# *Rail Trends*
# / 2024

Railway Association of Canada


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# Member Companies 2023

| | |
|---|---|
| ACR | Agawa Canyon Railroad, ULC (incl. Agawa Canyon Tour Train, ACTT) |
| AMC | ArcelorMittal Infrastructure Canada S.E.N.C. |
| AMTK | Amtrak |
| APR | Alberta Prairie Railway Excursions |
| BCR | BCR Properties Ltd. |
| BCRY | Barrie-Collingwood Railway |
| BNSF | BNSF Railway Company |
| BRR | Battle River Railway NGC Inc. |
| BSR | Big Sky Rail Corp. |
| BTRC | Boundary Trail Railway Co. |
| CBNS | Cape Breton & Central Nova Scotia Railway |
| CEMR | Central Manitoba Railway Inc. |
| CFC | Train Touristique de Charlevoix Inc. |
| CFL | Compagnie du Chemin de Fer Lanaudière Inc. |
| CN | Canadian National Railway |
| CPKC | Canadian Pacific Kansas City |
| CR | Capital Railway |
| CFRR | Romaine River Railway Company |
| CSX | CSX Transportation Inc. |
| CTRW | Carlton Trail Railway |
| EMRY | Eastern Maine Railway Company |
| ETR | Essex Terminal Railway Company |
| EXO | exo |
| GEXR | Goderich-Exeter Railway Company Limited |
| GIO | GIO Rail Holdings Corporation (incl. Trillium Railway (TRRY) and St. Thomas, Aylmer, Tillsonburg Railway (STTY)) |
| GO | Metrolinx |
| GWRS | Great Western Railway Ltd. |
| HBRY | Hudson Bay Railway |
| HCRY | Huron Central Railway Inc. |
| KLTR | Knob Lake and Timmins Railway |
| KRC | Keewatin Railway Company |

| | |
|---|---|
| LMR | Last Mountain Railway |
| NBSR | New Brunswick Southern Railway Company Limited |
| NCR | Nipissing Central Railway Company |
| NS | Norfolk Southern Railway |
| ONR | Ontario Northland Transportation Commission |
| OSR | Ontario Southland Railway Inc. |
| OVR | Ottawa Valley Railway |
| PDCR | Prairie Dog Central Railway—Vintage Locomotive Society Inc. |
| QGRY | Québec Gatineau Railway Inc. |
| QIO | Quebec Iron Ore Inc. |
| QNSL | Québec North Shore and Labrador Railway Company Inc. |
| RMR | Great Canadian Railtour Company Ltd. |
| RS | Roberval and Saguenay Railway Company |
| SFG | Société du chemin de fer de la Gaspésie |
| SFP | SFP Pointe-Noire (Chemin de fer Arnaud Québec ) |
| SLQ | St. Lawrence & Atlantic Railroad (Québec) Inc. |
| SOR | Southern Ontario Railway |
| SRY | Southern Railway of British Columbia Ltd. (incl. Southern Railway of Vancouver Island (SVI)) |
| SSHR | South Simcoe Railway |
| STPP | St. Paul & Pacific Northwest Railroad Company LLC |
| TRT | Tshiuetin Rail Transportation Inc. |
| TTR | Toronto Terminals Railway Company Limited |
| UP | Union Pacific Railroad Company |
| VDS | Immeuble VDS Inc. |
| VIA | VIA Rail Canada Inc. |
| WCE | West Coast Express Ltd. |
| WP&YR | White Pass and Yukon Route Railroad |

Current membership: https://www.railcan.ca/membership/member-railways/

# Associate Members 2023

| | |
|---|---|
| Absopulse Electronics Ltd. | Koch Fertilizer Canada ULC |
| Alstom Transport Canada Inc. | L.A. Hébert Ltée |
| Arrimage National | Lambton College |
| Ashcroft Terminal | Lanyi Rail Solutions Ltd. |
| Bayside Canadian Railway | McCarthy Tétrault |
| BHP Canada Inc. | Messer Canada Inc. |
| British Columbia Institute of Technology | NARSTCO |
| CAD Railway Industries Ltd. | Nu-Edge Rail LTD |
| Canadian Heartland Training Railway Services Inc. | Ontario Steel Haulers Inc. |
| Canadian Rail Research Laboratory | Partum Consulting Inc. |
| Canadian Railway Services | PNR Railworks Inc. |
| Canadian Urban Transit Association | Rail Cantech |
| Cando Rail & Terminals Ltd | Rail-Werx Inc. |
| Cégep de Sept-Iles | Red River College |
| Colliers Project Leaders | Rees Rail Services Ltd. |
| Confederation College of Applied Arts and Technology | RTC Rail Solutions Ltd |
| CPCS Transcom Limited | Sait Polytechnic |
| Crescent Point Energy | Sands Bulk Transport |
| Davanac Inc. | Sandy Cooke Consulting Inc. |
| Dillon Consulting Limited | Siemens Mobility Limited |
| Dominion Railway Services Ltd. | Société du port ferroviaire de Baie-Comeau (SOPOR) |
| Drain-All Ltd. | Soulanges Railway Services Inc. |
| Forma-Train | Stantec Inc. |
| Frauscher Sensor Technology USA Inc. | Suncor Energy Products Partnership |
| GATX Rail Canada Corporation | Torq Transloading |
| Green Response Environmental & Rail Inc | T-Rail Products Inc. |
| Groupe Ingati inc. | Tybo Contracting Ltd. |
| Groupe Pelletier Entretien | Universal Rail Systems |
| Harsco Rail | VIP Rail ULC |
| Hitachi Rail STS | Wabtec Corporation |
| J Lanfranco Fastener Systems Inc | Whiting Equipment Canada |
| Jones Rail Industries Ltd. | X-Rail Signalisation Inc. |

Current associate membership: https://www.railcan.ca/membership/rac-associate-members/

# Foreword

This is the 32nd edition of *Rail Trends*. For over 30 years, the Railway Association of Canada (RAC) has issued its annual report on Canada's rail industry. This publication contains a rolling 10-year review of financial and statistical results, reflecting multiple aspects of railway performance in Canada.[1] This edition covers the 2014 to 2023 period.

The data in *Rail Trends* are reported by RAC member railways,[2] including:

- 38 shortline freight railways
- 6 Class 1 freight railways[3]
- 6 tourist railways
- 5 commuter railways
- 3 intercity passenger railways

Canadian Class 1 freight railways (CN and CPKC[4]) account for the majority of freight rail activity in Canada. For this reason, the freight data presented in *Rail Trends* largely reflects the performance of these two Class 1 carriers.

RAC members account for the vast majority of non-Class 1 railway activity in Canada. However, this report does not capture data from non-members; it is therefore not representative of the entire sector. Data pertaining to non-Class 1 railways in this report should be viewed with that lens.

1 In some cases, relative variations over time reflect a change in the way certain members report data, or a change in membership.
2 Some railways perform more than one service (e.g., shortline freight and intercity passenger). To avoid double-counting, railways are listed by their primary service.
3 Data from the four U.S. Class 1 railways are treated as shortline data in the *Rail Trends* Reports.
4 Canadian Pacific (CP) and Kansas City Southern (KCS) combined on April 14, 2023, to create Canadian Pacific Kansas City (CPKC). The data in the *Rail Trends* reports reflect Canadian operations.

*Rail Trends* data are categorized into the following sections:

- Freight Transportation
- Fuel
- Passenger transportation
- Safety
- Operating finances, investments, and taxes
- Employment
- Track and equipment

Data reflects performance in Canada only. All monetary statistics are in Canadian dollars. Figures may not add up to totals due to rounding. Definitions of terms that are capitalized are included in the glossary in *Appendix A*, conversion factors can be found in *Appendix B*, safety-specific definitions are provided in *Appendix C*, and notes on statistical revisions are provided in *Appendix D*.

## Readers' Comments

Comments on this report may be addressed to:

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# Executive Summary

Canada's railways are making an investment in this country's future. These investments enhance the safety, efficiency, and capacity of the Canadian rail network, which underpins cost-effective supply chains. These are investments in people, good jobs, and essential public services (through record tax contributions). Moreover, investments in rail help to reduce Canada's transportation sector emissions, as rail continues to be the most fuel efficient mode of ground transportation available.

In 2023, Canadian railways invested $2.9 billion in their Canadian assets, bringing the total to more than $22.7 billion over the past decade. These investments in track, rolling stock, technology, and other equipment improve the safety, efficiency, capacity, and fluidity of Canadian supply chains. In fact, average railway dwell times remained below ten hours in 2023, while ports' average terminal dwell times and delays for late marine vessels remained above 100 hours.

The safety performance of Canada's railways in 2023 was exceptional. Compared to 2022, the total number of accidents decreased by 8.5%, the passenger train accident rate improved by 52.4%, the freight accident rate improved by 7.7%, and the dangerous goods accident rate decreased by 15.9%.

Rail freight rates remained amongst the most competitive in the world, supporting cost-effective supply chains, which is critical for a country where trade is equal to two-thirds of its GDP. Rail freight rates increased by just 2.1% compared to a 3.9% increase in the Consumer Price Index. Since 1998, following enactment of the *National Transportation Act, 1987*, railway freight rates have increased by much less than consumer prices, industrial product prices, and commodity prices, all of which have more than doubled.

Canada's railways continued to make significant investments in people. The average industry wage increased by $1,700 to over $106,000, which is approximately 50% higher than the average full-time Canadian salary. Railways added 2,000 direct industry jobs, bringing the workforce to 37,400 strong—37,400 dedicated railroaders that work through all conditions to deliver for Canadians and the future of Canada's economy. And this workforce better reflected the diversity of Canadians than in years past, as the representation of women and workers from diverse groups increased—including persons with disabilities, visible minorities, and Indigenous peoples.

In 2023, the rail sector maintained its status as the most fuel-efficient means of transporting goods and people over land. Freight and passenger railways will continue to play a key role in the decarbonization of Canada's transportation sector and the economy overall. Freight railways were able to move one tonne of goods 228 kilometres on a single litre of fuel. Passenger railways regained more of the ridership that they had lost

during the pandemic, year-over-year, the number of commuters increased by 70.5% and intercity passengers increased by 30.7%.

Regarding taxation, the industry set a consecutive record for taxes paid to federal and provincial governments—more than $2.5 billion, representing a 12.8% year-over-year increase.

Despite the positive momentum created by the solid performance of Canada's railways, there exist serious challenges for the industry that put supply chain improvement and investment at risk. These are not insurmountable. In fact, the government could take decisive action to minimize these risks and create opportunities for growth.

Canadian labour instability and frequent work stoppages (or threat thereof) are increasingly impacting supply chain performance and Canada's reputation as a reliable trading partner. The 13-day B.C. ports strike in July 2023 brought Canadian supply chains to a standstill and its impacts have shown to be lasting. This is just one example in a wave of labour disruption that continues to threaten important trading and business relationships.

The country needs a supportive tax environment to support Canadian competitiveness. Implementing accelerated depreciation measures for all supply chain players would increase investment and bolster Canadian supply chains, supporting all economic sectors. First-mile last-mile rail infrastructure could be strengthened through a track maintenance tax credit. Programs at both the federal and state level have shown to be effective at driving significant investment in shortline rail infrastructure in the U.S.

Lastly, there needs to be a pause, and reverse, on the ever-increasing regulatory burden and economically damaging policies like extended regulated interswitching. In a country like Canada that is in need of an economic boost, there is no place for such policies that threaten unionized jobs, put a disincentive on investment and place Canadian railways at a competitive disadvantage vis-a-vis American ones.

Industry and government can work together to address these issues and foster the conditions for investment and prosperity moving forward.

## A 10-year Snapshot of Rail in Canada

| | 2014 | 2022 | 2023 |
|---|---|---|---|
| **Freight Traffic** | | | |
| Revenue ton-miles (billions) | 289.9 | 301.0 | 305.0 |
| Revenue tonne-kilometres (billions) | 423.2 | 439.4 | 445.3 |
| Gross ton-miles (billions) | 544.4 | 564.5 | 565.6 |
| Gross tonnes-kilometres (billions) | 794.8 | 824.0 | 825.7 |
| Freight train-miles (thousands) | 70,525.9 | 62,615.3 | 63,925.0 |
| Freight train-kilometres (thousands) | 113,500.2 | 100,769.3 | 102,877.1 |
| Carloads originated (thousands) | 4,332.2 | 5,593.8 | 5,592.5 |
| Tons originated (thousands) | 319,780.8 | 367,989.6 | 378,290.6 |
| Tonnes originated (thousands) | 290,105.1 | 333,839.9 | 343,185.0 |
| Intermodal carloads originated (thousands) | 1,072.3 | 2,012.0 | 1,912.1 |
| Freight revenue per ton-mile (cents) | 4.58 | 5.95 | 6.08 |
| Freight revenue per tonne-km (cents) | 3.14 | 4.07 | 4.16 |
| Gallons of fuel consumed (millions) | 484.2 | 444.9 | 453.4 |
| Litres of fuel consumed (millions) | 2,201.3 | 2,022.4 | 2,061.4 |
| RTM per gallon of fuel consumed | 626.3 | 711.4 | 711.0 |
| RTK per litre of fuel consumed | 201.1 | 228.5 | 228.3 |
| **Passenger Transportation** | | | |
| Total passengers carried (thousands) | 80,366 | 31,367 | 52,242 |
| **Financial Information** | | | |
| Operating revenues (millions) | 14,641.1 | 20,474.9 | 20,932.2 |
| Operating expenses (millions) | 11,570.5 | 13,596.8 | 13,944.1 |
| Operating income (millions) | 3,070.6 | 6,878.1 | 6,988.1 |

| | 2014 | 2022 | 2023 |
|---|---|---|---|
| **Investments** | | | |
| Total investments (millions) | 1,808.2 | 2,423.6 | 2,935.4 |
| **Taxes** | | | |
| Taxes paid (millions) | 1,148.4 | 2,230.5 | 2,515.6 |
| **Employment** | | | |
| Employees | 33,323 | 35,404 | 37,401 |
| Average wage per employee | 91,798 | 104,443 | 106,157 |
| **Track and Equipment** | | | |
| Total miles of freight track operated | 27,304 | 26,439 | 26,469 |
| Total kilometres of freight track operated | 43,942 | 42,550 | 42,597 |
| Freight cars (thousands) | 58.6 | 55.8 | 52.9 |
| Locomotives | 2,700 | 3,828 | 4,252 |

# Freight Transportation

## REVENUE TON-MILES, GROSS TON-MILES AND FREIGHT TRAIN-MILES

Over the past decade, the freight rail sector has grown. Freight traffic, measured by REVENUE TON-MILES (RTMs),[5] increased by 5.2% while the freight sector's total workload, measured by GROSS TON-MILES (GTMs), increased by 3.9%.

Measured in RTMs, overall freight traffic in 2023 was 1.3% higher than in 2022. GTMs were relatively flat, increasing by 0.2% compared to 2022.

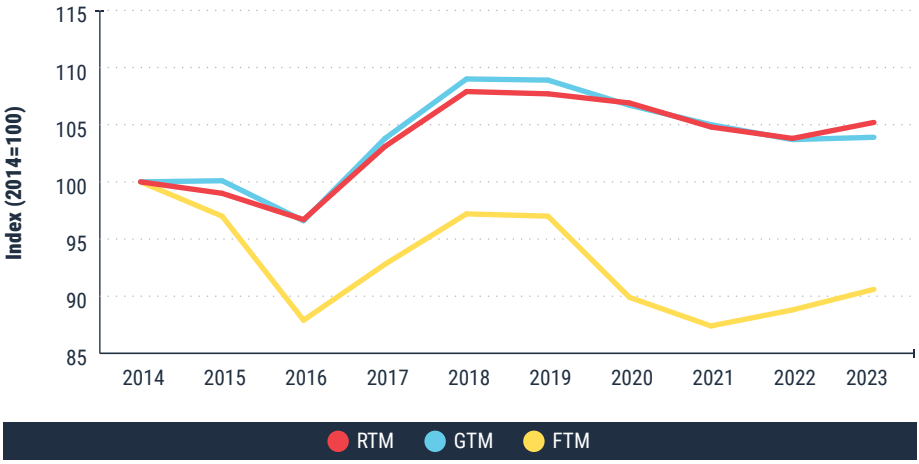
The distance travelled by Canada's freight trains, measured in freight TRAIN-MILES (FTMs), increased by 2.1% compared to 2022. The general trend over the past decade towards longer and heavier trains, which enable railways to carry more traffic without a corresponding increase in TRAIN MILES, did not continue in 2022 and 2023. The average train became slightly shorter and lighter in 2022 and again in 2023 (see *Freight Train Statistics on page 23*).

### RTMs, GTMs and FTMs

| | RTM (millions) | RTK (millions) | GTM (millions) | GTK (millions) | FTM (thousands) | FTK (thousands) |
|---|---|---|---|---|---|---|
| **2014** | 289,890 | 423,197 | 544,443 | 794,808 | 70,526 | 113,500 |
| **2015** | 286,869 | 418,786 | 545,136 | 795,819 | 68,407 | 110,091 |
| **2016** | 280,217 | 409,075 | 525,771 | 767,549 | 62,023 | 99,816 |
| **2017** | 298,825 | 436,240 | 565,148 | 825,034 | 65,437 | 105,310 |
| **2018** | 312,758 | 456,581 | 593,461 | 866,366 | 68,571 | 110,354 |
| **2019** | 312,216 | 455,790 | 592,862 | 865,491 | 68,377 | 110,041 |
| **2020** | 309,831 | 452,308 | 580,971 | 848,133 | 63,383 | 102,004 |
| **2021** | 303,883 | 443,624 | 571,720 | 834,628 | 61,611 | 99,154 |
| **2022** | 300,986 | 439,395 | 564,452 | 824,017 | 62,615 | 100,769 |
| **2023** | 305,020 | 445,285 | 565,589 | 825,677 | 63,925 | 102,877 |

5 Definitions of terms that are capitalized are found in *Appendix A—Glossary*.

## RTMs, GTMs and FTMs




## CARLOADS

From 2022 to 2023, the number of Canadian originating carloads remained flat while tonnage increased by 2.8%. Year-over-year, the number of intermodal carloads decreased, which were offset by an increase in non-intermodal carloadings, led by agricultural products. The average weight of an INTERMODAL carload, even with double stacking of containers, is significantly less than that of a non-INTERMODAL carload, which helps explain how tonnage increased without a corresponding increase in carloads.[6]

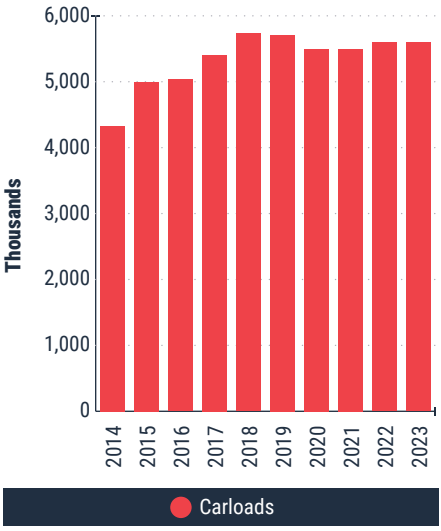
The opposite trend is observed when looking back over the past decade. From 2014 to 2023, the number of INTERMODAL carloads nearly doubled (+78.3%), while non-INTERMODAL carloads increased by just 15.5% (see *Freight Carloads and Revenues by Commodity on page 17*).

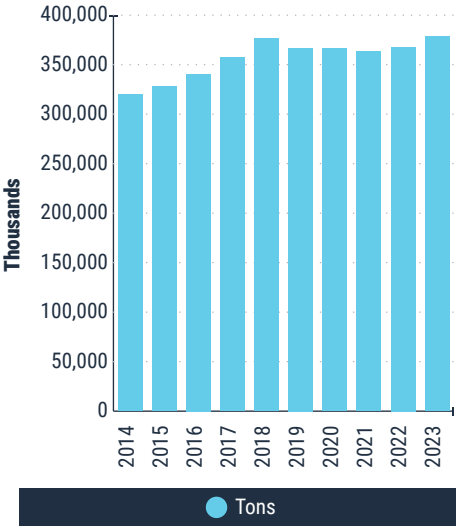
6 Data from Statistics Canada's Monthly Railway Carloadings show that in 2023, the average weight of a non-intermodal carload was 85.9 tonnes, compared to 15.3 tonnes for an intermodal unit (or 30.6 tonnes if intermodal units are double stacked on a single railcar).

## Originating Carloads and Tonnage

| | Carloads originated (thousands) | Tons originated (thousands) | Tonnes originated (thousands) |
|---|---|---|---|
| 2014 | 4,332 | 319,781 | 290,105 |
| 2015 | 4,995 | 328,212 | 297,754 |
| 2016 | 5,035 | 340,628 | 309,017 |
| 2017 | 5,410 | 357,152 | 324,008 |
| 2018 | 5,732 | 376,625 | 341,674 |
| 2019 | 5,708 | 366,956 | 332,903 |
| 2020 | 5,497 | 366,396 | 332,394 |
| 2021 | 5,493 | 363,479 | 329,748 |
| 2022 | 5,594 | 367,990 | 333,840 |
| 2023 | 5,593 | 378,291 | 343,185 |

## Originating Carloads and Tonnage



## FREIGHT CARLOADS AND REVENUES BY COMMODITY

RAC tracks 11 commodity groupings of freight moved by railways in Canada. Over the past decade, the commodity groupings that experienced the most significant increases in carloads include intermodal (839,798 or 78.3%), minerals (480,984 or 71.1%), and manufactured & miscellaneous goods (95,394 or 93.8%).[7]

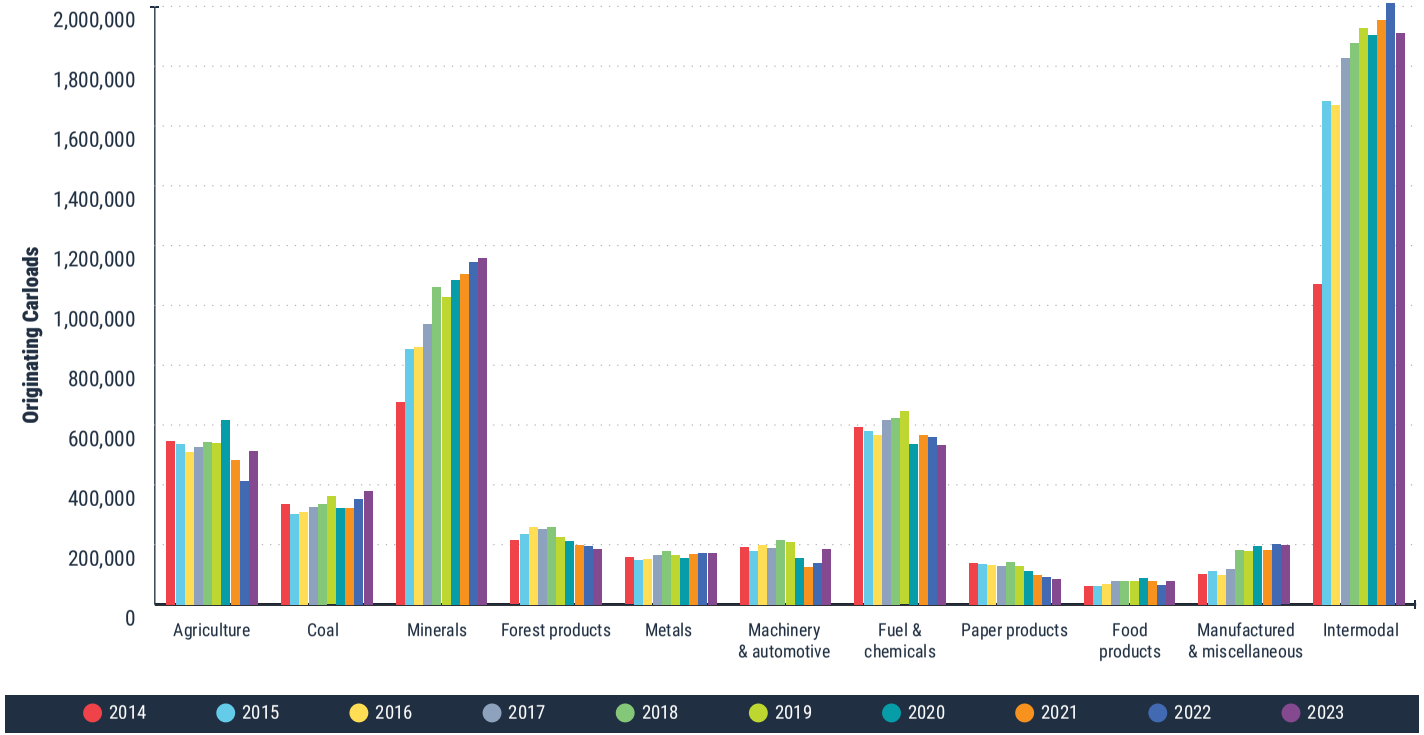
7 The largest increases and decreases are listed by absolute number of carloads, and not percentage.

## Originating Carloads by Commodity Grouping

| | Agriculture | Coal | Minerals | Forest products | Metals | Machinery & automotive | Fuel & chemicals | Paper products | Food products | Manufactured & miscellaneous | Intermodal | Total Commodities* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2014 | 547,122 | 336,632 | 676,865 | 213,980 | 157,086 | 193,294 | 593,186 | 139,110 | 61,993 | 101,733 | 1,072,278 | 4,093,278 |
| 2015 | 537,013 | 303,932 | 854,186 | 235,169 | 150,273 | 178,429 | 579,254 | 133,800 | 62,160 | 112,194 | 1,683,988 | 4,830,398 |
| 2016 | 511,228 | 309,403 | 859,479 | 257,774 | 151,609 | 199,927 | 565,331 | 130,882 | 68,951 | 99,480 | 1,669,892 | 4,823,956 |
| 2017 | 527,271 | 326,228 | 937,737 | 251,273 | 165,404 | 189,632 | 617,792 | 129,675 | 79,041 | 118,651 | 1,828,225 | 5,170,929 |
| 2018 | 542,722 | 337,323 | 1,060,395 | 260,377 | 178,784 | 214,592 | 622,769 | 140,822 | 78,864 | 181,935 | 1,878,392 | 5,496,976 |
| 2019 | 538,726 | 361,067 | 1,027,286 | 225,031 | 164,230 | 208,879 | 645,268 | 127,821 | 80,009 | 178,379 | 1,927,291 | 5,483,989 |
| 2020 | 615,441 | 323,880 | 1,086,036 | 213,474 | 156,271 | 154,487 | 535,268 | 113,001 | 87,050 | 194,640 | 1,905,493 | 5,385,041 |
| 2021 | 483,085 | 321,232 | 1,105,311 | 198,714 | 168,593 | 126,451 | 565,748 | 97,884 | 79,547 | 180,944 | 1,955,771 | 5,283,280 |
| 2022 | 413,939 | 352,549 | 1,145,610 | 196,436 | 172,511 | 138,403 | 558,806 | 92,140 | 65,990 | 203,449 | 2,012,003 | 5,351,835 |
| 2023 | 511,980 | 380,283 | 1,157,850 | 185,071 | 170,724 | 186,048 | 533,786 | 85,673 | 79,371 | 197,126 | 1,912,076 | 5,399,988 |

* Not all RAC member companies report carloads originated by commodity grouping. As a result, the total number of carloads originated by commodity grouping is lower than the total number of carloads originated (*page 16*).

## Originating Carloads by Commodity Grouping



In 2023, as was the case in 2022, intermodal, minerals, fuels & chemicals, and agriculture were the largest groupings of carloads transported by Canada's railways, accounting for over three-quarters of total carloads.

Five commodity groupings experienced increases in carloads from 2022 to 2023, including agriculture (98,041 or 23.7%), machinery & automotive (47,645 or 34.4%), coal (27,734 or 7.9%), food products (13,381 or 20.3%), and minerals (12,240 or 1.1%). The 2022 grain crop was significantly larger than the 2021 crop, which was affected by severe drought in the Prairies. The 2022 bumper crop, much of which is carried over and shipped throughout 2023, supported the strong year-over-year increase in agricultural shipments in 2023. Automotive remained a bright spot throughout the entire year, as pent-up demand (following the supply shortages experienced in the early days of the pandemic) remained strong.

The other six commodity groupings experienced decreases compared to 2022. Intermodal experienced the most significant decrease in carloads (-99,927 or -5.0%) followed by fuels & chemicals (-25,020 or -4.5%), forest products (-11,365 or 5.8%) and paper products (-6,467 or 7.0%). Several factors contributed to the reduction in intermodal volumes and other consumer-driven lines of business, including soft consumer demand throughout the year, a weak macroeconomic environment, the 13-day B.C. ports strike and resulting traffic diversions to U.S. ports, as well as enhanced pricing pressure from the trucking sector.

The commodity groupings with the higher numbers of carloads tend to generate higher revenues, as would be expected; however, there are some notable differences. The top four commodities by carloads are the same as the top four by revenues, but the order and shares are a bit different. As documented in Canadian railways' public reports, freight revenues per carload and per ton-mile vary by commodity, and the average length of haul can vary by commodity as well. In 2023, intermodal, agriculture, fuel & chemicals, and minerals were the largest revenue generators for Canadian railways, accounting for nearly two-thirds of freight revenues.

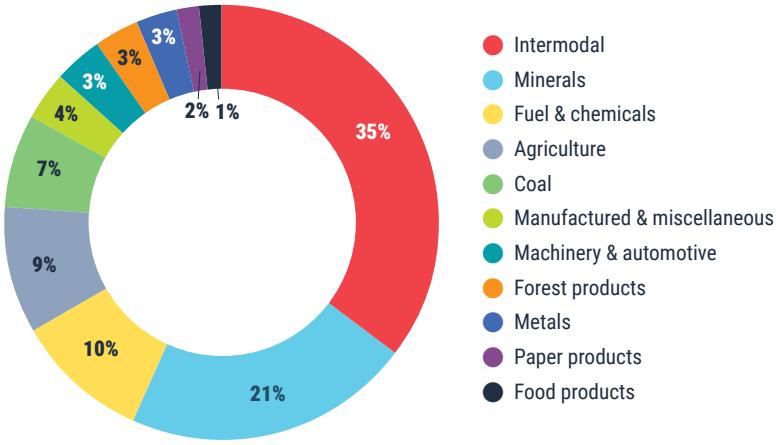
## Freight Revenue by Commodity Grouping ($ millions)

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Agriculture** | 1,725 | 1,871 | 1,731 | 1,865 | 2,040 | 2,129 | 2,431 | 1,974 | 1,927 | 2,457 |
| **Coal** | 760 | 632 | 628 | 695 | 768 | 837 | 725 | 692 | 829 | 922 |
| **Minerals** | 1,030 | 1,336 | 1,061 | 1,101 | 1,555 | 1,544 | 1,390 | 1,344 | 1,564 | 1,681 |
| **Forest products** | 702 | 857 | 952 | 918 | 968 | 899 | 868 | 919 | 1,039 | 1,017 |
| **Metals** | 501 | 487 | 429 | 478 | 557 | 513 | 481 | 548 | 634 | 685 |
| **Machinery & automotive** | 481 | 541 | 567 | 552 | 664 | 630 | 489 | 474 | 605 | 794 |
| **Fuel & chemicals** | 1,756 | 1,934 | 1,719 | 1,824 | 1,944 | 2,137 | 1,759 | 1,905 | 2,186 | 2,211 |
| **Paper products** | 393 | 426 | 423 | 425 | 477 | 445 | 415 | 396 | 427 | 436 |
| **Food products** | 181 | 235 | 258 | 295 | 305 | 326 | 373 | 343 | 321 | 410 |
| **Manufactured & miscellaneous** | 177 | 192 | 181 | 221 | 510 | 516 | 578 | 645 | 823 | 837 |
| **Intermodal** | 2,162 | 2,171 | 2,135 | 2,354 | 2,566 | 2,580 | 2,553 | 2,731 | 3,302 | 3,097 |
| **Total Commodities*** | 9,869 | 10,682 | 10,083 | 10,728 | 12,355 | 12,557 | 12,062 | 11,971 | 13,659 | 14,551 |

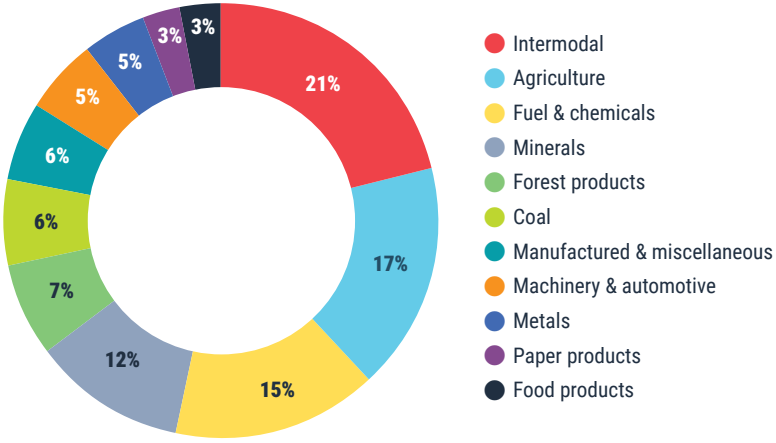
*Not all RAC member companies report revenue from carloads originated by commodity grouping. The data in this section reflect reported freight revenue from originated carloads grouped by commodity grouping. As a result, total freight revenue from carloads originated by commodity grouping is lower than total freight operating revenue (*page 41*).

The figures below illustrate the distribution of originating carloads and freight revenues by commodity grouping.

## Originating Carloads by Commodity Grouping, 2023




## Freight Revenue by Commodity Grouping, 2023



## Freight Train Statistics

| | Average length of haul by Class 1 railways | | Average length of haul by shortline railways | | Average cars per freight train | Average train weight |
|---|---|---|---|---|---|---|
| | *Miles* | *Kilometres* | *Miles* | *Kilometres* | *Cars* | *Tons* |
| **2014** | 908 | 1,462 | 132 | 213 | 100 | 7,720 |
| **2015** | 943 | 1,517 | 142 | 228 | 102 | 7,968 |
| **2016** | 937 | 1,508 | 137 | 220 | 108 | 8,477 |
| **2017** | 947 | 1,524 | 129 | 208 | 114 | 8,636 |
| **2018** | 930 | 1,496 | 120 | 192 | 113 | 8,654 |
| **2019** | 920 | 1,481 | 118 | 190 | 114 | 8,670 |
| **2020** | 941 | 1,515 | 114 | 184 | 120 | 9,159 |
| **2021** | 913 | 1,470 | 106 | 171 | 121 | 9,279 |
| **2022** | 884 | 1,423 | 107 | 172 | 116 | 9,014 |
| **2023** | 872 | 1,403 | 103 | 166 | 112 | 8,847 |

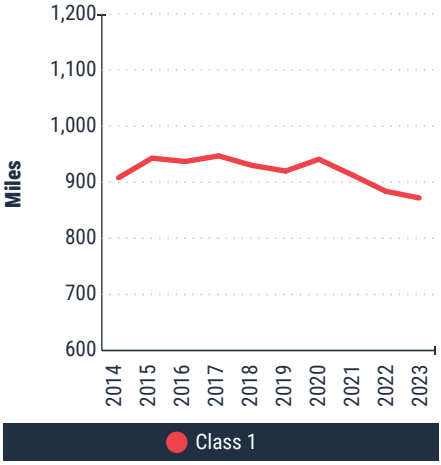
In 2023, shipments transported by Canada's CLASS 1 RAILWAYS (CN and CPKC) travelled an average distance[8] of 872 miles (1,403 kilometres), which is 1.4% shorter than in 2022. Shipments carried by Canada's SHORTLINE RAILWAYS travelled an average distance of 103 miles (166 kilometres), which is 3.7% shorter than in 2022.

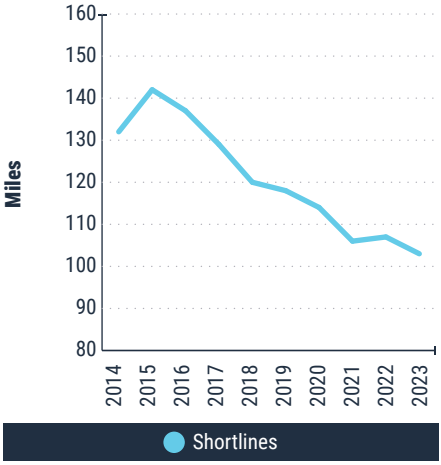
The average length of haul varies significantly across SHORTLINE RAILWAYS due to variations in the length of TRACK OPERATED.[9] Many factors could contribute to changes in the average length of haul. In addition to changes in traffic origin and destination, average haul can be impacted by shifts in traffic shares between railways (that have different average hauls) or shifts in commodity shares (as average haul varies by commodity).

8 The average length of haul is calculated by dividing revenue ton-miles (revenue tonne-kilometres) by total tons (tonnes). Data from railways that do not report both metrics are excluded from the calculation.

9 In 2023, the length of track operated by Canadian shortline railways ranged from just a few miles to over 700 miles, with a median length of around 85 miles and average of around 140.

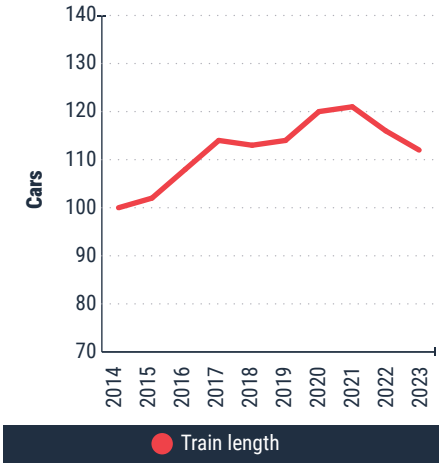
## Average Length of Haul

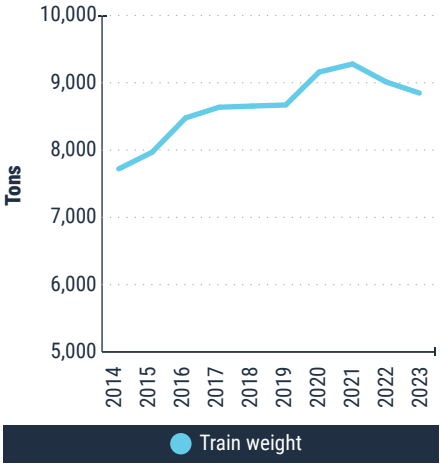



Average train length and weight did not continue their upward trend in 2022 or 2023. In 2023, the average number of cars[10] per freight train decreased by 3.6% from 2022 but remained 11.7% above the 2014 level. The average train weight[11] decreased by 1.9% from 2022 but remained 14.6% above the 2014 level. In 2023, the average train carried 112 cars and weighed 8,847 tons.

## Average Train Size




10 The average number of cars per freight train is calculated by dividing loaded & empty car-miles (car-kilometres) by freight train- miles (train-kilometres). Data from railways that do not report both metrics are excluded from the calculation.

11 Average train weight is calculated by dividing gross ton-miles by freight train-miles. Data from railways that do not report both metrics are excluded from the calculation.

## FREIGHT RATES

Freight revenue per ton-mile is a good measure of railway freight rates. It shows the revenue collected by railways for moving a certain amount of goods over a certain distance.[12] A January 2023 study found that Canada's freight rates were the lowest among all market-based economies examined.[13]

In 2023, rail freight rates increased by 2.1%, to 4.16 cents per REVENUE TONNE-KILOMETRE or 6.08 cents per REVENUE TON-MILE. This increase was smaller than the increase in the Consumer Price Index, which edged up 3.9%. In 2023, commodity prices and industrial product prices began to come back down after two years of significant inflation—which saw commodity prices more than double and industrial product prices increase by 28.5% between 2020 and 2022.

Since 1988 (the first year in RAC's *Rail Trends* Database, following enactment of the *National Transportation Act, 1987*), railway freight rates have increased by a total of 66.5%, which is much less than the increases in consumer prices (120.6%), industrial product prices (112.7%), and commodity prices (124.1%), which have all more than doubled.

### Freight Rates and Other Price Indices

| | Freight revenue (cents) per | | Freight revenue per RTM index | Commodity price index* | Consumer Price Index | Industrial product price index |
|---|---|---|---|---|---|---|
| | *RTM* | *RTK* | *1988=100* | *1988=100* | *1988=100* | *1988=100* |
| **2014** | 4.58 | 3.14 | 125.6 | 226.6 | 175.8 | 160.0 |
| **2015** | 4.63 | 3.17 | 126.7 | 144.7 | 177.8 | 158.7 |
| **2016** | 4.51 | 3.09 | 123.7 | 131.8 | 180.3 | 158.4 |
| **2017** | 4.55 | 3.12 | 124.8 | 152.6 | 183.1 | 163.3 |
| **2018** | 4.82 | 3.30 | 132.0 | 166.4 | 187.4 | 169.6 |
| **2019** | 5.07 | 3.47 | 138.8 | 160.3 | 191.0 | 169.4 |
| **2020** | 4.97 | 3.41 | 136.2 | 139.8 | 192.4 | 168.7 |
| **2021** | 5.21 | 3.57 | 142.9 | 223.4 | 198.9 | 192.1 |
| **2022** | 5.95 | 4.07 | 163.0 | 285.1 | 212.4 | 216.7 |
| **2023** | 6.08 | 4.16 | 166.5 | 224.1 | 220.6 | 212.7 |

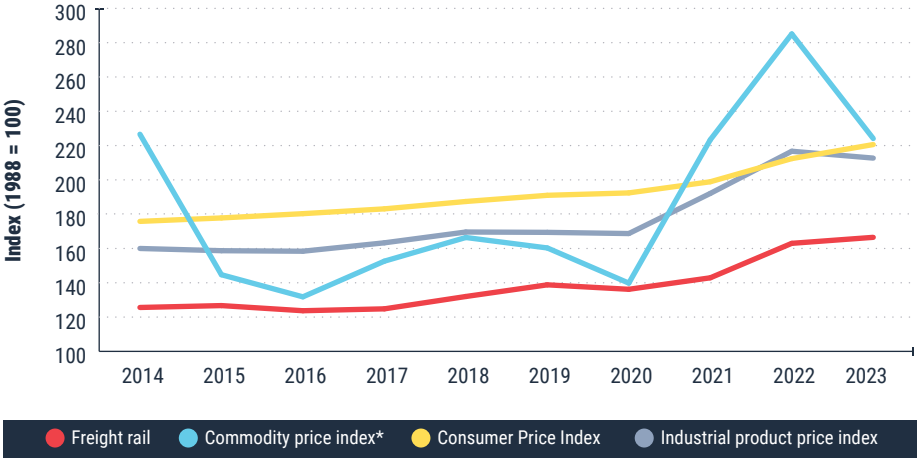
Sources: Bank of Canada (commodity price index); Statistics Canada (Consumer Price Index; industrial product price index).

*The Bank of Canada regularly revises its commodity price data.

12 Freight revenue per ton-mile is calculated by dividing freight operating revenue by revenue ton-miles (revenue tonne-kilometres).

13 https://www.railcan.ca/wp-content/uploads/2023/02/International-Comparison-of-Railway-Freight-Rates-2.pdf

## Freight Rates and Other Price Indices




*The Bank of Canada regularly revises its commodity price data.

## PRODUCTIVITY

Freight railway labour productivity can be measured using RTMs per freight employee.[14] Using this measure, employee productivity decreased by 3.8% in 2023, remaining just 2.5% above the 2014 level. The number of freight road miles per freight employee[15] also decreased (-5.1% year-over-year).

Following enactment of the *National Transportation Act, 1987*, the rail sector has been a productivity leader in Canada but this is at risk. Two new government labour regulations significantly impacted rail sector productivity in 2023. A change to the Canada Labour Code, which added 10 days of paid leave for workers in federally regulated sectors, came into force in December 1, 2022; and Duty and Rest Period Rules (DRPR) for Railway Operating Employees came into effect on May 25, 2023.[16] Ultimately, these changes require extra labour to service the same amount of freight traffic—adding scheduling complexity, increasing costs, and reducing productivity.

14 Freight rail labour productivity is calculated by dividing the total revenue ton-miles by the average number of freight railway employees, each year. Data from railways that don't report both metrics are excluded from the calculation.

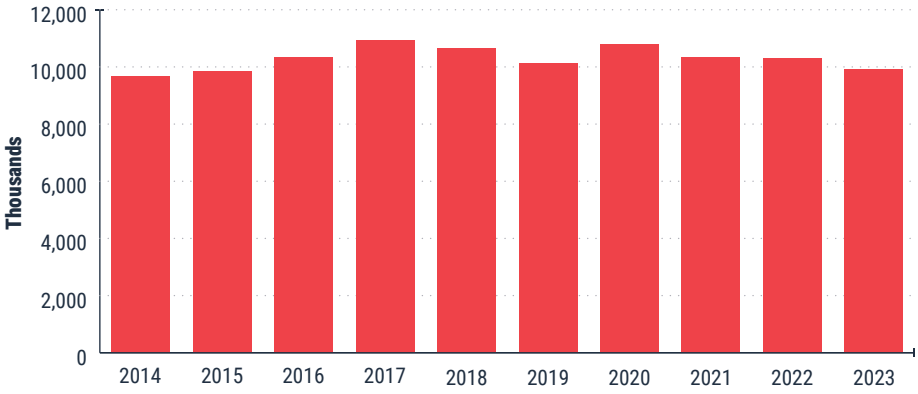
15 Road miles per employee is calculated by dividing freight road miles operated by freight employment. Data from railways that don't report both metrics are excluded from the calculation.

16 The DRPR came into effect on May 25, 2023 for the freight railway companies and on November 25, 2024 for passenger railway companies.

## Productivity Measures

| | RTM per freight employee (thousands) | RTK per freight employee (thousands) | Road miles per freight employee | Road kilometres per freight employee |
|---|---|---|---|---|
| 2014 | 9,683 | 14,136 | 0.90 | 1.45 |
| 2015 | 9,834 | 14,356 | 0.93 | 1.50 |
| 2016 | 10,329 | 15,079 | 1.00 | 1.61 |
| 2017 | 10,917 | 15,938 | 0.96 | 1.55 |
| 2018 | 10,666 | 15,571 | 0.87 | 1.40 |
| 2019 | 10,137 | 14,799 | 0.85 | 1.37 |
| 2020 | 10,795 | 15,759 | 0.90 | 1.45 |
| 2021 | 10,355 | 15,117 | 0.88 | 1.42 |
| 2022 | 10,319 | 15,065 | 0.88 | 1.42 |
| 2023 | 9,923 | 14,486 | 0.84 | 1.35 |

## RTM per Freight Employee

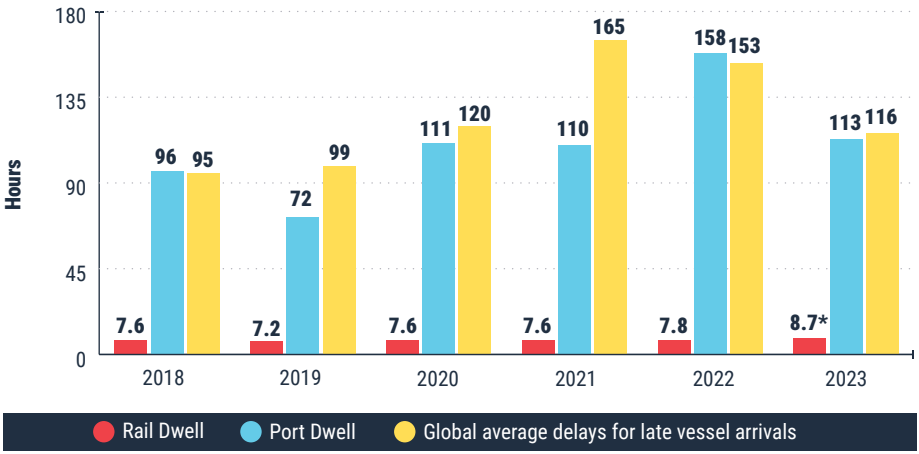


## SUPPLY CHAINS

Modern supply chains are complex and, when disruption occurs at one link, the impacts are felt widely and deeply across businesses, consumers, and the economy. In July 2023, Canadian supply chains were rocked, as dockworkers at B.C. ports went on strike. The work stoppage produced negative impacts on the performance of the entire supply chain, worker earnings, tax revenues, and overall economic growth and well-being. And while the strike lasted for 13 days, the impacts are lasting. Traffic diversions to U.S. ports continued for several months and Canada's reputation as a reliable trading partner remains at risk.

Canadian rail remained a healthy and strong link in these supply chains. In 2023, and every year throughout the pandemic, Canadian CLASS 1 RAILWAYS' average terminal dwell time[17] remained below ten hours. Yet Canadian ports' average terminal dwell time[18] increased by 120.3%, from 72 hours in 2019 to 158 hours in 2022, but has come down to 113 hours in 2023. At the global level, the ON-TIME PERFORMANCE of marine vessels decreased from 78% in 2019 to 42% in 2022, making a partial recovery to 62% in 2023 (not shown).[19] For vessels that were not on-time, the average delay increased by 54.7%, from 99 hours in 2019 to 153 hours in 2022, but has come down to 116 hours in 2023.[20]

### Supply Chain Performance




* CPKC data for 2023 are reported on a combined basis as if CP's control of KCS occurred on January 1, 2023. CP and KCS officially combined on April 14, 2023. The rail dwell metric includes dwell times from across the railways' networks, including terminals throughout the U.S. and Mexico.

17 The Canadian Class 1 railways' average dwell time is calculated as a simple average of CN and CP in 2018 through 2022, and a simple average of CN and CPKC in 2023.

18 The Canadian ports' average dwell time is calculated as a simple average of the Port of Vancouver and the Port of Montreal.

19 Sea-Intelligence, *Global Liner Performance (GLP) report.*

20 Ibid.

# Fuel

In 2023, RAC member railways consumed 453 million gallons (2.1 billion litres) of fuel, a 1.9% increase compared to 2022, but remained 3.4% below the 2018–2022 average. Passenger rail fuel consumption increased by 12.2% compared to 2022, as ridership and the number of trains increased from the lows experienced during the pandemic. However, passenger fuel consumption remained below pre-pandemic levels, when ridership levels were higher. Freight rail fuel consumption (including yard and work trains) increased by 1.4%.

Diesel fuel costs came down 14.2% in 2023 to $5.92 per gallon ($1.30 per litre). Despite this reduction, diesel costs per gallon (or litre) in 2023 were the second highest on record.[21] The reduction in 2023 followed two years of significant increases when costs more than doubled from $3.22 per gallon ($0.71 per litre) in 2020 to $6.89 per gallon ($1.52 per litre) in 2022.

21 RAC records date back to 1988, the first year in RAC's *Rail Trends* Database.

## Fuel Consumption and Cost

| | Total fuel consumption | | Freight fuel consumption (incl. yard and work train fuel) | | Freight fuel consumption (excl. yard and work train fuel) | | Passenger fuel consumption | | Cost of diesel fuel | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Gallons (thousands)* | *Litres (thousands)* | *Gallons (thousands)* | *Litres (thousands)* | *Gallons (thousands)* | *Litres (thousands)* | *Gallons (thousands)* | *Litres (thousands)* | *Per gallon ($)* | *Per litre (cents)* |
| **2014** | 484,211 | 2,201,260 | 462,838 | 2,104,096 | 446,587 | 2,030,216 | 21,373 | 97,164 | 4.72 | 103.91 |
| **2015** | 470,084 | 2,137,037 | 445,859 | 2,026,907 | 431,476 | 1,961,524 | 24,225 | 110,130 | 3.45 | 75.99 |
| **2016** | 441,145 | 2,005,479 | 416,916 | 1,895,331 | 403,995 | 1,836,593 | 24,229 | 110,148 | 3.02 | 66.33 |
| **2017** | 475,619 | 2,162,199 | 449,509 | 2,043,500 | 435,981 | 1,982,001 | 26,110 | 118,699 | 3.43 | 75.54 |
| **2018** | 494,194 | 2,246,644 | 467,418 | 2,124,919 | 454,246 | 2,065,037 | 26,776 | 121,725 | 4.24 | 93.20 |
| **2019** | 498,062 | 2,264,237 | 468,153 | 2,128,266 | 454,315 | 2,065,359 | 29,910 | 135,972 | 4.03 | 88.70 |
| **2020** | 460,670 | 2,094,250 | 445,252 | 2,024,159 | 432,907 | 1,968,037 | 15,418 | 70,092 | 3.22 | 70.80 |
| **2021** | 447,900 | 2,036,194 | 431,647 | 1,962,309 | 419,103 | 1,905,283 | 16,253 | 73,886 | 4.20 | 92.39 |
| **2022** | 444,862 | 2,022,386 | 423,080 | 1,923,361 | 410,439 | 1,865,894 | 21,782 | 99,025 | 6.89 | 151.59 |
| **2023** | 453,433 | 2,061,351 | 428,994 | 1,950,248 | 415,786 | 1,890,204 | 24,439 | 111,103 | 5.92 | 130.14 |

## FREIGHT FUEL EFFICIENCY

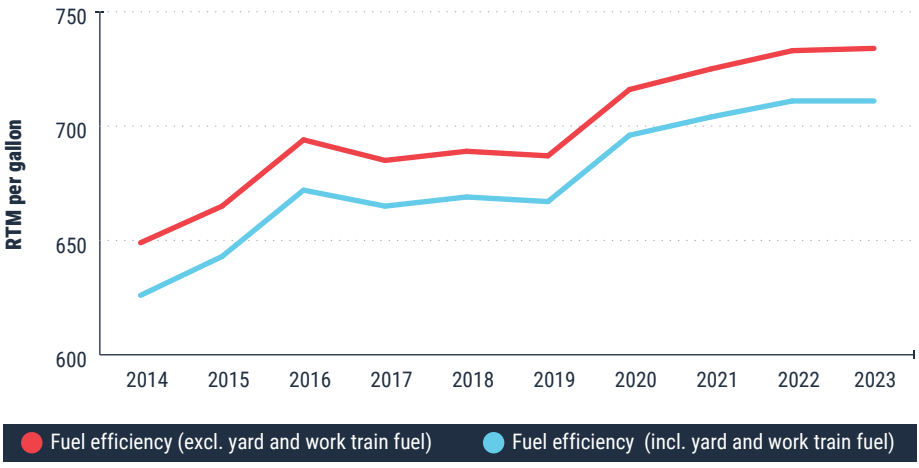
In 2023, Canadian railways maintained their status as the most fuel-efficient means of transporting goods over land. The sector continue to make significant investments in locomotive fleet modernization, fuel saving technologies, operational efficiencies, low carbon fuels, and pilot projects in zero-emissions propulsion technologies.

There is a strong correlation between train weight (or length) and fuel efficiency—heavier (or longer) trains tend to have better fuel efficiency per RTM. In 2023, average train weight decreased by 1.9%, but the sector was successful in maintaining its freight fuel efficiency at 711 RTMs per gallon (or 228 RTKs per litre).[22] Since 2014, freight fuel efficiency has improved by 13.5%.

### Freight Fuel Efficiency

| | Fuel efficiency (incl. yard and work train fuel) | | Fuel efficiency (excl. yard and work train fuel) | |
|---|---|---|---|---|
| | *RTM per gallon* | *RTK per litre* | *RTM per gallon* | *RTK per litre* |
| **2014** | 626 | 201 | 649 | 208 |
| **2015** | 643 | 207 | 665 | 214 |
| **2016** | 672 | 216 | 694 | 223 |
| **2017** | 665 | 213 | 685 | 220 |
| **2018** | 669 | 215 | 689 | 221 |
| **2019** | 667 | 214 | 687 | 221 |
| **2020** | 696 | 223 | 716 | 230 |
| **2021** | 704 | 226 | 725 | 233 |
| **2022** | 711 | 228 | 733 | 235 |
| **2023** | 711 | 228 | 734 | 236 |

### Freight Fuel Efficiency




22 Including yard and work train fuel.

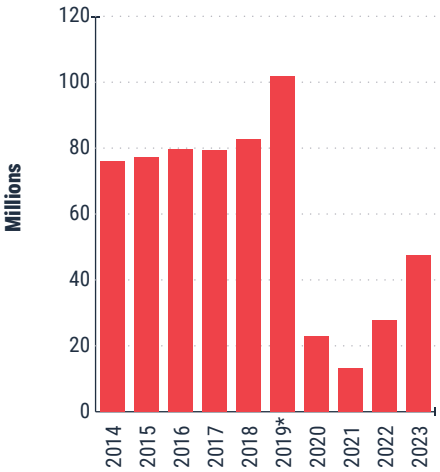
# Passenger Transportation

In 2023, passenger rail ridership continued to climb from the pandemic-induced lows, improving across all segments of passenger railways—commuter, intercity, and tourist. However, despite significant year-over-year improvements, ridership remained well-below pre-pandemic (2019) levels.

## COMMUTER RAIL

From 2022 to 2023, commuter rail ridership increased by 70.5%, from 27.8 million to 47.4 million commuters. Despite this significant growth, commuter ridership remained 53.5% below 2019 levels.

### Commuter Ridership




| | Commuters (millions) |
|---|---|
| 2014 | 75.9 |
| 2015 | 77.2 |
| 2016 | 79.6 |
| 2017 | 79.3 |
| 2018 | 82.8 |
| 2019* | 101.9 |
| 2020 | 22.8 |
| 2021 | 13.3 |
| 2022 | 27.8 |
| 2023 | 47.4 |

*The significant increase in commuters from 2018 to 2019 was due to a combination of increasing ridership on commuter rail services as well as the inclusion of one additional rail service beginning in 2019.

## INTERCITY PASSENGER RAIL

From 2022 to 2023, the number of intercity railway passengers (across all RAC member railways) increased by 30.7%, from 3.4 million to 4.4 million.

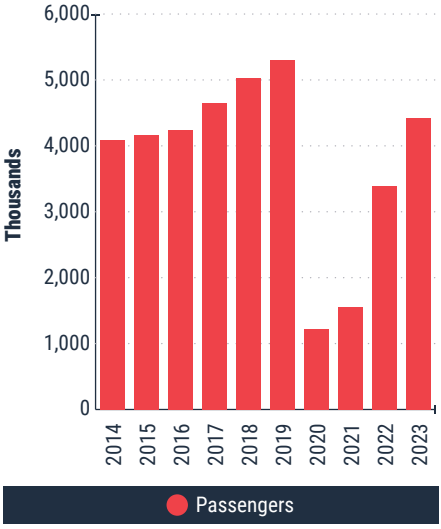
As Canada's national passenger rail service, VIA Rail accounts for the majority of intercity passenger rail traffic; therefore, the data presented in *Rail Trends* is typically very similar to the data contained in VIA Rail's annual reports. In 2023, VIA Rail ridership in the corridor increased by 24.8% as several key train frequencies were restored.[23] VIA Rail ridership also increased on every non-corridor route, resulting in an overall ridership increase of 23.3% outside the corridor.[24] Intercity passenger TRAIN MILES (across all RAC member railways) increased by 21.9%, and passenger CAR MILES increased by 16.0%.

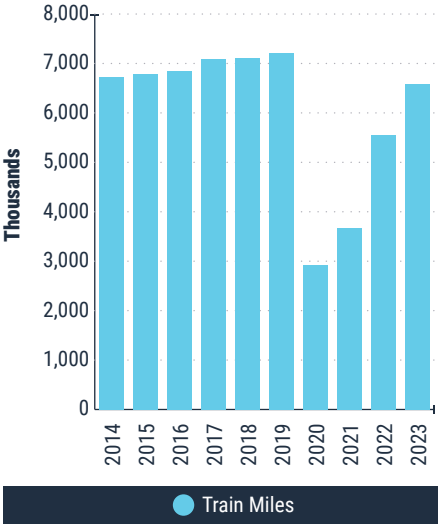
### Intercity Passenger Rail Statistics

| | Passenger cars in service | Number of passengers | Passenger | | Passenger train | | Passenger car | |
|---|---|---|---|---|---|---|---|---|
| | | *(thousands)* | *Miles (millions)* | *Kilometres (millions)* | *Miles (thousands)* | *Kilometres (thousands)* | *Miles (thousands)* | *Kilometres (thousands)* |
| **2014** | 552 | 4,094 | 834 | 1,343 | 6,720 | 10,814 | 41,587 | 66,928 |
| **2015** | 551 | 4,171 | 857 | 1,380 | 6,781 | 10,913 | 43,843 | 70,559 |
| **2016** | 527 | 4,241 | 876 | 1,409 | 6,850 | 11,024 | 44,884 | 72,234 |
| **2017** | 512 | 4,645 | 971 | 1,562 | 7,094 | 11,416 | 46,758 | 75,249 |
| **2018** | 495 | 5,028 | 1,011 | 1,626 | 7,107 | 11,438 | 47,030 | 75,688 |
| **2019** | 488 | 5,305 | 1,074 | 1,729 | 7,216 | 11,612 | 46,000 | 74,030 |
| **2020** | 480 | 1,227 | 229 | 369 | 2,929 | 4,714 | 14,941 | 24,044 |
| **2021** | 407 | 1,555 | 333 | 535 | 3,668 | 5,904 | 18,534 | 29,827 |
| **2022** | 397 | 3,385 | 760 | 1,223 | 5,548 | 8,928 | 34,624 | 55,722 |
| **2023** | 445 | 4,424 | 926 | 1,491 | 6,582 | 10,593 | 40,174 | 64,654 |

23 VIA Rail, *Annual Report 2023*.
24 VIA Rail, *Annual Report 2023*.

## Intercity Passengers and Train Miles




In 2023, the average passenger load factor remained at 61%, which is higher than in the pre-pandemic period. The average number of passengers per train edged up 2.7%, from 137 to 141. On time performance increased from 57% to 59%. Lastly, average length of journey decreased by 2.6%, as the gain in ridership was more pronounced in the corridor where average length of journeys are shorter than outside of the corridor, on the longhaul and regional services.

## Intercity Passenger Rail Performance Metrics

| | Average intercity passengers per train | Average length of journey | | Average passenger load factor | On-time performance |
|---|---|---|---|---|---|
| | | *Miles* | *Kilometres* | *(%)* | *(%)* |
| **2014** | 124 | 213 | 343 | 60 | 76 |
| **2015** | 126 | 213 | 343 | 56 | 71 |
| **2016** | 128 | 216 | 348 | 54 | 73 |
| **2017** | 137 | 217 | 349 | 57 | 73 |
| **2018** | 142 | 209 | 336 | 57 | 71 |
| **2019** | 149 | 211 | 339 | 60 | 68 |
| **2020** | 78 | 198 | 318 | 45 | 71 |
| **2021** | 91 | 216 | 348 | 49 | 72 |
| **2022** | 137 | 227 | 365 | 61 | 57 |
| **2023** | 141 | 221 | 356 | 61 | 59 |

# Safety

## SAFETY OVERVIEW

The safety data presented in *Rail Trends* reflect the performance of federally and provincially regulated freight and passenger railways in Canada. The Transportation Safety Board (TSB) maintains a live database of the safety performance of all federally regulated railways. Since the data are constantly being updated and revised in the live database, the statistics will change over time. The safety data found in *Rail Trends* are an aggregate of TSB statistics and information provided to RAC by provincially regulated member railways that are not required to report to the TSB. Each organization uses the same safety definitions, and the data reflect railway operations in Canada only.

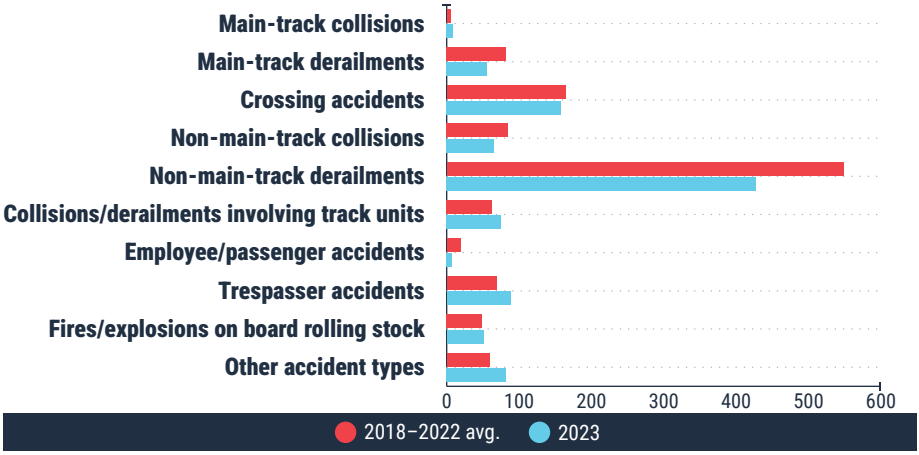
The rail industry's safety performance in 2023 was exceptional. The total number of accidents decreased 8.5% year-over-year, and was 11.0% below the 2018–2022 average. The total number of collisions and derailments was down 22.7% from the 2018–2022 average.[25]

### Safety Summary

| | 2014 | 2018–2022 avg. | 2022 | 2023 |
|---|---|---|---|---|
| **Main-track collisions** | 9 | 5 | 8 | 9 |
| **Main-track derailments** | 102 | 82 | 72 | 56 |
| **Crossing accidents** | 188 | 164 | 180 | 158 |
| **Non-main-track collisions** | 108 | 85 | 68 | 65 |
| **Non-main-track derailments** | 488 | 548 | 469 | 427 |
| **Collisions/derailments involving track units** | 27 | 63 | 83 | 75 |
| **Employee/passenger accidents** | 16 | 19 | 14 | 7 |
| **Trespasser accidents** | 55 | 69 | 84 | 88 |
| **Fires/explosions on board rolling stock** | 32 | 49 | 51 | 51 |
| **Other accident types** | 37 | 59 | 83 | 82 |
| **Total Accidents** | 1,062 | 1,143 | 1,112 | 1,018 |

25 Includes main-track and non-main-track collisions and derailments , does not include collisions/derailments involving track units.

### Safety Overview: 2023 vs 2018–2022 Average




## CROSSING AND TRESPASSING

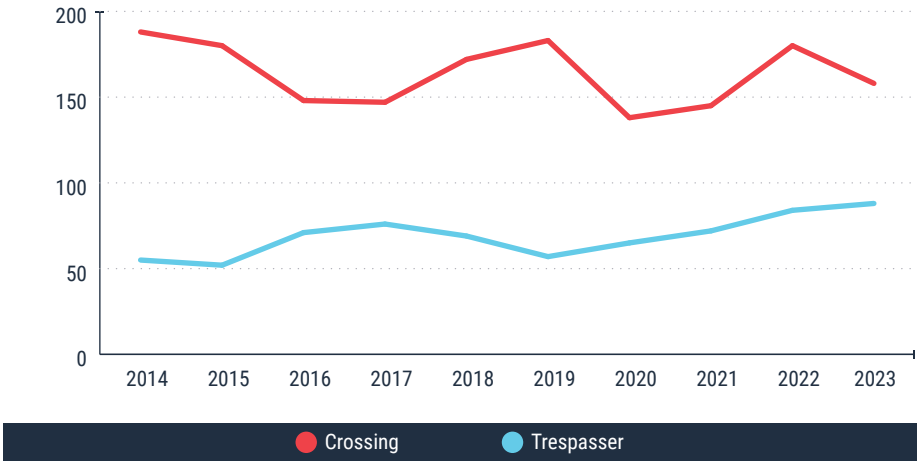
Each year, crossing and trespasser accidents account for roughly one fifth of total rail accidents in Canada. However, this number has increased to 24% in each of the past two years. The trend in trespasser accidents is most concerning. In 2023, there were 88 accidents related to trespassing on railway property—the highest in the past decade and 26.8% above the 2018–2022 average. There were also 158 accidents at railway crossings, representing a 12.2% year-over-year improvement, but only a 3.4% reduction from the 2018–2022 average.

Rail safety is a shared responsibility. Accident rates are improving in many of the areas where railways have greater control over the outcomes (such as collisions and derailments), while accidents at crossings and trespassing remain top issues. These statistics reinforce the need for continued support of Operation Lifesaver's rail safety education and awareness activities, as well as continued advocacy for the adoption of FCM-RAC Proximity Guidelines to enhance safety and livability near railway infrastructure.

## Crossing and Trespasser Accidents

| | Crossing | Trespasser | Crossing & Trespasser |
|---|---|---|---|
| 2014 | 188 | 55 | 243 |
| 2015 | 180 | 52 | 232 |
| 2016 | 148 | 71 | 219 |
| 2017 | 147 | 76 | 223 |
| 2018 | 172 | 69 | 241 |
| 2019 | 183 | 57 | 240 |
| 2020 | 138 | 65 | 203 |
| 2021 | 145 | 72 | 217 |
| 2022 | 180 | 84 | 264 |
| 2023 | 158 | 88 | 246 |

## Crossing and Trespasser Accidents



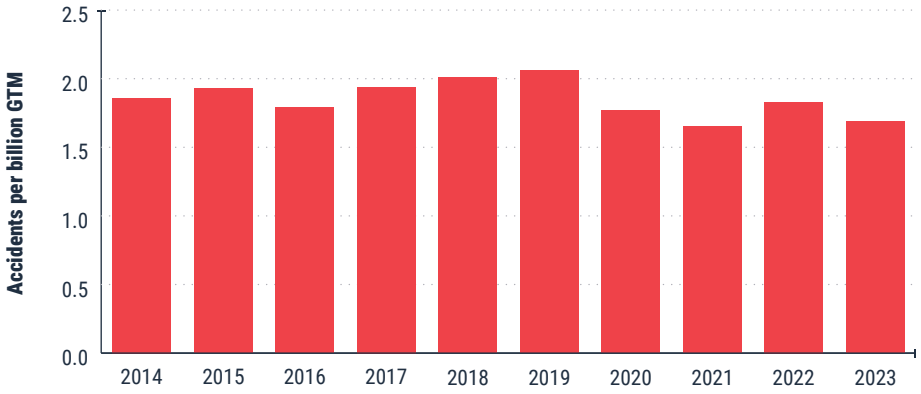
## FREIGHT

In 2023, the freight accident rate improved 7.7% year-over-year to 1.69 accidents per billion GTMs. The freight accident rate was 9.3% below the 2018–2022 average. Approximately half of these accidents were collisions/derailments that occurred on non-main-track.

### Freight Accidents

| | Freight accidents | GTM (billions) | Accident rate (accidents per billion GTM) |
|---|---|---|---|
| 2014 | 1,012 | 544.4 | 1.86 |
| 2015 | 1,051 | 545.1 | 1.93 |
| 2016 | 943 | 525.8 | 1.79 |
| 2017 | 1,094 | 565.1 | 1.94 |
| 2018 | 1,195 | 593.5 | 2.01 |
| 2019 | 1,223 | 592.9 | 2.06 |
| 2020 | 1,027 | 581.0 | 1.77 |
| 2021 | 945 | 571.7 | 1.65 |
| 2022 | 1,035 | 564.5 | 1.83 |
| 2023 | 957 | 565.6 | 1.69 |

### Freight Accident Rate



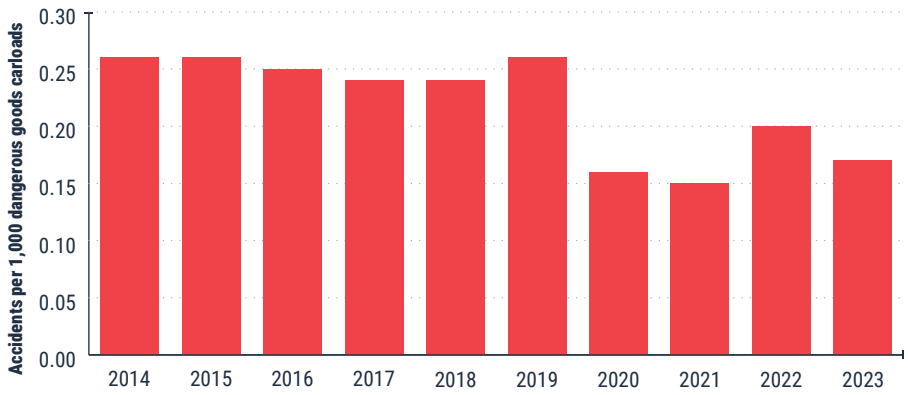
## DANGEROUS GOODS

Railways continue to transport large volumes of freight classified as DANGEROUS GOODS—fulfilling their obligations as common carriers. The freight rail sector's DANGEROUS GOODS accident rate decreased by 15.9% year-over-year, cumulating in a 33.6% improvement over the past decade. In 2023, Canadian railways transported 527,490 carloads containing dangerous goods, in which all but six of these carloads reached their destination without a release.

### Accidents Involving Dangerous Goods

| | **Accidents involving dangerous goods** | **Originated dangerous goods carloads** *(thousands)* | **Dangerous goods accident rate** *(accidents per 1,000 dangerous goods carloads)* | **Accidents with a dangerous goods release** |
|---|---|---|---|---|
| **2014** | 148 | 576 | 0.26 | 5 |
| **2015** | 130 | 492 | 0.26 | 6 |
| **2016** | 111 | 438 | 0.25 | 2 |
| **2017** | 123 | 505 | 0.24 | 5 |
| **2018** | 129 | 547 | 0.24 | 4 |
| **2019** | 174 | 676 | 0.26 | 8 |
| **2020** | 87 | 536 | 0.16 | 3 |
| **2021** | 87 | 576 | 0.15 | 2 |
| **2022** | 111 | 547 | 0.20 | 2 |
| **2023** | 90 | 527 | 0.17 | 6 |

### Dangerous Goods Accident Rate



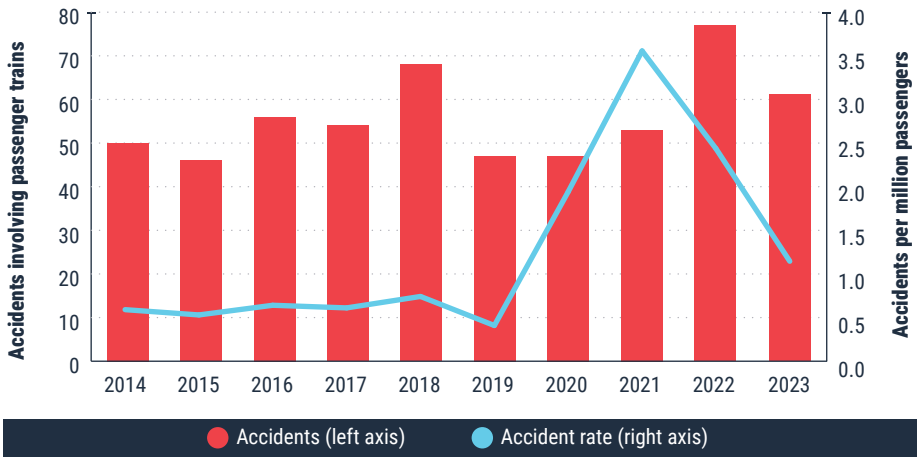
## PASSENGER

In 2023, there were 61 accidents involving passenger trains, representing a 20.8% year-over-year reduction.

The accident rate is based on the number of passengers and is therefore sensitive to the significant year-over-year changes in ridership since 2020 (the onset of the COVID-19 pandemic in North America).[26] In 2023, the passenger train accident rate improved by 52.4% compared to 2022, but remained elevated compared to the pre-pandemic period, when ridership levels were much higher.

| | Passenger accidents | Passengers *(millions)* | Accident rate *(accidents per million passengers)* |
|---|---|---|---|
| **2014** | 50 | 80 | 0.62 |
| **2015** | 46 | 82 | 0.56 |
| **2016** | 56 | 84 | 0.67 |
| **2017** | 54 | 84 | 0.64 |
| **2018** | 68 | 88 | 0.77 |
| **2019** | 47 | 108 | 0.44 |
| **2020** | 47 | 24 | 1.96 |
| **2021** | 53 | 15 | 3.56 |
| **2022** | 77 | 31 | 2.45 |
| **2023** | 61 | 52 | 1.17 |

### Passenger Train Accidents and Accident Rate




26 The passenger rail sector's accident rate is calculated by dividing the number of accidents involving passenger trains by the total number of intercity, commuter, and tourist rail passengers (in millions).

# Operating Finances, Investments, and Taxes

## OPERATING FINANCES

In 2023, Canadian railways' total operating revenues increased by $457 million (or 2.2%), from $20.5 billion to $20.9 billion. Passenger-related revenues increased by $125 million (or 12.7%); freight-related revenues increased by $629 million (or 3.5%); and other revenues decreased by $296 million (or -18.7%).

Total operating expenses increased in 2023 by $347 million (or 2.6%). General and administrative expenses increased by $274 million (12.9%), followed by increases in expenses related to transportation ($232 million or 6.8%), maintenance-of-way and structures ($124 million or 4.4%), and maintenance of equipment ($100 million or 4.6%). Fuel was the only expense category in which expenses decreased (-$383 million or -12.5%). Fuel expense came down following a record high in 2022; and despite the reduction, 2023 fuel expense was the second highest on record.

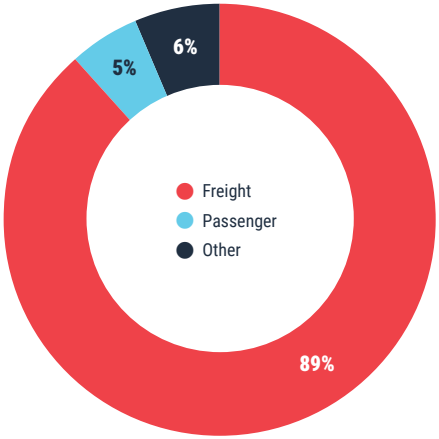
Total expenses increased at a higher rate than total revenues (2.5% vs 2.2%); however, since the dollar increase in revenues was greater than the dollar increase in expenses ($457 million vs $347 million), operating income increased by $110 million (or 1.6%), from $6.9 billion to $7.0 billion.[27] While operating income increased by only 1.6%, there were significant increases in railways' investments (21.1%) and in the amount of taxes paid to Canadian governments (12.8%), which are presented in the next several pages.

### Operating Revenues ($ millions)

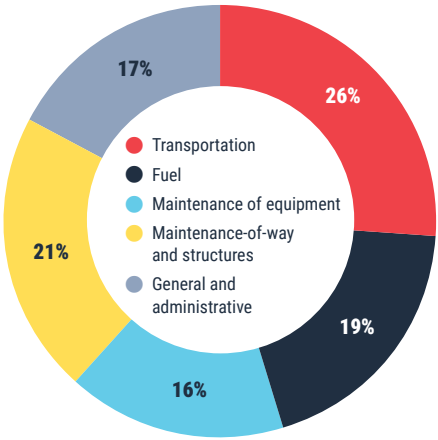
| | Freight | Passenger | Other | Total operating revenues |
|---|---|---|---|---|
| 2014 | 13,287 | 690 | 664 | 14,641 |
| 2015 | 13,270 | 727 | 682 | 14,679 |
| 2016 | 12,649 | 784 | 681 | 14,114 |
| 2017 | 13,610 | 915 | 704 | 15,228 |
| 2018 | 15,064 | 970 | 694 | 16,728 |
| 2019 | 15,820 | 996 | 1,088 | 17,904 |
| 2020 | 15,404 | 160 | 1,201 | 16,765 |
| 2021 | 15,845 | 236 | 1,165 | 17,246 |
| 2022 | 17,903 | 983 | 1,589 | 20,475 |
| 2023 | 18,532 | 1,107 | 1,292 | 20,932 |

27 Operating income reflects earnings before interest and taxes.

## Operating Revenues, 2023




## Operating Expenses, 2023



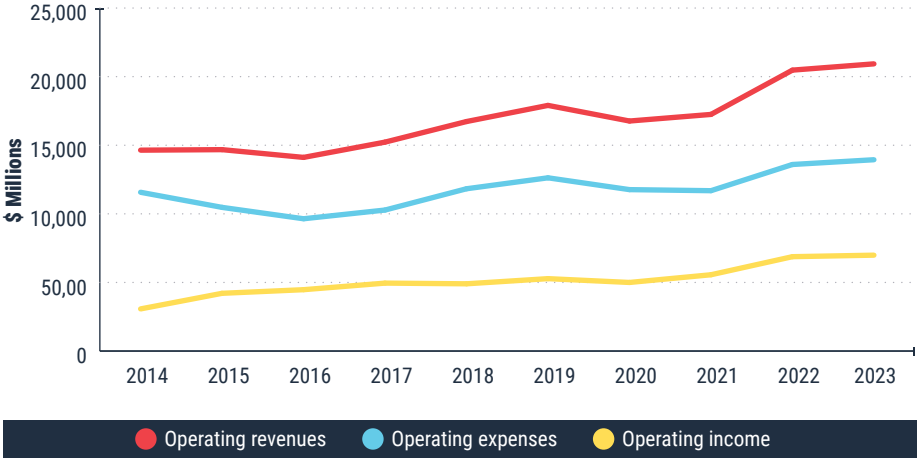

## Operating Expenses ($ millions)

| | Transportation | Fuel | Maintenance of equipment | Maintenance-of-way and structures | General and administrative | Total operating expenses |
|---|---|---|---|---|---|---|
| 2014 | 2,759 | 2,287 | 1,785 | 2,108 | 2,632 | 11,571 |
| 2015 | 2,508 | 1,624 | 1,870 | 2,315 | 2,153 | 10,471 |
| 2016 | 2,592 | 1,330 | 1,958 | 2,013 | 1,749 | 9,642 |
| 2017 | 2,895 | 1,633 | 2,071 | 1,998 | 1,679 | 10,277 |
| 2018 | 3,172 | 2,094 | 1,973 | 2,270 | 2,318 | 11,828 |
| 2019 | 3,719 | 2,008 | 2,136 | 2,280 | 2,483 | 12,626 |
| 2020 | 3,029 | 1,483 | 2,272 | 2,446 | 2,534 | 11,765 |
| 2021 | 3,029 | 1,881 | 2,069 | 2,515 | 2,193 | 11,687 |
| 2022 | 3,429 | 3,066 | 2,158 | 2,820 | 2,124 | 13,597 |
| 2023 | 3,661 | 2,683 | 2,258 | 2,944 | 2,398 | 13,944 |

## Operating Income ($ millions)

| | Total operating revenues | Total operating expenses | Total operating income |
|---|---|---|---|
| 2014 | 14,641 | 11,571 | 3,071 |
| 2015 | 14,679 | 10,471 | 4,208 |
| 2016 | 14,114 | 9,642 | 4,472 |
| 2017 | 15,228 | 10,277 | 4,951 |
| 2018 | 16,728 | 11,828 | 4,901 |
| 2019 | 17,904 | 12,626 | 5,277 |
| 2020 | 16,765 | 11,765 | 4,999 |
| 2021 | 17,246 | 11,687 | 5,560 |
| 2022 | 20,475 | 13,597 | 6,878 |
| 2023 | 20,932 | 13,944 | 6,988 |

## Operating Revenues, Expenses and Income



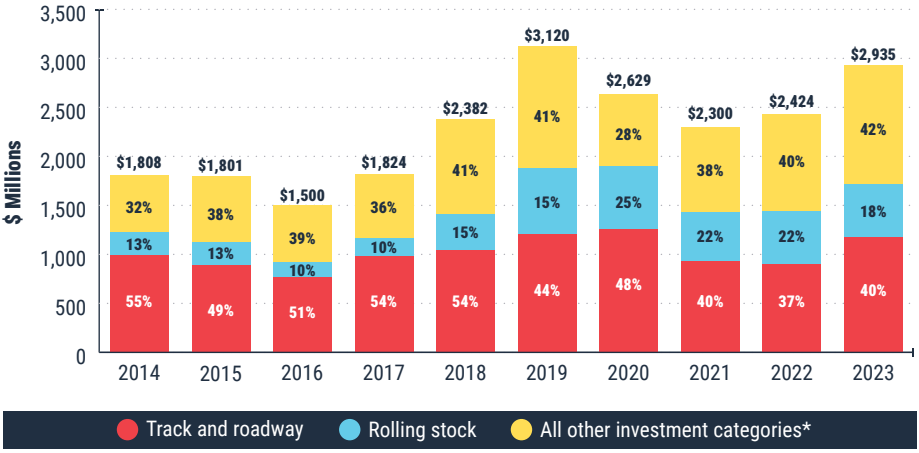
## INVESTMENTS

Canadian railways have invested record amounts of capital into their networks and equipment, averaging $2.7 billion per year across the past five years. Investments in track, rolling stock, technology, and other equipment have improved the safety, efficiency, and capacity of the Canadian rail network, as well as the fluidity of Canada's supply chains.

In 2023, railways invested $2.9 billion into their Canadian assets—a 21.1% year-over-year increase and a 62.3% increase compared to levels invested a decade ago.

From 2022 to 2023, the category that experienced the most significant increase in investment, in absolute terms, was track & roadway ($278 million or 30.9%). This was followed by a significant increase in terminals & fuel stations ($123 million or 323.7%), thanks to contributions from VIA Rail's investments in terminals and maintenance centres in Ontario and Manitoba, as well as CN's investments in a high-throughput fuel distribution centre in the Greater Toronto Area. There was also a significant increase in intermodal equipment ($116 million or 222.3%), thanks to an increase in investment from CPKC.

### Investments in Canadian Rail Assets




* Other investment categories include building & related machinery & equipment; signals, communications & power; terminals & fuel stations; intermodal equipment; work equipment & roadway machines; and other equipment.

## Investments By Category ($ millions)

| | Track & roadway | Building & related machinery & equipment | Signals, communications & power | Terminals & fuel stations | Rolling stock | Intermodal equipment | Work equipment & roadway machines | Other equipment | Total |
|---|---|---|---|---|---|---|---|---|---|
| 2014 | 988 | 292 | 93 | 10 | 240 | 53 | 49 | 83 | 1,808 |
| 2015 | 888 | 309 | 130 | 26 | 233 | 61 | 92 | 62 | 1,801 |
| 2016 | 771 | 298 | 102 | 8 | 145 | 53 | 55 | 70 | 1,500 |
| 2017 | 980 | 275 | 104 | 15 | 182 | 102 | 57 | 109 | 1,824 |
| 2018 | 1,044 | 442 | 146 | 55 | 366 | 166 | 62 | 101 | 2,382 |
| 2019 | 1,206 | 601 | 165 | 89 | 674 | 152 | 99 | 136 | 3,120 |
| 2020 | 1,255 | 427 | 132 | 50 | 645 | 15 | 12 | 95 | 2,629 |
| 2021 | 929 | 431 | 227 | 33 | 504 | 30 | 55 | 91 | 2,300 |
| 2022 | 899 | 540 | 177 | 38 | 544 | 52 | 56 | 119 | 2,424 |
| 2023 | 1,176 | 480 | 189 | 161 | 538 | 168 | 51 | 173 | 2,935 |

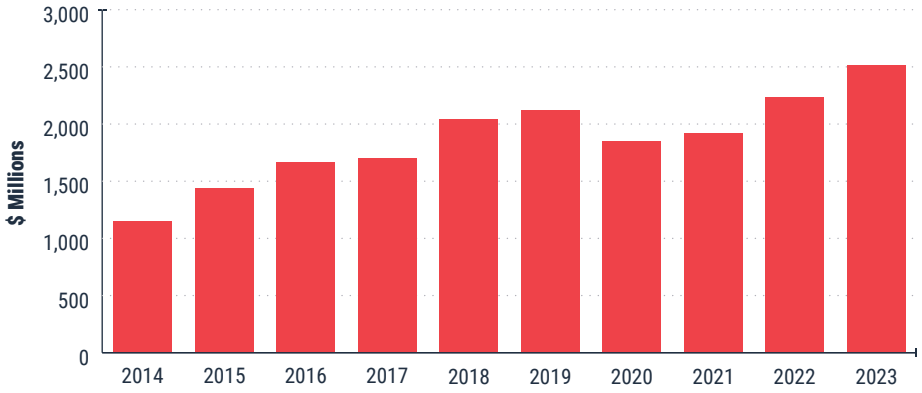
## TAXES

In 2023, Canadian railways set a consecutive record for taxes paid. Railways paid more than $2.5 billion in taxes to federal and provincial governments, up 12.8% from 2022, up 23.8% from the 2018–2022 average, and more than double (+119.1%) the amount paid in 2014.

The $285 million year-over-year increase in total taxes paid was led by a 14.4%, $181 million increase in income taxes (from $1,256 million to $1,437 million). Carbon-related levies continued to escalate rapidly, increasing by 24.7% year-over-year. In 2023, railways contributed $307 million in carbon-related levies compared to $247 million a year prior and just $44 million in 2014. Year-over-year, taxes paid increased by less than 10% in all other categories, except capital tax & custom duties, which increased by just $3 million (but 168.6% in percentage terms).

Over the past decade, the nearly $1.4 billion increase in taxes has been driven by a $975 million (210.8%) increase in income tax, $264 million (600.8%) increase in carbon-related levies, and an $80 million (48.1%) increase in payroll taxes.

### Total Taxes Paid



## Taxes by Category ($ millions)

| | Locomotive fuel & excise tax | Property tax | Other sales tax | Capital tax & custom duties | Income tax | Carbon-related levies | Payroll taxes | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | CPP/QPP | EI | Health taxes | |
| 2014 | 189 | 179 | 106 | 1 | 462 | 44 | 84 | 37 | 46 | 1,148 |
| 2015 | 159 | 168 | 115 | 3 | 775 | 45 | 82 | 36 | 53 | 1,435 |
| 2016 | 187 | 180 | 114 | 1 | 976 | 43 | 79 | 37 | 50 | 1,667 |
| 2017 | 196 | 185 | 122 | 0 | 940 | 78 | 93 | 36 | 52 | 1,702 |
| 2018 | 217 | 192 | 128 | 4 | 1,211 | 100 | 95 | 37 | 58 | 2,042 |
| 2019 | 215 | 193 | 140 | 3 | 1,246 | 124 | 102 | 37 | 60 | 2,120 |
| 2020 | 199 | 199 | 153 | 2 | 939 | 168 | 103 | 33 | 56 | 1,852 |
| 2021 | 190 | 203 | 97 | 2 | 1,021 | 202 | 113 | 34 | 59 | 1,919 |
| 2022 | 194 | 207 | 88 | 2 | 1,256 | 247 | 135 | 40 | 62 | 2,231 |
| 2023 | 203 | 224 | 92 | 5 | 1,437 | 307 | 139 | 41 | 66 | 2,516 |

## Taxes by Category and Jurisdiction ($ thousands) 1/2

| | Locomotive fuel & excise tax | | | Property tax | | Other sales tax | | Capital tax & custom duties | |
|---|---|---|---|---|---|---|---|---|---|
| | *2022* | *2023* | *2023 ¢/L tax* | *2022* | *2023* | *2022* | *2023* | *2022* | *2023* |
| **Alberta** | 17,354 | 18,388 | 5.5 | 25,973 | 26,661 | 12 | 87 | 1 | 0 |
| **British Columbia** | 19,631 | 15,781 | 3.0 | 57,147 | 63,370 | 48,067 | 47,993 | 0 | 0 |
| **Manitoba** | 9,216 | 9,876 | 6.3 | 16,083 | 15,961 | 18,124 | 21,085 | 83 | 64 |
| **Nfld. & Labrador** | 0 | 0 | 0* | 0 | 0 | 0 | 567 | 0 | 0 |
| **New Brunswick** | 1,119 | 1,270 | 4.3 | 2,154 | 2,288 | 0 | 0 | 0 | 0 |
| **Nova Scotia** | 0 | 0 | 0* | 2,826 | 2,968 | 0 | 10 | 0 | 0 |
| **Ontario** | 23,154 | 30,888 | 4.5 | 34,862 | 35,828 | 242 | 664 | 0 | 0 |
| **Quebec** | 6,501 | 6,766 | 3.0 | 41,198 | 50,022 | 376 | 1,536 | 0 | 0 |
| **Saskatchewan** | 38,001 | 40,999 | 15.0 | 26,184 | 27,133 | 21,165 | 18,989 | 31 | 26 |
| **Northwest Territories & Yukon** | 12 | 10 | 11.4 | 146 | 166 | 0 | 55 | 0 | 0 |
| **Federal** | 79,009 | 78,647 | 4.0 | 0 | 0 | 348 | 1,199 | 1,761 | 4,949 |
| **Total** | 193,997 | 202,624 | – | 206,573 | 224,395 | 88,334 | 92,185 | 1,876 | 5,039 |

* In Newfoundland and Labrador and Nova Scotia, railways are fully exempt from diesel excise tax.

## Taxes by Category and Jurisdiction ($ thousands) 2/2

| | Income tax | | Carbon Levies | | Payroll taxes | | Total taxes | |
|---|---|---|---|---|---|---|---|---|
| | *2022* | *2023* | *2022* | *2023* | *2022* | *2023* | *2022* | *2023* |
| **Alberta** | 72,891 | 87,342 | 8 | 5 | 0 | 0 | 116,239 | 132,483 |
| **British Columbia** | 131,582 | 145,518 | 83,030 | 85,451 | 858 | 1,120 | 340,316 | 359,233 |
| **Manitoba** | 54,091 | 62,586 | 0 | 0 | 7,827 | 8,196 | 105,424 | 117,768 |
| **Nfld. & Labrador** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 567 |
| **New Brunswick** | 13,440 | 15,063 | 3,360 | 1,874 | 0 | 0 | 20,073 | 20,495 |
| **Nova Scotia** | 3,624 | 4,820 | 217 | 310 | 0 | 0 | 6,667 | 8,108 |
| **Ontario** | 132,714 | 149,125 | 6,555 | 10,175 | 16,325 | 16,969 | 213,851 | 243,648 |
| **Quebec** | 43,324 | 53,255 | 5,875 | 7,611 | 71,992 | 71,113 | 169,266 | 190,303 |
| **Saskatchewan** | 90,163 | 100,889 | 53 | 70 | 0 | 0 | 175,597 | 188,106 |
| **Northwest Territories & Yukon** | 956 | 1,209 | 13 | 14 | 0 | 0 | 1,127 | 1,453 |
| **Federal** | 713,520 | 817,312 | 147,460 | 201,900 | 139,867 | 149,445 | 1,081,965 | 1,253,452 |
| **Total** | 1,256,304 | 1,437,119 | 246,571 | 307,410 | 236,869 | 246,843 | 2,230,525 | 2,515,615 |

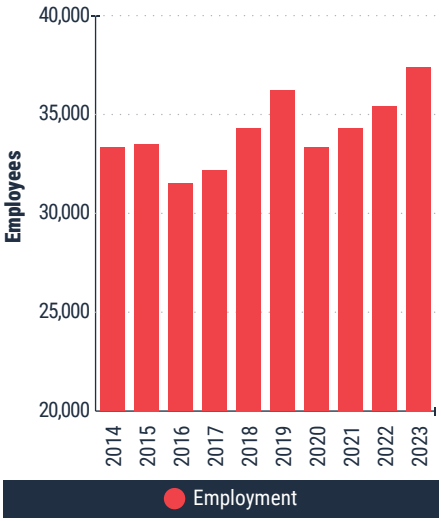
# Employment

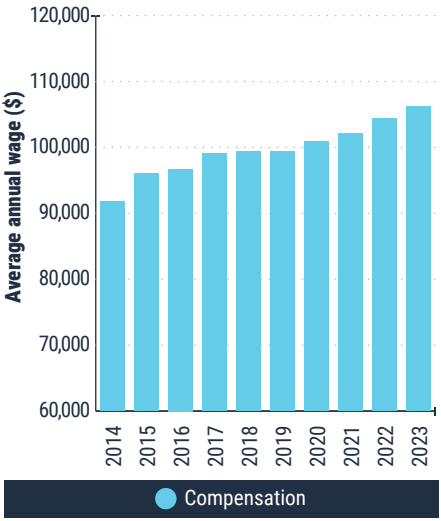
In 2023, Canadian railways directly employed 37,401 people from coast to coast to coast—the highest level since 2001, representing an increase of 1,997 (5.6%) from 2022. The average annual wage per employee climbed by $1,714 (1.6%) to $106,157,[28] which is approximately 50% higher than the average full-time Canadian salary.[29]

## Employment and Compensation

| | Total compensation ($ millions) | Average number of employees | Average annual wage per employee ($) |
|---|---|---|---|
| 2014 | 3,059 | 33,323 | 91,798 |
| 2015 | 3,136 | 33,511 | 96,110 |
| 2016 | 2,956 | 31,526 | 96,727 |
| 2017 | 3,077 | 32,152 | 99,134 |
| 2018 | 3,296 | 34,315 | 99,361 |
| 2019 | 3,477 | 36,196 | 99,332 |
| 2020 | 3,237 | 33,321 | 100,891 |
| 2021 | 3,359 | 34,318 | 102,163 |
| 2022 | 3,690 | 35,404 | 104,443 |
| 2023 | 3,970 | 37,401 | 106,157 |

## Employment and Compensation




28 Average annual wage per employee is calculated by dividing total compensation by the average number of employees. Data from railways that do not report both metrics are excluded from the calculation.

29 Statistics Canada, *Labour Force Survey*.

## DIVERSITY REPRESENTATION

RAC began collecting information from its members on diversity representation in 2020. In 2022, RAC enhanced data collection to include information on diversity representation on leadership teams and boards of directors. Information is collected on the number of employees in the following categories: women, persons with disabilities, visible minorities, and Indigenous peoples.

From 2022 to 2023, the number of employees in each of the four categories increased, including women (+390 or 7.4%), persons with disabilities (+177 or 14.4%), visible minorities (+1,758 or 36.0%) and Indigenous peoples (+265 or 16.1%). Representation (share of total industry employment) increased for women (from 15.0% to 15.2%), persons with disabilities (from 3.5% to 3.8%), visible minorities (from 13.8% to 17.8%), and Indigenous peoples (from 4.6% to 5.1%).

### Diversity Representation

| | Number of employees and share of total industry employment | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Women | | Persons with disabilities | | Visible minorities | | Indigenous peoples | |
| 2020 | 3,926 | 11.8% | 620 | 1.9% | 3,691 | 11.1% | 1,294 | 3.9% |
| 2021 | 4,051 | 11.8% | 1,119 | 3.3% | 4,049 | 11.8% | 1,403 | 4.1% |
| 2022 | 5,306 | 15.0% | 1,228 | 3.5% | 4,886 | 13.8% | 1,642 | 4.6% |
| 2023 | 5,696 | 15.2% | 1,405 | 3.8% | 6,644 | 17.8% | 1,907 | 5.1% |

Note: Some members are unable to provide this information, and as such, the figures in the table above understate the true level of diversity representation in the Canadian rail industry.

In 2023, there was a higher representation of women in leadership (32.0%) and on boards of directors (31.3%), compared to their share of industry employment (15.2%). Indigenous peoples represented 10.4% of positions on boards of directors, which is greater than their share of industry employment (5.1%) but were underrepresented in leadership positions (2.0%). Persons with disabilities and visible minorities were underrepresented in leadership and on boards of directors compared to their share of industry employment.

## Diversity Representation in Leadership Teams and on Boards of Directors, 2023

| | Share represented by diverse groups | | | |
|---|---|---|---|---|
| | Women | Persons with disabilities | Visible minorities | Indigenous peoples |
| Leadership Team | 32.0% | 2.3% | 5.0% | 2.0% |
| Board of Directors | 31.3% | 1.0% | 3.1% | 10.4% |

Note: The data on diversity representation in leadership teams and on Boards of Directors is not complete enough for accurate trend analysis. Therefore, only the current year of data are shown in the report.

Note: Some members are unable to provide this information, and as such, the figures in the table above understate the true level of diversity representation in the Canadian rail industry.

# Track and Equipment

In 2023, freight railways operated 26,469 miles (42,597 kilometres) of track in Canada—a network that is 12% longer than Canada's National Highway System.[30] The industry's freight car fleet decreased by 5.3% to 52,860 cars. The number of active freight and passenger locomotives in service increased by 11.1% to 4,252.[31]

## Track and Equipment

| | Freight railway operated track | | Locomotives in service | Freight cars in service |
|---|---|---|---|---|
| | *Miles* | *Kilometres* | | |
| **2014** | 27,304 | 43,942 | 2,700 | 58,577 |
| **2015** | 27,428 | 44,141 | 2,400 | 59,509 |
| **2016** | 27,070 | 43,564 | 2,318 | 55,230 |
| **2017** | 26,406 | 42,497 | 3,177 | 55,258 |
| **2018** | 25,900 | 41,682 | 3,782 | 59,309 |
| **2019** | 26,499 | 42,645 | 3,840 | 61,030 |
| **2020** | 26,551 | 42,730 | 3,756 | 61,755 |
| **2021** | 26,490 | 42,631 | 3,606 | 60,007 |
| **2022** | 26,439 | 42,550 | 3,828 | 55,789 |
| **2023** | 26,469 | 42,597 | 4,252 | 52,860 |

Note: Freight railway operated track does not include segments terminating in the U.S.

The table on the next page provides a breakdown of TRACK OPERATED by jurisdiction and railway service. There are instances where passenger railways have operating rights on freight railway-owned tracks, and where freight railways have operating rights on passenger railway-owned track. As a result, the length of grand total track operated includes instances of double counting.

30 Transport Canada, Transportation in Canada 2023.

31 4,252 is the estimated number of locomotives that were in active service in Canada in 2023. Some of these locomotives may have been in active service in the U.S. and/or Mexico as well throughout the year.

## Track Operated*, by Jurisdiction and Railway Service

| | 2014 | | 2022 | | 2023 | |
|---|---|---|---|---|---|---|
| | *Miles* | *Kilometres* | *Miles* | *Kilometres* | *Miles* | *Kilometres* |
| **Alberta** | 4,041 | 6,503 | 3,941 | 6,343 | 3,941 | 6,342 |
| **British Columbia** | 4,174 | 6,717 | 3,977 | 6,400 | 3,971 | 6,390 |
| **Manitoba** | 2,833 | 4,559 | 2,829 | 4,553 | 2,829 | 4,553 |
| **Nfld. & Labrador** | 162 | 261 | 170 | 274 | 170 | 274 |
| **New Brunswick** | 720 | 1,159 | 681 | 1,097 | 712 | 1,145 |
| **Nova Scotia** | 419 | 674 | 292 | 470 | 292 | 470 |
| **Ontario** | 6,265 | 10,082 | 6,127 | 9,860 | 6,134 | 9,871 |
| **Quebec** | 3,613 | 5,815 | 3,605 | 5,802 | 3,603 | 5,799 |
| **Saskatchewan** | 5,002 | 8,050 | 4,741 | 7,630 | 4,741 | 7,630 |
| **Northwest Territories** | 75 | 121 | 76 | 122 | 76 | 122 |
| **Freight total** | 27,304 | 43,942 | 26,439 | 42,550 | 26,469 | 42,597 |
| **Intercity passenger** | 7,820 | 12,585 | 7,608 | 12,244 | 7,608 | 12,244 |
| **Commuter and tourist** | 3,101 | 4,990 | 2,451 | 3,945 | 2,448 | 3,940 |
| **Passenger total** | 10,921 | 17,575 | 10,059 | 16,189 | 10,056 | 16,184 |
| **Segments terminating in the U.S.**** | 152 | 244 | 47 | 75 | 47 | 75 |
| **Grand total track operated** | 38,377 | 61,762 | 36,546 | 58,814 | 36,572 | 58,856 |

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

** Reflects railways' subdivisions that begin in Canada and terminate in the U.S.

# Appendix A—Glossary

**Car Mile:**
The movement of a freight car or passenger car the distance of one mile.

**Class 1 Railway:**
A railway with annual operating revenues exceeding $250 million for two consecutive years.

**Container:**
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.

**Dangerous Goods:**
Explosives; gases: compressed, deeply refrigerated, liquified or dissolved under pressure; flammable and combustible liquids; flammable solids; substances liable to spontaneous combustion; substances that on contact with water emit flammable gases; oxidizing substances; organic peroxides; poisonous (toxic) and infectious substances; nuclear substances; corrosives; or miscellaneous products, substances or organisms considered by the Governor in Council to be dangerous to life, health, property or the environment when handled, offered for transport or transported.[32]

**Gross Tonne-Kilometre (GTK):**
The movement of total train weight over a distance of one kilometre. Total train weight is comprised of the freight cars, their contents and any inactive locomotives. It excludes the weight of the locomotives pulling the trains.

**Gross Ton-Mile (GTM):**
The movement of total train weight over a distance of one mile. Total train weight is comprised of the freight cars, their contents and any inactive locomotives. It excludes the weight of the locomotives pulling the trains.

**Intermodal Service:**
The movement of trailers or containers by rail and at least one other mode of transportation. Import and export containers generally are shipped via marine and rail. Domestic intermodal service usually involves truck and rail.

**On-Time Performance:**
The ability to meet customer requirements as to pick-up and delivery schedules.

32 Source: *Canadian Transportation of Dangerous Goods Act*

**Passenger-Mile:**
The movement of a passenger the distance of one mile. Passenger miles are used to measure the volume of passenger traffic.

**Revenue Tonne-Kilometre (RTK):**
The movement of one revenue-producing tonne of freight over a distance of one kilometre.

**Revenue Ton-Mile (RTM):**
The movement of one revenue-producing ton of freight over a distance of one mile.

**Shortline Railway:**
A railway with annual operating revenues of less than $250 million for two consecutive years.

**Track Operated:**
The first main-track over which a railway operates. This excludes second and other main-track, passing tracks and crossovers, industrial tracks, spurs and yard tracks.

**Train-Mile:**
The movement of a train the distance of one mile.

# Appendix B—Conversion Factors

| | |
|---|---|
| Miles to kilometres | 1.6093 |
| Kilometres to miles | 0.6214 |
| Tons (short) to metric tonnes | 0.9072 |
| Metric tonnes to tons (short) | 1.1023 |
| Gallons to litres | 4.5461 |
| Litres to gallons | 0.2200 |
| Revenue ton-miles to revenue tonne-kilometres | 1.4599 |
| Revenue tonne-kilometres to revenue ton-miles | 0.6850 |
| CAD to USD (2023)* | 0.7409 |
| USD to CAD (2023)* | 1.3497 |

* Source: Bank of Canada, Average Annual Exchange Rates

# Appendix C—Safety Definitions

The safety definitions are sourced from the Transportation Safety Board of Canada's *Rail transportation occurrences in 2023* report. The following definitions apply to rail transportation occurrences that are required to be reported pursuant to the *Canadian Transportation Accident Investigation and Safety Board Act* and the associated regulations.

**Occurrence**

- Any accident or incident associated with the operation of rolling stock on a railway
- Any situation or condition that the Board has reasonable grounds to believe could, if left unattended, induce an accident or incident described below

**Reportable Accident**

- A person is killed or sustains a serious injury as a result of
  - getting on or off or being on board the rolling stock, or
  - coming into direct contact with any part of the rolling stock or its contents

- The rolling stock or its contents
  - are involved in a collision and/or a derailment resulting in damages to rolling stock and/or track infrastructure,
  - sustain damage that affects the safe operation of the rolling stock,
  - sustain a fire or explosion, or
  - cause damage to the railway that poses a threat to the safe passage of rolling stock or to the safety of any person, property or the environment

- There is an accidental release on board or from rolling stock that results in any of the events listed in subsection 8.4(2) of the Transportation of *Dangerous Goods Regulations*.

**Reportable Incident**

- A risk of collision occurs between rolling stock
- An unprotected main-track switch or subdivision track switch is left in an abnormal position
- A railway signal displays a less restrictive indication than that required for the intended movement of rolling stock
- Rolling stock occupies a main track or subdivision track, or track work takes place, in contravention of the rules or any regulations made under the *Railway Safety Act*
- Rolling stock passes a signal indicating stop in contravention of the rules or any regulations made under the *Railway Safety Act*
- There is an unplanned and uncontrolled movement of rolling stock
- A crew member whose duties are directly related to the safe operation of the rolling stock is unable to perform their duties as a result of a physical incapacitation which poses a threat to the safety of persons, property or the environment,
- The rolling stock is involved in a minor collision and/or minor derailment (1 or 2 cars) resulting in no damages; or
- Rolling stock or its contents cause a fire along, or adjacent to, a railway right-of-way.

**Serious Injury**

- A fracture of any bone, except simple fractures of fingers, toes or the nose
- Lacerations that cause severe hemorrhage or nerve, muscle or tendon damage
- An injury to an internal organ
- Second or third degree burns, or any burns affecting more than 5% of the body surface

- A verified exposure to infectious substances or injurious radiation, or
- An injury that is likely to require hospitalization.

**Dangerous Goods Involvement**
"Dangerous goods" has the same meaning as in section 2 of the *Transportation of Dangerous Goods Act*. An accident is considered to have dangerous goods involvement if any car in the consist carrying (or having last contained) a dangerous good derails, strikes or is struck by any other rolling stock or 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.

**Derailment**
Any instance where one or more wheels of rolling stock have come off the normal running surface of the rail.

# Appendix D—Statistical Revisions

## REVISIONS TO THE RAILWAY ASSOCIATION OF CANADA'S *RAIL TRENDS* DATABASE

RAC makes every effort to maintain an accurate statistical database. Revisions are periodically carried out in order to incorporate the most accurate and up-to-date information. As new data become available, historical figures (and estimates) may be revised. A revised figure for even a single railway affects the aggregated industry figures presented in *Rail Trends*.

In *Rail Trends 2024*, there were no revisions to the historical RAC member data, which are collected annually through the *Rail Trends* survey.

## REVISIONS TO OTHER DATA

All revisions are explained throughout the report, including the Bank of Canada's revisions to its commodity price index and the TSB's revisions to its safety data.