



# ALGOMA'S SKILLED TRADES

Review of OCoT Data  
Apprenticeships &  
Journeypersons Activity



Fall 2019

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## Introduction

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Trades data is collected by the Ministry of Labour, Training and Skills Development (MLTSD) and the Ontario College of Trades (OCoT). The local MLTSD apprenticeship office manages the Registered Training Agreements between employers and apprentices, including efforts that promote apprenticeship completions. OCoT collects registration data. It receives regular uploads from MLTSD field offices.

Recently, however, the government of Ontario announced it intends to make changes to Ontario's skilled trades and apprenticeship system. On October 23, 2018, legislation introduced as Bill 47 proposed the following changes:

- Setting the journey person to apprentice ratios to one-to-one;
- Establishing a moratorium on trade classification and reclassification; and
- Abolishing the Ontario College of Trades (College), by repealing the Ontario College of Trades and Apprenticeship Act, 2009, on a future date to be proclaimed.

These changes will significantly change the Ontario landscape regarding skilled trades and the apprenticeship system, particularly ongoing access to timely and relevant trade data. Provincially, trades and apprenticeship data will continue to be collected, compiled and stored, but with the impending changes, it is unclear where data will be stored or by what process it may be publicly accessed.

Trades data is essential for effective workforce planning. The Northern Workforce Planning Boards are assessing the impact of abolishing OCoT and potentially losing access to important trade data.

The July 2019 trade data in this report is a “snapshot” of the District of Algoma's trade workforce. The July 2019 trade data is compared to April 2016 data using the same set of indicators.

The data shows which trades have the most journey person and apprentice activity in the District of Algoma and provides a demographic profile of individuals working in the trades.

## Discussion of the Trades Data

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The data for the July 2019 report is organized by trade sector and alphabetical listing of trades by name. Data was ‘extracted’ from OCoT downloads in April 2016 and July 2019. The data provides an opportunity to see changes between the two years.

The Excel data is organized from the general to the specific. Trades are color-coded by sector (Construction – yellow; Industrial – grey; Motive Power – green; Service – red). Key summary data are identified in blue and brown columns. Color-coding helps with reading the data, especially as it is sorted.

Scanning from left to right, the first section describes trade information including Trade Code, Sector, Classification (compulsory/voluntary) C of Q Exam, Red Seal, and Ratios.

The second section shows aggregated information by trade for the District of Algoma including total journeypersons (JP), apprentices (Appr) and trade qualifiers (TQ). Apprentice and trade qualifier examination data are presented.

The next sections show comparative demographic information for journeypersons and apprentices in the District of Algoma. The mean, or average, is used in all the data tables in this report.

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## Executive Summary

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The data for this report was collected from the Ontario College of Trades (OCoT) in April 2016 and July 2019.

- In July 2019, the District of Algoma has 2,463 journeypersons and 769 apprentices.
- Sectors representing the highest level of trade activity are:
  - Motive Power (1,057 journeypersons; 195 apprentices)
  - Construction (921 journeypersons; 276 apprentices)
  - Industrial trades showed dramatic increases in both journeypersons and apprentices from 2016 to 2019.
- Ontario has 156 trades. The number of trades represented by journeypersons and apprentices in the District of Algoma changed very little from 2016:
  - Trades with journeypersons in 2019 (53)
  - Trades with apprentices in 2019 (54)
- From 2016 to 2019, the overall average age of tradespersons in the District of Algoma increased 1.1 years for journeypersons and 0.5 years for apprentices.
  - journeypersons average age in 2019 is 44.9 years
  - apprentices average age in 2019 is 32.7 years
- The average age of journeypersons and apprentices in the top 10 and top 5 District of Algoma trades presents a “truer” picture of the trade population. This sub-set represents 86.5% of all journeypersons and 63.5% of all apprentices.
  - Journeypersons average age increases to 50.7 years
  - Apprentices average age decreases to 29.5 years
- The District of Algoma trades remain oriented to males. More females are in the trades in 2019 but their activity remains clustered in the service and industrial/motive power sectors.
- From 2016 to 2019, there has been a large increase in the number of apprentice examinees (N=977; 133.8%).
- Pass rates for both apprentices and trade qualifiers are acceptable. The trend from 2016 to 2019 suggests that more apprentices and trade qualifiers are attempting the trade exams and successfully completing them.

## Key Trade Data Summary Tables

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The following discussion highlights key findings in the OCoT trades data. Readers are encouraged to query the complete data set to undertake more detailed analysis.<sup>1</sup>

Compulsory trades are **bolded** throughout the data tables.

The OCoT data identifies male and female journeypersons and apprentices, but some individuals do not identify as either male or female . As a result, the total number of journeypersons and apprentices can be larger than the sum total of male and female journeypersons or apprentices for that same trade.

### 1. Summary of Total Journeyperson & Apprentice Activity – District of Algoma

As of July 2019, Algoma’s workforce had 2,463 journeypersons and 769 apprentices. (**Tables 1.a, 1.b & 1.c**).

Since April 2016, there has been an increase in the total number of journeypersons (N=76) and a decrease in the total number of apprentices (N=-14). Journeyperson activity increased in all trade sectors with the exception of motive power trades. Apprentice activity decreased in all sectors except industrial.

Industrial trades showed the most dramatic change from 2016 to 2019 with an increase of 39 journeypersons (54.2%) and 68 apprentices (59.1%).

*What is driving the change in journeypersons and apprentices from 2016 to 2019? Does the decrease in apprentices suggest they have transitioned to journeyperson status?*

*Is it due more to a lack of employment (i.e., lay-off, seasonal work, limited scope of work) or a lack of employers willing to hire apprentices?*

*What is happening in the industrial sector to increase both the journeyperson and apprentice activity?*

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<sup>1</sup> The Excel file from which the data for this Report was drawn is available from the Executive Director, Algoma Workforce Investment Corporation (AWIC). Readers can query the data in multiple ways to more deeply explore questions raised by the data.

Table 1.a  
 Journeyperson Trades Activity  
 District of Algoma  
 April 2016 & July 2019

Sector	Journeypersons	
	2016 (N)	2019 (N)
Construction	911	921
Industrial	72	111
Motive Power	1,058	1,057
Service	346	374
<b>Total</b>	<b>2,387</b>	<b>2,463</b>

Table 1.b  
 Apprentice Trades Activity  
 District of Algoma  
 April 2016 & July 2019

Sector	Apprentices	
	2016 (N)	2019 (N)
Construction	319	276
Industrial	115	183
Motive Power	216	195
Service	133	115
<b>Total</b>	<b>783</b>	<b>769</b>

Table 1.c  
 Change in Number of Journeypersons and Apprentices by Trade Sector  
 District of Algoma  
 April 2016 to July 2019

District of Algoma				
Trade Sector	Journeypersons 2016 to 2019	% Change	Apprentices 2016 to 2019	% Change
Construction	10	1.1%	-43	-13.5%
Industrial	39	54.2%	68	59.1%
Motive Power	-1	-0.1%	-21	-9.7%
Service	28	8.1%	-18	-13.5%
<b>Overall</b>	<b>76</b>	<b>3.2%</b>	<b>-14</b>	<b>-1.8%</b>

## 2. Trades Identified with Journeypersons and Apprentice Activity - District of Algoma

The Ontario College of Trades (OCoT) lists 156 Ontario trades. In July 2019, District of Algoma journeypersons were active in 53 trades, apprentices in 54 (**Tables 2.a, 2.b & 2.c**). In April 2016, by comparison, journeypersons were active in 49 trades, apprentices in 55.

Little has changed from 2016 to 2019 with respect to the number of trades showing journeyperson and apprentice activity in 2019.

Table 2.a  
Active Trades Identified with Journeypersons  
District of Algoma  
April 2016 & July 2019

	Trades with Journeypersons 2016	Trades with Journeypersons 2019
District of Algoma	49	53

Table 2.b  
Active Trades Identified with Apprentices  
District of Algoma  
April 2016 & July 2019

	Trades with Apprentices 2016	Trades with Apprentices 2019
District of Algoma	55	54

Table 2.c  
Change in Trades Activity  
District of Algoma  
April 2016 & July 2019

Location	Change from 2016 to 2019	
	Trades with Journeypersons (N)	Trades with Apprentices (N)
District of Algoma	4	1

## 3. Average Age of Journeypersons and Apprentices by Trade Sectors – District of Algoma

The data in **Table 3.a, Table 3.b & Table 3.c** represents the overall population in all trades sorted by trade sector and average age. Average age can represent few people in a trade or many (i.e., 508 Automotive Service Technicians journeypersons). This variance (large/small number of people in a single trade) skews the average age by sector, especially if there are many trades with few tradespersons.



From 2016 to 2019, the overall average age of tradespersons in the District of Algoma increased 1.1 years for journeypersons and 0.5 years for apprentices.

Two trade sectors show interesting changes from 2016 to 2019. The construction sector has older journeypersons (3.6 years) and apprentices (2.0 years) in 2019. The industrial sector has younger journeypersons (-1.3 years) and apprentices (-4.3 years) in 2019.

Table 3.a  
Average Age by Trade Sector - Journeypersons  
District of Algoma  
April 2016 & July 2019

Trade Sector	District of Algoma	
	Average Age Journeypersons (2016)	Average Age Journeypersons (2019)
Construction	43.7	47.3
Industrial	40.4	39.1
Motive Power	49.5	50.9
Service	41.6	42.4
<b>Overall</b>	<b>43.8</b>	<b>44.9</b>

Table 3.b  
Average Age by Trade Sector - Apprentices  
District of Algoma  
April 2016 & July 2019

Trade Sector	District of Algoma	
	Average Age Apprentices (2016)	Average Age Apprentices (2019)
Construction	30.6	32.6
Industrial	33.4	29.1
Motive Power	32.1	33.2
Service	34.2	35.7
<b>Overall</b>	<b>32.2</b>	<b>32.7</b>

**Table 3.c** provides a more detailed analysis by sector and location:

- Small populations of journeypersons and apprentices in individual trades can skew comparisons from 2016 to 2019. (e.g., apprentices leave to journeyperson status and/or older journeypersons retire thus reducing the overall average age of remaining cohort).
- The data indicate the overall District of Algoma 2019 population active in the trades is slightly older than it was in 2016.

Table 3.c  
 Change in Average Age by Trade Sector Journeyperson and Apprentice  
 District of Algoma  
 April 2016 & July 2019

Trade Sector	District of Algoma Change in Average Age	
	JP	App
Construction	3.6	2.0
Industrial	-1.3	-4.3
Motive Power	1.4	1.1
Service	0.8	1.5
<b>Overall Change</b>	<b>1.1</b>	<b>0.5</b>

4. Top 10 Trades with the Most Active Journeypersons and Apprentices by Average Age, Male & Female – District of Algoma

**Tables 4.a., 4.b, & 4.c** show where most of the journeyperson and apprentice activity is actually present. This represents a more useful picture of the District of Algoma trades workforce.

The data present the number of journeypersons and apprentices in the top 10 trades as a percentage of all journeypersons and apprentices in the overall Algoma District.

In 2019, journeypersons in the top 10 trades throughout the District of Algoma represented 86.5% (N=2,131) of the overall population. Apprentices represented 63.5% (N=502).

The percentage of the trades population in the 10 most active trades decreased slightly from 2016 to 2019, suggesting that journeyperson and apprentice activity is now distributed more broadly across all the District of Algoma trades.

The number of female journeypersons increased from 2016 to 2019 (N=17) offsetting a decrease in the number of male journeypersons (N=-19).

There was a decrease in the number of male apprentices from 2016 to 2019 (N=-37).

The average age of the District of Algoma tradesperson in the top 10 trades has remained stable since 2016, decreasing slightly to 50.7 years for journeypersons and remaining essentially the same at 29.5 for apprentices.

We don't know the impact of missing journeyperson data (i.e., low membership counts for voluntary trades) on the level of activity by trade or the overall average age.

How is the analysis skewed by incomplete journeyperson data (i.e., voluntary trades)? Where is the future supply of tradespersons most threatened by a retiring workforce?

Table 4.a  
 Top 10 Trades by Active Journeypersons  
 Average Age, Male, Female  
 District of Algoma  
 April 2016 & July 2019

District of Algoma Top 10 Trades by Journeypersons 2016					District of Algoma Top 10 Trades by Journeypersons 2019					
		JP	Age	M	F		JP	Age	M	F
1	Automotive Service Technician	522	51.1	520	2	Automotive Service Technician	508	52.0	506	2
2	Truck and Coach Technician	414	52.9	414	0	Truck and Coach Technician	420	52.6	420	0
3	Electrician - Construction and Maintenance	395	50.0	393	2	Electrician - Construction and Maintenance	407	49.6	403	4
4	Hairstylist	316	48.4	85	231	Hairstylist	330	50.3	84	246
5	Plumber	141	48.0	140	1	Plumber	143	47.2	141	2
6	Steamfitter	108	55.0	108	0	Steamfitter	92	55.7	92	0
7	Hoisting Engineer - Mobile Crane Operator 1	80	55.2	80	0	Hoisting Engineer - Mobile Crane Operator 1	75	55.3	75	0
8	Auto Body and Collision Damage Repairer	62	52.7	61	1	Auto Body and Collision Damage Repairer	55	55.0	55	0
9	Refrigeration and Air Conditioning Systems Mechanic	48	47.7	48	0	Industrial Electrician	52	40.2	52	0
10	Sheet Metal Worker	47	48.7	47	0	Refrigeration and Air Conditioning Systems Mechanic	49	49.0	49	0
	<b>Total</b>	<b>2,133</b>		<b>1,896</b>	<b>237</b>	<b>Total</b>	<b>2,131</b>		<b>1,877</b>	<b>254</b>
	Top 10 Trades as a % of all District of Algoma Journeypersons	89.4%				Top 10 Trades as a % of all District of Algoma Journeypersons	86.5%			
	Average Age Journeypersons		51.0			Journeyperson Average Age		50.7		

Table 4.b  
 Top 10 Trades by Active Apprentices  
 Average Age, Male, Female  
 District of Algoma  
 April 2016 & July 2019

District of Algoma Top 10 Trades by Apprentices 2016					District of Algoma Top 10 Trades by Apprentices 2019					
	App	Age	M	F		App	Age	M	F	
1	Electrician - Construction and Maintenance	106	27.5	101	5	Automotive Service Technician	89	29.3	84	4
2	Automotive Service Technician	99	28.5	96	3	Electrician - Construction and Maintenance	77	29.1	73	4
3	Truck and Coach Technician	59	26.8	58	1	Industrial Mechanic Millwright	72	32.3	71	1
4	General Carpenter	51	25.1	51	0	Truck and Coach Technician	52	29.2	50	2
5	Industrial Mechanic Millwright	46	33.2	45	1	General Carpenter	45	24.8	44	1
6	Plumber	39	27.1	39	0	Industrial Electrician	41	29.3	37	4
7	Industrial Electrician	35	30.6	34	1	Hairstylist	35	28.2	6	26
8	Utility Arborist	35	31.6	32	3	Child Development Practitioner	34	33.2	1	33
9	Hairstylist	34	27.7	0	34	General Machinist	30	29.0	27	3
10	Child Development Practitioner	30	32.0	0	30	Plumber	27	30.7	26	0
	<b>Total</b>	<b>534</b>		<b>456</b>	<b>78</b>	<b>Total</b>	<b>502<sup>2</sup></b>		<b>419</b>	<b>78</b>
Top 10 Trades as a % of all District of Algoma Apprentices		68.2%				Top 10 Trades as a % of all District of Algoma Apprentices		63.5%		
Average Age Apprentices		29.0				Average Age Apprentices		29.5		

Table 4.c  
 Changes to Journeyperson and Apprentice Activity in Top 10 Trades  
 Average Age, Male, Female  
 District of Algoma  
 April 2016 & July 2019

Top 10 Trades by Active Journeypersons District of Algoma				Top 10 Trades by Active Apprentices District of Algoma					
	JP	Age	M	F		App	Age	M	F
Change 2016 to 2019	-2		-19	17	Change 2016 to 2019	-32		-37	0
Top 10 Trades as a % of all District of Algoma Journeypersons	-2.90%				Top 10 Trades as a % of all District of Algoma Apprentices	-4.70%			
Change in Average Age	-0.3				Change in Average Age	0.5			

<sup>2</sup> Male plus female does not equal total apprentices because some apprentices do not disclose male or female.

## 5. Top 10 and Top 5 Trades with Active Journeypersons and Apprentices by Sector, Average Age, Male & Female – District of Algoma.

Journeypersons and apprenticeship data for the District of Algoma are presented for April 2016 and July 2019. The Tables are set-up to compare 2016 and 2019 data. They are sorted by sector, average age, male and female. A total of 10 trades were selected in the construction sector because it has more activity across more trades.

Journeypersons in voluntary trades are not required to register and become members of OCoT. As a result, data for some trades show logical inconsistencies between the number of apprentices and the number of qualified journeypersons needed to train them.

General Carpenter, a voluntary trade, is a good example. It has a ratio of 1:1 and 3:1, yet only 18 journeypersons are identified for 45 apprentices.

Compulsory Trades are **bolded**.

Overall, the District of Algoma (Table 5.a, Table 5.b) shows very little change in the top 10 and top 5 trades by journeyperson activity from 2016 to 2019.

The top 10 and top 5 trades identified with the 2019 data include trades that were not identified in the 2016 top 10 and top 5 trade data. The number of male (M) or female (F) tradespersons is shown after the trade name.

Trades that are new to the 2019 data set:

- Journeypersons
  - Network Cabling Specialist (3 M)
- Apprentices
  - Architectural Glass and Metal Technician (13M)
  - Network Cabling Specialist (7M)

Table 5.a  
Trades with Active Journeypersons in the District of Algoma  
Sorted by Trade Sector, Average Age, Male & Female  
April 2016 & July 2019

Top 10 Trades by Active Journeypersons 2016					Top 10 Trades by Active Journeypersons 2019						
Construction		JP	Age	M	F	Construction		JP	Age	M	F
1	Electrician - Construction and Maintenance	395	50.0	393	2	Electrician - Construction and Maintenance	407	49.6	403	4	
2	Plumber	141	48.0	140	1	Plumber	143	47.2	141	2	
3	Steamfitter	108	55.0	108	0	Steamfitter	92	55.7	92	0	
4	Hoisting Engineer - Mobile Crane Operator 1	80	55.2	80	0	Hoisting Engineer - Mobile Crane Operator 1	75	55.3	75	0	
5	Refrigeration and Air Conditioning Systems Mechanic	48	47.7	48	0	Refrigeration and Air Conditioning Systems Mechanic	49	49.0	49	0	
6	Sheet Metal Worker	47	48.7	47	0	Sheet Metal Worker	49	47.7	49	0	
7	Hoisting Engineer - Mobile Crane Operator 2	22	51.8	22	0	Residential Air Conditioning Systems Mechanic	19	49.3	19	0	
8	Hoisting Engineer - Tower Crane Operator	20	61.5	20	0	General Carpenter	18	33.3	18	0	
9	Residential Air Conditioning Systems Mechanic	17	49.8	17	0	Hoisting Engineer - Mobile Crane Operator 2	17	51.1	17	0	
10	General Carpenter	12	32.8	12	0	Hoisting Engineer - Tower Crane Operator	14	63.1	14	0	

Top 5 Trades by Active Journeypersons					Top 5 Trades by Active Journeypersons						
Industrial		JP	Age	M	F	Industrial		JP	Age	M	F
1	Industrial Electrician	27	41.6	27	0	Industrial Electrician	52	40.2	52	0	
2	Industrial Mechanic Millwright	25	42.6	25	0	Industrial Mechanic Millwright	24	46.1	23	1	
3	Welder	7	39.6	7	0	Metal Fabricator (Fitter)	15	32.9	14	1	
4	Instrumentation and Control Technician	5	43.4	5	0	Welder	11	39.5	11	0	
5	Metal Fabricator (Fitter)	4	38.0	4	0	Instrumentation and Control Technician	6	44.7	6	0	

Motive Power		JP	Age	M	F	Motive Power		JP	Age	M	F
1	Automotive Service Technician	522	51.1	520	2	Automotive Service Technician	508	52.0	506	2	
2	Truck and Coach Technician	414	52.9	414	0	Truck and Coach Technician	420	52.6	420	0	
3	Auto Body and Collision Damage Repairer	62	52.7	61	1	Auto Body and Collision Damage Repairer	55	55.0	55	0	
4	Heavy Duty Equipment Technician	25	39.4	25	0	Heavy Duty Equipment Technician	36	40.2	36	0	
5	Motorcycle Technician	11	57.5	11	0	Motorcycle Technician	12	61.3	12	0	

Service		JP	Age	M	F	Service		JP	Age	M	F
1	Hairstylist	316	48.4	85	231	Hairstylist	330	50.3	84	246	
2	Utility Arborist	18	34.9	17	1	Utility Arborist	26	37.0	25	1	
3	Child Development Practitioner	3	38.7	0	3	Child Development Practitioner	4	34.8	0	4	
4	Cook	2	43.5	2	0	Network Cabling Specialist	3	28.7	3	0	
5	Information Technology - Contact Centre Customer Service Agent	1	26.0	1	0	Cook	2	41.5	1	1	

Table 5.b  
Trades with Active Apprentices in the District of Algoma  
Sorted by Trade Sector, Average Age, Male & Female  
April 2016 & July 2019

Top 10 Trades by Active Apprentices 2016					Top 10 Trades by Active Apprentices 2019				
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Construction		App	Age	M	F	Construction		App	Age	M	F
1	Electrician - Construction and Maintenance	106	27.5	101	5	Electrician - Construction and Maintenance	77	29.1	73	4	
2	General Carpenter	51	25.1	51	0	General Carpenter	45	24.8	44	1	
3	Plumber	39	27.1	39	0	Plumber	27	30.7	26	0	
4	Refrigeration and Air Conditioning Systems Mechanic	17	27.4	17	0	Sheet Metal Worker	17	27.1	17	0	
5	Ironworker - Structural and Ornamental	17	33.4	16	1	Powerline Technician	16	22.7	16	0	
6	Sheet Metal Worker	16	26.6	16	0	Refrigeration and Air Conditioning Systems Mechanic	15	29.3	15	0	
7	Hoisting Engineer - Mobile Crane Operator 1	14	34.2	14	0	Ironworker - Structural and Ornamental	13	32.1	13	0	
8	Powerline Technician	13	26.0	13	0	Architectural Glass and Metal Technician	13	29.3	13	0	
9	Brick and Stone Mason	12	28.2	12	0	Brick and Stone Mason	8	28.6	8	0	
10	Steamfitter	8	32.3	8	0	Steamfitter	7	26.7	7	0	

Top 5 Trades by Active Apprentices

Top 5 Trades by Active Apprentices

Industrial		App	Age	M	F	Industrial		App	Age	M	F
1	Industrial Mechanic Millwright	46	33.2	45	1	Industrial Mechanic Millwright	72	32.3	71	1	
2	Industrial Electrician	35	30.6	34	1	Industrial Electrician	41	29.3	37	4	
3	Metal Fabricator (Fitter)	16	24.4	16	0	General Machinist	30	29.0	27	3	
4	General Machinist	6	24.3	5	1	Welder	19	25.5	18	0	
5	Welder	5	24.2	5	0	Metal Fabricator (Fitter)	10	22.4	9	1	

Motive Power		App	Age	M	F	Motive Power		App	Age	M	F
1	Automotive Service Technician	99	28.5	96	3	Automotive Service Technician	89	29.3	84	4	
2	Truck and Coach Technician	59	26.8	58	1	Truck and Coach Technician	52	29.2	50	2	
3	Heavy Duty Equipment Technician	29	24.8	29	0	Heavy Duty Equipment Technician	25	25.8	25	0	
4	Auto Body and Collision Damage Repairer	12	39.8	9	3	Auto Body and Collision Damage Repairer	17	36.2	15	2	
5	Marine Engine Technician	5	35.6	5	0	Small Engine Technician	4	30.3	3	1	

Service		App	Age	M	F	Service		App	Age	M	F
1	Utility Arborist	35	31.6	32	3	Hairstylist	35	28.2	6	26	
2	Hairstylist	34	27.7	0	34	Child Development Practitioner	34	33.2	1	33	
3	Child Development Practitioner	30	32.0	0	30	Utility Arborist	17	29.6	16	1	
4	Cook	13	24.9	5	8	Cook	8	32.1	4	4	
5	Information Technology - Contact Centre Customer Service Agent	5	44.6	1	4	Network Cabling Specialist	7	31.0	7	0	

## 6. Comparing Female Representation in Trades: District of Algoma 2016 & 2019

**Tables 6.a, 6.b & 6.c** show the female journeyperson and apprenticeship activity for female workers in the District of Algoma in 2016 and 2019.

2016 - 8 trades and 242 female journeypersons; 22 trades and 106 female apprentices

2019 – 12 trades and 266 female journeypersons; 21 trades and 97 female apprentices

In 2019, 8 female tradespersons are apprenticing in 6 trades that had no female representation in 2016:

- Metal Fabricator (Fitter) (1)
- Developmental Services Worker (3)
- Small Engine Technician (1)
- Drywall Finisher and Plasterer (1)
- Recreation Vehicle Technician (1)
- Cook - Institutional (1)

*Further research is warranted to determine why female workers enter some trades and not others.*

*What can we learn from female journeypersons and apprentices about their trade experience and how can what we learn help to promote trades and attract women to consider working careers in them?*

*Has the public perception of the trades changed? What is the role of parents, teachers and counsellors in promoting trades to female tradespersons?*



Table 6.a  
 Female Trades Representation  
 District of Algoma  
 April 2016

Trades	District of Algoma	
	Female Journeypersons	Female Apprentices
<b>Hairstylist</b>	231	34
Child Development Practitioner	3	30
Cook		8
<b>Electrician - Construction and Maintenance</b>	2	5
Information Technology - Contact Centre Customer Service Agent		4
<b>Automotive Service Technician</b>	2	3
<b>Auto Body and Collision Damage Repairer</b>	1	3
Utility Arborist	1	3
Parts Technician		2
Educational Assistant		2
Ironworker - Structural and Ornamental		1
Drywall Finisher and Plasterer		1
Industrial Mechanic Millwright		1
Industrial Electrician		1
General Machinist		1
Tractor-Trailer Commercial Driver		1
<b>Truck and Coach Technician</b>		1
<b>Automotive Electronic Accessory Technician</b>		1
Gem setter/Goldsmith		1
Information Technology - Contact Centre Technical Support Agent		1
Information Technology - Contact Centre Sales Agent	1	1
Retail Meat Cutter		1
General Carpenter		
<b>Plumber</b>	1	

Table 6.b  
 Female Trades Representation  
 District of Algoma  
 July 2019

Trades	District of Algoma	
	Female Journeypersons	Female Apprentices
Hairstylist	246	26
Electrician - Construction and Maintenance	4	4
Child Development Practitioner	4	33
Plumber	2	
Automotive Service Technician	2	4
Educational Assistant	2	1
Industrial Mechanic Millwright	1	1
Metal Fabricator (Fitter)	1	1
Utility Arborist	1	1
Cook	1	4
Parts Technician	1	
Saddlery	1	
Industrial Electrician		4
General Machinist		3
Developmental Services Worker		3
Truck and Coach Technician		2
Auto Body and Collision Damage Repairer		2
General Carpenter		2
Small Engine Technician		1
Drywall Finisher and Plasterer		1
Recreation Vehicle Technician		1
Cook - Institutional		1
Gem setter/Goldsmith		1

What do the data in **Table 6.c** suggest?

- More females are in the trades in 2019, but the number of apprentices has decreased.
  - 266 journeypersons, an increase of 24
  - 97 apprentices, a decrease of -9

Table 6.c  
Summary of Changes to Female Trades Representation  
District of Algoma  
April 2016 to July 2019

	District of Algoma	
	2016	2019
<b>Journeypersons</b>	242	266
<b>Apprentices</b>	106	97
<b>Change from April 2016 to July 2019</b>		
<b>Journeypersons (N)</b>	<b>24</b>	
<b>Apprentices (N)</b>	<b>-9</b>	
<b>Journeypersons (%)</b>	<b>9.9%</b>	
<b>Apprentices (%)</b>	<b>-8.5%</b>	

## 7. Comparing Apprentice and Trade Qualifier Examination Results for 2019 and 2016 Sorted by Trade Sector

There has been a history of examinees writing examines many times in order to pass. Failing to pass the exam on the first attempt may be an indication of poor preparation or challenges with the exam itself. It's useful to assess the data to identify where examinees are having difficulty with exams, either passing the first time or passing the exam at all.

**Tables 7.a, 7.b, 7.c & 7.d** present 2016 and 2019 data for apprentices and trade qualifiers<sup>3</sup> who've attempted trade exams. The data show the number of examinees, number of attempts, average number of attempts per examinee, percentage of examinees who passed on the first attempt and the percentage of examinees who successfully passed the exam. Data for 2<sup>nd</sup> and 3<sup>rd</sup> attempts are not included in the Tables. The data are presented in Trade Map (separate Excel document).

Data are presented for the trades showing the highest frequency of examination activity. Results are sorted by trade sector.

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<sup>3</sup> Trade qualifiers have work experience and training in a skilled trade from Ontario or another province, territory or country. They can have their experience and skills compared to an apprenticeship program in Ontario. The Trade Equivalency Assessment (TEA) process assesses skills based on one of the over 150 Ontario apprenticeship programs. If all the training requirements of that apprenticeship are met, the candidate qualifies to apply for certification in the trade.

**Tables 7.a & 7.b** show the examination history for apprentices. They are younger than trade qualifiers, and they have recent school experience including practice writing exams.

The number of 2019 apprentice examinees for the top 10 and top 5 trades showing the highest frequency of examination activity showed a 133.8% increase from 2016 (N=977). Exam success rate increased 5.3% from 75.8% to 81.1%. Clearly the large increase in the number of examinees had no negative impact on completions (i.e., more apprentice examinees continue to be successful with the trade exams).

In 2019, many trades show that apprentice examinees were successful with their exams more than 90% of the time (**Table 7.a**). Trades showing strong success rates include:

- **Electrician - Construction and Maintenance** (90.3%)
- **Plumber** (97.0%)
- Powerline Technician (100%)
- **Hoisting Engineer - Mobile Crane Operator 1** (100%)
- **Sheet Metal Worker** (90.9%)
- Industrial Electrician (95.4%)
- Metal Fabricator (Fitter) (92.3%)
- **Truck and Coach Technician** (90.5%)
- **Automotive Service Technician** (92.8%)
- Heavy Duty Equipment Technician (94.4%)
- **Auto Body and Collision Damage Repairer** (100%)
- **Hairstylist** (92.8%)
- Utility Arborist (96.5%)

In 2019, passing some trade exams continues to be troublesome for apprentice examinees, particularly passing on the first attempt (**Table 7.a**).

- General Carpenter (135 examinees, 38.5% who passed on the first attempt and 56.3% who passed the exam)
- Ironworker - Structural and Ornamental (49 examinees, 38.8% who passed on the first attempt and 57.1% who passed the exam)
- Brick and Stone Mason (24 examinees, 25.0% who passed on the first attempt and 37.5% who passed the exam)
- Cook (29 examinees, 10.3% who passed on the first attempt and 31.0% who passed the exam)
- Network Cabling Specialist (6 examinees, 50.0% who passed on the first attempt and 50.0% who passed the exam)

Table 9.a  
 Summary of Apprentices' Success Rates for Most Active Trades Sorted by Sector  
 Overall District of Algoma  
 July 2019

<b>Overall - Top Trades by Apprentices and Examination Attempts</b>						
		<b>Apprentices Examinees</b>	<b>Total Attempts</b>	<b>Attempts per Examinee</b>	<b>Passed 1<sup>st</sup> Attempt (%)</b>	<b>Total Passed (%)</b>
<b>Construction</b>						
1	<b>Electrician - Construction and Maintenance</b>	237	339	1.4	72.2%	90.3%
2	General Carpenter	135	213	1.6	38.5%	56.3%
3	<b>Plumber</b>	101	173	1.7	73.3%	97.0%
4	Powerline Technician	53	53	1.0	100.0%	100.0%
5	Ironworker - Structural and Ornamental	49	71	1.4	38.8%	57.1%
6	<b>Hoisting Engineer - Mobile Crane Operator 1</b>	39	57	1.5	76.9%	100.0%
7	<b>Sheet Metal Worker</b>	33	36	1.1	81.8%	90.9%
8	<b>Steamfitter</b>	29	49	1.7	62.1%	79.3%
9	Construction Millwright	27	30	1.1	77.8%	88.9%
10	Brick and Stone Mason	24	36	1.5	25.0%	37.5%
<b>Industrial</b>						
1	Industrial Electrician	131	204	1.6	67.2%	95.4%
2	Industrial Mechanic Millwright	112	177	1.6	45.5%	67.9%
3	Metal Fabricator (Fitter)	52	67	1.3	80.8%	92.3%
4	Welder	13	16	1.2	69.2%	69.2%
5	General Machinist	11	18	1.6	54.5%	81.8%
<b>Motive Power</b>						
1	<b>Truck and Coach Technician</b>	158	319	2.0	65.8%	90.5%
2	<b>Automotive Service Technician</b>	138	164	1.2	84.1%	92.8%
3	Heavy Duty Equipment Technician	54	57	1.1	88.9%	94.4%
4	Small Engine Technician	12	24	2.0	25.0%	75.0%
5	<b>Auto Body and Collision Damage Repairer</b>	10	22	2.2	70.0%	100.0%
<b>Service</b>						
1	<b>Hairstylist</b>	166	195	1.2	84.9%	92.8%
2	Utility Arborist	85	106	1.2	82.4%	96.5%
3	Cook	29	50	1.7	10.3%	31.0%
4	Network Cabling Specialist	6	6	1.0	50.0%	50.0%

Table 9.b  
Summary of Apprentices' Success Rates for Most Active Trades Sorted by Sector  
Overall District of Algoma  
April 2016

<b>Overall - Top Trades by Apprentices and Examination Attempts</b>						
		<b>Apprentices Examinees</b>	<b>Total Attempts</b>	<b>Attempts per Examinee</b>	<b>Passed 1<sup>st</sup> Attempt (%)</b>	<b>Total Passed (%)</b>
<b>Construction</b>						
1	<b>Electrician - Construction and Maintenance</b>	96	127	1.3	71.9%	88.5%
2	General Carpenter	57	84	1.5	49.1%	64.9%
3	<b>Plumber</b>	44	74	1.7	65.9%	86.4%
4	Powerline Technician	34	34	1.0	100.0%	100.0%
5	Brick and Stone Mason	24	30	1.3	25.0%	37.5%
6	<b>Steamfitter</b>	20	37	1.9	60.0%	85.0%
7	Ironworker - Structural and Ornamental	12	16	1.3	33.3%	33.3%
8	<b>Operator Hoisting Engineer - Mobile Crane 1</b>	9	9	1.0	100.0%	100.0%
9	<b>Refrigeration and Air Conditioning Systems Mechanic</b>	9	9	1.0	100.0%	100.0%
10	<b>Sheet Metal Worker</b>	9	9	1.0	100.0%	100.0%
<b>Industrial</b>						
1	Industrial Mechanic Millwright	73	95	1.3	45.2%	63.0%
2	Industrial Electrician	53	78	1.5	75.5%	94.3%
3	Metal Fabricator (Fitter)	16	22	1.4	56.3%	75.0%
4	General Machinist	8	12	1.5	75.0%	75.0%
5	Welder	4	7	1.8	0.0%	0.0%
<b>Motive Power</b>						
1	<b>Automotive Service Technician</b>	47	52	1.1	80.9%	80.9%
2	<b>Truck and Coach Technician</b>	42	88	2.1	54.8%	64.3%
3	Heavy Duty Equipment Technician	28	28	1.0	89.3%	89.3%
4	Small Engine Technician	9	15	1.7	33.3%	66.7%
5	<b>Auto Body and Collision Damage Repairer</b>	7	19	2.7	57.1%	100.0%
<b>Service</b>						
1	<b>Hairstylist</b>	75	88	1.2	86.7%	86.7%
2	Utility Arborist	40	43	1.1	92.5%	100.0%
3	Cook	11	17	1.5	0.0%	27.3%
4	Network Cabling Specialist	3	3	1.0	100.0%	100.0%

The data in **Table 7.c** suggest that, with a few exceptions, over 80% of Trade Qualifiers continue to pass the trade exams. Many trades show a 100% pass rate.

The number of 2019 trade qualifiers for the top 10 and top 5 trades showing the highest frequency of examination activity increased 31.7% from 2016 (N=39). Exam success rate increased 11.1% from 82.2% to 93.3%. Clearly the increase in examination activity had no negative impact on completions (i.e., more trade qualifiers continue to be successful with the trade exams).

- **Electrician - Construction and Maintenance** (96.2%)
- **Plumber** (100.0%)
- **Refrigeration and Air Conditioning Systems Mechanic** (100.0%)
- Powerline Technician (100.0%)
- **Sheet Metal Worker** (100.0%)
- **Hoisting Engineer - Mobile Crane Operator 2** (100.0%)
- **Hoisting Engineer - Tower Crane Operator** (100.0%)
- Industrial Electrician (91.7%)
- Welder (100.0%)
- Industrial Mechanic Millwright (100.0%)
- Instrumentation and Control Technician (100.0%)
- Metal Fabricator (Fitter) (100.0%)
- **Automotive Service Technician** (93.8%)
- Heavy Duty Equipment Technician (81.8%)
- **Truck and Coach Technician** (80.0%)
- **Auto Body and Collision Damage Repairer** (100.0%)
- **Auto Body Repairer** (100.0%)
- Utility Arborist (84.6%)
- **Hairstylist** (100.0%)
- Network Cabling Specialist (100.0%)
- Cook (100.0%)

In 2019, there are some trades that continue to be troublesome for trade qualifiers (**Table 7.c**). The number of trade qualifiers in these trades, however, tends to be low, thus making the percentage calculation of those who pass on the first attempt or eventually pass the exam a less precise indicator.

- General Carpenter (13 trade qualifiers, 69.2% who passed on the first attempt and 76.9% who passed the exam)
- **Steamfitter** (6 trade qualifiers, 33.3% who passed on the first attempt and 66.7% who passed the exam)
- **Residential Air Conditioning Systems Mechanic** (6 trade qualifiers, 66.7% who passed on the first attempt and 66.7% who passed the exam)

Table 7.c  
 Summary of Trade Qualifier Success Rates for Most Active Trades Sorted by Sector  
 Overall District of Algoma  
 July 2019

<b>Overall - Top Trades by Trade Qualifiers and Examination Attempts</b>						
		<b>Trade Qualifiers Examinees</b>	<b>Total Attempts</b>	<b>Attempts per Examinee</b>	<b>Passed 1<sup>st</sup> Attempt (%)</b>	<b>Total Passed (%)</b>
<b>Construction</b>						
1	<b>Electrician - Construction and Maintenance</b>	26	54	2.1	57.7%	96.2%
2	General Carpenter	13	27	2.1	69.2%	76.9%
3	<b>Plumber</b>	9	22	2.4	22.2%	100.0%
4	<b>Steamfitter</b>	6	8	1.3	33.3%	66.7%
5	<b>Residential Air Conditioning Systems Mechanic</b>	6	6	1.0	66.7%	66.7%
6	<b>Refrigeration and Air Conditioning Systems Mechanic</b>	5	10	2.0	0.0%	100.0%
7	Powerline Technician	3	3	1.0	100.0%	100.0%
8	<b>Sheet Metal Worker</b>	3	3	1.0	100.0%	100.0%
9	<b>Hoisting Engineer - Mobile Crane Operator 2</b>	3	4	1.3	66.7%	100.0%
10	<b>Hoisting Engineer - Tower Crane Operator</b>	3	3	1.0	100.0%	100.0%
<b>Industrial</b>						
1	Industrial Electrician	12	18	1.5	66.7%	91.7%
2	Welder	7	16	2.3	57.1%	100.0%
3	Industrial Mechanic Millwright	4	8	2.0	50.0%	100.0%
4	Instrumentation and Control Technician	2	3	1.5	50.0%	100.0%
5	Metal Fabricator (Fitter)	1	1	1.0	100.0%	100.0%
<b>Motive Power</b>						
1	<b>Automotive Service Technician</b>	16	22	1.4	81.3%	93.8%
2	Heavy Duty Equipment Technician	11	17	1.5	72.7%	81.8%
3	<b>Truck and Coach Technician</b>	5	23	4.6	0.0%	80.0%
4	<b>Auto Body and Collision Damage Repairer</b>	3	5	1.7	66.7%	100.0%
5	<b>Auto Body Repairer</b>	1	1	1.0	100.0%	100.0%
<b>Service</b>						
1	Utility Arborist	13	15	1.2	84.6%	84.6%
2	<b>Hairstylist</b>	6	6	1.0	100.0%	100.0%
3	Network Cabling Specialist	3	3	1.0	100.0%	100.0%
4	Cook	1	1	1.0	100.0%	100.0%
5	Parts Technician	0	0	#DIV/0!	#DIV/0!	#DIV/0!



Table 7.d  
Summary of Trade Qualifier Success Rates for Most Active Trades Sorted by Sector  
Overall District of Algoma  
April 2016

Overall - Top Trades by Trade Qualifiers and Examination Attempts						
		Trade Qualifiers Examinees	Total Attempts	Attempts per Examinee	Passed 1 <sup>st</sup> Attempt (%)	Total Passed (%)
<b>Construction</b>						
1	<b>Electrician - Construction and Maintenance</b>	23	65	2.8	43.5%	95.7%
2	General Carpenter	10	18	1.8	60.0%	70.0%
3	<b>Steamfitter</b>	6	8	1.3	33.3%	66.7%
4	<b>Plumber</b>	5	8	1.6	0.0%	60.0%
5	<b>Refrigeration and Air Conditioning Systems Mechanic</b>	5	10	2.0	0.0%	100.0%
6	Powerline Technician	3	3	1.0	100.0%	100.0%
7	<b>Sheet Metal Worker</b>	3	3	1.0	100.0%	100.0%
8	<b>Hoisting Engineer - Mobile Crane Operator 2</b>	3	4	1.3	66.7%	100.0%
9	<b>Hoisting Engineer - Tower Crane Operator</b>	3	3	1.0	100.0%	100.0%
10						

<b>Industrial</b>						
1	Industrial Electrician	10	12	1.2	80.0%	80.0%
2	Welder	5	17	3.4	40.0%	100.0%
3	Industrial Mechanic Millwright	2	4	2.0	0.0%	50.0%
4	Metal Fabricator (Fitter)	1	1	1.0	100.0%	100.0%
5	General Machinist	1	1	1.0	0.0%	0.0%

<b>Motive Power</b>						
1	Heavy Duty Equipment Technician	11	17	1.5	72.7%	81.8%
2	<b>Automotive Service Technician</b>	9	13	1.4	66.7%	88.9%
3	<b>Truck and Coach Technician</b>	3	3	1.0	33.3%	33.3%
4	<b>Auto Body and Collision Damage Repairer</b>	3	5	1.7	66.7%	100.0%
5	<b>Auto Body Repairer</b>	1	1	1.0	100.0%	100.0%

<b>Service</b>						
1	Utility Arborist	10	10	1.0	100.0%	100.0%
2	<b>Hairstylist</b>	6	6	1.0	100.0%	100.0%

*The apprentice examinee and trade qualifier exam data raise questions that may be explored with further research.*

*Analysis is warranted to explore who doesn't complete certification and why. Why do examinees pass some exams and not others? Do they "give up" on writing the exam after doing poorly on the first attempt? Do they have the literacy skills to write the exam? Is the exam too difficult? How do examinees find services to help them prepare for the exam and have they accessed those services?*

*What might explain the strong examination success of Trade Qualifiers?*

## Appendix 1: List of Compulsory Trades in Ontario

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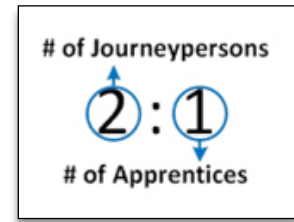
Electrician - Construction and Maintenance	309A	Construction
Plumber	306A	Construction
Sheet Metal Worker	308A	Construction
Refrigeration and Air Conditioning Systems Mechanic	313A	Construction
Steamfitter	307A	Construction
Hoisting Engineer - Mobile Crane Operator 1	339A	Construction
Residential Air Conditioning Systems Mechanic	313D	Construction
Hoisting Engineer - Mobile Crane Operator 2	339C	Construction
Hoisting Engineer - Tower Crane Operator	339B	Construction
Electrician - Domestic and Rural	309C	Construction
Residential (Low Rise) Sheet Metal Installer	308R	Construction
Sprinkler and Fire Protection Installer	427A	Construction
Automotive Service Technician	310S	Motive Power
Truck and Coach Technician	310T	Motive Power
Auto Body and Collision Damage Repairer	310B	Motive Power
Motorcycle Technician	310G	Motive Power
Auto Body Repairer	310Q	Motive Power
Transmission Technician	310D	Motive Power
Truck-Trailer Service Technician	310J	Motive Power
Automotive Electronic Accessory Technician	310K	Motive Power
Alignment and Brakes Technician	310E	Motive Power
Fuel and Electrical Systems Technician	310C	Motive Power
Hairstylist	332A	Service

## Appendix 2: Trades Subject to Journeyman to Apprenticeship Ratios in Ontario

#	Trade	Ratio
1	Architectural Glass and Metal Technician	1:1, 2:1
2	Brick and Stone Mason	1:1, 2:1
3	Cement (Concrete) Finisher	1:1, 1:1, 3:1
4	Construction Boilermaker	1:1, 3:1
5	Construction Millwright	1:1, 3:1
6	Drywall, Acoustic and Lathing Applicator	1:1, 4:1
7	Drywall Finisher and Plasterer	1:1, 3:1
8	Electrician – Construction and Maintenance	1:1, 1:1, 1:1, 1:1, 3:1, 6:1, 3:1
9	Electrician – Domestic and Rural (residential sector)	1:1, 1:1, 1:1, 1:1, 3:1, 5:1, 2:1
	Electrician – Domestic and Rural (non-residential sectors)	1:1, 1:1, 1:1, 1:1, 3:1, 6:1, 3:1
10	Floor Covering Installer	2:1
11	General Carpenter	1:1, 3:1
12	Heat and Frost Insulator	1:1, 3:1
13	Hoisting Engineer - Mobile Crane Operator 1	1:1
14	Hoisting Engineer - Mobile Crane Operator 2	1:1
15	Hoisting Engineer - Tower Crane Operator	1:1
16	Ironworker- Generalist	1:1, 2:1
17	Ironworker – Structural and Ornamental	1:1, 2:1
18	Painter and Decorator – Commercial and Residential	1:1, 1:1, 3:1
19	Painter and Decorator – Industrial	1:1, 1:1, 3:1
20	Plumber	1:1, 2:1
21	Powerline Technician	1:1
22	Precast Concrete Erector	1:1, 3:1
23	Precast Concrete Finisher	1:1, 3:1
24	Refrigeration and Air Conditioning Systems Mechanic	1:1, 2:1
25	Reinforcing Rodworker	1:1, 2:1
26	Residential Air Conditioning Systems Mechanic	1:1, 2:1
27	Residential (Low Rise) Sheet Metal Installer	1:1, 3:1
28	Restoration Mason	1:1, 2:1
29	Rofer	1:1, 2:1
30	Sheet Metal Worker	1:1, 3:1, 3:1, 2:1
31	Sprinkler and Fire Protection Installer	1:1
32	Steamfitter	1:1, 2:1
33	Terrazzo, Tile and Marble Setter	1:1, 2:1

## Appendix 3: How to Interpret Journeyperson to Apprentice Ratios

Ratios are expressed in words in regulations; however, to make it easier to talk about and describe them, they are often referred to by a number-based short form such as 1:1 or 2:1, etc. Expressed numerically, the first number in the ratio indicates the number of journeypersons, and the second number indicates the number of apprentices that can be sponsored or employed. Ratios vary by trade as each trade and sector has particular needs and characteristics. Some trades have a *single ratio*, while others have *changing ratios* that change depending on the number of journeypersons employed.



*Single Ratios* are trades with only one ratio are straightforward to interpret as the ratio stays the same as more journeypersons are employed. For example: Ratio for Powerline Technician

### Ratio(s) in words:

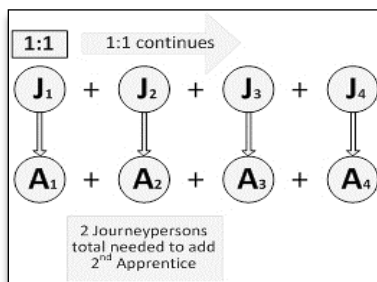
The number of apprentices who may be sponsored or employed by a person in the trade of powerline technician in relation to the number of journeypersons employed by the person in the trade shall not exceed,

- (a) for the first journeyperson, one apprentice; and
- (b) for every additional journeyperson thereafter, an additional apprentice.

### Ratio in numerical form:

1:1

### Ratio in visual form:



**Ratio in table form:**

Journeypersons Employed	Apprentices Allowed	
1	1	
2	2	+
3	3	+
4	4	+
5	5	+
6	6	+
7	7	+
8	8	

1:1 1 journeyperson needs to be employed to hire 1<sup>st</sup> apprentice  
 1:1 2 journeypersons (total) need to be employed to hire 2<sup>nd</sup> apprentice  
 1:1 3 journeypersons (total) need to be employed to hire 3<sup>rd</sup> apprentice  
 1:1 4 journeypersons (total) need to be employed to hire 4<sup>th</sup> apprentice  
 1:1 5 journeypersons (total) need to be employed to hire 5<sup>th</sup> apprentice  
 1:1 6 journeypersons (total) need to be employed to hire 6<sup>th</sup> apprentice  
 1:1 7 journeypersons (total) need to be employed to hire 7<sup>th</sup> apprentice  
*[1:1 continues indefinitely]*

*Changing Ratios* are the number of journeypersons employed increases. The number-based form for the ratios of these trades is more like a formula, and can therefore be more difficult to interpret.

*Ratio formulas* are describe as the *intervals* at which an apprentice can be added in relation to an increase in the number of journeyperson employed. Note that the last ratio in a given formula continues indefinitely but all of the other ratios in that formula have to be met first, in the sequence prescribed, before this happens.

Example: Ratio for Cement (Concrete) Finisher

**Ratio in words:**

The number of apprentices who may be sponsored or employed by a person in the trade of cement (concrete) finisher in relation to the number of journeypersons employed by the person in the trade shall not exceed,

- (a) for the first journeyperson, one apprentice;
- (b) for the second journeyperson, an additional apprentice; and
- (c) for every three additional journeypersons thereafter, an additional apprentice.

**Ratio in numerical form:**

1:1, 1:1, 3:1

**Ratio in table form:**

Journeypersons Employed	Apprentices Allowed	
1	1	
2	2	+
3	2	
4	2	
5	3	+
6	3	
7	3	
8	4	+
9	4	
10	4	
11	5	+
12	5	
13	5	
14	6	+
15	6	

1:1 1 journeyperson needs to be employed to hire 1<sup>st</sup> apprentice  
 1:1 2 journeypersons (total) need to be employed to hire 2<sup>nd</sup> apprentice  
 No added apprentices yet, despite added journeyperson  
 No added apprentices yet, despite added journeyperson  
 3:1 5 journeypersons (total) need to be employed to hire 3<sup>rd</sup> apprentice  
 No added apprentices yet, despite added journeyperson  
 No added apprentices yet, despite added journeyperson  
 3:1 8 journeypersons (total) need to be employed to hire 4<sup>th</sup> apprentice  
 No added apprentices yet, despite added journeyperson  
 No added apprentices yet, despite added journeyperson  
 3:1 11 journeypersons (total) need to be employed to hire 5<sup>th</sup> apprentice  
 No added apprentices yet, despite added journeyperson  
 No added apprentices yet, despite added journeyperson  
 3:1 14 journeypersons (total) need to be employed to hire 6<sup>th</sup> apprentice  
*[3:1 continues indefinitely]*

## Appendix 4: Glossary of Trades Terminology

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### **Apprentices**

This defines individuals who enter into a Registered Training Agreement with MLTSD and hold a membership in the Ontario College of Trades. Apprentices spend 80%-90% of their time learning on the job and 10%-20% of their time in trade school (College or union sponsored trainer).

Individuals in this class:

- Are subject to any ratios and wage rates that have been set out in regulations for their trade(s);
- Can remain in this class until they receive their Certificate of Apprenticeship; and
- Can hold themselves out as apprentices.

### **Certificate of Apprenticeship (C of A)**

This is issued upon completion of the apprenticeship training. In trades that have a Certificate of Qualification, C of A holders can register as a journeyperson candidate as they prepare to write the Certificate of Qualification.

Holders of the Ontario Certificate of Apprenticeship (C of A) qualify for membership in the College and are therefore not eligible for the Trade Equivalency Assessment (TEA) process.

### **Certificate of Qualification (C of Q)**

The Certificate of Qualification is issued upon completion of the exam in a designated trade. The C of Q holder is then designated as a Journeyperson. Ontario has 75 trades that offer the C of Q designation. Twenty-two (22) of these trades are compulsory meaning the C of Q is legally required to work in their trade.

### **Compulsory Trade**

Ontario has 22 compulsory trades. These are trades in which registration as an apprentice, journeyperson candidate or certification as a journeyperson is mandatory. Persons working in these trades hold a valid Certificate of Qualification and membership in the Ontario College of Trades.

### **Journeyperson Candidate**

A journeyperson candidate is registered with the Ontario College of Trades in preparation for writing the Certificate of Qualification exam.

Journeyperson candidates:

- Have completed an Ontario apprenticeship program (hold a Certificate of Apprenticeship) in a trade that has a Certificate of Qualification exam (voluntary or compulsory) and have not passed that Certificate of Qualification exam for their trade(s);
- Are subject to any ratios and/or wage rates that have been set out for their trade(s), if they practice a compulsory trade
- Can remain in this class until they pass the Certificate of Qualification exam and become members of the Journeypersons class or for a maximum of one year (whichever comes first);
- Can continue to work legally in their trade, if they are in a compulsory trade, as they prepare to write their exams (individuals in voluntary trades do not have to be members of the College to work legally); and
- Can hold themselves out as journeyperson candidates (they are neither apprentices nor journeypersons).

## **Journeyperson**

A journeyperson holds a valid Certificate of Qualification. Journeypersons in compulsory trades must hold a membership in the Ontario College of Trades to legally work in Ontario. Journeypersons in the voluntary trades are not required to hold membership in the Ontario College of Trades and may work in their trade without restriction.

Individuals in this class:

- Have met all of the requirements set out for their trade(s) and hold a valid Certificate of Qualification
- If an individual is not an Ontario apprentice (i.e. does not have a Certificate of Apprenticeship), they could have met the requirements by having been assessed to have experience and/or qualifications that are equivalent to a Certificate of Apprenticeship in that trade and passed the required Certificate of Qualification exam, if one is available for the trade; or
- Have been assessed to have experience and/or qualifications that are equivalent to a Certificate of Apprenticeship and have been issued a valid Provisional Certificate of Qualification (separate eligibility requirements set out in Ontario Regulation 321/12 and in College operational policy); and
- Can hold themselves out as journeypersons.

## **Registered Training Agreement (RTA)**

This is the agreement between the employer (sponsor) and the apprentice outlining the roles and responsibilities of each party throughout the apprenticeship duration. The Registered Training Agreement is held by the local MLTSD office. The apprentice must be registered as a member of the Ontario College of Trades.

## **Sponsor**

The sponsor is one partner in the Registered Training Agreement (RTA) who provides apprenticeship training in the workplace. Typically, the sponsor is an employer who takes an apprentice into the workplace to train under the supervision of a mentor.

## **Trade Sector**

The 156 Ontario trades are organized in four trades sectors: construction, industrial, motive power and service.

## **Tradesperson**

This is a term that can be used in general to describe anyone performing work in the trades; however, within the regulations of the Ontario College of Trades it has a very specific meaning.

Tradespersons:

- Practice voluntary trades where there is a Certificate of Qualification exam to become certified as Journeyperson in the trade;
- Have been members of the Journeyperson Candidates Class or are not eligible for Journeyperson Candidates Class and have been assessed to have experience and/or qualifications that are equivalent to a Certificate of Apprenticeship in that trade;
- Are preparing to write/have no plans to write/have not passed the available Certificate of Qualification exam for their trade(s);
- Can remain in this class indefinitely or until they pass the available Certificate of Qualification exam for their trade(s); and
- Can hold themselves out as tradespersons (they are neither apprentices nor journeypersons).

Individuals in the Tradespersons Class are not subject to any ratios and/or wage rates that may be set out for their trade(s).





**Trade Qualifier (TQ)**

Trade qualifiers have work experience and training in a skilled trade from Ontario or another province, territory or country. They can have their experience and skills compared to an apprenticeship program in Ontario. The Trade Equivalency Assessment (TEA) process assesses skills based on one of the over 150 Ontario apprenticeship programs. If all the training requirements of that apprenticeship are met, the candidate qualifies to apply for certification in the trade.

**Training Delivery Agent (TDA)**

These are MLTSD approved organizations that fall within one of the following categories:

- a public educational institution recognized as such by the Ministry of Labour, Training and Skills Development (MLTSD);
- a registered non-profit agency or union having demonstrated training experience;
- a private career College registered under The Private Career College's Act, 2005 with the Private Career College's Compliance Unit of MLTSD; or
- other private training institutions which may be eligible to apply.

**Voluntary Trade**

Every trade that is not identified as compulsory is, by default, voluntary. Certification is offered in some voluntary trades, but is not a requirement to practice in the trade.