

As the second-largest country on earth, with a population stretched from coast to coast to coast, Canada faces unique transportation challenges. As a result, the transportation industry remains a significant force in the Canadian economy, representing 4.7% of the GDP.

In 2010, transportation and warehousing GDP advanced 4.3%, ahead of the 3.3% growth posted by the whole economy. Rail transportation gained the most ground, increasing 11.8% and contributing \$5.4 billion, as railways carried 291.3 million tonnes of freight, up 12.2% in 2009. Truck transportation, the largest component of transportation GDP, contributed \$17.1 billion and represented 29.3% of overall transportation and warehousing GDP. All transportation and warehousing industries gained in 2010 with the exception of pipeline transportation, which fell 6.9%, but still produced \$4.2 billion worth of GDP.

From 2000 to 2010, transportation GDP expanded 16.3%, to reach \$58.4 billion. The decade saw GDP growth in air (18.6%), rail (7.7%) and truck (25.9%) transportation, whereas marine transportation declined (16.6%).

Marine shipping activity declines

In 2009, Canada's ports and marine terminals handled 409.1 million tonnes of cargo, down 11.8% from 2008, as the volume of both domestic and international cargo declined. The largest decline in shipments during the year occurred at the port of Nanticoke in Southern Ontario, where the tonnage dropped 8.4 million tonnes.

The amount of total domestic cargo handled fell 22.2% to 107.4 million tonnes. International cargo declined for the second consecutive year, decreasing 7.4% to 301.7 million tonnes. Regionally, the largest decreases in international cargo were in shipments originating from the Great Lakes

of the United States (down 12.4 million tonnes) followed by shipments destined for Europe (down 7.4 million tonnes).

After several years of growth, international containerized cargo declined in both volume (11.8%) and tonnage (7.9%). In 2009, Canadian ports handled 3.9 million twenty-foot equivalent units of containers and 34.8 million tonnes of international containerized cargo.

Port Metro Vancouver is still the country's leading port in the handling of containerized traffic; it handled 55% of the total container volume in 2009.

Resource commodities were among the cargo that showed sharp declines in shipments. Most notable were coal, iron ores and concentrates, crude petroleum and potash—together these accounted for 50% of the decline in marine shipping in 2009. Crude petroleum remains the single largest commodity handled within the Canadian marine transportation system, representing more than 20% of the total tonnage.

Canadians are driving more

The number of Canadian road motor vehicle registrations increased by 12% from 2004 to 2009, reaching a total of 21 million vehicles. As the number of vehicles on the roads increased over the course of the 20th century, the number of people per

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vehicle declined. There were 8.6 people for each vehicle registered in 1931; by the mid-1980s, this number had fallen to 1.7 people per vehicle.

Canadians drove more in 2009, with total kilometres driven rising 2.4% from 2008 to reach 333.3 billion kilometres, or 16,249 kilometres per Canadian. The number of vehicles on the road also increased in 2009, up 1.7% from 2008. Across the country, driving to work is by far the most popular commuting method.

Employment declines

Many Canadians make their living moving people and goods around the country. In 2010, transportation and warehousing industries employed 670,675 Canadians. Payroll employment in transportation slipped 0.9% in 2010, the second consecutive annual decline. Payroll employment in air (-1.8%) and rail (-5.6%) transportation declined, whereas support activities for transportation advanced 1.4%. Employment in trucking declined 0.8%,

Table 30.a
GDP of transportation and warehousing industries, by mode of transport, 2010

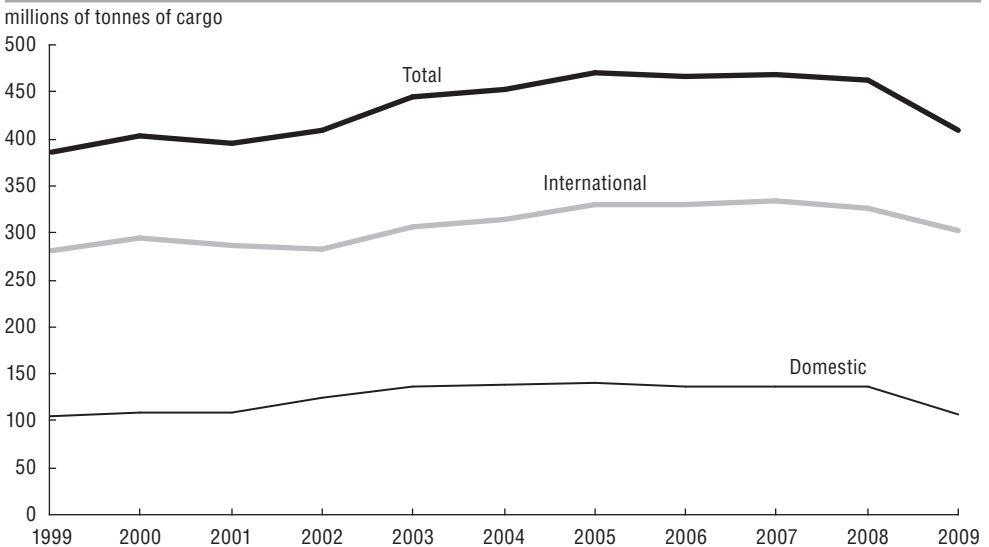
	Share of transportation and warehousing GDP	Change from 2009
	%	
Air transportation	9.8	8.7
Rail transportation	9.2	11.8
Water transportation	1.7	5.6
Truck transportation	29.3	8.3
Transit and ground passenger transportation	10.0	1.9

Source: Statistics Canada, CANSIM table 379-0027.

though it still employed a quarter of those in the transportation and warehousing industries.

From 2000 to 2010, payroll employment in transportation increased 11.9%. Truck transportation, the transportation industry's largest employer, increased the number of employees on payroll by 6.2% over the decade to a total of 166,932. Payroll employment in the rail industry shrank steadily over the decade for a cumulative decline of 26.3%.

Chart 30.1
Cargo handled at Canadian ports and marine terminals



Source: Statistics Canada, Catalogue no. 54-205-X.

Canadians keep their feet on the ground

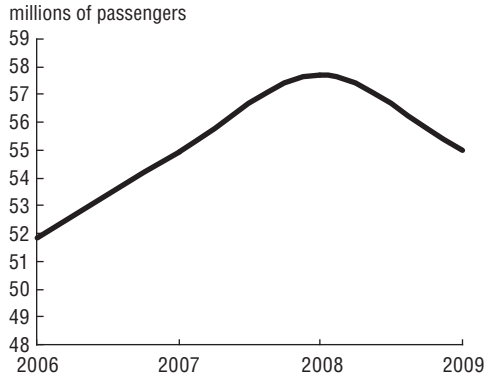
Canadians increasingly chose to stay grounded in 2009, with Canadian air carriers reporting 55.0 million passengers, a 4.7% drop from 2008 that reversed a five-year upward trend. The domestic airline sector declined 4.7% to 32.3 million passengers, while the international sector decreased 1.2% to 22.7 million passengers.

Air carriers recorded 123 billion passenger-kilometres flown in 2009, down 5.1% from the previous year. Both the domestic sector and the international sector fell at the same pace (5.1%).

Despite these declines, Canadian air carriers returned to profitability in 2009 with a recorded net income of \$225.6 million. This gain follows net losses of \$677.1 million in 2008.

Canadian air carriers consumed 5.6 billion litres of fuel in 2009 and

Chart 30.2
Major Canadian airlines, passengers transported



Source: Statistics Canada, CANSIM table 401-0001.

spent \$3.4 billion acquiring the fuel. In 2009, 99 cents of each operating revenue dollar went to cover operating expenses. Fuel costs accounted for 22.4% of the operating expenses, down from 32.4% in 2008.

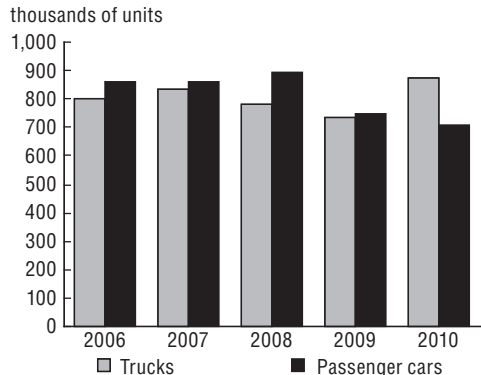
Trucks drive increase in new vehicle sales

The number of new vehicles sold in Canada rose 6.7% in 2010. Truck sales (including minivans, sport-utility vehicles, light and heavy trucks, vans and buses) rose 18.4% to 872,899 units, whereas passenger car sales fell 4.8% to 711,599 units. Sales of new cars in 2010 remained consistently above those in 2009, peaking in May 2010 at 157,082 units, which is 0.7% higher than the May 2009 peak, but still 16.5% lower than in May 2008.

Truck sales represented 55% of the new vehicles sold in 2010, surpassing annual passenger car sales for the first time since 1946. Purchases of trucks for both personal and commercial use contributed to this growth.

This rise in the purchase of larger vehicles is unexpected given the

Chart 30.3
Truck and passenger car sales



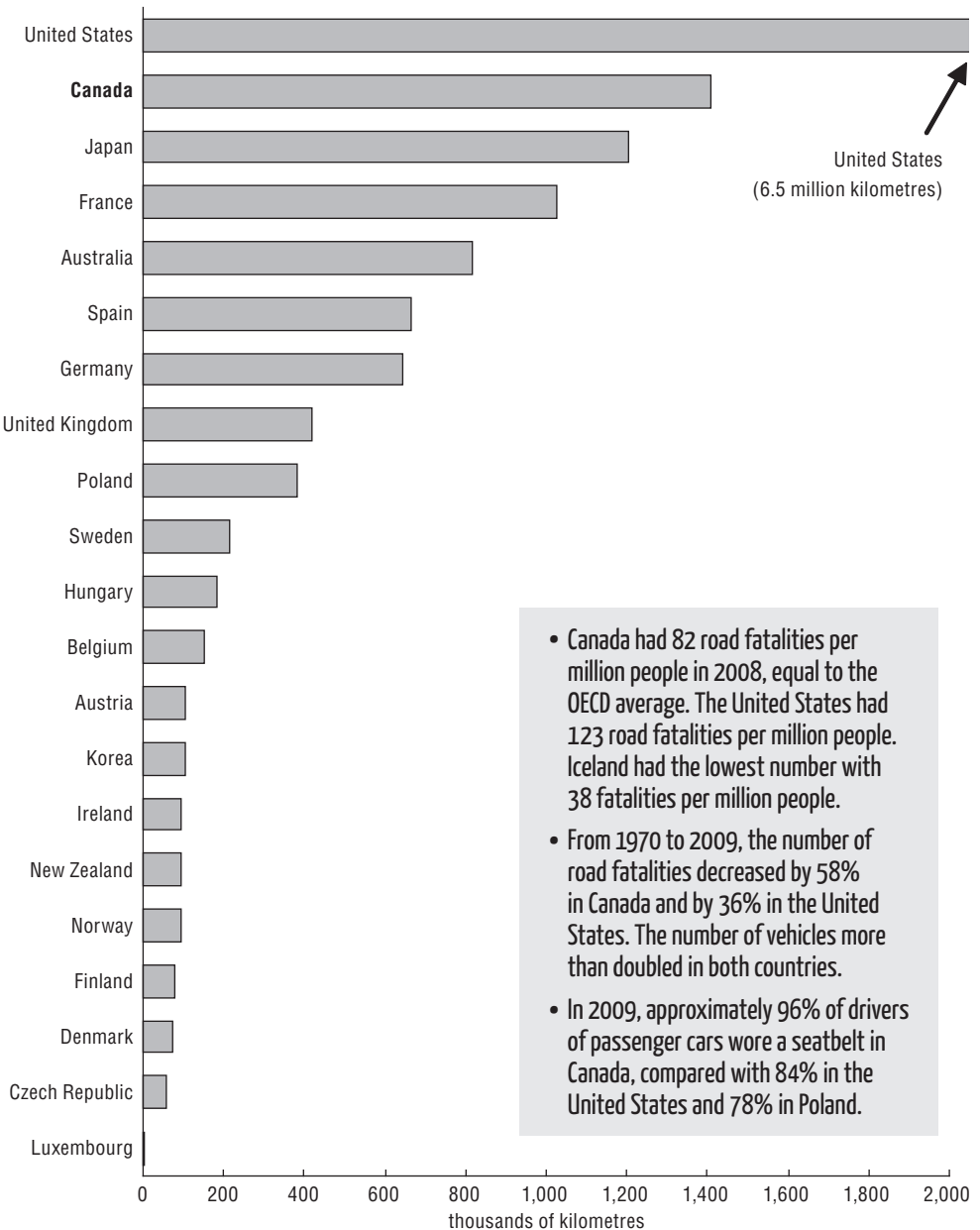
Note: Trucks include minivans, sport-utility vehicles, light and heavy trucks, vans and buses.

Source: Statistics Canada, CANSIM table 079-0003.

parallel trend of rising fuel costs. From December 2009 to December 2010, gasoline prices increased 13%.

INTERNATIONAL perspective

Chart 30.4
Total length of public roads, selected countries, 2008



- Canada had 82 road fatalities per million people in 2008, equal to the OECD average. The United States had 123 road fatalities per million people. Iceland had the lowest number with 38 fatalities per million people.
- From 1970 to 2009, the number of road fatalities decreased by 58% in Canada and by 36% in the United States. The number of vehicles more than doubled in both countries.
- In 2009, approximately 96% of drivers of passenger cars wore a seatbelt in Canada, compared with 84% in the United States and 78% in Poland.

Note: Germany, 2009; Australia, Belgium, Canada, Spain, United States, 2007; Luxembourg, 2006; Norway, 2005; Hungary, 2004; Ireland, 2001.

Source: Data based on OECD (2010), International Transport Forum, *Exposure Data 2010*.

Table 30.1 GDP at basic prices for transportation and warehousing, selected industries, 2005 to 2010

	2005	2006	2007	2008	2009	2010
	\$ millions chained 2002					
Transportation and warehousing	55,235	56,829	57,708	57,978	56,018	58,432
Air transportation	4,633	4,915	5,330	5,475	5,283	5,744
Rail transportation	6,001	5,936	5,794	5,520	4,815	5,383
Water transportation	1,211	1,169	1,038	1,057	932	984
Truck transportation	15,506	16,015	16,408	16,518	15,824	17,138
Transit and ground passenger transportation	5,253	5,247	5,563	5,735	5,750	5,859
Pipeline transportation	5,174	5,329	5,085	4,769	4,529	4,216
Scenic and sightseeing transportation and support activities for transportation	9,535	10,211	10,365	10,594	10,529	10,884
Postal service and couriers and messengers	6,109	6,014	6,190	6,301	6,319	6,310
Warehousing and storage	1,925	2,157	2,169	2,249	2,275	2,227

Note: North American Industry Classification System (NAICS), 2007.

Source: Statistics Canada, CANSIM table 379-0027.

Table 30.2 Canadian railway carriers' operating statistics, 2004 to 2009

	2004	2005	2006	2007	2008	2009
	\$ thousands					
Operating revenue	8,861,767	9,822,719	10,397,092	10,521,084	10,995,438	9,409,503
Freight revenue	7,879,379	8,759,673	9,343,789	9,435,676	9,880,164	8,347,368
Passenger revenue	265,192	282,881	294,529	291,784	304,066	271,099
All other operating revenue	717,194	780,165	758,773	793,625	811,207	791,036
Operating expenses	6,951,895	7,507,439	7,788,216	7,989,357	8,628,547	7,782,714
Ways and structures expenses	1,283,774	1,311,510	1,340,936	1,459,704	1,592,469	1,494,199
Equipment expenses	1,371,147	1,440,876	1,466,059	1,507,953	1,441,127	1,395,412
Rail operating expenses	2,929,148	3,217,842	3,386,015	3,622,544	4,215,936	3,062,354
General expenses	1,367,826	1,537,211	1,595,206	1,399,156	1,379,014	1,830,749
	thousands					
Transportation and other cost-generating sources						
Tonnes of freight transported	361,606	369,943	357,197	356,351	330,067	278,312
Tonne-kilometres of freight transported	338,897,938	352,139,700	352,477,289	358,831,712	340,092,008	299,646,142
Passengers transported	4,048	4,269	4,243	4,336	4,753	4,373
Passenger-kilometres	1,420,804	1,478,454	1,450,481	1,453,005	1,574,293	1,413,352
Litres of diesel oil consumed for all trains	2,097,070	2,130,224	2,119,082	2,193,684	2,078,060	1,770,060

Source: Statistics Canada, CANSIM tables 404-0004, 404-0005, 404-0013, 404-0016 and 404-0019.

Table 30.3 Shipping activities at Canadian ports, 1997 to 2009

	Total	Domestic	United States	Other international
	thousands of tonnes			
Total handled				
1997	376,067	93,418	94,313	188,337
1998	376,032	96,607	100,060	179,364
1999	385,597	104,398	101,983	179,216
2000	402,783	109,020	108,794	184,969
2001	394,701	107,842	107,955	178,904
2002	408,141	125,407	114,310	168,424
2003	443,779	137,079	123,366	183,335
2004	453,280	138,206	123,329	191,746
2005	471,268	140,356	128,681	202,231
2006	466,580	136,295	126,922	203,363
2007	469,332	135,391	123,268	210,673
2008	464,045	138,055	118,573	207,417
2009	409,145	107,432	99,536	202,177
Loaded				
1997	234,653	46,709	56,891	131,054
1998	227,346	48,304	58,872	120,170
1999	231,847	52,199	59,727	119,921
2000	242,351	54,507	64,744	123,099
2001	228,663	53,939	62,038	112,685
2002	237,051	62,780	72,867	101,404
2003	259,871	68,485	81,180	110,207
2004	265,126	69,096	83,720	112,310
2005	271,978	70,224	85,767	115,987
2006	274,381	68,127	84,579	121,676
2007	281,945	67,738	80,789	133,418
2008	272,476	68,970	74,075	129,431
2009	251,009	53,708	68,006	129,294
Unloaded				
1997	141,414	46,709	37,423	57,283
1998	148,686	48,304	41,189	59,194
1999	153,750	52,199	42,256	59,295
2000	160,432	54,513	44,050	61,869
2001	166,038	53,903	45,917	66,219
2002	171,091	62,626	41,444	67,020
2003	183,907	68,594	42,186	73,128
2004	188,154	69,110	39,609	79,436
2005	199,290	70,132	42,914	86,244
2006	192,199	68,168	42,343	81,687
2007	187,387	67,653	42,479	77,255
2008	191,568	69,805	44,498	77,985
2009	158,137	53,724	31,530	72,883

Source: Statistics Canada, Catalogue no. 54-205-X.

Table 30.4 Payroll employment in transportation and warehousing, selected industries, 1996 to 2010

	1996	1997	1998	1999	2000	2001
	number					
Transportation and warehousing	555,148	566,196	582,593	588,436	599,227	596,661
Air transportation	49,823	55,414	60,367	62,400	62,751	61,980
Rail transportation	48,659	46,099	46,323	45,989	47,275	46,966
Water transportation	13,274	11,744	11,018	11,636	12,765	11,950
Truck transportation	145,125	155,044	156,256	156,362	157,250	166,409
Transit and ground passenger transportation	91,752	91,173	91,776	93,039	97,161	92,757
Pipeline transportation	4,842	4,943	4,694	4,653	4,949	4,369
Scenic and sightseeing transportation	1,872	1,786	1,780	1,903	2,051	2,855
Support activities for transportation	66,534	68,732	71,285	76,532	78,978	77,707
Couriers and messengers	37,047	38,160	39,215	38,501	38,271	38,668
Warehousing and storage	27,584	27,144	28,350	29,033	29,436	28,477

Notes: Annual number of salaried and hourly employees on payroll.
North American Industry Classification System (NAICS), 2007.

Source: Statistics Canada, Survey of Employment, Payrolls and Hours, CANSIM table 281-0024 and Catalogue no. 72-002-X.

Table 30.5 Major Canadian airlines, selected operating statistics, 1996 to 2010

	1996	1997	1998	1999	2000	2001
	thousands					
Passengers transported	23,164	24,363	24,571	24,047	24,480	23,414
Passenger-kilometres	57,015,549	62,479,410	64,426,065	65,711,146	68,516,738	67,018,521
Kilograms of goods transported	405,975	449,828	431,150	451,801	407,876	361,834
Tonne-kilometres of goods transported	1,882,803	2,058,953	2,340,594	2,016,503	1,934,683	1,725,325
Hours flown	785	826	843	904	921	856
Litres of turbo fuel consumed	3,349,814	3,631,436	3,855,178	3,571,445	3,871,274	3,678,966

Source: Statistics Canada, CANSIM table 401-0001.

2002	2003	2004	2005	2006	2007	2008	2009	2010
number								
601,588	609,632	628,940	644,762	664,847	686,662	693,904	676,824	670,675
57,562	60,492	59,559	60,546	61,143	68,436	65,959	68,033	66,793
46,843	45,520	43,771	43,308	42,285	41,454	41,739	36,923	34,844
11,990	x	x	x	x	x	x	x	x
168,389	166,207	172,019	176,893	179,588	181,942	182,424	168,241	166,932
101,602	104,617	112,311	115,571	116,925	119,760	118,881	119,209	119,400
4,344	x	x	x	x	x	x	x	x
2,879	x	x	x	x	x	x	x	x
80,007	83,851	85,801	88,352	92,650	96,691	97,992	97,307	98,705
37,053	37,452	38,929	40,932	43,814	45,882	46,912	47,098	46,604
28,044	29,586	31,096	32,437	41,013	43,365	43,822	46,722	45,609

2002	2003	2004	2005	2006	2007	2008	2009	2010
thousands								
23,430	20,042	28,159	32,091	33,439	35,568	37,494	36,244	38,837
69,254,337	59,508,960	76,122,855	83,909,440	88,323,198	93,363,940	96,677,633	93,336,414	102,682,704
355,493	298,990	297,246	268,947	265,470	242,511	218,944	195,068	253,098
1,800,415	1,419,988	1,478,716	1,378,548	1,425,103	1,301,260	1,260,823	1,169,416	1,510,325
806	703	926	981	1,010	1,078	1,119	1,077	1,155
3,453,486	2,999,282	3,660,671	3,855,953	3,980,077	4,137,528	4,178,965	3,893,014	4,328,366

Table 30.6 Trucking industry operating statistics, 2009

	All shipments	Domestic shipments	Transborder shipments ¹	Local shipments ²	Long distance shipments ³
Shipments (number)	54,073,924	46,119,826	7,954,098	10,065,886	44,008,038
Weight (kilograms)	542,728,153,271	460,042,968,092	82,685,185,178	141,890,941,327	400,837,211,943
Distance (kilometres)	31,815,947,239	20,608,607,998	11,207,339,241	103,959,701	31,711,987,538
Tonne-kilometres	212,688,852,560	122,375,366,218	90,313,486,343	1,239,231,131	211,449,621,430
Revenue (\$)	26,270,822,640	17,740,671,059	8,530,151,581	2,787,122,303	23,483,700,337
Weight per shipment (kilograms)	10,037	9,975	10,395	14,096	9,108
Distance per shipment (kilometres)	588	447	1,409	10	721
Revenue per shipment (\$)	485.83	384.66	1,072.42	276.89	533.62
Revenue per tonne-kilometre (\$)	0.1235	0.1450	0.0945	2.2491	0.1111

1. Origins or destinations are in the United States or Mexico.

2. Shipments that are transported less than 25 kilometres.

3. Shipments that are transported more than 24 kilometres.

Source: Statistics Canada, CANSIM table 403-0004.

Table 30.7 Transportation of liquid hydrocarbons, by pipeline distance travelled, 1999 to 2009

	Total liquid hydrocarbons	Crude oil and pentanes plus	Liquefied petroleum gases and refined petroleum products
	average kilometres per cubic metre		
1999	5,858.3	6,541.1	4,577.1
2000	5,296.8	5,804.7	4,315.4
2001	5,152.3	5,780.8	3,827.1
2002	5,243.3	5,826.7	4,039.4
2003	6,077.2	6,968.4	4,006.5
2004	6,078.8	6,967.0	3,909.3
2005	5,733.3	6,497.9	3,854.5
2006	6,015.0	6,873.2	3,704.5
2007	6,022.0	7,009.7	3,493.9
2008	5,995.9	6,947.4	3,270.8
2009	5,873.7	6,681.7	3,383.0

Note: The average kilometre per cubic metre is the distance each cubic metre of oil travelled.

Source: Statistics Canada, CANSIM table 133-0002.

Table 30.8 Vehicle registrations, 2004 to 2009

	2004	2005	2006	2007	2008	2009
	number					
All vehicle registrations	25,196,428	25,838,309	26,684,822	27,577,524	28,466,275	29,055,303
Road motor vehicle registrations	19,156,055	19,515,295	20,065,171	20,593,251	21,087,014	21,387,132
Vehicles weighing less than 4,500 kilograms	17,989,919	18,275,275	18,738,941	19,198,960	19,612,935	19,876,990
Vehicles weighing 4,500 kilograms to 14,999 kilograms	393,528	415,764	442,607	461,144	490,147	503,505
Vehicles weighing 15,000 kilograms or more	285,942	301,574	318,272	328,128	332,873	326,190
Buses	77,842	78,962	80,447	82,583	84,163	85,579
Motorcycles and mopeds	408,822	443,718	484,903	522,433	566,894	594,866
Trailers	4,513,641	4,722,563	4,961,184	5,231,114	5,527,800	5,747,291
Off-road, construction and farm vehicles	1,526,731	1,600,450	1,658,466	1,753,158	1,851,460	1,920,880

Source: Statistics Canada, CANSIM table 405-0004.

Table 30.9 Road motor vehicle fuel sales, 2004 to 2009

	2004	2005	2006	2007	2008	2009
	thousands of litres					
Net sales of gasoline	38,911,752	38,484,324	38,653,955	39,635,182	39,148,560	39,736,092
Gross sales of gasoline	40,146,013	39,845,934	39,918,335	40,848,495	40,496,036	41,025,643
Net sales of diesel oil	15,671,144	16,216,420	16,611,819	17,133,467	16,555,321	16,191,794
Net sales of liquefied petroleum gas ¹	358,459	324,286	325,747	314,875	263,728	261,816

Note: Gross is the total volume sold and net is the volume on which taxes were paid.

1. Data for British Columbia are not included.

Source: Statistics Canada, CANSIM table 405-0002.