



# RAC QUARTERLY REPORT Q2-2022



September 19, 2022

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## Introduction

The Railway Association of Canada's (RAC) Quarterly Report compiles weekly, monthly, and quarterly data from railways and various statistical and regulatory agencies to provide a timely update on the state of the economy, the transportation sector, and freight and passenger rail operations. Links to all data sources are included throughout the report.

Much of the 2022 data in this report is compared to the same period in 2021, for year-over-year comparisons. However, in some cases, 2022 data is compared to earlier periods to provide context relative to pre-pandemic activity levels.

## Executive Summary

### Freight Rail

In the second quarter of 2022, Class 1 freight activity levels (CN and CP, network-wide) started to recover from a challenging first quarter. Total revenue ton-miles (RTMs) in Q2-22 were unchanged from Q2-21. Compared to 2021, revenue ton-miles (RTMs) for most commodities were up by between 3% and 18%, while forest products (-4%) and grain & fertilizers (-14%) experienced decreases. In terms of performance, four out of twelve key financial, operating, and safety metrics improved compared to Q2-21, three metrics remained unchanged, while five worsened.

On a year-to-date basis (January-May), the number of non-intermodal carloads originated by Canadian railways (including shortlines) was 5% below 2021, and the number of intermodal units was down by 4%.

In recent months, rising fuel costs have contributed to inflation and higher transportation costs. Rail freight rates have increased, and in June 2022, were 16.5% above January 2020 levels. However, this is a modest increase compared to trucking rates, industrial prices and commodity prices, which have increased by 30%, 31% and 106%, respectively.

Railways increased their cross-border trade activity from an average of around \$11B per month to over \$14B in each of the past three months. Meanwhile, challenges persist at the ports. Dwell times at the Port of Vancouver averaged 5 days in Q2-22, which was 37% longer than in Q2-21 and 72% longer than in Q2-20. The average dwell time at the Port of Montreal averaged nearly 9 days in Q2-22, which was 61% longer than in Q2-21 and 147% longer than in Q2-20.

### Passenger Rail

The passenger rail sector continued to recover in Q2-22. Compared to Q2-21, ridership increased for all nine RAC members that reported data. Urban transit ridership made significant gains, climbing from 50% below pre-pandemic levels in February 2022 to 39% below pre-pandemic levels in May 2022. Intercity passenger ridership experienced a surge compared to the same period a year prior. In Q2-22, tourism rail operators were up and running.

### Rail Safety

In Q2-22, rail safety performance was favourable across most indicators relative to both Q2-21 and the Q2 2017-2021 average. The accident rate improved by 20% compared to Q2-21 and 8% compared to the Q2 2017-2021 average.





## State of the Canadian Economy

June 2022 data is not yet available for all of the key economic indicators. As such, May 2022 data is compared against February 2022 to analyse trends.

From February 2022 to May 2022, employment increased by 0.7%, from 19.51 million to 19.64 million.

Over the past three months, GDP increased by 1.1%, from \$2,033B to \$2,055B. The services sector grew by 1.2%, outpacing the 0.9% growth of the goods sector (not shown).

Trade (exports + imports) significantly increased by 12.5%, from \$114.9B to \$129.3B.

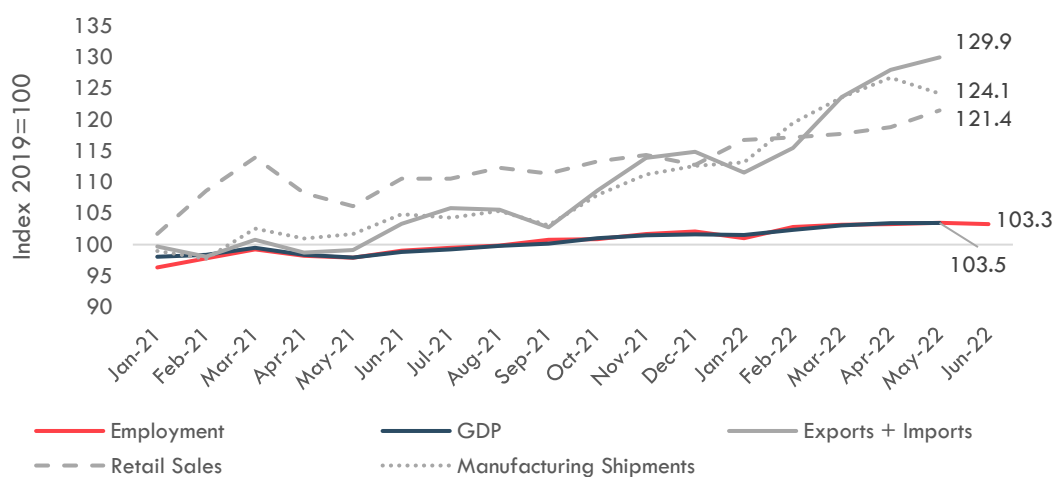
Retail sales provide insight into household consumption, which is the largest contributor to Canada’s GDP at over 50% of total GDP. From February to May 2022, retail sales increased by 3.7%, however, during the same period, the consumer price index increased by 3.5% – indicating that when removing the effect of higher prices, retail sales remained relatively flat.

Manufacturing shipments provide an indication into the strength of Canada’s manufacturing sector. Manufacturing shipments increased by an impressive 4.0% from February to May 2022.

### Growth of Key Canadian Economic Indicators

	Employment (millions)	GDP (\$B, annualized)	Exports + Imports (\$B)	Retail Sales (\$B)	Manufacturing Shipments (\$B)
February 2022	19.51	2,033	114.9	60.2	68.9
May 2022	19.64	2,055	129.3	62.4	71.6
<b>3-month change</b>	<b>0.7%</b>	<b>1.1%</b>	<b>12.5%</b>	<b>3.7%</b>	<b>4.0%</b>

### Key Canadian Economic Indicators



Source: Statistics Canada, [Labour Force Survey](#); [Gross domestic product at basic prices](#); [Canadian International Merchandise Trade](#); [Retail trade sales by industry](#); and [Monthly Survey of Manufacturing](#)

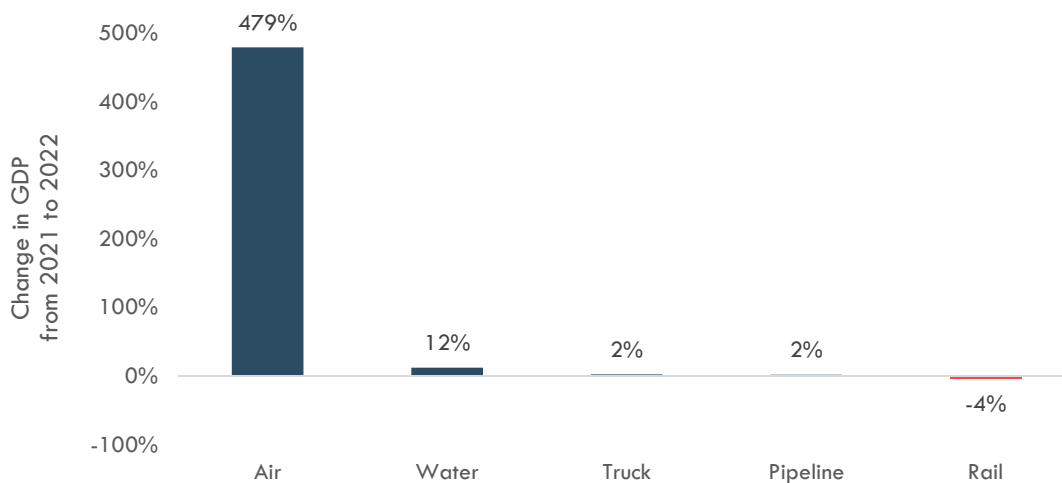
Note: Data is seasonally adjusted.

## Rail and Other Modes of Freight Transportation

Each transportation sector has been impacted differently throughout the pandemic. The adverse impacts on some sectors were significant, which affects the initial values that are used in year-over-year trend analysis. As such, the findings should be interpreted with caution.

The air transportation sector experienced the most significant growth in GDP, with a 479% increase on a year-to-date basis, bringing the air transportation sector’s GDP up to about 44% of its pre-pandemic level (January to May 2019, not shown). This could be attributed to the fact that Canada eased border measures in 2022.<sup>1</sup> The rail transportation sector’s GDP (YTD) was 4% below 2021 levels.

### Modal Comparison of GDP (YTD Jan-May)



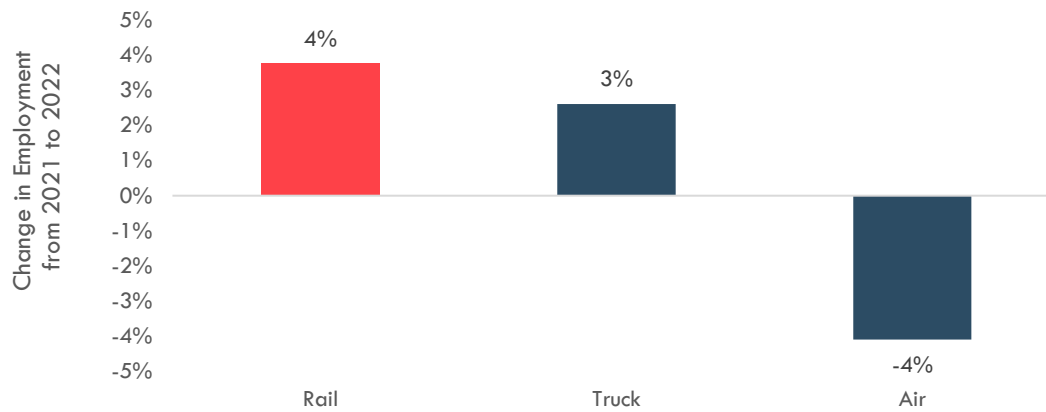
Source: Statistics Canada, [Gross Domestic Product by Industry](#)

Despite the strong rebound in air transportation sector GDP, YTD employment fell by 4% compared to last year, as multiple Canadian airlines announced layoffs in January and February.<sup>2</sup> Air transportation sector employment did not drop significantly when air traffic levels were low in 2021, and as such, there wasn’t a notable rebound in employment as Canada’s eased border measures and air traffic increased.

<sup>1</sup> <https://www.canada.ca/en/public-health/news/2022/02/government-of-canada-lightens-border-measures-as-part-of-transition-of-the-pandemic-response.html>; <https://www.canada.ca/en/public-health/news/2022/04/government-of-canada-announces-additional-easing-of-border-measures-effective-april-25.html>

<sup>2</sup> <https://westjet.mediaroom.com/2021-01-08-WestJet-Slashes-Capacity-in-Response-to-Rushed-Government-Testing-Regime>; <https://cupe.ca/air-canada-taking-federal-dollars-and-running-leaving-thousands-workers-behind-cupe>

### Modal Comparison of Employment (YTD Jan-May)

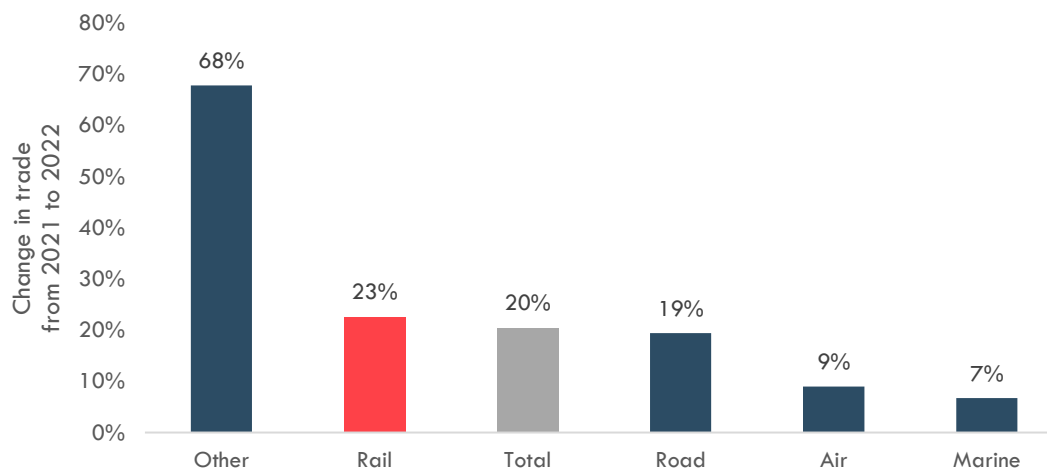


Source: Statistics Canada, [Survey of Employment, Payrolls and Hours](#)

Note: The Survey of Employment, Payrolls and Hours does not provide information on employment for the marine or pipeline sectors.

Canada’s trade in the first four months of 2022 was 20% higher than the same period in 2021. Trade by rail increased by 23%, outpacing the growth of trade via other modes, including road, air and marine.

### Modal Comparison of Trade (YTD Jan-Apr)



Source: Transport Canada, [Transport Canada in brief](#)



## Class 1 Data

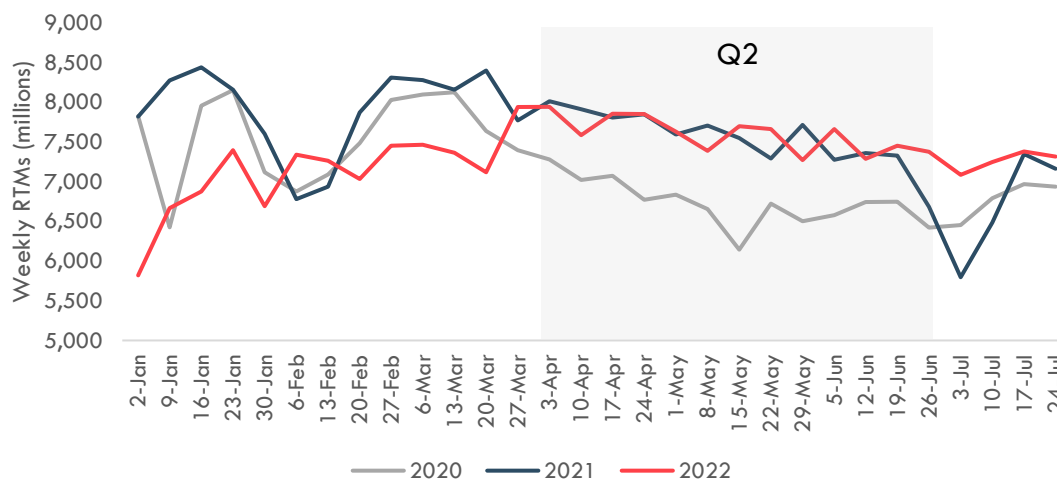
The Class 1 data covers CN and CP’s network-wide operations across North America.

### Weekly Trend

Class 1 Q2-22 revenue ton-miles (RTMs) were relatively stable and very similar to the previous year. Q2-22 RTMs were 12% above 2020 levels (which were strongly affected by the onset of the COVID-19 pandemic).

Data for the first few weeks of Q3-22 show that RTMs are above 2021 levels (which were strongly affected by the wildfires out west), and well-above 2020 levels.

### Canadian Class 1 Revenue Ton-miles



Source: [CN Key Weekly Metrics](#); [CP Weekly Key Metrics](#)

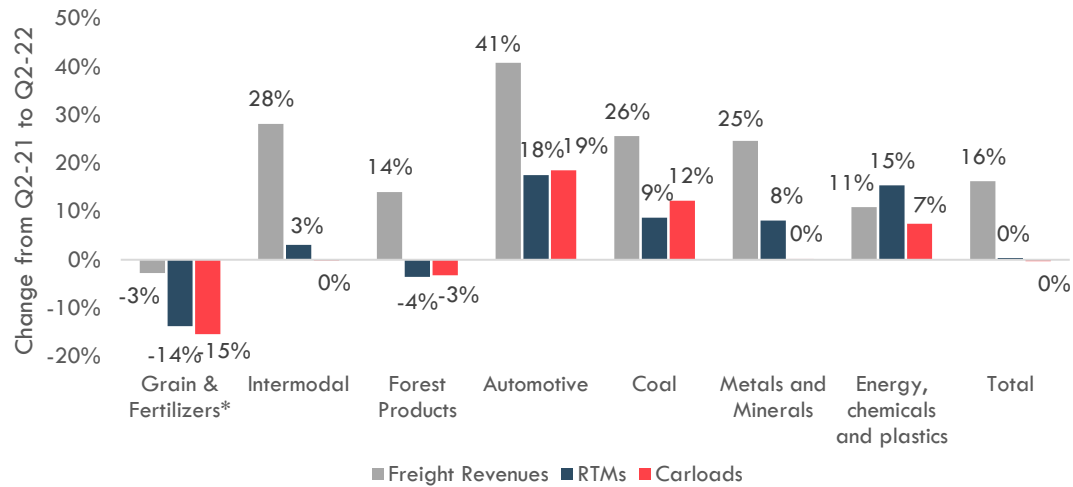
Note: The dates indicate the first day of the week (e.g., “17-Apr” corresponds to the week of April 17-23). The week starting January 2, 2022, is compared against the weeks starting January 3, 2021, and January 5, 2020.

### Revenues, Revenue Ton-miles, and Carloads

As shown in the figure and table below, in Q2-22, total Class 1 RTMs and carloads remained the unchanged from Q2-21, while freight revenues were up by 16%. Performance varied by commodity. Several product categories experienced gains in Q2-22 relative to Q2-21. Automotive RTMs were up by 18%, energy, chemicals and plastics (+15%), coal (+9%), metals & minerals (+8%) and intermodal (+3%). The only two product categories with a decrease in RTMs were grain & fertilizers and forest products, down by 14% and 4%, respectively.

In Q2-22, rising fuel costs contributed to an increase in transportation costs and freight rates. Rail freight revenues per RTM were 16% higher than in Q2-21 (not shown), resulting in a 16% increase in freight revenues as traffic levels remained unchanged. Since the onset of the pandemic, increases in rail freight rates have been mostly in line with increases in consumer prices, and much lower than the significant increases in trucking, industrial, and commodity prices (see [Freight Rates](#)).

## Class 1 Freight Revenues, RTMs, and Carloads by Commodity, Q2-22 vs Q2-21



Source: [CN Quarterly Review](#); [CP Quarterly Earnings Release](#)

\*Includes potash and sulphur

### Q2: Canadian Class 1 RTMs (millions), by Commodity

	Q2-22	Q2-21	Change (%)	Change (#)
Grain & Fertilizers*	26,946	31,239	-14%	-4,293
Intermodal	23,347	22,648	3%	699
Forest Products	8,167	8,465	-4%	-298
Automotive	1,259	1,071	18%	188
Coal	10,310	9,485	9%	825
Metals and Minerals	10,257	9,489	8%	768
Energy, chemicals and plastics	18,358	15,910	15%	2,448
<b>Total</b>	<b>98,644</b>	<b>98,307</b>	<b>0%</b>	<b>337</b>

### YTD (Q1-Q2): Canadian Class 1 RTMs (millions), by Commodity

	YTD-22	YTD-21	Change (%)	Change (#)
Grain & Fertilizers*	53,142	64,908	-18%	-11,766
Intermodal	43,564	44,534	-2%	-970
Forest Products	15,347	16,498	-7%	-1,151
Automotive	2,300	2,238	3%	62
Coal	19,675	18,791	5%	884
Metals and Minerals	19,039	18,281	4%	758
Energy, chemicals and plastics	35,824	33,784	6%	2,040
<b>Total</b>	<b>188,891</b>	<b>199,034</b>	<b>-5%</b>	<b>-10,143</b>

Source: [CN Quarterly Review](#); [CP Quarterly Earnings Release](#)

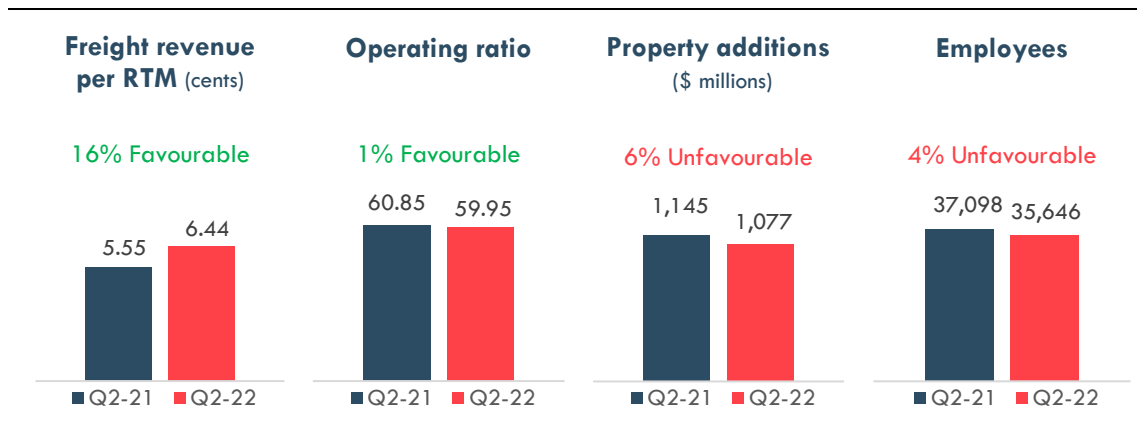
\*Includes potash and sulphur.



## Select Key Financial, Operating, and Safety Metrics

In Q2-22, freight revenue per RTM increased by 16%, led by a 24% increase in revenue per RTM for intermodal shipments (not shown). Freight revenue per RTM increased by between 13% and 20% for other commodity groups, the exception being a 4% decrease in energy, chemicals and plastics (not shown). Despite an increase in freight revenues, the average operating ratio improved by just 1% because operating costs increased by 13%, driven primarily by a 67% increase in fuel costs.

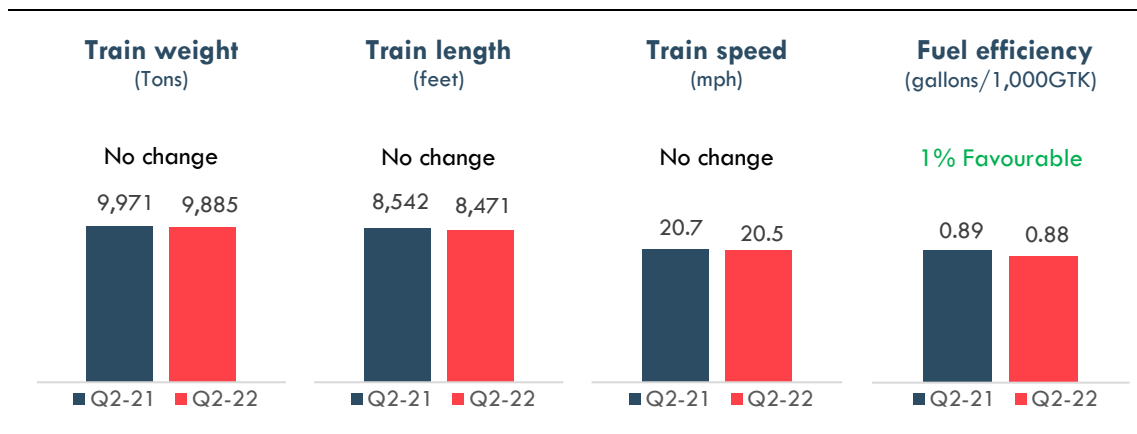
During the second quarter of 2022, Class 1s invested \$1,077 million dollars in their networks and employed over 35,000 workers.



Source: [CN Quarterly Review](#); [CP Quarterly Earnings Release](#)

Note: The operating ratio is calculated as the simple average of CN and CP.

Q2-22 train-related performance metrics were very similar to Q2-21. Average train weight, length, and speed were unchanged,<sup>3</sup> while fuel efficiency improved by 1%.



Source: [CN Quarterly Review](#); [CP Quarterly Earnings Release](#)

Note: All four metrics are calculated using the simple average of CN and CP.

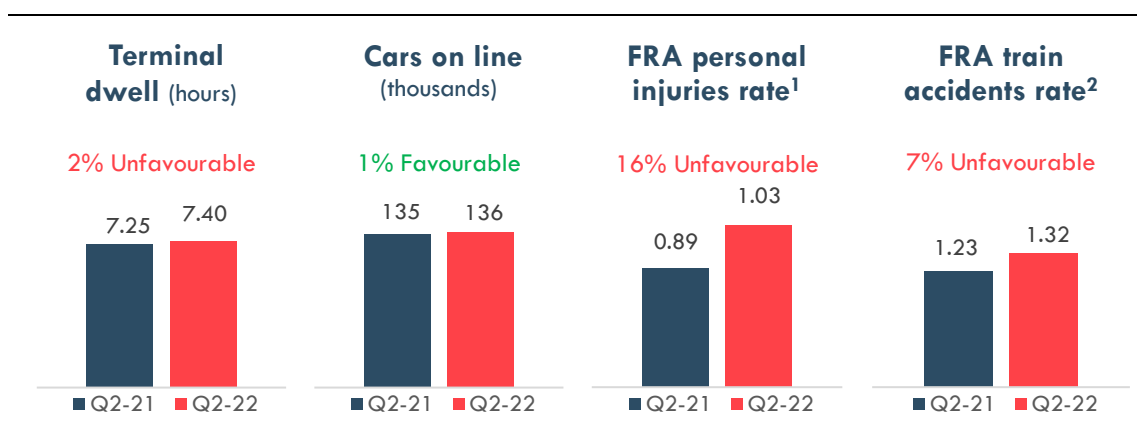
Q2-22 Railway terminal dwell times were 2% (9 minutes) longer than they were in Q2-21. Port dwell times in Canada were over 30% longer than in Q2-21 (shown later in the report). These supply chain challenges extend beyond Canada. Global vessel reliability showed some

<sup>3</sup> In the RAC Quarterly Reports, a change of less than 1.0% is considered “no change” or “unchanged”.

improvement in Q2-22, however, *global schedule reliability* was still no higher than 40%, and the *global average delays for late vessel arrivals* remained above 6 days.<sup>4</sup>

The average numbers of cars on line was up by 1%. The number of cars on line each week throughout the quarter was quite similar to 2021 (not shown). There were significantly fewer covered hopper cars on line (down 5,400 or 10%) due mostly to the reduction in grain shipments; however this was offset by a 4,200 (14%) increase in tank cars on line, as well as increases in the number gondola, intermodal, and multilevel cars (not shown).

Compared to Q2-21, the Canadian Class 1's Federal Railroad Administration (FRA) personal injuries rate and the FRA train accidents rate increased. The FRA injury and accident rates are based on a low number of occurrences, and therefore large percentage changes across quarters are possible.



Source: [CN Quarterly Review](#); [CP Quarterly Earnings Release](#); [CN Key Weekly Metrics](#); [CP Weekly Key Metrics](#)  
 Note: Terminal dwell, FRA personal injuries rate, and FRA train accidents rate are calculated using the simple average of CN and CP.

<sup>1</sup> Injuries per 200,000 employee hours

<sup>2</sup> Accidents per million train-miles

## Freight Industry Data

The freight industry data in this section of the report has some overlap with the Class 1 data reported above. However, this section includes data from all freight railways, including shortlines, and is specific to Canadian operations. The data from the various statistical agencies included in this section have a slightly longer lag time than the Class 1 data, and as a result, the data is not always available for all months of the most recent quarter. As such, the freight data is analyzed on either a YTD or monthly basis, rather than quarterly.

### Carloads & Intermodal Units

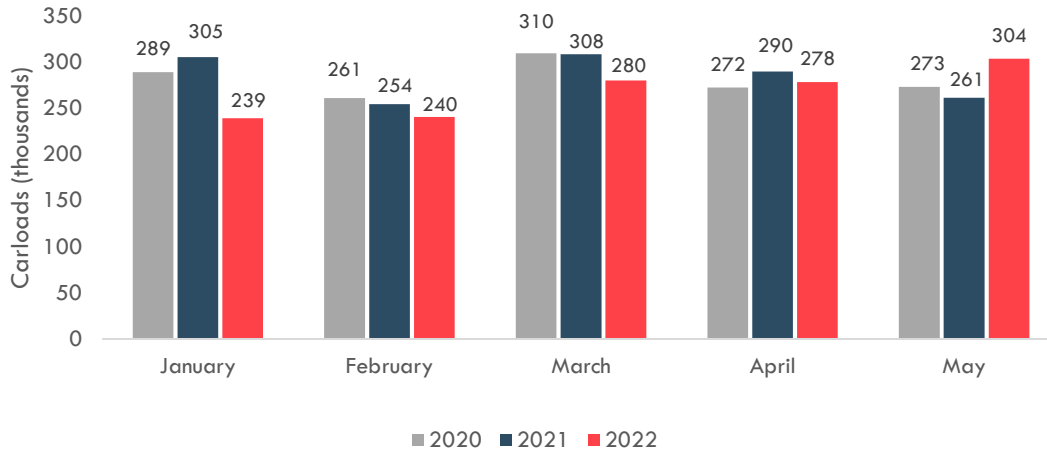
Statistics Canada reports monthly carloadings for over 60 commodities (which are categorized into 11 commodity groupings in this report), as well as intermodal units.

On a YTD basis (January-May 2022), non-intermodal carloadings were 5% below 2021 levels. Carloads were down for all commodity groupings except coal, minerals, machinery &

<sup>4</sup> <https://www.sea-intelligence.com/press-room/155-schedule-reliability-improves-to-40-in-june-2022>

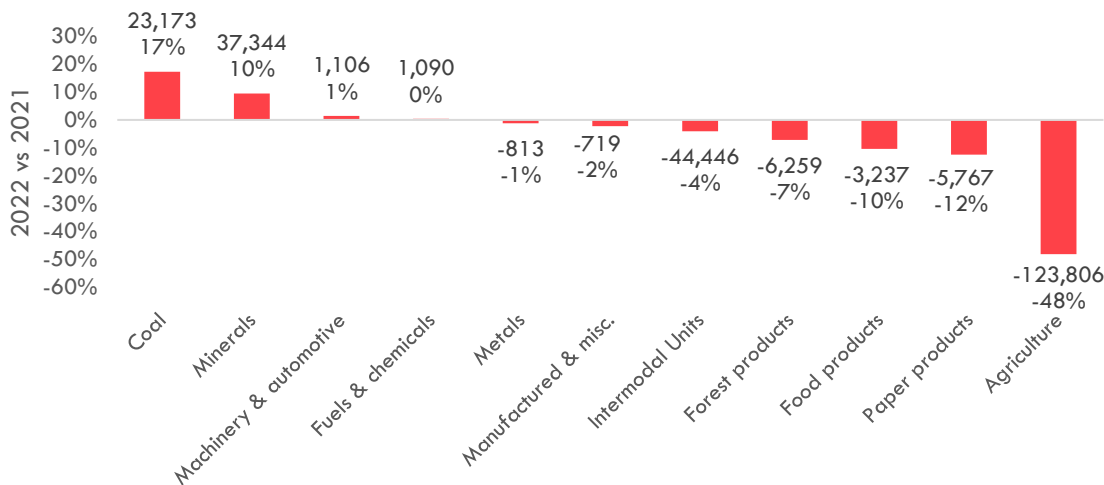
automotive, and fuels & chemicals. Agriculture experienced the most significant decline, both in terms of percent (-48%) and absolute carloads (-123,806).

### Canadian Railways, Carloads



Source: Statistics Canada, [Monthly Railway Carloadings Survey](#)

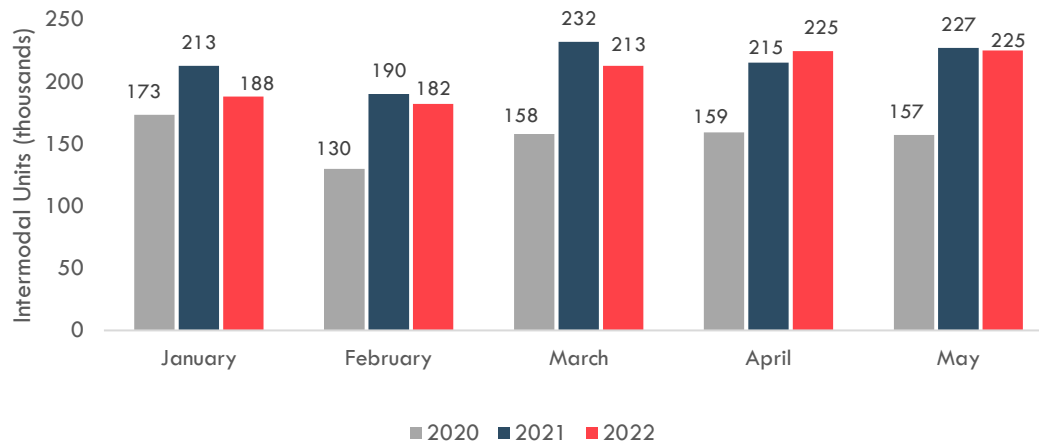
### Canadian Railways, Carloads by Commodity & Intermodal Units (Jan-May)



Source: Statistics Canada, [Monthly Railway Carloadings Survey](#)

There are several factors impacting the consistent flow of intermodal shipments, including but not limited to global container issues, China’s zero-COVID policy, marine vessel delays and poor on-time performance, and bottlenecks at ports. On a YTD basis (January-May), total 2022 intermodal traffic loaded was 4% below 2021 levels.

## Canadian Railways, Intermodal Units



Source: Statistics Canada, [Monthly Railway Carloadings Survey](#)

On a TYD basis (January-May), relative to 2021, Eastern Canada<sup>5</sup> has been outperforming Western Canada. In the Eastern Division, carloads were up 9% and intermodal shipments were down just 1% compared to 2021. In the Western Division, carloads and intermodal shipments were down by 14% and 6%, respectively.

### YTD (Jan-May): CDN Carloads and Intermodal Units by Region

2022 vs 2021	
<b>Eastern Division</b>	
Carloads	9%
Intermodal Units	-1%
<b>Western Division</b>	
Carloads	-14%
Intermodal Units	-6%
<b>Total</b>	
Carloads	-5%
Intermodal Units	-4%

Source: Statistics Canada, [Monthly Railway Carloadings Survey](#)

## Freight Rates

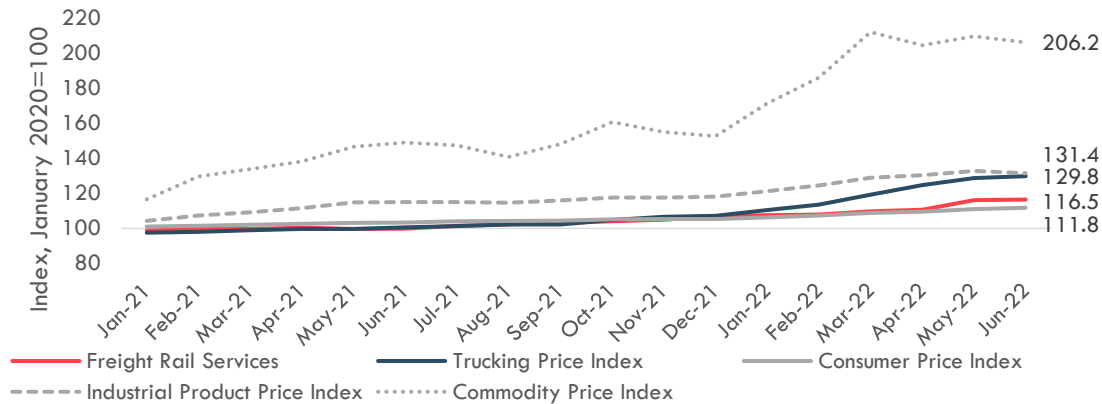
From the onset of the pandemic until around January 2022, rail freight rates, trucking rates, and consumer prices were all following a similar inflationary path. However, since then, relative to consumer prices, trucking prices began to rise more rapidly starting in January 2022, and rail freight rates began to rise more rapidly starting in May 2022. Higher fuel prices are likely a significant contributing factor to this recent trend.

<sup>5</sup> Defined as east of Thunder Bay, Ontario.

Over the past three months (March to June 2022), rail freight rates increased by 6.2%, trucking prices increased by 8.9%, and consumer prices increased by 2.7%.

Industrial and commodity prices experienced small changes. From March to June 2022, industrial prices edged up a further 1.9%, bringing the total increase since January 2020 to 31.4%; and commodity prices leveled off and decreased by 2.8%, bringing the total increase since January 2020 to 106.2% (more than doubling).

### Price Index of Rail Services vs Other Price Indices

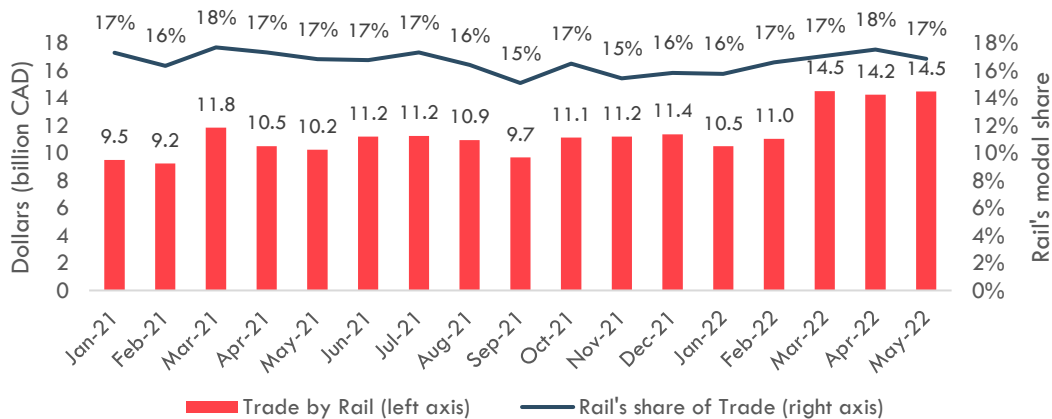


Source: Statistics Canada, [Freight Rail Services Price Index](#), [Industrial Product Price Index](#), [For-hire Motor Carrier Freight Services Price Index](#), and [Consumer Price Index](#). Bank of Canada, [Commodity Price Index](#)

### Exports

Railway shipments of cross-border trade increased significantly in March and remained above \$14B per month since then; representing 17% of total trade with the U.S.<sup>6</sup>

### Rail Merchandise Trade with the U.S.



Source: Transport Canada, [Transportation activity indicators](#)

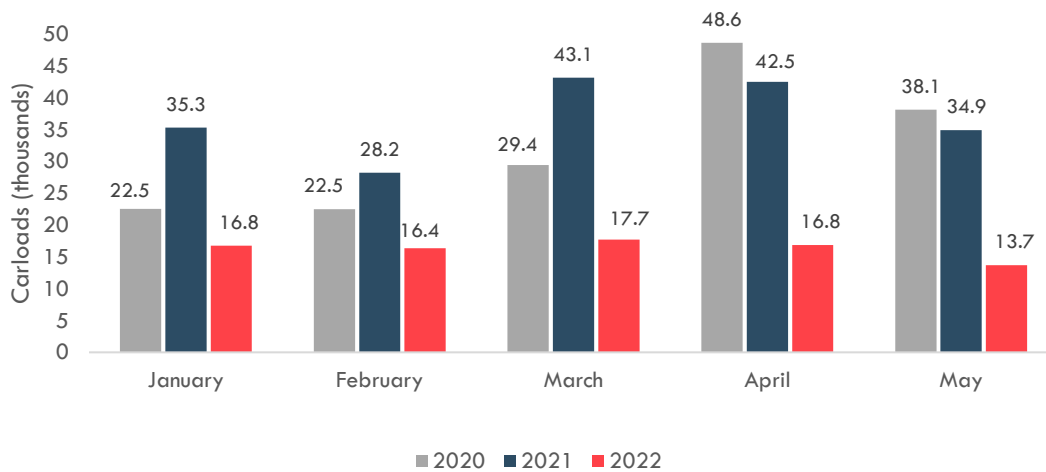
<sup>6</sup> The trade figures presented here are for trade with the U.S., by value, and is for the mode of transport used to cross the border. Using Transport Canada annual data, the Railway Association of Canada estimates that over 50% of total *export volumes* are transported by rail, either through transborder rail transportation or through rail-marine exports.



In every month since April 2021, the number of covered hopper cars unloaded at western ports has been lower than the corresponding month in 2020. On a YTD basis (January-May 2022), activity was down 56% compared to 2021 and 50% compared to 2020.

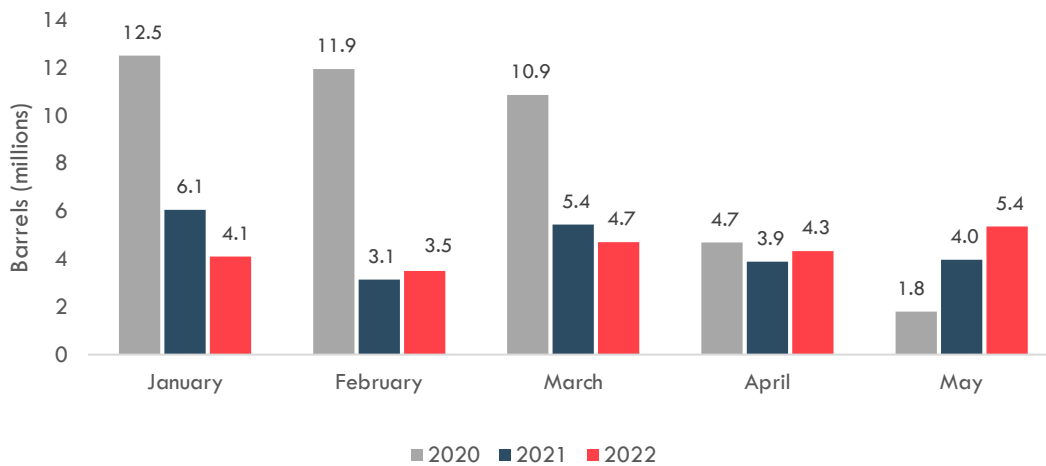
Over the first five months of 2022, exports of crude oil by rail were down 2% compared to 2021.

### Covered Hopper Cars Unloaded at Western Ports



Source: Transport Canada, [Transportation system utilization and performance](#)

### Canadian Crude Oil Exports by Rail

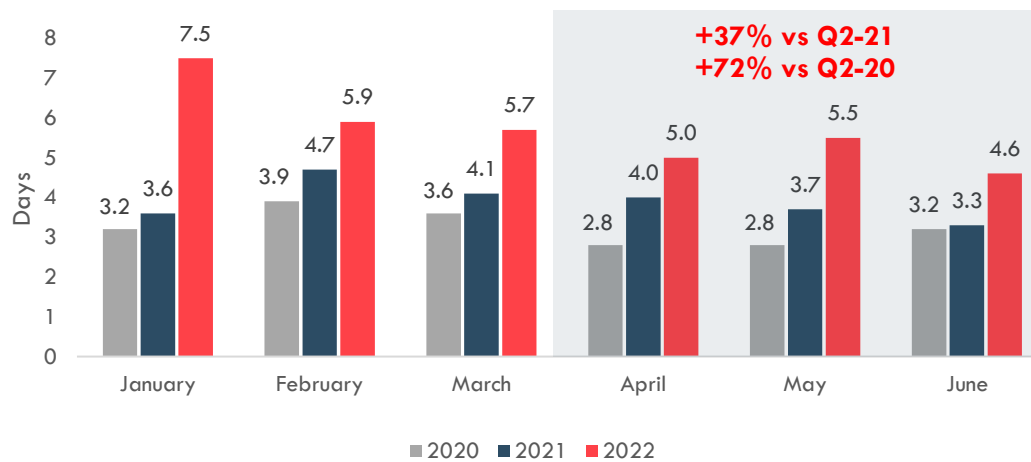


Source: Canada Energy Regulator, [Canadian Crude Oil Exports by Rail](#)

The long port dwell times experienced in the first quarter of 2022 continued into Q2 – dwell times at both the Port of Vancouver and Port of Montreal were significantly longer than they were in previous years.

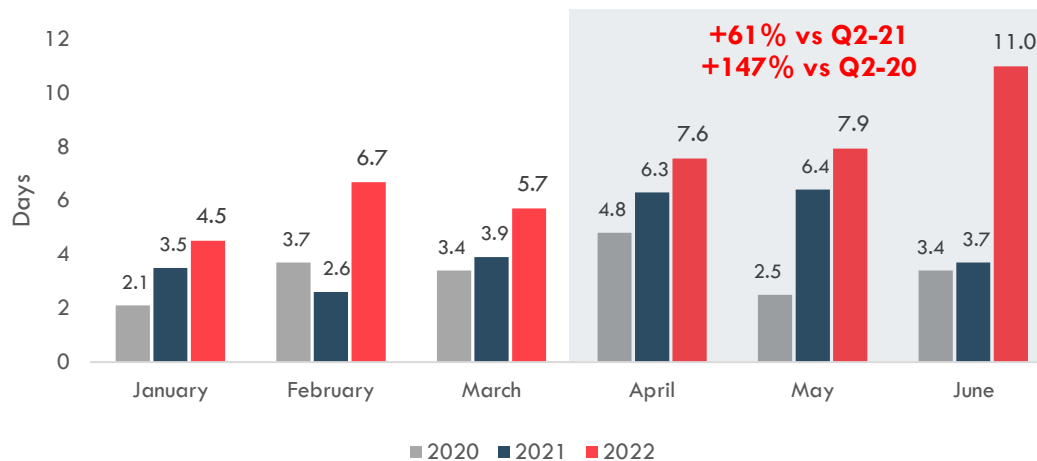
Dwell times at the Port of Vancouver were 37% longer than Q2-21 and 72% longer than Q2-20. Dwell times at the Port of Montreal were 61% longer than Q2-21 and 147% longer than Q2-20.

### Vancouver - Gateway terminal rail dwell performance by month



Source: Port of Vancouver, <https://www.portvancouver.com/port-dashboard/supply-chain-performance/>

### Montreal - Average terminal dwell of containers (import-rail)



Source: Port of Montreal, <https://www.port-montreal.com/en/goods/real-time/performance-report>

## Passenger Rail Data

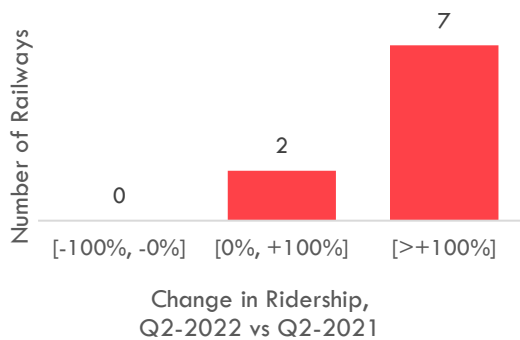
There is less monthly and quarterly data available for the passenger rail operations compared to freight rail operations, and in some cases, there may be a longer lag period.

### RAC Member Ridership

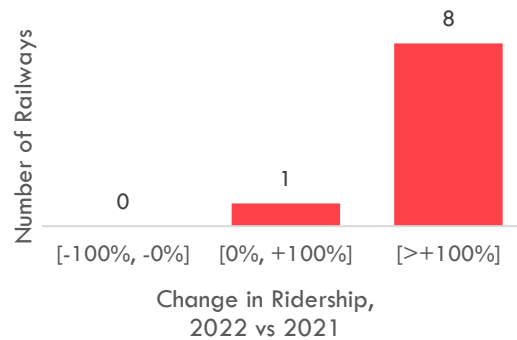
Passenger rail ridership was significantly impacted by the COVID-19 pandemic and evolving restrictions. This section looks at the recovery of passenger rail ridership among RAC members. Ridership data was available for nine of RAC’s tourism, intercity, and commuter railway operators.<sup>7</sup>

In Q2-22, tourism rail operators were up and running for the season, while intercity and commuter operators experienced increases in ridership. In Q2-22, compared to Q2-21 (which had very low ridership), ridership increased for all of the reporting members and more than doubled for seven of them. On a YTD basis, ridership more than doubled for all but one reporting member.

**RAC Members, Ridership, Q2**



**RAC Members, Ridership, YTD**



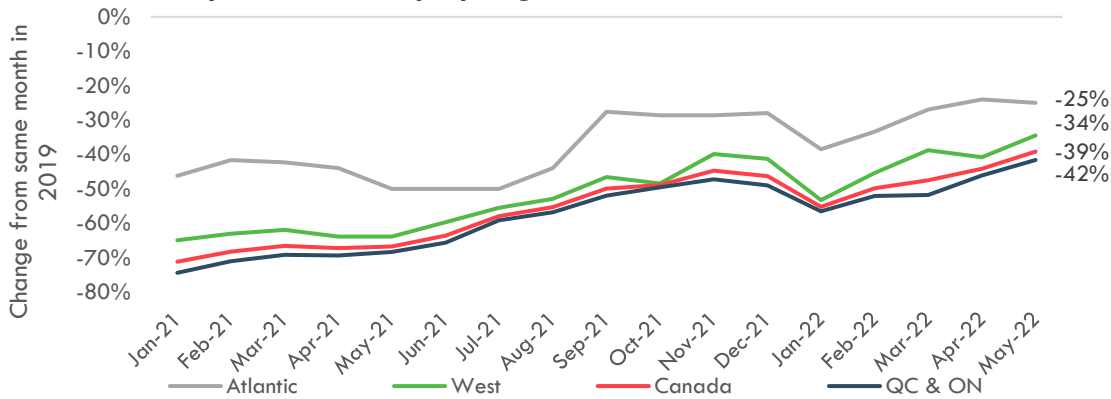
<sup>7</sup> <https://www.railcan.ca/membership/member-railways/>

## Urban Transportation

Urban transit ridership exhibited an increasing trend in 2022. The gaps with pre-pandemic levels were further reduced in Q2-22 in all regions.

More employees heading back to the workplace in 2022 is a contributing factor to the increases in urban transit ridership.<sup>8</sup>

### Urban Transit Systems Ridership by Region



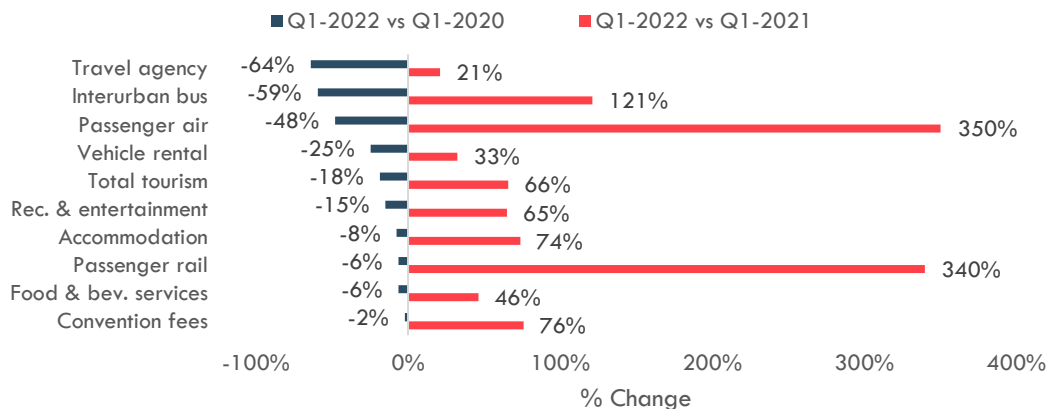
Source: Statistics Canada, [Monthly Passenger Bus and Urban Transit Survey](#)

## Tourism Rail

There is a considerable lag in data on tourism expenditures. The latest available data covers Q1-22.

Compared to Q1-20, total tourism expenditures in Q1-22 were down 18%. All select tourism industries were down by at least 2%, including passenger rail at -6%. However, tourism is ramping up amid further easing of restrictions, and Q1-22 tourism expenditures exceeded Q1-21 expenditures across all select tourism industries. There were significant increases in expenditures on passenger rail and passenger air (recovering from very low levels in Q1-21).

### Tourism Expenditures, Q1



Source: Statistics Canada, [National Tourism Indicators](#)

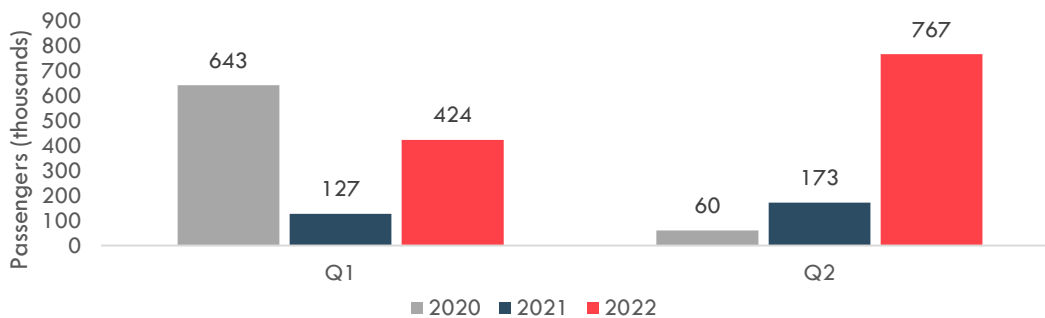
<sup>8</sup> <https://www.benefitscanada.com/news/bencan/fewer-employees-working-remotely-in-2022-statscan/>

## Intercity Passenger Rail

Up-to-date monthly ridership data is available for Amtrak. The latest available monthly ridership data for VIA rail covers the November 2021 period, therefore, more recent quarterly data is presented below.

In Q1-22, VIA rail ridership more than tripled from the low level experienced in Q1-21 but remained 34% below the Q1-20 level (onset of the pandemic). Ridership in Q2-22 was well above levels experienced over the past two years, but still 36% below pre-pandemic (2019) levels (not shown).

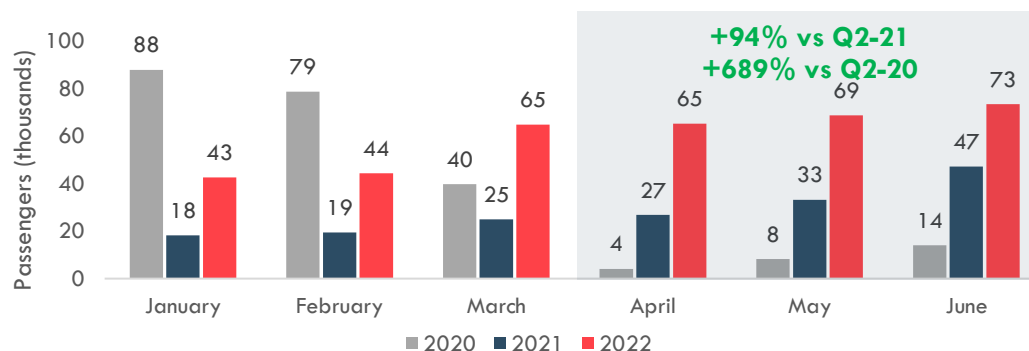
### VIA Rail Ridership, Quarterly



Amtrak has many routes throughout the U.S., and three routes that include a Canadian segment. Ridership on these three routes does not imply that passengers crossed the border, as they may have travelled a particular segment on either side of the border.<sup>9</sup>

Q2-22 data for Amtrak’s routes with segments in Canada indicate that ridership was surging comparing to the same periods from the last two years. Q2-22 ridership nearly doubled from Q2-21 ridership (208,000 passengers vs 107,000),<sup>10</sup> and was nearly seven times greater than Q2-20 ridership (when the effects of the pandemic on passenger ridership were most severe).

### Amtrak Ridership on Routes with Segments in Canada, Monthly



Source: Amtrak, [Monthly Performance Reports](#)

Note: Includes three routes (Maple Leaf; Cascades; Adirondack).

<sup>9</sup> For example, the Maple Leaf route extends from New York City to Toronto; Cascades extends from Eugene Oregon to Vancouver; and Adirondack extends from New York City to Montreal.

<sup>10</sup> Figures may not add up due to rounding.

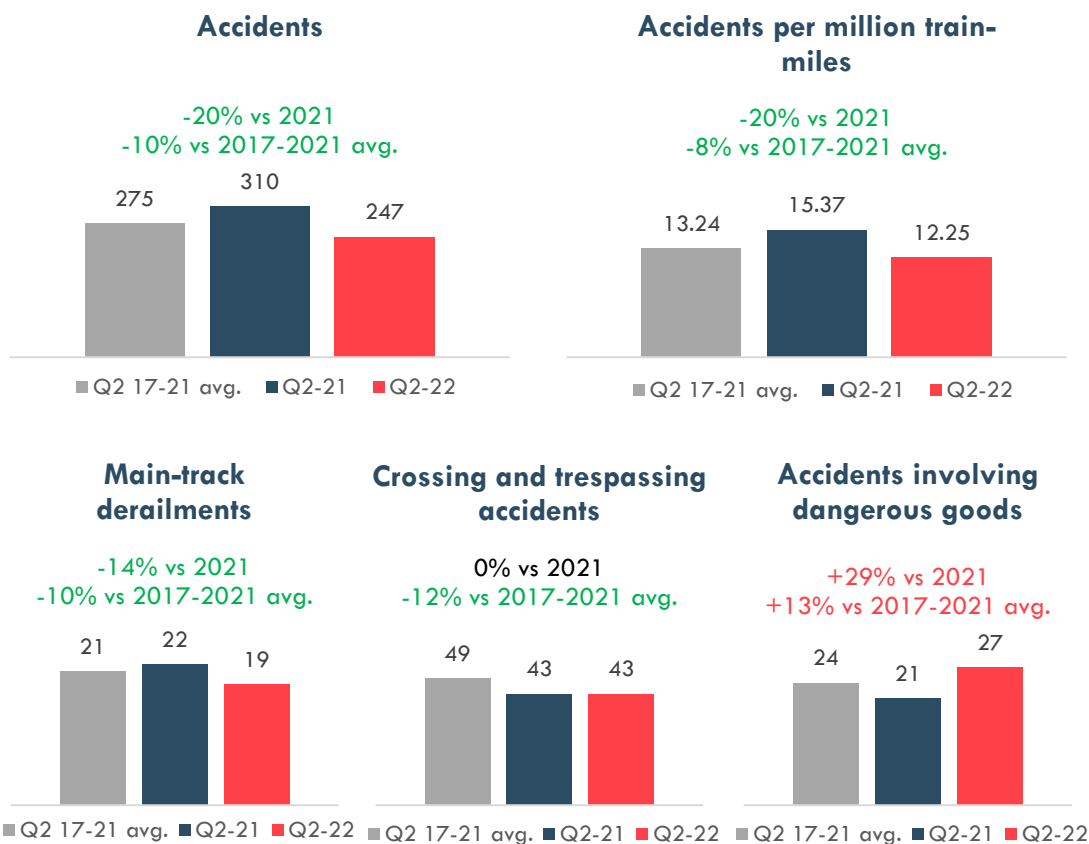


## Rail Safety Data

The Transportation Safety Board provides railway occurrence statistics of federally regulated railways in Canada.

Accident data can vary significantly from quarter to quarter, depending on a variety of factors, including weather. In Q2-22, rail safety performance was favourable across most indicators relative to both Q2-21 and the Q2 2017-2021 average.

Compared to Q2-21, safety performance improved in most categories. The total number of accidents and accident rate (accidents per million train-miles) were both down by 20%. Accidents were down by 10% compared to the Q2 2017-2021 average, and the accident rate was down by 8%. In Q2-22, there were fewer than 20 main-track derailments. Crossings and trespassing accidents were down 12% compared to the Q2 2017-2021 average. The number of accidents involving dangerous goods increased in Q2-22.



Source: Transportation Safety Board, [Monthly rail transportation occurrence statistics](#)



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