

Service bulletin

Engineering Services

2008



Highlights

- Operating revenues for engineering firms reached \$21.8 billion in 2008, up 13.3% from 2007.
- The majority of the revenue from these firms came from industrial and manufacturing projects, such as petroleum and mining.
- Operating expenses reached \$19.1 billion, up 13.1% from 2007. Wages, salaries and employee benefits represented 44.2% of the total operating expenses while outsourcing accounted for 11.9%.
- The operating profit margin was 12.7%, similar to 12.6% in 2007.
- Businesses represent 64.6% of the clients, followed by governments (18.3%), clients outside Canada (15.1%), and households (2.0%).
- Firms in Alberta accounted for 32.5% of revenues, followed by Ontario (27.7%), Quebec (18.9%), and British Columbia (13.4%).

Statistical tables

Table 1

Summary statistics for the engineering services industry, 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	283.2	254.5	89.2	10.1	211
Prince Edward Island	x	x	x	x	x
Nova Scotia	303.4	270.9	131.1	10.7	411
New Brunswick	x	x	x	x	x
Quebec	4,134.0	3,591.9	1,524.5	13.1	3,139
Ontario	6,060.0	5,309.4	2,536.7	12.4	7,492
Manitoba	281.7	254.0	127.0	9.8	295
Saskatchewan	301.3	257.2	131.5	14.6	292
Alberta	7,096.4	6,197.5	2,566.1	12.7	6,274
British Columbia	2,917.1	2,542.7	1,141.9	12.8	3,735
Yukon	19.1	14.7	6.3	22.7	29
Northwest Territories	33.0	28.3	12.0	14.2	26
Nunavut	x	x	x	x	x
Canada	21,840.8	19,068.1	8,408.6	12.7	22,249
2007 ^r					
Newfoundland and Labrador	234.4	216.9	97.3	7.5	205
Prince Edward Island	x	x	x	x	x
Nova Scotia	263.6	248.3	110.1	5.8	414
New Brunswick	x	x	x	x	x
Quebec	3,931.3	3,472.7	1,336.2	11.7	3,043
Ontario	4,824.8	4,252.3	2,084.1	11.9	7,289
Manitoba	208.3	190.9	100.1	8.3	283
Saskatchewan	247.9	213.4	106.8	13.9	318
Alberta	6,001.7	5,265.3	2,165.1	12.3	5,966
British Columbia	2,922.6	2,448.3	1,062.2	16.2	3,696
Yukon	20.0	15.6	6.0	22.0	31
Northwest Territories	F	F	F	F	F
Nunavut	x	x	x	x	x
Canada	19,284.8	16,858.7	7,206.2	12.6	21,601
2006 ^r					
Newfoundland and Labrador	196.8	177.3	77.6	9.9	199
Prince Edward Island	x	x	x	x	x
Nova Scotia	258.1	232.9	105.9	9.8	345
New Brunswick	175.7	161.9	66.6	7.8	260
Quebec	3,638.9	3,202.3	1,338.5	12.0	3,022
Ontario	4,475.5	4,025.0	2,010.1	10.1	6,823
Manitoba	198.9	189.8	101.0	4.5	251
Saskatchewan	200.0	178.9	94.0	10.5	273
Alberta	4,527.9	4,050.0	1,784.7	10.6	5,238
British Columbia	2,412.4	2,118.9	944.3	12.2	3,426
Yukon	14.2	12.3	4.4	13.5	24
Northwest Territories	30.2	29.6	10.6	2.2	22
Nunavut	x	x	x	x	x
Canada	16,141.4	14,390.4	6,542.3	10.8	19,915

Note(s): According to the North American Industry Classification System (NAICS 54133). 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 2
Operating expenses for the engineering services industry, Canada, 2007 and 2008

	2007 ^r	2008 ^p
	percent	
Total labour remuneration	43.5	44.2
Commissions paid to non-employees	x	x
Professional and business services fees	2.4	3.0
Subcontract expenses	11.0	11.9
Charges for services provided by your head office	F	F
Cost of goods sold	21.7	17.5
Office supplies	2.3	2.0
Rental and leasing	3.8	4.0
Repair and maintenance	1.7	1.4
Insurance	1.1	1.1
Advertising, marketing and promotions	F	F
Travel, meals and entertainment	2.0	2.3
Utilities and telecommunications expenses	F	1.1
Property and business taxes, licences and permits	F	F
Royalties, rights, licensing and franchise fees	x	x
Delivery, warehousing, postage and courier	F	F
Financial services fees	F	F
Amortization and depreciation of tangible and intangible assets	2.2	2.2
Bad debts	F	F
All other expenses	4.5	4.6

Note(s): According to the North American Industry Classification System (NAICS 54133). 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 3
Distribution of operating revenue by type of client, for the engineering services industry, Canada, 2007 and 2008

	Clients in Canada	Businesses (incl. engineering firms)	Individuals and households	Governments and public institutions	Clients outside Canada
	percent				
Engineering services 2008 ^p	84.9	64.6	2.0	18.3	15.1
2007 ^r	82.2	60.6	1.8	19.7	17.8

Note(s): According to the North American Industry Classification System (NAICS 54133). 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 4
Summary statistics for the engineering services industry, by class size, Canada, 2007 and 2008

	Class size ¹							
	Small		Medium		Large		All firms	
	millions of dollars	percent	millions of dollars	percent	millions of dollars	percent	millions of dollars	percent
Operating revenue								
2008 ^p	6,268.0	29	3,527.3	16	12,045.5	55	21,840.8	100
2007 ^r	5,477.5	28	3,586.4	19	10,220.9	53	19,284.8	100
Operating expenses								
2008 ^p	5,200.4	27	3,298.4	17	10,569.3	55	19,068.1	100
2007 ^r	4,587.9	27	3,280.1	19	8,990.7	53	16,858.7	100
Salaries, wages and benefits								
2008 ^p	2,346.6	28	1,401.8	17	4,660.2	55	8,408.6	100
2007 ^r	2,026.9	28	1,347.2	19	3,832.2	53	7,206.2	100
Operating profit								
2008 ^p	1,067.6	39	228.9	8	1,476.2	53	2,772.7	100
2007 ^r	889.6	37	306.2	13	1,230.2	51	2,426.0	100
	percent							
Operating profit margin								
2008 ^p	17.0	-	6.5	-	12.3	-	12.7	-
2007 ^r	16.2	-	8.5	-	12.0	-	12.6	-
	number	percent	number	percent	number	percent	number	percent
Statistical establishments								
2008 ^p	21,440	96	298	1	511	2	22,249	100
2007 ^r	20,793	96	357	2	451	2	21,601	100

1. Small firms represent a workforce of less than 50. Medium firms represent a workforce of 50 to 249. Large firms represent a workforce of 250 or more.

Note(s): According to the North American Industry Classification System (NAICS 54133). 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
Distribution of operating revenue by type of service, by class size, Canada, 2007 and 2008

	Class size ¹			All firms
	Small	Medium	Large	
	percent			
Engineering Services				
2008 ^p	87.8	85.9	85.0	85.8
2007 ^r	86.3	88.9	82.1	84.4
Residential building engineering projects				
2008 ^p	6.8	4.5	2.0	3.5
2007 ^r	6.6	6.0 ^E	3.4	4.6
Commercial, public and institutional building engineering projects				
2008 ^p	14.8	10.1	5.9	8.7
2007 ^r	16.8	10.9	5.4	9.1
Industrial and manufacturing engineering projects				
2008 ^p	35.9	42.2	46.8	43.5
2007 ^r	34.3	44.7	42.1	40.9
Mining and metallurgical				
2008 ^p	6.0	3.8	11.1	8.7
2007 ^r	4.0	12.6	5.9	6.8
Petroleum and petrochemical				
2008 ^p	16.8	30.5	30.7	27.5
2007 ^r	13.9 ^E	18.0	30.4	24.2
Pulp and paper				
2008 ^p	F	1.7	1.1	1.2
2007 ^r	F	1.3	1.5	1.6 ^E
Industrial machinery				
2008 ^p	3.0	2.4	0.8	1.6
2007 ^r	2.3 ^E	7.1	1.5	2.8
Electronic and electrical equipment				
2008 ^p	3.5 ^E	0.3 ^E	0.2	1.0
2007 ^r	4.5 ^E	0.5 ^E	0.2	1.2 ^E
Transportation equipment				
2008 ^p	F	1.1	0.4	0.7
2007 ^r	F	F	0.1	0.8
Other industrial and manufacturing engineering projects				
2008 ^p	4.4 ^E	2.5	2.5	2.9
2007 ^r	5.4 ^E	F	2.4	3.4
Transportation engineering projects				
2008 ^p	7.8	10.2	10.4	9.8
2007 ^r	8.7	6.8	11.3	9.8
Municipal utility engineering projects				
2008 ^p	5.2	5.9 ^E	4.6	4.9
2007 ^r	5.5	7.5	5.2	5.7
Power generation, transmission and distribution engineering projects				
2008 ^p	5.1 ^E	2.8	7.8	6.3
2007 ^r	3.9 ^E	3.8	8.0	6.2
Telecommunications and broadcasting engineering projects				
2008 ^p	F	F	0.4	0.8 ^E
2007 ^r	x	x	0.6	0.8 ^E
Hazardous and industrial waste engineering projects				
2008 ^p	1.4 ^E	0.3	2.4	1.8
2007 ^r	F	0.2	1.4	1.1
Engineering advisory services				
2008 ^p	F	F	0.3	0.8 ^E
2007 ^r	x	x	0.2	0.7
Other engineering projects or services				
2008 ^p	8.4 ^E	5.7	4.4	5.6
2007 ^r	7.1	6.5	4.4	5.5

See notes at the end of the table.

Table 5 – continued

Distribution of operating revenue by type of service, by class size, Canada, 2007 and 2008

	Class size ¹			
	Small	Medium	Large	All firms
	percent			
Secondary activities				
Project management services				
2008 ^p	4.4	4.3	5.1	4.8
2007 ^r	7.3	3.1	6.4	6.0
Construction services				
2008 ^p	2.1	3.3	3.6	3.2
2007 ^r	F	5.0	4.3	3.9
Environmental consulting services				
2008 ^p	3.9 ^E	F	3.4	3.8
2007 ^r	2.5 ^E	2.3	3.3	2.9
Other sales				
2008 ^p	1.8 ^E	F	3.0	2.5
2007 ^r	F	0.6	3.9	2.9

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Note(s): According to the North American Industry Classification System (NAICS 54133). See "Data sources, definitions and methodology" at the end of tables for definition of terms. 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 6

Distribution of foreign fee income by geographic region and class size, 2007 and 2008

	Class size ¹			
	Small	Medium	Large	All firms
	percent			
United States				
2008 ^p	49.7	58.8	23.6	34.3
2007 ^r	63.5	70.7	21.4	39.1
Mexico				
2008 ^p	7.2	2.2	1.4	2.7
2007 ^r	1.7	0.3	1.4	1.2
Other				
2008 ^p	43.0	39.1	75.0	63.0
2007 ^r	34.8	29.0	77.2	59.7

1. Small firms represent a workforce of less than 50. Medium firms represent a workforce of 50 to 249. Large firms represent a workforce of 250 or more.

Note(s): According to the North American Industry Classification System (NAICS 54133). See "Data sources, definitions and methodology" at the end of tables for definition of terms. 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.

Data sources, definitions and methodology

Description

This annual sample survey collects data required to produce economic statistics for the engineering 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 engineering services industry (NAICS 541330) according to the North American Industry Classification System (NAICS) during the reference year. This industry comprises establishments primarily engaged in applying principles of engineering in the design, development and utilization of machines, materials, instruments, structures, processes and systems. The assignments undertaken by these establishments may involve any of the following activities: the provision of advice, the preparation of feasibility studies, the preparation of preliminary and final plans and designs, the provision of technical services during the construction or installation phase, the inspection and evaluation of engineering projects and related services.

Sampling

This is a sample survey.

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 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 824 collection entities.

Definition

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 86.0%. CVs were calculated for each estimate and are available upon request.

Related products

CANSIM

Available on CANSIM: table 360-0005 - Engineering services, summary statistics, by North American Industry Classification System (NAICS), annual (75 series)

Available on CANSIM: table 360-0012 - Engineering services, operating expenses, by North American Industry Classification System (NAICS), annual (percent) (21 series)

Available on CANSIM: table 360-0013 - Engineering services, sales by type of client based on the North American Industry Classification System (NAICS), annual (percent) (5 series)

Survey(s)

Definitions, data sources and methods: survey number 2439 - Annual Survey of Service Industries: Engineering Services

Publications

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

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

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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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