Sectoral Profile

Transportation and warehousing

Atlantic Region

2018

KEY HIGHLIGHTS

- The transportation and warehousing sector employed 52,100 workers in Atlantic Canada in 2018. Employment growth in this sector has been flat over the past 10 years, though the number of workers in New Brunswick (N.B.) is expected to rise by 1.8% per year from 2018 to 2020.
- Gross domestic product (GDP) in this sector has been increasing due to a range of factors such as higher domestic demand for goods, growing international trade, and a boost in international tourism due to the low Canadian dollar.
- Certain subsectors such as truck transportation are challenged by a shortage of labour. The workforce in truck transportation is aging and high rates of attrition will likely cause the shortage to persist for the foreseeable future.
- Transportation and warehousing comprises a larger share of the economy in N.B. than in the other provinces due to the prominence of the truck transportation subsector and the province's location as a regional crossroads. The water and air transportation subsectors are larger in Newfoundland and Labrador (N.L.) and Nova Scotia (N.S.).

INDUSTRY PROFILE

The transportation and warehousing sector is comprised of industries associated with the movement of people and goods. Of its 11 subsectors, 10 are variants of transportation by mode: air, rail, water, truck, transit, pipeline, scenic, postal, couriers, and support activities. The remaining subsector is warehousing and storage.

In 2018, 52,100 individuals worked in transportation and warehousing in the Atlantic Region. This figure represents 4.7% of all regional employment, a slightly smaller proportion than at the national level (5.3%). In three of the Atlantic provinces—N.L., Prince Edward Island (P.E.I.), and N.S.—the sector comprised approximately 3.5% of GDP in 2017, a smaller share than in the seven other provinces. The transportation and warehousing sector is notably larger in N.B. where it contributes 5.1% of provincial GDP.

Compared to the Atlantic Region's labour market as a whole, worker demographics in transportation and warehousing are skewed toward males and older workers (55 years of age and above). While males comprised just over half of all Atlantic workers in 2018, they accounted for 77.2% of workers in this sector. Further, in 2018, 23.2% of all employment in the Atlantic Region was in the older worker category (55 years of age and above) while in transportation and warehousing, this figure was 31.3%. At the same time, the proportion of youth (15 to 24 years of age) was much smaller in this sector: 5.4% compared to 12.9% for all industries.

Table One
Employed Labour Force - Transportation and Warehousing
Atlantic Canada and Canada

	Atlantic	Canada
Transportation and warehousing	100%	100%
Air transportation	7.9%	7.9%
Rail transportation	1.6%	3.7%
Water transportation	6.0%	1.6%
Truck transportation	30.7%	30.6%
Transit and ground passenger transportation	12.3%	19.0%
Pipeline transportation	0.1%	0.9%
Scenic and sightseeing transportation	0.3%	0.3%
Support activities for transportation	17.5%	13.8%
Postal service	11.3%	8.1%
Couriers and messengers	8.0%	7.7%
Warehousing and storage	4.3%	6.5%

Source: Statistics Canada, 2016 Census of Canada, Table 98-400-X2016290

The largest transportation and warehousing subsector is truck transportation. Within the Atlantic region, this subsector accounts for roughly one-third of sectoral employment and GDP, though its relative importance varies by province.

The prominence of certain other subsectors is shaped by the Atlantic region's geographic and economic characteristics. Water transportation accounts for a much larger share of sectoral GDP and employment than at the national level, corresponding to the coastal environment, and presence of several important ferry routes and marine shipping terminals. Similarly, scenic and sightseeing transportation makes up a much larger share of the sector in the Atlantic Region than nationally, reflecting the nature of the tourism industry. At the same time, the transit and ground passenger transportation subsector is small in the Atlantic region due to the large proportion of the population living in rural areas in which the provision of public transportation is less prevalent.

Trends in travel and trade drive the demand for services in the transportation and warehousing sector. Tourism arrivals tend to influence air and water transportation the most, as Atlantic Canada's rail and bus connections to other regions are limited. Activity by all modes of freight transportation—truck, rail, water, and air—are shaped by international and domestic market demand given that Atlantic Canada is the eastern terminus of the Canadian transportation network.

RECENT HISTORY

From 2012 to 2017, the GDP of transportation and warehousing increased at a quicker pace than the overall economy in all four Atlantic provinces, though there has not been a corresponding increase in employment. This growth in economic activity has been mainly concentrated in the trucking and support activities subsectors, though activity in air and rail transportation has also increased.

Canada has experienced strong overall economic growth in recent years, which is accompanied by greater domestic demand for consumer goods and the transportation services that convey them. Truck transportation accounts for the vast majority of freight movement within the Atlantic region, as well as a large portion of freight flows between the region and the rest of the country. The large increase in activity experienced in the truck transportation subsector reflects the general strength of the Canadian economy over this period.

International trade has also shaped transportation activity in the Atlantic provinces, and many of the region's major trading partners have experienced strong growth in recent years, particularly the United States. Freight between the U.S. and the Atlantic region is divided somewhat evenly between rail and truck transportation. Intercontinental trade under new agreements such as the Comprehensive Economic and Trade Agreement (CETA) may trigger more containerized cargo to pass through Atlantic marine terminals: as of 2016, European markets accounted for 38% of container throughput at Halterm in Halifax.[1] Furthermore, flights dedicated to transporting perishable seafood from the Halifax Airport to Asia have recently been established. [2]

Weather has also played a role in the demand for labour in the Atlantic transportation sector. Following the diversion of cargo from U.S. ports to Halifax following Hurricane Sandy in 2012, for instance, the need for crane operators and other workers surged temporarily. Similarly, the Autoport facility in Eastern Passage, which transfers imported vehicles destined for other provinces to railcars and trucks, experiences seasonal surges in employment due to the effect of winter weather on marine traffic.

E-commerce has prompted developments in shipping and warehousing during the past few years. Throughout 2018, monthly retail sales were approximately 5% higher than one year prior, while for e-commerce the increase was much grater, at approximately 20%. In addition to increasing the number of deliveries handled by the postal service and couriers, consumer expectations around online shopping also present new challenges to logistics in transportation and warehousing such as faster, cheaper shipping options and highly detailed tracking information.

The labour market in the Atlantic truck transportation subsector has changed considerably in recent years, with a large and growing proportion of older workers and high rates of attrition. This has resulted in reports of a shortage of drivers in the region.[3] Employers are attempting to fill positions through a number of methods. Some reported methods include offering higher wages or benefits, connecting with high school students to encourage them to consider a career in trucking, and helping international job applicants navigate immigration programs.

The growth in demand for transportation services combined with limited labour supply has encouraged the development of automated equipment and planning software. Certain subsectors, such as warehousing, lend themselves more easily to automation than others. For instance, a recently built frozen fruit warehouse near Sackville, N.B. has an automated crane system enabling higher shelving heights.[4] Conversely, automation in the truck transportation subsector has occurred more slowly as incremental developments have occurred in driver

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[1] Halifax Port Authority, "Halifax Port Authority Congratulates Canada-EU Signing CETA," news release, November 1, 2016, https://www.portofhalifax.ca/halifax-port-authority-congratulates-canada-eu-on-signing-ceta/.

[2] Halifax Stanfield International Airport, "Halifax Stanfield Attracts Additional Cargo Flights to China," news release, August 14, 2018, https://halifaxstanfield.ca/2018/08/halifax-stanfield-attracts-additional-cargo-flights-china/.

[3] Rachel Cave, "Trucker Shortage Has Industry Scrambling, but Lifestyle a Hard Sell," *CBC*, June 25, 2018, https://www.cbc.ca/news/canada/new-brunswick/trucker-shortage-long-haul-drivers-1.4718662.

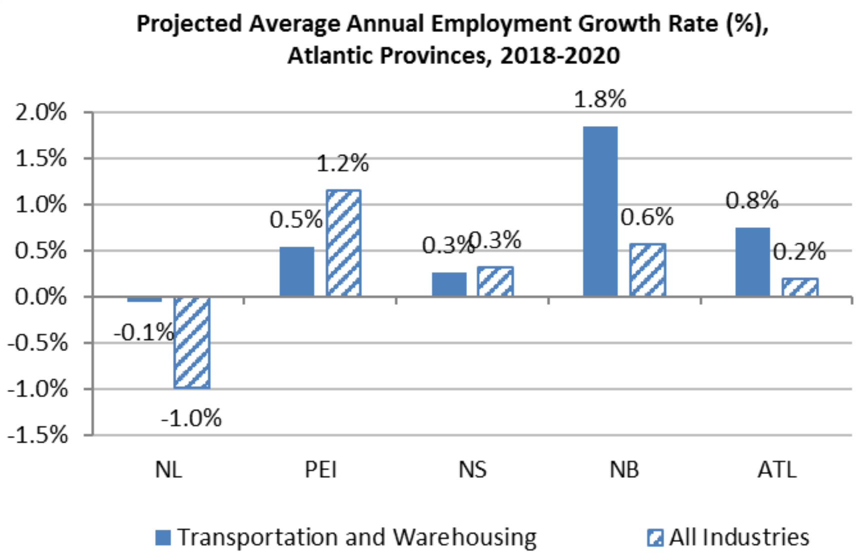
[4] Tori Weldon, "Tallest building on Sackville skyline is now a huge freezer," *CBC*, January 15, 2019, https://www.cbc.ca/news/canada/new-brunswick/cranberries-freezer-automated-sackville-blueberries-1.4977779.

assistance technology. However, automation has enabled higher worker productivity in trucking as dispatch and scheduling software has become more intelligent. For example, modern programs match loads awaiting shipment with trucks that would have otherwise been empty on the return trip.[5]

The growth in passenger air transportation can be partially attributed to the weakness of the Canadian dollar in recent years, which has improved the affordability of travel to Atlantic Canada by international tourists. At the same time, the low dollar encourages Canadians to travel within the country, boosting domestic demand for flights.

EXPECTED OUTLOOK

From 2017 to 2020, the transportation and warehousing sector is expected to add approximately 1,200 jobs, yielding an average annual growth rate (AAGR) of 0.8%, which is well above the overall projected AAGR of 0.3%. While the demand for services provided by transportation and warehousing is growing, labour shortages and growth in productivity and automation in many subsectors mean that growth in sectoral employment is expected to be much lower than GDP.



There will be a significant need for labour in the truck transportation subsector for the foreseeable future, which will be felt most acutely in N.B. That province is expected to account for the vast majority of projected employment growth, with sectoral employment expanding by 1.8% per year due to the high concentration of truck transportation establishments. Meanwhile, in P.E.I. and N.S., sectoral employment growth will be at or below overall employment growth, while in N.L. there will be virtually no change. Still, attrition will generate some additional job opportunities.

[5] Terry Pender, "Made-in-Waterloo tech disrupting trucking and logistics," *The Record*, January 5, 2018, https://www.therecord.com/news-story/8038777-made-in-waterloo-tech-disrupting-trucking-and-logistics/.

SUB-REGIONAL DYNAMICS

Newfoundland and Labrador

- In N.L., transportation and warehousing employed 11,900 in 2018, representing 5.3% of all employment—the largest share among the four Atlantic provinces. The level of employment has varied between approximately 10 and 12 thousand throughout the past 20 years, without trending up or down. During the forecast, employment change is anticipated to be negligible, despite expectations that provincial GDP will rebound in 2019.
- Of the Atlantic provinces, N.L. has the largest air transportation and water transportation subsectors. In addition to hosting the Gander Area Control Centre, which manages flights over the western half of the North Atlantic Ocean, the province has a large private air transportation sector, which is partially driven by the large number of remote resource extraction sites. With respect to water transportation, the province has multiple ferries connecting the island of Newfoundland to mainland Canada, as well as several routes serving isolated coastal communities.

Prince Edward Island

- Employing 2,600 individuals in 2018, P.E.I.'s transportation and warehousing sector accounted for 3.4% of employment, the smallest share in the Atlantic region. This share is expected to decline further as employment growth in other industries outpaces modest growth in this sector.

Nova Scotia

- With 19,400 employees, transportation and warehousing employed 4.3% of the N.S. workforce in 2018. Both figures were unchanged from 2017, though the employment level peaked at 20,900 in 2014. During the forecast period, little growth is expected.
- As in N.L., air and water transportation account for a relatively large share of GDP. The province has several marine ports and terminals, and is home to the largest airport in the Atlantic region which has experienced an uptick in international flights in recent years. While the province's major container port, Halterm, expects to see an increase in containerized traffic as a result of CETA, congestion issues related to trucks serving the port have tempered expansion plans.

New Brunswick

- Transportation and warehousing in N.B. employed 18,200 individuals in 2018. As in the other Atlantic provinces, employment has varied from year to year without trending up or down. The sector's average employment level for the 2008-2018 period is also 18,200. However, N.B. is projected to account for nearly all transportation and warehousing employment growth in the region during the forecast period.
- N.B. is a critical transportation junction for Atlantic Canada. With the exception of Labrador, all highway traffic from the other three Atlantic provinces must pass through N.B. The province also has the region's only U.S. border road crossings.

- N.B. has the largest truck transportation subsector in the region by a significant margin, with more trucking employees and businesses than the three other Atlantic provinces combined. As a result, the province will experience the impact of growing demand for truck transportation services and shortage of labour most acutely.

- N.B. also has the largest amount of economic activity associated with rail transportation in the region. In addition to being crossed by Canadian National's eastern main line from Quebec to Halifax, with cargo facilities in Moncton, the province is also connected to Maine by the New Brunswick Southern Railway.

APPENDIX

Table Two
Real GDP (2017) and Employment (2018) for Atlantic Canada

	Transportation and Warehousing			All Industries		
	Number	Share of Total	AAGR*	Number	Share of Total	AAGR*
Real GDP (M$)	$3,874.1	100.0%	0.9%	$103,262.4	100.0%	0.4%
Newfoundland and Labrador	$923.2	23.8%	2.7%	$31,585.2	30.6%	-0.3%
Prince Edward Island	$186.1	4.8%	2.2%	$5,540.0	5.4%	1.5%
Nova Scotia	$1,247.3	32.2%	0.5%	$35,955.4	34.8%	0.8%
New Brunswick	$1,517.5	39.2%	0.3%	$30,181.8	29.2%	0.4%
Employment (000s)	52.1	100.0%	0.0%	1111.0	100.0%	0.1%
Male	40.2	77.2%	0.1%	562.8	50.7%	0.1%
Female	11.8	22.6%	-0.6%	548.2	49.3%	0.1%
15-24 years old	2.7	5.2%	-1.0%	143.3	12.9%	-1.4%
25-54 years old	33.1	63.5%	-1.7%	709.4	63.9%	-0.7%
55 years and older	16.3	31.3%	5.1%	258.3	23.2%	3.7%
Worked full-time	47.4	91.0%	0.1%	930.8	83.8%	0.1%
Worked part-time	4.7	9.0%	-1.4%	180.2	16.2%	-0.2%
Self-employed	6.1	11.7%	-0.5%	131.1	11.8%	-0.2%
Employees	46.0	88.3%	0.0%	979.9	88.2%	0.1%
Permanent job	39.6	76.0%	0.4%	804.9	72.4%	0.3%
Temporary job	6.4	12.3%	-1.8%	175.0	15.8%	-0.5%
Less than high school	6.6	12.7%	-4.0%	106.6	9.6%	-4.4%
High school graduate	15.2	29.2%	-1.7%	278.9	25.1%	-1.0%
Postsecondary cert. or diploma	24.7	47.4%	1.8%	435.8	39.2%	0.6%
University degree	5.6	10.7%	4.2%	289.6	26.1%	2.9%
Newfoundland and Labrador	11.9	22.8%	0.9%	225.3	20.3%	0.2%
Prince Edward Island	2.6	5.0%	-0.4%	76.0	6.8%	1.0%
Nova Scotia	19.4	37.2%	0.6%	455.9	41.0%	0.1%
New Brunswick	18.2	34.9%	-1.1%	353.8	31.8%	-0.2%

Source: Statistics Canada, Labour Force Survey - Custom Table; Table 36-10-0402-01

*Average annual growth rate for last ten years of available data (GDP 2008-17 and Employment 2009-18)

Note: *In preparing this document, the authors have taken care to provide clients with labour market information that is timely and accurate at the time of publication. Since labour market conditions are dynamic, some of the information presented here may have changed since this document was published. Users are encouraged to also refer to other sources for additional information on the local economy and labour market. Information contained in this document does not necessarily reflect official policies of Employment and Social Development Canada.*

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