

## **GOAL 23: LABOUR PRODUCTIVITY**

**By 2028, the labour productivity levels in New Brunswick's manufacturing sector will be equal to or greater than national levels.**

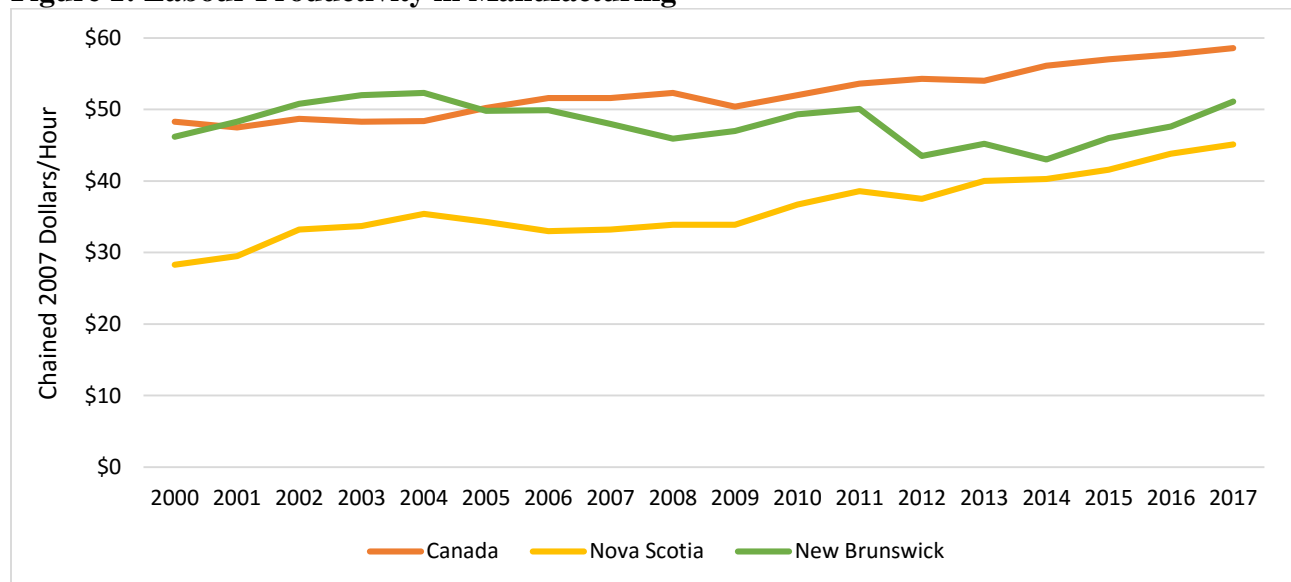
**Status: NOT PROGRESSING**

### Current Situation

A productive and efficient labour force can contribute to a healthy market and prompt economic growth. For New Brunswick's labour force to boost the provincial economy, the province should aim to reach or surpass national levels of productivity in the manufacturing sector by 2028.

Labour productivity is a measure of output (GDP) per labour hour. Most recently, in 2017, New Brunswick's manufacturing productivity was below the national level by approximately \$7.5 per labour hour. Though less than the suggested goal, this is a large improvement over 2014, when New Brunswick's productivity levels were \$13.1 below the national average. This gap has gradually been closing since 2015, which suggests that progress is being made in New Brunswick's manufacturing industry. However, for productivity to continue to improve, increasing amounts of capital are needed, which in turn requires further investment.

**Figure 1: Labour Productivity in Manufacturing**



Data: Figure 1	Canada	New Brunswick	Nova Scotia
2000	\$48.3	\$46.2	\$28.3
2001	\$47.5	\$48.3	\$29.5
2002	\$48.7	\$50.8	\$33.2
2003	\$48.3	\$52.0	\$33.7
2004	\$48.4	\$52.3	\$35.4
2005	\$50.2	\$49.8	\$34.3
2006	\$51.6	\$49.9	\$33.0

<b>2007</b>	\$51.6	\$48.0	\$33.2
<b>2008</b>	\$52.3	\$45.9	\$33.9
<b>2009</b>	\$50.4	\$47.0	\$33.9
<b>2010</b>	\$52.0	\$49.3	\$36.7
<b>2011</b>	\$53.6	\$50.1	\$38.6
<b>2012</b>	\$54.3	\$43.5	\$37.5
<b>2013</b>	\$54.0	\$45.2	\$40.0
<b>2014</b>	\$56.1	\$43.0	\$40.3
<b>2015</b>	\$57.0	\$46.0	\$41.6
<b>2016</b>	\$57.7	\$47.6	\$43.8
<b>2017</b>	\$58.6	\$51.1	\$45.1

Source: Statistics Canada, CANSIM Table 383-0033

### What This Means

If New Brunswick can increase labour productivity, specifically in the manufacturing sector, the increased output would contribute to higher profits and GDP levels for the province. To most effectively accomplish this, it is key to determine whether labour productivity experiences more growth due to expansion, changes within firms, or improvements in machinery and production equipment. Each of these factors can influence productivity, but some are more conducive to growth than others. According to Statistics Canada, “Growth in labour productivity is often influenced by the degree of diversity in the industrial structure. As a result, labour productivity tends to be more volatile in the smaller provinces.”<sup>1</sup> Ultimately, investment and technological innovation within firms can increase levels of productivity and create more jobs, as businesses with higher productive output and lower costs tend to be more competitive than others.

### DEEP DIVE

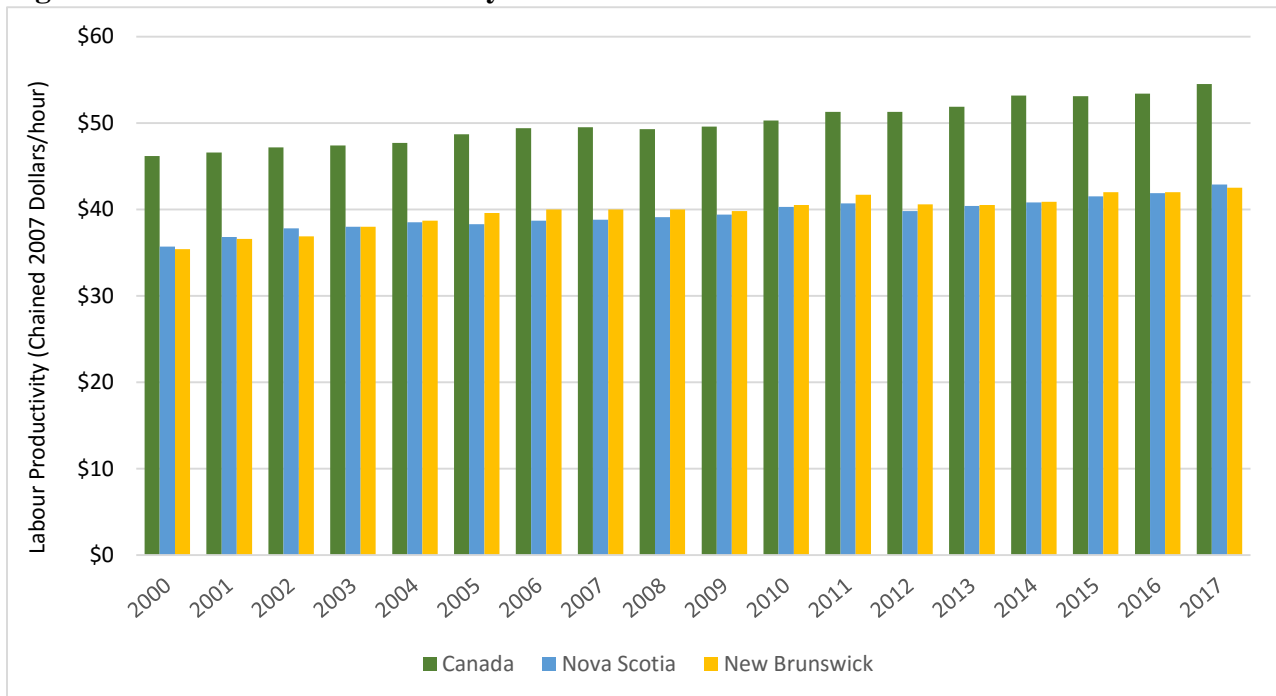
For the entire 2000-2017 study period, labour productivity in both New Brunswick and Nova Scotia remained below the national average. The labour productivity values in more populated provinces like Ontario and British Columbia are much closer to the Canadian average, and Alberta's labour productivity is significantly higher (\$73.3 in 2017).

Although New Brunswick's labour productivity ratio has been increasing, it is following the same trend as the national and other provincial values. Therefore, there is very little progress exclusive to labour productivity in New Brunswick.

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<sup>1</sup> Statistics Canada. "Hours Worked and Labour Productivity in the Provinces and Territories (preliminary), 2017." *The Daily*. May 23, 2018. <https://www150.statcan.gc.ca/n1/daily-quotidien/180523/dq180523a-eng.htm>.

**Figure 2: Total Labour Productivity**



Data: Figure 2	Canada	New Brunswick	Nova Scotia
2000	\$46.2	\$35.4	\$35.7
2001	\$46.6	\$36.6	\$36.8
2002	\$47.2	\$36.9	\$37.8
2003	\$47.4	\$38.0	\$38.0
2004	\$47.7	\$38.7	\$38.5
2005	\$48.7	\$39.6	\$38.3
2006	\$49.4	\$40.0	\$38.7
2007	\$49.5	\$40.0	\$38.8
2008	\$49.3	\$40.0	\$39.1
2009	\$49.6	\$39.8	\$39.4
2010	\$50.3	\$40.5	\$40.3
2011	\$51.3	\$41.7	\$40.7
2012	\$51.3	\$40.6	\$39.8
2013	\$51.9	\$40.5	\$40.4
2014	\$53.2	\$40.9	\$40.8
2015	\$53.1	\$42.0	\$41.5
2016	\$53.4	\$42.0	\$41.9
2017	\$54.5	\$42.5	\$42.9

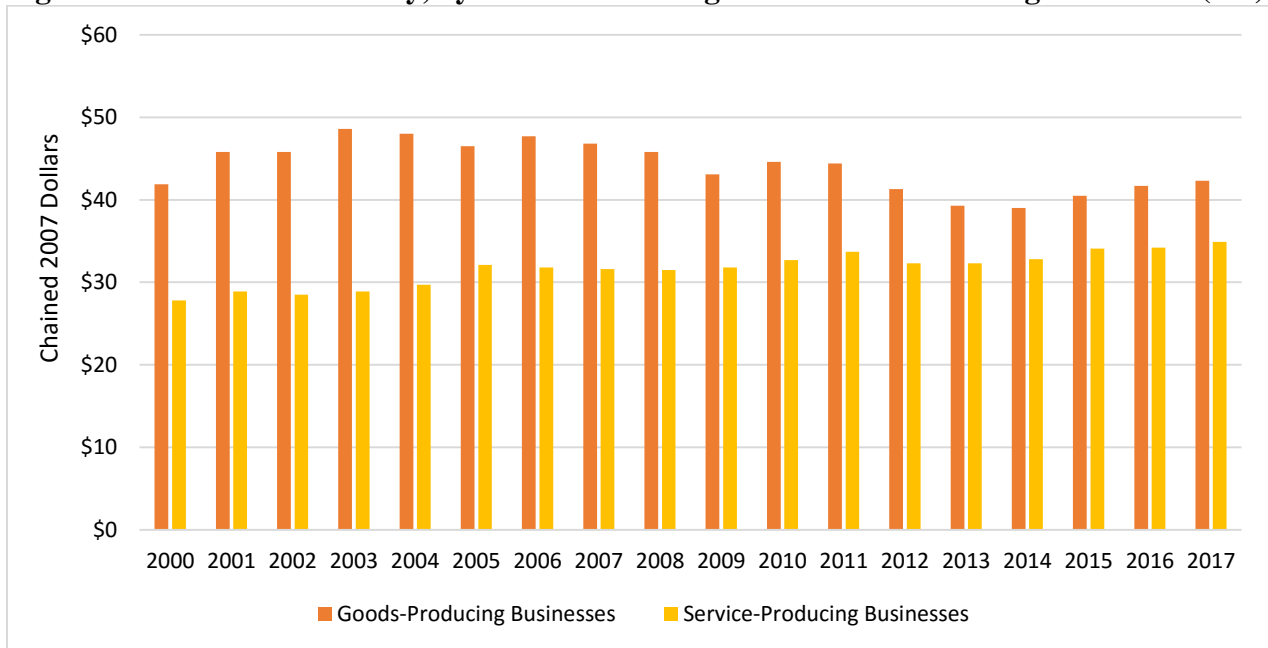
\* Labour productivity is the ratio between real value added (GDP) and hours worked. Real value added for each industry and each aggregate is constructed from a Fisher chain index.

Source: Statistics Canada, CANSIM Table 383-0033

New Brunswick's 2016 Growth Plan raises concerns about the province's aging population and the large number of workers over the age of 55. This is a key concern within the manufacturing industry, where the number of workers under the age of 55 has dropped significantly as the population ages, while the number of workers over the age of 55 has increased. This not only affects productivity, but also reflects the difficulty of attracting and keeping young workers in New Brunswick's industries.

Overall, labour productivity in New Brunswick’s manufacturing sector has not improved significantly in the past ten years.

**Figure 3: Labour Productivity, by Goods-Producing and Service-Producing Businesses (NB)**



Data: Figure 3	Goods-Producing Businesses	Service-Producing Businesses
2000	\$41.9	\$27.8
2001	\$45.8	\$28.9
2002	\$45.8	\$28.5
2003	\$48.6	\$28.9
2004	\$48.0	\$29.7
2005	\$46.5	\$32.1
2006	\$47.7	\$31.8
2007	\$46.8	\$31.6
2008	\$45.8	\$31.5
2009	\$43.1	\$31.8
2010	\$44.6	\$32.7
2011	\$44.4	\$33.7
2012	\$41.3	\$32.3
2013	\$39.3	\$32.3
2014	\$39.0	\$32.8
2015	\$40.5	\$34.1
2016	\$41.7	\$34.2
2017	\$42.3	\$34.9

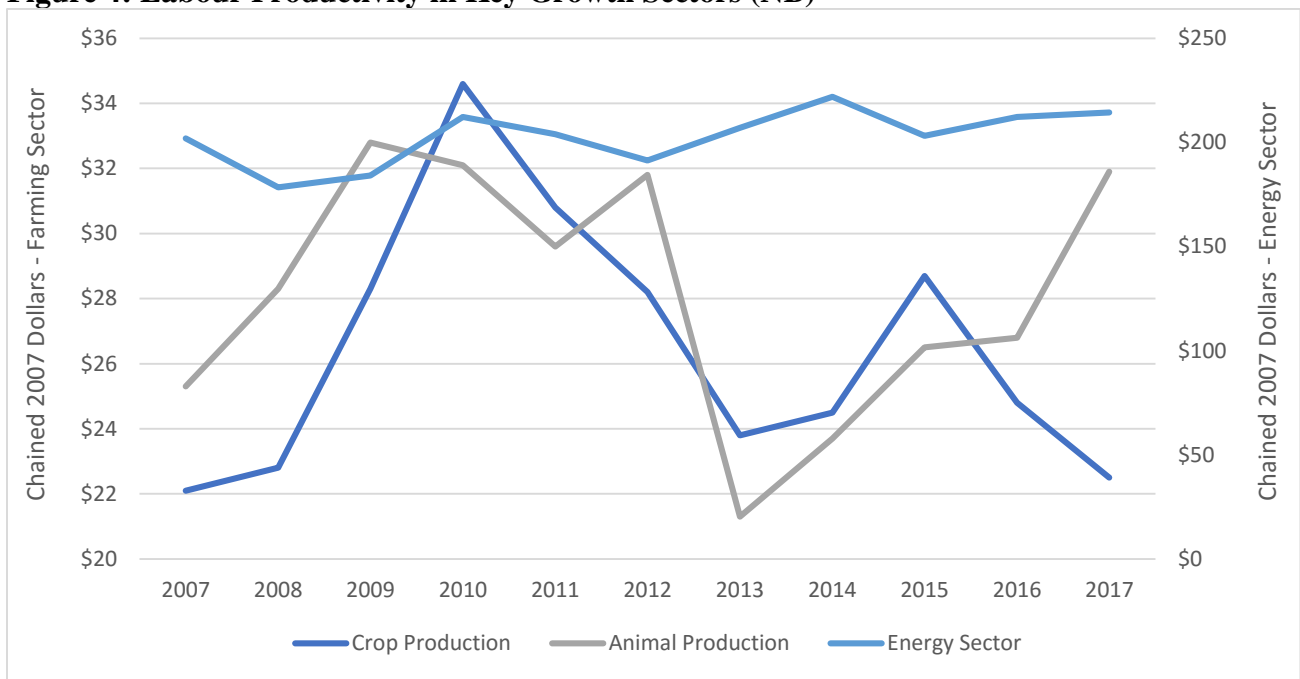
\*Source: Statistics Canada, CANSIM 383-0033

\*Values in chained 2007 dollars

New Brunswick's goods-producing sector, which includes manufacturing and the export of pulp, paper, and other products key for growth, has been declining. Meanwhile, labour productivity in the province's service sector has been gradually increasing (see Figure 3). In the goods-producing sector,

labour productivity reached its peak in 2003 with a value of \$48.6 per labour hour, after which it began to decline. Although productivity levels have seen a slight increase from 2014 to 2017, New Brunswick's goods-producing sector is still far below 2003 amounts. While labour productivity in the service sector has been showing an upward trend, the goods-producing sector must nonetheless increase significantly if the province is to reach national labour productivity levels.

**Figure 4: Labour Productivity in Key Growth Sectors (NB)**



Data: Figure 4	Crop Production	Animal Production	Energy Sector
2007	\$22.1	\$25.3	\$201.9
2008	\$22.8	\$28.3	\$178.5
2009	\$28.3	\$32.8	\$184.1
2010	\$34.6	\$32.1	\$212.2
2011	\$30.8	\$29.6	\$203.9
2012	\$28.2	\$31.8	\$191.4
2013	\$23.8	\$21.3	\$207.0
2014	\$24.5	\$23.7	\$221.9
2015	\$28.7	\$26.5	\$203.1
2016	\$24.8	\$26.8	\$212.2
2017	\$22.5	\$31.9	\$214.4

Source: Statistics Canada, CANSIM Table 383-0033

The 2018 update to New Brunswick's Economic Growth Plan describes cannabis, blueberries, new farmers, and electric utility as key to provincial growth. Thus, labour productivity in both the farming and energy sectors are important not only to the economic health of these industries but also to the overall economic health of the province. Productivity levels in crop production have been fluctuating,

reaching a high of \$34.6 in 2010 but decreasing to 2007 levels once more in 2017 (~\$22). Animal production within the farming industry has also seen fluctuations in labour productivity over the past decade, but while productivity levels in crop production have been declining, levels in animal production have been increasing since 2013. Meanwhile, labour productivity within the energy sector has remained fairly constant from 2007 to 2017.

NOTES:

In Canada, the measurement of labour productivity falls under the System of National Accounts (SNA), which provides international guidelines and standards for measurements of economic activity.