

INTRODUCTION TO TRADES MANUAL





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INTRODUCTION

This guide was created for internationally-trained tradespeople and new/potential immigrants interested in pursuing a career in Ottawa's skilled trades sectors. Whether you intend to further your career as an experienced tradesperson or are seeking an exciting new occupation in the trades, this guide will provide you with the information and resources to prepare you for the realities of working as a tradesperson in Ottawa. Within this guide you can expect to find:

- A summary of Ontario's definition of skilled trades
- Introduction to laws and legislation surrounding employment and training in the skilled trades
- A step-by-step explanation of certification processes for both experienced and potential tradespeople
- Overviews of Ontario's 4 trades sectors (construction, motive power, industrial and service)
- Sector-specific information about Ottawa's labour market
- Links to existing online resources
- Insider information and advice for new Canadians seeking employment in trades

We hope that this guide serves as a comprehensive overview to help make your transition into Ottawa's trades sectors as smooth as possible.

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MODULE A: Introduction to Skilled Trades

What is a Skilled Trade?

In Ontario, there are around 150 careers and occupations that are considered to be "skilled trades". These occupations generally meet the following criteria:

- Require a specialized skill set
- Are "hands on" work normally a worker in the skilled trades would spend most of their time working with their hands, and not behind a desk in an office
- Has an apprenticeship training option
- Certification awarded by provincial government
- Are part of one of Ontario's four trades sectors Construction, Motive Power, Industrial and Service

Some examples of more commonly known skilled trades are Electrician, Plumber, General Carpenter, Automotive Service Technician, Auto Body Repairer, Truck and Coach Technician, Welder, Machinist, Tool and Die Maker, Hairstylist, Chef, and Child Development Practitioner.

What is an Apprenticeship?

Apprenticeship is a method of formal training specific to the skilled trades. An apprentice is someone who is working towards Ontario trades certification under the supervision of a qualified journeyperson. A journeyperson is someone who holds a Certificate of Qualification in a skilled trade from the Ontario government.

Some features of apprenticeship include:

- "Hands-on" learning As an apprentice, you will be an employee of a company that employs tradespeople in your trade of choice. You will learn about your trade by actually participating in the work that journeypersons normally do. During this time you will keep track of the skills that you learn in order to ensure that your training is complete and meets Ontario standards.
- 80%-90% on-the-job training; 10%-20% in class For the majority of your time as an apprentice, you will be working in your trade, learning through experience. There is also a theoretical component to most apprenticeships, which means that you will be sent to study at an Ontario

public college or training institute. Your employer will give you time off work to complete this "in class" training. For most trades you will have to attend classes 2 or 3 times throughout your apprenticeship, normally for blocks of 8 weeks at a time.

- 2 to 5 years in length the length of an apprenticeship varies depending on the trade in which you are an apprentice. Apprenticeships are defined by a number of hours worked in your trade. For example, a Chef apprenticeship is 2260 hours long, which is just over 1 year of full-time work. A Plumber has to work 9000 hours to complete an apprenticeship, which is about 5 years of full-time work.
- *"Earn while you learn"* Apprentices are regular employees, and must be paid for their work. You will earn a regular paycheque for your "on the job" training hours.

Regulations

In Ontario, the skilled trades are regulated by the Government of Ontario. The Ministry of Training, Colleges, and Universities (MTCU), through their Employment and Training division, is the government ministry responsible for the regulation of the skilled trades. The MTCU:

- Registers apprentices
- Monitors on-the-job and in-class training of apprentices
- Grants Certificates of Qualification

There are two different Ontario legislations that regulate the skilled trades:

TQAA (Trades Qualification and Apprenticeship Act - 1964)	ACA (Apprenticeship Certification Act - 2000)
- Designates trades as "compulsory" or "voluntary"	- Designates trades as "restricted" or "unrestricted"
 Apprenticeships are based on number of hours of work completed 	 Apprenticeships are based on competencies learned, with the number of hours acting as a guideline for length
- Regulates 32 trades in the Construction sector	 Regulates all trades in the Motive Power, Industrial, and Service sectors, as well as 8 trades in the Construction sector

Compulsory/Restricted Trades

"Compulsory" and "Restricted" are the same concept, but are named differently depending on whether they are "TQAA" trades or "ACA" trades. These trades legally require a person working in that trade to hold a Certificate of Qualification from the Ontario government (be a qualified *journeyperson*). You may also work in a compulsory or restricted trade if you are an *apprentice* who has registered with the MTCU. If you do not have an Ontario Certificate of Qualification and/or are not a registered apprentice, you are not legally allowed to practice this trade in Ontario.

Twenty-two trades are compulsory or restricted in Ontario, mainly in the Construction and Motive Power sectors. Compulsory and restricted trades tend to be those that are dangerous for workers (for example, Construction and Maintenance Electrician) and those which could pose a danger to the public if performed inadequately (for example, Alignment and Brakes Technician). For a complete list of Compulsory and Restricted trades, please go to:

http://www.tcu.gov.on.ca/eng/employmentontario/training/certification.html

Voluntary/Unrestricted Trades

"Voluntary" and "Unrestricted" are the same concept, but are named differently depending on whether they are "TQAA" trades or "ACA" trades. You may legally work in these trades without Ontario certification. However, industry standards, employers, and unions may require tradespeople to hold a Certificate of Qualification to work in these trades. There is optional certification available in all Voluntary and Unrestricted trades.

Most trades are considered to be Voluntary or Unrestricted, including all trades in the Industrial sector and most trades in the Service sector. For a complete list of Voluntary and Unrestricted trades, please go to: <u>http://www.tcu.gov.on.ca/eng/employmentontario/training/certification.html</u>

MODULE B: How to Become a Tradesperson

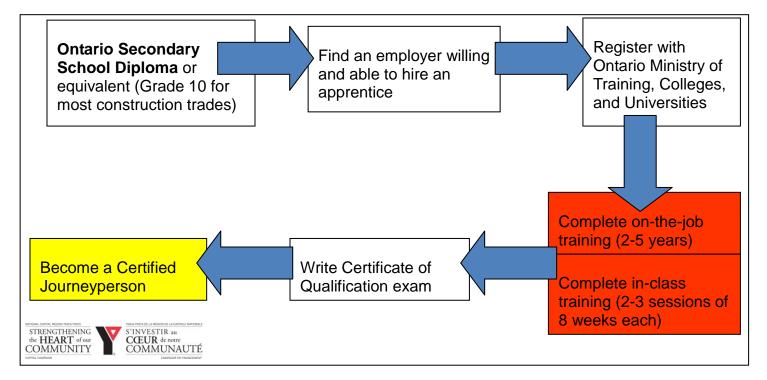
There are 2 pathways you can take to become a certified tradesperson in the province of Ontario. If you have no experience in your trade of choice, you will take the <u>Apprenticeship Pathway</u>. If you have experience in your trade in country of origin, you may be eligible to take the shorter <u>Certification</u> <u>Pathway</u>.

The Apprenticeship Pathway

Apprenticeship is the traditional way most of Ontario's skilled tradespeople obtain their certification. Apprenticeship is:

- Structured, practical, on-the-job training (2-5 years): To find the length of apprenticeship for your trade, click <u>here</u>;
- Working under the supervision of a qualified tradesperson ;
- Supplemented by in-school theoretical instruction (2-6 months throughout apprenticeship period);
- Usually seen as an alternative to taking a post-secondary academic program at a college or university (although some tradespeople choose to combine apprenticeship with an academic credential);
- Regulated by the Ontario Ministry of Training, Colleges and Universities.

The steps of an apprenticeship are as follows:



For all trades under the <u>ACA</u>, you must have at least the equivalent of an <u>Ontario Secondary School</u> <u>Diploma</u> in order to register as an apprentice. For most trades under the <u>TQAA</u>, you must have at least the equivalent of an Ontario Grade 10 education.

- If you have a secondary or post-secondary education from your country of origin, you may have a <u>credential assessment</u> done to prove that you meet the academic requirements for apprenticeship in Ontario
 - Credential assessment services recognized by the MTCU are <u>World Education Services</u> and <u>International Credential Assessment Service of Canada</u>
 - There is a cost associated with credential assessment. Before beginning the process, contact the <u>Ministry of Training, Colleges and Universities</u> for more details about the type of assessment required.
- If you have not completed a secondary school education you may complete a free assessment process (Prior Learning Assessment Recognition – PLAR) through the Ottawa-Carleton District School Board's <u>Continuing Education</u> Program. You may be awarded up to 26 of the 30 credits required by the Ontario Secondary School Diploma through the PLAR process. This process can only begin once you have arrived in Ottawa.
- If you do not have documentation of your educational history, it is easier to go through the PLAR
 process than it is to have a formal credential assessment done.

Step 2: Find an employer

Finding an employer can be the most challenging part of the apprenticeship process. Many employers will only hire someone to apprentice once they have had an opportunity to get to know them and had a chance to see how they work. Hopeful apprentices that have no related experience may need to start out as a "helper" before being registered as an apprentice.

Employers are looking for apprentices who:

- Work hard
- Work well with a team
- Communicate well in English or French
- Are ready to learn

- Are punctual and reliable
- Have basic essential skills such as reading, writing and numeracy

To apply for apprenticeship jobs, it helps to have:

- A good North American style <u>resume</u>;
- Interview skills;
- A network of friends, acquaintances and professional contacts in Ottawa;

 Good resources for potential apprentices seeking employment include <u>Apprenticesearch.com</u> and <u>Tradeability.ca</u>.

In some construction trades, hiring may be restricted by "ratios". Basically, there must be a certain number of certified journeypersons working for an employer in order for that employer to hire apprentices. This affects some employers' ability to hire more than one apprentice at a time.

Once you arrive in Ottawa, there are various employment services that can help you find an employer to hire you as an apprentice. <u>Employment Ontario</u> is a government-funded program that has various locations around the city that offers free services to make finding employment easier.

The National Capital Region YMCA-YWCA offers <u>Power of Trades</u>, a pre-employment training program for immigrants interested in apprenticeship and the skilled trades. This program is open to all sectors of the trades, and can help you learn more about certification processes and connect with trades' employers.

Step 3: Register with the Ministry of Training, Colleges, and Universities (MTCU)

Once you have been hired as an apprentice, you or your employer must contact the MTCU to register your apprenticeship. If you do not register with MTCU the hours you work will not count towards your apprenticeship.

- When you register as an apprentice, you will be given a book called the "Apprenticeship Training Standard" for your trade, which outlines all of the competencies you will be required to learn over the course of your apprenticeship;
- You must use this book to keep track of what you learn during your training to prove to MTCU that you are ready to write your exam;
- There is a \$40 fee for registering as an apprentice with MTCU.

Step 4: Complete On-the-Job/In-class training

Your on-the-job training will take between 2 and 5 years, depending on which trade you choose. During this time you will:

- Work as a **paid** employee of a company that employs tradespeople;
- "Learn by doing" work alongside certified journeypersons and participate in all aspects of their work;
- Keep track of what you learn using your Apprenticeship Training Standards.

You must also attend school 2 or 3 times (depending on your trade) to learn the theoretical aspects of your trade

- Courses are usually 8 weeks long;
- In most cases, MTCU will send you a letter in advance to inform you that it's your turn to participate in in-class training;
- Your employer must give you time off from work to take these courses;
- Many trades have their in-class training at public colleges. In Ottawa the Englishlanguage public college is <u>Algonquin College</u> and the French-language public college is <u>La</u> <u>Cité collégiale</u>. If the in-class training for your trade is not offered at one of these 2 colleges you may be asked to attend a private institution, or to travel outside of Ottawa to complete your training. There is no extra cost associated with attending a private institution;
- All in-class training is subsidized by the MTCU, and the cost to the apprentice for each "level" is usually \$400-\$600.

There may be additional costs associated with your apprenticeship. For example, in many trades it is expected that you will provide your own tools. The cost of this varies greatly depending on the kind of trade you pursue. For example, a Child Development Practitioner will need very little in the way of tools, whereas a Truck and Coach Technician may require thousands of dollars' worth of tools. You may be eligible for <u>financial assistance</u>, available to apprentices through various levels of government.

Step 5: Write Certificate of Qualification exam

Once you have completed your required number of on-the-job hours, finished all required levels of in school training, and demonstrated all of the competencies outlined in your Apprenticeship Training Standards manual, you may write the Certificate of Qualification exam. You will prepare for this exam during your final level of in-class training.

- Multiple choice; 100-150 questions;
- Must get 70% right to pass;
- The cost of writing the Certificate of Qualification exam is \$100. If you do not pass your exam, you may write it again. You will have to pay the \$100 fee each time you attempt the exam.

Step 6: Become a Certified Journeyperson

Once you pass the exam, you will be awarded a Certificate of Qualification. This certification identifies you as a tradesperson who meets all of the requirements and standards of the Government of Ontario. You will often hear the Certificate of Qualification referred to as your "C of Q", or your "ticket". You may also begin training apprentices, to ensure that the tradition of skilled labour in Ontario continues.

Certification Pathway

If you have experience in a trade, you may be eligible to skip the apprenticeship process and attempt to write the Certificate of Qualification exam. This process is known as "challenging the Certificate of Qualification exam".

You may not apply to challenge the Certificate of Qualification exam until you have arrived in Ontario. However, it is a good idea to begin doing research and collecting the required documentation before you leave your home country.

Knowing which trade is your trade

Although job titles may be similar, duties performed by tradespeople vary across Canada and around the world. Before preparing to challenge the Certificate of Qualification exam, ensure that you are preparing to challenge in the trade that best matches your skills and experience. Trades in Ontario can be quite general (i.e. General Carpenter) or more specialized (i.e. different designations of Electricians – Industrial, Construction & Maintenance, or Domestic & Rural). The differences between certifications in trades that may seem to be similar can be large or small, depending on the trades in question. For a complete list of trades, click <u>here</u>.

The best way to ensure that you meet the requirements to work in your trade in Ontario is to read the Apprenticeship Training Standard for your trade. The Apprenticeship Training Standard (ATS) is a book that includes all of the skills required of a tradesperson who has done their training in Ontario. Apprenticeship Training Standards are available for free from any apprenticeship office in Ontario, or can be ordered online for free delivery within Canada and the USA from <u>Publications Ontario</u>.

Trades with a <u>Red Seal</u> designation have helpful documents called National Occupational Analyses (NOA), which are available online. Ontario Certificate of Qualification exams are based on the NOA, and they can be a great resource for comparing your skills and knowledge to those of a tradesperson trained in Canada.

If you are unable to access the ATS or NOA for your trade, you can search for your job title at <u>www.workingincanada.gc.ca</u>. This website will give you a brief description of the skills and job duties required of someone who holds that job title.

Proving your experience

For each trade, there is a minimum number of hours of work experience that you must be able to prove in order to challenge the exam. This number of hours is equal to or greater than the number of hours required to complete an apprenticeship in Ontario. To find the number of hours required for your trade, click <u>here</u>. Educational credentials are not taken into consideration when assessing a candidate for the certification pathway. There is no minimum educational requirement to challenge the Certificate of Qualification exam.

The most effective way to prove your experience is to provide experience letters from past employers. Letters must be original, dated documents, and must be signed by a company representative who can confirm the information in the letter. Experience letters must include:

- The company representative's name and job title;
- Contact information of a company representative who can confirm the information in the letter;
- The company's name, address and telephone number;
- The name of each position you held that supports your application;
- The start and end dates for each position;
- The number of hours you worked in each position;
- A detailed description of your job duties for each position;
- References for hands-on experience only (i.e., not for work as a supervisor or foreman).

If you are/were self-employed in your trade, your documentation should include:

- A detailed résumé of completed jobs, including names of customers and their contact information, descriptions and locations of the jobs and how long each took to complete;
- Documents that show the type of work you performed for customers (e.g., contracts, formal quotations for jobs, invoices to customers, invoices from suppliers);
- Your country's equivalent of Canada's GST/HST account number and/or Business Number (BN) from the <u>Canada Revenue Agency</u>.

If you are unable to provide proof of your work experience because you are a refugee/refugee claimant or an immigrant from a war-torn country, you may provide a written explanation of why you have no documentation of your trade skills and experience. You will also need to provide confirmation of your status in Canada from the <u>Immigration and Refugee Board</u> or <u>Citizenship and Immigration Canada</u>.

All documents you include in your application must be in either English or French. If any of them are in another language, you must have them translated into one of these two languages and include both the translation and the document in the original language with your application. Translations must be done by a professional translator (in your home country or in Canada) who is a member of a recognized association of professional translators (e.g., the Association of Translators and Interpreters of Ontario). Translations by anyone else are not acceptable.

Other than your experience letters, do not submit original documents as part of your application. The documentation will be kept by the Ministry and government and will not be returned to you.

Apply to challenge the Certificate of Qualification exam

In order to challenge the exam you must complete an application form and an "Affirmation of Skills" from MTCU. The "Affirmation of Skills" is basically a form stating that you have read and understood the Apprenticeship Training Standard for your trade, and that you find your skills and experience to be comparable to those of a tradesperson trained in Ontario.

When you have completed your application and have gathered your required documentation, you must make an appointment to meet with Ministry staff in-person. The <u>MTCU office</u> in Ottawa is located at:

347 Preston St., 3rd Floor Ottawa, Ontario K1S 3H8 Telephone: 613-731-7100 or 1-877-221-1220 Fax: 613-731-4160

Ministry staff will inform you of your eligibility to challenge the Certificate of Qualification (C of Q) exam within about 15 days of receiving your application. If your application is approved, you may:

- Make an appointment to write the Certificate of Qualification exam;
- Pay a \$100 fee to write the C of Q exam;
- Ask about your eligibility for a Letter of Permission or a Provisional Certificate of Qualification if your trade has compulsory or restricted certification in Ontario. If you qualify, you can work in your trade for three months while you prepare to write the certification exam.

If your application is not approved, you will receive a letter explaining why. MTCU may recommend that you complete some <u>apprenticeship training</u> before applying to write the exam again.

Preparing for the exam

The Certificate of Qualification exam is different for every trade, but all exams have certain elements in common:

- Multiple choice; 100-150 questions;
- Must get 70% right to pass exams are marked electronically;
- Exams may be written in English or French;
- You will have 4 hours to write the exam. During this time you are not permitted to leave the examination room for any reason;
- Everything you need, including pencils, calculators and code books, will be provided at the exam site. Dictionaries are available for a number of languages. Contact the MTCU

office before your appointment to confirm that there is a dictionary in the language you need;

- You may have an interpreter with you during the exam, but that person must not be a tradesperson and must be approved by MTCU prior;
- If requested in advance, MTCU may be able to make accommodations. For example, you
 may be given extra time to write the exam if you have a learning disability, or you may
 bring along someone to read the questions out loud to you if you are visually impaired;
- In Ottawa, all exams are written at the MTCU office at 347 Preston Street;
- You must pay a \$100 fee in order to write the exam.

The Certificate of Qualification exam can be very difficult, even for tradespeople who have been trained in Ontario. It is very common to fail the exam on the first try. It is a good idea to study and prepare for the exam. Some points to consider include:

- Differences in terminology between Ontario and elsewhere the trade is practiced. Even within the English- or French-speaking worlds there are many differences in technical terms and "jargon" used;
- Differences in units of measurements. In Ontario, your trade may use the metric system, the imperial system, or both, depending on the circumstance;
- Differences in codes, regulations, and safety standards. These topics are included in the exams for many trades.

Exam Results

You will receive your results by mail within 10 business days of the date you wrote the exam. You will receive a breakdown of your results, indicating your score on the different sections of the exam. If you did not pass the exam, this results sheet can help you prepare to re-write the exam.

- You may re-write the exam after waiting at least 15 days;
- It is recommended to arrange to meet with MTCU staff to discuss your results and see what steps you can take to improve for your next attempt;
- If you fail the exam 3 times, you will be required to meet with MTCU staff to discuss what upgrading or training you may require before being eligible to write the exam a fourth time;
- You must pay the \$100 fee each time you attempt the exam.

Once you pass the exam, you will be awarded a Certificate of Qualification. This certification identifies you as a tradesperson who meets all of the requirements and standards of the Government of Ontario. You will often hear the Certificate of Qualification referred to as your "C of Q", or your "ticket". You may also begin training apprentices, to ensure that he tradition of skilled labour in Ontario continues.

Where to find help

The MTCU has a <u>Guide to Writing Your Certificate of Qualification Exam</u>, hard copies of which are available at any MTCU office.

Once you arrive in Ottawa, there are various employment services that can help you find employment before and after becoming a certified tradesperson. <u>Employment Ontario</u> is a provincial government-funded program that has various locations around the city that offer free services to make finding employment an easier process.

The YMCA-YWCA of the National Capital Region offers a trades program called <u>Power of Trades</u>, a preemployment training program for immigrants with experience in the skilled trades. This program is open to all sectors of trades, and can help you learn more about certification processes and connect with trades' employers.

La Cité collégiale offers the <u>Programme d'accès aux métiers de la construction pour les immigrants</u> (<u>PAMCI</u>), a bridge-training program for French-speaking immigrants with experience in the construction trades. This program can help you develop your occupation-specific language skills and familiarize yourself with the technical aspects of practicing your trade in Ontario.

Algonquin College offers <u>Occupation-Specific Language Training</u> for construction and motive power trades. These programs can help you learn English terminology and jargon used in your trade in Ontario.

MODULE C: Four Trades Sectors

The skilled trades are divided into four sectors in Ontario: Construction, Motive Power, Industrial, and Service. Each of these sectors contains diverse opportunities and encompasses a wide range of skill sets.

Construction

Construction trades are trades that have to do with residential, commercial, institutional and industrial building and construction. This sector employs more tradespeople in Ottawa than any other trades sector. Even in a severe and changeable climate like Ottawa, most Canadian construction tradespeople work outdoors and operate year-round, meaning that enduring extreme temperatures and weather conditions is just part of the job.

There are 41 trades in the construction sector, 11 of which are Compulsory/Restricted Trades:

Compulsory trades (certification is required by law):

- Electrician Construction and Maintenance (Construction Electrician)
- Electrician Domestic and Rural
- Hoisting Engineer Mobile Crane Operator Branch 1 (Mobile Crane Operator)
- Hoisting Engineer Mobile Crane Operator Branch 2
- Hoisting Engineer Tower Crane
 Operator
- Plumber

Voluntary trades (certification is not required by law):

- Architectural Glass & Metal Technician (Glazier)
- Brick and Stone Mason (Bricklayer)
- Cement (Concrete) Finisher
- Cement Mason
- Concrete Pump Operator*
- Construction Boilermaker (Boilermaker)
- Construction Craft Worker*
- Construction Millwright

- Refrigeration and Air Conditioning Systems Mechanic (HVAC Technician)
- Residential Air Conditioning Mechanic
- Residential (Low Rise) Sheet Metal Installer
- Sheet Metal Worker
- Steamfitter (Steamfitter/Pipefitter)

- Drywall, Acoustic and Lathing Applicator (Lather [Interior Systems Mechanic])
- Drywall, Finisher and Plasterer
- Exterior Insulated Finishing Systems Mechanic (EIFS)*
- Floor Covering Installer
- General Carpenter (Carpenter)
- Hazardous Materials Worker (HAZMAT)*

- Heat and Frost Insulator (Insulator [Heat and Frost])
- Heavy Equipment Operator Dozer*
- Heavy Equipment Operator Excavator*
- Heavy Equipment Operator Tractor Loader Backhoe*
- Ironworker Generalist Branch 1
- Ironworker Structural and Ornamental Branch 2
- Native Residential Construction Worker*
- Painter and Decorator Branch 1 Commercial and Residential

- Painter and Decorator Branch 2 Industrial
- Powerline Technician
- Precast Concrete Erector
- Precast Concrete Finisher
- Restoration Mason
- Roofer
- Sprinkler System Installer (Sprinkler and Fire Protection Installer)
- Terrazzo, Tile and Marble Setter (Tilesetter)

Most of the Construction trades are regulated by the <u>Trades Qualification and Apprenticeship Act</u>. Trades marked with an asterisk (*) are regulated by the Apprenticeship Certification Act (ACA). Trades regulated by the ACA require <u>apprentices</u> to hold an Ontario Secondary School Diploma or equivalent. All other Construction trades require the Ontario equivalent of a Grade 10 education, with the exemption of Brick and Stone Masons (Bricklayers), Cement Masons, and Drywall Finishers and Plasterers, which require a Grade 8 education. It is anticipated that these regulations will change in the coming years, and that all construction trades will soon require apprentices to have an Ontario Secondary School Diploma or equivalent. Although not required by law, many employers and unions currently require apprentices to have at least a secondary school education.

Trades may be officially or commonly known by different names and job titles. Visit <u>www.workingincanada.gc.ca</u> to see all job titles included in your trade.

Certain trades in the Construction sector have regulations in regards to hiring apprentices. You may hear an employer or tradesperson refer to "ratios". This means that for every apprentice a company employs, they may also be required by law to employ a specified number of journeypersons. For example, if a company employs one apprentice glazier, they must have at least one certified journeyperson glazier on staff (1:1). If a company hires a second apprentice, they must have at least four certified journeyperson glaziers on staff, or two journeypersons for every one apprentice (1:2). Ratios do not affect all construction trades, and the ratio system is presently under review. To see the current required ratios for all construction trades, click <u>here</u>.

Certain trades in the Construction sector have regulations in regards to the rate of pay for apprentices compared to that of certified journeypersons. For example, a first year apprentice sprinkler system installer must be paid 40% of a journeyperson's wage, a second year apprentice must be paid 60% of a journeyperson's wage, a third year apprentice must be paid 70% of a journeyperson's wage, and a fourth (final) year apprentice must be paid 80% of a journeyperson's wage. Wage rate regulations do not affect all Construction trades. This regulation is especially common in trades that are heavily <u>unionized</u>. To see which trades have regulations surrounding wage rates, click <u>here</u>.

For more information about careers in the Canadian Construction sector, please visit the Construction Sector Council's careers website at <u>www.careersinconstruction.ca</u>.

Motive Power

Trades in the Motive Power sector are those related to machinery that moves, transports people and goods. Due to Canada's vast geography and low population density, our country is dependent on skilled workers to repair, build, and maintain vehicles. The long, harsh winters and hot, humid summers that Ottawa experiences can be hard on cars, trucks, and related machinery, so the Motive Power Sector is active and dynamic in our city year-round.

There are 20 Motive Power trades, 9 of which are <u>restricted</u>.

Restricted trades (certification is required by law):

- Alignment and Brakes Technician
- Auto Body and Collision Damage Repairer Br. 1 (Motor Vehicle Body Repairer)
- Auto Body Repairer Br. 2
- Automotive Electronic Accessory Technician
- Automotive Service Technician

Unrestricted trades (certification is not required by law):

- Agricultural Equipment Technician
- Automotive Glass Technician
- Automotive Painter (Auto Body and Automotive Painter)
- Heavy Duty Equipment Technician
- Marine Engine Technician
- Motive Power Machinist

- Motorcycle Technician (Motorcycle Mechanic)
- Transmission Technician
- Truck and Coach Technician (Truck and Transport Mechanic)
- Truck Trailer Service Technician (Transport Trailer Technician)
- Powered Lift Truck Technician
- Recreation Vehicle Technician
- Small Engine Technician
- Tire Wheel and Rim Mechanic
- Turf Equipment Technician

All trades in the Motive Power sector are regulated by the <u>Apprenticeship Certification Act</u>. This means that all trades in the Motive Power sector require <u>apprentices</u> to hold an Ontario Secondary School Diploma or equivalent. Due to rapid technological advances in the Motive Power sector, many employers prefer that inexperienced apprentices have some post-secondary training or education specific to their trade of interest.

Trades may be officially or commonly known by different names and job titles. Visit <u>www.workingincanada.gc.ca</u> to see all job titles included in your trade.

For more information about careers in the Motive Power sector in Canada, please visit the Canadian Automotive Repair and Service Council website at <u>www.cars-council.ca</u>.

Industrial

Trades in the Industrial sector are mainly related to manufacturing and secondary industry. Of the four trades sectors, the Industrial sector has the most variety of trades within it. Although this sector has traditionally been a significant employer within Ontario, it is relatively minor in the Ottawa area. Some trades in the Industrial sector may not necessarily be directly involved in manufacturing, and these are the trades which tend to be more in-demand in the National Capital Region.

There are 51 Industrial trades, all of which are unrestricted.

- Bearings Mechanic
- Blacksmith
- Cabinetmaker
- CNC (computer numerical control) Programmer
- Composite Structures Technician
- Die Designer
- Draftsperson Mechanical
- Draftsperson Plastic Mould Design
- Draftsperson Tool & Die Design
- Electric Motor Systems Technician
- Electrical Control (Machine) Builder
- Electrician (Signal Maintenance Toronto Transit Commission)
- Elevating Devices Mechanic
- Entertainment Industry Power Technician
- Facilities Mechanic
- Facilities Technician
- Fitter Assembler (Motor Assembly)
- General Machinist (Machinist)
- Hydraulic/Pneumatic Mechanic
- Industrial Electrician
- Industrial Mechanic Millwright
- Instrumentation and Control Technician
- Light Rail Overhead Contact Systems Lineperson - Toronto Transit Commission
- Locksmith
- Machine Tool Builder and Integrator

- Metal Fabricator (Fitter)
- Mould Designer
- Mould Maker
- Mould or Die Finisher
- Optics Technician (Lens and Prism Maker)
- Packaging Machine Mechanic
- Pattern Maker
- Precision Metal Fabricator
- Pressure Systems Welder
- Process Operator: Food Manufacturing
- Process Operator: Power
- Process Operator: Refinery, Chemical & Liquid Processes
- Sheet Metal Worker
- Railway Car Technician
- Relay and Instrumentation Technician
- Roll Grinder/Turner
- Saw Filler/Fitter
- Ski Lift Mechanic
- Surface Blaster
- Tool & Cutter Grinder
- Tool & Gauge Inspector
- Tool and Die Maker
- Tool/Tooling Maker
- Tractor Trailer Commercial Driver
- Water Well Driller
- Welder

All trades in the Industrial sector are regulated by the <u>Apprenticeship Certification Act</u>. This means that all trades in the industrial sector require <u>apprentices</u> to hold an Ontario Secondary School Diploma or equivalent.

Although all trades in the industrial sector are officially unrestricted, many employers will require proof of education or experience in order to work in the trade.

Trades may be officially or commonly known by different names and job titles. Visit <u>www.workingincanada.gc.ca</u> to see all job titles included in your trade.

For more information about careers in the Industrial sector in Canada, please visit the Canadian Tooling and Machining Association website at <u>www.ctma.com</u>.

Service

The Service sector is the largest sector of Ontario's economy. It is also a major sector within the economy of the National Capital Region. The Service sector covers a wide range of skill sets and career opportunities. Although many trades in the Service sector involve "service" and dealing directly with people, some are simply skilled trades that do not fit into the more traditional Construction, Motive Power, or Industrial sectors.

There are 37 Service sector trades, 1 of which is <u>restricted</u>.

Restricted trade (certification is required by law):

• Hairstylist

Unrestricted trades (certification is not required by law):

- Aboriginal Child Development Practitioner
- Agriculture Dairy herdsperson
- Agriculture Fruit grower
- Agriculture Swine herdsperson
- Appliance Service Technician
- Arborist
- Baker
- Baker-Patisserie (Baker)
- Chef
- Child and Youth Worker
- Cook Assistant Branch 1
- Developmental Services Worker
- Child Development Practitioner

- Educational Assistant
- Electronic Service Technician
- Gemsetter/Goldsmith
- Hardware, Lumber, and Building Materials Retailer
- Horse Groom
- Horse Harness Maker
- Horticultural Technician (Landscape Horticulturalist)
- Information Technology Contact Centre Customer Care Agent
- Information Technology Contact Centre Inside Sales Agent

- Information Technology Contact Centre Technical Support Agent
- Information Technology Hardware Technician
- Information Technology Network Technician
- Institutional Cook
- Native Clothing & Crafts Artisan
- Network Cabling Specialist
- Parts Technician (Parts person)

- Pool & Hot Tub & Spa Installer
- Pool & Hot Tub/Spa Service Technician
- Retail Meat Cutter
- Saddlery
- Special Events Coordinator
- Utility Arborist
- Wooden Boat Rebuilder/Repairer

All trades in the Service sector are regulated by the <u>Apprenticeship Certification Act</u>. This means that all trades in the Service sector require <u>apprentices</u> to hold an Ontario Secondary School Diploma or equivalent.

Some careers in the Service sector have been designated as "skilled trades" more recently than others, and employers may not be aware that there is Ontario certification available in their trade. Certain trades (for example, chefs and hairstylists) have a long-standing culture of apprenticeship training, while others (such as developmental services workers and special events coordinators) may be more accustomed to inexperienced workers accessing their trade through post-secondary education.

Trades may be officially or commonly known by different names and job titles. Visit <u>www.workingincanada.gc.ca</u> to see all job titles included in your trade.

For more information about trades in Ontario's service sector, visit <u>www.tradeability.ca</u>.

MODULE D: Labour Market Information

Before choosing where to live, it is important to be aware of the types of job opportunities available to match your skills and qualifications. Although the skilled trades are generally in-demand across Canada, demand for specific trades varies across regions and sectors.

Ottawa's Labour Market

Ottawa is one of Canada's most highly educated cities. Over 44% of the general population (65% of the immigrant population) between the ages of 25 and 44 holds a university degreeⁱ. Public administration is the largest sector of Ottawa's economy, followed by retail trade and health care & social assistance. Only 5% of Ottawa's population aged 25-44 works in the trades, compared to 11% on average for all of Ontarioⁱⁱ.

The City of Ottawa borders the Ottawa River, which marks the provincial boundary between Ontario and Quebec. The municipality on the Quebec side of the river is the <u>City of Gatineau</u>, which is governed separately from the City of Ottawa. There is much trade and shared business between the two cities and it is not uncommon for someone who lives in Gatineau to work in Ottawa or vice-versa. However, it is important to remember that since trades are regulated provincially, Ontario trade certification may not be recognized in Quebec, and Quebec trade certification may not be recognized in Ontario. For more information about trade certification and apprenticeship in Quebec, please visit <u>Emploi Quebec</u> (many resources available in French only). Information specific to the Construction Sector can also be found <u>here</u>.

Most businesses in Ottawa-Gatineau are small- to medium-sized businesses (less than 500 employees), and 97% of businesses employ 50 people or fewerⁱⁱⁱ. Self-employment in the trades is a growing trend across Canada. As of 2007, 15% of Canadian tradespeople reported to be running their own business. Of these self-employed tradespeople, 94% work independently (without employees)^{iv}.

One of the most significant factors affecting labour market fluctuation in Canada is the advent of "baby boomers" retiring. "Baby boomers" are people born between 1946 and 1964, a period in which Canada saw an 18% increase in the normal birth rate^v. The average age of retirement in Canada is around 62, and although this number is slowly increasing, it means that within the next 15-20 years there will likely be a drastic increase in retirement^{vi}. The Canadian-born population will not be sufficient to replace retiring baby boomers, and in coming years labour market growth will depend on immigration more than ever.

For more information about labour market and wage prospects in your trade of choice, please visit <u>www.workingincanada.gc.ca</u>.

Sector Demand

Construction Sector

The Construction Sector is a major trades sector, and the largest employer of the four sectors in Ottawa. The Construction Sector makes up the 7th largest part of the Ottawa labour force and accounts for 4.0% of Ottawa's total GDP^{vii}. The Construction Sector is recognized as one of the key sectors of growth for the near future of our city. Within the sector, 94.8% of workers in all occupations related to construction in Ontario were men, and 5.2% were women. Workers in construction tend to work more total hours annually than other sectors^{viii}.

In 2009 the average age of a construction worker in Canada was 41 years old^{ix}. Increased retirement rates over the next 10-15 years are expected to greatly impact the demand for skilled workers, particularly in regulated (restricted/compulsory) trades. Although statistics indicate that regulated trades currently have a greater supply of workers than there is demand for labour, this will shift as more journeypersons retire^x. Due to restrictions surrounding <u>ratios</u> many employers report difficulty in hiring and training apprentices, which will cause further complications for the Canadian-trained labour force. At present, it is difficult to secure an apprenticeship as a construction and maintenance electrician, HVAC mechanic or plumber due to the high number of people wanting to become apprentices and the relatively low number of certified journeypersons with the capacity to train apprentices.

Most total employers in the Construction Sector in Ottawa are specialty trade contractors or building constructors. Around 50% of workers in this sector are independent contractors or work for a company with 5 or fewer employees. During the period of 2008-2011 there was an increase in the number of small businesses starting in building construction, but a significant decrease in the number of existing specialty trade contractors^{xi}. The fact that many construction tradespeople are self-employed and may have few or no employees can make it difficult for tradespeople affected by <u>ratios</u> to hire apprentices.

As of 2012, labourers (construction craft workers) and trades helpers are in high demand in the Ottawa area^{xii}. It is not uncommon for those entering the Construction Sector in Ontario to begin working as a labourer/helper for a company before being registered as an apprentice. Many employers will want to "try out" a new employee to ensure that they have the soft skills and essential skills required of the trade before investing in training them as an apprentice. Other construction trades currently in high-demand in the Ottawa area are roofers, sprinkler systems installers, HAZMAT workers, bricklayers, terrazzo tile and marble setters, and drywallers.

The current trend in the construction industry is towards higher standards and credentials^{xiii}. Being aware of technological advancements and best practices for health and safety in your trade are essential. Although apprenticeship is the traditional pathway to certification in the Construction Sector, many Ontarians are choosing to supplement this training with academic post-secondary education such

as a diploma from a private or <u>public college</u>. It is expected that even after you are a certified Ontario journeyperson, you will continue to upgrade your skills and qualifications throughout your career.

In all trades in the Construction Sector, <u>essential skills</u> such as numeracy, literacy, document use, problem solving, and measurement and calculation are extremely important for success. Professionalism and the ability to work in a business/professional environment are important due to the large amount of retrofitting and building improvements that are happening in the city. Management and leadership skills are also in demand, as many owner-operators will soon be retiring^{xiv}.

Ottawa housing sales have been strong and residential construction has been steady over the past 5 years. Due to recent economic recession, an emerging trend is that new industrial, commercial and institutional (ICI) construction is being replaced by retrofitting and sustainable/green projects^{xv}. Much of this type of work within the City of Ottawa takes place in buildings or on property owned or operated by <u>Public Works and Government Services Canada</u> (PWGSC). It is commonly required that all Construction Sector workers in the City of Ottawa be eligible for <u>security clearance</u> in order to have access to PWGSC job sites. Once you have been hired, security clearances normally take between 2 and 8 weeks to process. However, this process can be delayed if you have lived outside of Canada within the past 5 years, and can extend to more than 1 year. There is no way to begin this process until you have been hired by a company that requires security clearance for site access. For more information, click <u>here</u>.

Future considerations for the Construction Sector in Ottawa include the upcoming <u>Ottawa Light Rail</u> <u>Transit Project</u>. This is the largest infrastructure project that the city has ever undertaken, and it is expected to generate more than \$3 billion in economic activity throughout the construction phase^{xvi}. Skilled tradespeople will be in high demand for this project, construction for which is scheduled to take place between 2013 and 2017.

Visit <u>www.constructionforecasts.ca</u> for more detailed and trade-specific labour market information in this sector for all of Canada. Search for data for Eastern Ontario to get information about the Ottawa area.

Motive Power

The automotive repair and service sector employs over 300 000 people across Canada^{xvii}. The most prominent trade within this sector is automotive service technician, comprising 25% of all motive power employees^{xviii}. About 94% of all employees in this sector work full-time (30 hours per week or more)^{xix}.

The majority of businesses in the Motive Power Sector are small and independent businesses, although there is an increasing trend towards consolidation with larger businesses as dealerships close down and technology advances increase the cost of staying in business^{xx}.

It is expected that within the Motive Power Sector in Canada, the amount of workers available will fairly closely match the number of available jobs over the period of 2009 to 2014^{xxi}. In 2009, 29% of employers reported having at least one unfilled position. The most common positions that remain unfilled in the

sector are automotive service technicians (37%), auto body and collision damage repairers (14%) and technician specialists such as transmission technicians (12%)^{xxii}.

Although the age of workers in the Motive Power Sector is fairly evenly spread (more than half of all Canadian workers are between the ages of 25 and 44), close to 60% of labour demand is caused by workers leaving the sector^{xxiii}. The percentage of employees in the industry with less than 10 years of experience has been growing over the past 5 years, while the percentage of employees with more than 15 years of experience has been shrinking. It has been reported that low pay levels are a major barrier to hiring and retaining skilled workers in this industry^{xxiv}. In 2009, employers in the Motive Power Sector also reported that two of their main barriers to business growth were the supply of qualified new hires and technical skill levels of current staff^{xxv}. As technology such as electronic components and onboard computers become increasingly common, and safety and environmental laws surrounding the industry become increasingly strict, employers are required to make a significant investment in employee training.

Education levels of tradespeople in the Motive Power Sector tend to be higher than in other trades sectors: 53% of employees in the sector have some post-secondary training^{xxvi}. Almost half of all motive power trades are <u>restricted</u>, making apprenticeship very important in this field. Due to an abundant supply of interested first-year apprentices, it can be difficult for inexperienced workers to secure a motive power apprenticeship (particularly as an automotive service technician) without any post-secondary training (usually a diploma from a <u>public college</u> or <u>pre-apprenticeship</u> training). Before being registered as an apprentice, workers who start out in this sector without relevant post-secondary education will often first work as a helper, labourer, oil changer or tire technician to gain hands-on experience and build a professional network within their trade.

Internationally-trained workers make up a relatively small percentage of the motive power sector's workforce (about 13% over the period of 2009 to 2014)^{xxvii}. Due to the large proportion of restricted trades in the motive power sector, it can be complicated for internationally-trained workers to enter the labour market. Terminology and regional preferences for vehicle brands, makes and models can also be barriers to employment in the sector. Working in the sector's unrestricted trades such as small engine technician, turf equipment technician, or recreational vehicle technician can help internationally-trained workers gain Canadian experience and utilize their technical skills and knowledge while preparing to become certified in a restricted motive power trade.

The <u>Canadian Automotive Repair and Service Council</u> has online training and assessment tools which can help internationally-trained workers compare their existing skills to those required by Canadian industry. Visit <u>www.carsondemand.com</u> for more information.

Industrial Sector

Demand for tradespeople in the Industrial Sector is traditionally driven by manufacturing. Across Canada, the manufacturing sector accounts for 93% of all tool and die makers, 85% of machinists, 75% of cabinetmakers, 62% per cent of welders and related machine operators, and 55% of industrial electricians^{xxviii}. Although the construction industry is usually more associated with apprenticeship training, the manufacturing sector alone employs more individuals in apprenticeable trades than the Construction Sector^{xxix}.

The changing global economic climate has greatly impacted Canadian manufacturers over the past 10 years. Employment in the manufacturing sector in Ottawa-Gatineau decreased by 35% between 2001 and 2006 and continued to decline by another 10% between 2008 and 2010^{xxx}. From 2009 to 2011, fewer than 50% of Canadian manufacturers reported that they intend to hire new employees within the next 3 years^{xxxi}.

In Ottawa, the largest numbers of employers within the manufacturing sector are in computer and electronic products, paper and related support activities, textile mills, fabricated metal products manufacturing and miscellaneous manufacturing. All of these sectors reported losses in the total number of employers between 2008 and 2011, and most sectors of manufacturing reported more jobs lost than jobs created during this period^{xxxii}. The manufacturing of wood products, machinery and food processing areas of the Industrial Sector see more of a shortage of workers than others in the Ottawa area^{xxxiii}.

Many industrial employers in Ottawa are small businesses (fewer than 50 employees), and prefer to offer informal "on-the-job" training as opposed to formal apprenticeship training^{xxxiv}. Although all trades in the Industrial Sector are unrestricted, many employers will require employees to hold an Ontario certificate of qualification in order to work in their trade. Consequently, more opportunities will be available in the Industrial Sector to immigrants with skills and experience in their trade, rather than those just starting a career in this sector. Management and business skills as well as multilingualism and cross-cultural capabilities are in high demand, as many struggling manufacturers seek to expand their markets^{xxxv}.

Some Industrial trades which are not directly associated with manufacturing continue to be in-demand in the Ottawa area. Tractor-trailer commercial drivers, facilities technicians and facilities mechanics all have good prospects, particularly those with experience and credentials/licenses recognized in Ontario. There continues to be a need for the skills of cabinetmakers and machinists/mechanic millwrights in Ottawa, although it can be difficult to secure employment as a newcomer in these areas due to the fact that there are many employers in Ottawa are smaller and may not hire as frequently. Company research and networking are very important for securing employment in this sector.

Future considerations for the Industrial Sector in Ottawa include the upcoming <u>Ottawa Light Rail Transit</u> <u>Project</u>. This project is the largest infrastructure project that the City has ever undertaken, and it is expected to generate more than \$3 billion in economic activity throughout the construction phase alone^{xxxvi}. Skilled tradespeople of all types will be in high demand for this project, construction for which is scheduled to take place between 2013 and 2017.

Service Sector

The Service Sector is the largest component of Ontario's economy, employing 79% of the working population^{xxxvii}. Due to the diversity of trades within the Service Sector it is difficult to give a clear picture of labour market prospects for all areas. In general, Ottawa's Service Sector has remained stable throughout and following the 2009 recession, although certain areas such as agriculture, educational services, and accommodation & food services saw small declines between 2009 and 2011^{xxxviii}. Tradespeople in the Service Sector are more likely to work part-time than tradespeople in the other 3 sectors.

Two of the major areas employing service tradespeople in Ottawa are information technology and tourism^{xxxix}. Culinary trades such as cooks, chefs, and bakers, continue to be in-demand in Ottawa. Within Canada, employers in the tourism sector stated that their biggest labour challenge was finding and retaining qualified cooks. There is expected to be a shortage of over 1000 workers in food and beverage service within the next 3 years, with cooks remaining in high demand^{xl}. Culinary trades often experience high turnover due to irregularity of hours of work and inconsistent wage rates throughout the industry.

Ottawa has a greater than average share of information technology and communications (ITC) industries within Ontario. Many working in the ITC sector in Ottawa are immigrants, with internationally-trained workers making up at least 20% of employees in the sector^{xli}. Current trends are increasingly towards knowledge-based support services, telecommunications, software, and contact/customer centres. Technology trends are expected to decrease demand for network technicians and technical support agents, two areas that are considered to be apprenticeable trades^{xlii}.

Compared to Ontario, the agricultural sector in Ottawa is relatively small. Agriculture accounts for less than 1% of the labour force in Ottawa. Fewer than 10% of those working in farming are immigrants. Job losses in the Ottawa area in the agricultural sector have been reported consistently since 2001, including 500 jobs lost between 2008 and 2010^{xliii}.

Trades in the education sector do not have a strong tradition of apprenticeship, and most people access these careers through post-secondary education. Job prospects for Early Childhood Educators are consistently good in the Ottawa area, particularly for those fluent in both English and French. Although it's not technically a restricted trade, the <u>Ontario College of Early Childhood Educators</u> requires anyone working as an Early Childhood Educator to be a member of their regulatory body. Due to a high unemployment/underemployment rate among qualified Ontario elementary and secondary school teachers, the opportunities available for educational assistants are increasingly limited^{xliv}.

Skilled workers in trades related to customer service, such as hairstylist and parts person, are constantly needed in Ottawa. Fluency in both English and French is a major asset in any job related to dealing with the general public. Horticultural trades such as horticultural technicians and arborists are also consistently in-demand. Due to the severity of Ottawa's climate, internationally-trained tradespersons in these fields may need to consider re-training locally before pursuing certification in these trades.

For labour market information specific to different trades within the Service Sector, please visit www.workingincanada.gc.ca.

Wages

Due to the diversity of occupations in the four sectors, wages vary greatly amongst the trades. Wages earned often depend on the nature of work being done, the type of employer, local labour market supply and demand, and the skill, experience, and qualifications of an individual tradesperson.

Most tradespeople are paid an hourly rate as opposed to an annual salary. The general minimum wage in Ontario is \$10.25/hour. More than 95% of Canadian tradespeople work full-time (30 hours per week or more)^{xlv}, and in some trades it is common to at times work "overtime". In most cases, overtime is considered to be more than 44 hours of work in a regular work week. After an employee has worked 44 hours in a work week, for every additional hour they work in the same week, they are entitled to "overtime pay" (1.5 times the regular rate of pay). For more information about regulations surrounding minimum wage and overtime pay, visit the Ontario Ministry of Labour's <u>Guide to the Employment</u> Standards Act, 2000.

In 2007, employees in the trades across Canada earned \$22.36/hour on average, 6% higher than the average for other occupations (\$21.02/hour). At this time, the highest-earning tradespeople were electricians (\$25.26/hour), crane operators (\$24.61/hour) and plumbers (\$24.10/hour)^{xlvi}. In 2011, average hourly wage in "Trades, transport and equipment operators and related occupations" in Ontario was \$22.43/hour. In "Occupations unique to processing, manufacturing, and primary utilities" the average wage was \$19.84/hour. These wages are comparable to those in "Business, finance and administrative occupations" (\$22/hour), and "Sales and service occupations" (\$15.76/hour)^{xlvi}.

Construction Sector

The average weekly earnings of a worker in the Canadian Construction Sector are \$1151.79, or \$28.79/hour (based on a 40-hour work week). This is above the average weekly earnings of workers in all sectors within Ontario (\$896.61, or \$22.42/hour based on a 40 hour-work week)^{xlviii}.

As previously mentioned, much of the construction work currently being done in Ottawa is contracted by the Canadian federal government. Tradespeople working on these projects have a minimum wage they must be paid while working on federal government contracts. These wage rates can be found <u>here</u>. Wages for apprentices are often <u>regulated</u> in relation to the wage paid to a qualified journeyperson.

Motive Power Sector

Wages in the Motive Power Sector vary greatly depending on the type of work being performed and the level of skill and qualification of an employee. The average wage for automotive service technicians and truck and coach mechanics in Ottawa in 2012 was \$16.73/hour, which is slightly lower than the national average (around \$19/hour)^{xlix}. In 2008, it was reported that 18% of sector employees earned more than \$55,000 annually, and 46% of Motive Power Sector employees earned \$35,000 or less annually.¹ Most employees in the Motive Power Sector are paid on an hourly basis, but it is not uncommon for employers to offer commission/incentives in addition to hourly wage.

Industrial Sector

According to Industry Canada, employees involved in production in the manufacturing sector in Canada earned on average \$43,239 annually in 2009. This average was significantly lower in food manufacturing (\$32,897), wood manufacturing (\$39,419), and miscellaneous manufacturing (\$34,893), and higher for machinery manufacturing (\$47,645) and computer and electronic product manufacturing (\$44,904)^{li}. Wages in individual trades in the Industrial Sector vary depending on skill level and type of work being performed. In Ottawa, Industrial Electricians, Tool and Die makers, and boilermakers (\$25-\$30/hour) tend to earn more than cabinetmakers and welders (between \$15-\$20/hour)^{lii}.

Service Sector

Wages in the service trades vary greatly from trade to trade. Qualified culinary tradespeople working in Ontario earn on average between \$25,000 and \$35,000 per year^{liii}. Hairstylists often receive commission or tips to supplement their annual earnings, which can range from \$14,000 (those starting out with no experience) to upwards of \$50,000 in Ontario^{liv}. Information technology and call centre jobs can start out at minimum wage (\$10.25/hour) and pay upwards of \$20/hour^{lv}. Wages for education/social service trades usually range from \$15-\$20/hour^{lv}.

Unions

Unions are worker-based organizations established for the purpose of creating a working situation that will benefit both the employees and the employer. As of 2007 nearly half of Canadian trades employees were unionized, compared with less than one third of all employees in other occupations.^{IVII} In 2011, 27.8% of Ontario's workers belonged to a union, the second lowest unionization rate of any province or territory.^{IVIII}.

The main difference between a unionized and a non-unionized workplace is who is responsible for setting the standards for a worker's conditions of employment. In a non-unionized workplace, it is the employer who sets the standards for their workplace, using <u>Ontario labour laws</u> as a minimum standard. In a unionized workplace the same minimum standards apply, but it is the union that is responsible for setting these standards.

When a workplace becomes unionized a process known as "collective bargaining" takes place, through which the employer and the union will negotiate to set terms and conditions of employment for unionized employees. A "collective agreement" is then signed, outlining the rights, privileges and duties of the employer, employees, and the union^{IIX}. These agreements may vary amongst different employers within the same union. However, for many unions within the Construction Sector, collective bargaining is province-wide. That means that a journeyperson carpenter that is a member of the carpenters' union and working in Ottawa for "Unionized Company A" will earn the same wage and receive the same benefits as if they worked in Toronto for "Unionized Company B". A non-unionized company may independently determine the wages and benefits they will offer a journeyperson carpenter, which may be more or less than the standards set by the union but must still meet Ontario's minimum <u>standards</u>.

A unionized employer may hire a tradesperson directly, in which case that tradesperson becomes part of the union. Different unions and employers have different rules as to which employees are unionized and whether joining the union is mandatory or optional. Generally speaking, it is common for tradespeople and labourers to be unionized and for managers and owners to work apart from the union.

In some cases a tradesperson may join a union independently without being attached to a specific employer. In the Construction Sector, a union may keep a list of members who are available for work (sometimes called a "hiring hall list" or "out-of-work list"). When employers that are signatory to that union need tradespeople, they will contact the union with a request for a certain number of journeypersons and apprentices. The union will then contact the tradespeople at the top of their list and those workers will become employees of the company in question. Once a worker's employment with that employer is terminated (either due to a project finishing or for other reasons) their name will be put at the bottom of the list.

Workers pay dues to the union, and in exchange the union ensures that suitable employment conditions are in place. Unions will often provide services such as medical insurance and pension plans for their

members. Unions will also set rates of pay for apprentices and journeypersons. Apprenticeship training and other ongoing training is often provided by unions, either through the operation of private training centres or by financially supporting their members to attend public institutions.

Rates of unionization vary greatly amongst the trades and trade sectors. For example, 63% of Canadian electricians and crane operators are unionized, compared to 35-40% of mechanics and machinists^{|x|}. Within the Construction Sector in Ottawa, about 13% of ICI contractors are signatory to union collective agreements^{|x|}. Although there are a greater number of non-unionized construction employers in Ontario, unionized employers tend to work on larger projects and employ more workers than their non-union counterparts^{|x||}. Certain trades within the Construction Sector in Ottawa are more heavily unionized than others. For example, there are very few non-unionized sprinkler system installers in Ottawa, whereas there are very few unionized construction millwrights. Unionization rates within a construction trade should be taken into consideration by those seeking apprenticeship, as <u>ratios</u> may impact a union's ability to take on apprentices.

Within the motive power sector, about 99% of automotive service centres in Ontario are independently owned. Non-union automotive service technicians perform the majority of work in this trade^{|xiii}. Although still around average compared all other industries, unionization is declining in the Canadian manufacturing sector, with a unionization rate of 26.4% in 2008^{|xiv}. Unionization within the Service Sector is traditionally uncommon, although unions have become increasingly common in the areas of retail and hospitality. Tradespeople in education trades are often employed by the Ontario public service, which has a very high rate of unionization (70%)^{|xv}.

For more information about unions in Ottawa, visit the website of the Ottawa & District Labour Council.

¹ Ottawa Integrated Local Labour Market Planning Group. "Growing our Human CAPITAL: Ottawa Integrated Local Labour Market Plan." Ottawa, December 2011

[&]quot; ibid

^{III} Ottawa Integrated Local Labour Market Planning Group, December 2011

^{iv}Pyper, Wendy. "Skilled Trades Employment." *Perspectives on Labour and Income*. Statistics Canada, vol. 9 no. 10, 2008.

^v Krotki, Karol J. & Henripin, Jacques. "Baby Boom." *The Canaidan Encylcopedia*, Historica Dominion, 2012.

^{vi} Carrière, Yves & Galarneau, Diane. "Delayed Retirement: A New Trend?" *Perspectives on Labour and Income*. Statistics Canada, vol. 23 no. 4, 2011.

vii Ottawa Integrated Local Labour Market Planning Group, December 2011

^{ix} Construction Sector Council (<u>http://www.csc-ca.org/en/media/facts</u>), 2012.

^x Construction Sector Council (<u>www.constructionforecasts.ca</u>), 2012.

^{xi} Ottawa Integrated Local Labour Market Planning Group, December 2011

^{xii} ibid

^{xiii} ibid

^{xiv} ibid

^{×v} ibid

^{xvi} ibid

^{xvii}Canadian Automotive Repair and Service. "Performance Driven: Labour Market Opportunities and Challenges for Canada's Motive Power Repair and Service Sector." 2009.

- ^{xviii} ibid
- ^{xix} ibid

^{xx} ibid

^{xxi} ibid

^{xxii} ibid

^{xxiii} ibid

^{xxiv} ibid

^{xxv} ibid ^{xxvi} ibid

^{xxvii} ibid

^{xxviii} Sharpe, Andrew, Arsenault, Jean-François & Lapointe, Simon. "Apprenticeship Issues and Challenges Facing Canadian Manufacutring Industries." *Centre for the Study of Living Standards, Industrial Analysis and Sector Services Branch, Industry Canada.* 2008.

^{xxix} ibid

^{XXX} Ottawa Integrated Local Labour Market Planning Group, December 2011

^{xxxi}Terret, Joe (ed.). "Business Outlook 2012: Investing in the future." *Canadian PLANT*. Toronto, 2011.

xxxii Ottawa Integrated Local Labour Market Planning Group, December 2011

- ^{xxxiii} ibid
- ^{xxxiv} ibid
- ^{xxxv} ibid
- ^{xxxvi} ibid

^{xxxvii} Government of Ontario (<u>http://www.ontario.ca/en/about_ontario/004596.html</u>), 2012.

xxxviii Ottawa Integrated Local Labour Market Planning Group, December 2011

^{xxxix} City of Ottawa (<u>http://ottawa.ca/visitors/about/economy_en.html</u>), 2012.

^{xl} Ottawa Integrated Local Labour Market Planning Group, December 2011

^{xli} ibid

^{xlii} ibid

^{×liii} ibid

^{xliv} Government of Canada (<u>www.workingincanada.gc.ca</u>), 2012.

^{xlv} Pyper, 2008.

^{xlvi} ibid

^{xivii} Ottawa Integrated Local Labour Market Planning Group, December 2011

^{xiviii} Statistics Canada (<u>http://www.statcan.gc.ca/daily-quotidien/120531/dq120531a-eng.pdf</u>), 2012.

^{xlix} Living in Canada (<u>http://www.livingin-canada.com/salaries-for-automotive-service-truck-mechanics-</u> <u>canada.html</u>), 2012.

¹ Canadian Automotive Repair and Service, 2009.

^{li} Industry Canada (<u>http://www.ic.gc.ca/cis-sic/cis-sic.nsf/IDE/cis-sic31-33sale.html</u>), 2012.

^{liv} Government of Ontario (<u>http://www.ontarioimmigration.ca/en/working/OI_HOW_WORK_STYLIST_CM.html</u>), 2012.

^{Iv} Living in Canada (<u>http://www.livingin-canada.com/work-salaries-wages-canada.html</u>), 2012.

^{lvi} ibid

^{lvii} Pyper, 2008.

^{Will} Human Resources and Skills Development Canada (<u>http://www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=17#M_4</u>), 2012.

^{lix} Ontario Ministry of Labour (http://www.labour.gov.on.ca/english/lr/faqs/lr_faq1.php#what2), 2012.

^k Statistics Canada (http://www.statcan.gc.ca/pub/75-001-x/2008110/t/10710/5800470-eng.htm), 2008.

^{lxi} Ontario Construction Secretariat. "2012 Survey of Ontario's ICI Construction Industry." March 2012.

^{lxii} ibid

^{Ixiii} Government of Ontario

(http://www.ontarioimmigration.ca/en/working/OI HOW WORK AUTOTECH CM.html), 2012.

^{kiv} Statistics Canada (<u>http://www.statcan.gc.ca/pub/11-402-x/2011000/chap/man-fab/c-g/desc/desc02-eng.htm</u>), 2011.

^{kv} Ontario Ministry of Finance (<u>http://www.fin.gov.on.ca/en/reformcommission/chapters/ch15.html</u>), 2012.

^{lii} Living in Canada (<u>http://www.livingin-canada.com/work-salaries-wages-canada.html</u>), 2012.

^{IIII} Ontario Colleges (<u>http://www.ontariocolleges.ca/SearchResults/CULINARY-HOSPITALITY-RECREATION-TOURISM-</u> <u>CHEF-CULINARY/ /N-Ik91</u>), 2012.