# Construction

The construction industries contributed, in real terms, \$74.9 billion to Canada's gross domestic product (GDP) in 2008, up 2.7% from 2007, despite a 1.1% decline in the fourth quarter of 2008.

Each of the three construction industries—residential construction, nonresidential building construction, and engineering, repair and other construction activities—posted gains in 2008. The construction sector grew each year from 2003 to 2008, though its rate of growth began to decelerate in 2007.

The construction industries are a major employer. About 1.2 million Canadians worked in construction in 2008: 1,087,300 men and 144,800 women. This accounted for 7.2% of all jobs in Canada and 30.6% of those in the goods-producing sector.

Workers in many occupations are affected when the construction industries slump because not all jobs in construction require hard hats. Besides the traditional trades such as plumbing, carpentry and masonry, there are managerial, clerical and other white-collar positions.

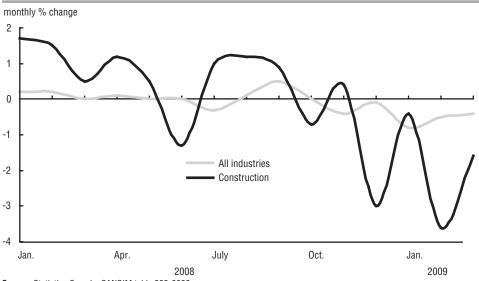
#### **Employment**

Historically, construction has seen higher employment peaks and deeper valleys over the business cycle than other industries. During the recession of the early 1990s, jobless rates in the trades were much higher than in other occupations.

From 2001 to 2006, when Canada led the G7 nations in annual employment growth with a rate of 1.7%, construction averaged 4.5% growth. This trend held true in the 2008 economic downturn. From March 2008 to March 2009, construction employment fell 5.3%, compared with a 1.5% loss across all industries.

Construction posted the fastest employment growth from January to October 2008; then, it experienced the steepest decline as the downturn

#### Chart 6.1 Employment, construction and all industries



Source: Statistics Canada, CANSIM table 282-0088.

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progressed. In Ontario alone, the number of workers in construction decreased 9.3% from October 2008 to May 2009.

#### Housing starts

Housing starts fell 7.3% over the course of 2008, decreasing more dramatically late in the year (down 11.0% in the fourth quarter). By the first quarter of 2009, starts in Western Canada had fallen 69.6% from their peak in the third quarter of 2007, reflecting the end of the commodity boom, while the average decline in the rest of Canada during the same period was 32.6%. Housing starts are used to estimate investment in residential construction.

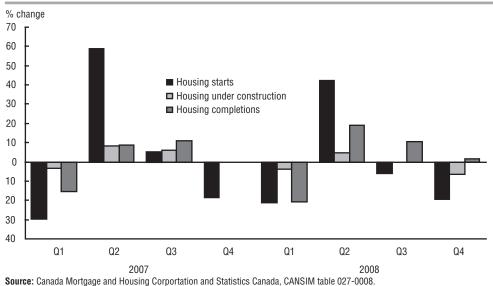
The total value of building permits—for both residential and non-residential construction—declined 5.3% in 2008, the first annual retreat since 1995. The value of building permits fell more noticeably in the fourth quarter of 2008, declining 26.7% (unadjusted).

#### Table 6.a GDP growth of the construction industry, 2003 to 2008

	2003 to 2004	2007 to 2008
		%
Construction	6.0	2.7
Residential building construction Non-residential building	6.7	0.8
construction	2.7	1.8
Engineering, repair and other construction activites	6.6	4.2

Note: The GDP data are in chained (2002) dollars, seasonally adjusted at annual rates.

Source: Statistics Canada, CANSIM table 379-0027.



#### Chart 6.2 Housing starts and completions

## **Building materials**

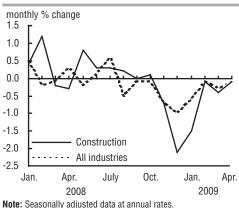
Slumping housing demand has depressed the lumber industry and sales of other building materials.

Sales of manufactured wood products (or shipments) fell from \$3.0 billion early in 2006 to \$1.5 billion in late 2008. After being one of Canada's export staples for over a century, lumber accounted for 1% of exports in January 2009.

Wholesale sales of lumber and millwork fell 15.2% in 2008. Sawn lumber production and shipments dropped 33.8% from January to December. However, thanks to positive second and third quarters, retail sales of lumber and other building supplies edged up 2.4%.

Demand for other building materials also declined in 2008. Cement production fell 27.8% from December 2007 to December 2008, while shipments of cement declined 16.7%. Asphalt shingle

#### Chart 6.3 Real GDP at basic prices, all industries and construction



**Sourice:** Statistics Canada, CANSIM table 379-0027.

production rose 7.8% over the course of 2008, but fell 20.0% in the third quarter and dropped 45.7% in the fourth quarter. Shipments dropped 86.5% from January to December of 2008.

## **Education and skilled trades**

Education and training are crucial to filling the ranks of the skilled trades. Manufacturers surveyed in 2006 and 2007 said that a lack of skilled labour was the major impediment to production.

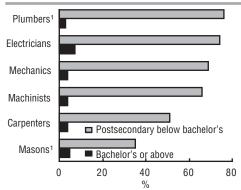
Government programs were created to encourage youth to enter into and complete apprenticeship training, to encourage employers to hire them, and to help employed tradespersons buy tools and equipment.

The trades have consistently made up 8% of total employment. In 2007, 68% of those employed in the trades had some postsecondary education, compared with 51% in 1990.

However, there is some diversity in educational attainment among the trades. For example, 8 in 10 plumbers and

## Chart 6.4

## Postsecondary education of selected workers in the trades, 2007



1. Data for bachelor's or above should be used with caution. **Source:** Statistics Canada, Catalogue no. 75-001-X.

electricians had postsecondary education in 2007 compared with 4 in 10 masons.

#### Table 6.1 Housing starts, by province, 1994 to 2008

	1994	1995	1996	1997	1998	1999		
	number							
Canada	154,057	110,933	124,713	147,040	137,439	149,968		
Newfoundland and Labrador	2,243	1,712	2,034	1,696	1,450	1,371		
Prince Edward Island	669	422	554	470	524	616		
Nova Scotia	4,748	4,168	4,059	3,813	3,137	4,250		
New Brunswick	3,203	2,300	2,722	2,702	2,447	2,776		
Quebec	34,154	21,885	23,220	25,896	23,138	25,742		
Ontario	46,645	35,818	43,062	54,072	53,830	67,235		
Manitoba	3,197	1,963	2,318	2,612	2,895	3,133		
Saskatchewan	2,098	1,702	2,438	2,757	2,965	3,089		
Alberta	17,692	13,906	16,665	23,671	27,122	25,447		
British Columbia	39,408	27,057	27,641	29,351	19,931	16,309		

Source: Statistics Canada, CANSIM table 027-0009.

#### Table 6.2 Value of building permits, by province and territory, 1994 to 2008

	1994	1995	1996	1997	1998	1999
	\$ millions					
Canada	27,636.7	24,589.3	26,155.4	30,838.2	33,340.8	35,736.1
Newfoundland and Labrador	262.7	201.7	224.1	213.6	252.7	296.8
Prince Edward Island	112.7	95.2	95.8	110.0	116.1	140.9
Nova Scotia	669.2	619.6	689.0	630.7	637.1	907.2
New Brunswick	440.5	487.9	441.1	459.0	481.0	481.2
Quebec	5,898.5	4,947.4	4,938.0	5,133.2	5,897.4	5,939.6
Ontario	10,001.3	9,192.2	9,597.6	12,888.7	13,839.8	16,732.5
Manitoba	685.3	525.4	592.3	689.6	1,031.8	879.4
Saskatchewan	372.3	478.2	543.0	626.8	672.9	721.6
Alberta	2,740.5	2,506.6	2,883.1	4,446.3	5,552.2	4,801.9
British Columbia	6,317.9	5,401.4	6,053.1	5,543.8	4,739.6	4,695.5
Yukon	51.0	74.0	51.8	49.6	39.9	48.8
Northwest Territories (including Nunavut)	84.9	59.6	46.6	46.9	80.2	90.6
Northwest Territories						
Nunavut						

Source: Statistics Canada, CANSIM table 026-0003.

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2000	2001	2002	2003	2004	2005	2006	2007	2008
				number				
151,653	162,733	205,034	218,426	233,431	225,481	227,395	228,343	211,056
1,459	1,788	2,419	2,692	2,870	2,498	2,234	2,649	3,261
710	675	775	814	919	862	738	750	712
4,432	4,092	4,970	5,096	4,717	4,775	4,896	4,750	3,982
3,079	3,462	3,862	4,489	3,947	3,959	4,085	4,242	4,274
24,695	27,682	42,452	50,289	58,448	50,910	47,877	48,553	47,901
71,521	73,282	83,597	85,180	85,114	78,795	73,417	68,123	75,076
2,560	2,963	3,617	4,206	4,440	4,731	5,028	5,738	5,537
2,513	2,381	2,963	3,315	3,781	3,437	3,715	6,007	6,828
26,266	29,174	38,754	36,171	36,270	40,847	48,962	48,336	29,164
14,418	17,234	21,625	26,174	32,925	34,667	36,443	39,195	34,321

2008	2007	2006	2005	2004	2003	2002	2001	2000
				\$ millions				
70,437.4	74,379.7	66,265.8	60,750.7	55,578.6	50,772.0	47,262.1	40,856.1	36,950.1
802.5	660.1	538.4	494.1	501.2	421.0	383.3	298.3	282.9
216.9	163.8	207.0	244.0	223.8	178.1	146.2	217.2	98.8
1,326.7	1,288.9	1,291.4	1,188.0	1,125.8	1,014.1	877.3	699.9	878.5
1,113.8	965.2	933.3	829.0	797.3	696.3	663.8	535.1	484.6
13,806.7	12,973.4	11,878.3	11,288.0	11,629.6	10,090.9	8,628.4	7,571.1	6,272.0
25,414.6	26,710.4	23,292.2	24,129.6	23,905.3	23,235.2	22,281.4	19,069.3	17,556.5
1,636.7	1,480.1	1,378.8	1,128.5	1,150.4	1,065.0	888.9	739.2	853.9
2,185.8	1,646.4	1,138.6	905.7	770.0	772.6	708.6	703.3	609.0
13,141.2	15,729.7	13,875.7	10,201.7	7,327.1	6,667.2	6,846.5	5,911.7	5,296.4
10,577.2	12,544.7	11,541.5	10,182.9	7,938.7	6,394.2	5,659.4	4,954.8	4,492.0
70.0	79.6	95.6	77.3	75.9	52.6	31.3	49.8	55.5
87.4	74.0	37.7	68.7	105.3	86.2	91.6	76.0	23.0
58.0	63.5	57.4	13.2	28.1	98.6	55.4	30.4	47.2

# Table 6.3 Investment in non-residential building construction, by censusmetropolitan area, 2004 to 2008

	2004	2005	2006	2007	2008		
			\$ millions	ions			
All census metropolitan areas	21,904.9	22,438.5	25,113.1	29,375.2	32,458.1		
St. John's	121.6	167.4	146.1	158.1	164.6		
Halifax	235.1	328.3	385.5	335.9	338.0		
Moncton <sup>1</sup>			78.2	176.8	185.6		
Saint John	88.8	62.8	87.8	132.5	120.3		
Saguenay	107.2	85.0	124.2	151.7	150.8		
Québec	587.2	648.6	671.7	771.8	1,060.6		
Sherbrooke	130.0	118.3	162.4	171.1	180.6		
Trois-Rivières	149.5	103.6	124.8	200.4	202.6		
Montréal	3,110.0	3,014.5	2,970.2	3,416.6	3,659.6		
Ottawa–Gatineau	1,449.9	1,307.5	1,583.7	1,624.6	1,422.3		
Kingston	146.7	150.8	119.3	194.3	301.6		
Peterborough <sup>1</sup>			51.4	57.6	80.4		
Oshawa	531.6	509.5	411.3	377.1	385.1		
Toronto	6,667.6	6,577.0	6,361.0	6,739.3	7,866.5		
Hamilton	791.9	609.8	672.1	554.6	838.5		
St. Catharines–Niagara	416.8	314.7	312.3	274.3	266.9		
Kitchener	568.6	638.9	550.3	552.2	659.2		
Brantford <sup>1</sup>			63.5	149.8	83.1		
Guelph <sup>1</sup>			121.2	197.1	162.1		
London	565.5	578.8	473.7	516.8	655.9		
Windsor	323.4	299.4	366.8	344.6	262.4		
Barrie <sup>1</sup>			147.9	243.6	276.8		
Greater Sudbury/Grand Sudbury	96.7	140.3	136.3	230.6	256.5		
Thunder Bay	128.1	105.5	114.4	85.1	99.3		
Winnipeg	545.5	539.2	658.0	599.1	534.3		
Regina	199.7	188.2	240.5	284.7	270.8		
Saskatoon	186.3	242.4	395.2	370.6	568.3		
Calgary	1,467.7	1,818.1	2,537.4	4,421.9	5,029.9		
Edmonton	1,075.2	1,247.9	1,608.5	1,840.2	2,202.6		
Kelowna <sup>1</sup>			102.6	225.6	304.0		
Abbotsford-Mission	84.7	138.5	232.3	247.2	229.0		
Vancouver	1,747.6	2,240.8	2,735.5	3,348.8	3,279.3		
Victoria	382.1	262.9	367.0	380.6	360.9		

1. Became a census metropolitan area in 2006. **Source:** Statistics Canada, CANSIM table 026-0016.

## Table 6.4 Capital expenditures for construction, by sector, 2005 to 2009

		Actual		Preliminary	Intentions
—	2005	2006	2007	2008 <sup>1</sup>	20092
—			\$ millions		
Canada	171,964.8	195,762.9	214,226.8	231,057.3	220,279.5
Agriculture, forestry, fishing and hunting	1,359.4	1,228.5	1,832.1	1,595.9	1,452.2
Mining and oil and gas extraction	39,397.4	45,800.8	48,316.4	50,195.6	36,670.2
Utilities	9,861.4	11,687.8	14,025.4	17,222.0	18,123.2
Construction	531.0	586.6	671.2	726.5	730.3
Manufacturing	2,235.7	2,665.9	3,192.6	2,277.7	2,221.5
Wholesale trade	1,106.7	1,540.7	1,486.3	1,314.3	1,439.8
Retail trade	3,665.8	4,170.7	4,886.2	4,492.4	4,030.0
Transportation and warehousing	3,966.3	5,767.2	6,201.9	8,741.6	10,461.8
Information and cultural industries	2,693.5	2,124.4	2,127.4	2,600.9	2,547.4
Finance and insurance	809.0	868.2	914.9	1,087.3	1,254.5
Real estate and rental and leasing	3,550.1	4,385.5	4,584.5	4,447.9	4,181.1
Professional, scientific and technical services	330.8	481.7	442.1	434.8	355.3
Management of companies and enterprises	26.5	44.1	26.5	46.4	34.0
Administrative and support, waste management and remediation services	248.8	384.6	453.4	413.4	353.6
Educational services	4,707.7	5.192.1	5,441.8	5.824.0	5,759.9
Health care and social assistance	3.708.7	4.506.8	4.222.4	5.480.1	5,805.7
Arts, entertainment and recreation	692.6	837.5	1.123.1	925.6	829.0
Accommodation and food services	1,508.6	1,786.2	1,853.2	2.374.2	1,054.0
Housing	73,574.9	81,708.8	89,117.7	91,632.9	89,959.1
Public administration	17,511.6	19,504.9	22,813.9	28,681.1	32,522.9
Other services (excluding public administration)	478.4	489.7	493.6	542.7	494.0

Notes: The Capital Expenditures Survey collects data on the intentions for capital investment and the expenditures for the previous two years.

North American Industry Classification System (NAICS), 2002.

1. Data reflect the preliminary actuals for capital expenditures for 2008.

2. Data reflect the intentions for capital expenditures for 2009.

Source: Statistics Canada, CANSIM table 029-0005.

	2003	2004	2005	2006	2007	2008		
	number							
Canada	633,977	662,763	694,384	736,571	785,836	829,561		
Newfoundland and Labrador	8,420	8,889	9,313	9,333	10,005	10,966		
Prince Edward Island	4,176	4,229	4,214	4,172	4,224	4,295		
Nova Scotia	16,596	17,176	17,636	18,893	20,188	20,916		
New Brunswick	14,526	15,158	15,535	16,401	16,923	18,766		
Quebec	135,994	143,748	145,758	145,908	148,119	158,346		
Ontario	224,392	229,585	235,345	246,906	260,174	273,211		
Manitoba	19,951	20,713	21,251	22,782	24,705	25,840		
Saskatchewan	17,565	18,203	19,115	20,793	23,683	25,095		
Alberta	110,041	114,577	126,677	140,134	155,226	161,793		
British Columbia	79,420	87,504	96,039	107,891	119,009	126,516		
Yukon	629	659	858	1,062	1,007	960		
Northwest Territories	1,641	1,728	2,018	1,757	2,010	2,222		
Nunavut	626	595	625	538	564	634		

#### Table 6.5 Payroll employment in construction, by province, 2003 to 2008

Notes: North American Industry Classification System (NAICS), 2002. Survey of Employment, Payroll and Hours.

Source: Statistics Canada, CANSIM table 281-0024.

### Table 6.6 Production of building materials, 2004 to 2008

	2004	2005	2006	2007	2008				
		thousands of cubic metres							
Dry sawn lumber	84,589.6	82,888.9	80,870.4	72,042.6	57,250.1				
		t	housands of bundle	S					
Asphalt shingles, all sizes	43,639.0	40,284.7	44,590.3	41,143.2	44,270.7				
		thou	usands of metric tor	ines					
Cement	13,862.9	14,179.4	14,335.5	15,077.6	13,672.4				
Steel pipe and tubing	2,647.2	2,837.1	2,948.5	2,614.7	2,537.8				

Note: Standard Classification of Goods (SCG).

Source: Statistics Canada, CANSIM tables 303-0009, 303-0046, 303-0052 and 303-0060.