taken. The frame provides basic information about each firm including address, industry classification, and information from administrative data sources. The frame is maintained by Statistics Canada's Business Register Division and is updated using administrative data.

The basic objective of the survey is to produce estimates for the whole industry - incorporated and unincorporated businesses. The data come from two different sources: a sample of all businesses with revenue above or equal to a certain threshold (note: the threshold varies between surveys and sometimes between industries and provinces in the same survey) for which either survey or administrative data may be used; and administrative data only for businesses with revenue below the specified threshold. It should be noted that only financial information is available from businesses below the threshold; e.g., revenue, and expenses such as depreciation and salaries, wages and benefits. Detailed characteristics are collected only for surveyed establishments.

Prior to the selection of a random sample, establishments are classified into homogeneous groups (i.e., groups with the same NAICS codes and same geography). Quality requirements are targeted, and then each group is divided into sub-groups called strata: take-all, must-take, and take-some.

The take-all stratum represents the largest firms in terms of performance (based on revenue) in an industry. The must-take stratum is comprised of units selected based on complex structural characteristics (multi-establishment, multi-legal, multi-NAICS, or multi-province enterprises). All take-all and must-take firms are selected to the sample. Units in the take-some strata are subject to simple random sampling.

The effective sample size for reference year 2012 was 1,631 collection entities.

Definitions

Operating revenue excludes investment income, capital gains, extraordinary gains and other non-recurring items.

Operating expenses exclude write-offs, capital losses, extraordinary losses, interest on borrowing, and other non-recurring items.

Operating profit margin is derived as follows: operating revenue minus operating expenses, expressed as a percentage of operating revenue. The derived figure excludes corporation income tax paid by incorporated businesses and individual income tax paid by unincorporated businesses. For unincorporated businesses, operating profit margin includes unpaid remuneration to partners and proprietors, which is not recorded as salaries, wages and benefits. Therefore the profit estimate will be higher in industries where unincorporated proprietorships and partnerships are significant contributors.

Salaries, wages and benefits include vacation pay and commissions for all employees for whom a T4 slip was completed. This category also includes the employer portion of employee benefits for items such as Canada/Quebec Pension Plan or Employment Insurance premiums. Salaries and wages do not include working owners' dividends nor do they include the remuneration of owners of unincorporated business. Therefore the relative level of salaries, wages and benefits will be lower in industries where unincorporated businesses are significant contributors.

An active **statistical establishment** is one production entity or the smallest grouping of production entities which produces as homogeneous a set of goods and/or services as possible; which does not cross provincial boundaries; and for which records provide data on the value of output together with the cost of principal intermediate inputs used and cost and quantity of labour resources used to produce the output.

Quality evaluation

Prior to dissemination, combined survey results are analyzed for overall quality; in general, this includes a detailed review of individual responses (especially for the largest companies), an assessment of the general economic conditions portrayed by the data, historic trends, and comparisons with other data sources.

Disclosure control

Statistics Canada is prohibited by law from releasing any information it collects which could identify any person, business, or organization, unless consent has been given by the respondent or as permitted by the Statistics Act. Various confidentiality rules are applied to all data that are released or published to prevent the publication or disclosure of any information deemed confidential. If necessary, data are suppressed to prevent direct or residual disclosure of identifiable data.

Data accuracy

Of the units contributing to the estimate, the weighted response rate was 81.0%. CVs were calculated for each estimate and are available upon request.

Related products

Selected CANSIM tables for Statistics Canada

354-0005	Software development and computer services, summary statistics, by North American Industry Classification System (NAICS), annual (225 series)
354-0007	Software development and computer services, operating expenses, by North American Industry Classification System (NAICS), annual (percent)m(63 series)
354-0008	Software development and computer services, sales by type of client based on the North American Industry Classification System (NAICS), annual (percent) (15 series)

Survey(s)

Definitions, data sources and methods: 2410 - Annual Survey of Service Industries: Software Development and Computer Services

Release date: March 2014

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
0s	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 <i>Statistics Act</i>
E	use with caution
F	too unreliable to be published
*	significantly different from reference category ($p < 0.05$)

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