



Your Local Employment Planning Council

Occupation Report

Computer engineers (except software engineers) NOC 2147

Ottawa, Ontario, & Canada (2016-2021)

3-year historical data & forecasted growth

Updated June 2019

Computer engineers (except software engineers)

Ottawa Outlook

NOC 2147

Limited ★ Fair ★★ Good ★★★

Based on past and forecasted growth.

A Local Snapshot

- Employment in this occupation **increased in Ottawa from 2016 to 2018 (33.5%)**; it is forecast to **increase an additional 11.0%** over the next three years.
- **1.8% were unemployed in Ottawa in 2016**; **360 (10.5%)** of those in this occupation were **self-employed**.
- **Median hourly wage** for this occupation was **\$49.70**.
- **22.6%** of the 2018 jobs were in the **Computer systems design and related services** industry sector.
- Ottawa has a **significantly higher share of this occupation** than the nation.
- **Provincially**, this occupation showed an obvious increase from 2016 to 2018 (**24.2%**); it is expected to continue increasing over the next three years (**9.5%**).
- *Canada Job Bank* forecasted **good** employment potential for this occupation in Ottawa from 2018-2020.

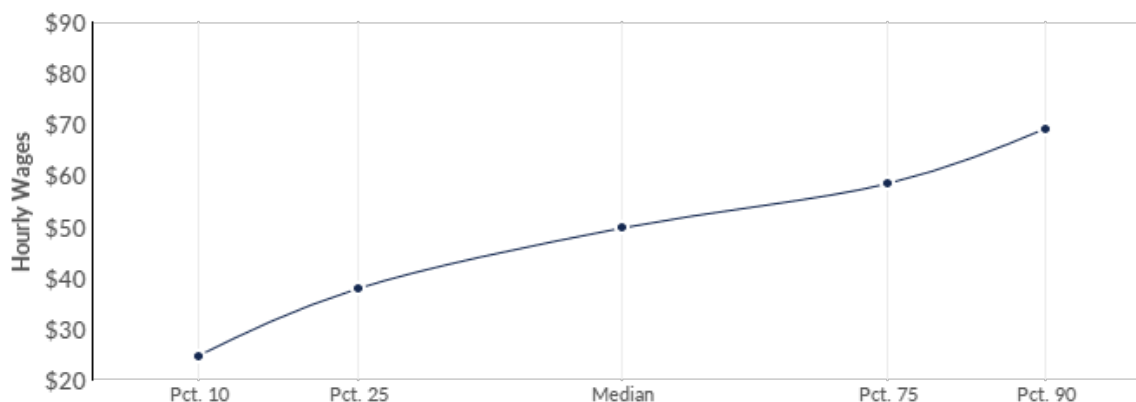
Overview

Ottawa Jobs (2018)	3,422 (11% self-employed = 360)		
2016 Ottawa Unemployment Rate	1.8%	Ontario	2.9%
Location Quotient to Nation (2018)	4.18		
Change in Jobs (2016 - 2018)	33.5%	(2018 - 2021)	11.0%

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)

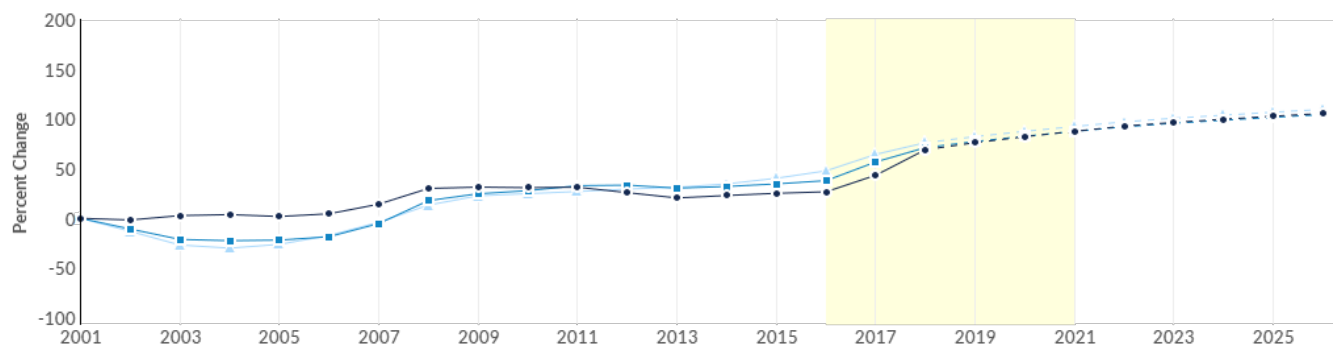
\$37.81/hr	\$49.70/hr	\$58.35/hr
25th Percentile Wages	Median Wages	75th Percentile Wages



Ottawa | Growth

2,564 2016 Jobs	3,797 2021 Jobs	1,233 Change (2016-2021)	48.1% % Change (2016-2021)
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Regional Trends



Region	2016 Jobs	2021 Jobs	Change	% Change
● Ottawa	2,564	3,797	1,233	48.1%
● Ontario	10,661	14,493	3,832	35.9%
● Canada	21,434	27,904	6,470	30.2%

	Ottawa	Ontario	Canada
2016 Jobs	2,564	10,661	21,434
2017 Jobs	2,902	12,119	23,838
2018 Jobs	3,422	13,236	25,547
2019 Jobs	3,565	13,709	26,430
2020 Jobs	3,687	14,119	27,200
2021 Jobs	3,797	14,493	27,904

Ottawa | Industries Employing this Occupation

Industry	Occupation Jobs in Industry (2018)	% of Occupation in Industry (2018)	% of Total Jobs in Industry (2018)
Computer systems design and related services	773	22.6%	3.5%
Other federal services (9112-9119)	428	12.5%	0.5%
Scientific research and development services	351	10.3%	5.7%
Computer and communications equipment and supplies merchant wholesalers	287	8.4%	4.2%
Wired and wireless telecommunications carriers(except satellite)	253	7.4%	6.9%

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.

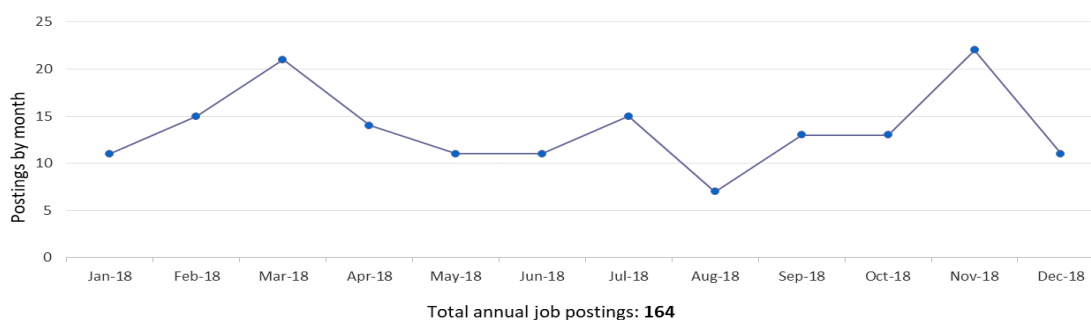
Educational programs and completions in Ottawa (public institutions only)

7 Programs (2016)	544 Completions (2016)
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CIP Code	Program	Completions (2016)
11.07	Computer science	233
15.12	Computer engineering technologies/technicians	192
14.09	Computer engineering	114
11.01	Computer and information sciences and support services, general	5
14.13	Engineering science	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



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:

- A **regulated** profession; certification is required through Professional Engineers Ontario
- Engineers are eligible for registration following graduation from an accredited educational program, and after three or four years of supervised work experience in engineering and passing a professional practice examination

Links to Additional Occupational Information

[Ontario Job Futures](#) – NOC 2147 Computer engineers (except software engineers)

[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 2147](#)

Ontario Skills Passport - Skills profile for Computer engineers (except software engineers) – not available for this occupation

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*