

Service bulletin

Software Development and Computer Services



2007

Highlights

- Operating revenues for software development and computer services reached \$35.3 billion in 2007, up 6.6% from 2006.
- Operating expenses reached \$32.7 billion, up 5.6% from 2006 and the overall operating profit margin was 7.2%.
- Computer systems design and related services, the largest of the three industries in software development and computer services, accounted for 72% of total revenues. These firms provide expertise in information technology such as consulting, customised software programming, Internet page design and local area network (LAN) system integrators.
- Software publishers represented 19% of the total revenues while the remaining 9% of the revenues came from the data processing, hosting and related services industry.

Note: The Annual Survey of Software Development and Computer Services comprises three North American Industry Classification System industries; software publishers (51121), data processing, hosting and related services (51821), and computer systems design and related services (54151).

Statistical tables

Table 1

Summary statistics for the computer systems design and related services, by province and territory, 2005 to 2007

	Operating revenue	Operating expenses	Salaries, wages and benefits	Operating profit margin	Statistical establishments	Number of paid employees
	millions of dollars			percent	number	
2007 P						
Newfoundland and Labrador	139.9	134.8	55.1	3.7	155	780
Prince Edward Island	33.7	32.8	18.1	2.6	58	265
Nova Scotia	316.6	307.8	148.3	2.8	597	x
New Brunswick	244.7	233.7	80.7	4.5	344	x
Quebec	5,130.4	4,975.0	2,572.7	3.0	9,570	35,726
Ontario	13,464.3	12,366.0	5,565.8	8.2	28,772	68,458
Manitoba	365.8	341.0	181.3	6.8	620	2,770
Saskatchewan	283.6	277.5	155.1	2.1	508	1,972
Alberta	2,840.3	2,462.1	1,086.2	13.3	6,562	x
British Columbia	2,533.7	2,382.9	1,011.1	6.0	6,746	16,453
Territories ¹	x	x	x	x	x	x
Canada	25,364.7	23,524.0	10,880.3	7.3	53,983	148,295
2006 r						
Newfoundland and Labrador	140.6	135.3	61.1	3.8	156	952
Prince Edward Island	34.6	32.8	20.5	5.4	60	296
Nova Scotia	316.1	296.6	156.2	6.2	584	x
New Brunswick	262.0	249.6	79.6	4.7	339	1,327
Quebec	4,844.3	4,823.7	2,663.5	0.4	9,560	35,738
Ontario	12,523.8	11,469.3	5,443.4	8.4	26,596	72,553
Manitoba	418.2	389.3	220.7	6.9	628	3,261
Saskatchewan	273.4	259.7	154.1	5.0	487	2,027
Alberta	2,704.4	2,454.8	1,177.0	9.2	6,278	x
British Columbia	2,466.2	2,402.0	1,150.4	2.6	6,441	17,257
Territories ¹	x	x	x	x	x	x
Canada	23,994.6	22,523.8	11,131.7	6.1	51,162	154,108
2005 r						
Newfoundland and Labrador	130.0	128.9	55.2	0.8	153	802
Prince Edward Island	16.6	18.9	11.5	-14.0	54	246
Nova Scotia	360.9	356.5	193.4	1.2	575	3,108
New Brunswick	217.2	214.3	84.4	1.3	332	1,302
Quebec	4,735.8	4,581.2	2,311.7	3.3	8,798	31,985
Ontario	11,071.6	10,097.5	4,466.3	8.8	24,661	63,372
Manitoba	415.9	373.5	201.4	10.2	637	3,055
Saskatchewan	263.8	252.4	145.8	4.3	439	2,022
Alberta	2,154.3	1,791.8	825.0	16.8	5,813	12,274
British Columbia	2,178.4	2,087.8	943.9	4.2	5,942	14,190
Territories ¹	x	x	x	x	x	x
Canada	21,567.4	19,923.2	9,248.1	7.6	47,479	132,501

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

Note(s): According to the North American Industry Classification System (NAICS 541510). 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.

Table 2
Summary statistics for the software publishers industry, by province and territory, 2005 to 2007

	Operating revenue	Operating expenses	Salaries, wages and benefits	Operating profit margin	Statistical establishments	Number of paid employees
	millions of dollars			percent	number	
2007 p						
Newfoundland and Labrador	x	x	x	x	x	x
Prince Edward Island	x	x	x	x	x	x
Nova Scotia	27.9	24.0	13.5	14.2	23	229
New Brunswick	51.5	43.5	19.5	15.4	18	346
Quebec	1,217.2	1,178.1	623.7	3.2	473	9,059
Ontario	3,354.9	3,183.5	1,536.5	5.1	949	16,131
Manitoba	93.6	88.4	61.3	5.5	32	742
Saskatchewan	30.4	28.3	12.2	6.7	52	218
Alberta	732.0	635.1	283.6	13.2	212	2,947
British Columbia	1,344.1	1,284.6	760.1	4.4	385	9,441
Territories ¹	x	x	x	x	x	x
Canada	6,857.3	6,471.2	3,313.2	5.6	2,156	39,181
2006 r						
Newfoundland and Labrador	x	x	x	x	x	x
Prince Edward Island	x	x	x	x	x	x
Nova Scotia	26.1	22.5	13.3	13.8	24	260
New Brunswick	50.6	41.3	18.9	18.5	20	356
Quebec	1,210.1	1,201.0	629.8	0.8	342	8,472
Ontario	2,906.2	2,758.7	1,462.1	5.1	773	16,690
Manitoba	90.7	88.2	58.7	2.7	30	650
Saskatchewan	26.3	22.4	9.7	14.8	35	161
Alberta	680.3	569.7	272.0	16.2	205	x
British Columbia	1,277.2	1,275.0	729.4	0.2	344	8,608
Territories ¹	x	x	x	x	x	x
Canada	6,272.5	5,984.0	3,197.0	4.6	1,785	38,334
2005 r						
Newfoundland and Labrador	x	x	x	x	x	x
Prince Edward Island	x	x	x	x	x	x
Nova Scotia	24.5	23.5	13.8	4.0	21	272
New Brunswick	49.2	37.7	19.0	23.4	18	346
Quebec	1,207.0	1,155.8	592.7	4.2	380	8,127
Ontario	3,228.3	3,201.7	1,517.2	0.8	959	17,154
Manitoba	70.9	65.2	44.0	8.1	25	532
Saskatchewan	F	F	F	F	F	F
Alberta	564.4	487.8	247.4	13.6	230	3,207
British Columbia	1,185.8	1,231.3	646.4	-3.8	326	7,701
Territories ¹	x	x	x	x	x	x
Canada	6,358.3	6,231.0	3,094.5	2.0	1,994	37,591

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

Note(s): According to the North American Industry Classification System (NAICS 511210). 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.

Table 3
Summary statistics for the data processing, hosting and related services industry, by province and territory, 2005 to 2007

	Operating revenue	Operating expenses	Salaries, wages and benefits	Operating profit margin	Statistical establishments
	millions of dollars			percent	number
2007 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	306.9	270.5	142.8	11.9	220
Ontario	1,903.8	1,733.9	473.0	8.9	612
Manitoba	28.7	27.3	9.0	4.9	28
Saskatchewan	9.0	8.9	4.4	1.2	25
Alberta	326.9	286.5	138.9	12.4	182
British Columbia	438.9	393.3	114.3	10.4	190
Territories ¹	x	x	x	x	x
Canada	3,046.9	2,749.3	893.7	9.8	1,311
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	292.2	272.2	126.5	6.8	222
Ontario	1,725.3	1,500.5	586.8	13.0	531
Manitoba	26.8	27.0	10.7	-0.7	23
Saskatchewan	8.7	7.0	3.2	19.6	21
Alberta	317.7	269.0	140.5	15.4	157
British Columbia	436.5	393.2	131.1	9.9	188
Territories ¹	x	x	x	x	x
Canada	2,833.5	2,493.3	1,008.3	12.0	1,181
2005 r					
Newfoundland and Labrador	x	x	x	x	x
Prince Edward Island	x	x	x	x	x
Nova Scotia	19.5	17.0	7.5	12.8	15
New Brunswick	x	x	x	x	x
Quebec	282.7	296.2	164.1	-4.8	204
Ontario	1,757.3	1,625.1	654.5	7.5	520
Manitoba	29.1	38.9	12.8	-33.7	15
Saskatchewan	11.8	11.5	6.4	2.4	20
Alberta	249.8	206.1	102.2	17.5	186
British Columbia	459.8	448.0	195.3	2.6	183
Territories ¹	x	x	x	x	x
Canada	2,815.3	2,652.2	1,147.8	5.8	1,161

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

Note(s): According to the North American Industry Classification System (NAICS 518210). 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.

Table 4
Operating expenses for the computer systems design and related services industry, by province and territory, 2007

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Territories ¹	Canada
	percent											
Total operating expenses ²	100.0	x	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	x	100.0
Salaries, wages and benefits	45.1	x	49.5	39.8	52.8	45.5	52.8	58.1	44.2	43.4	x	47.0
Other labour costs	8.2	x	8.5	10.1	9.4	17.6	13.8	14.5	12.1	9.3	x	14.2
Rental, leasing, utilities and telecommunications	4.1	x	2.4	4.3	3.5	3.8	4.3	2.6	3.7	8.2	x	4.2
Repair and maintenance expenses	0.5	x	0.6	1.2	1.4	2.3	1.8	0.3	2.5	3.4	x	2.2
Depreciation charges	2.7	x	2.1	3.4	3.4	2.8	3.9	3.1	2.7	3.2	x	2.9
Advertising, marketing, promotions, travel, meals and entertainment	2.6	x	3.9	3.4	2.6	4.4	2.6	1.1	3.8	2.7	x	3.7
Other purchased goods and services	30.4	x	25.5	30.5	20.7	16.2	15.2	16.6	23.2	19.7	x	18.5
Other operating expenses	6.4	x	7.5	7.3	6.2	7.3	5.6	3.8	7.7	10.1	x	7.3

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

2. Total operating expenses is the sum of salaries, wages and benefits, other labour costs, rental and leasing expenses, repair and maintenance expenses, cost of goods sold and offices expenses, depreciation charges, license fees, property and business taxes, other purchased services, and other operating expenses including advertising, marketing, promotions, travel, meals and entertainment.

Note(s): According to the North American Industry Classification System (NAICS 541510). 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 revenues earned, are not included in the estimates. These firms account for a relatively small portion of total industry revenues.

Table 5
Operating expenses for the software publishers industry, by province and territory, 2007

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Territories ¹	Canada
	percent											
Total operating expenses ²	x	x	x	x	100.0	100.0	x	x	100.0	100.0	x	100.0
Salaries, wages and benefits	x	x	x	x	53.7	49.0	x	x	47.8	61.4	x	52.1
Other labour costs	x	x	x	x	3.7	8.9	x	x	6.6	8.8	x	7.3
Rental, leasing, utilities and telecommunications	x	x	x	x	3.2	4.8	x	x	1.3	3.8	x	3.9
Repair and maintenance expenses	x	x	x	x	3.0	3.0	x	x	2.1	3.1	x	2.8
Depreciation charges	x	x	x	x	4.7	3.8	x	x	3.9	5.9	x	4.2
Advertising, marketing, promotions, travel, meals and entertainment	x	x	x	x	2.9	5.5	x	x	1.9	3.4	x	4.1
Other purchased goods and services	x	x	x	x	20.7	14.4	x	x	32.9	6.2	x	17.1
Other operating expenses	x	x	x	x	8.0	10.5	x	x	3.6	7.5	x	8.4

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

2. Total operating expenses is the sum of salaries, wages and benefits, other labour costs, rental and leasing expenses, repair and maintenance expenses, cost of goods sold and offices expenses, depreciation charges, license fees, property and business taxes, other purchased services, and other operating expenses including advertising, marketing, promotions, travel, meals and entertainment.

Note(s): According to the North American Industry Classification System (NAICS 511210). 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 revenues earned, are not included in the estimates. These firms account for a relatively small portion of total industry revenues.

Table 6
Operating expenses for the data processing, hosting and related services industry, by province and territory, 2007

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Territories ¹	Canada
	percent											
Total operating expenses ²	x	x	x	x	100.0	100.0	x	x	100.0	100.0	x	100.0
Salaries, wages and benefits	x	x	x	x	42.3	25.9	x	x	52.4	28.4	x	31.2
Other labour costs	x	x	x	x	4.3	4.7	x	x	7.0	5.0	x	5.0
Rental, leasing, utilities and telecommunications	x	x	x	x	4.7	24.4	x	x	4.5	4.4	x	16.7
Repair and maintenance expenses	x	x	x	x	3.0	2.0	x	x	3.5	1.4	x	2.2
Depreciation charges	x	x	x	x	5.5	13.3	x	x	8.1	3.3	x	10.3
Advertising, marketing, promotions, travel, meals and entertainment	x	x	x	x	3.6	1.1	x	x	2.7	8.8	x	2.8
Other purchased goods and services	x	x	x	x	30.4	10.1	x	x	17.9	36.8	x	17.5
Other operating expenses	x	x	x	x	6.1	18.3	x	x	3.9	11.9	x	14.3

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

2. Total operating expenses is the sum of salaries, wages and benefits, other labour costs, rental and leasing expenses, repair and maintenance expenses, cost of goods sold and offices expenses, depreciation charges, license fees, property and business taxes, other purchased services, and other operating expenses including advertising, marketing, promotions, travel, meals and entertainment.

Note(s): According to the North American Industry Classification System (NAICS 518210). 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 revenues earned, are not included in the estimates. These firms account for a relatively small portion of total industry revenues.

Table 7
Exports by industry for software development and computer services, by province and territory, 2007

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Territories ¹	Canada
	millions of dollars											
Exports by industry												
Total exports, all industries	48.9	6.5	162.1	266.0	2,609.9	5,041.5	194.4	154.0	1,256.3	1,963.1	x	11,706.8
Computer systems design and related services	45.5	x	123.4	238.3	1,993.9	3,031.7	154.0	139.3	1,091.3	1,185.2	x	8,011.8
Software publishers	x	x	20.2	27.8	604.2	1,830.9	40.4	13.7	110.8	716.3	x	3,369.1
Data processing, hosting and related services	x	x	x	x	11.8	178.9	0.0	1.0	54.2	61.5	x	325.9

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

Note(s): According to the North American Industry Classification System (NAICS 541510, 511210 and 518210). 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.

Table 8
Exports by type of product for software development and computer services, by province and territory, 2007

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Territories ¹	Canada
millions of dollars												
All industries												
Services	43.6	5.1	146.2	226.1	2,213.2	3,661.6	156.7	145.2	1,203.9	1,548.1	x	9,353.6
Goods	2.7	0.1	4.1	16.5	238.5	498.3	1.7	6.0	14.6	265.1	x	1,047.8
Royalties, rights	2.6	1.4	11.9	23.4	158.2	881.5	36.0	2.8	37.8	149.9	x	1,305.5
All industries	48.9	6.5	162.1	266.0	2,609.9	5,041.5	194.4	154.0	1,256.3	1,963.1	x	11,706.8
Computer systems design and related industries												
Services	43.5	5.1	117.9	206.8	1,784.0	2,499.3	147.8	136.7	1,062.3	921.6	x	6,927.2
Goods	0.3	0.1	4.1	14.6	146.0	223.4	1.7	0.1	10.8	207.6	x	609.1
Royalties, rights	1.7	1.3	1.5	16.9	63.9	309.0	4.5	2.6	18.2	56.0	x	475.6
Total exports, computer systems design and related services	45.5	6.5	123.4	238.3	1,993.9	3,031.7	154.0	139.3	1,091.3	1,185.2	x	8,011.8
Software publishers												
Services	x	x	9.8	19.3	418.6	998.5	8.9	7.6	87.6	580.3	x	2,132.0
Goods	x	x	0.0	1.9	92.4	271.7	0.0	6.0	3.6	57.5	x	435.5
Royalties, rights	x	x	10.4	6.6	93.2	560.7	31.5	0.2	19.7	78.6	x	801.7
Total exports, software publishers	x	x	20.2	27.8	604.2	1,830.9	40.4	13.7	110.8	716.3	x	3,369.1
Data processing, hosting and related services												
Services	x	x	x	x	10.7	163.9	0.0	1.0	54.0	46.3	x	294.4
Goods	x	x	x	x	0.0	3.1	0.0	0.0	0.2	0.0	x	3.3
Royalties, rights	x	x	x	x	1.1	11.9	0.0	0.0	0.0	15.3	x	28.3
Total exports, data processing, hosting and related services	x	x	x	x	11.8	178.9	0.0	1.0	54.2	61.5	x	325.9

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

Note(s): According to the North American Industry Classification System (NAICS 541510, 511210 and 518210). 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 account for a relatively small portion of total industry revenues.

Table 9
Exports by country of destination for software development and computer services, by province and territory, 2007

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Territories ¹	Canada
millions of dollars												
All industries												
United States	37.0	5.5	94.9	246.1	2,206.0	4,328.6	182.8	143.5	1,156.3	1,819.6	x	10,222.9
Mexico	0.2	0.0	0.3	1.1	19.6	36.0	1.3	0.0	1.6	18.5	x	78.6
Other countries	11.7	1.1	66.9	18.9	384.3	676.8	10.3	10.6	98.5	125.0	x	1,405.3
Total exports by country of destination	48.9	6.5	162.1	266.0	2,609.9	5,041.5	194.4	154.0	1,256.3	1,963.1	x	11,706.8
Computer systems design and related services												
United States	34.4	5.4	72.1	220.9	1,844.8	2,664.3	150.6	128.8	1,042.7	1,094.0	x	7,259.5
Mexico	0.2	0.0	0.3	1.1	9.5	30.6	1.3	0.0	1.5	11.0	x	55.5
Other countries	10.9	1.0	51.0	16.3	139.5	336.8	2.1	10.5	47.1	80.3	x	696.9
Total exports by country of destination	45.5	6.5	123.4	238.3	1,993.9	3,031.7	154.0	139.3	1,091.3	1,185.2	x	8,011.8
Software publishers												
United States	x	x	18.6	25.2	352.9	1,585.8	32.2	13.6	105.5	675.8	x	2,813.4
Mexico	x	x	0.0	0.0	10.1	5.4	0.0	0.0	0.0	7.6	x	23.1
Other countries	x	x	1.6	2.6	241.3	239.8	8.2	0.1	5.2	33.0	x	532.6
Total exports by country of destination	x	x	20.2	27.8	604.2	1,830.9	40.4	13.7	110.8	716.3	x	3,369.1
Data processing, hosting and related services												
United States	x	x	x	x	8.4	78.6	0.0	1.0	8.0	49.8	x	150.1
Mexico	x	x	x	x	0.0	0.0	0.0	0.0	0.0	0.0	x	0.0
Other countries	x	x	x	x	3.4	100.3	0.0	0.0	46.2	11.7	x	175.8
Total exports by country of destination	x	x	x	x	11.8	178.9	0.0	1.0	54.2	61.5	x	325.9

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

Note(s): According to the North American Industry Classification System (NAICS 541510, 511210 and 518210). See "Data sources, definitions and methodology" at the end of tables for definition of terms. Due to rounding, numbers may not sum exactly to total

Table 10
Imports by type of product for software development and computer services, by province and territory, 2007

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Territories ¹	Canada
millions of dollars												
Software development and computer services												
Total imports, software development and computer services	x	x	40.4	3.5	182.8	1 125.4	16.1	4.1	97.0	131.0	x	1 602.4
Services	x	x	35.6	1.0	134.8	628.7	10.4	3.1	48.2	48.3	x	910.8
Goods	x	x	3.9	2.3	29.7	126.8	1.6	0.1	19.6	55.7	x	240.8
Royalties, rights, licensing and franchise fees	x	x	0.9	0.2	18.3	369.9	4.1	0.9	29.2	27.1	x	450.8

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

Note(s): According to the North American Industry Classification System (NAICS 541510, 511210 and 518210). 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 revenues earned, are not included in the estimates. These firms account for relatively small portion of total industry revenues.

Table 11
Imports by country of origin for software development and computer services, by province and territory, 2007

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Territories ¹	Canada
millions of dollars												
Software development and computer services												
Total imports, software development and computer services	x	x	40.4	3.5	182.8	1,125.4	16.1	4.1	97.0	131.0	x	1,602.4
United States	x	x	24.3	3.1	139.9	873.0	14.6	3.8	86.9	117.6	x	1,264.8
Mexico	x	x	0.0	0.0	0.0	18.1	0.0	0.0	0.0	0.0	x	18.1
Other countries	x	x	16.1	0.4	42.9	234.3	1.5	0.3	10.2	13.4	x	319.5

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

Note(s): According to the North American Industry Classification System (NAICS 541510, 511210 and 518210). 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 revenues earned, are not included in the estimates. These firms account for a relatively small portion of total industry revenues.

Table 12
Total sales by type of client for software development and computer services, Canada, 2005 to 2007

	Computer systems design and related services	Software publishers	Data processing, hosting and related services
percent			
Clients in Canada			
Individuals and households			
2007	0.2	0.1	1.9
2006	0.5	0.8	1.4
2005	1.2	1.2	0.7
Government and public institutions			
2007	18.5	5.3	10.5
2006	25.7	12.5	8.2
2005	31.0	11.4	10.2
Businesses			
2007	53.7	30.0	75.5
2006	55.2	45.5	79.3
2005	55.1	43.5	80.5
Clients outside Canada			
2007	27.6	64.6	12.1
2006	18.6	41.2	11.2
2005	12.8	43.9	8.6

Note(s): According to the North American Industry Classification System (NAICS 541510, 511210 and 518210). 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 revenues earned, are not included in the estimates. These firms account for a relatively small portion of total industry revenues.

Data sources, definitions and methodology

This survey collects the financial and operating data needed to produce statistics on the Software Development and Computer Services industry in Canada.

Description

This annual sample survey collects the financial and operating data needed to produce statistics on the Software Development and Computer Services industry in Canada. The survey also collects detailed information on the characteristics of the businesses, such as type of revenue and type of client. These data are aggregated with information from other sources to produce official estimates of the national and provincial economic production of the Software Development and Computer Services industry in Canada. The results from this survey provide data to businesses, governments, investors, and associations. These data allow these groups to monitor the growth of the industry, measure performance, allow comparison across similar businesses and to better understand this industry to react to trends and patterns.

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.

Even though the basic objective of the survey is to produce estimates for the whole industry—all incorporated and unincorporated businesses—not all businesses are surveyed. Rather, a sample is surveyed and the portion eligible for sampling is defined as all statistical establishments with revenue above a certain threshold. (Note: the threshold varies between surveys and sometimes between provinces in the same survey). The excluded portion represents a substantial proportion of the industry in terms of number of establishments, but its contribution to the overall industry revenue is only about 10%. These excluded establishments are accounted for in the final estimates through the use of administrative data. However, only basic information is obtained from administrative sources, i.e., total operating revenue, expenses, depreciation and salaries, wages and benefits. Detailed characteristics such as client base and revenue by type of service are collected only for surveyed establishments. 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 (as discussed above). The frame is maintained by Statistics Canada's Business Register, and is updated using administrative data, survey feedback and profiling of large, complex businesses. Prior to the selection of a random sample, establishments are classified into homogeneous groups (i.e., groups with the same NAICS codes, same geography (province/territory), and same business type (incorporated/unincorporated) attributes). 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 includes the largest firms in terms of performance (based on revenue) in an industry. Every firm is sampled, which means each firm represents itself and is given a weight of one. The must-take stratum is also comprised of self-representing units, but these are selected on the basis of complex structure characteristics (multi-establishment, multi-legal, multi-NAICS, or multi-province enterprises). Units in the take-some strata are subjected to simple random sampling.

Finally, the sample size is increased, mostly to compensate for firms that no longer belong in the industry; i.e., they have gone out of business, changed their primary business activity, they are inactive, or are duplicates on the frame. After removing such firms, the sample size for reference year 2007 was 1,344 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.

Data quality

While considerable effort is made to ensure high standards throughout all stages of collection and processing, the resulting estimates are inevitably subject to a certain degree of error. These errors can be broken down into two major types: non-sampling and sampling.

Non-sampling error is not related to sampling and may occur for many reasons. For example, non-response is an important source of non-sampling error. Population coverage, differences in the interpretation of questions, incorrect information from respondents, and mistakes in recording, coding and processing data are other examples of non-sampling errors.

Sampling error occurs because population estimates are derived from a sample of the population rather than the entire population. Sampling error depends on factors such as sample size, sampling design, and the method of estimation. An important property of probability sampling is that sampling error can be computed from the sample itself by using a statistical measure called the coefficient of variation (CV). The assumption is that over repeated surveys, the relative difference between a sample estimate and the estimate that would have been obtained from an enumeration of all units in the universe would be less than twice the CV, 95 times out of 100. The range of acceptable data values yielded by a sample is called a confidence interval. Confidence intervals can be constructed around the estimate using the CV. First, we calculate the standard error by multiplying the sample estimate by the CV. The sample estimate plus or minus twice the standard error is then referred to as a 95% confidence interval.

For this survey, the CVs are excellent (less than 5%) for operating revenue and operating expenses and wages, salaries and benefits of employees variables.

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 81.4%. 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 (198 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 2009

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
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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

To access this product

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