

## **Big Wheels and Small Carriers: Canada's Small For-hire Trucking Industry**

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### **Introduction**

The physical movement of goods plays a key role in many market transactions, making the transportation system an intrinsic component of any economy. As a trade-reliant nation with its population spread over a vast landscape, Canada is particularly dependent on an effective transportation system. And, in order to assess the national transport system and its ability to move freight, quality statistical information is required. A Freight Analysis Framework is a planning tool for assessing the transport network and its capacity to meet projected demand.<sup>1</sup> The principal data for such a framework is a set of commodity origin-destination flows by mode.

Statistics Canada is constructing a carrier-based Canadian Freight Analysis Framework (CFAF) for Transport Canada. In order to do so, a set of commodity flow estimates by weight as well as by origin and destination is required for each mode. However, the agency's Trucking Commodity Origin Destination (TCOD) survey currently excludes own-account or private trucking as well as smaller for-hire establishments with annual revenues below \$1.3 million. As part of a TCOD redesign, coverage is expanding by lowering the revenue threshold to include smaller carriers and by capturing the trucking activity of businesses assigned to other industries (i.e., own-account or private trucking).

To expand coverage however, there is a need to understand the role of smaller trucking operators and the extent to which they work as dedicated sub-contractors for larger for-hire or private carriers. To aid in this understanding, Statistics Canada is conducting a study of small motor carriers of freight consisting of three components: a review, a nature of business survey and consultations with the industry. This research paper reports on the methods used for the survey. After a brief overview of the for-hire trucking industry, the paper uses the sample frame to provide a profile of smaller trucking establishments. It concludes by discussing the next steps in the study.

### **Context**

The Transportation and Warehousing sector (NAICS 48-49) contributed \$79.2 billion of gross domestic product (GDP) in 2017, more than three times greater than the entire Primary sector of Agriculture, Forestry and Fishing (NAICS 11, \$26.8 billion).<sup>2</sup> The Canadian for-hire trucking sub-sector (NAICS 484) generated \$22.6 billion of GDP, and this excludes trucking activity conducted by establishments classified to other industries such as manufacturing or wholesale.<sup>3</sup> In 2017, 80% of for-hire trucking establishments had less than five employees<sup>4</sup>, meaning smaller motor carriers make up the majority of Canadian trucking establishments. Similarly, in the United States (U.S.), it is estimated that of the over half a million for-hire trucking companies, the vast majority (95% to 97%) operating small fleets.<sup>5</sup> Data on this segment was last collected by Statistics Canada in 2011.<sup>6</sup>

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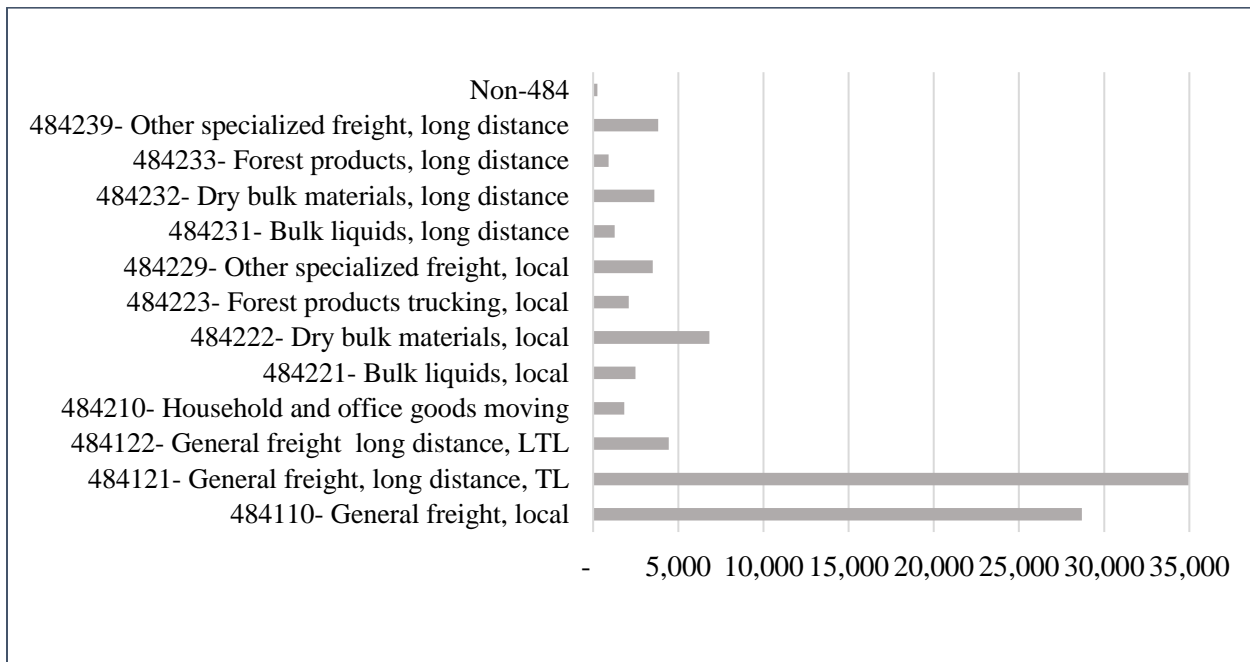
<sup>1</sup> Presented at the 53rd Annual Meetings of the *Canadian Transportation Research Forum*, June 3-6, 2018 at Gatineau, Quebec

**Profile – Small Carriers**

With support from Transport Canada, Statistics Canada is conducting a Small Motor Carrier of Freight Study to more fully understand the role of smaller operators in the overall trucking industry. Using the agency’s Business Register (BR), a sample frame was created consisting of trucking establishments or groups of establishments with a NAICS classification of ‘484’ and having annual revenue below \$1.3 million.<sup>7</sup> The 94,632 establishments identified represent about 85% of those classified to NAICS 484; however, they account for roughly 10% of the total industry revenue. For the study itself, a representative sample of 3,000 establishments was selected and stratified by industry size, type and location.

While the BR is updated using tax records, information on this part of the trucking industry was last validated by survey for the 2011 reference year. Of the establishments identified in the frame, just over one-third (37%) are classified to the General Freight - Long Distance Truck Load industry (NAICS 484121), while just under one-third (30%) are from the General Freight - Local industry (NAICS 484110) (Figure 1). The more specialized motor carrier services, such as dry bulk and liquid bulk, are less prevalent among smaller carriers. Previous research found that establishments classified to the primary industries had higher odds of operating a private fleet than did those classified to manufacturing industries because of the need for more specialized equipment.<sup>8</sup> As such, smaller for-hire carriers are more prevalent in the general freight markets, both local and long distance.

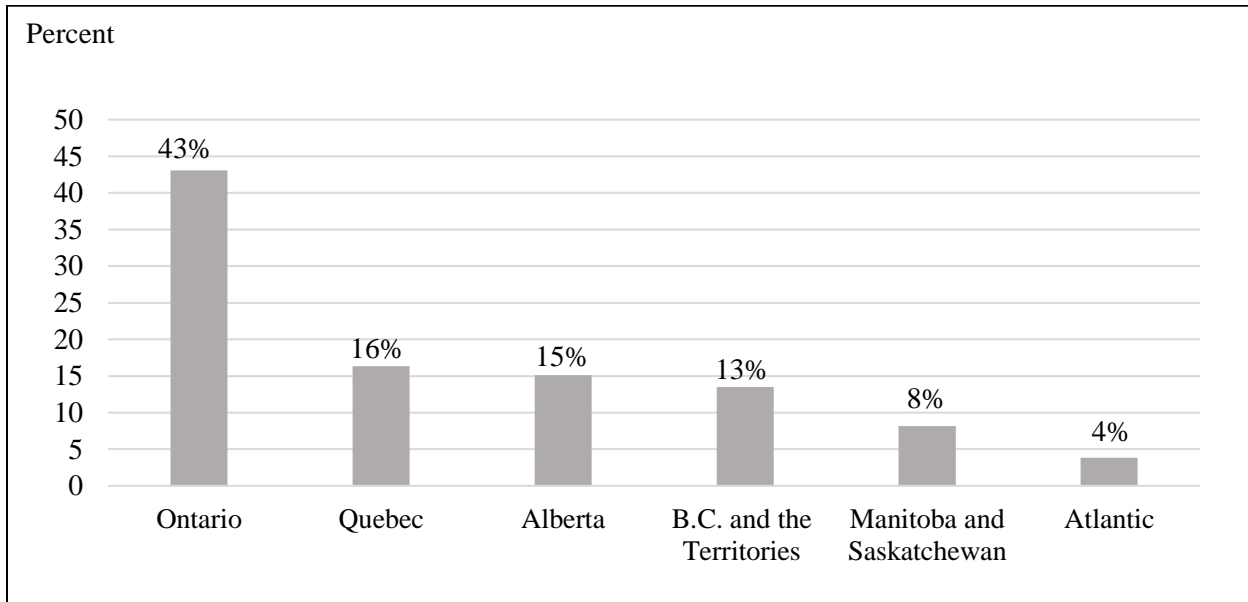
Figure 1 Number of Canadian Small Motor Carriers of Freight by NAICS Industry, 2017



Source: Statistics Canada, Business Register

Geographically, Ontario-based establishments represent more than four of every ten (43%) small motor carriers in Canada, followed by Quebec (16%), Alberta (15%) and British Columbia and the Territories (13%) (Figure 2). Again, the predominance of smaller carriers in Ontario is probably related to the types of goods being transported. That is, Ontario has a higher concentration of manufacturers which are more likely to use for-hire trucking businesses to ship generalized freight.<sup>9</sup> However, more research on the link between the concentration of establishments by NAICS and the prevalence of smaller carriers of freight is required.

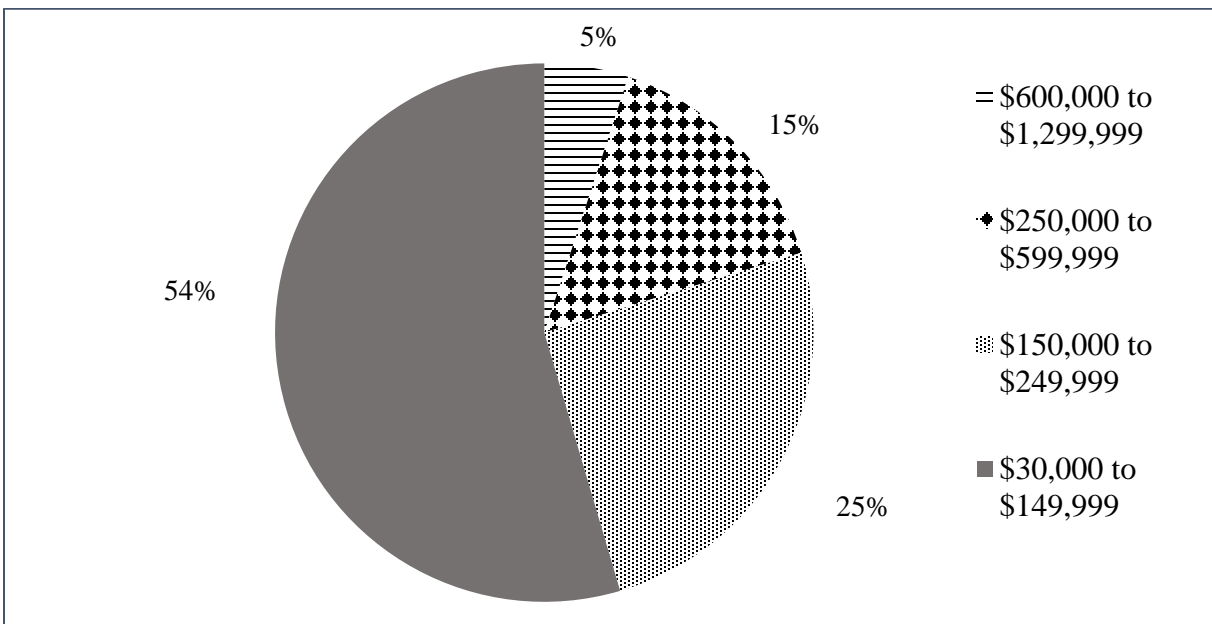
Figure 2 Proportion of Canadian Small Motor Carriers of Freight by Region, 2017



Source: Statistics Canada, Business Register

According to the BR as of December 2017, smaller for-hire carrier of freight establishments generated around \$14 billion in gross revenue<sup>10</sup>, with each small carrier generating an average of \$213,107. However, as there is an expectation that the revenue distribution is skewed negatively, four revenue categories were created for the Small Motor Carriers of Freight frame (Figure 3). As anticipated, more than one half (54%) of the establishments reported earnings in the lowest category, between \$30,000 and \$149,999 (Figure 3). This is a clear indication that this segment of the for-hire trucking industry is dominated by owner-operators (OOs) or one to two person operations.<sup>11</sup>

Figure 3 Proportion of Canadian Small Motor Carriers of Freight by Revenue, 2017

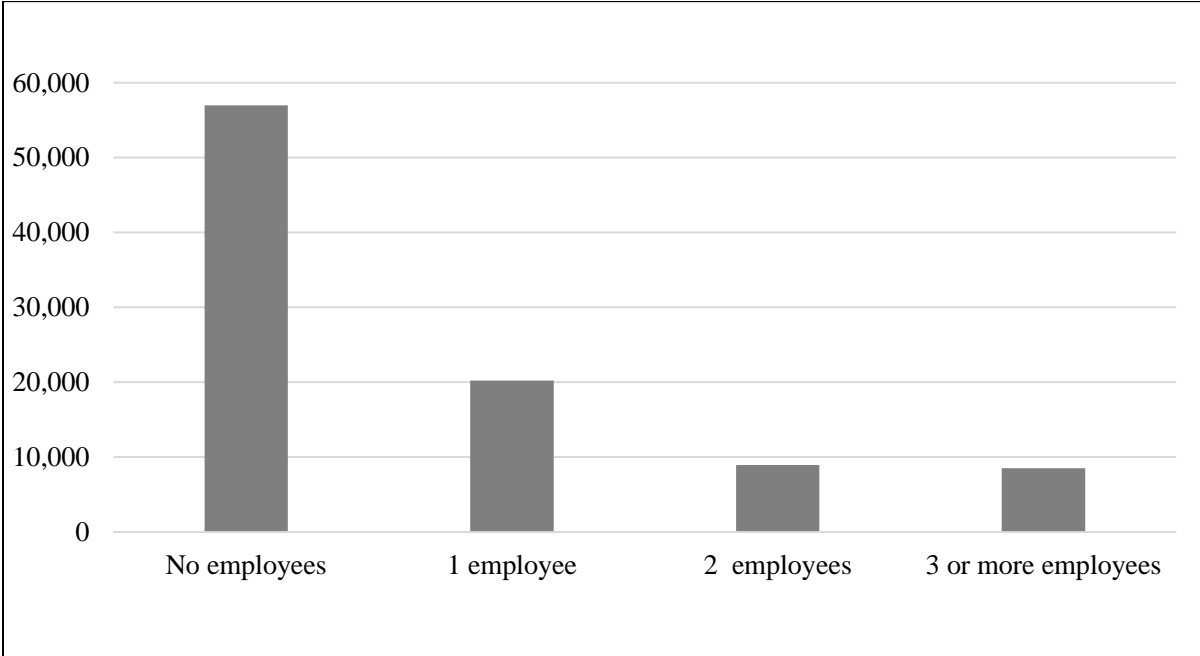


Source: Statistics Canada, Business Register

Indeed, six in 10 small for-hire carrier establishments, or almost 57,000, had no employees (Figure 4). Having no employees in the case of trucking establishments would represent owner-operators; that is, self-employed truckers that have their own equipment and provide hauling services under contract to a larger road carriers. Having one or two employees would probably be an additional driver, full or part-time, working within the business to better utilize the vehicle so as to cover vacations or, in some cases, drive other trucks owned by the owner-operator.<sup>12</sup> Comparatively, road carriers with three or more employees, which represent the smallest portion of this industry segment, could entail an operation with, for example, a mechanic, an administrative assistant and/or a dispatcher.

While owner-operators represent a key component of the trucking industry by providing much needed flexibility and capacity to the larger road carriers, there is little information available on the role they are playing. For instance, while some carriers’ fleets are exclusively made of owner-operators, others may use some or none at all. While some research indicates that most owner-operators in Canada work under contract exclusively for a single, larger motor carrier, independents may also exist.<sup>13</sup> Unlike the dedicated OOs, they would be responsible to find loads and may require the services of brokers or loading boards.

Figure 4 Canadian Small Motor Carriers of Freight by Number of Employees, 2017

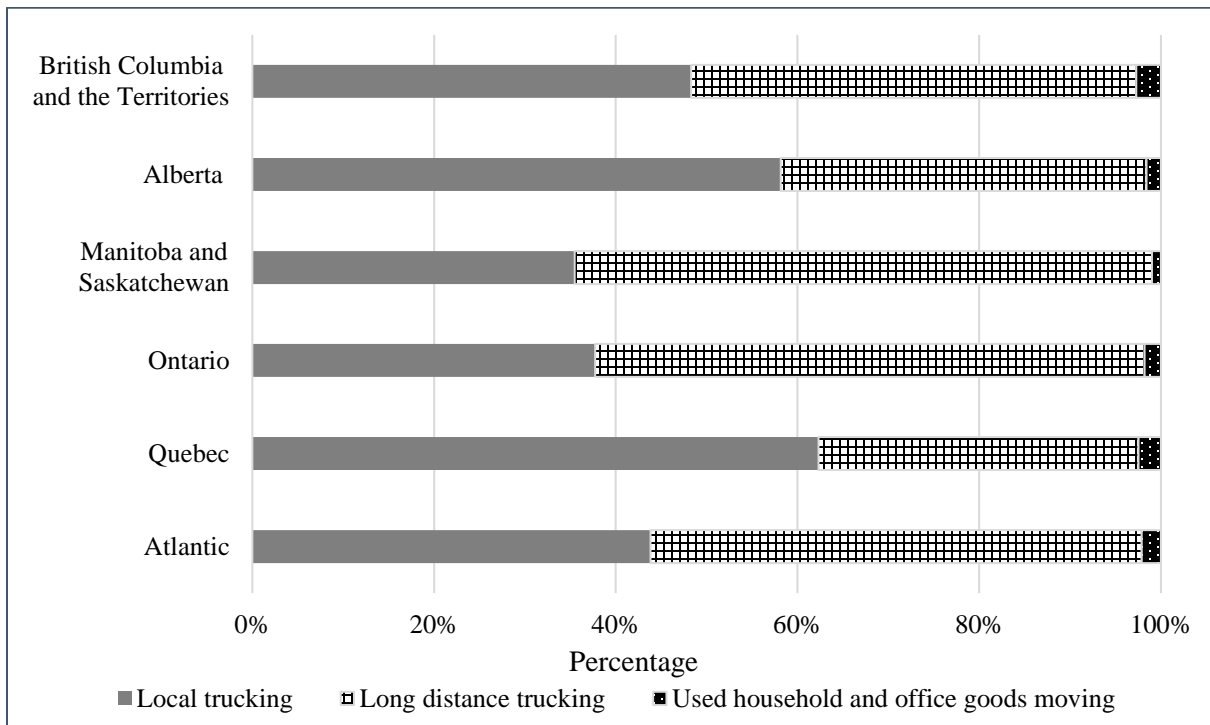


Source: Statistics Canada, Business Register

Interestingly, various regions across Canada are likely to engage in different haul types (Figure 5). For example, long distance trucking represents significantly more than half the small for-hire industry in both Ontario (60%) and the two prairie provinces of Manitoba and Saskatchewan (64%). Conversely, the provinces of Quebec and Alberta are characterized by relatively more local trucking (62% and 58%, respectively). Of note, the smallest proportion of haul type by small motor carriers of freight was consistently used household and office goods moving. While some of the reasons for these regional differences are apparent, such as relatively more long haul movement of general freight in Ontario, others are less evident.

As a final point, caution should be exercised when examining these BR fields as it has been some time since this segment of the industry has been surveyed to validate the BR information.

Figure 5 Proportion of Canadian Small Motor Carriers of Freight by Region and Haul Type, 2017



Source: Statistics Canada, Business Register

### Next Steps

As mentioned, in order to better understand the role of smaller establishments in the overall trucking industry, Statistics Canada is conducting a Small Motor Carrier of Freight Study. In particular, it is important to understand smaller carriers, including owner-operators, and their relationship to larger for-hire and private carriers. Such an understanding is necessary before the TCOD survey coverage can be expanded by lowering the revenue threshold below \$1.3 million and adding private trucking activity. The study consisted of a short nature of business survey administered by telephone to over 2,000 small trucking establishments. An introductory letter was sent February 18<sup>th</sup>, 2018 and the collection period was from February 21<sup>st</sup> to March 31<sup>st</sup>. After verifying company contact information and NAICS classification, the study collected information on the following six topic areas:

1. Equipment - Number of road tractors and straight trucks;
2. Structure - Relationship of ownership to operators;
3. Type of clients - Shippers, forwarders and other trucking establishments;
4. Type of client relationships - Freelance or dedicated;
5. Types of shipment information - Weight, commodity, revenue; and
6. Availability to provide shipment information electronically.

The information collected was combined with data already contained in the BR; namely geography, industry, employment and revenue. Results from the analysis on size and nature of client relationships can help determine, for example, how far the TCOD revenue threshold can be lowered before encountering potential double-counting of activity. That is, the extent to which smaller for-hire carriers tend to be dedicated contractors for larger for-hire or private carriers. The statistical information collected from the Small Motor Carrier of Freight Study was supplemented by industry consultations with selected trucking associations, provincial transportation departments and operators. Results from the study were reported to Transport Canada and a database of over 2,000 trucking establishments is now available for further analysis.

## **Summary**

The Transportation and Warehousing sector in general, and the trucking industry specifically, play a key role in the Canadian economy, moving goods within cities, among provinces, across this country and other countries. In order to assess the national transport system and its ability to move freight, Statistics Canada is constructing a Canadian Freight Analysis Framework consisting of a set of commodity origin-destination flows by mode. In the case of freight flows by truck, the current TCOD survey excludes smaller trucking establishments as well as the trucking activity undertaken by establishments classified to non-trucking industries (i.e., non-484 NAICS).

In redesigning the survey, coverage will be expanded to include smaller for-hire carriers of freight and private trucking. An important prerequisite for this expansion is a better understanding of the role of smaller motor carriers of freight, including owner-operators, in the overall industry. In the for-hire industry, about four out of every five establishments have less than five employees. Despite this prevalence of smaller carriers, Statistics Canada has not collected data on this segment of the industry since 2011. This research paper took an initial glance at this industry segment based on the sample frame created for the study. The next steps in the study were consulting with the industry and analyzing the survey findings.

Finally, as part of the effort to build a CFAF, Statistics Canada is also undertaking related work to investigate new methods to improve trucking data. For instance, exploratory work using proprietary trucking GPS data has examined the ability to help validate shipment destination and routing.

## Acknowledgements

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## Endnotes

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<sup>1</sup> Madar, G. and McKeown, L. (2015). Measuring Commodity Flows in Canada: Options and Considerations. *Canadian Transportation Research Forum, Proceedings*, p. 208-222. Montréal (May).

<sup>2</sup> Statistics Canada CANSIM Table 379-0031 - November 2017 Gross domestic product (GDP) at basic prices, by North American Industry Classification System (NAICS).

<sup>3</sup> It was estimated that adding own-account to for-hire service would result in the transportation sector jumping from 3.7% to 6.3% of GDP, with private trucking accounting for 90 cents of every dollar of own-account transportation. Statistics Canada (2006). The Economic Importance of Transportation. The Daily: 11-001, May 19, p.6.

<sup>4</sup> Statistics Canada. Table 552-0006 - Canadian business counts, location counts with employees, by employment size and North American Industry Classification System (NAICS), Canada and provinces, June 2017, semi-annual (number), CANSIM (database).

<sup>5</sup> Cassidy, W. B. (2006). Small carriers, big opportunities: smaller trucking companies such as Watsontown trucking fill important supply chain gaps for shippers, large and small. *Traffic World*, 270(29).

Kilcarr, S. (2017). Small business committee becomes the latest ELD battleground. *Trucker.com*. Retrieved from <http://www.trucker.com/regulations/small-business-committee-becomes-latest-eld-battleground>.

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<sup>6</sup> Data on small for-hire carriers was last collected in 2011 as part of the now inactive Quarterly Trucking Survey.

<sup>7</sup> In the previous TCOD redesign, there was some concern about smaller for-hire carriers operating under contract to larger carriers, thus creating some theoretical double-counting risk if the revenue threshold was set too low.

<sup>8</sup> Evans, D. and McKeown, L. (2017). Factors Associated with Own-Account Trucking in Canada. *Canadian Transportation Research Forum, Proceedings*, p. 423-430. Winnipeg (May).

<sup>9</sup> Ibid.

<sup>10</sup> For most small motor carriers of freight, Statistics Canada relies on corporate tax data, provided by the Canada Revenue Agency, to calculate gross revenue.

<sup>11</sup> Owner Operators own/lease one or more power units and provide hauling services under contract to for-hire or private carriers. Statistics Canada (2005). Trucking in Canada, 2005. Catalogue no. 53-222.

<sup>12</sup> Chow, G. and R. Weston. (2008). The status change of owner-operators under the Canada labour code: Is the change needed? Canadian Transportation Research Forum, Proceedings, Fredericton (June).

<sup>13</sup> Ibid.