

Non-metro employment: professional services

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Highlights

- Non-metro employment in professional services grew 24% from 2001 to 2014 but the growth was less than expected, based on national patterns of growth.
- Each subsector grew from 2001 to 2014 but most grew slower than the national patterns.
- The largest subsectors are engineering services (which includes surveying and mapping) and accounting and tax preparation services.

Why look at employment in professional, scientific and technical services?

Some types of professional services can be delivered at a distance (i.e. they are exportable¹) but the sector as a whole remains underrepresented in the non-metro economy compared to its share of employment in the overall economy. Which subsectors account for this? Can these knowledge workers do their jobs in rural settings and provide an opportunity for recruitment / newcomer attraction?

This FactSheet portrays the level and change of employment in these sectors in non-metro census divisions (CDs) with an assessment of employment change relative to national patterns.

Findings²

The number employed in professional, scientific and technical services³ in non-metro (CDs) has grown from 28K⁴ in 2001 to 35K in 2014 – a growth of 24% over this period (Figure 1 and Row #1 in Table 1).

In 2014, professional services represented 3.6% of employment in non-metro CDs, up from 3.2% in 2001 (Row #1 as a percent of Row #12).

The largest subsector is architectural, engineering and related services (which includes surveying and

mapping) (Row #5) with an employment level of 7K in 2014. This level fluctuated between 5.6K and 7.3K from 2010 and 2014. The level in 2014 is 1.3% higher than in 2001.

The second largest sector is accounting and tax preparation services (Row #4) with 5.7K workers in non-metro CDs in 2014. During the 2001 to 2014 period, employment in this sector varied between 4.6K and 6.9K. The level in 2014 was 24% higher than in 2001.

Employment in each of the subsectors (listed in Table 1) has grown from 2001 to 2014.

However, the intensity of employment in each subsector (as measured by a location quotient, as defined in Footnote 2 of Table 1) remains below the provincial pattern for each subsector (i.e., the location quotient is less than 1.0 for each subsector). We report an employment “performance”⁵ indicator that compares the “expected” change in employment in each sector (from 2001 to 2014, based on national patterns) and the “actual” change in employment⁶. If the actual change is greater than the expected change, then a positive “performance” is indicated. Sectors with a positive value are leading national patterns while ones with negative values are lagging.

¹ An “exportable” good or service is one that can be sold to those in other jurisdictions – either sent to the customer (e.g. a box of chocolates) or the customer comes to your jurisdiction to consume the item (e.g. a day on a ski hill).

² For the level of employment for each subsector, see [Appendix Table](#): Employment in non-metro CDs by industry sector.

³ This sector comprises establishments engaged in activities where human capital is the major input. The industries within this sector are each defined by the expertise and training of the service provider. The sector includes such industries as offices of lawyers, accounting services, engineering services, architectural services, advertising agencies, translation services and design services.

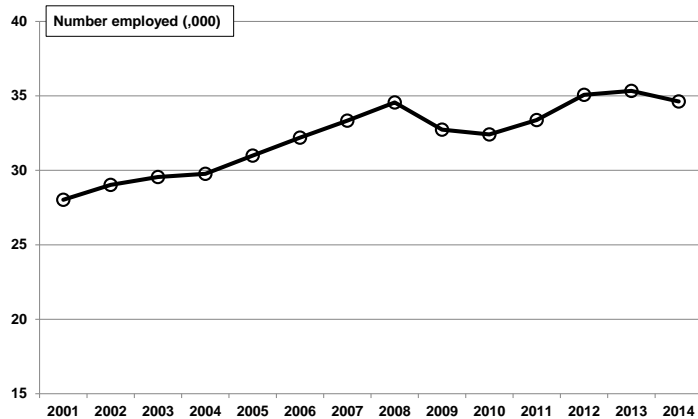
⁴ Where “K” indicates “thousand”.

⁵ As defined in Footnote #1 in Table 1.

⁶ This shift-share analysis generates a useful indicator for those seeking to understand how employment is faring in a given sector in a given region, compared to their national counterparts. Employment across all sectors in non-metro CDs grew by 78K from 2001 to 2004 but this growth was about ½ of expected growth, based on national patterns (last line of Table 1). However, this analysis does not tell the whole story – the change in output per worker provides a different indicator of economic performance of a sector. Perhaps obviously, one way to improve labour productivity (i.e. output per worker) is to substitute machines for workers.

Figure 1

Employment in PROFESSIONAL, TECHNICAL and SCIENTIFIC SERVICES has grown from 28,000 in 2001 to 35,000 in 2014 in non-metro census divisions, Ontario



Source: Ontario Ministry of Agriculture, Food and Rural Affairs, ANALYST EMSI database.

The job growth “performance” in most subsectors was less than would be expected, based on national patterns. For the sector as a whole (Row #1), the actual job growth of 6.6K was less than the job growth predicted based on national patterns (9.2K) and thus the actual job growth was 2.6K less than “predicted.” That is, Ontario’s non-metro job growth in this sector is not keeping up with the rate of job growth in this sector at the national level.

Summary

Each subsector of professional, scientific and technical services grew in non-metro census divisions from 2001 to 2014 but the intensity of these subsectors remains below the provincial level.

Some of these services can be delivered via the Internet and thus there may be opportunities for rural locales with a good Internet connection to attract these professionals.

Table 1

Non-metro employment in PROFESSIONAL, SCIENTIFIC and TECHNICAL SERVICES, employment change & performance relative to national patterns, Ontario, 2001 to 2014																								
Row #	NAICS Code	Level	Industry sector (displayed for each category of NAICS = North American Industry Classification System)	Estimated number employed (,000)												Expected change (based on national patterns) (1), 2001 to 2014 (,000)	Actual change, 2001 to 2014 (,000)	"Performance" = Actual minus Expected (,000)	Intensity(2) (LQ) relative to:					
				Ontario		Canada																		
				2001	2014	2001	2014																	
1	54	1	Professional, scientific & technical services	28.0	29.0	29.6	29.8	31.0	32.2	33.3	34.6	32.7	32.4	33.4	35.1	35.3	34.6	9.2	6.6	-2.6	0.5	0.5	0.5	0.5
2	541	2	Professional, scientific & technical services	28.0	29.0	29.6	29.8	31.0	32.2	33.3	34.6	32.7	32.4	33.4	35.1	35.3	34.6	9.2	6.6	-2.6	0.5	0.5	0.5	0.5
3	5411	3	Legal services	3.4	3.5	3.3	3.3	3.3	3.2	3.2	3.5	3.7	3.6	3.7	3.9	4.2	3.9	0.9	0.5	-0.4	0.6	0.5	0.6	0.6
4	5412	3	Accounting, tax preparation, bookkeeping & payroll services	4.6	4.8	5.4	5.1	5.3	5.5	6.1	6.9	6.3	5.8	5.5	6.2	6.3	5.7	1.8	1.1	-0.7	0.8	0.7	0.7	0.7
5	5413	3	Architectural, engineering & related services	6.6	6.1	5.8	5.6	5.9	5.9	6.2	6.1	5.8	6.3	6.8	7.3	7.0	6.7	3.2	0.1	-3.1	0.7	0.6	0.7	0.5
6	5414	3	Specialized design services	1.0	1.1	1.3	1.3	1.1	1.1	1.3	1.4	1.3	1.7	1.6	1.5	1.6	1.5	0.4	0.5	0.1	0.4	0.5	0.5	0.5
7	5415	3	Computer systems design & related services	3.4	3.6	3.3	3.3	3.8	3.8	3.6	3.4	3.2	3.0	3.2	3.3	3.6	3.9	0.9	0.5	-0.4	0.2	0.2	0.3	0.3
8	5416	3	Management, scientific & technical consulting services	3.7	4.0	4.3	4.2	4.3	4.6	4.5	4.7	4.6	4.4	4.6	4.7	4.5	4.6	0.7	0.9	0.3	0.4	0.5	0.4	0.5
9	5417	3	Scientific research & development services	0.7	1.4	1.6	1.9	2.3	2.8	2.5	2.8	2.9	2.6	2.5	2.4	2.5	2.8	0.3	2.1	1.8	0.3	0.7	0.3	0.9
10	5418	3	Advertising, public relations, & related services	1.3	1.3	1.1	1.5	1.4	1.3	1.5	1.5	1.2	1.3	1.7	1.9	1.8	1.6	0.2	0.3	0.1	0.3	0.3	0.4	0.4
11	5419	3	Other professional, scientific & technical services	3.3	3.3	3.5	3.5	3.5	4.0	4.3	4.2	3.7	3.7	3.7	3.9	3.9	3.9	1.6	0.6	-1.0	0.7	0.7	0.9	0.7
12	Total: All sectors in non-metro Ontario			874.6	890.3	901.6	910.7	922.1	932.6	930.6	960.1	923.5	913.0	919.7	938.4	948.4	952.4	150.6	77.8	-72.8				

1. The expected change is estimated from a shift-share calculation that shows the change that would have occurred if non-metro employment had changed at the same rate as national employment and if the employment in the given sector had changed at the same rate as the national employment in the given sector.

2. A location quotient (LQ) indicates the relative intensity of a sector (in this case, in non-metro census divisions), relative to the provincial pattern and relative to the national pattern. It is calculated as the non-metro percent employed in a sector divided by the provincial (or national) percent employed in a sector.

Source: Ontario Ministry of Agriculture and Food, ANALYST EMSI database.

Rural Ontario Institute gratefully acknowledges the work of Ray Bollman in preparing this edition of [Focus on Rural Ontario](#). Questions on data sources can be directed to RayD.Bollman@sasktel.net. Any comments or discussions can be directed to NRagettie@RuralOntarioInstitute.ca.