



*Your Local Employment Planning Council*

# Occupation Report

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## Industrial and manufacturing engineers NOC 2141

**Ottawa, Ontario, & Canada (2016-2021)**

3-year historical data & forecasted growth

*Updated June 2019*



**NOTE:** EMSI recommends taking occupation data below 500 jobs with “a grain of salt” because of source data sampling sizes; therefore, outlook also considers Ontario data.

## Industrial and manufacturing engineers

## Ottawa Outlook

NOC 2141

Limited ★ Fair ★★ Good ★★★

*Based on past and forecasted growth.*

### A Local Snapshot

- Employment in this occupation **declined in Ottawa from 2016 to 2018 (2.4%)**; it is forecast to **decrease an additional 1.8%** over the next three years.
- **None** were unemployed in Ottawa in 2016; **28 (4.1%)** of those in this occupation were **self-employed**.
- **Median hourly wage** for this occupation was **\$36.95**.
- **15.4%** of the 2018 jobs were in the **Architectural, engineering and related services** industry sector.
- Ottawa has a **slightly higher share of this occupation** than the nation.
- **Provincially**, this occupation showed a decrease from 2016 to 2018 (**1.5%**); it is expected to remain relatively stable over the next three years (**0.2%**).
- In contrast to Ottawa Employment Hub's forecast ranking for this occupation, *Canada Job Bank* forecasted **fair** employment potential for this occupation in Ottawa from 2018-2021.

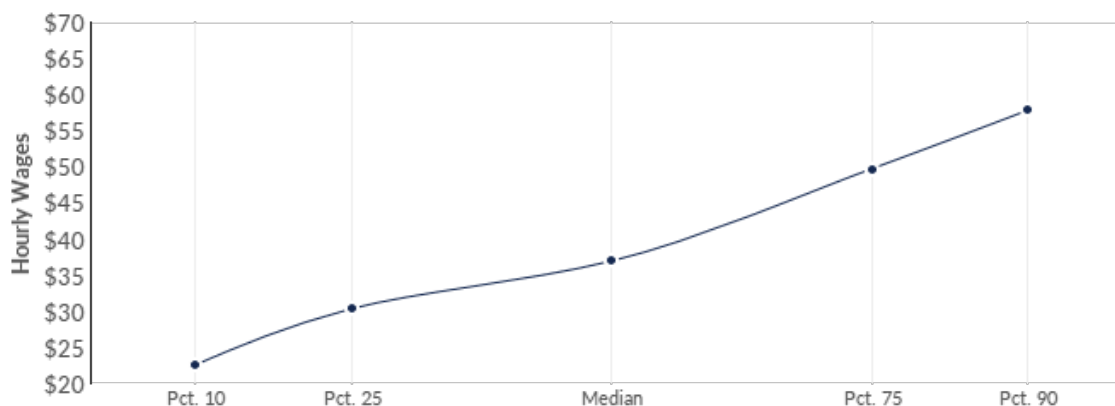
### Overview

<b>Ottawa Jobs (2018)</b>	<b>682</b> (4% self-employed = 28)		
<b>2016 Ottawa Unemployment Rate</b>	<b>0.0%</b>	Ontario	<b>3.7%</b>
Location Quotient to Nation (2018)	<b>1.22</b>		
Change in Jobs (2016 - 2018)	<b>-2.4%</b>	(2018 - 2021)	<b>-1.8%</b>

*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)

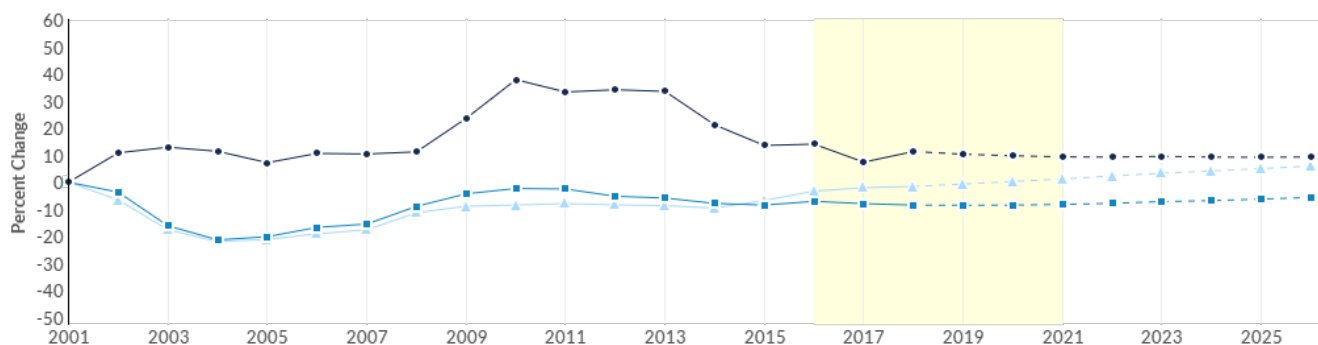
<b>\$30.34/hr</b>	<b>\$36.95/hr</b>	<b>\$49.71/hr</b>
25th Percentile Wages	Median Wages	75th Percentile Wages



## Ottawa | Growth

<b>699</b> 2016 Jobs	<b>670</b> 2021 Jobs	<b>-29</b> Change (2016-2021)	<b>-4.1%</b> % Change (2016-2021)
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## Regional Trends



Region	2016 Jobs	2021 Jobs	Change	% Change
● Ottawa	699	670	-29	-4.1%
● Ontario	8,185	8,082	-103	-1.3%
● Canada	17,135	17,932	797	4.7%

	Ottawa	Ontario	Canada
2016 Jobs	699	8,185	17,135
2017 Jobs	658	8,108	17,362
2018 Jobs	682	8,063	17,439
2019 Jobs	676	8,056	17,602
2020 Jobs	672	8,062	17,763
2021 Jobs	670	8,082	17,932

## Ottawa | Industries Employing this Occupation

Industry	Occupation Jobs in Industry (2018)	% of Occupation in Industry (2018)	% of Total Jobs in Industry (2018)
Architectural, engineering and related services	105	15.4%	1.3%
Other federal services (9112-9119)	62	9.1%	0.1%
Defence services	56	8.2%	0.4%
Navigational, measuring, medical and control instruments manufacturing	46	6.8%	2.1%
Semiconductor and other electronic component manufacturing	27	4.0%	2.4%

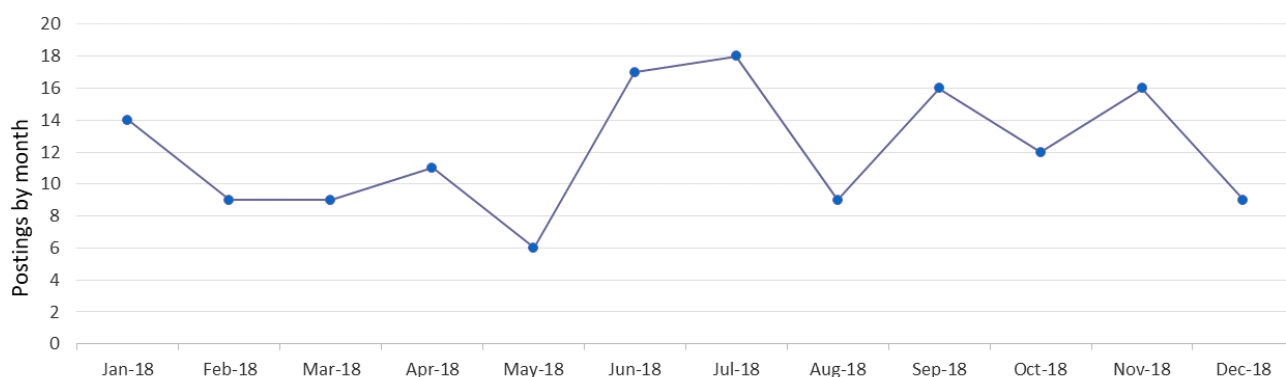
*NOTE: Inverse staffing patterns provides a table of percentages that shows how regional occupations are divided up among regional industries. For example, an inverse staffing pattern for registered nurses may show that 70% of RNs are employed by hospitals, 10% by local government (i.e., public schools),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

## Educational programs and completions in Ottawa (public institutions only)

2 Programs (2016)		0 Completions (2016)	
CIP Code	Program	Completions (2016)	
14.13	Engineering science	0	
47.03	Heavy/industrial equipment maintenance technologies	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: **146**

*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 four years of supervised work experience in engineering and passing a professional practice examination

*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*

[Career Map for Internationally Trained Professionals](#) – Explains every step of the registration process, including language requirements, industry trends, labour market conditions, credential assessment process, licensing fees and other important information.

## Links to Additional Occupational Information

[Ontario Job Futures](#) – NOC 2141 Industrial and manufacturing 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 2141](#)

[Ontario Skills Passport - Skills profile for Industrial and manufacturing engineers](#) – 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](mailto:info@OttawaEmploymentHub.com)*