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CANADA'S RAILWAYS

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# 2014 Rail Trends



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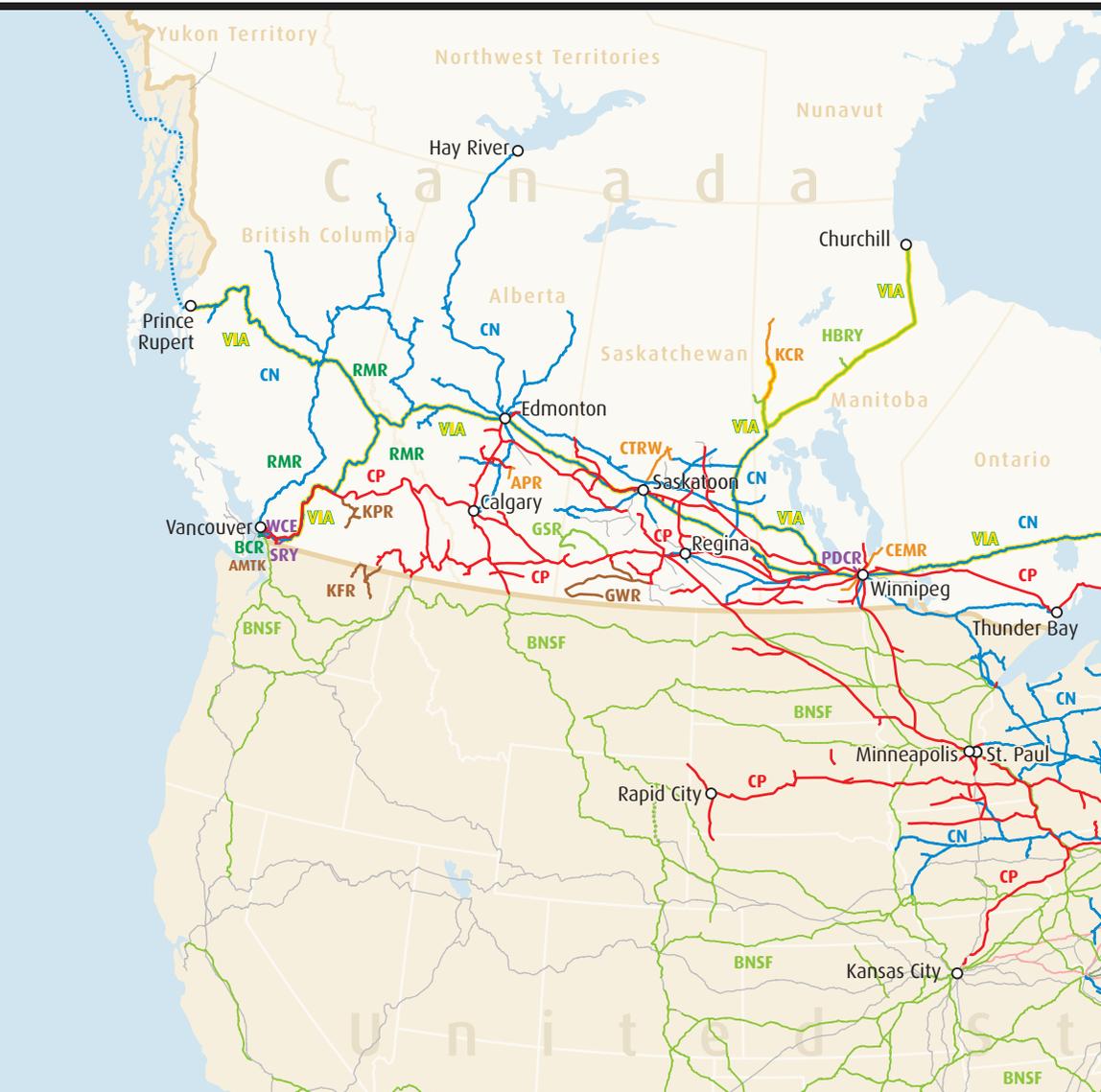
PULLING *for* CANADA

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Railway Association  
of Canada

[www.railcan.ca](http://www.railcan.ca)



RAC members as of Dec. 31, 2013.

ISBN: 978-1-927520-03-1

For more detailed maps, please see the most recent  
edition of the Canadian Rail Atlas.

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# MEMBER COMPANIES

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2013

<b>AMT</b>	Agence métropolitaine de transport	<b>KRC</b>	Keewatin Railway
<b>APR</b>	Alberta Prairie Railway Excursions	<b>KPR</b>	Kelowna Pacific Railway
<b>AMTK</b>	Amtrak	<b>KFR</b>	Kettle Falls International Railway
<b>AMMC</b>	ArcelorMittal Mines Canada	<b>WLRS</b>	Labrador Iron Mines Railway
<b>BCRY</b>	Barrie-Collingwood Railway	<b>LMR</b>	Last Mountain Railway
<b>BRR</b>	Battle River Railway	<b>NBSR</b>	New Brunswick Southern Railway
<b>BCR</b>	British Columbia Railway Company	<b>NCR</b>	Nipissing Central Railway
<b>BSR</b>	Big Sky Rail	<b>NS</b>	Norfolk Southern Railway
<b>BNSF</b>	BNSF Railway	<b>ONR</b>	Ontario Northland Railway
<b>CN</b>	Canadian National	<b>OSR</b>	Ontario Southland Railway
<b>CP</b>	Canadian Pacific	<b>OBRY</b>	Orangeville-Brampton Railway
<b>CBNS</b>	Cape Breton & Central Nova Scotia Railway	<b>OVR</b>	Ottawa Valley Railway
<b>CR</b>	Capital Railway	<b>PDCR</b>	Prairie Dog Central Railway
<b>CTRW</b>	Carlton Trail Railway	<b>CFQG</b>	Quebec Gatineau Railway
<b>CEMR</b>	Central Manitoba Railway	<b>QNSL</b>	Quebec North Shore & Labrador Railway
<b>CFC</b>	Charlevoix Railway	<b>CFRR</b>	Romaine River Railway
<b>CFA</b>	Chemin de fer Arnaud	<b>SCFG</b>	Société du Chemin de Fer de la Gaspésie
<b>RS</b>	Compagnie de chemin de fer Roberval-Saguenay	<b>SSR</b>	South Simcoe Railway
<b>CFL</b>	Compagnie du Chemin de Fer Lanaudière	<b>SOR</b>	Southern Ontario Railway
<b>CSX</b>	CSX Transportation	<b>SRV</b>	Southern Railway of British Columbia
<b>EMRY</b>	Eastern Maine Railway	<b>SLQ</b>	St. Lawrence & Atlantic Railroad
<b>ETR</b>	Essex Terminal Railway	<b>SSRY</b>	Stewart Southern Railway
<b>GO</b>	GO Transit	<b>SCR</b>	Sydney Coal Railway
<b>GEXR</b>	Goderich & Exeter Railway	<b>TTR</b>	Toronto Terminals Railway
<b>RMR</b>	Great Canadian Railtour Company	<b>TSH</b>	Tshuuetin Rail Transportation
<b>GSR</b>	Great Sandhills Railway	<b>VIA</b>	VIA Rail Canada
<b>GWR</b>	Great Western Railway	<b>WLR</b>	Wabush Lake Railway
<b>HBRY</b>	Hudson Bay Railway	<b>WCE</b>	West Coast Express
<b>HCRY</b>	Huron Central Railway		

# ASSOCIATE MEMBERS

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2013

Absopulse Electronics Ltd  
Accuworx Inc.  
Alexander Holburn Beaudin & Lang LLP  
Amsted Rail  
Bayside Canadian Railway  
Bombardier Transportation  
CANAC Railway Services Inc.  
Canada Heavy Haul Railway United  
Technologies Inc.  
Canadian Heartland Training Railway  
Services Inc.  
Canadian Rail Research Laboratory  
C-Core  
Clean Harbors Environmental Services  
Contrans Flatbed Group  
Crescent Point Energy  
CSTP Inc.  
Davanac Inc.  
Drain-All Ltd.  
Envirotec Services Incorporated  
Forma-Train  
GATX Rail Canada Corporation  
Gestion AFM-Séma inc.  
HDR Engineering  
Heenan Blaikie  
Hewitt Equipement Ltd.  
IBI Group  
Itech Environmental Remediation  
Kenneth Peel  
Loram  
Marathon Drilling Co. Ltd.  
Mecfor inc.  
Montréal Port Authority  
NARSTCO  
Ogborn Consulting Group, LLC  
OWS Railcar Inc.  
PNR Railworks Inc.  
Progressive Rail Specialized Logistics  
Quantum Murray LP  
Rail Cantech  
Raildecks (2009) Inc.  
RailTerm  
RB&C Maintenance of Way  
Red Giant Oil Company  
Réparations ferroviaires K.L.N. Inc.  
RTC Rail Solutions Ltd  
Sandy Cooke Consulting Inc.  
Siemens Canada Limited  
Soulanges Railway Services Inc.  
Stantec Inc.  
Swift Railroad Contractors  
Tanis Peterson  
Tervita  
T-Rail Products Inc.  
Transportation Certification Services  
Vidal Street Industrial Park Inc.  
Whiting Equipment Canada  
X-Rail Signalisation Inc.

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## MESSAGE FROM THE PRESIDENT

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**O**ur annual publication, *Rail Trends*, provides a snapshot of Canadian railways' economic, environmental, and safety performance. While the data in this year's edition shows that Canada's railway industry continues to fulfill its role as the backbone of a globally competitive economy, the safety statistics remind us of the tragic accident in Lac-Mégantic, Que. on July 6, 2013.

This accident deeply affected every railway – and every railroader – in Canada. Canada's railways have always taken safety seriously, but the safety discussion took on an even greater urgency and importance post-Lac-Mégantic. We know we are in a different environment now, and we accept our position and our responsibility with humility.

Since the accident, Canada's railways have worked with Transport Canada to develop new train securement and operating practices to ensure rail safety. The industry has also introduced new information-sharing, emergency preparedness, and first-responder training initiatives, and has made significant investments to ensure the safety of its infrastructure. The Railway Association of Canada now also requires companies to make a commitment to safety culture, as a condition of membership in the association.

As we move forward, RAC will continue to work collaboratively with governments and stakeholders to learn from the accident in Lac-Mégantic, and will implement new measures to ensure that the rail sector remains globally competitive, sustainable, and most importantly, safe.

Sincerely,



Michael Bourque

President and Chief Executive Officer  
Railway Association of Canada



# INTRODUCTION

This is the 22<sup>nd</sup> edition of *Rail Trends*, the Railway Association of Canada's (RAC) annual report on the performance of Canada's freight and passenger railway sector. This publication contains a rolling 10-year review of financial and statistical results, reflecting multiple aspects of rail performance in Canada.

The data in *Rail Trends* comes from RAC members – Class I, local and regional freight railways, as well as tourist, intercity and commuter passenger service providers. While RAC represents the majority of non-Class I railways in Canada, it does not represent the whole sector. Data reflects performance in Canada only.

Canada's Class I freight and passenger railways (CN, CP and VIA Rail) account for the majority of Canadian rail activity. For that reason, most of the data presented in *Rail Trends* reflects Class I carriers.<sup>1</sup>

This year's data is categorized into four sub-sections:

- Safety
- Economy
- Fuel management
- Infrastructure investment and productivity

## Year-over-year and 10-year comparison

	2004	2012	2013
Revenue ton-miles (billions)	235.1	273.5	291.2
Revenue tonne-kilometres (billions)	343.2	399.3	425.1
Miles of rail operated *	30,551	26,923	27,270
Kilometres of rail operated *	49,167	43,328	43,887
Locomotives	3,234	3,063	3,043
Freight cars (000)	99	64	59
Gallons of fuel (millions)	480	472	464
Litres of fuel (millions)	2,184	2,144	2,111
Employees	35,736	34,629	33,167
Annual wage per employee (\$)	66,804	82,883	88,153

\* Miles (kilometres) of rail operated includes rail over which a railway has operating rights.

<sup>1</sup> Railways are classified according to their operating revenue or the nature of their operations. The threshold for a Class I rail carrier is \$250 million. Other railways are classified as Class II and Class III. (Source: Transportation Information Regulations (SOR/96-334).)

# SAFETY

## Freight rail accidents

Reportable freight-railway-related accidents<sup>2</sup> climbed 8.4 per cent in 2013 from the previous year, and increased by 1.1 per cent from the 2008-2012 average. Since 2004, overall reportable rail accidents have dropped by 31.8 per cent.

The number of accidents based on the freight sector's workload, or the rate per billion gross ton-miles (BGTM),<sup>3</sup> rose to 2.17 from a record low of 2.10 in 2012.

NOTE: *Rail Trends* safety data reflects the performance of RAC's federally and provincially regulated freight and passenger member-railways. The data in this report comes from the Transportation Safety Board of Canada (TSB) and the RAC. The TSB maintains a database of safety performance statistics on federally regulated railways, as well as provincially regulated railways that voluntarily report their data. RAC collects similar statistics for its member-railways. Each organization uses the same safety definitions, and the data reflects operations in Canada only.



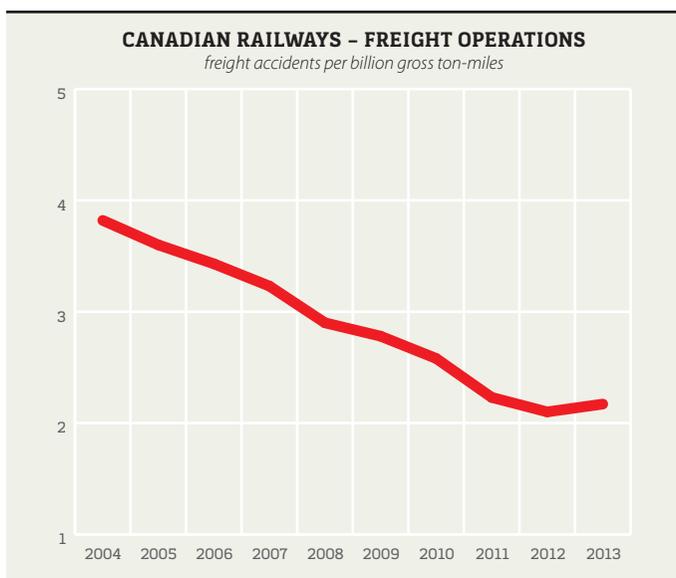
Photo: CN

- 2 Please see Appendix A for the definition of a reportable railway accident.
- 3 The sum of ton-miles handled, calculated using the total weight of the trailing tonnage (both loaded and empty cars) of the trains moved. It excludes the weight of the locomotives pulling the trains.

## SAFETY

### Freight rail accidents

	Freight accidents	BGTM	Rate
2004	1,685	441.47	3.82
2005	1,647	457.95	3.60
2006	1,578	459.63	3.43
2007	1,497	463.36	3.23
2008	1,304	449.92	2.90
2009	1,104	397.29	2.78
2010	1,155	447.05	2.58
2011	1,057	473.31	2.23
2012	1,060	503.88	2.10
<b>2013</b>	<b>1,149</b>	<b>529.56</b>	<b>2.17</b>



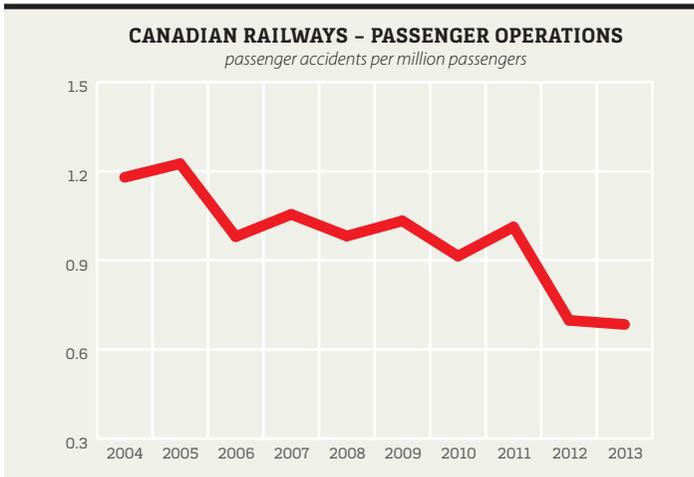
## SAFETY

### Passenger rail accidents

The rate of accidents per million passengers/commuters<sup>4</sup> fell by 2.0 per cent to 0.68 between 2012 and 2013. This was the lowest passenger accident rate to date, and 26.3 per cent lower than the five-year average of 0.93.

### Passenger rail accidents

	Passenger accidents	Intercity passengers	Commuter passengers	Tourist passengers	Total (million)	Rate
2004	70	4,181	54,905	252	59	1.18
2005	77	4,322	58,235	277	63	1.23
2006	64	4,320	60,634	360	65	0.98
2007	72	4,478	63,393	378	68	1.06
2008	71	4,899	67,052	352	72	0.98
2009	73	4,538	65,962	175	71	1.03
2010	67	4,477	68,562	222	73	0.91
2011	74	4,461	68,427	192	73	1.01
2012	52	4,246	70,035	214	74	0.70
<b>2013</b>	<b>51</b>	<b>4,250</b>	<b>70,092</b>	<b>215</b>	<b>75</b>	<b>0.68</b>



<sup>4</sup> The accident rate for passenger railways is determined by calculating the number of accidents per million intercity and tourist passengers and rail commuters.

## SAFETY

### Accidents involving dangerous goods

The number of accidents involving dangerous goods<sup>5</sup> rose by 26.6 per cent in 2013 from the previous year, and declined by 9.5 per cent from the 2008-2012 average. The rate of accidents involving dangerous goods per 1,000 originated dangerous goods carloads rose to 0.32 from 0.29 in 2012. More than 85 per cent of reportable dangerous goods accidents in 2013 involved non-main-track trains.



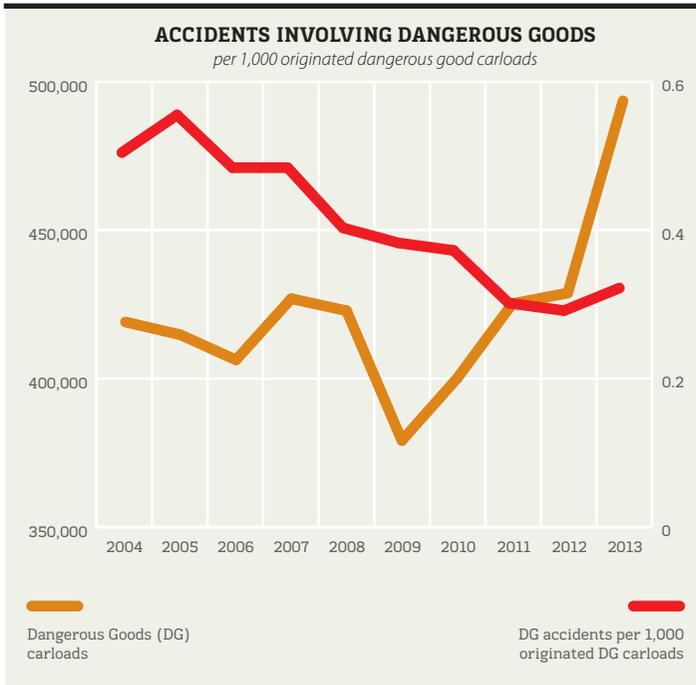
Photo: CN

5 Accidents involving dangerous goods include incidents where road vehicles alone were carrying or recently carried dangerous goods. One such accident in 2013 involved a collision between a train and a tanker truck at a railway crossing, resulting in a release of petroleum crude oil. (Source: TSB)

# SAFETY

## Accidents Involving Dangerous Goods

	Total Accidents Involving Dangerous Goods	Dangerous goods (DG) carloads	DG accidents per 1,000 originated DG carloads
2004	217	419,031	0.52
2005	229	414,752	0.55
2006	196	406,425	0.48
2007	206	426,789	0.48
2008	170	422,764	0.40
2009	145	379,650	0.38
2010	149	400,318	0.37
2011	129	425,124	0.30
2012	124	428,660	0.29
<b>2013</b>	<b>157</b>	<b>492,515</b>	<b>0.32</b>



## SAFETY

### Crossing & trespassing accidents

In 2013, crossing accidents<sup>6</sup> increased by 4.0 per cent from the previous year, and edged up by 0.6 per cent from the 2008-2012 average. Conversely, trespasser accidents<sup>7</sup> dropped by 17.3 per cent, year-over-year, and by 19.9 per cent from the five-year average.



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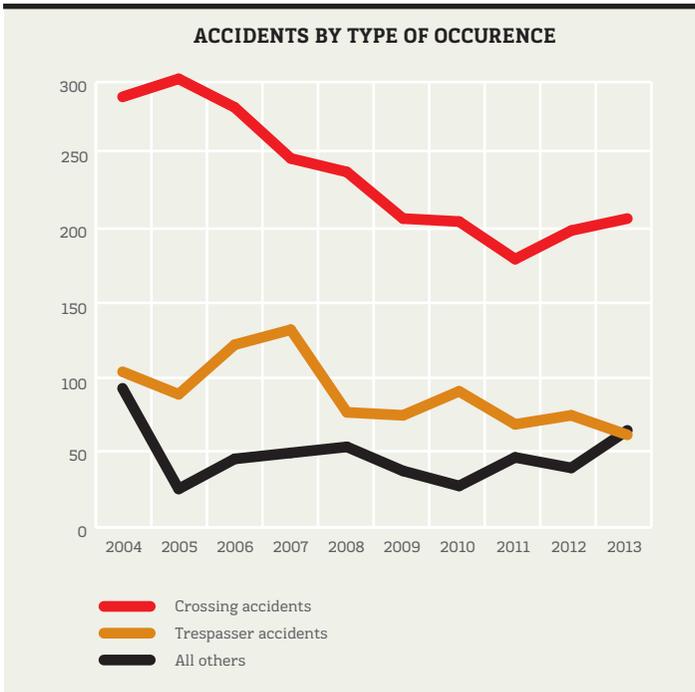
6 A crossing accident is when a railway locomotive or car is involved in a collision with a motor vehicle or pedestrian at a railway crossing, resulting in death, serious injury or property damage.

7 Trespasser accidents occur when people – primarily pedestrians who are not authorized to be on railway rights-of-way – are struck by locomotives or railway cars anywhere other than at railway crossings.

# SAFETY

## Accidents by type of occurrence

	Crossing accidents	Trespasser accidents	Other accident types
2004	287	104	93
2005	299	89	26
2006	280	122	46
2007	246	132	50
2008	237	77	54
2009	206	75	38
2010	204	91	28
2011	179	69	47
2012	198	75	40
2013	206	62	65



# **ECONOMY**

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## **Freight rail traffic**

### **Revenue ton-miles** (Revenue tonne-kilometres)

Freight traffic increased by 6.5 per cent to a record high of 291.2 billion revenue ton-miles<sup>8</sup> (or 425.1 billion revenue tonne-kilometres) in 2013 from the previous year. Traffic grew by 19.0 per cent from the 2008-2012 average of 244.8 billion revenue ton-miles.



Photo: CPR

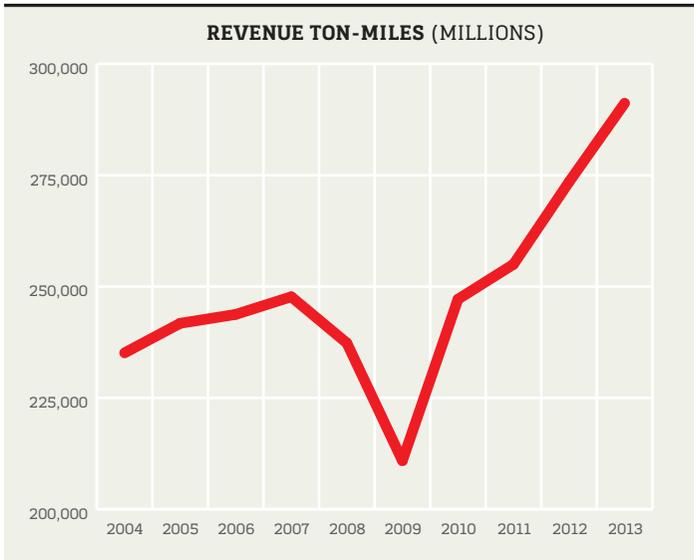
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<sup>8</sup> The sum of ton-miles handled, calculated using the total weight of the commodities moved. RTM excludes the ton-miles involved in moving railway materials or any other non-revenue movement.

## ECONOMY

### Revenue ton-miles (Revenue tonne-kilometres)

	Freight train miles (000)	Freight train kilometres (000)	Revenue ton-miles (millions)	Revenue tonne-kilometres (millions)
2004	74,284	119,548	235,114	343,232
2005	76,400	122,953	241,745	352,912
2006	76,451	123,035	243,744	355,831
2007	74,100	119,253	247,709	361,619
2008	71,712	115,409	237,323	346,457
2009	59,576	95,877	210,898	307,880
2010	65,157	104,859	247,154	360,809
2011	66,082	106,348	255,001	372,264
2012	68,145	109,668	273,504	399,275
<b>2013</b>	<b>67,207</b>	<b>108,160</b>	<b>291,172</b>	<b>425,069</b>



## ECONOMY

### Carload traffic

Since 2010, freight rail volumes have risen as Canada's economy has improved. Freight carloads originated by railways in Canada<sup>9</sup> increased by 2.9 per cent in 2013 from the previous year, while the volume of freight loaded into those cars rose by 3.4 per cent. As a result, the tonnage per carload crept up by 0.5 per cent from the previous year to a record 92 tons (83 tonnes) per carload. A summary of carloads by commodity grouping can be found on page 19.

In 2013, carloads and tons originated increased by 9.2 per cent and 18.9 per cent respectively from their five-year averages.



Photo: CN

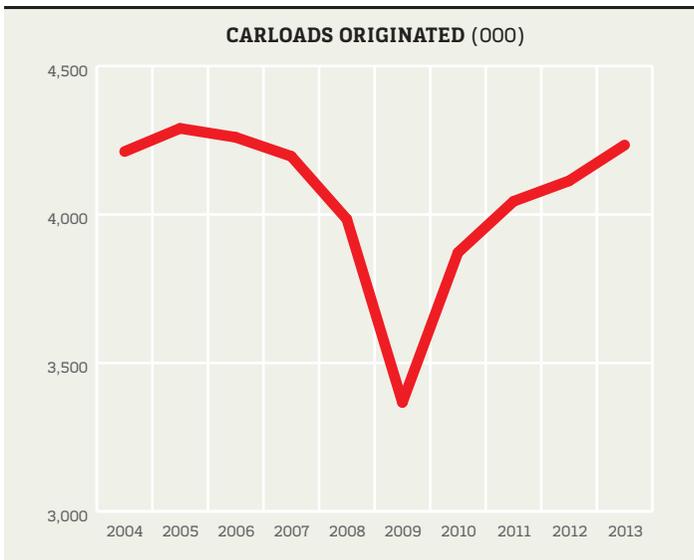
9 A detailed profile of railway industry performance by province is available on [www.railcan.ca](http://www.railcan.ca).

## ECONOMY

### Carload traffic

	Carloads originated (000)	Tons originated (000)	Tonnes originated (000)	Tons per carload*	Tonnes per carload*
2004	4,212	337,923	306,563	80	73
2005	4,290	343,464	311,590	80	73
2006	4,260	339,394	307,897	80	73
2007	4,196	337,989	306,623	81	73
2008	3,984	318,688	289,114	80	73
2009	3,367	269,028	244,062	80	73
2010	3,872	334,264	303,258	86	78
2011	4,044	337,074	305,793	83	76
2012	4,113	375,780	340,907	91	83
<b>2013</b>	<b>4,234</b>	<b>388,621</b>	<b>352,557</b>	<b>92</b>	<b>83</b>

\* Tons (tonnes) per carload: Tons (tonnes) originated divided by carloads originated.



## ECONOMY

### Intermodal traffic

Total intermodal traffic<sup>10</sup> originated in Canada – including container<sup>11</sup> and trailer traffic – rose by 4.1 per cent to a record high of 2.7 million units. Traffic in 2013 was 12.6 per cent higher than the five-year average.



10 Total intermodal traffic originated in Canada reflects both the Canadian and U.S. operations of Canadian Class I railways. Intermodal units are actual counts of trailers and containers, regardless of size, and are not "twenty-foot equivalent units (TEUs)".

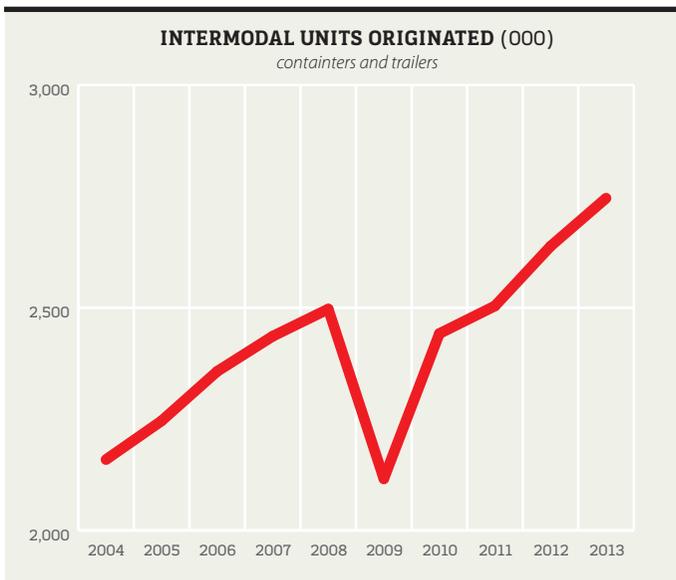
11 A large, weatherproof box designed for shipping and/or transferring freight between rail, truck or marine modes. Specialized containers are equipped with heating and cooling capabilities for perishable products.

## ECONOMY

### Intermodal traffic originated\*

	Trailers (000)	Containers (000)	Total (000)
2004	149	2,010	2,159
2005	112	2,134	2,246
2006	106	2,251	2,357
2007	102	2,334	2,436
2008	101	2,396	2,497
2009	83	2,033	2,116
2010	81	2,361	2,442
2011	80	2,424	2,504
2012	98	2,540	2,638
<b>2013</b>	<b>118</b>	<b>2,628</b>	<b>2,746</b>

\* Reflects both Canadian and U.S. operations of Canadian Class 1 railways. Intermodal units are actual counts of trailers and containers, regardless of size, and are not "twenty-foot equivalent units (TEUs)".



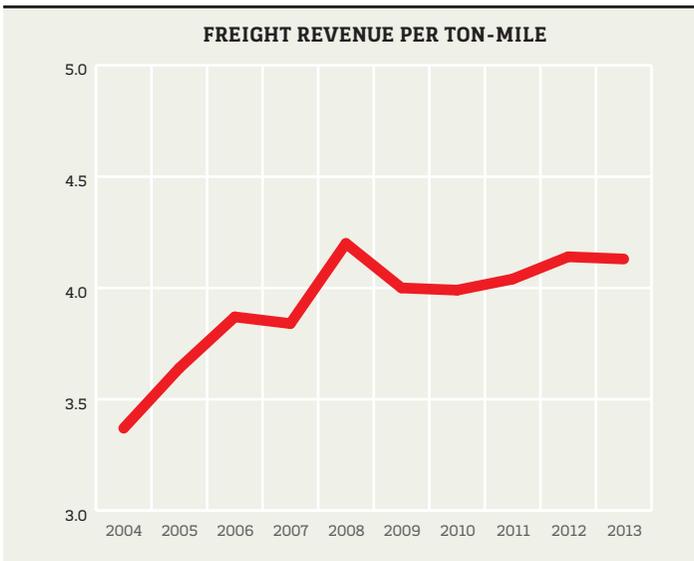
## ECONOMY

### Freight revenue (cents) per ton-mile (tonne-kilometre)

Freight revenue per ton-mile (tonne-kilometre)<sup>12</sup> in 2013 declined by 0.1 per cent from the previous year, as traffic growth outpaced revenue growth. Freight revenue per ton-mile in 2013 was 1.5 per cent higher than the five-year average.

### Freight revenue per ton-mile

	Revenue per		Index 2001 = 100
	ton-mile	tonne-kilometre	
2004	3.37	2.31	103.1
2005	3.64	2.49	111.3
2006	3.87	2.65	118.3
2007	3.84	2.63	117.4
2008	4.20	2.87	128.4
2009	4.00	2.74	122.3
2010	3.99	2.74	122.0
2011	4.04	2.77	123.5
2012	4.14	2.84	126.6
<b>2013</b>	<b>4.13</b>	<b>2.83</b>	<b>126.5</b>



12 Freight revenue per ton-mile is calculated by dividing freight revenue by total revenue freight ton-miles.

## ECONOMY

### Track operated & Equipment in service

Canadian railways operated 27,270 miles (43,887 kilometres) of track<sup>13</sup> in 2013, up 1.3 per cent from the previous year. The industry's freight car fleet fell by 7.9 per cent in 2013, as shippers owned more of their own cars. The number of locomotives in service edged down by 0.7 per cent, year over year.

### Track operated & Equipment in service

	Miles	Kilometres	Index 2000 = 100	Freight cars in service	Locomotives in service
2004	30,551	49,167	105.5	99,141	3,234
2005	30,380	48,893	104.9	101,606	3,253
2006	29,978	48,243	103.5	99,946	3,271
2007	29,713	47,816	102.6	92,373	3,165
2008	29,366	47,258	101.4	83,984	3,046
2009	28,163	45,323	97.3	75,836	2,742
2010	27,654	44,501	95.5	71,788	2,954
2011	27,102	43,617	93.6	71,750	2,977
2012	26,923	43,328	93.0	64,485	3,063
<b>2013</b>	<b>27,270</b>	<b>43,887</b>	<b>94.2</b>	<b>59,395</b>	<b>3,043</b>

NOTE: While Canada's Class I railways discontinue service on some track segments, they also sell or lease parts of their networks to regional and local railways that serve rural and remote communities. While RAC represents the majority of non-Class I railways in Canada, it does not represent the whole sector. *Rail Trends* data is reflective of RAC membership only. Thus, track segments acquired by non-RAC members would have the effect of reducing the total track mileage reported in *Rail Trends*.

<sup>13</sup> First main track only. Excludes second and other main track, passing tracks and crossovers, industrial tracks, spurs and yard tracks. Excludes track used by intercity passenger trains, commuter & tourist trains, and segments of track terminating in the U.S.

## ECONOMY

### Track operated, by provinces and territories\*

	2012		2013	
	Miles	Kilometres	Miles	Kilometres
Alberta	4,154	6,685	4,150	6,679
British Columbia	4,060	6,533	4,174	6,717
Manitoba	2,703	4,350	2,662	4,284
Nfld. & Labrador	237	381	162	261
New Brunswick	724	1,165	720	1,159
Nova Scotia	419	674	419	674
Ontario	6,382	10,273	6,270	10,091
Quebec	3,503	5,638	3,554	5,719
Saskatchewan	4,664	7,506	5,083	8,181
Northwest Territories	75	121	75	121
<b>Total</b>	<b>26,922</b>	<b>43,328</b>	<b>27,270</b>	<b>43,887</b>
Intercity passenger trains	7,820	12,585	7,820	12,585
Commuter and tourist trains	2,837	4,565	2,365	3,806
Segments terminating in the U.S.	152	244	152	244
<b>Grand total</b>	<b>37,730</b>	<b>60,723</b>	<b>37,607</b>	<b>60,523</b>

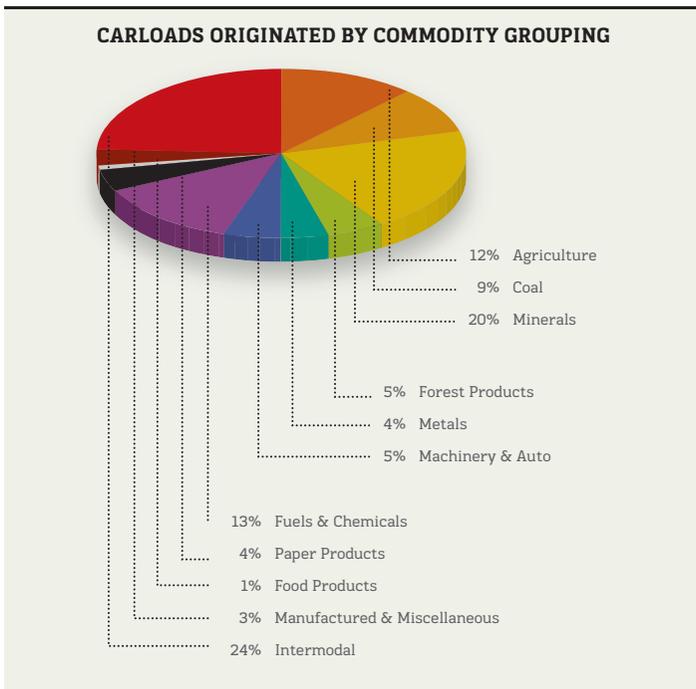
\* First main track only. Excludes second and other main track, passing tracks and crossovers, industrial tracks, spurs and yard tracks.

## ECONOMY

### Carloads originated by commodity grouping

*Rail Trends* tracks 11 commodity groupings moved by the railway sector.<sup>14</sup> Based on the number of carloads moved, the largest increases among commodity groupings in 2013 (including each grouping's year-over-year increase) were fuels and chemicals (+12.5%), manufactured and miscellaneous products (+11.2%), and coal (+8.4%). The largest declines were reported in the machinery and automotive (-9.6%) and food products (-7.4%) groupings.

The chart below illustrates carloads originated by commodity grouping as a percent of all commodity carloads among RAC member railways. Some categories have been grouped together.



<sup>14</sup> Statistics Canada provides monthly statistics of rail car loadings in Canada in its *Railway Carloadings* publication. This publication offers a brief analysis, along with a number of tables showing carloadings and tonnes carried for 63 commodity groupings.

## ECONOMY

### Carloads originated by commodity grouping\*

	Agriculture	Coal	Minerals	Forest Products	Metals	Machinery & Auto
2004	412,099	337,592	639,764	442,689	326,020	253,003
2005	416,473	353,197	657,410	433,138	295,022	235,480
2006	453,151	321,266	600,823	388,035	362,000	244,395
2007	454,034	349,983	609,422	317,158	359,982	234,830
2008	430,292	324,931	574,645	253,279	369,475	195,308
2009	474,980	277,048	368,631	182,395	273,800	148,123
2010	462,445	327,419	703,270	205,120	160,895	185,962
2011	466,305	348,556	790,520	228,448	160,827	186,522
2012	472,474	353,201	805,952	209,654	161,541	220,216
<b>2013</b>	<b>465,340</b>	<b>383,013</b>	<b>810,750</b>	<b>215,254</b>	<b>150,906</b>	<b>199,068</b>

	Fuels & Chemicals	Paper Products	Food Products	Manufactured & Misc.	Intermodal	Total
2004	485,197	333,061	40,587	63,890	722,412	4,056,314
2005	469,655	333,830	44,169	65,629	769,936	4,073,939
2006	470,833	274,092	41,454	66,333	819,552	4,041,934
2007	470,876	252,150	41,822	65,923	832,663	3,988,843
2008	443,125	228,072	42,365	75,160	847,647	3,784,299
2009	401,141	175,693	42,232	79,445	741,807	3,165,295
2010	419,905	170,823	52,240	92,949	847,832	3,628,860
2011	432,657	157,780	54,948	94,935	890,168	3,811,666
2012	479,669	149,740	60,906	93,129	946,223	3,952,706
<b>2013</b>	<b>539,566</b>	<b>150,029</b>	<b>56,405</b>	<b>103,605</b>	<b>987,186</b>	<b>4,061,122</b>

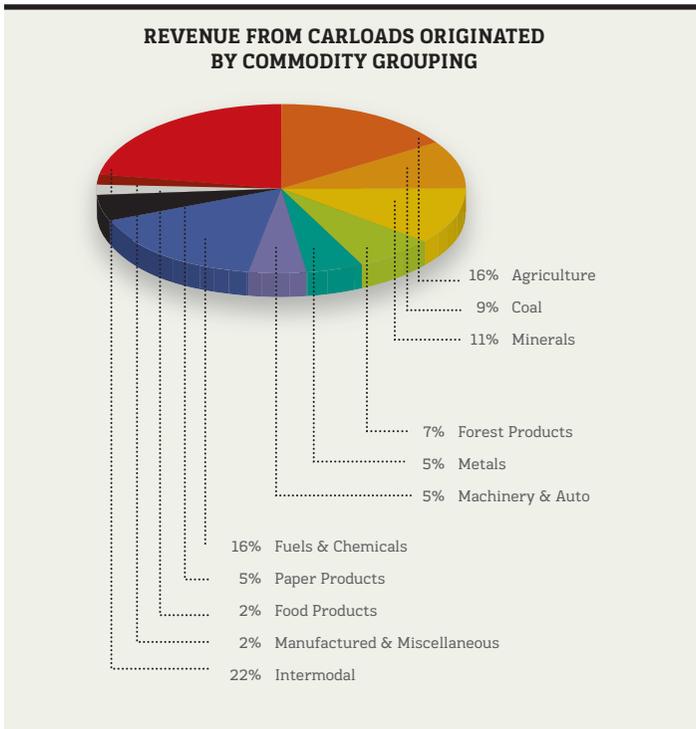
\* Not all member companies record carloads originated by commodity grouping. The Intermodal counts represent an average load factor that determined the number of carloads reported.

## ECONOMY

### Revenue from carloads originated by commodity grouping

On a revenue basis, the largest increases among commodity groupings in 2013 (including each grouping's year-over-year increase) were fuels and chemicals (+23.0%), manufactured and miscellaneous (+14.1%), and coal (+11.2%). Year-over-year, revenues decreased in the machinery and automotive (-5.3%) and food products (-3.9%) groupings.

The chart below illustrates revenues from carloads originated by commodity grouping as a percent of all revenues from commodity carloads among RAC member railways. Some categories have been grouped together.



## ECONOMY

### Revenue from carloads originated by commodity grouping (\$millions) \*

	Agriculture	Coal	Minerals	Forest Products	Metals	Machinery & Automotive
2004	875	513	763	798	404	397
2005	948	738	811	969	429	414
2006	1,125	676	764	928	489	433
2007	1,157	709	819	780	476	445
2008	1,161	706	833	646	531	443
2009	1,259	502	525	478	317	337
2010	1,221	598	772	500	381	394
2011	1,297	713	898	564	424	381
2012	1,374	749	926	611	455	508
<b>2013</b>	<b>1,433</b>	<b>833</b>	<b>973</b>	<b>660</b>	<b>448</b>	<b>481</b>

	Fuels & Chemicals	Paper Products	Food Products	Manufactured & Misc.	Intermodal	Total
2004	771	595	70	93	1,885	7,164
2005	804	642	74	112	2,152	8,093
2006	836	582	81	114	2,377	8,405
2007	837	541	81	116	2,452	8,413
2008	902	531	89	126	2,702	8,672
2009	818	423	94	113	2,273	7,139
2010	853	437	128	130	2,592	8,006
2011	928	427	146	133	1,893	7,805
2012	1,155	411	161	153	1,997	8,499
<b>2013</b>	<b>1,420</b>	<b>406</b>	<b>155</b>	<b>174</b>	<b>2,019</b>	<b>9,001</b>

\* Not all member companies record revenue from carloads originated by commodity grouping.

## ECONOMY

### Average: Length of haul/cars per train

In 2013, the average length of haul<sup>15</sup> by transcontinental railways (CN & CP) and regional and local railways increased by 0.3 per cent and 87.9 per cent, respectively, from 2012. The average number of cars per freight train<sup>16</sup> increased by 10.0 per cent in 2013.



Photo: CN

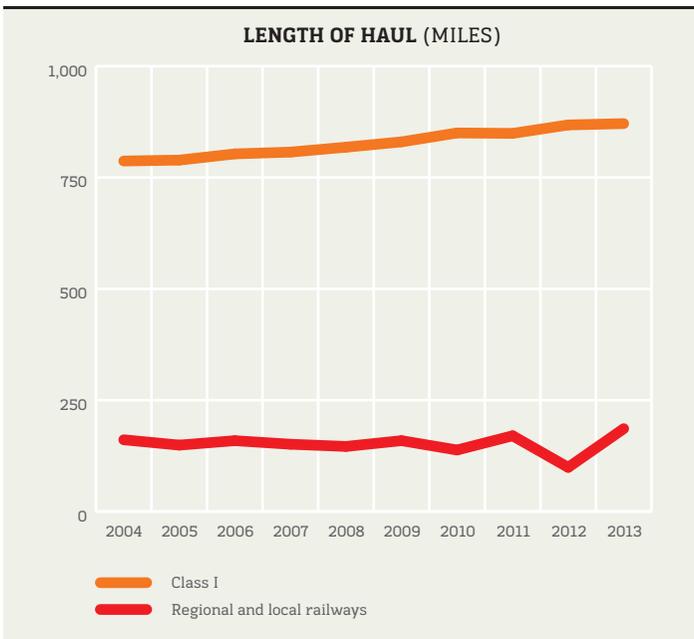
15 Calculated by dividing revenue ton-miles by revenue tons.

16 Calculated by dividing loaded and empty car miles by train miles.

## ECONOMY

### Average: Length of haul/cars per train

	Miles (kilometres) hauled by transcontinental railways (CN and CPR)		Miles (kilometres) hauled by regional and local railways		Average cars per freight train
	Miles	Kilometres	Miles	Kilometres	
2004	787	1,267	161	259	78
2005	789	1,270	149	240	79
2006	803	1,292	159	256	79
2007	807	1,299	151	243	81
2008	818	1,316	146	235	82
2009	830	1,336	159	256	87
2010	850	1,368	138	163	92
2011	849	1,366	170	274	81
2012	868	1,396	99	159	90
<b>2013</b>	<b>871</b>	<b>1,402</b>	<b>186</b>	<b>300</b>	<b>99</b>



## ECONOMY

### Passenger transportation

#### Intercity passenger transportation

In the intercity passenger sector, passenger miles (kilometres) decreased 1.1 per cent in 2013 from 2012. A passenger mile denotes one mile travelled by one passenger, and is used to measure the volume of passenger traffic. Passenger train-miles fell 3.8 per cent, year-over-year, continuing a downward trend that began in 2008. The average number of intercity passengers per train grew by 2.4 per cent, while the average length of journey edged up by 0.5 per cent.



Photo: VIA Rail

## ECONOMY

### Intercity passenger transportation

	Passenger cars in service	Number of passengers (000)	Passenger miles (millions)	Passenger kilometres (millions)
2004	465	4,181	894	1,439
2005	538	4,322	919	1,479
2006	537	4,320	906	1,458
2007	538	4,478	912	1,468
2008	540	4,899	986	1,588
2009	559	4,538	894	1,439
2010	545	4,477	877	1,412
2011	544	4,461	888	1,428
2012	542	4,246	871	1,402
<b>2013</b>	<b>552</b>	<b>4,186</b>	<b>861</b>	<b>1,386</b>

	Passenger train		Passenger car	
	miles (000)	kilometres (000)	miles (000)	kilometres (000)
2004	7,214	11,611	49,707	79,995
2005	7,415	11,933	49,966	80,412
2006	7,381	11,879	49,400	79,501
2007	7,330	11,796	48,708	78,388
2008	7,414	11,932	49,140	79,083
2009	7,334	11,803	47,290	76,106
2010	7,331	11,799	46,275	74,472
2011	7,273	11,705	48,239	77,633
2012	7,075	11,386	48,725	78,415
<b>2013</b>	<b>6,809</b>	<b>10,958</b>	<b>43,673</b>	<b>70,285</b>

## ECONOMY

### Intercity passenger transportation (continued)

	Average intercity passengers per train	Average length of journey	
		miles	kilometres
2004	124	219	352
2005	124	217	349
2006	123	214	344
2007	124	209	336
2008	133	206	332
2009	122	203	327
2010	120	204	328
2011	122	204	328
2012	123	213	342
<b>2013</b>	<b>126</b>	<b>214</b>	<b>344</b>

	Average passenger load factor* (%)	On-time performance (%)
2004	53	70
2005	55	81
2006	54	84
2007	55	77
2008	59	75
2009	57	83
2010	57	82
2011	55	84
2012	54	82
<b>2013</b>	<b>56</b>	<b>82</b>

\* A measure of the capacity utilization of public transport services.

## ECONOMY

### Commuter transportation

Within the passenger sector, the total number of rail commuters in British Columbia, Ontario and Quebec – the three provinces with commuter rail services – increased by 0.3 per cent in 2013 from the previous year. However, the average number of commuters per train dropped 16.1 per cent from 2012.

### Rail commuters

	Commuter passenger <sup>17</sup>		Commuter train	
	miles (000)	kilometres (000)	miles (000)	kilometres (000)
2004	214,089	344,544	2,749	4,425
2005	224,833	361,834	2,820	4,539
2006	237,781	382,672	2,730	4,394
2007	247,066	397,615	2,808	4,518
2008	256,123	412,190	2,832	4,558
2009	245,942	395,806	2,876	4,628
2010	256,134	412,209	3,008	4,841
2011	278,244	447,791	3,171	5,103
2012	288,161	463,752	4,356	7,011
<b>2013</b>	<b>2,570,664</b>	<b>4,137,075</b>	<b>4,477</b>	<b>7,205</b>

	Average rail commuters per train	Rail commuters (000) in British Columbia, Ontario and Quebec
	2004	287
2005	283	58,235
2006	300	60,634
2007	339	63,393
2008	340	67,052
2009	301	65,962
2010	310	68,562
2011	255	68,427
2012	342	70,035
<b>2013</b>	<b>287</b>	<b>70,266</b>

<sup>17</sup> Commuter passenger-miles (passenger-kilometres) data from 2004 to 2012 excludes GO Transit, while 2013 data includes it.

## ECONOMY

### Financial highlights

#### Operating revenue

Operating revenue grew by 5.5 per cent between 2012 and 2013. There are three components to operating revenue: freight, passenger and other revenue. Freight revenue accounted for more than 90 per cent of total operating revenue in 2013, while passenger revenue accounted for just over 5 per cent. Other revenue is largely composed of revenue for services provided to passenger and commuter rail companies, as well as switching, demurrage and miscellaneous rentals.

#### Operating revenue (\$millions)

	Freight	Passenger*	Other	Total
2004	7,931	386	506	8,823
2005	8,794	576	570	9,940
2006	9,430	622	561	10,613
2007	9,516	624	564	10,704
2008	9,957	661	579	11,197
2009	8,433	627	539	9,599
2010	9,551	673	544	10,768
2011	10,305	667	560	11,532
2012	11,322	674	637	12,633
<b>2013</b>	<b>12,040</b>	<b>668</b>	<b>622</b>	<b>13,330</b>

\* Federal, provincial and municipal funding of \$435 million in 2009 for Intercity passenger and commuter services is excluded.

## ECONOMY

### Operating expenses

Operating expenses declined 1.8 per cent to \$10.4 billion in 2013, from the record high reported in 2012. Lower general and administrative (-18.5%) as well as transportation costs (-0.5%) outweighed jumps in maintenance of equipment (+9.7%), maintenance-of-way and structures (+5.1%), and fuel (+2.9%).

### Operating expenses (\$millions)\*

	Transportation	Fuel	Maintenance of equipment
2004	2,180	862	1,290
2005	2,241	1,159	1,382
2006	2,224	1,367	1,575
2007	2,337	1,513	1,634
2008	2,376	2,032	1,564
2009	2,065	1,212	1,555
2010	2,195	1,464	1,452
2011	2,381	1,854	1,570
2012	2,534	2,002	1,549
<b>2013</b>	<b>2,521</b>	<b>2,061</b>	<b>1,698</b>

	Maintenance-of-way and structures	General and administrative	Total operating expenses
2004	1,421	1,366	7,119
2005	1,493	1,501	7,776
2006**	1,408	1,637	8,211
2007	1,549	1,462	8,495
2008	1,718	1,477	9,167
2009	1,612	1,908	8,352
2010	1,766	2,294	9,171
2011	1,910	2,054	9,769
2012	1,873	2,617	10,575
<b>2013</b>	<b>1,968</b>	<b>2,132</b>	<b>10,380</b>

\* Charges for restructuring, relocation and write-down of assets are excluded.

\*\* CN restated 2006 Maintenance of equipment and Maintenance-of-way and structures expenses. The net impact on 2006 Total operating expenses were nil.

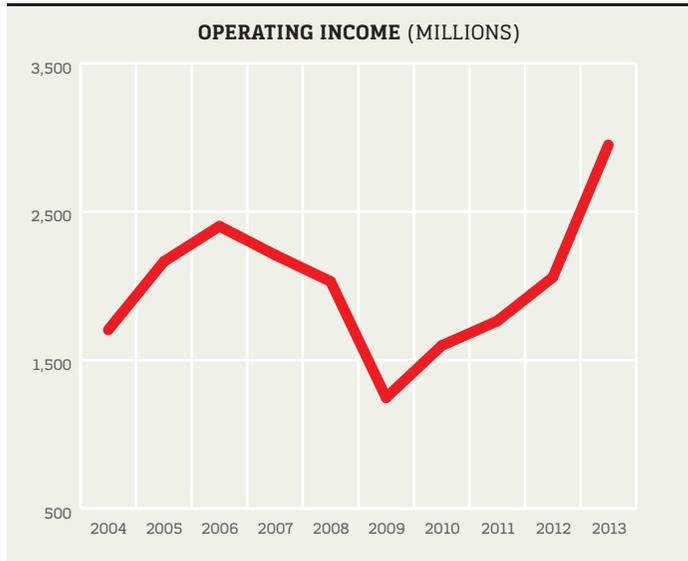
# ECONOMY

## Operating income

Operating income<sup>18</sup> jumped by 43.3 per cent in 2013 from the previous year. The following table and graph illustrate the rail sector's operating income trend.

### Operating income (\$millions)

	Income
2004	1,704
2005	2,164
2006	2,402
2007	2,209
2008	2,030
2009	1,247
2010	1,598
2011	1,763
2012	2,058
<b>2013</b>	<b>2,950</b>



18 Operating income data from 2011-2013 has been revised.

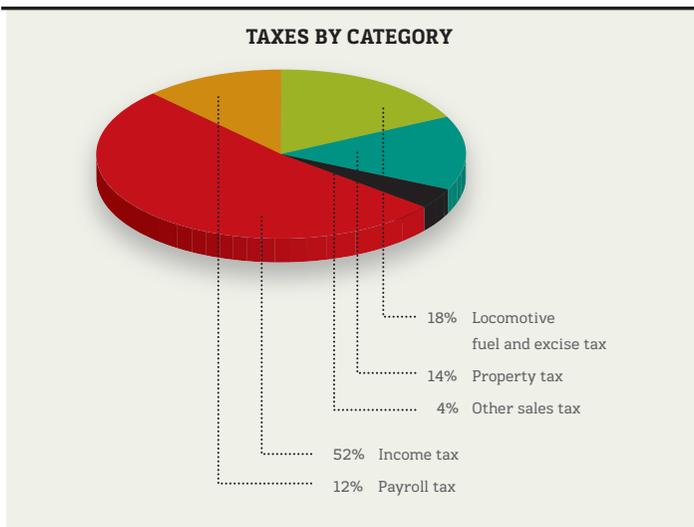
## ECONOMY

### Taxes

In 2013, total railway industry taxes increased by 55.6 per cent to \$1.2 billion. The main contributor to this overall rise was income tax, which quadrupled from the previous year as a result of deferred payments and increased income tax rates in certain jurisdictions.

### Taxes by category (\$millions)

	Locomotive fuel & excise tax	Property tax	Other sales tax	Capital tax & customs duties	Income tax	Payroll taxes	Total
2004	174	141	90	25	118	150	698
2005	180	155	98	31	101	151	716
2006	188	155	102	21	471	147	1,084
2007	188	154	97	15	381	154	989
2008	187	152	99	14	323	155	930
2009	177	152	97	14	265	148	853
2010	195	150	96	14	185	147	787
2011	204	153	70	0	372	158	957
2012	220	158	70	0	159	170	777
<b>2013</b>	<b>219</b>	<b>169</b>	<b>43</b>	<b>1</b>	<b>629</b>	<b>150</b>	<b>1,209</b>



## ECONOMY

### Payroll taxes (\$millions)

	Canada/ Quebec Pension Plan	Unemployment Insurance	Health Taxes	Total
2004	71	37	42	150
2005	72	36	43	151
2006	72	32	43	147
2007	75	33	46	154
2008	77	33	45	155
2009	74	30	44	148
2010	73	31	43	147
2011	77	34	47	158
2012	84	37	49	170
<b>2013</b>	<b>75</b>	<b>32</b>	<b>43</b>	<b>150</b>

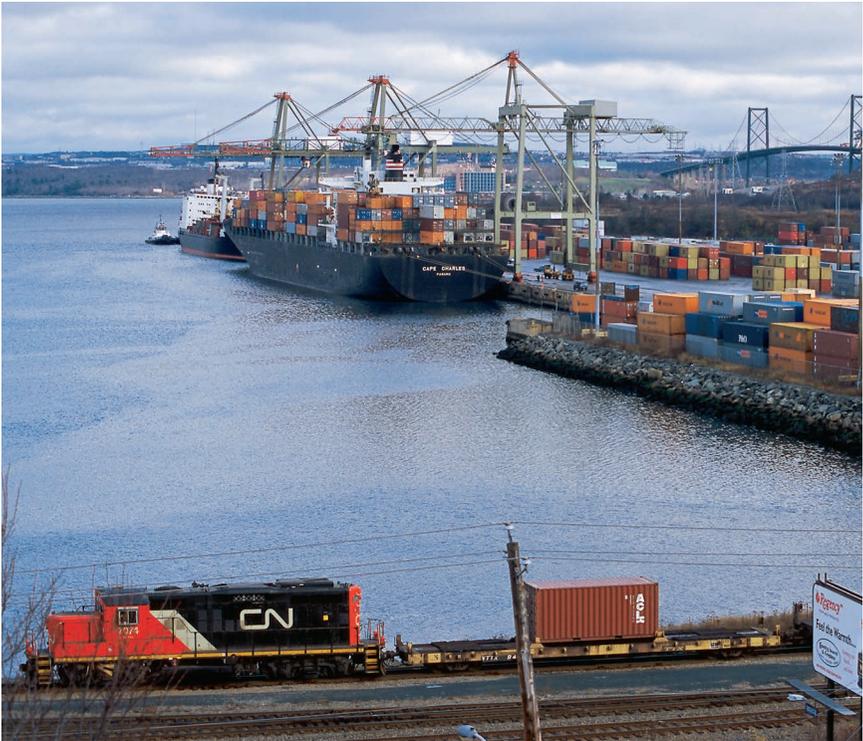


Photo: CN

## ECONOMY

### Taxes by jurisdiction (\$'000)

	Locomotive fuel & excise tax		Fuel tax per litre (cents)	Property Tax	
	2012	2013	2013	2012	2013
Alberta	4,787	4,739	1.5	13,950	15,825
British Columbia	53,221	56,904	10.7	40,035	42,011
Manitoba	10,865	10,687	6.3	13,922	14,118
Nfld. & Labrador	0	0	16.5	55	33
New Brunswick	1,182	1,195	4.3	1,396	1,865
Nova Scotia	0	0	15.4	3,089	3,000
Ontario	25,590	23,835	4.5	36,182	34,300
Quebec	4,621	4,143	3.0	34,029	38,863
Saskatchewan	38,912	38,645	15.0	15,283	18,542
Northwest Territories	0	0	11.4	74	61
Federal	80,453	78,791	4.0	0	0
Total	219,631	218,939		158,016	168,617

	Other sales tax		Capital tax & customs duties		Income Tax	
	2012	2013	2012	2013	2012	2013
Alberta	69	73	136	594	13,826	46,384
British Columbia	1,532	16,674	0	0	627	0
Manitoba	11,890	14,089	-183	137	454	612
Nfld. & Labrador	0	0	0	0	0	0
New Brunswick	0	0	0	0	0	0
Nova Scotia	-5	0	2	23	937	4
Ontario	1,590	26	406	118	22,952	47,248
Quebec	12,944	469	0	0	7,307	28,471
Saskatchewan	7,200	10,908	90	88	0	649
Northwest Territories	0	0	0	0	0	0
Federal	34,788	380	0	-376	112,721	505,634
Total	70,008	42,618	451	584	158,824	629,002

## ECONOMY

### Employment

The average number of people employed by the Canadian railway industry fell by 4.2 per cent in 2013, while rail sector compensation grew by 1.9 per cent. As a result, the average annual wage per employee increased by 6.4 per cent from the previous year.



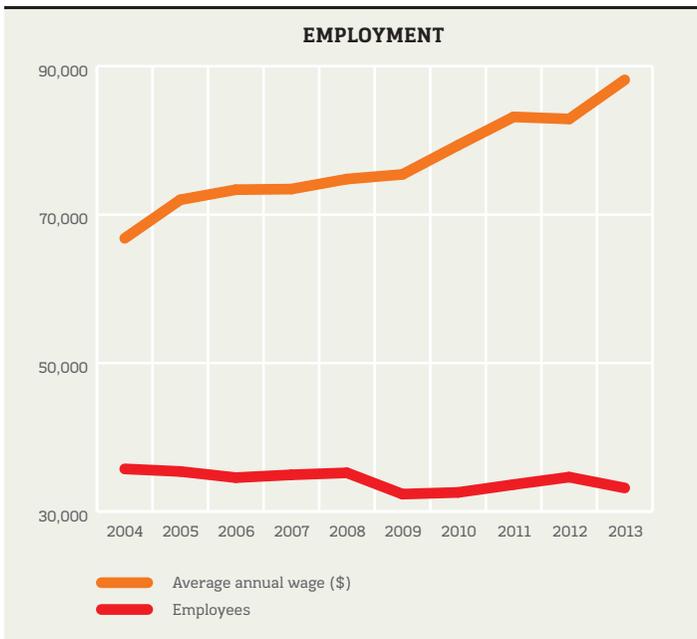
Photo: VIA Rail

## ECONOMY

### Employment

	Total compensation (\$millions)*	Average number of employees	Average annual wage per employee (\$)
2004	2,387	35,736	66,804
2005	2,548	35,389	71,994
2006	2,535	34,558	73,356
2007	2,566	34,938	73,440
2008	2,633	35,208	74,790
2009	2,439	32,337	75,415
2010	2,584	32,565	79,346
2011	2,797	33,624	83,163
2012	2,870	34,629	82,883
<b>2013</b>	<b>2,924</b>	<b>33,167</b>	<b>88,153</b>

\* Compensation includes salaries and compensation paid and excludes company paid benefits such as Canada/Quebec Pension Plan, Unemployment Insurance and health taxes.



## FUEL MANAGEMENT

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**F**reight railways consumed 1.6 per cent less fuel in 2013 than in 2012. With the increase in revenue ton-miles in 2013, the freight railway sector's fuel efficiency improved by 8.0 per cent in 2013 from the previous year, and has improved by 29.4 per cent since 2004.

The freight railway sector tracks its fuel efficiency in revenue ton-miles (revenue ton-kilometres) per gallon (litre) of fuel consumed. This measure is calculated by dividing the sum of ton-miles handled by the total volume of fuel consumed.

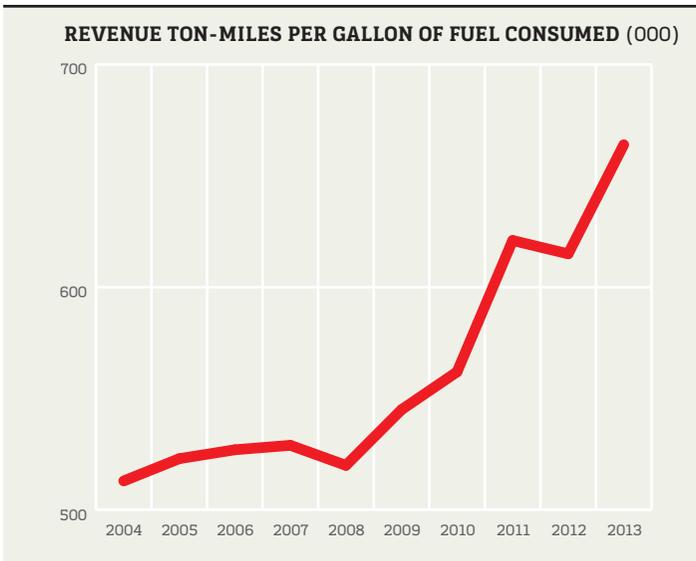


Photo: CPR

## FUEL MANAGEMENT

### Freight railways - Fuel Consumed

	Total fuel consumed gallons (000)	litres (000)	Revenue ton-miles per gallon of fuel consumed	Revenue tonne-kilometres per litre of fuel consumed
2004	480,499	2,184,384	513	165
2005	485,915	2,209,007	523	168
2006	486,218	2,210,384	527	169
2007	492,125	2,237,237	529	170
2008	480,661	2,185,120	520	167
2009	411,612	1,871,221	545	175
2010	450,782	2,049,289	562	182
2011	436,558	1,984,178	621	202
2012	471,912	2,145,346	615	198
<b>2013</b>	<b>464,275</b>	<b>2,110,651</b>	<b>664</b>	<b>214</b>

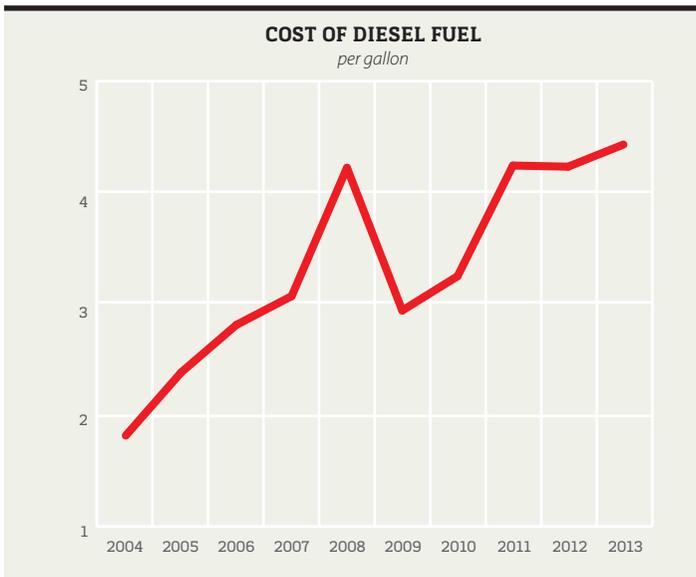


## FUEL MANAGEMENT

While the freight rail industry's gross ton-miles increased by 5.1 per cent in 2013, the cost of diesel fuel per gallon rose 4.6 per cent.

### GTM & cost of diesel fuel per gallon

	Gross ton- miles (millions)	Gross tonne- kilometres (millions)	Cost of diesel fuel per gallon (\$)	per litre (cents)
2004	441,467	644,478	1.81	39.8
2005	457,950	668,540	2.38	52.5
2006	459,633	670,997	2.81	61.8
2007	463,356	676,433	3.07	67.6
2008	449,922	656,821	4.23	93.0
2009	397,293	579,990	2.94	64.8
2010	455,047	664,303	3.25	71.40
2011	473,312	690,960	4.25	93.46
2012	503,879	735,590	4.24	93.33
<b>2013</b>	<b>529,379</b>	<b>772,816</b>	<b>4.44</b>	<b>97.63</b>



## FUEL MANAGEMENT

NOTE: Under the 2011-2015 Locomotive Emissions Monitoring (LEM) Memorandum of Understanding (MOU) with Transport Canada, the railway industry is committed to helping Canada to reduce its total GHG emissions by 17 per cent below 2005 levels by 2020.

The annual LEM report contains locomotive fleet data, as well as information on railway sector emissions and other sustainability issues. Visit [www.railcan.ca](http://www.railcan.ca) for more information.



Photo: CN

# INFRASTRUCTURE INVESTMENT AND PRODUCTIVITY

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## Property additions

The railway industry's property additions<sup>19</sup> in Canada edged down by 1.7 per cent in 2013 from the previous year, but increased by 6.8 per cent from the five-year average. Investment (including year-over-year changes) decreased for terminals and fuel stations (-21.2%), intermodal equipment (-21.0%), track and roadway (-7.2%), and rolling stock<sup>20</sup> (-6.5%). These declines were offset by investments in buildings and related machinery and equipment (+32.9%), as well as work equipment and roadway machines (+2.6%).

## Additions to Property (\$millions)

	Track & roadway	Buildings & related machinery & equipment	Signals, communications & power	Terminals & fuel stations
2004	364	188	38	11
2005	582	189	95	27
2006	613	212	74	37
2007	618	255	44	43
2008	688	189	79	26
2009	706	257	72	24
2010	804	231	109	16
2011	971	314	108	15
2012	961	269	122	41
<b>2013</b>	<b>892</b>	<b>357</b>	<b>100</b>	<b>32</b>

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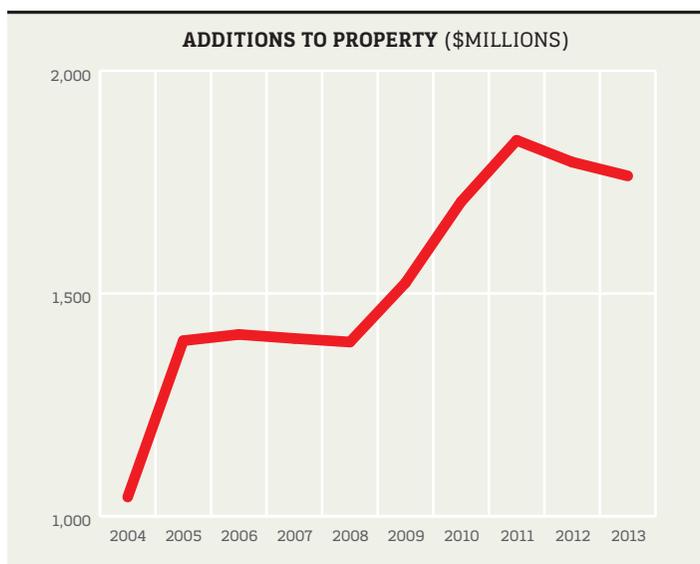
<sup>19</sup> Expenditures that seek to acquire or upgrade physical assets, such as equipment or buildings.

<sup>20</sup> Rolling stock includes a locomotive, engine, motor car, tender, snow-plough, flanger and any car or railway equipment that is designed for movement on its wheels on the rails of a railway.

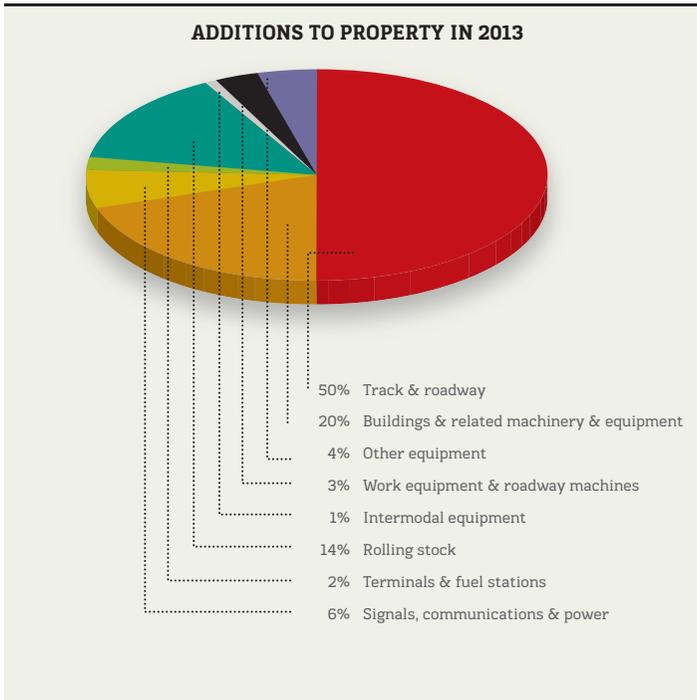
## INFRASTRUCTURE INVESTMENT AND PRODUCTIVITY

### Additions to Property (\$millions) (continued)

	Rolling stock	Intermodal equipment	Work equipment & roadway machines	Other equipment	Total additions
2004	337	30	36	39	1,043
2005	416	39	31	15	1,394
2006	352	48	44	28	1,408
2007	350	30	41	18	1,399
2008	290	29	68	22	1,391
2009	317	34	42	72	1,524
2010	427	15	49	55	1,706
2011	307	11	53	64	1,844
2012	255	22	49	77	1,795
<b>2013</b>	<b>239</b>	<b>17</b>	<b>50</b>	<b>77</b>	<b>1,764</b>



# INFRASTRUCTURE INVESTMENT AND PRODUCTIVITY



# INFRASTRUCTURE INVESTMENT AND PRODUCTIVITY

## Productivity

The best measure of freight railway labour productivity is the rate of revenue ton-miles (revenue ton-kilometres) per employee, which divides the annual sum of revenue-producing tonnage by the average number of employees.

Employee productivity climbed by 9.5 per cent in 2013, as traffic rose and the average number of freight railway employees fell.

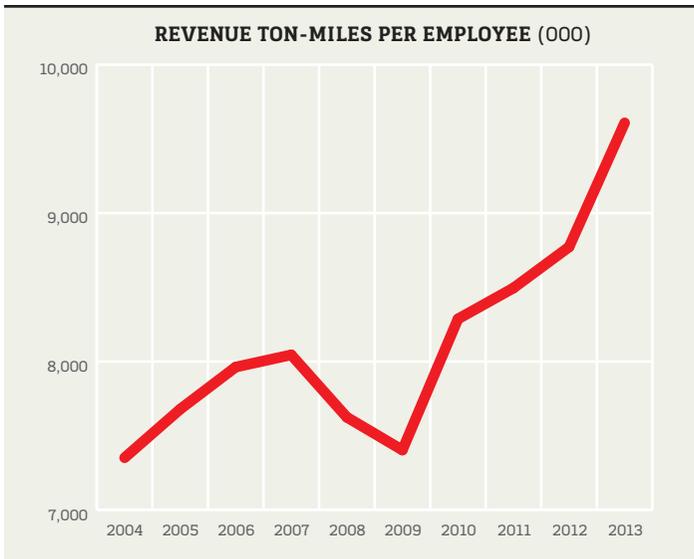


Photo: Genesee & Wyoming

## INFRASTRUCTURE INVESTMENT AND PRODUCTIVITY

### Revenue ton-miles per employee

	Revenue ton-miles per employee (000)	Revenue tonne-kilometres per employee (000)	Road miles per employee	Road kilometres per employee
2004	7,352	10,733	0.93	1.50
2005	7,679	11,210	0.96	1.54
2006	7,963	11,625	0.98	1.58
2007	8,045	11,745	0.96	1.54
2008	7,625	11,132	0.94	1.51
2009	7,404	10,809	0.98	1.58
2010	8,287	12,098	0.96	1.54
2011	8,496	12,402	0.90	1.46
2012	8,772	12,806	0.86	1.39
<b>2013</b>	<b>9,608</b>	<b>14,026</b>	<b>0.91</b>	<b>1.47</b>



## **APPENDIX A**

### **SAFETY DEFINITIONS**

The following definitions apply to railway occurrences that are required to be reported under the *Canadian Transportation Accident Investigation and Safety Board Act* and its associated regulations.

#### **Railway occurrence**

1. Any accident or incident associated with the operation of rolling stock on a railway, and
2. Any situation or condition that the Board has reasonable grounds to believe could, if left unattended, induce an accident or incident described in paragraph (a) above.

#### **Reportable railway accident**

An accident resulting directly from the operation of rolling stock, where:

1. A person sustains a serious injury or is killed as a result of:
  - a. being on board or getting off the rolling stock, or
  - b. coming into contact with any part of the rolling stock or its contents, or
2. the rolling stock:
  - a. is involved in a grade-crossing collision,
  - b. is involved in a collision or derailment and is carrying passengers,
  - c. is involved in a collision or derailment and is carrying dangerous goods, or is known to have last contained dangerous goods the residue of which has not been purged from the rolling stock,
  - d. sustains damage that affects its safe operation, or causes or sustains a fire or explosion, or causes damage to the railway, that poses a threat to the safety of any person, property or the environment.

## **APPENDIX A**

### **SAFETY DEFINITIONS**

#### **Reportable railway incident**

An incident resulting directly from the operation of rolling stock, where:

1. a risk of collision occurs;
2. an unprotected main track switch is left in an abnormal position;
3. a railway signal displays a less restrictive indication than that required for the intended movement of rolling stock;
4. an unprotected overlap of operating authorities occurs;
5. a movement of rolling stock exceeds the limits of its authority;
6. there is runaway rolling stock;
7. any crew member whose duties are directly related to the safe operation of the rolling stock is unable to perform the crew member's duties as a result of a physical incapacitation that poses a threat to the safety of any person, property or the environment; or
8. any dangerous goods are released on board or from the rolling stock.

#### **Serious injury**

An injury that is likely to require admission to a hospital.

#### **Dangerous goods involvement**

An accident is considered to have dangerous goods involvement if any of a train's cars carrying (or having last contained) a dangerous good derails, strikes or is struck by any other locomotive, car or other object. It does not mean that there was any release of any product. Also included are crossing accidents in which the motor vehicle involved (e.g. tanker truck) is carrying a dangerous good.

## CONVERSION FACTORS

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miles to kilometres	1.6093
tons (short) to metric tonnes	0.9072
gallons to litres	4.5461
revenue ton-miles to revenue tonne-kilometres	1.4599
kilometres to miles	0.6214
metric tonnes to tons (short)	1.1023
litres to gallons	0.2200
revenue tonne-kilometres to revenue ton-miles	0.6850

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