



Manufacturing

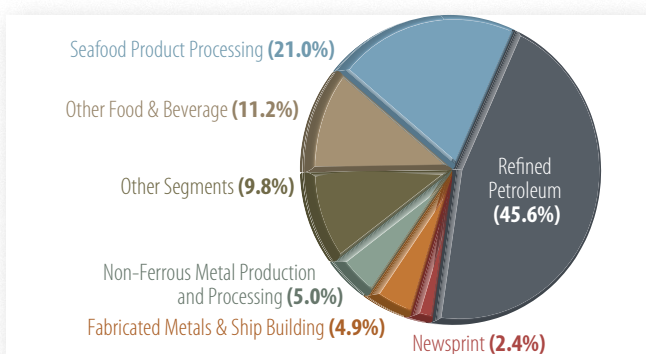
The Newfoundland and Labrador manufacturing industry produces a wide variety of products, but the majority of manufacturing output is concentrated in refined petroleum, food processing (primarily seafood), fabricated metal manufacturing, non-ferrous metal production and processing, and newsprint (see chart). The industry represented 5.0% of provincial nominal GDP in

2015 and 4.2% of provincial employment in 2016. The U.S. remains the largest export market for Newfoundland and Labrador manufacturers, representing 67.9% of total international exports last year.

The value of manufacturing shipments totalled \$4.7 billion in 2016, representing a decrease of 15.3% compared to 2015 (see chart). This decline was mainly due to a drop in the value of refined petroleum products.

Employment in the manufacturing industry averaged approximately 9,800 person years in 2016—down 14.0% from 2015. Losses in employment were mainly due to decreases in food and beverage manufacturing, petroleum manufacturing, fabricated metal product manufacturing, non-metallic mineral product manufacturing, and transportation equipment manufacturing. These losses more than offset gains in wood product manufacturing and miscellaneous manufacturing. Total wages and salaries paid in the manufacturing industry declined 0.8% in 2016 compared to the previous year, reflecting lower employment.

Value of Manufacturing Production, 2016



Source: Department of Finance

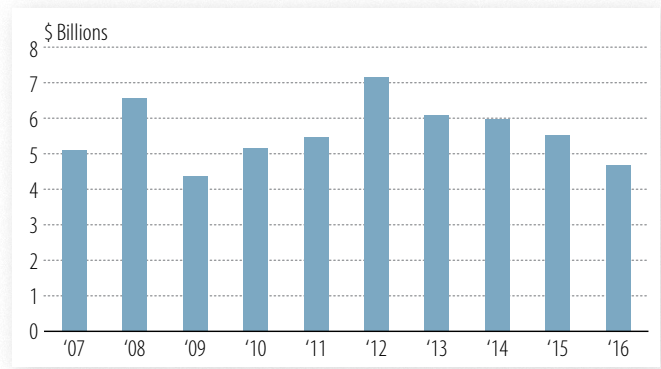
The North Atlantic Refinery in Come by Chance (NARL Refining Limited Partnership) is located along Atlantic crude oil shipping routes. As such, it provides Silverpeak Strategic Partners (the owners of the refinery since November 2014) access to petroleum markets in Europe and the eastern U.S. seaboard. Silverpeak has committed to investing capital and improving operations at the refinery. In particular, it completed a crude unit turnaround program in October 2016 to recertify equipment and increase crude oil throughput capacity from 115,000 barrels to 130,000 barrels per day. Industry Canada statistics indicate that the value of petroleum exports from the refinery in 2016 decreased significantly compared to 2015. This decline mainly reflected lower year-over-year prices for petroleum products.

In November 2016 the refinery announced that it was reducing its workforce by 128 people (just over 20% of the workforce). This number was reduced by 12 people as a result of a subsequent decision to retain the onsite lab. The company stated that the reductions are necessary to optimize operational costs and improve the operation's competitive position. It also indicated that it is committed to securing the refinery's long term future.

Fish processing plays a significant role in Newfoundland and Labrador's manufacturing industry. International seafood product exports from the province were valued at approximately \$1.0 billion in 2016, on par with 2015.

Fabricated metal manufacturing continues to benefit from the development of various major projects in the province. However, activity declined in 2016 as several components of the Hebron project were completed. In the January to September period of last year, the value of fabricated metal manufacturing shipments totalled \$146 million, representing a decrease of 38.1% relative to the same period in 2015. Similarly, fabricated metal manufacturing employment fell significantly last

Manufacturing Shipments



Source: Statistics Canada

year, averaging around 600 person years—a drop of 40.0% from 2015.

International exports of non-ferrous metal production and processed products totalled almost \$168 million in 2016—up 59% from 2015. This substantial increase is the result of Vale Newfoundland and Labrador's continued ramping up of operations at its Long Harbour nickel processing facility. Vale achieved successful production of first nickel at Long Harbour in July 2014, using a blend of high purity raw material from Indonesia and small quantities of ore from Vale's mine in Voisey's Bay. In 2015, the components required to process Voisey's Bay high grade concentrate were integrated into the process, resulting in the plant using 100% Voisey's Bay concentrate as of January 2016. The remaining components to process all Voisey's Bay concentrate (both high and middling grades) were completed late last year.

The volume of newsprint shipped from Corner Brook Pulp and Paper Limited fell slightly in 2016 compared to 2015. However, the estimated value of shipments rose 1.1% on a year-over-year basis reflecting higher newsprint prices and exchange rate gains (see *Forestry and Agrifoods* for details).

Some specific examples of advancements in manufacturing are highlighted below:

- The Bull Arm Fabrication site has played a significant role in developing the province's oil and gas industry. The Hebron project is the latest oil and gas project to take place at the site. Construction of the foundation of the Hebron gravity based structure (GBS) began in the dry dock at Bull Arm in October 2012. The GBS was floated to the deep water site in July 2014 for continued construction. The topsides of the GBS consist of six components, four of which were produced in the province at several locations including Bull Arm; Port aux Basques; Marystown; and Mount Pearl. Integration of the topsides components and mating onto the GBS was completed at Bull Arm in December 2016. Hook up and commissioning is underway and will continue until the platform is towed to the Hebron field in mid-2017. As of December 31, 2016 there were almost 3,200 people working on the project at the Bull Arm site.

- Sexton Lumber Co. Ltd. in Bloomfield, the largest integrated sawmill in the province, expanded its operations in 2016 with the addition of a finger-jointing plant. The installation of this new capacity was completed in November at a cost of \$2.6 million—commercial production started in the first quarter of 2017. Finger-jointed products are manufactured by taking shorter pieces of lumber, machining a “finger” profile in each end of the pieces, adding an appropriate structural adhesive, and joining the pieces to make a longer piece of lumber. With finger-jointing, the length of a piece of lumber is not limited by tree size. The introduction of finger-jointed lumber will allow the company to increase the variety of lumber lengths that it sells in the market and to more fully utilize its raw materials. This capability could also have some custom specialty order application. Sexton Lumber is the only mill in Canada to have obtained an SPS 1 structural finger-jointed certification. This allows the product to be used in either vertical or horizontal load applications (e.g. wall studs and floor joists). Sexton lumber produced just over 50 million board feet of lumber last year and employs about 100 individuals directly. A further 15-20 independent

harvesters supply the company with raw materials, and 20 independent truckers work exclusively for Sexton Lumber.

- In April 2016, fire destroyed the Quinlan Brothers Ltd. snow crab processing plant in Bay de Verde. This was a devastating blow for the community and surrounding area as this plant was the largest snow crab processing facility in the province, employing as many as 600 workers at peak and processing millions of pounds of crab a year as well as shrimp. Quinlan Brothers quickly indicated its intention to rebuild. Site remediation was completed in the spring and reconstruction of the processing plant started in summer 2016. The Government of Canada committed to funding wharf reconstruction and repairs to breakwater extensions damaged by the fire. The new snow crab processing facility is expected to be in production by April 2017. The focus of the plant will be snow crab, but the facility has additional space to accommodate future processing activity (e.g. groundfish).

- Dynamic Air Shelters engineers and manufactures lightweight, rapidly deployable textile shelters and constructions to protect people and equipment from extreme hazards in harsh environments. The manufacturing facility is located in Grand Bank, employs 60 full-time staff and has been in business for the past 15 years. The company has become the “go-to” manufacturer of blast-resistant shelters that meet the stringent safety needs of industries such as oil and gas, military, first response and more. In 2016, the Government of Canada announced funding for testing of Dynamic's Integrated Ballistic Protection System. The testing, to be conducted by Defence Research and Development Canada, an agency of National Defence, will help determine the efficiency of the shelters to provide life-saving protection for soldiers from bullets, bombs and rockets. Dynamic had been working on the development of this system for some time and this testing will advance the commercialization of the system. Dynamic also has plans for expansion, including a 4,000 sq. ft. expansion of the manufacturing facility, and the installation of a testing facility in order to meet demand and create internal efficiencies.

2017 OUTLOOK

- The value of provincial manufacturing shipments is expected to increase. The increase is predicated on higher production of manufactured nickel product and capacity increases in refined petroleum.
 - Vale Newfoundland and Labrador continues to ramp up production at the nickel processing plant in Long Harbour. Ramp-up to full capacity is estimated to take two years.
 - Silverpeak Strategic Partners anticipates spending approximately \$45 million on capital expenditures at the refinery in Come by Chance in 2017.
 - Fabricated metal manufacturing will continue to be negatively impacted by the winding down of major project construction activity, in particular work associated with the Hebron project.
 - The volume and value of newsprint shipments are both expected to increase slightly.
 - The lower valued Canadian dollar, relative to the U.S. dollar, should continue to benefit local manufacturers.
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