

BEYOND THE WHEEL

Final Report for Industry - 2012



Labour Market Information Study

Our mission: to assist the Canadian trucking industry to recruit, train and retain the human resources needed to meet current and long-term requirements.

Canada

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**Canadian Trucking
Human Resources Council**

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- Ontario Trucking Association
- Prince Edward Island Sector Council
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Contact Information



**Canadian Trucking
Human Resources Council**

Canadian Trucking Human Resources Council
203–720 Belfast Road
Ottawa, ON K1G 0Z5
Tel.: 613-244-4800 Fax: 613-244-4535
E-mail: info@cthrc.com
Internet: www.cthrc.com

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Executive Summary

The trucking sector is the linchpin in terms of moving goods between cities, provinces and countries. The sector is responsible for the majority of goods shipped between Canada and its largest trading partner, the United States. The trucking sector is also critical to the operation of numerous industries which depend on an efficient, steady and reliable mechanism to provide inputs and to move finished products.

Research has consistently pointed to human resources as a major issue in the trucking sector. To help ensure that the sector has an adequate supply of trained workers, the Canadian Trucking Human Resources Council (CTHRC) has initiated a series of initiatives to help address current, and future human resource requirements. One of these initiatives is the current study, *Phase 4 of the Labour Market Information Project*.

The Current Situation

Presently there are approximately 31,000 trucking firms that employ upwards of 290,000 individuals, the majority (68%) of whom are truck drivers (class 1/AZ). The industry continues to be male-dominated with women making up only a small percentage of the workforce, particularly in the driver and mechanic occupations. The current trucking sector workforce, like all industries, is aging. The 2011 CTHRC Survey of Trucking employers revealed that 18% of the workforce covered in the survey were 55 years of age and older. This means that over the next 10 years, the trucking sector could be losing close to 20% of its workforce to retirement. Also, at the time of the survey, the vacancy rate for the industry as a whole was 4%, meaning that 12,000 positions were not filled. Vacancy rates reported in the survey were highest for Nova Scotia, Alberta and British Columbia. Finally, the trucking sector has a history of high turnover or churn. The results of the survey show a turnover rate of 12% for the industry overall (including retirement). This situation is challenging and expensive for employers who have to keep recruiting and training new staff.

One-Year Out

The situation for the trucking sector is such that changes that are expected to occur over the next year (i.e., from 2011 to 2012) are worthy of note. The trucking sector is expected to grow over the next ten years with the highest growth (a 4.7% increase in GDP¹) anticipated in the next year. This growth is related to expected growth in the North American economy. The economic growth of industry (its GDP) is closely tied to employment in service based industries such as the trucking sector. The employment growth mirrors the sector's projected economic growth with the highest growth occurring over the next year, growing by 5.6% or 17,200 workers. This represents the increase in demand for the sector's services and the associated increase in labour market demand.

Not only does the sector need to address the increased labour market demand associated with economic growth, employers are facing vacancies and will experience loss due to retirement and turnover. Retirement for the first year of the next 10 year is estimated to be 1.8%, representing a loss of 5,500 workers. Therefore, in the next 12 months, the trucking sector workforce needs to expand by at least 11.3% or by 34,800 workers.

The Future

Employment growth then tapers after the first year, however, growth is expected to continue. Therefore, the demand on the trucking sector will continue in terms of its labour force. By 2021 the Truck Transportation sector (NAICS 484) is projected to employ 369,000 people with a gross domestic product worth \$22,561,000. To meet the projected growth the sector will require at least 153,000 additional workers, an average of 14,100 per year, to address the increase in demand, current vacancies and the retiring of an aging workforce. This is the lowest estimate of future demand – it assumes that all turnover remains in the industry, which is well-known not to be the case for the trucking sector. This lowest estimate will serve as the lower boundary for the estimate number of additional workers the sector will require over the next 10 years. A second estimate of scenario was created to provide a high boundary, whereby it was assumed that

¹ GDP, or gross domestic product, is the total value of all goods and services produced within a year.

one-third of all turnover consists of workers leaving the trucking sector altogether. Under this scenario, the sector will need an additional 289,000 workers over 10 years in order to meet labour market demand and replace workers who retire or who leave the sector.

Unfortunately, the sector also faces challenges due to the reported difficulty in filling positions within the sector. The backbone of the industry, the Class 1/AZ company truck drivers, is reported to be some of the most difficult positions to fill as well as truck/trailer mechanics.

Clearly there is a need for continued support of employers in HR planning and management. This presents an opportunity for the trucking sector to examine its current issues and present solutions to lessen the gap between the demand and supply of its workforce. Primary challenges facing the industry will be attracting new workers and retaining the existing workforce. Moreover, it would be important for CTHRC to examine existing and potential sources of workers to meet demand. The challenges facing the trucking industry can be overcome through increased access to information, guidance, and initiatives to address these challenges.

For more information about the sector overall and firms like yours, the reader is encouraged to visit the CTHRC website (<http://www.cthrc.com/en/content/research-and-reports>) and explore its various products, particularly the updated and expanded Labour Market Information Highway.

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1. Introduction

The Canadian Trucking Human Resources Council (CTHRC) has been in operation since January 1994. It is a national organization governed by a Board of Directors that represents a variety of interests within the trucking industry.² The CTHRC was formed during a period of de-regulation in the trucking industry and is committed to the development of the Canadian trucking industry by listening to the human resource needs of the sector and responding with research, training and advice.

The CTHRC is currently conducting the Labour Market Information (LMI) Project, the goal of which is to enable the CTHRC to provide complete, accurate and timely forecasts/projections for key trucking occupations. This report is based on the work completed for Phase 4 of the project and presents an overview of the current industry workforce, examines future industry growth and explores future human resource requirements.

The remainder of this report is organized as follows:

2. Project Background
3. Snapshot of the Current Workforce
4. Looking Forward
5. Human Resource Requirements
6. Summary and Conclusion

² <http://www.cthrc.com/en/content/board-directors>

2. Project Background

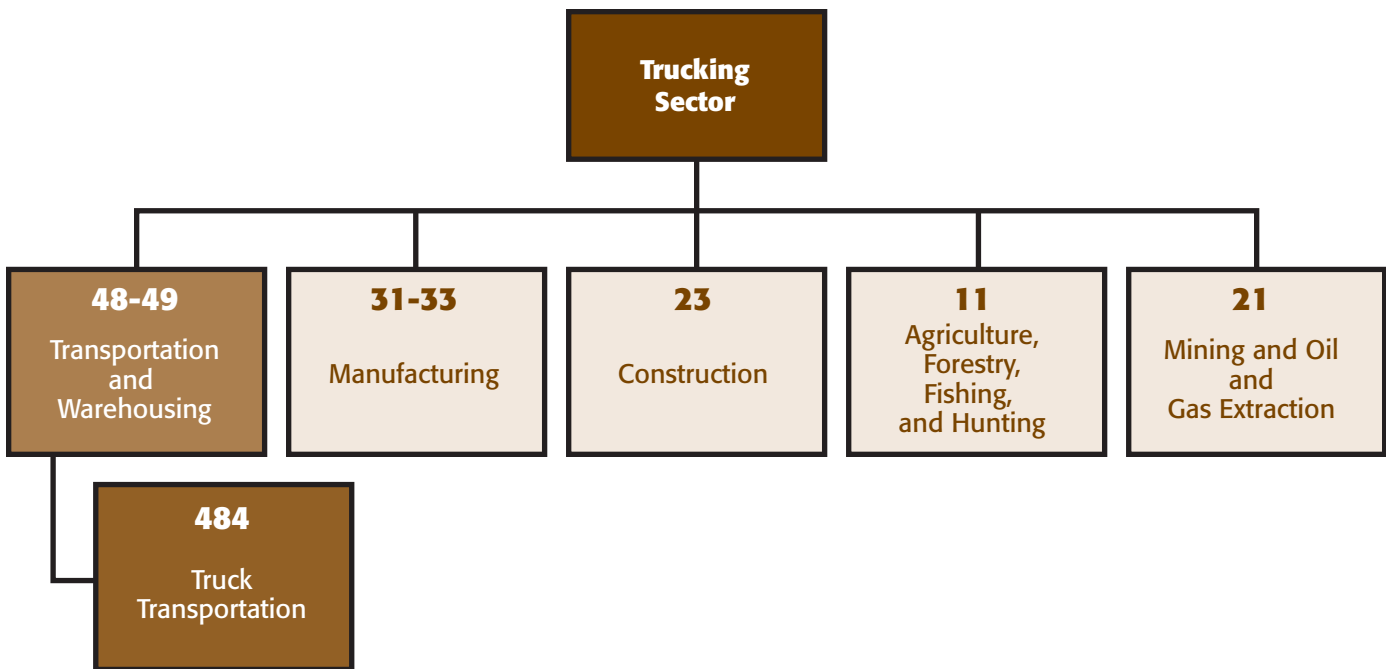
This section of the report provides a brief overview of the trucking sector and the occupations of interest to the project. It introduces the HR tools made available by the CTHRC and describes the research completed that led to the creation of this report.

2.1 Overview of the Trucking Sector

Nearly all consumer products purchased at the retail level have been handled by a truck; therefore, it is no surprise that the trucking industry is a large and vital part of the Canadian economy. For almost 10 years, the CTHRC has been at the forefront of developing credible and accurate labour market information to fill the data gaps in terms of human resource characteristics of the sector.

Estimating the number of companies and the industry's workforce is difficult. The obvious NAICS code (NAICS 484 Truck Transportation) does not adequately reflect the full scope of the industry. The trucking sector is much more than just the "for-hire" carriers, as truck drivers and trucking-related occupations exist across all sectors of the economy, particularly in the Manufacturing (NAICS 31-33), Construction (NAICS 23), Agriculture, Forestry, Fishing and Hunting (NAICS 11), and the Mining and Oil and Gas Extraction (NAICS 21) sectors (Figure 1).³

Figure 1: Sectors that Contribute to the Trucking Sector



In addition to the for-hire and the private carriers⁴, the trucking sector includes drivers who are classified as "owner-operators" – a group who may be employed as contracted labour for trucking firms, or who may provide their services as an independent contractor on a case by case basis. All of these nuances serve to create a complex labour market for the trucking sector, and also contribute to the limited availability of comprehensive information about the Canadian trucking sector.

³ Based on data from the 2006 Census on truck driver employment in other sectors outside of NAICS 48-49

⁴ Companies that maintain their own fleets of vehicles primarily for the transportation needs of their organization are referred to as private carriers

2.1.1. Occupations in the Sector

While the trucking sector consists mainly of Class 1/AZ drivers, there are several other occupations that support sector operations. The LMI Project focuses on the following nine occupations:

- Company Truck Driver (Class 1/AZ);
- Company Truck Driver (Class 3/D);
- Owner/Operator Truck Driver (Class 1/AZ or 3/D);
- Truck/Transport Mechanic (heavy duty);
- Transport Trailer Technician (heavy duty);
- Parts Technicians (Parts Person);
- Shunt Drivers (Class 1/AZ or 3D);
- Cargo Worker;
- Dispatcher;
- Freight Claims, Safety & Loss Prevention Specialist; and
- Foreman, Supervisor, Manager.

2.2. CTHRC Human Resource Tools

The CTHRC provides several options to employers who want to learn more about and plan for their human resource (HR) needs. The CTHRC website⁵ provides written materials to help in human resource management and planning (e.g., research reports, HR tips). Also available on the website are tools (e.g., turnover calculator) designed to help employers and HR professionals in the industry to understand their human resource needs. A significant offering on the CTHRC website is the Labour Information Highway.

2.2.1. Labour Information Highway

The Labour Information Highway was developed in 2008 as part of Phase 3 of the LMI Project. It was designed to provide users with information about past and projected labour market trends. The Labour Information Highway tools combine information such as the Gross Domestic Product (GDP) and employment needs in the nine key occupations, looking back as far as 1987 and projecting needs out to 2035. The advanced version provides historic, current and projected numbers concerning everything from unemployment rates to shipments, weights, distances, tonne-kilometres and more.

A key component to the Phase 4 of the LMI Project was to update and expand the Labour Information Highway. A description of the key tasks undertaken to complete the update and expansion of the tool follows.

2.3. Project Objectives

In order for the CTHRC to provide complete, accurate and timely forecasts/projections for key trucking occupations, the LMI Project - Phase 4 included several components:

Additional demand forecasts

CTHRC's past research and LMI Demand Forecasting Model focused on occupational, provincial, regional and national level data. Phase 4 built on that framework with additional research being completed at the sub-sector level (i.e., owner-operators, private, for-hire trucking firms) as well as for certain characteristics (i.e., company size, hauling market, type of hauling and trucking hubs) to provide a comprehensive picture of the segmentation of the trucking industry.

⁵ <http://www.cthrc.com>

Ratios and data update

In order to maintain current and accurate labour market information, the ratios established and used in the 2008 model needed to be reviewed, verified and updated as necessary. To this end, a survey of trucking employers was conducted to collect the data necessary to re-calculate the ratios and fill in any data gaps. The model also needed to be updated with more recent data in order to accurately reflect the economic and employment situation of the trucking sector.

Carrier interface

This component of Phase 4 included the design and development of an HR Benchmarking tool for use by individual firms that would be available through the Labour Information Highway. This tool was designed to enable carriers to enter their own company HR statistics (or other metrics of interest) and explore the current HR situation of other firms with similar characteristics.

Phase 4 of the Labour Market Information Project also included the completion of a feasibility study to support supply side analysis/modelling. The results of the feasibility study were provided to CTHRC under separate cover.

2.3.1. CTHRC Survey of Trucking Employers

To ensure comprehensive coverage of the workforce, all large and medium trucking firms were included in the survey sample and invited to participate in the survey. The selection of small/micro companies (i.e., between 0 and 99 employees) was more limited, but were selected to be geographically representative. A total of 1,050 trucking firms responded to the survey, which was later supplemented with another 20 responses from trucking firms located in Atlantic Canada. The final number of survey completions was 1,070.

Large and medium-sized companies are well-represented in the final survey sample, as intended (Table 1). Using the 2010 Industry Canada company list as the standard of comparison, survey respondents included all (100%) large trucking companies and almost two-thirds (61%) of medium companies. Owner-operators and small firms were less well represented with the final response set containing 3% of the total number of small companies.

Table 1: Coverage of Employers by Size (# Employees)

Company Size (Employees)	Companies 2010 ¹	CTHRC Survey - Trucking Companies	
	Count (n=30,733)	Count (n=1,070)	Percent Coverage
Small (0 – 99)	30,502	917	3%
Medium (100 – 499)	210	129	61%
Large (500+)	21	24	> 100%

¹Source: Industry Canada 2010 – all employers in NAICS 484

The CTHRC survey of the trucking sector captured information covering 106,618 employees collected from 1,070 trucking firms, which included 38,896 truck drivers. Thus, the survey captured information for approximately 14% of all truck drivers in the sector.

The majority (67%) of employers in the trucking sector who responded to the survey were for-hire operators (Table). Close to one-quarter (23%) of the companies were private operators.

Table 2: Type of Operator

Type of Operator	Number of Companies	% of Companies
For Hire Operator	716	67%
Private Operator	251	23%
Owner Operator	103	10%
Total	1,070	100%

Source: 2011 CTHRC Survey of the Trucking Sector QA2

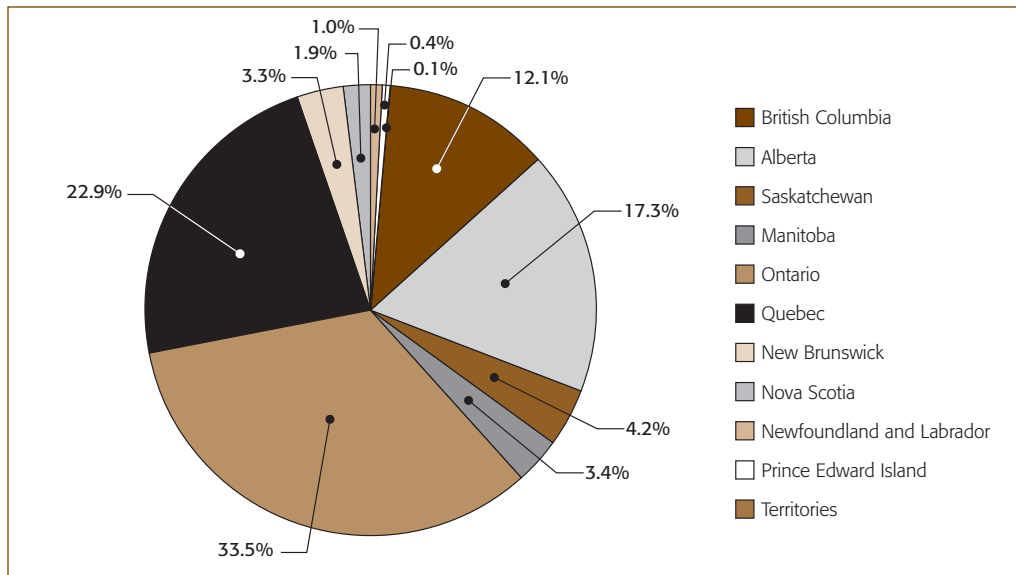
A full summary of the survey results is contained in a technical report provided to CTHRC under separate cover. This report is also available on the CTHRC website.

3. Snapshot of the Current Workforce

This section provides a snapshot of the trucking sector workforce in 2011. The information in this section is based on the combined sources of the 2011 CTHRC Survey of Trucking Employers, Statistics Canada (2009 LFS) and Informetrica projections (2011).

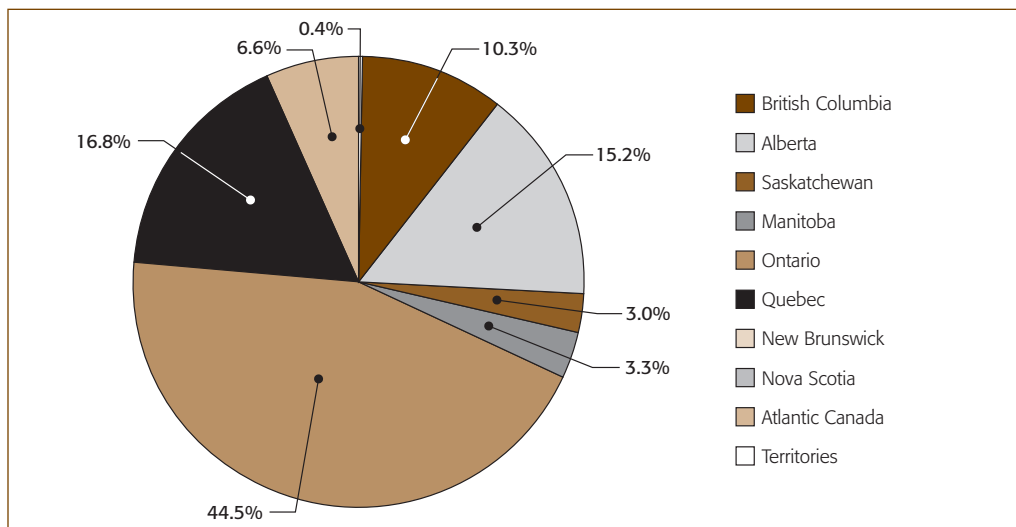
Based on the NAICS 484 definition, the trucking sector consists of approximately 31,000 firms, most of which are located in Ontario (33.5%), Quebec (22.9%), Alberta (17.3%) and British Columbia (12.1%). As would be expected, based on the distribution of trucking firms, firms in Ontario employ more of the labour force (44.5%) than the other provinces. However, it is interesting that Quebec (16.8%) and Alberta (15.2%) employ similar proportions of the workforce. This is related to the profile of the provincial trucking sectors (e.g., firm size and type). This distribution of firms and the workforce are illustrated in Chart 1 and Chart 2.

Chart 1: Distribution of Trucking Firms by Province



Source: Industry Canada 2010 – all employers in NAICS 484

Chart 2: Share of Employment by Province



Source: Informetrica 2011, Employment was estimated based on the GDP of the trucking sector, and productivity of the warehouse and transportation sectors (NAICS 48-49).

Based on the 2011 CTHRC Survey of Trucking Employers, drivers (including shunt drivers) accounted for 82.0% of the trucking sector workforce in 2011. The distribution of the workforce by type of occupation reported by survey respondents is presented in Table 3.

Table 3: Trucking Workforce by Occupation (2011)

Occupation	% Distribution
Company truck drivers (class 1/AZ)	47.1%
Owner/operator truck drivers (include total number of drivers)	22.7%
Shunt drivers (Class1/AZ or 3D)	8.0%
Foreman, supervisor, manager	4.3%
Company truck drivers (class 3/D)	4.2%
Dispatchers	3.5%
Cargo workers	4.3%
Freight claims, safety & loss prevention specialists	0.8%
Truck/transport mechanic	3.9%
Transport trailer technician	0.8%
Parts technicians (parts person)	0.4%
Total	100.0%

Source: 2011 CTHRC Survey of the Trucking Sector; Excludes employees in occupations outside the key trucking related occupations (e.g., general labourers, administrative staff, accounts, etc.) therefore the totals in the table do not equal 100% and are lower than the total number of employees covered by the survey.

The 2011 CTHRC Survey of Trucking Employers also explored gender and age of the sector's workforce. As a male-dominated sector, it is not surprising that a relatively low proportion of female workers (4%) reported by survey respondents. However, there is considerable variation in female employment among the key occupations. While females account for 3% of drivers (including shunt drivers), mechanics, transport trailer technicians and cargo workers, they account for 25% of freight claims, safety & loss prevention specialists, 13% of parts technicians (parts persons), and 18% of dispatchers (Table 4). Overall, large companies had a higher proportion of female workers (50%) compared with small (26%) and medium (24%) companies.

Table 4: Women in the Workforce by Occupation

Occupation	% Women
Company truck drivers (class 1/AZ)	3%
Owner/operator truck drivers	4%
Shunt drivers (Class1/AZ or 3D)	< 1%
Foreman, supervisor, manager	11%
Company truck drivers (class 3/D)	1%
Dispatchers	18%
Cargo workers	4%
Freight claims, safety & loss prevention specialists	25%
Truck/transport mechanic	< 1%
Transport trailer technician	< 1%
Parts technicians (parts person)	13%
Total	4%

Source: 2011 CTHRC Survey of the Trucking Sector; Excludes employees in occupations outside the key trucking related occupations (e.g., general labourers, administrative staff, accounts, etc.) therefore the totals in the table do not equal 100% and are lower than the total number of employees covered by the survey.

The age profile of the workforce of the firms that responded to the survey reveals that 64% of their workforce is between the ages of 30 and 55 years, with 18% being 55 and older (Table 5). Workers in truck driving occupations (with the exception of shunt drivers) were oldest (i.e., 45 years or more), particularly Class 1/AZ licensed drivers. Nineteen percent of the workforce were 30 years of age or younger. The youngest employees appear to be cargo workers, with 51% of employees aged 30 years or younger.

Table 5: Employee Age Profile by Occupation

Occupation	30 years and under	31 to 44 years	45 to 54 years	55 years and over
Company truck drivers (class 1/AZ)	13%	30%	36%	22%
Company truck drivers (class 3/D)	20%	40%	27%	13%
Owner/operator truck drivers	31%	20%	27%	22%
Shunt drivers (class 1/AZ or 3D)	1%	89%	8%	1%
Truck/transport mechanic	23%	33%	35%	9%
Foreman, supervisor, manager	15%	39%	34%	12%
Freight claims, safety & loss prevention specialists	13%	38%	33%	16%
Dispatchers	15%	46%	29%	10%
Transport trailer technician	26%	37%	26%	11%
Parts technicians (parts person)	16%	45%	32%	7%
Cargo workers	51%	26%	19%	4%
Total	19%	34%	30%	18%

Source: 2011 CTHRC Survey of the Trucking Sector; Excludes employees in occupations outside the key trucking related occupations (e.g., general labourers, administrative staff, accounts, etc.) therefore the totals in the table do not equal 100% and are lower than the total number of employees covered by the survey.

Age is considered again in Section 5 in the discussion about future human resource requirements.

The 2011 CTHRC Survey of the Trucking Sector examined current workforce vacancies across the nine key occupations. Occupations with the highest vacancy rates were Owner/operator truck drivers (6.2%) and truck/transport mechanics (5.1%). Vacancy rates by occupation are illustrated in (Table 6).

Table 6: Vacancy and Retirement Rate in the Trucking Sector by Occupation (2011)

Occupation	Vacancy Rate	Retirement Rate
Company truck drivers (class 1/AZ)	4.3%	2.2%
Company truck drivers (class 3/D)	4.1%	1.3%
Owner/operator truck drivers (include total number of drivers)	6.2%	2.2%
Truck/transport mechanic	6.1%	0.9%
Transport trailer technician	5.1%	1.1%
Parts technicians (parts person)	0.3%	0.7%
Shunt drivers (Class 1/AZ or 3D)	0.3%	0.1%
Cargo workers	1.7%	0.4%
Dispatchers	2.1%	1.0%
Freight claims, safety & loss prevention specialists	3.1%	1.6%
Foreman, supervisor, manager	1.5%	1.2%
All Occupations	4.2%	1.8%

Source: Statistics Canada LFS (2009), Informetrica Projections (2011), 2011 CTHRC Survey of the Trucking Sector

Based on survey data, the overall vacancy rate for all occupations in the trucking sector in Canada is 4.2%. The vacancy rate varied across occupations and provinces. The provinces with the highest vacancy rates were Nova Scotia (11.4%) and Alberta (8.9%). Retirement rates were fairly consistent across the different provinces ranging from 1.3% to 2.9%.⁶ Vacancy and retirement rates by province are illustrated in (Table 7).

Table 7: Vacancy and Retirement Rate in the Trucking Sector by Province (2011)

Province	Vacancy Rate	Retirement Rate
British Columbia	7.4%	1.6%
Alberta	8.9%	1.4%
Saskatchewan	6.8%	2.6%
Manitoba	6.4%	1.9%
Ontario	2.1%	1.6%
Quebec	2.3%	1.6%
Atlantic Provinces	3.4%	2.4%
Newfoundland and Labrador	4.2%	1.3%
Prince Edward Island	1.3%	2.9%
Nova Scotia	11.4%	2.1%
New Brunswick	2.5%	2.4%
Canada	4.2%	1.8%

Source: 2011 CTHRC Survey of the Trucking Sector

The next section examines sector growth and what trucking companies can expect in the future in terms of the workforce.

⁶ Retirement rates were calculated based on the assumption that 10% of the workforce over the age of 55 will retire each year.

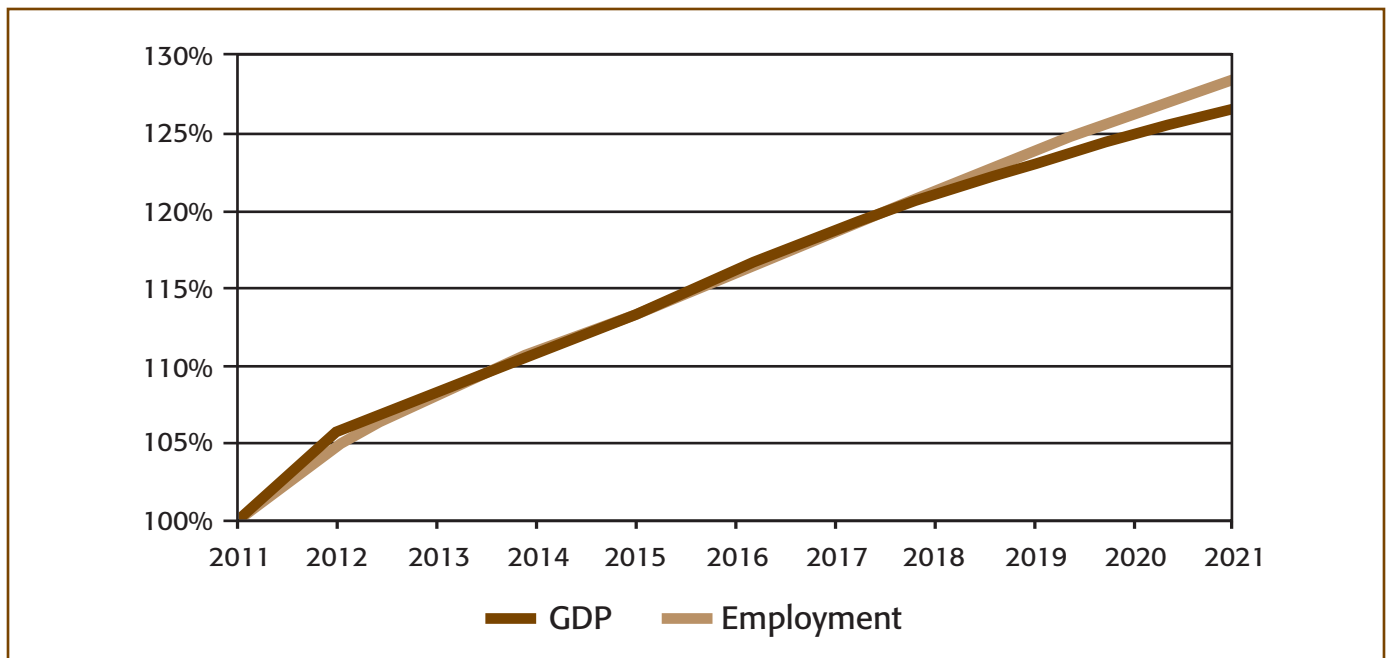
4. Looking Forward

The previous section provided a snapshot of the current employment in the trucking sector. This section will look forward 10 years to explore industry growth, and the demand it will place on the industry's labour market.

4.1. Sector Growth

The trucking sector is expected to grow over the next ten years at a relatively steady rate. Growth of the sector is measured as the industry's gross domestic product (GDP), which is defined as the total value of all goods and services produced within a year. The GDP can be used to describe a country's economic situation (i.e., at the national level) or it can be adapted for use as an indicator of the economic situation of a sector or region. The growth of industry (its GDP) is closely tied to employment in service based industries such as the trucking sector. Growth of the GDP and employment in the trucking sector from 2011 to 2021 is illustrated in Chart 3. To allow comparison between the two, each was benchmarked against the state of the industry (in terms of GDP and employment) in 2011 (i.e., 2011 = 100%).

Chart 3: Growth in Trucking GDP and Employment in Canada (2011 = 100%)



Source: Informetrica projections (2011)

The projected annual growth rates for GDP and employment are summarized in Table 8. The trucking sector's (NAICS 484) GDP is projected to grow by 18.5% over the next 5 years and by 28.4% over the next 10 years. Similarly, employment in the sector is expected to increase by 18.7% and 26.6% over the next five and 10 years, respectively.

Table 8: Projected Growth of the Trucking Sector (NAICS 484) (2012 to 2021))

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2011 to 2017	2011 to 2021
% Change in GDP	4.7%	3.5%	2.5%	2.2%	2.1%	1.5%	2.4%	2.4%	2.0%	1.8%	18.5%	28.4%
% Change in employment	5.6%	2.4%	2.5%	2.2%	2.6%	2.2%	2.0%	1.7%	1.4%	1.4%	18.7%	26.6%

Source: Informetrica Projections (2011)

4.2 Industry Employment Projections

Provincially, the change in the workforce is similar to that seen on a national level. The trucking sector is expected to grow, however, its growth is not projected to be equal across the provinces: some are expected to grow at higher rates, others are expected to shrink. New Brunswick and Saskatchewan are projected to grow the fastest in the next year (each by more than 8%) and the most by 2021 (66.9% and 54.0%, respectively). On the other hand the sector is expected to shrink with Nova Scotia decreasing by 27.8%, Quebec by 12.4%, and Newfoundland and Labrador by 4.8%. The growth by provinces is illustrated in Table 9.

Table 9: Projected Employment Growth by Province

	2011 to 2012	From 2011 to 2017	From 2011 to 2021
British Columbia	4.6%	11.5%	13.7%
Alberta	6.6%	29.0%	45.2%
Saskatchewan	8.8%	34.5%	54.0%
Manitoba	1.8%	6.4%	8.8%
Ontario	6.5%	24.6%	35.3%
Quebec	1.9%	-5.6%	-12.4%
Atlantic Provinces	6.6%	23.9%	35.7%
New Brunswick	10.3%	43.8%	66.9%
Newfoundland and Labrador	3.5%	-2.1%	-4.8%
Prince Edward Island	2.4%	2.4%	0.5%
Nova Scotia	-1.5%	-16.4%	-27.8%
Canada	5.6%	18.7%	26.6%

Source: Informetrica Projections (2011)

Employment in the for-hire and private subsectors are assumed to grow at the same rate (assuming there is no shift within the industry). The current share of employment is 71.4% employed by for-hire firms and 28.6% employed by private firms.⁷ In 2012, the estimated number of workers in the for-hire subsector is 219,700 workers and 88,000 workers in the private subsector. By 2021 for-hire firms are expected to employ 263,400 workers, and private firms employing 105,500 workers, based on a growth rate of 26.6% (Table 10).

Table 10: Projected Number of Employees by Firm Type (2012, 2017, 2021)

Sub-sector	Proportion	2012	2017	2021
For Hire Firm	71.4%	219,700	247,000	263,400
Private Firm	28.6%	88,000	99,000	105,500
Total	100.0%	307,700	346,000	369,000

Source: Informetrica Projections (2011), 2011 CTHRC Survey of the Trucking Sector
Total may not be equal to categories due to rounding

⁷ Source: 2011 CTHRC Survey of the Trucking Sector

Employment in the trucking sector is predominantly in the large firms, which employ 56.3% of the entire sector's workforce. Taking a closer look, micro firms (1 to 4 employees) will require only 200 more employees to meet growth demand in 10 years while large firms (over 500 employees) are projected to need 61,300 more employees by 2021 (Table 11).

Table 11: Projected Number of Employees by Firm Size (2012, 2017, 2021)

Company Size	Proportion	2012	2017	2021
Micro (1-4 employees)	0.3%	800	900	1,000
Small (5-99 employees)	19.8%	60,800	68,400	72,900
Medium (100-499 employees)	23.7%	73,000	82,100	87,600
Large (500+ employees)	56.3%	173,100	194,600	207,600
Total	100.0%	307,700	346,000	369,000

Source: Informetrica Projections (2011), 2011 CTHRC Survey of the Trucking Sector; Totals may not be equal to categories due to rounding

The majority of employment in the trucking sector occurs with firms that primarily conduct domestic short hauls⁸, making up 60.4% of all employment. Employment within domestic short haul firms is expected to increase by 36,900 workers, while long haul and trans-border hauling markets will require 7,000 to 10,000 additional workers over the next 10 years (Table 12).

Table 12: Projected Number of Employees by Primary Hauling Market (2012, 2017, 2021)

Primary Hauling Market	Proportion	2012	2017	2021
Domestic Short Haul	60.4%	185,800	208,900	222,700
Domestic Long Haul	11.8%	36,400	41,000	43,700
Trans-border Short Haul	12.0%	36,800	41,400	44,200
Trans-border Long Haul	15.8%	48,700	54,700	58,400
Total	100.0%	307,700	346,000	369,000

Source: Informetrica Projections (2011), 2011 CTHRC Survey of the Trucking Sector; Total may not be equal to categories due to rounding

⁸ Firms conducting at least 50% of their hauling in long haul are considered long haul trucking firms, firms conducting at least 50% of their hauling trans-border are considered trans-border haul trucking firms.

Actual projections in growth by occupation were not directly collected in the 2011 CTHRC Survey of the Trucking Sector. However, employment growth was able to be projected based on overall employment growth in the trucking sector. Projected employment in the nine key occupations in 2012, 2017 and 2021 are depicted in Table 13. The number of truck drivers (Class 1/AZ and 3/D) is projected to increase by 43,900 between 2011 and 2021, constituting the majority of the growth within the sector.

Table 13: Projection of Employment By Occupation (2012, 2017, 2021)

Occupation	2012	2017	2021
Truck Drivers (Class 1/AZ and 3/D)	174,500	196,200	209,200
Truck/Transport Mechanics	15,630	17,570	18,740
Transport Trailer Technician	6,150	6,910	7,370
Parts Technician (Parts Person)	2,670	3,010	3,210
Shunt Drivers (licensed)	48,060	54,030	57,610
Truck Cargo Workers	31,360	35,260	37,600
Trucking Dispatchers	12,850	14,450	15,400
Trucking Freight Claims, Safety & Loss Specialists	3,730	4,200	4,480
Trucking Foreman, Supervisor, Manager	12,740	14,330	15,280
Total	307,700	346,000	369,000

Source: Informetrica Projections (2011), 2011 CTHRC Survey of the Trucking Sector; Total column does not add due to rounding.

The next section will examine the Human Resource (HR) requirements of the trucking sector in terms of the factors that affect labour market demand.

5. Human Resource Requirements

The previous sections have provided a description of the current workforce in the trucking sector as well as the projected labour market demand (i.e., size of workforce required) over the next 1, 5 and 10 years based on estimated sector growth. This section delves further into the human resource demand issues, taking into account not only sector growth but also vacancy rates, staff turnover and retirement.⁹ Also examined is the difficulty experienced by employers in recruiting qualified employees.

5.1 Factors Affecting Labour Market Demand

The trucking sector labour force will need to grow in order to meet expected industry growth and labour market demand, as discussed in Section 4. However, industry growth is not the only factor that creates demand for more workers in the sector. Gaps will also have to be filled that occur as a result of turnover or retirement as well as current vacancies (see Section 3).

Turnover is part of the 'churn' in employment that all employers experience as people leave, voluntarily or involuntarily, to find employment elsewhere. Workers could leave one firm and join another within the trucking sector resulting in no net loss to the workforce. However, other workers leave trucking to work in another sector (e.g., Transit & Ground Passenger Transportation). This result is a decrease in the trucking sector workforce and a net loss.

Retirement is another way that the sector will lose part of its workforce. The rate of retirement is related to an aging workforce and, as discussed in Section 3, some occupations, particularly drivers, could lose more than 20% of its current labour force over the next 10 years given the proportion of employees who are 55 years and older.

Finally, as reported by survey respondents, there are current vacancies that also need to be filled.

5.2 One Year Out: 2011 to 2012

From 2011 to 2012 the number of workers in the trucking sector is projected to grow by 5.6%, or by 17,200 workers. This combined with a current vacancy rate of 3.9% (a current gap of 12,000 workers) and a retirement rate of 1.8% (a loss of 5,500 workers) requires the workforce to grow by at least 11.3% or by 34,800 workers, in total (Table 14).

Table 14: Projected Increase in Employment from 2011 to 2012

	%	#
Projected Employment Growth	5.6%	17,200
Vacancy Rate	3.9%	12,000
Retirement Rate	1.8%	5,500
Change in Workforce Demand	11.3%	34,800

Source: Informetrica Projections (2011), 2011 CTHRC Survey of the Trucking Sector; Total column does not add due to rounding.

Already, within the next 12 months, the need for significant recruitment efforts is evident, and this scenario does not include people who leave the sector for employment in another industry.

⁹ Note that vacancies, turnover and retirement estimates are all based on information collected in the 2011 CTHRC Survey of Trucking Firms

5.3 Demand Scenarios

To take the discussion of labour demand further, calculations are presented for ten years out (to 2021). Two demand scenarios are presented: one conservative and one extreme. While each scenario is based on somewhat unrealistic assumptions, reality can be expected to fall somewhere in between these two extremes. The difference between the two scenarios are the assumptions made about turnover.

The first scenario is the most conservative estimate and assumes that, while individual companies will experience turnover or churn, all workers will remain in the trucking sector. In this scenario the rate at which workers leave the sector is zero. Sector growth (in terms of employment growth) is assumed to be what has been projected in Section 4 and the retirement rate is based on the estimate calculated from the survey (18% of workers 55 years of age or older). The results for this scenario are presented in Table 15.

Table 15: Projected Labour Market Demand in the Trucking Sector (2012 to 2017) – Low Estimate

Year	Industry Employment	Employment Growth		Vacancy Rate	Annual Retirement Rate ³	Industry Leavers (Low)	Required Workforce Growth
	# ¹	% ²	#	3.9%	1.8%	0%	#
2012	307,700	5.6%	17,200	12,000	5,500	0	34,800
2013	315,200	2.4%	7,700	N/A	5,700	0	13,300
2014	323,000	2.5%	8,000	N/A	5,800	0	13,800
2015	330,100	2.2%	7,200	N/A	5,900	0	13,100
2016	338,500	2.6%	8,600	N/A	6,100	0	14,700
2017	346,000	2.2%	7,600	N/A	6,200	0	13,900
2018	352,800	2.0%	7,000	N/A	6,400	0	13,400
2019	358,800	1.7%	6,100	N/A	6,500	0	12,500
2020	363,800	1.4%	5,100	N/A	6,500	0	11,700
2021	368,900	1.4%	5,100	N/A	6,600	0	11,800
Total	N/A	26.6%	79,600	12,000	61,200	0	153,000

Source – 2011 CTHRC Survey of the Trucking Sector

¹ Source – Projection based on 2009 Statistics Canada data

² Source – Informetrica 2012

³ Assumed 10% of workforce over 55 retires every year

The second scenario is the high estimate based on the assumption that 4.9% of turnover consists of individuals who seek/find employment outside the sector. In this scenario, the turnover rate calculated from the survey is used (9.8%) and held constant across all years. The growth and retirement rates are the same as those used in the low turnover scenario. The results for the high estimate scenario are presented in Table 16.

Table 16: Projected Labour Market Demand in the Trucking Sector (2012 to 2017) – High Estimate

Year	Industry Employment	Employment Growth		Vacancy Rate	Retirement Rate ³	Industry Leavers (Low)	Required Workforce Growth
	# ¹	% ¹	#	3.9%	1.8%	4.9%	#
2012	307,700	5.6%	17,200	12,000	5,500	15,100	50,000
2013	315,200	2.4%	7,700	N/A	5,700	15,400	28,800
2014	323,000	2.5%	8,000	N/A	5,800	15,800	29,600
2015	330,100	2.2%	7,200	N/A	5,900	16,200	29,300
2016	338,500	2.6%	8,600	N/A	6,100	16,600	31,300
2017	346,000	2.2%	7,600	N/A	6,200	17,000	30,800
2018	352,800	2.0%	7,000	N/A	6,400	17,300	30,700
2019	358,800	1.7%	6,100	N/A	6,500	17,600	30,200
2020	363,800	1.4%	5,100	N/A	6,500	17,800	29,400
2021	368,900	1.4%	5,100	N/A	6,600	18,100	29,800
Total	N/A	26.6%	79,600	12,000	61,200	166,900	319,900

Source – 2011 CTHRC Survey of the Trucking Sector

¹ Source – Projection based on 2009 Statistics Canada data

² Source – Informetrica 2012

³ Assumed 10% of workforce over 55 retires every year

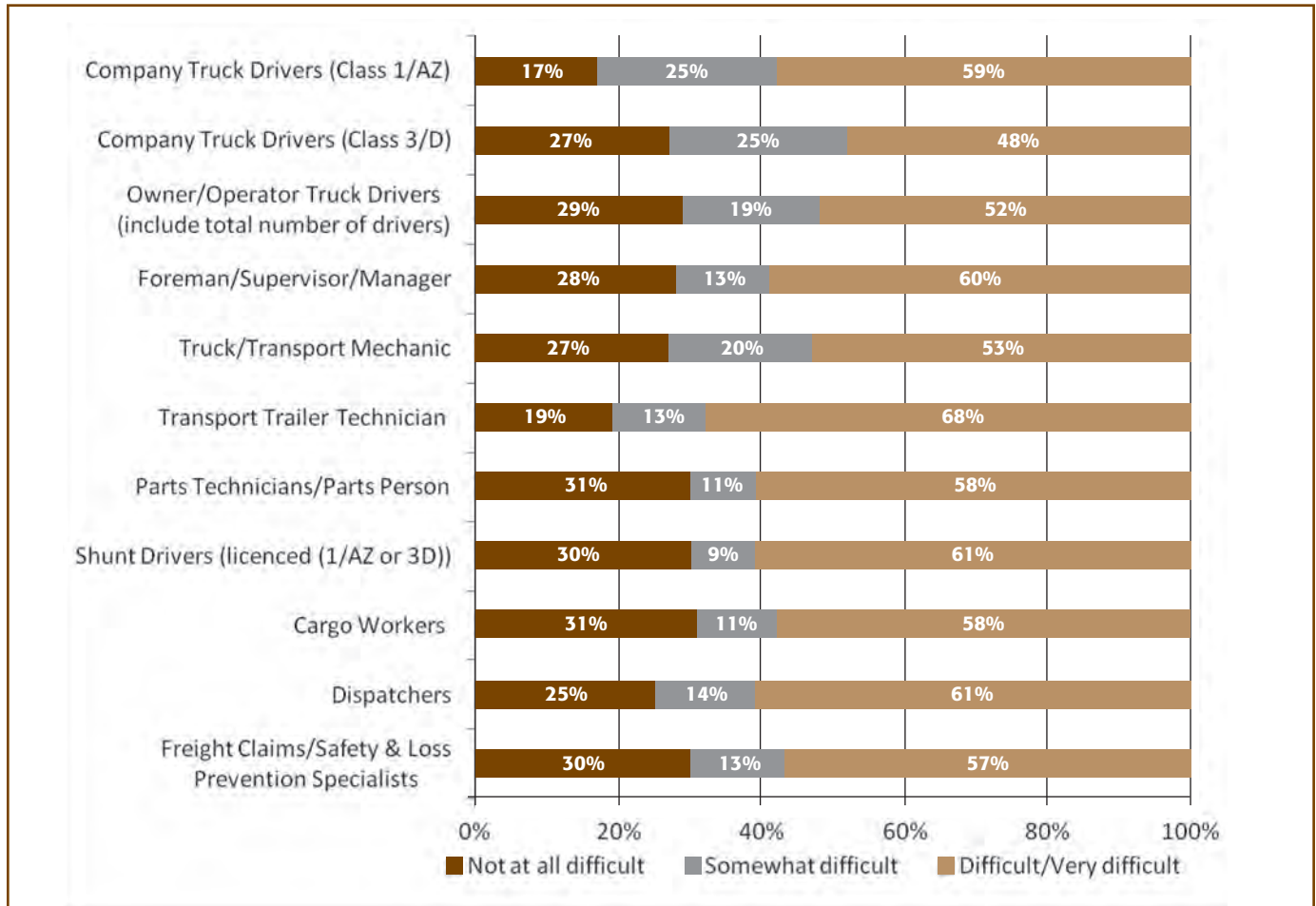
Overall, in order to meet growing demand, fill current vacancy rates, and address workers leaving the sector (due to retirement and seeking employment in another industry), the trucking sector labour force should grow anywhere between 11.3% and 16.2% in the first year. Looking forward to 2017 the labour force will need to grow anywhere between 35.5% and 68.5% (or 103,500 to 199,800 workers), and by 2021 the labour force will be required to grow between 52.4% and 109.7% (or 152,800 to 319,900 workers).

5.4 Recruitment Difficulties

Survey respondents were asked to rate the degree of difficulty their company has filling vacancies in the nine occupations. In general, employers reported that it was difficult to recruit to all positions in the trucking industry, with transport trailer mechanics being the most difficult (68%).¹⁰ Class 1/AZ truck drivers were also reported as difficult positions to fill with only 17% of employers experiencing no difficulties finding qualified drivers (Chart 4).

¹⁰ This study distinguished between Truck/Transport Mechanics and Transport Trailer Mechanics. However, some of the feedback received from the PLNs and survey respondents suggest that these two occupations are often thought of as one.

Chart 4: Degree of Difficulty Filling Positions by Occupation



Source: 2011 CTHRC Survey of the Trucking Sector; total may not sum to exactly to 100% due to rounding

The difficulty in recruiting for the different types of positions is reflected in the differences in vacancy rates across occupations. This pattern suggests that there is a shortage of qualified workers in the trucking sector workforce. For the allied and associated trades, particularly mechanics, the pattern of vacant positions and ease of recruiting for the position could be due to overall shortages in these trades and the fact that the trucking sector shares them with other sectors. Thus, recruitment difficulty in the trucking sector may be one of attracting skilled workers in these occupations to the trucking sector.

It is interesting to compare the reported hiring difficulty of for-hire carriers and private carriers with the vacancy rates in the two subsectors (Table 17). While for-hire companies reported having greater difficulty recruiting most occupations, private companies had higher vacancy rates. The reason for this discrepancy cannot be ascertained from the information available to this report. However, it could be related to differences in perceived or experienced difficulty in finding qualified workers, or that private carriers are facing different reasons for vacancies than trucking firms as private carriers belong to different sectors.

Table 17: Occupations HR Metrics for For-Hire and Private Firms

Occupation	Hiring Difficulty		Vacancy Rate	
	For-Hire	Private	For-Hire	Private
Company Truck Drivers (Class 1/AZ)	63.7%	45.5%	3.5%	8.4%
Company Truck Drivers (Class 3/D)	51.5%	43.1%	3.6%	5.5%
Owner/Operator Truck Drivers	51.5%	48.1%	6.0%	6.9%
Truck/Transport Mechanics	51.6%	56.0%	6.3%	5.3%
Transport Trailer Technician	54.0%	58.3%	4.7%	7.9%
Parts Technician (Parts Person)	29.2%	28.6%	0.0%	1.7%
Shunt Drivers (licensed)	36.4%	50.0%	0.1%	6.0%
Truck Cargo Workers	28.9%	18.2%	1.4%	3.1%
Trucking Dispatchers	39.0%	33.0%	2.1%	2.1%
Trucking Freight Claims, Safety & Loss Specialists	26.7%	21.5%	3.8%	0.8%
Trucking Foreman, Supervisor, Manager	34.6%	28.8%	1.3%	1.5%

Source: CTHRC Survey (n=706)

The next section provides a brief summary of the findings and conclusions from the information presented in this report.

6. Summary and Conclusion

The trucking sector will be facing a large demand to grow and maintain its workforce over the next ten years. The industry is facing challenges in meeting its growing workforce needs from an aging workforce (e.g., almost 20% of Class 1/AZ truck drivers will be retiring in the next ten years), high turnover rates (an overall turnover rate of 11.6%) and difficulties in finding qualified workers. Filling the expected loss of qualified and experienced drivers is particularly important, as this occupation is the mainstay of the sector and the inability to fill these positions could have far-reaching impacts on the Canadian economy if demand for the movement of goods cannot be met.

Clearly there is a need for continued support of employers in HR planning and management. This presents an opportunity for the trucking sector to examine its current issues and present solutions to lessen the gap between the demand and supply of its workforce. Primary challenges facing the industry will be attracting new workers and retaining the existing workforce. Moreover, it would be important for CTHRC to examine existing and potential sources of workers to meet demand. The challenges facing the trucking industry can be overcome through increased access to information, guidance, and initiatives to address these challenges.

