



Your Local Employment Planning Council

Occupation Report

Mathematicians, statisticians and actuaries NOC 2161

Ottawa, Ontario, & Canada (2016-2021)
3-year historical data & forecasted growth

Updated June 2019

Mathematicians, statisticians and actuaries

Ottawa Outlook

NOC 2161

Limited ★ Fair ★★ Good ★★★

Based on past and forecasted growth.

A Local Snapshot

- Employment in this occupation **declined in Ottawa from 2016 to 2018 (9.9%)**; it is forecast to **decrease an additional 5.7%** over the next three years.
- **3.2% were unemployed in Ottawa in 2016**; 19 (2.0%) of those in this occupation were **self-employed**.
- **Median hourly wage** for this occupation was **\$45.83**.
- **55.0%** of the 2018 jobs were in the **Other federal services** industry sector.
- Ottawa has a **significantly higher share of this occupation** than the nation.
- **Provincially**, this occupation showed an increase from 2016 to 2018 (**18.7%**); it is expected to increase over the next three years (**6.6%**).
- In contrast to Ottawa Employment Hub's forecast ranking for this occupation, *Canada Job Bank* forecasted **good** employment potential for this occupation in Ottawa from 2018-2020.

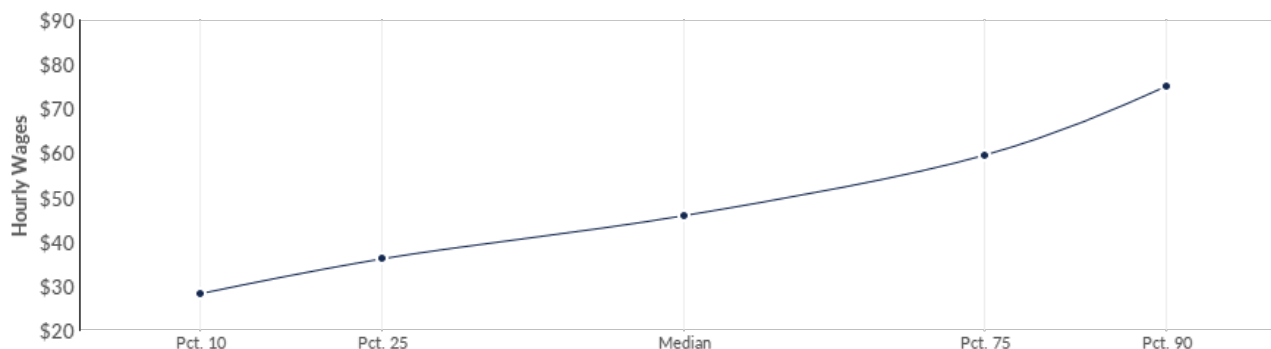
Overview

Ottawa Jobs (2018)	948 (2% self-employed = 19)		
2016 Ottawa Unemployment Rate	3.2%	Ontario	3.2%
Location Quotient to Nation (2018)	2.49		
Change in Jobs (2016 - 2018)	-9.9%	(2018 - 2021)	-5.7%

NOTE: Location quotient (LQ) is a way of quantifying how concentrated a particular occupation is in a region compared to the nation or province. A quotient of 1.00 means Ottawa has the same share of the occupation as the nation/province. A quotient higher than 1.00 means Ottawa has a greater share, and lower than 1.00 means Ottawa's share is lower than the average.

OTTAWA | Percentile Earnings (not including self-employed)

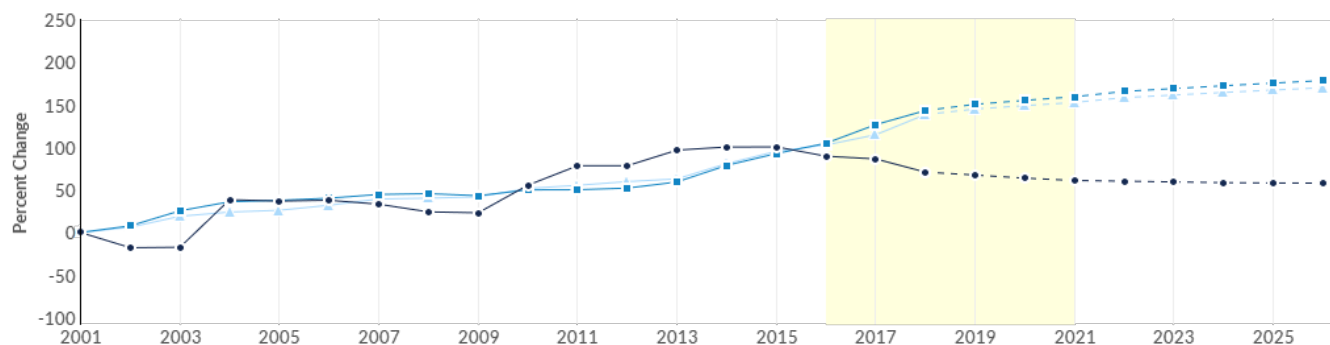
\$36.10/hr 25th Percentile Wages	\$45.83/hr Median Wages	\$59.52/hr 75th Percentile Wages
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Ottawa | Growth

1,052 2016 Jobs	894 2021 Jobs	-158 Change (2016-2021)	-15.0% % Change (2016-2021)
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Regional Trends



Region	2016 Jobs	2021 Jobs	Change	% Change
● Ottawa	1,052	894	-158	-15.0%
● Ontario	4,593	5,816	1,223	26.6%
● Canada	10,091	12,577	2,486	24.6%

	Ottawa	Ontario	Canada
2016 Jobs	1,052	4,593	10,091
2017 Jobs	1,034	5,083	10,690
2018 Jobs	948	5,454	11,873
2019 Jobs	930	5,617	12,192
2020 Jobs	909	5,721	12,392
2021 Jobs	894	5,816	12,577

Ottawa | Industries Employing this Occupation

Industry	Occupation Jobs in Industry (2018)	% of Occupation in Industry (2018)	% of Total Jobs in Industry (2018)
Other federal services (9112-9119)	522	55.0%	0.6%
Management, scientific and technical consulting services	114	12.0%	1.5%
Scientific research and development services	37	3.9%	0.6%
Universities	32	3.3%	0.2%
Insurance carriers	31	3.3%	1.8%

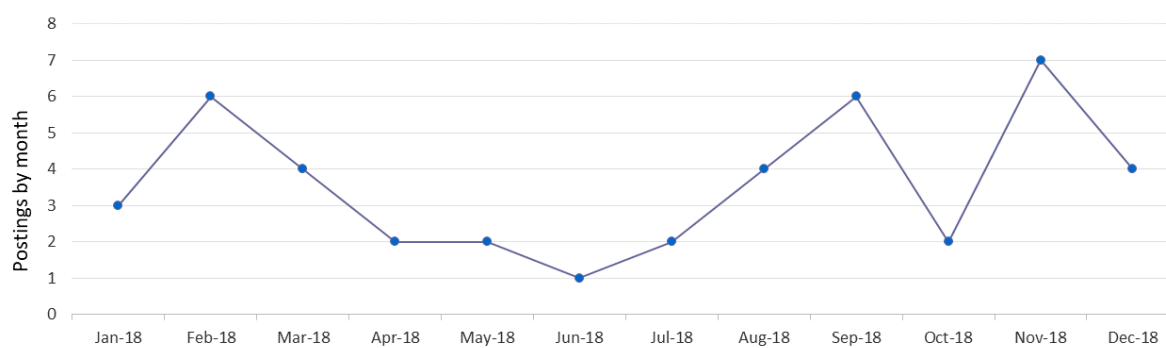
NOTE: Inverse staffing patterns provides a table of percentages that shows how regional occupations are divided up among regional industries. For example, an inverse staffing pattern for registered nurses may show that 70% of RNs are employed by hospitals, 10% by local government (i.e., public schools), 10% by nursing homes, and 10% by offices of physicians.

Educational programs and completions in Ottawa (public institutions only)

7 Programs (2016)		503 Completions (2016)
CIP Code	Program	Completions (2016)
45.01	Social sciences, general	384
27.01	Mathematics	69
27.05	Statistics	42
27.03	Applied mathematics	7
26.11	Biomathematics, bioinformatics, and computational biology	0

NOTE: EMSI Analyst uses Statistics Canada's PSIS data to compile completions for postsecondary programs offered in Canada, classified by the 2016 CIP codes. 2016 data includes those who graduated in spring 2017.

Job Postings by Month



Total annual job postings: 43

NOTE: Based on newly published job postings first found between January 01, 2018 and December 31, 2018 AND location is Ottawa Census Sub-division, Vicinity Jobs.

Other Considerations

LICENSURE/OTHER REQUIREMENTS FOR ONTARIO:

- The profession Actuary is **regulated**; certification is required through the [Financial Services Commission of Ontario](#)
- Actuaries are conferred fellowships through the Canadian Institute of Actuaries upon successful completion of professional examinations AND
- Three years of work experience in the actuarial field as an actuarial assistant or in a related position

NOTE: Workers in regulated occupations require a licence to work legally. Workers in non-regulated occupations do not require a licence, but employers may have other certification requirements.

CANADIAN LANGUAGE BENCHMARKS: N/A

Links to Additional Occupational Information

[Ontario Job Futures](#) – NOC 2161 Mathematics, statisticians and actuaries

[GOC Job Bank](#) – Cites outlook information for Ottawa, as well as Ontario and Canada; also shows job postings and wage information for Ottawa.

[Statistics Canada - Occupation information for NOC 2161](#)

[Ontario Skills Passport - Skills profile for Mathematicians, statisticians and actuaries](#) – Note that this website categorizes occupations using the NOC 2006 classification system; as such, occupation titles may not match the titles used by the NOC 2011 system.

About EMSI Occupational data

Economic Modeling Specialists Inc. (EMSI) amalgamates information from several data sources in order to produce its occupation counts:

- Canadian Business Patterns (CBP) – *Updated December 2018*
- Census – *2016*
- Survey of Employment, Payrolls and Hours (SEPH) – *Updated December 2018*
- Labour Force Survey (LFS) – *2018*
- Canadian Occupational Projection System (COPS) – *Latest projections cover 2016-2026*
- Demographic CANSIM tables – *Various updates*
- Postsecondary Student Information System (PSIS) - *Updated annually; 2016/17 data available now*

Information from these sources is combined into a dataset that is updated twice annually by EMSI; the latest release came in the Spring of 2019 and these reports reflect actuals and projections based on that data. Detailed occupation data is based primarily on industry staffing patterns collected by the SEPH, which surveys businesses and is considered more reliable than the LFS, which surveys individuals.

NOTE: In 2016, EMSI Analyst switched from the NOC-S 2006 occupation classification system to the NOC 2011 occupation classification system. Some occupation titles and groupings have been modified slightly as a result; all historical data has been adjusted to match the NOC 2011 classification system.

*Should you have any further questions about the data in this report, please contact **Ottawa Employment Hub** at 613-727-4723 X6873 or info@OttawaEmploymentHub.com*