



Sectoral Profile

Fishing and Fish Processing

Atlantic Region

2018



KEY HIGHLIGHTS

- Atlantic Canada's fishing and fish processing sector has grown at a healthy pace over the past decade thanks to significant price gains across both fresh and processed seafood. After controlling for prices, activity has been much more modest, which helps explain the decline in the number of workers employed in the sector.
- Looking forward, there is limited room for growth in the amount of seafood harvested through the commercial fishery and processed within the Atlantic region, which suggests that future investment will likely be geared towards improving the efficiency of operations. As a consequence, employment growth will be muted over the forecast horizon.
- Over one-third of workers in Atlantic Canada's fishing and fish processing sector are over the age of 55. Taken together with stagnant population growth, particularly in coastal communities, imminent retirements will compound already-existing labour shortages, which may lead to an increasing demand for temporary foreign workers, going forward.
- Atlantic Canada's most important seafood species (by dollar value), in 2017, were lobster, queen (snow) crab and shrimp. Combined, these accounted for nearly 80% of the region's commercial fishery harvest.

SECTOR PROFILE

The fishing and fish processing sector is comprised of two highly-integrated activities. Fishing (NAICS 1141) establishments are engaged in the commercial catching or taking of finfish, shellfish, and other marine animals from their natural habitats. Any of this harvest that is not sold fresh undergoes some processing before being sold to final consumers. As such, seafood product preparation and packaging (NAICS 3117) comprises establishments engaged in canning seafood, including soup; smoking, salting and drying seafood; preparing fresh fish by removing heads, fins, scales, bones and entrails; shucking and packing fresh shellfish; processing marine fats and oils; and freezing seafood.¹

Fishing and fish processing contributed \$1.7B to the Atlantic Canadian economy in 2017, representing 1.6% of Gross Domestic Product (GDP). Output is split almost evenly, on a subsectoral basis, with fishing, hunting and trapping² contributing just over half (51%) of the sector's total GDP and seafood product preparation and

packaging generating the remainder (49%).³ Naturally, most of this sector's operations take place in and around the region's coastal communities. However, there are a number of activities along the supply chain that are required to bring a product from harvest, through processing and finally to the consumer. These involve a broad array of services, ranging from transportation and warehousing to financial and other business supports. The impacts associated with these activities are spread more broadly, geographically.

Atlantic Canada's commercial fishery is vast, involving over 14,000 vessels and nearly 80,000 separate fishing licenses.⁴ In 2017, nearly 600,000 metric tonnes of various species were harvested, representing over two-thirds (71%) of the national total. The value of this catch amounted to over \$3.0B, with shellfish accounting for nine out of every ten dollars generated. Lobster was by far the most important species in 2017, with the overall harvest valued at over \$1.3B.⁵

While a portion of the commercial fishery harvest is consumed fresh, much of it is processed to some degree before reaching end consumers. The Atlantic region is well known for its modern seafood packaging and processing plants and boasts some of the world's largest operators, including Clearwater, Beothic Fish Processors Limited and Connors Bros. Limited. In all, this industry generated over \$2.7B in manufacturing sales in 2017.⁶

The fishing and fish processing sector is highly export oriented, shipping around 80% of its fresh and processed seafood outside of Canada.⁷ The Atlantic region accounted for three-quarters of these shipments (\$4.6B) in 2017, benefiting from close proximity and ease of access to major markets in the United States (U.S.). Not surprisingly, our southern neighbor is the region's largest export market, accounting for roughly two-thirds (59%) of all shipments, in 2017. China and Japan together represented roughly another 20% of international demand.⁸

As of Census 2016, there were nearly 34,000 people employed in fishing and fish processing in Atlantic Canada, with roughly equal shares working in fishing and seafood product preparation and packaging.

| Table One | | |
|--|-----------------|---------------|
| Employed Labour Force - Fishing & Fish Processing | | |
| Atlantic Canada and Canada | | |
| | Atlantic | Canada |
| Fishing and Fish Processing | 100% | 100% |
| Fishing | 51.8% | 50.4% |
| Seafood product preparation and packaging | 48.2% | 49.6% |

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

Nearly all (85%) of fishing and fish processing employment within Atlantic Canada occurs outside the region's major urban centres (Census Metropolitan Areas and Census Agglomerations), mainly in coastal areas.⁹ The region's fishing operations are typically small, employment-wise, with 90% of the roughly 3,500 businesses in 2017 employing less than five workers¹⁰. Seafood product preparation and packaging operations are more concentrated, with several larger enterprises in the Atlantic region that employ over 500 people.¹¹ On average, workers in fishing earn incomes that are higher than their counterparts in fish processing, though (with the exception of fishing in Nova Scotia) both are below-average.¹²

According to the 2016 Census of Population, the unemployment rate in Atlantic Canada exceeded 20% throughout the fishing and fish processing sector¹³, and this is at least partly attributable to the sector's inherent seasonality, as not all fisheries are open year-round. Many have specific start and end dates. The lobster season in Atlantic Canada, for instance, peaks twice year, once in the spring (April-June) and again in December.

As is still the case in most natural resources-based industries, the fishing workforce in Atlantic Canada is predominantly male (86% of total employment in 2016), while seafood processing and packaging is split more evenly. Overall, the sector has one of the highest proportions of older workers in the region, with nearly one out of every three people employed being over the age of 55 years, compared to 23% across all industries.

RECENT HISTORY

Atlantic Canada's fishing and fish processing sector grew at a healthy pace between 2007 and 2017, thanks to a significant increase in fresh and processed seafood product prices. During this time, the sector's GDP grew by 8%, doubling the pace set by the economy as a whole (+4%). This expansion was concentrated in seafood product preparation and packaging (+19%), which offset a small decline in fishing, hunting and trapping (-1%).

The value of commercial seafood landings in the Atlantic region nearly doubled (+98%) during the 2007 to 2017 period, despite an overall decline in the actual volume (-25%) of landings. Harvesters benefited from strong price growth, particularly between 2014 and 2017¹⁴. Growth in prices was particularly pronounced for high-value catches like lobster, crab and shrimp, which together generated nearly \$1.3B in additional value at the dock alone in 2017 (compared to 2007).¹⁵

The combination of price increases, a low Canadian dollar and elevated demand from the U.S. and Asia led to a sizeable expansion in the value of fishing and fish processing exports from Atlantic Canada. Between 2007 and 2017, the value of total international shipments grew by over \$2B, to \$4.6B in total. The largest gain occurred in exports to the U.S., which increased by \$1.2B, though China was another major driver of growth, consuming nearly \$500M more than it had a decade prior. There has been a notable increase in appetite for Atlantic Canadian lobster products - particularly unprocessed - throughout Asia.¹⁶

While price gains have been beneficial to industry, they have also masked a significant decline in the volume of seafood landings over the past decade, the bulk of which can be attributed to three specific species in particular: shrimp, herring and mackerel. Much of this decline can be explained by Total Allowable Catch (TAC) reductions, which have been put in place in order to manage low stocks.¹⁷ The Atlantic fishery is a highly regulated industry and is subject to Integrated Fisheries Management Plans (IFMPs) and other Fisheries Management Decisions that guide the conservation and sustainable use of marine resources.¹⁸

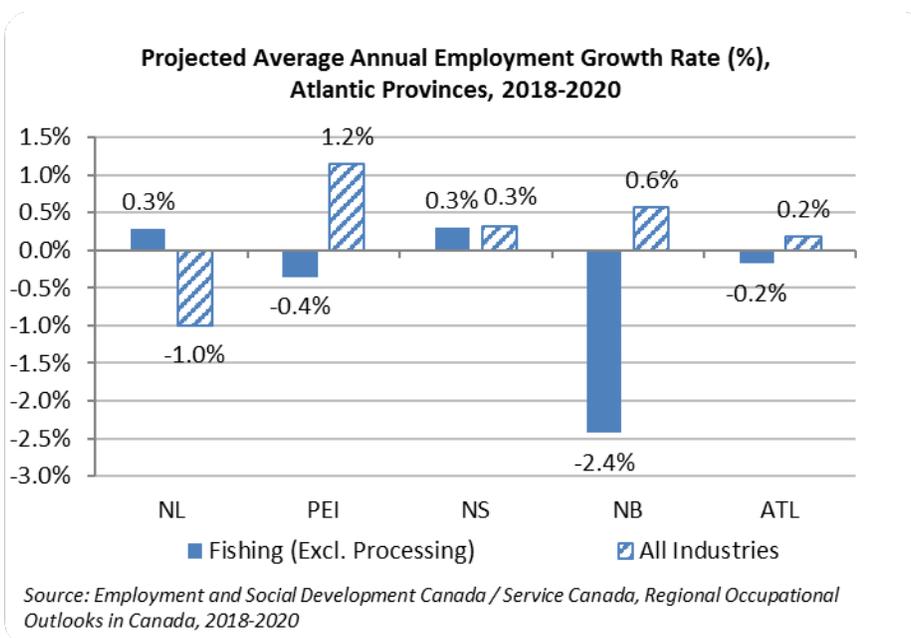
A series of measures put in place by the Government of Canada in 2018, aimed at protecting the endangered North Atlantic right whale, may also have had a negative impact on the region's commercial fishery that year, though it is too early to determine to what degree. Certain regulations directly impact the snow crab fishery through guidelines on equipment use, while the broader commercial fishery could potentially be affected through both fixed and temporary management areas and closures.¹⁹ Temporary closure notices were issued for lobster fisheries in the Gulf of St. Lawrence as well as in the Bay of Fundy, in 2018.²⁰

Seafood product preparation and packaging has been faced with its own challenges, mainly in the form of labour supply issues in some regions. These shortages have been well-documented and factors like stagnant rural population growth and an increasing number of retirements are partly to blame. The industry also faces competition for labour from other sectors of the economy and it is becoming more difficult to hold onto a workforce when employment is seasonal, physically challenging and involves long hours. This situation has created the need for many employers to rely on the Temporary Foreign Worker (TFW) Program, which allows for the hiring of foreign workers when Canadians and permanent residents are not available. Growth in program use

has been particularly evident for fish and seafood plant workers (NOC 9463). In fact, the number of workers admitted through the program under this occupation class more than doubled, to roughly 2,000, over the period from 2010 to 2017.²¹ There is evidence that industry has responded to this situation by becoming more efficient, with plants now generating considerably more output per worker than they did in 2007 (with the exception being those in New Brunswick),²² though some of this increase can be attributed to growth in prices.

EXPECTED OUTLOOK

Demand for Atlantic Canadian seafood products, particularly from the U.S. and Asia, is expected to remain strong and this environment should continue to support elevated prices over the forecast horizon. However, this is not expected to generate an increase in demand for workers, as the volume of seafood being harvested and processed isn't expected to increase significantly. Moreover, much of the investment projected over the outlook period will likely be concentrated on improving processing plant efficiency, as operators look to offset labour shortages that are plaguing this industry. Therefore, employment growth (-0.2%) is expected to be slightly negative in Atlantic Canada's fishing and fish processing sector over the 2018-2020 forecast period. On a provincial basis, New Brunswick is expected to shed jobs (-2.4%), while employment will remain relatively stable in Nova Scotia (+0.3%), Newfoundland and Labrador (+0.3%) and Prince Edward Island (-0.4%).



According to Fisheries and Oceans Canada, demand for fish and fish products should continue to grow well beyond the duration of the outlook period, supported by worldwide population and income growth which should continue to drive demand for the Atlantic Canadian seafood products.²³ The region's producers can look to China, in particular, as a dependable source of demand as long as the 25% tariff imposed on U.S. lobster midway through 2018 remains in place.²⁴ However, some of this increase (particularly for Atlantic salmon) will be met by aquaculture production, which has been accounting for a growing share of seafood supply and is not included within the fish and fish processing sector.

The persistence of higher seafood prices will depend to some degree on the ability of Atlantic Canadian operators to access lucrative markets outside of the U.S. Recent trade agreements should help in this regard - the most

notable being the Comprehensive Economic and Trade Agreement (CETA) between Canada, the European Union and its Member States, which increases access to the world's largest consumer base for fish and other seafood products. Prior to this agreement, tariffs had been in place on a variety of seafood products that are important to the region, including frozen shrimp (12%), snow crab (7.5%) and salmon (from 2% to 5% depending on species). The majority of tariffs on fish and seafood products have already been eliminated, while the remainder will be phased out after seven years.

The fishing and fish processing sector should also benefit from recent government funding commitments announced through the \$400M Atlantic Fisheries Fund, which was established in 2017 to help the region's seafood sector innovate and access new markets. Nearly \$20M in projects were announced in Newfoundland and Labrador near the end of 2018, ranging from the installation of automated longline systems on fishing vessels to state-of-the-art ice management systems for processing companies.²⁵ More funding announcements will be forthcoming and more investment in automation is possible, given the current labour shortages within the processing subsector. Opportunities also exist for more efficient (i.e. zero-waste) processing, which will be important to operators' profit margins in the event that prices fall back to their pre-2014 levels.

SUB-REGIONAL DYNAMICS

Newfoundland and Labrador

- Newfoundland and Labrador (N.L.) is the only Atlantic province to witness a reduction in fishing and fish products GDP over the past decade. Much of this is attributable to significant declines in mackerel and shrimp harvests; the majority of N.L.'s landings value now comes from shellfish.
- More fishing jobs were shed in N.L. over this 10-year period than in any other of the Atlantic province and less than half of the workforce employed in 2007 remains today.
- In February of 2019, the federal Department of Fisheries and Oceans determined that fishable shrimp biomass off the coast of Labrador (Shrimp Fishing Areas 4 and 5) had declined considerably between 2017 and 2018. As a result, the status for these zones has been downgraded from "healthy" to "cautious" and this may have an impact on quota levels, moving forward.

Prince Edward Island

- Seafood product preparation and packaging output in Prince Edward Island (P.E.I.) nearly doubled (+87%) between 2007 and 2017 and its share of overall fishing and fish processing GDP now rivals the province's commercial fishery.
- Lobster is by far P.E.I.'s highest valued (\$211M) commercial fishery species, accounting for 77 cents on every dollar harvested in 2017. Snow crab (\$46M) is the second most valuable catch.
- P.E.I. accounts for the vast majority (89% in 2017) of Canada's wild and farmed oyster.

Nova Scotia

- Nova Scotia's (N.S.) fish and fish processing sector expanded by 12% between 2007 and 2017, thanks to contributions from both fishing and seafood product preparation and packaging. N.S. was the only Atlantic province in which the volume of commercial seafood landings held steady between 2007 and 2017.

- Over this period, fishing operators in N.S. were able to benefit from increasing shellfish prices. As a group, this species was worth nearly three-quarters of a billion dollars more in 2017 than it was a decade earlier.
- In addition to lobster (\$802M), snow crab (\$178M) and scallops (\$158M) also represented highly prized fisheries, in 2017. N.S. accounted for 90% of Canada's scallop production that year.

New Brunswick

- New Brunswick (N.B.) led all Atlantic provinces in terms of fish and fish processing sector GDP growth over the past year (+37%), with both fishing (+32%) and seafood product preparation and packaging (+40%) contributing significantly.
- Lobster and snow crab accounted for nine out of every ten dollars harvested from N.B.'s commercial fishery in 2017, which altogether amounted to over half a billion dollars.
- Labour shortages have been more pronounced in N.B. than in any of the other Atlantic provinces, in which explains why nearly 2,000 temporary foreign workers became employed in the fish and fish processing sector in 2017.

APPENDIX

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

| | Fishing and Fish Processing | | | All Industries | | |
|--------------------------------|-----------------------------|----------------|-------|----------------|----------------|-------|
| | Number | Share of Total | AAGR* | Number | Share of Total | AAGR* |
| Real GDP (M\$) | \$1,660.6 | 100.0% | 0.7% | \$103,262.4 | 100.0% | 0.4% |
| Newfoundland and Labrador | \$469.9 | 28.3% | -1.9% | \$31,585.2 | 30.6% | -0.3% |
| Prince Edward Island | \$157.0 | 9.5% | 2.7% | \$5,540.0 | 5.4% | 1.5% |
| Nova Scotia | \$619.2 | 37.3% | 1.2% | \$35,955.4 | 34.8% | 0.8% |
| New Brunswick | \$414.5 | 25.0% | 3.2% | \$30,181.8 | 29.2% | 0.4% |
| Employment (000s) | 23.1 | 100.0% | -2.9% | 1099.8 | 100.0% | 0.1% |
| Male | 16.7 | 72.3% | -2.6% | 550.8 | 50.1% | -0.1% |
| Female | 6.4 | 27.7% | -3.7% | 549.0 | 49.9% | 0.2% |
| 15-24 years old | 1.6 | 6.9% | -1.2% | 140.3 | 12.8% | -1.5% |
| 25-54 years old | 13.3 | 57.6% | -4.7% | 706.1 | 64.2% | -0.7% |
| 55 years and older | 8.2 | 35.5% | 0.6% | 253.4 | 23.0% | 4.3% |
| Worked full-time | 21.6 | 93.5% | -3.0% | 918.9 | 83.6% | 0.1% |
| Worked part-time | 1.6 | 6.9% | -0.6% | 180.9 | 16.4% | -0.1% |
| Self-employed | 6.1 | 26.4% | -6.0% | 131.5 | 12.0% | 0.0% |
| Employees | 17.0 | 73.6% | -1.5% | 968.3 | 88.0% | 0.1% |
| Permanent job | 6.7 | 29.0% | 2.0% | 788.2 | 71.7% | 0.2% |
| Temporary job | 10.3 | 44.6% | -3.2% | 180.1 | 16.4% | -0.2% |
| Less than high school | 7.8 | 33.8% | -4.6% | 103.3 | 9.4% | -4.4% |
| High school graduate | 6.6 | 28.6% | -2.3% | 286.2 | 26.0% | -0.8% |
| Postsecondary cert. or diploma | 7.3 | 31.6% | -2.2% | 430.5 | 39.1% | 0.5% |
| University degree | 1.5 | 6.5% | 3.2% | 279.8 | 25.4% | 3.0% |
| Newfoundland and Labrador | 5.4 | 23.4% | -8.4% | 224.1 | 20.4% | 0.3% |
| Prince Edward Island | 2.9 | 12.6% | -0.7% | 73.7 | 6.7% | 0.7% |
| Nova Scotia | 9.0 | 39.0% | -0.4% | 449.0 | 40.8% | 0.0% |
| New Brunswick | 5.8 | 25.1% | 0.4% | 352.9 | 32.1% | -0.1% |

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 2008-17)

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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¹ Statistics Canada. North American Industry Classification System (NAICS) Canada. 2012.

<http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVDPPage1&db=imdb&dis=2&adm=8&TVD=118464>.

² Statistics Canada Table 36-10-0434-01 does not break Fishing, hunting and trapping (NAICS 114) into its component parts. The North American Industry Classification System (NAICS) classifies fishing, hunting and trapping together in the same subsector and comprises establishments primarily engaged in catching fish and other wild animals from their natural habitats. The catching of fish is the predominant economic activity of this subsector. (Statistics Canada, NAICS 2012).

³ Statistics Canada. Table 36-10-0434-01.

⁴ Fisheries and Oceans Canada (DFO), Fisheries Management.

⁵ Fisheries and Oceans Canada. Seafisheries Landings.

⁶ Statistics Canada. Table 16-10-0048-01.

⁷ Fisheries and Oceans Canada. Outlook to 2027 for Canadian Fish and Seafood.

⁸ Innovation, Science and Economic Development Canada. Trade Data Online.

⁹ Statistics Canada. 2016 Census of Population. Catalogue number 98-400-X2016290.

¹⁰ Statistics Canada. Table 33-10-0037-01.

¹¹ Statistics Canada. Statistical Unit Structures data.

¹² Statistics Canada. 2016 Census of Population. Catalogue number 98-400-X2016359.

¹³ Statistics Canada. 2016 Census of Population. Catalogue number 98-400-X2016290.

¹⁴ Statistics Canada. Table 18-10-0030-01.

¹⁵ Fisheries and Oceans Canada. Seafisheries Landings.

¹⁶ Innovation, Science and Economic Development Canada. Trade Data Online.

¹⁷ Fisheries and Oceans Canada. Decisions for Atlantic Canada, Quebec and the Arctic – 2017. <http://www.dfo-mpo.gc.ca/decisions/fm-2017-gp/index-atl-eng.htm#Shrimp>.

¹⁸ Fisheries and Oceans Canada. Fisheries management decisions. <http://www.dfo-mpo.gc.ca/decisions/index-eng.htm>.

¹⁹ Fisheries and Oceans Canada. Fisheries management. <http://www.dfo-mpo.gc.ca/species-especes/mammals-mammiferes/narightwhale-baleinenoirean/fm-gp/index-eng.html>.

²⁰ Fisheries and Oceans Canada. Notice to Fish Harvesters. https://inter-l01.dfo-mpo.gc.ca/applications/opti-opei/notice-avis-detail-eng.php?pub_id=1652&todo=view&type=1®ion_id=4&sub_type_id=5&species=700&area=1860.

CBC. DFO orders fisheries closure in Bay of Fundy after right whale sighting. <https://www.cbc.ca/news/canada/new-brunswick/right-whale-fishermen-closures-fundy-bay-1.4711864>.

²¹ Government of Canada. Open Government. Temporary Foreign Worker Program 2010-2017.

<https://open.canada.ca/data/en/dataset/c65d2014-ef25-4781-b9b2-e13a7293b72d>.

²² Statistics Canada. Table 36-10-0480-01.

²³ Fisheries and Oceans Canada. Outlook to 2027 for Canadian Fish and Seafood.

²⁴ CBC. Chinese demand driving investment in New Brunswick's lobster industry. <https://www.cbc.ca/news/canada/new-brunswick/lobster-sales-volume-china-asia-foreign-investment-seafood-exports-1.4987073>.

²⁵ The Western Star. Atlantic Fisheries Fund projects announced for Newfoundland and Labrador.

<https://www.thewesternstar.com/business/atlantic-fisheries-fund-projects-announced-for-newfoundland-and-labrador-265751/>.