

ASSESSING THE IMPACT OF COVID-19 ON TRUCKING AND LOGISTICS EMPLOYMENT

JULY 2020

Trucking HR Canada (THRC) engaged The Conference Board of Canada to undertake the research that is the basis for this briefing.

This project is funded in part by the Government of Canada's Sectoral Initiatives Program (SIP).

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When referring to the information presented in this report, please cite Trucking HR Canada, or use the following reference:

Trucking HR Canada. (2020). Assessing the Impact of COVID-19 on Trucking and Logistics Employment. Ottawa: Trucking HR Canada.



Key Findings

- Over the first two quarters of 2020, employment in the trucking and logistics sector is expected to contract by 10.4%, or 72,000 jobs, due to COVID-19. We expect a 10.9% contraction among truck drivers and 10.0% decline among non-truck driver occupations.
- Truck drivers are expected to account for 34,700, or roughly one in two COVID-related job losses within the trucking and logistics sector.
- Delivery and courier drivers are expected to experience a slightly below-average decline in employment due to COVID-19, benefitting from the shift towards online shopping to comply with social distancing. Still, we anticipate 7,500 job losses in the occupation; mostly in retail and wholesale trade, whose outlooks are very negatively impacted by COVID-19.
- We expect that trucking and logistics employment will stabilize by the first quarter of 2022 and remain roughly 1% below pre-COVID levels through 2023.
- With an expected 690,000 workers in 2023, trucking and logistics employment is now expected to be 3.3%, or 24,000 workers, below the pre-COVID labour market projections that had been finalized in January 2020, as part of the Labour Market Information assessment.
- Labour shortages that the trucking and logistics sector was experiencing before COVID-19 should moderate in the near-term. However, as labour demand recovers, vacancies within the sector will eventually return, especially among truck drivers.
- In the transport truck driver occupation, the forecasted recovery path shows that by the fourth quarter of 2021, employment will have stabilized and thereafter it is expected to reach and even to exceed our pre-COVID labour market projections by 2023. This is the only occupation for which this resurgence is projected.
- Given anticipated retirements and other labour outflows from the truck driver occupation, there is a strong indication that, by 2023, labour demand is unlikely to be fully met, which would mean a return to driver shortages
- We estimate that COVID-19 and its economy-wide impacts will result in declines in truck driver employment that cost the truck transportation industry approximately \$3.2 billion in sales in 2020.

Background

Since mid-March, the global COVID-19 crisis has put a halt on the Canadian economy. Amid closures of factories, schools, airports, non-essential shops, and other businesses and activities in Canada and around the world, The Conference Board of Canada estimates that the Canadian economy would contract by a staggering 25% in the second quarter of 2020, and unemployment would reach 14.4%.

Against this backdrop, Trucking HR Canada commissioned The Conference Board of Canada to assess the impact of COVID-19 on trucking and logistics employment in Canada over both the immediate and medium term. More specifically, Trucking HR Canada is interested in an updated base-case industry and occupational projections for trucking and logistics sector employment in Canada through 2023.

This briefing summarizes the results of the modeling exercise.

The Impact of COVID-19 on Trucking and Logistics Employment

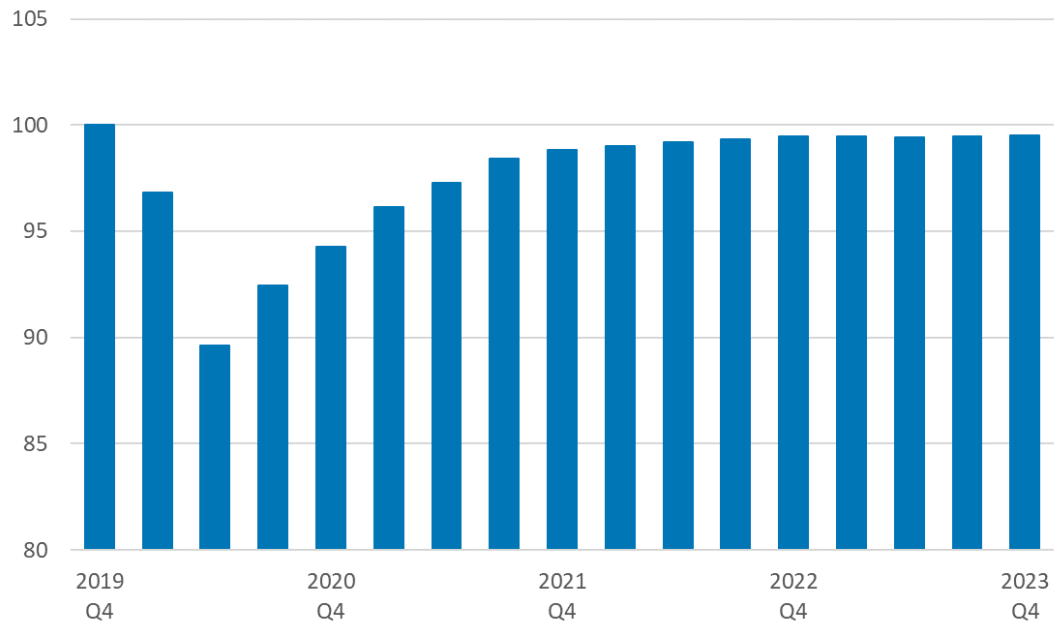
Overview

Canada's trucking and logistics sector is expected to experience a significant contraction in employment because of COVID-19

- We estimate that employment in the trucking and logistics sector will contract by 10.4%, or 72,000 jobs, due to COVID-19, from 695,000 workers in the fourth quarter of 2019 to 623,000 workers in the second quarter of 2020.
- This estimate aligns with our survey of trucking companies, which found that employers had laid off 8.2% of their workers because of COVID-19 through May 2020.
- Beyond the second quarter of 2020, we expect that employment within the trucking and logistics sector will begin to recover in line with the reopening of key industries that trucking and logistics companies serve.
- We expect that trucking and logistics employment will stabilize by the first quarter of 2022 and remain roughly 1% below pre-COVID levels through 2023.

Employment decline to be concentrated in the second quarter of 2020

(index of trucking and logistics employment, 2019Q4 = 100)



Impact by occupation

Truck drivers are not immune to the economic fallout of COVID-19

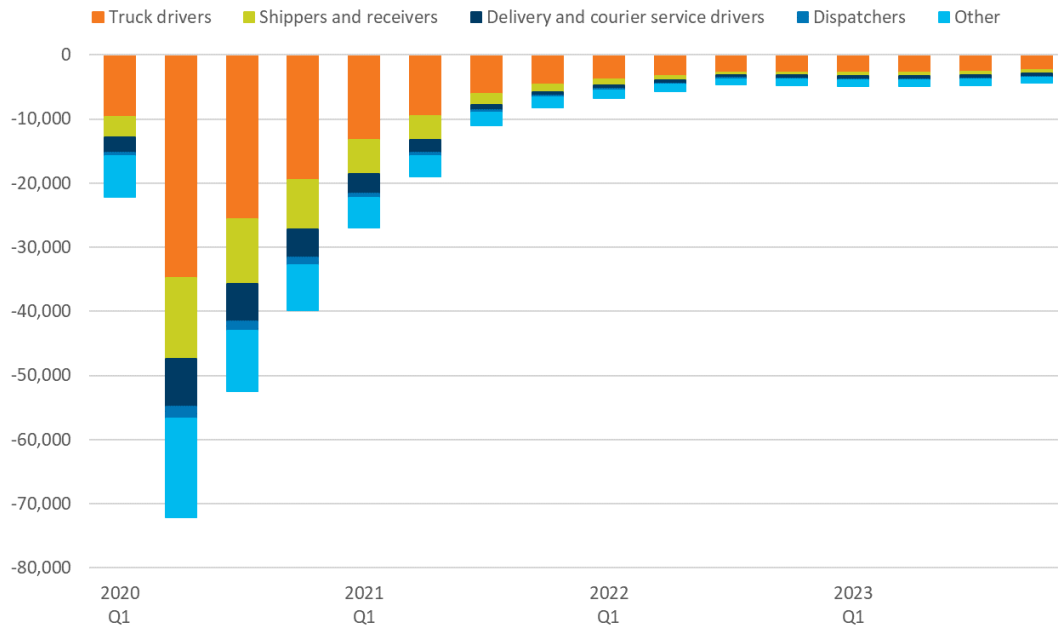
- Over the first two quarters of 2020, truck drivers are expected to account for 34,700, or roughly one in two (48%) anticipated COVID-related job losses within the trucking and logistics sector.
- In percentage terms, we expect that the trucking and logistics sector will shed 10.9% of its truck drivers over the first two quarters of 2020, as well as 10.0% of non-truck driver occupations. In comparison, our employer survey found that employers (mostly for-hire companies) had laid off 8.9% of their truck drivers and 6.8% of non-truck drivers positions because of COVID-19 through May 2020.
- From previous LMI work, we estimated that an individual truck driver position can be tied to an average annual revenue of \$150,400.¹ In this forecast, we anticipate that truck driver employment will average 296,600 in 2020, roughly 21,000 below our pre-COVID estimate of 317,600 for 2020. If we apply our estimate for the revenues generated by an individual truck driver to our COVID-19 related decline in truck drivers for 2020, we can surmise that COVID-19 and its economy-wide

¹ As part of the LMI assessment project, we estimated that every unfilled truck driver position in for-hire trucking cost the industry an estimated \$150,400 in lost sales. Using the same estimate as a proxy for revenues tied with each truck driver, we computed an estimate for the total industry losses due to the employment decline resulting from COVID-19.

impacts will cost the truck transportation industry approximately \$3.2 billion in sales in 2020 (due to the decline in truck driver employment alone).

Truck drivers account for most trucking and logistics jobs lost to COVID-19

(index of trucking and logistics employment by occupation, 2019Q4 = 0)



Shippers and receivers expected to be heavily impacted by COVID-19

- Over the first two quarters of 2020, we expect that 12,600 shippers and receivers within the trucking and logistics sector will lose their job because of COVID-19, which is equivalent to 13.5% of the shippers and receivers within the sector.
- Shippers and receivers account for an estimated 13.4% of trucking and logistics employment. However, we expect that this occupation will account for one out of every five (20%) trucking and logistics job losses due to COVID-19.
- The more negative outlook for shippers and receivers relative to other occupations reflects their employment in retail and wholesale trade. Just under three in five shippers and receivers (58%) who are employed in the trucking and logistics sector work in either of these two industries, both of which have substantially weaker GDP outlooks compared to other industries.²

Other key trucking and logistics occupations also expected to experience notable employment declines

- We expect that the trucking and logistics sector will shed 10.7% of its dispatchers (~1,800 positions) as well as 10.3% of its mechanics (~950 positions) over the first two quarters of 2020. In comparison, our employer survey found that

² See the detailed GDP forecast by industry in the Appendix.

employers had laid off 10.0% each of their dispatcher and mechanic workforce because of COVID-19 through May 2020.

- Delivery and courier drivers are expected to experience a slightly below-average decline in employment due to COVID-19. Over the first two quarters of 2020, we estimate that employment in the occupation will contract by 7,500 jobs, or 10.2%.
- While employment of delivery and courier service drivers should benefit from the shift towards online shopping to comply with social distancing measures, over one in three delivery and courier service drivers (34%) are employed in either retail or wholesale trade, whose outlooks are very much negatively impacted by COVID-19.²
- As a result, we anticipate that 4,300 of the 7,500 delivery and couriers service driver jobs that are lost due to COVID-19 will be in either retail or wholesale trade. In contrast, we expect fewer than 300 delivery and courier service jobs to be lost in the couriers and messengers industry.³

Impact by industry

Employment decline concentrated in truck transportation industry

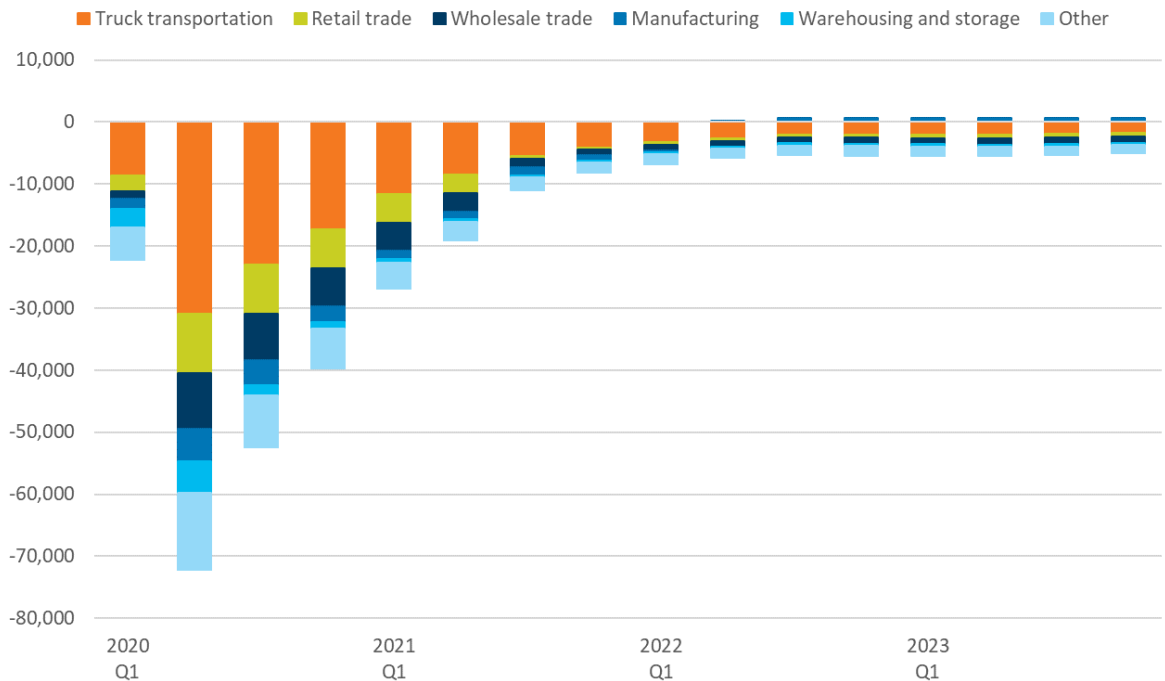
- The overall trucking and logistics sector is expected to shed approximately 72,000 jobs in the first two quarters of 2020.
 - Roughly 30,900 of these jobs losses, or 43%, will materialize in the truck transportation industry.
 - Another 18,600 jobs, or 26%, will be lost in the combined retail and wholesale trade industries.
 - Other sectors that we expect will experience significant declines in trucking and logistics workers because of COVID-19 include manufacturing (5,200 workers), and warehousing and storage (5,100 workers).
- In percentage terms, the couriers and messengers industry is expected to experience the smallest decline in trucking and logistics employment because of COVID-19, on the back of the shift towards online shopping. We estimate that the industry will shed only 1.6% of its trucking and logistics workforce (~1,000 workers) over the first two quarters of 2020. Unsurprisingly, we expect the industry to be the first to see employment return to pre-COVID levels, by the second quarter of 2021.

³ The courier and messengers industry (represented by North American Industry Classification code 492) is distinct from delivery and courier service driver occupation (represented by National Occupational Classification code 7514). While the courier and messengers industry employs around 18,000 delivery and courier service drivers, an additional 55,900 delivery and courier service drivers work outside of the couriers and messengers industry, mostly in retail and wholesale trade.

- Trucking and logistics employment will remain most depressed in wholesale trade over the medium term. By 2023, employment in the sector will be 1.9% below pre-COVID levels.

Truck transportation to account for close to half of all COVID-related job losses within trucking and logistics sector

(index of trucking and logistics employment by sector, 2019Q4 = 0)



For-hire trucking versus private fleets

For-hire trucking companies and private fleets to be similarly impacted by COVID

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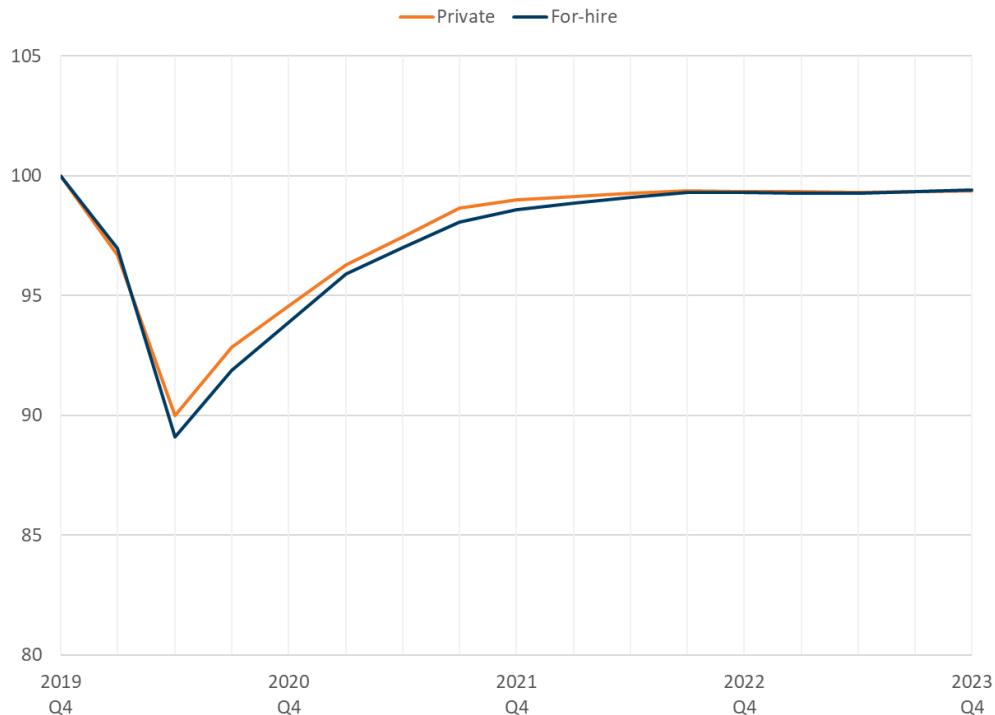
- The trucking and logistics sector can be split into two distinct segments: for-hire trucking companies and private fleets.
 - For-hire firms transport other companies' goods and workers in this segment are recorded in truck transportation (NAICS 484).
 - Private fleets refer to companies that transport their own goods (e.g. Walmart). Workers employed in this segment are captured directly in the sector in which their company operates (e.g. retail).
- Demand for for-hire trucking services comes from other sectors of the economy. In turn, for the purpose of this forecast, we assume that

employment among trucking firms is closely tied to the performance of the industries they serve.⁴

- Based on our modelling exercise, we found that COVID-19 is expected to have a similar impact on for-hire trucking and private fleets:
 - On the one hand, employment in the for-hire segment is forecast to decline by 10.9% due to COVID-19, from 283,000 in fourth quarter of 2019 to 252,000 in the second quarter of 2020.
 - On the other hand, we estimate that employment in the private segment of the trucking and logistics sector will decline by 10.0%, from 412,000 in fourth quarter of 2019 to 371,000 in the second quarter of 2020.
 - The slightly weaker percentage employment decline within the private segment reflects the segment's sizeable employment in the couriers and messengers industry, which we expect will be more resilient to the impacts of COVID-19. Indeed, the courier and messengers industry has benefitted from Canadians making purchases online while stores and restaurants were closed.

Private and for-hire segments expected to see similar downturns in employment because of COVID-19

(index of trucking and logistics employment by segment, 2019Q4 = 100)



⁴ To assess the impact of lower demand from various sectors of the economy on truck transportation employment, we have shared out for-hire trucking employment based on each sector's usage of trucking services. See methodology.

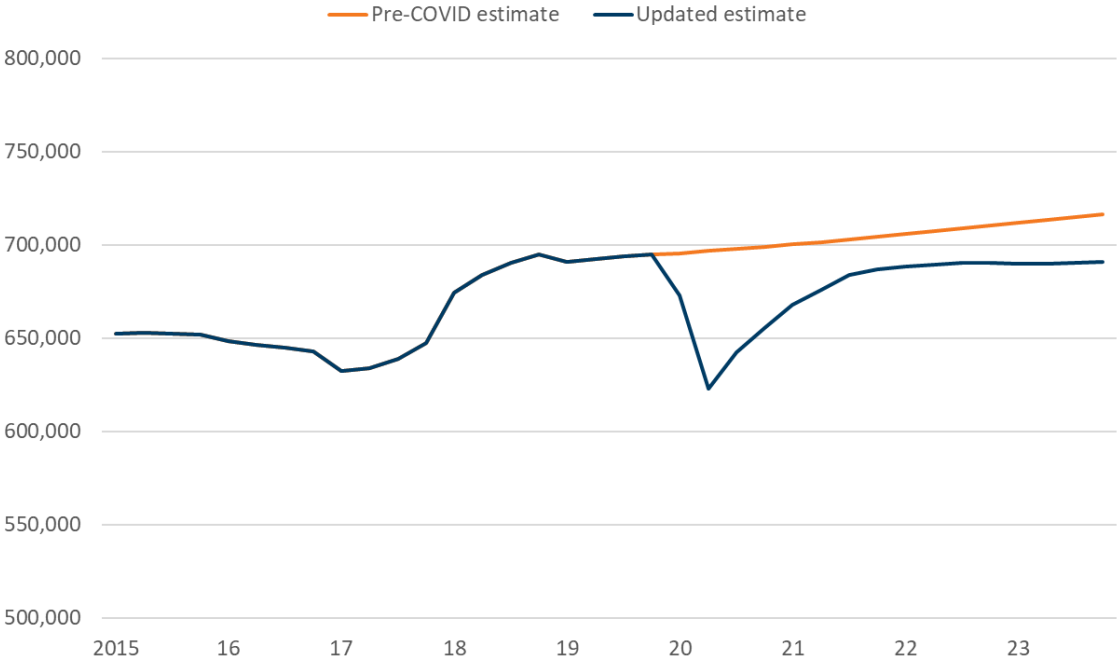
Contextualizing the employment decline

Labour Market Shortages are postponed but not permanently eliminated

- As part of our ongoing comprehensive labour market information (LMI) study of Canada’s trucking and logistics sector, we forecasted labour demand and supply to assess the threat of future labour shortages on the long-term growth of truck transportation and logistics in Canada.
- Given the economic context prior to COVID-19, we found that without any intervention, vacancies within the trucking and logistics sector would increase from 30,500 in 2018 to 38,900 by 2023.
- Since we completed this forecast, the COVID-19 pandemic has changed the labour market environment of the trucking and logistics sector. Notably, we expect that the economic contraction in Canada will reduce employment within the trucking and logistics sector.

COVID-19 has altered our forecast for trucking and logistics employment

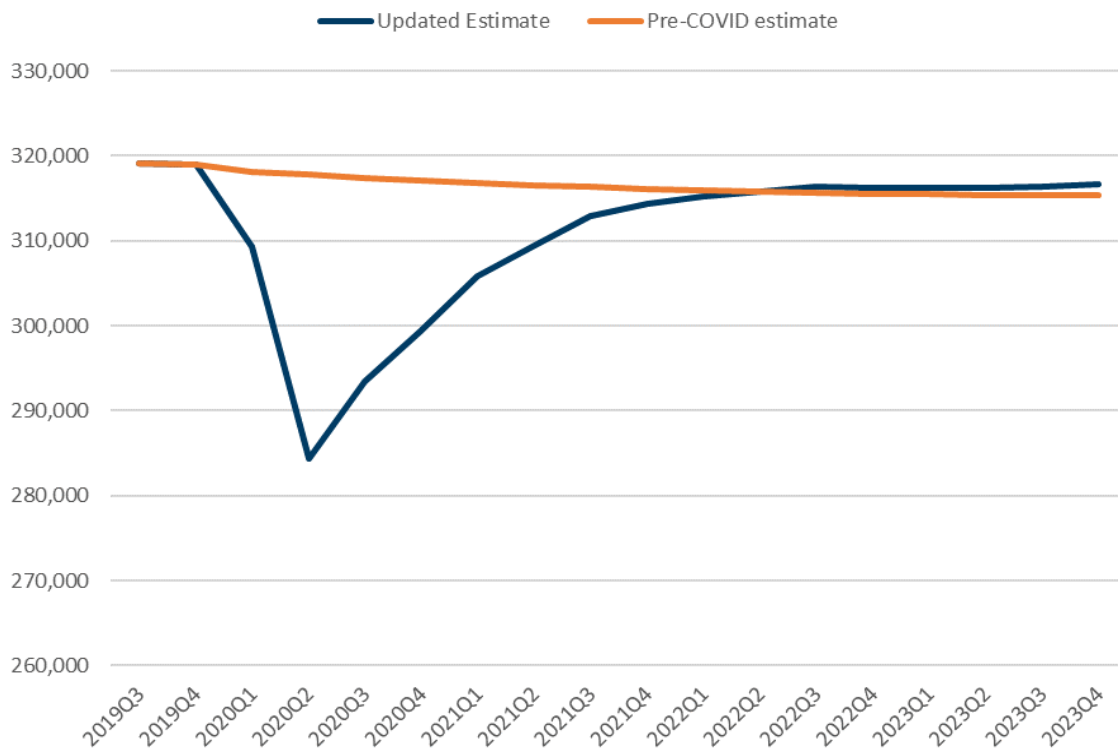
(trucking and logistics employment)



- Specifically, our updated forecast suggests that trucking and logistics employment will experience a sharp decline over the first two quarters of 2020. Thereafter, employment begins to recover, stabilizing at around 690,000 workers – around 24,000, or 3.3% below our pre-COVID estimate.
- In terms of labour shortages, a decline in employment without a corresponding decline in labour demand would be concerning (i.e. vacancies would rise). In the current environment, the decline in employment is demand-driven. This suggests that the labour shortages that the trucking and logistics sector was experiencing before COVID-19 will moderate in the near-term.
- Nevertheless, the factors that previously led to an increase in vacancies within the trucking and logistics sector will eventually return. COVID-19 has likely delayed but not negated the threat of worsening labour shortages.

For the Transport Truck Driver occupation, the adjusted forecast differs significantly

(transport truck driver employment – NOC 7511)



- In particular, the Transport Truck Driver occupation will continue to be challenged by a rapidly aging demographic and its difficulties attracting youth and women and is likely to face renewed labour shortages as soon as early 2023.
- Despite the unprecedented economic shock caused by COVID-19, labour shortages among truck drivers are not a thing of the past. Based on this analysis, truck driver labour shortages could very much return within a three-year horizon, with vacancies burgeoning beyond previously anticipated levels.

Appendix – Methodology & Forecast Assumptions

Our forecast for trucking and logistics sector employment depends on The Conference Board of Canada's economic outlook for the Canadian economy. The key assumption relating to COVID-19 that was built into this forecast is that social distancing measures continue to be relaxed from May onwards but are not fully relaxed until a vaccine is available for widespread use in Canada (expected June 2021).

In noting this assumption, it is important to bear in mind that any forecast, but particularly one that is done in a rapidly changing environment such as the current one, can quickly become dated. This does not make it unusable. Rather, a forecast provides us with a likely trajectory for where we are headed.

In the context of trucking and logistics employment, GDP declines across key sectors that trucking and logistics companies serve will ultimately translate into layoffs for these companies. If economic activity in Canada returns to pre-COVID levels faster than we currently envision, the employment outlook for trucking and logistics sector would be more positive. In turn, a slower economic recovery for Canada could translate into additional job losses for the trucking and logistics sector, and a slower recovery to pre-COVID levels.

Key assumptions related to COVID-19 used in this forecast

- Social distancing measures continue to be relaxed from May onwards, but not fully relaxed until vaccine is widespread in Canada (June 2021).
- There is no economy-wide second shutdown due to a subsequent wave.
- Vaccine is available for widespread use globally by October 2021.

Methodology

To assess the impact of lower demand from various sectors of the economy on truck transportation employment, we assume that employment among for-hire trucking firms is tied to the performance of the industries they serve. As such, we have shared out for-hire trucking employment based on each sector's usage of trucking services.⁵

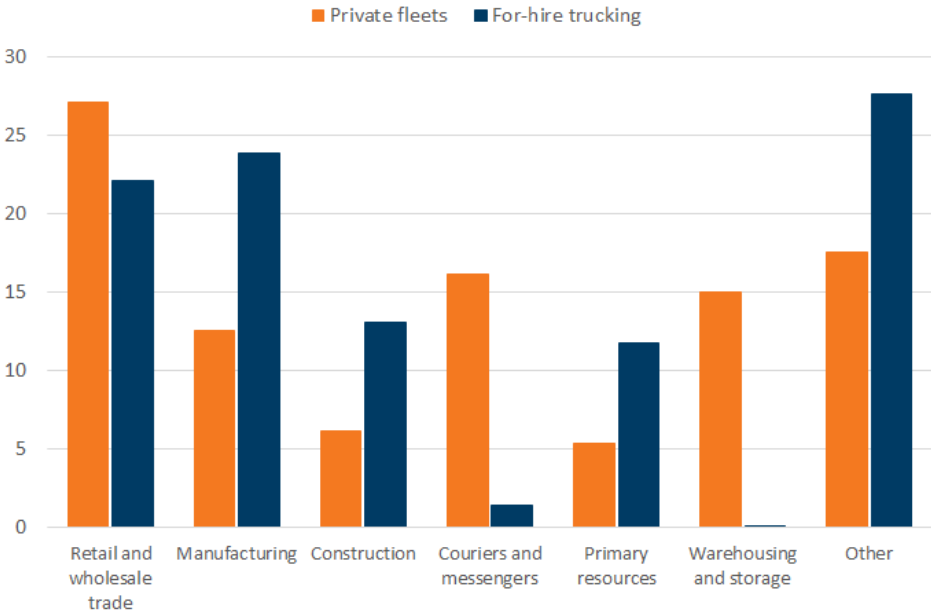
For example, almost a quarter of truck transportation output is used by the manufacturing sector alone. Therefore, we allocated 24% of for-hire trucking workers to the manufacturing sector. The detailed breakdown of for-hire trucking end users, and consequently our allocation of for-hire trucking employment, is shown in the chart below.

We can see from this allocation of for-hire trucking employment that truck transportation jobs are heavily dependent on the fortunes of manufacturing, retail and wholesale trade, and construction. In contrast, employment in the private segment is largely tied to the health of retail and wholesale trade, couriers and messengers, and warehousing and storage.

⁵ This was done using Statistics Canada's Input-Output tables.

Breakdown of trucking and logistics employment by segment

(estimated share, per cent)



Source: The Conference Board of Canada.

Our forecast for trucking and logistics employment applies detailed forecasts of gross domestic product (GDP)⁶ for each of the industries that employ trucking and logistics workers. More specifically, our aggregate employment impact estimate of COVID-19 on the trucking and logistics sector represents a weighted GDP decline⁷ across the sectors that trucking and logistics companies serve. (See table below with the GDP projections.)⁸ For example, a 10% decline in manufacturing GDP in the second quarter of 2020 translates into a 10% decline in trucking and logistics employment tied to the manufacturing sector. In turn, trucking and logistics employment tied to the manufacturing sector is composed of the direct employment among private fleets and indirect employment among for-hire trucking companies serving the manufacturing sector.

Among the industries that influence demand for trucking and logistics, retail and wholesale trade are expected to experience the largest downturn due to COVID-19. Retail and wholesale, which

⁶ The GDP forecast was completed as of June 8th, based on the latest forecasting assumptions used by the Conference Board of Canada. Given the uncertain times, these assumptions can change rapidly. Also, the GDP projections incorporated in this forecast may differ slightly from the official forecast that will be completed and released by the Conference Board later in June 2020.

⁷ In the absence of detailed and timely occupational employment data by industry, GDP represents our best available tool to estimate both the near- and medium-term impacts of COVID-19 on Canada’s trucking and logistics workforce.

⁸ Since we weight the sectoral GDP forecasts by employment, GDP projections for sectors such as wholesale and retail trade, which directly and indirectly employ large quantities of trucking and logistics workers (a combined 25%), will have greater influence on the aggregate result.

is tied to as much as 25% of the trucking & logistics workforce (when combining direct and indirect employment), is expected to see a 17% GDP contraction in the second quarter of 2020, despite the increase in demand grocery stores have experienced early on in the crisis.

Unlike other sectors such as construction, retail and wholesale trade is also expected to recover more slowly. This reflects the sluggish anticipated recovery in consumer spending amid lingering weakness in the labour market, subdued consumer confidence, prevailing social distancing measures, as well as the shift towards online shopping.

The impact of COVID-19 on key sectors that trucking and logistics companies serve

(percentage change in price-adjusted GDP, indexed to 2019 Q4)

	NAICS code	11	21	23	31-33	41	44-45	492	493
	Industry	Agriculture, forestry, fishing and hunting	Mining, quarrying, and oil and gas extraction	Construction	Manufacturing	Wholesale trade	Retail trade	Couriers and messengers	Warehousing and storage
2020	Q1	-0.7%	-1.8%	-1.6%	-3.3%	-2.1%	-4.6%	-2.2%	-4.7%
	Q2	-3.0%	-8.1%	-10.2%	-10.0%	-16.7%	-16.7%	-1.6%	-8.2%
	Q3	-0.7%	-12.3%	-2.5%	-7.8%	-13.9%	-13.9%	-0.9%	-2.5%
	Q4	-0.4%	-11.8%	-2.0%	-5.1%	-11.0%	-11.0%	-0.6%	-1.7%
2021	Q1	-0.4%	-9.3%	-1.7%	-2.5%	-8.2%	-8.2%	-0.3%	-1.0%
	Q2	-0.5%	-7.3%	-1.4%	-2.5%	-5.3%	-5.3%	0.0%	-0.6%
	Q3	-0.6%	-5.1%	-1.3%	-2.5%	-2.5%	-0.9%	0.3%	-0.5%
	Q4	-0.7%	-4.2%	-1.2%	-1.6%	-1.6%	-0.8%	0.3%	-0.5%

Source: The Conference Board of Canada.

The near-term projection results obtained based on the above methodology are in line with the latest data release from the labour force survey (LFS) from Statistics Canada. For example, truck driver employment in Canada across April and May was roughly 18.0% below their levels in the fourth quarter of 2019. If we correct for the fact that truck driver employment in the fourth quarter of 2019 was above trend (i.e. 5.4% above its one-year average), we can surmise that COVID-19 has diminished truck driver employment by roughly 13.6%. In comparison, our weighted GDP forecast predicts a 10.9% decline in truck driver employment over the first two quarters of 2020, which assumes a slight recovery in June as social distancing measures continue to be relaxed.

