

Service bulletin

Software Development and Computer Services



2008

Highlights

- Computer systems design and related services, the largest of the three industries in software development and computer services, earned operating revenues of \$29.0 billion in 2008, up 7.1% from 2007. The operating profit margin was 7.7%, compared to 8.8% in the previous year.
- Operating expenses were \$26.8 billion, up 8.5% from 2007. Almost half of operating expenses (47.0%) were salaries, wages and employee benefits.
- Businesses represented 59.0% of the clients, followed by governments (21.0%) and clients outside Canada (19.8%).
- Software publishers earned \$7.1 billion in operating revenues, an increase of 0.9% from the previous year. Over half of their sales were to foreign clients (52.1%).
- Operating revenues of the data processing, hosting and related services industry were \$3.6 billion in 2008 compared to \$3.0 billion the year before. The majority of the revenue in this industry comes from application service provisions, website hosting and network management services. Nearly three-quarter of the sales of these establishments (73.7%) were to businesses.



Statistical tables

Table 1

Summary statistics for computer systems design and related services, by province and territory, 2006 to 2008

	Operating Revenue	Operating expenses	Salaries, wages and benefits	Operating profit margin	Statistical establishments
	millions of dollars			percent	number
2008 p					
Newfoundland and Labrador	152.5	130.4	45.0	14.5	164
Prince Edward Island	31.0	30.5	17.2	1.5	83
Nova Scotia	381.8	344.3	168.0	9.8	612
New Brunswick	x	x	x	x	x
Quebec	6,333.3	5,737.2	2,551.1	9.4	10,023
Ontario	15,430.2	14,333.1	6,732.1	7.1	29,228
Manitoba	351.3	321.0	154.2	8.6	766
Saskatchewan	291.3	260.4	152.9	10.6	500
Alberta	3,047.6	2,795.8	1,272.1	8.3	6,426
British Columbia	2,649.6	2,484.7	1,119.2	6.2	6,931
Yukon	x	x	x	x	x
Northwest Territories	x	x	x	x	x
Nunavut	x	x	x	x	x
Canada	28,983.6	26,756.4	12,392.0	7.7	55,156
2007 r					
Newfoundland and Labrador	146.9	131.1	60.5	10.8	175
Prince Edward Island	34.2	34.4	18.5	-0.5	83
Nova Scotia	323.4	313.0	152.4	3.2	597
New Brunswick	187.9	185.2	88.0	1.5	343
Quebec	5,560.2	5,336.3	2,795.5	4.0	9,587
Ontario	14,514.4	12,933.7	6,200.7	10.9	28,755
Manitoba	411.6	388.7	208.0	5.6	722
Saskatchewan	270.8	269.9	158.5	0.3	483
Alberta	2,977.0	2,609.2	1,212.3	12.4	6,565
British Columbia	2,625.5	2,454.0	1,066.7	6.5	6,746
Yukon	x	x	x	x	x
Northwest Territories	x	x	x	x	x
Nunavut	x	x	x	x	x
Canada	27,063.5	24,668.1	11,967.1	8.8	54,107
2006 r					
Newfoundland and Labrador	146.5	140.0	64.0	4.4	157
Prince Edward Island	35.9	33.8	21.1	5.9	61
Nova Scotia	329.4	307.2	162.6	6.7	585
New Brunswick	237.3	229.8	91.9	3.1	339
Quebec	4,886.2	4,659.5	2,563.7	4.6	9,560
Ontario	13,273.3	12,232.1	5,907.1	7.8	26,596
Manitoba	342.1	316.5	176.4	7.5	628
Saskatchewan	258.0	232.7	140.1	9.8	487
Alberta	2,749.1	2,547.6	1,233.3	7.3	6,279
British Columbia	2,456.1	2,411.2	1,156.0	1.8	6,441
Yukon	x	x	x	x	x
Northwest Territories	x	x	x	x	x
Nunavut	x	x	x	x	x
Canada	24,725.4	23,121.6	11,521.8	6.5	51,168

Note(s): According to the North American Industry Classification System (NAICS 54151). See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, numbers may not sum exactly to totals. Estimates for the most recent year are preliminary. Preliminary data are subject to revision. Starting with the 2006 annual data release, the methodology used to generate provincial data estimates was modified to enhance the quality of these estimates. As a result, national and provincial data for 2006 and subsequent years, are not comparable to national and provincial data released prior to 2006.

Table 2
Summary statistics for software publishers, by province and territory, 2006 to 2008

	Operating Revenue	Operating expenses	Salaries, wages and benefits	Operating profit margin	Statistical establishments
	millions of dollars			percent	number
2008 P					
Newfoundland and Labrador	x	x	x	x	x
Prince Edward Island	x	x	x	x	x
Nova Scotia	29.9	33.3	18.8	-11.5	32
New Brunswick	57.0	51.0	11.3	10.4	20
Quebec	1,422.8	1,308.4	659.3	8.0	399
Ontario	3,195.6	3,051.5	1,288.1	4.5	933
Manitoba	112.2	101.7	64.2	9.4	27
Saskatchewan	19.3	17.7	5.6	8.1	15
Alberta	797.2	680.9	294.7	14.6	252
British Columbia	1,447.2	1,389.0	811.6	4.0	445
Yukon	x	x	x	x	x
Northwest Territories	x	x	x	x	x
Nunavut	x	x	x	x	x
Canada	7,086.3	6,639.6	3,157.6	6.3	2,144
2007 r					
Newfoundland and Labrador	x	x	x	x	x
Prince Edward Island	x	x	x	x	x
Nova Scotia	27.9	24.0	13.5	14.2	23
New Brunswick	51.5	43.6	19.5	15.4	18
Quebec	1,367.5	1,278.3	673.8	6.5	423
Ontario	3,363.0	3,192.5	1,541.6	5.1	949
Manitoba	93.6	88.4	61.3	5.5	27
Saskatchewan	24.3	22.3	8.8	8.1	F
Alberta	744.9	667.6	341.0	10.4	209
British Columbia	1,344.2	1,284.6	760.1	4.4	535
Yukon	x	x	x	x	x
Northwest Territories	x	x	x	x	x
Nunavut	x	x	x	x	x
Canada	7,022.7	6,606.9	3,422.4	5.9	2,237
2006 r					
Newfoundland and Labrador	x	x	x	x	x
Prince Edward Island	x	x	x	x	x
Nova Scotia	26.1	22.5	13.3	13.8	24
New Brunswick	50.6	41.3	18.9	18.5	20
Quebec	1,210.1	1,201.0	629.8	0.8	342
Ontario	2,904.6	2,757.4	1,461.0	5.1	772
Manitoba	89.7	87.1	58.0	2.9	29
Saskatchewan	24.6	21.0	8.5	14.5	14
Alberta	680.3	569.7	272.0	16.2	205
British Columbia	1,277.2	1,275.0	729.4	0.2	344
Yukon	x	x	x	x	x
Northwest Territories	x	x	x	x	x
Nunavut	x	x	x	x	x
Canada	6,268.4	5,980.4	3,194.0	4.6	1,762

Note(s): According to the North American Industry Classification System (NAICS 51121). See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, numbers may not sum exactly to totals. Estimates for the most recent year are preliminary. Preliminary data are subject to revision. Starting with the 2006 annual data release, the methodology used to generate provincial data estimates was modified to enhance the quality of these estimates. As a result, national and provincial data for 2006 and subsequent years, are not comparable to national and provincial data released prior to 2006.

Table 3
Summary statistics for data processing, hosting and related services, by province and territory, 2006 to 2008

	Operating Revenue	Operating expenses	Salaries, wages and benefits	Operating profit margin	Statistical establishments
	millions of dollars			percent	number
2008 p					
Newfoundland and Labrador	x	x	x	x	x
Prince Edward Island	x	x	x	x	x
Nova Scotia	x	x	x	x	x
New Brunswick	x	x	x	x	x
Quebec	314.7	297.8	139.4	5.4	281
Ontario	2,340.2	1,931.2	626.7	17.5	712
Manitoba	25.0	21.0	12.2	16.1	23
Saskatchewan	22.7	21.8	6.2	4.2	29
Alberta	357.3	294.9	134.9	17.5	189
British Columbia	436.2	382.1	105.3	12.4	219
Yukon	x	x	x	x	x
Northwest Territories	x	x	x	x	x
Nunavut	x	x	x	x	x
Canada	3,556.4	3,005.3	1,056.1	15.5	1,489
2007 r					
Newfoundland and Labrador	x	x	x	x	x
Prince Edward Island	x	x	x	x	x
Nova Scotia	x	x	x	x	x
New Brunswick	x	x	x	x	x
Quebec	307.0	265.9	132.2	13.4	310
Ontario	1,911.2	1,742.1	476.1	8.8	613
Manitoba	27.0	27.3	9.0	-1.0	18
Saskatchewan	16.0	18.0	9.2	-12.5	25
Alberta	266.3	243.5	132.1	8.6	201
British Columbia	439.0	393.3	114.3	10.4	220
Yukon	x	x	x	x	x
Northwest Territories	x	x	x	x	x
Nunavut	x	x	x	x	x
Canada	3,018.5	2,743.6	890.6	9.1	1,421
2006 r					
Newfoundland and Labrador	x	x	x	x	x
Prince Edward Island	x	x	x	x	x
Nova Scotia	x	x	x	x	x
New Brunswick	x	x	x	x	x
Quebec	248.8	237.5	108.2	4.5	219
Ontario	1,518.9	1,332.2	499.5	12.3	526
Manitoba	26.8	27.0	10.7	-0.7	23
Saskatchewan	8.7	7.0	3.2	19.6	21
Alberta	299.7	254.9	134.6	14.9	154
British Columbia	379.3	350.2	109.3	7.7	185
Yukon	x	x	x	x	x
Northwest Territories	x	x	x	x	x
Nunavut	x	x	x	x	x
Canada	2,495.3	2,222.5	869.5	10.9	1,166

Note(s): According to the North American Industry Classification System (NAICS 51821). See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, numbers may not sum exactly to totals. Estimates for the most recent year are preliminary. Preliminary data are subject to revision. Starting with the 2006 annual data release, the methodology used to generate provincial data estimates was modified to enhance the quality of these estimates. As a result, national and provincial data for 2006 and subsequent years, are not comparable to national and provincial data released prior to 2006.

Table 4
Operating expenses for computer systems design and related services, Canada, 2007 and 2008

	2007 ^r	2008 ^p
	percent	
Total labour remuneration	49.3	47.0
Commissions paid to non-employees	F	F
Professional and business service fees	5.7	5.7
Subcontract expenses	7.3	6.8
Charges for services provided by your head office	F	F
Cost of goods sold	15.9	16.3
Office supplies	1.2	1.1
Rental and leasing	2.9	2.3
Repair and maintenance expenses	1.9	2.4
Insurance	F	F
Advertising, marketing and promotions	1.0	1.2
Travel, meals and entertainment	2.0	2.0
Utilities and telecommunications	1.9	1.6
Property and business taxes, licences and permits	F	F
Royalties, rights, licensing and franchise fees	1.0	1.0
Delivery, warehousing, postage and courier	F	F
Financial service fees	F	F
Amortization and depreciation of tangible and intangible assets	3.1	3.1
Bad debts	F	F
All other expenses	4.9	7.5

Note(s): According to the North American Industry Classification System (NAICS 54151). See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, components may not add to total.

Table 5
Operating expenses for software publishers, Canada, 2007 and 2008

	2007 ^r	2008 ^p
	percent	
Total labour remuneration	52.4	46.5
Commissions paid to non-employees	F	F
Professional and business service fees	5.1	2.7
Subcontract expenses	2.1	2.1
Charges for services provided by your head office	F	1.2
Cost of goods sold	14.1	15.2
Office supplies	F	1.0
Rental and leasing	2.8	2.5
Repair and maintenance expenses	2.9	3.4
Insurance	F	F
Advertising, marketing and promotions	1.8	2.5
Travel, meals and entertainment	2.4	2.7
Utilities and telecommunications	1.2	1.0
Property and business taxes, licences and permits	F	F
Royalties, rights, licensing and franchise fees	1.2	F
Delivery, warehousing, postage and courier	F	F
Financial service fees	F	F
Amortization and depreciation of tangible and intangible assets	4.4	4.4
Bad debts	F	F
All other expenses	6.9	12.4

Note(s): According to the North American Industry Classification System (NAICS 51121). See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, components may not add to total.

Table 6
Operating expenses for data processing, hosting and related services, Canada, 2007 and 2008

	2007 ^r	2008 ^p
	percent	
Total labour remuneration	31.8	34.8
Commissions paid to non-employees	x	F
Professional and business service fees	3.5	2.3
Subcontract expenses	2.0	2.4
Charges for services provided by your head office	x	6.5
Cost of goods sold	14.0	10.4
Office supplies	F	1.4
Rental and leasing	3.3	3.9
Repair and maintenance expenses	2.0	4.2
Insurance	F	F
Advertising, marketing and promotions	1.3	1.0
Travel, meals and entertainment	1.6	1.3
Utilities and telecommunications	13.9	3.2
Property and business taxes, licences and permits	x	F
Royalties, rights, licensing and franchise fees	F	2.5
Delivery, warehousing, postage and courier	F	F
Financial service fees	F	F
Amortization and depreciation of tangible and intangible assets	8.2	6.9
Bad debts	F	F
All other expenses	10.0	18.2

Note(s): According to the North American Industry Classification System (NAICS 51821). See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, components may not add to total.

Table 7
Distribution of operating revenue by type of client, for software development and computer services, Canada, 2007 and 2008

	Clients in Canada	Businesses (incl. architectural firms)	Individuals and households	Governments and public institutions	Clients outside Canada
	percent				
Computer system design and related services					
2008 ^p	80.2	59.0	F	21.0	19.8
2007 ^r	79.1	60.8	F	18.1	20.9
Software publishers					
2008 ^p	47.9	44.1	F	3.7	52.1
2007 ^r	45.7	40.0	F	5.5	54.3
Data processing, hosting and related services					
2008 ^p	87.9	73.7	F	13.3	12.1
2007 ^r	89.3	76.9	1.9	10.5	10.7

Note(s): According to the North American Industry Classification System (NAICS 54151, 51121 and 51821). Based on a sample of firms (weighted). The smallest firms, in terms of revenues earned, are not included in the estimates. These firms account for a relatively small portion of total industry revenues. Due to rounding, components may not add to total.

Table 8
Breakdown of sales, software development and computer services

	percent
Computer systems design and related services (NAICS 54151)	2008^p
Information technology (IT) technical consulting services	34.0
Website design and development services	3.3
Database design and development services	2.7
Customization and integration of packaged software	6.4
Other custom software development services	11.2
Network design and development services	F
Computer systems design, development and integration services	3.9
IT technical support services	9.8
Software publishers	3.2
Data processing, hosting and related services	5.5
Other sales	19.1
Total	100.0
Software publishers (NAICS 51121)	2008^p
System software	12.1
Application software	39.7
Computer systems design and related services	28.2
Data processing, hosting and related services	6.0
Other sales	14.0
Total	100.0
Data processing, hosting and related services (NAICS 51821)	2008^p
Hosting and information technology infrastructure provisioning services	35.8
Network management services	25.3
Computer systems management services	3.0
Information and document transformation services	9.3
Computer systems design and related services	10.7
Software publishing	9.6
Other sales	6.3
Total	100.0

Note(s): According to the North American Industry Classification System (NAICS 54151, 51121 and 51821). Based on a sample of firms (weighted). The smallest firms, in terms of revenues earned, are not included in the estimates. These firms account for a relatively small portion of total industry revenues. Due to rounding, components may not add to total.

Table 9
Exports by industry for software development and computer services, 2007 and 2008

	Canada	
	2008 ^p	2007 ^r
	millions of dollars	
Exports by industry		
Total exports, all industries	8,720.2	8,661.6
Computer systems design and related services	5,283.6	5,135.7
Software publishers	3,035.0	3,223.6
Data processing, hosting and related services	401.5	302.3

1. Territories include: Yukon, Northwest Territories and Nunavut.

Note(s): According to the North American Industry Classification System (NAICS 54151, 51121 and 51821). See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, numbers may not sum exactly to totals. Estimates for the most recent year are preliminary. Preliminary data are subject to revision. The smallest firms, in terms of revenue earned, are not included in the estimates. These firms account for a relatively small portion of total industry revenues. Starting with 2007, the methodology used to generate export estimates was modified to enhance their quality. As a result, export data for 2007 and subsequent years are not comparable to export data released prior to 2007.

Table 10
Distribution of revenue received for exports, by country of destination, for software development and computer services, Canada, 2007 and 2008

	United States	Other countries
	percent	
Exports		
Computer system design and related services		
2008 ^p	79.9	20.1
2007 ^r	83.5	16.5
Software publishers		
2008 ^p	77.2	22.8
2007 ^r	75.7	24.3
Data processing, hosting and related services		
2008 ^p	65.0	35.0
2007 ^r	56.0	44.0

Note(s): According to the North American Industry Classification System (NAICS 54151, 51121 and 51821). Based on a sample of firms (weighted). The smallest firms, in terms of revenues earned, are not included in the estimates. These firms account for a relatively small portion of total industry revenues. Due to rounding, components may not add to total. Starting with 2007, the methodology used to generate export estimates was modified to enhance their quality. As a result, export data for 2007 and subsequent years are not comparable to export data released prior to 2007.

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 2008 was 1,577 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 data which would divulge information obtained under the Statistics Act that relates to any identifiable person, business or organization without the prior knowledge or the consent in writing of that person, business or organization. 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 81.5%. CVs were calculated for each estimate and are available upon request.

Related products

CANSIM

Available on CANSIM:

Table 354-0005: Software development and computer services, summary statistics, by North American Industry Classification System (NAICS), annual (225 series)

Table 354-0007: Software development and computer services, operating expenses, by North American Industry Classification System (NAICS), annual (63 series)

Table 354-0008: Software development and computer services, sales by type of client, by North American Industry Classification System (NAICS), annual (15 series)

Survey(s)

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

Publications

Service Industries Newsletter, Catalogue no. 63-018-X.

Analytical paper series - Service Industries Division, Catalogue no. 63F0002X.

Release date: June 2010

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 ^s	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

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