

GDP by Sector in Non-Metro



HIGHLIGHTS

- Our calculation suggests that 35% of Manitoba's GDP (Gross Domestic Product) is generated in non-metro areas. At the Canada level, non-metro areas contribute about 30% of the GDP.
- Manitoba's non-metro economy is relatively intensive in goods production. Within non-metro Manitoba, the goods-producing sectors generate about 43% of the GDP, compared to 29% of Manitoba's overall GDP being generated by the goods-producing sectors.
- The calculated share of non-metro GDP contributed by forestry, fishing, mining, quarrying and oil and gas in non-metro Manitoba (11%) and in non-metro Canada (18%) is much larger than the non-metro share of employment in these sectors because the ratio of machinery and equipment per worker is much larger, and thus the GDP per worker is much larger in this sector.

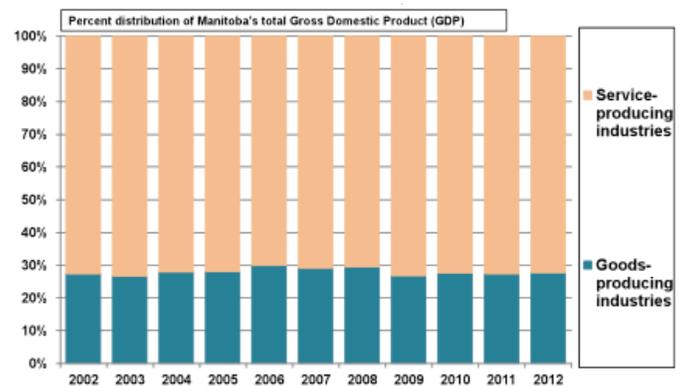
WHY GDP BY SECTOR IN NON-METRO?

Rural areas are, generally, more intensive in the goods-producing sectors. How big are the goods-producing sectors in Manitoba? How important are they in rural Manitoba?

FINDINGS

The goods-producing sectors have contributed 28% to 30% of Manitoba's overall GDP from 2002 to 2012 (Figure 1). This share was in the higher range (i.e. at 30%) in the three years before the economic decline of 2009.

Figure 1. Goods-producing industries generated 28% to 30% of Manitoba's GDP, 2002 to 2012



Source: Statistics Canada. Percent distribution of Gross Domestic Product (GDP) by Industry Sector within each province, CANSIM Table 379-0028.

In order to estimate the role of the goods-producing sectors in non-metro Manitoba, I first calculated, for each sector, the percent of employment in the sector that was non-metro. Then, each sector was multiplied by the province-level GDP for the sector in order to estimate the non-metro GDP for the sector. This is equivalent to using the province-level GDP per worker in each sector to prorate the GDP of each sector to non-metro and metro areas¹.

With this calculation, we estimate that 35% of Manitoba's GDP is generated in non-metro areas (Table 1).

For the goods-producing sectors, we estimate that 51% of the GDP is generated in non-metro Manitoba. The non-metro contribution of each goods-producing sector ranges from 35% of Manitoba's manufacturing GDP being generated in non-metro Manitoba to 94% of Manitoba's agricultural GDP being generated in non-metro Manitoba.

1. Using GDP per worker to assign GDP across geographic space necessarily assumes that, for any given sector, the GDP per worker is the same across geographic space. This is equivalent to assuming that the capital (i.e. machines, equipment, buildings, etc.) per worker is the same across geographic space within each sector. This assumption was dictated by the lack of data on the GDP/worker in non-metro and metro areas.

Table 1

Approximate gross domestic product (GDP) of industrial sectors in non-metro areas, Manitoba, 2010					
	All areas ¹	Estimate for non-metro areas ²	All areas ¹	Estimate for non-metro areas ²	Non-metro as percent of province total
	(\$billion)		Percent distribution		
All industry sectors ³	45.1	15.9	100	100	35
Goods sectors (subtotal)	13.3	6.8	29	43	51
.. Agriculture	1.6	1.5	4	10	94
.. Forestry, fishing, mining, quarrying, oil & gas	2.0	1.7	5	11	83
.. Utilities	1.3	0.5	3	3	41
.. Construction	3.3	1.3	7	8	40
.. Manufacturing	5.0	1.7	11	11	35
Services sectors (subtotal)	31.8	9.1	71	57	29
.. Wholesale and retail trade	5.6	1.9	12	12	33
.. Transportation and warehousing	2.8	0.8	6	5	30
.. Finance, insurance, real estate and leasing	4.8	1.1	11	7	23
.. Professional, scientific & technical services	1.5	0.3	3	2	18
.. Business, building & other support services	1.1	0.2	3	1	15
.. Educational services	2.8	0.9	6	6	33
.. Health care and social assistance	4.6	1.6	10	10	34
.. Information, culture and recreation	2.0	0.5	4	3	25
.. Accommodation and food services	0.9	0.2	2	2	27
.. Other (personal) services	1.0	0.3	2	2	34
.. Public administration	4.7	1.2	10	8	27

1. Source: Statistics Canada. Gross Domestic Product by Industry Sector and by Province, CANSIM Table 379-0030.

2. Calculated by the author by multiplying the provincial GDP in an industry sector by the percent of the workforce in the given sector that resides in a non-metro area.

3. In this table, the GDP generated from owner-occupied housing (i.e. imputed house rent) has been subtracted from the 'real estate and leasing' sector and has been excluded from the total.

Note this calculation suggests that 43% of non-metro GDP is contributed by the goods-producing sectors, compared to 29% for the overall Manitoba economy.

Our calculation suggest that the top 5 GDP sectors in non-metro areas are (Table 1 and Figure 2):

- 12% from wholesale and retail trade;
- 11% from manufacturing;
- 11% from forestry, fishing, mining, quarrying and oil and gas extraction;
- 10% from health care and social assistance; and
- 10% from agriculture.

COMPARISON TO CANADA

A comparison to Canada shows:

- the non-metro economy is relatively larger (35%) in Manitoba compared to the national non-metro economy (30% of Canada's GDP) (Table 2);
- within the non-metro economy, the goods-producing sector is slightly smaller in Manitoba (43% of non-metro Manitoba) compared to Canada (46% of non-metro Canada); and
- the calculation of non-metro GDP shows that in non-metro Manitoba, the wholesale and retail trade sector is the largest (12% of non-metro GDP) but at the Canada level, the largest non-metro GDP sector is forestry, fishing, mining, quarrying and oil and gas extraction² (18% of non-metro GDP); and, interestingly,
- our calculation of non-metro GDP suggests that manufacturing is the second largest sector in non-metro Manitoba (11% of non-metro GDP) and also manufacturing is the second largest sector in non-metro Canada (12% of non-metro GDP).

SUMMARY

About 35% of Manitoba's GDP (Gross Domestic Product) is generated in non-metro areas.

Manitoba's non-metro economy is relatively intensive in goods production. Within non-metro Manitoba, goods-producing sectors generated about 43% of the GDP, compared to 29% of Manitoba's overall GDP.

The calculated share of non-metro GDP contributed by forestry, fishing, mining, quarrying and oil and gas in non-metro Manitoba (11%) and in non-metro Canada (18%) is much larger than the non-metro share of employment in these sectors because the ratio of machinery and equipment per worker is much larger and thus the GDP per worker is much larger in this sector.

2. The calculated share of this sector within non-metro (18% of non-metro GDP) is much larger than the share of workers because in this sector, each worker has much larger machinery and equipment with which to work and thus the ratio of GDP per worker is much larger. That is, the capital per worker varies across sectors.

Figure 2. Approximate gross domestic product in non-metro areas¹, Manitoba, 2010



Calculated by the author by simply multiplying the provincial GDP in an industry sector by the percent of the percent of the provincial workforce in the given sector that resides in a non-metro area. In this chart, "imputed house rent" has been subtracted from "finance, insurance, real estate and leasing".

FURTHER RESEARCH QUESTIONS

- What part of the manufacturing sector is agriculture-related?



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Table 2

Industry sector	Canada				
	All areas ¹	Estimate for non-metro areas ²	All areas ¹	Estimate for non-metro areas ²	Non-metro as percent of Canada total
	(\$billion)		Percent distribution		
All industry sectors ³	1,436	432	100	100	30
Goods sectors (subtotal)	453	197	32	46	43
.. Agriculture	18	15	1	4	85
.. Forestry, fishing, mining, quarrying, oil & gas	118	76	8	18	65
.. Utilities	38	16	3	4	43
.. Construction	112	38	8	9	34
.. Manufacturing	167	51	12	12	31
Services sectors (subtotal)	982	236	68	54	24
.. Wholesale and retail trade	164	46	11	11	28
.. Transportation and warehousing	64	18	4	4	29
.. Finance, insurance, real estate and leasing ³	174	31	12	7	18
.. Professional, scientific & technical services	87	13	6	3	15
.. Business, building & other support services	54	13	4	3	23
.. Educational services	86	21	6	5	25
.. Health care and social assistance	112	34	8	8	31
.. Information, culture and recreation	64	13	4	3	20
.. Accommodation and food services	32	10	2	2	30
.. Other (personal) services	32	10	2	2	30
.. Public administration	113	27	8	6	24

1. Source: Statistics Canada. Gross Domestic Product by Industry Sector and by Province, CANSIM Table 379-0030.

2. Calculated by the author by multiplying the provincial GDP in an industry sector by the percent of the workforce in the given sector that resides in a non-metro area and then summing across all provinces.

3. In this table, the GDP generated from owner-occupied housing (i.e. imputed house rent) has been subtracted from the 'real estate and leasing' sector and has been excluded from the total.