In-demand Skilled Trades Project: Results Report

1. What do employers feel are the most important issues that are expected to impact skilled trades in our community over the next five years?

The most important issues impacting skilled trades on the community over the next five years, identified through employer responses are summarized as follows;

- Shortages of Workers/Qualified Skilled trades people/Journeypersons: 46%
- Shortages of young workers, in skilled trades/lack of interest in trades: 28%
- Retirement of existing tradespeople: 5%

Other relevant comments included:

- "Shortages in some trades, reduced regulation, safety concerns, over saturated market for workers"
- "Poor enforcement on work sites at present with C of T gone, deskilling of trades through skill sets"
- "Offering 30-50 dollars an hour does nothing to generate interest. In the next 5 years we will see an even higher demand that won't be filled. As a result consumer prices will go up"
- "Lack of trades people high schools losing their vocational programs and the changes to the College of Trades and the high costs and requirements now associated with apprenticeship programs"
- "There are no Marine Service Technicians available In the area"
- "The most important issue I believe that is going to impact the skill trade industry, millennials aren't motivated in working jobs with a work ethic needed. Hard workers are hard to come by now."
- "Balance of wages and profit margins"
- "Lack of qualified automotive technicians"
- "Skill setting and scope of practice of compulsory trades. How apprenticeship can be effected by skill setting training stead of apprenticeship. Will skills sets devalue quality of work/expertise in the field? How ill skill setting effect pay scales for trades?"
- "There is an extreme lack of skilled tradesmen. There is a lack of apprentices getting into the trades. The difficulty of repair and cost of tooling is increasing daily. The labour rates for our trade are too low for the cost to acquire and train apprentices."
- "Lack of enforcement to protect licensed, conforming tradesmen from unfair and non-equivalent competition from unlicensed contractors"

2. How is technological change impacting the skilled trades in organizations in your community?

When asked how technological change is impacting skilled trades in organizations in the community, employer responses are summarized as follows:

- 79% of respondents felt that technological change was impacting skilled trades, while 21% felt technological change had no impact or had no response

Of the respondents who felt that technological change was impacting skilled trades, specific responses are summarized as follows:

- Constant need for retraining: 27%
- Need to keep up with new equipment, tools, building materials: 11%
- Need for more educated technicians, computer literacy, electronics knowledge: 13%
- Communication on work sites: 9%
- Makes work more efficient and effective: 9%

Other relevant comments included:

- "cellphone use on site is a troublesome issue"
- "We are a trade union and we are also a training delivery agent for MTCU therefor we are always at the forefront of technology in our trade."
- "Technology is integrated into trades roles, but does not eliminate the need for trades people."
- "In the excavation field, technology is becoming a much larger part of the day to day operations. Employees must be computer literate to operate many of these new systems."
- "As technology changes, the different types of work ie renewable energies, low voltage technologies ie lighting and building controls are ever more present and we need training for trades on the newer forms of work we will be performing in the future as our trade changes."
- "Social media is vital in our skilled trade, as we use social media for bookings, showing our work off, and for it being shared as a form of word of mouth."
- "New tools required, vehicles more computer based, high degree of specialization in vehicle technology."
- "TECHS ARE REQUIRED TO BE COMPUTER LITERATE"
- "The collision technician has to be more knowledgeable than ever. The rate vehicles are changing are making training a weekly thing. We will spend more than \$100,000.00 this year on training to properly repair today's vehicles."
- "It is making continuing education essential to staying ahead of the curve"

3. What skilled trades are hardest for employers in your community to fill and why?

Note: of 116 total respondents to survey questions, 40% reported journeypersons difficult to find, 10% reported apprentices difficult to find, and 27% of employers found both journeypersons and apprentices difficult to fill positions. In summary, 77% of respondents found difficulty in filling journeyperson and apprentices in their field. Of the remainder, 7% were trade unions who reported no difficulties in filling positions, 3% were companies employing unionized workers with no reported difficulties, 4% stated that they were not hiring journeypersons or apprentices, and 9% chose not to respond to the question.

The following trades were listed by employers in the study as hardest to fill journeypersons positions:

- Brick and stone mason
- Cement concrete finisher
- Construction craft worker
- Drywall finisher and plasterer
- Drywall, acoustic and lathing applicator
- Electrician construction and maintenance
- Floor covering installer
- General carpenter
- Heavy equipment operator Dozer/Excavator/Tractor loader backhoe
- Plumber
- Refrigeration and air conditioning systems mechanic
- Residential air conditioning systems mechanic
- Sheet metal worker
- Terrazzo, tile and marble setter
- Cabinet maker
- General machinist
- Metal fabricator/fitter
- Assistant cook
- Cook
- Hairstylist
- Horticultural technician
- Tool and die maker
- Welder
- Autobody and collision damage repairer
- Autobody repairer
- Automotive painter
- Automotive service technician
- Marine engine technician
- Motorcycle technician
- Truck and coach technician
- Parts technician

The reported reasons for difficulties in finding journeypersons are as follows:

- 13% of respondents stated that it was hard to find skilled trained workers

- 11% of respondents stated that there was a lack of interest in skilled trades by young workers
- 13% of respondents reported that they were not having difficulties finding journeypersons or apprentices
- All union locals reported no skilled trades shortages for apprentices or journeypersons among membership, including trades of Millwrights, Carpenters, Industrial and Construction and Maintenance Electricians, Plumbers, and Steamfitters, Ironworkers, Painters and Drywallers, Glaziers, Elevating Device Mechanics, and Sheet Metal Workers
- Heavy Equipment Operators and Hoisting Engineers Union did not respond but large union fed employers reported no shortages for these workers
- 46% of respondents did not suggest reasons for difficulties in finding journeypersons or apprentices

Reasons for difficulties in finding Journeypersons include:

- "Steamfitters with maintenance backgrounds are scarce. Construction skills and maintenance skills are different and steamfitters are scarce to start with."
- "short of Licensed 310 (heavy truck) technicians"
- "Lack of GOOD techs" in automotive services
- "Hard to find good cooks"
- "HVAC lack of talent locally to draw from. Compensation differences between private sector and public/unionized positions that are governed by a Collective Agreement."
- "not many candidates for any job we post"
- "Not readily available in our area, some Customers are unwilling to pay for Skilled Trade, underground market"
- "many trained machinists are close to retirement, not many younger people are interested in the trades"
- "It is hard to find people who are a good all round fit"
- "Journeypersons are in limited supply for two reasons: 1: retirement of existing tradespersons, and 2: the training ratios that were in place for so many years restricted new entrants (for the sole benefit of unions)."
- "Structural welder/fitter that can read structural drawings"
- "It is hard to fill both because the talent pool is very low in this area."

The following trades were listed by employers in the study as hardest to fill for Apprenticeship positions:

- Brick and stone mason
- Cabinetmaker
- Construction craft worker
- Drywall finisher and plasterer
- Electrician construction and maintenance
- General carpenter
- Heavy Equipment operator Dozer/Excavator/Tractor loader backhoe
- Plumber
- Refrigeration and air conditioning systems mechanic
- Residential air conditioning systems mechanic

- Terrazzo tile and marble setter
- Assistant cook
- Cook
- Hairstylist
- Horticultural technician
- Sheet metal worker
- Welder
- Autobody and collision damage repairer
- Autobody repairer
- Automotive painter
- Automotive service technician
- Truck and coach technician

The reasons for difficulty in finding Apprenticeship candidates include:

- "I feel many start off as apprentices but don't last long as they don't have the confidence, drive, people skills, dedication and motivation to climb the industry leader."
- "difficult to find good journeypersons and apprentices. Few have skills training in school and trade is hard work"... "we have workers supplied through Union.."
- "Both journeyperson and apprenticeship, the masonry trade is hard working and no one wants to work hard"
- "There are simply not enough employers willing to take on apprentices"
- "There is no issue filling these positions as we receive far more applicants than we have space in our apprenticeship system for."
- "Seems to be a lack of interest among young people."
- "They are hard to fill because the colleges and high schools need to recognize the need and lack of trades people out there."
- "Fewer young persons interested in working on cars and trucks"
- "as I see it the shops were taken out of the high schools 30 years ago. computers were going to replace the tradesmen. a computer enhanced my job but I still have to have hands on. I feel this is the same in all the trades without the shops in the high schools this will be an ongoing problem in all the trades. No one is getting exposure to these things in post secondary education"
- "apprenticeship is hard as we are not looked upon as one of the top trades and it is physically demanding as everything we do is of a heavy nature."

3. a) What methods have employers used to fill those positions that are hard to fill?

Employers in the study have used the following methods in filling Journeyperson positions in trades that are hard to fill:

- Advertising locally through newspaper and print media: 27%
- Word of mouth through employees, other employers, personal contacts: 22%
- Government employment agencies/job banks: 5%
- Online advertising recruitment: Kijiji, Indeed, social media: 16%
- Union hiring hauls: 7%
- Other methods used to recruit include:
 - o "referral, research, networking"

- o "We've acquired teams from competitors."
- o "Offer higher wages, hiring out of province and country. For apprentices hiring straight out of high school."
- o "We are signatory to the IBEW. We hire through the union hall and apprentices are handled through the Electrical Contractors Association of Quinte St Lawrence and in conjunction with the IBEW."
- o "adds in the paper, recruiting through supply chains, touching base with the terrazzo /tile marble trade school in Toronto."
- "Hired a recruiter"
- "Group Sponsor Program, Province wide awareness campaign, direct marketing to employers for incumbent workers, direct marketing to all SHSM & Green Industry classes in the province, direct marketing at Canada Blooms to the consumer etc."

Employers in the study have used the following methods in filling Apprenticeship positions in trades that are hard to fill:

- Word of mouth through employees, other employers, personal contacts: 20%
- Advertising locally through newspaper and print media: 25%
- Participate in high-school, OYAP, and co-op programs: 10%
- Other methods used to recruit include:
 - o "Maintain a list through union office. Also have list for apprentices. Accepted 12 this year. Do not need to advertise."
 - o "We do our own application process for applicants. Use a joint Apprenticeship committee in conjunction with large contractors."
 - o "We contact colleges and post openings internally and externally"
 - o "Offer higher wages, hiring out of province and country. For apprentices hiring straight out of high school."
 - o "Building our own from apprenticeship"
 - o "Creating good relationship with local high schools, conduct interviews at early stages of employment to ensure we get qualified candidates."
 - o "Broad recruiting campaigns, internal apprenticeships, conversion of existing staff through training (plumber → plumber/steamfitter)"

3. b) What needs to be done (by a. employers and b. the Ontario government) to increase the number of apprentices and journeypersons in in-demand trades?

Employers in the study have reported the following strategies that need to be done by employers to increase the number of apprentices and journeypersons in in-demand trades:

- Improve commitment to training apprentices and journeypersons: 30%
- Improve wages, benefits, pensions to skilled trades workers: 26%
- Work with schools in promoting trades to students in elementary and secondary schools: 10%
- Support co-op programs in high schools: 5%

Other methods suggested to improve recruitment by employers include:

- "Allow a higher ratio of apprentices per red seal carpenters."

- "Market functions on supply and demand balance. If there is an apparent supply shortage at a given price point, increase the price and the supply will expand. I often hear employers say they can't fill certain jobs, you get what you pay for."
- "Pay more, provide benefits and pensions to workers. Should be a standard pay scale by trade."
- "more money, attend high schools at job fairs, more education at a younger age"
- "Hire without experience, newbies have to learn at some point"
- "Financial Resources and Mentorship programs"
- "Higher wages -guaranteed hrs-pension"
- "To increase number of apprentices and journeymen employers need to treat workers fairly, follow OHSA and pay benefits and pensions. This will attract more workers."
- "The ratio needs to be lowered and maybe even shorten the apprenticeship hours"
- "Employee retention programs"

Employers in the study have reported the following suggested strategies that need to be done by Ontario Government to increase the number of apprentices and journey in in-demand trades:

- Support for training costs for trades workers: 25%
- Wage subsidies, financial initiatives/tax credits for employers: 22%
- High school reform better promotion of trades in schools; more technological shops in schools: 14%
- Promote trades to public and new workers: 9%
- Support for apprentices for tool costs: 6%
- Localized training, more sites and flexibility: 5%

Other methods suggest to improve recruitment by the Ontario Government include:

- "Floor covering installers should have the option to become certified."
- "It takes a long time and a large investment by small businesses to get these employees going. Any grants or support in the initial year would really help."
- "Add more trade classes in the high schools instead of taking them away."
- "have in place a governing body that can effectively run and recruit from secondary schools"
- "localize training at the colleges or through union halls not going to the large cities for training, hire retired journey persons as teachers at a local level."
- "sort out college of trades"
- "Incentives for non union companies"
- "Allow higher apprentice to journeyman ratio"
- "Subsidize new workers pay."
- "The government needs to offer applied math courses that use more trades relevant examples."
- "Awareness campaign Apprenticeship should be presented as a parallel post secondary pathway to all Secondary students current is not... Employer incentives at various milestones with the major incentive at completion"
- "Bring a fair and in-biased process to union organization."

4. Have the organizations sponsored or are currently sponsoring apprentices?

Of the skilled trades organizations that participated in the survey, 70% have sponsored or are currently sponsoring one or more apprentices.

5. Have organizations participated or considered participating in group sponsorship training?

18% of the organizations surveyed reported that they had participated in or considered participating in group sponsorship training. All of the participating union locals sponsor apprentices using a union group sponsorship model.

5. a) If yes, how important is group sponsorship training to addressing organizations' skills requirements?

Of those who responded to support or assistance to make group sponsorship a worthwhile option, responses are as follows:

- 18% of all respondents had considered or participated in group sponsorship training
- 15% of respondents reported that group sponsorship training was very important to their organization
- 8 union locals reported using a union organized group sponsorship of apprentices
- 1 union local reported using a joint employer-union sponsorship committee
- Landscape Ontario currently sponsors several hundred apprentices through group sponsorship and training across Ontario
- Canadian Welding Bureau supports group sponsorship model

Some comments related to group apprenticeship include:

- "IBEW is a multi employer group sponsor for apprentices. Members and contractors share training costs. Employers share in training costs to get the best quality workers."
- "Group sponsorships are an important way for small and medium sized businesses to hire and train apprentices."
- "This is the best method of ensuring that there is broad scope of skills development. the present model limits the skills development based on the opportunity to learn skills at a singular employer that may have limited ability to train apprentices"
- "Extremely critical to support skills needs, retention of incumbent workforce and connecting pre-apprentices to employers."

5. b) If no, what support or assistance would employers need to make group sponsorship training of apprentices a worthwhile option?

Of respondents who reported no to participation in group sponsorship, responses regarding support or assistance to make group sponsorship a worthwhile option are as follows:

- 40% chose not to respond to this question or reported confusion about its contents
- 16% reported that their organization was not interested in group sponsorship as it was not feasible for their company to share apprentices
- 6% reported that more funding, grants, and subsidized wages for employees might make group sponsorship worthwhile

Some relevant comments regarding group sponsorship include:

- "Believe Union sponsorship model provides best training and support for apprentices."

- "I can't imagine that it would be feasible for our business; we are in a rural area. I don't see how this might work."
- "Not interested in sharing workers"

 "Research indicates staff is needed to help the employers make the group sponsorship arrangement work."

6. What have been employers' experiences with respect to apprentices dropping out of their training?

Employers' experiences with respect to apprentices dropping out of their training are as follow:

- 58% of survey respondents reported that they have experiences apprentices dropping out of their training
- 6% reported that they had not experienced any apprentices dropping out of their training
- 22% gave no response to the question
- 14% gave an inconclusive response as to apprentices dropping out

6. a) What reasons did employers reported with respect to apprentices dropping out of their training?

The reasons employers reported as to why apprentices dropping out of training are as follows:

- Low wages, poor benefits and pensions: 17%
- High cost of training related to distance, time, reduced income: 9%
- Workers not suited or able to perform assigned tasks: 7%
- Shortage of work, seasonal work: 7%
- Difficulty in passing in-school training: 6%
- Personal reasons: family, financial: 4%

Other reasons reported include:

- "subsidize wages (apprentices expect higher wages than small companies can afford and leave to go to unionized jobs at higher pay)"
- "Apprentices leave do to shortages of work, unsatisfactory training, or for better options."
- "Not enough work, substance abuse issues, some non union trades do not pay enough, difficulty passing courses or C of Q"
- "Wages sharing with employers so apprentices can be paid properly while they are learning"
- "not skilled enough to continue, burnout, not enough incentive to stay in trade (wages, benefits, positive work environment)."
- "They generally leave due to cost of training and lack of funding while off work."
- "They leave due to unstructured wage and benefit strata; they leave their employer; they leave due to financial shortages/ travel distance to block training is too far as many have families and duties..."

6. b) How well has apprenticeship worked for employers as a way of addressing organizations' skills requirements?

Survey respondents reported the following as to how well apprenticeship worked to address skills requirement:

Excellent: 4%Very well: 21%Good: 16%Satisfactory: 4%

- Needs improvement: 11%

- Not very well/poor: 16%

- Works well with union supervision: 9%

- No response / NA: 19%

6. c) What barriers do organizations face related to apprenticeship?

Organizations reported the following barriers related to apprenticeship:

- Lack of candidates for apprentices and journeypersons/ people unwilling to do work: 21%
- Apprentice financial and family commitments: 5%
- College of Trades system/ratios: 5%
- Supervision/training costs for employers: 4%
- Higher expectations: wages and benefits: 3%

Other factors reported as barriers include:

- Lack of training seats for apprentices
- Cost of tools for apprentices
- Seasonal work/workshop shortages
- Apprentices can't complete training
- Apprentices leave for other employers/unions once trained
- Training costs
- Lost work time for apprentices when busy
- Competition with unions
- "Concerns about COT membership. Not viewed as useful by companies or workers. Also distance from training, lost labour time, high rate of technological change in trade."
- "Competition among employers when bidding jobs. Non union companies use more apprentices at lower pay and can under bid unionized employers."
- "If we cannot hire a journeyman, it is impossible to sign up an apprentice! This is how dire the situation has become!"

6. d) What changes could the Ontario government make to the apprenticeship program to better respond to the needs of employers?

Organizations reported that the Ontario government could make the following changes to the apprenticeship program to assist employers:

- Financial incentives/wage subsidies/tax credit for employers: 22%
- Increase subsidies, incentives for training costs, tools for apprentices: 17%
- Improved promotion of trades and apprenticeship to public and businesses: 15%
- Improved options for apprenticeship training sites/methods/localized rural areas: 12%
- More access to trades training in high schools; more shops, promotion of trades, OYAP: 9%

Other government changes suggested include:

- Overhaul of apprenticeship system
- Removal of OCAT
- Make it easier to sign apprentices/less red tape

- Make more trades compulsory Better monitoring of apprenticeship training Subsidize safety and skills training cost for employers

7. What further comments did employers provide about apprenticeship and/or the skills trades?

The following is a list of additional comments provided by employers and organizations about apprenticeship and/or skilled trades:

- "More facilities are needed to keep up with the demand. Waiting lists for programs are running a large line."
- "Our union has 75% of plumbers working in unionized workplaces. Need more consistent wage rates for all. Do not believe in de skilling through common skill set model."
- "We are worth more than what we are paid"
- "Please contact if there is something I can do to help promote floor covering installer as a trade."
- "Our current issue is a lack of applicant for job postings in Kingston, I do not have a fix for this."
- "We have 1 red seal carpenter and can only have 1 apprentice at a time. With being in school for 3 years this only allows us to have 1 apprentice every 4 years."
- "we agree something needs to be done, as the average tradesmen are all retiring"
- "High priority needs to be placed on this shrinking sector."
- "We need more information about apprenticeship for fabricating; need more qualified apprentices available fabricators are very hard to find welders are easier to find"
- "An educational system that can't produce a fully qualified or near fully qualified graduate is not a good functioning system"... "The onus should also not be on an industry to provide approximately 50% of a tradesperson's training."
- "There aren't shortages in the unionized trades in Kingston and surrounding area except for maybe a couple of specialty trades. There is a lack of lower paid tradespeople that many smaller employers are looking for."
- "Do not agree with skill setting approach being pursued by the current government. Need to have better enforcement on worksites to insure qualifications of workers on site."
- "Make all Construction a level playing field by introducing mandatory apprenticeship for all trades."
- "I've been in the Residential Homebuilding industry for some 30+ years, and in my opinion the Apprenticeship program has FAILED to support the industry."
- "Allow Employers to work together to provide the classroom setting with qualified teachers"
- "I did my apprenticeship a long time ago and it just feels like culinary institutions are lacking quality. Class rooms are too large and the training is not the same."
- "We have lost half of our staff which we have trained, to institutions like Queens University, who do not train any apprentices."
- "I feel that society, in general, still looks down on those employed as tradespeople."
- "In talking to many employers in the trades, they are hurting. Its very hard to find skilled employees in this area."
- "Particular focus on women in the trades is essential."
- "Major change needs to take place soon."

- "Trade unions are the only way a skilled tradesperson can be properly remunerated for his or her skills and earn a decent wage."
- "Students must be taught value of working in trades."
- "The educational elite look down on the trades; they don't understand the trades, and it's not cool for them. It's not really a question of throwing money at the trades; what we need is an attitude change, whereby tradespeople are viewed with respect."
- "Survey was not well suited to our trade. Found it confusing and asked for too much written response."
- "I would love to have a board of employers to input on the set up and running of the apprenticeship program"
- "Apprenticeship programs need to be re-evaluated, with someone in the field."
- "IUEC provides highly skilled labour for all elevator construction/modification/service non union threaten the skill levels and abilities and the public's safety. Unionized mechanics and apprentices are the only way to ensure consistent and professional workmanship, and in turn public safety on all elevators and moving walkways."
- "We're not training to learn how to work."
- "Graduates from only program at Georgian college all hired as soon as they graduate. Not enough being trained to meet demand."
- "obviously what we are doing right now through the government and unions and at the high school level is not aggressive enough to draw young people into the trades, we have to start over and really focus on advertising through the high schools ie job fairs, government adds and local training facilities in order to draw interest from young people."
- "We need to grow the trades"
- "The high school OYAP program was more practical and hands on then the one year post secondary college program."
- "Somehow we need to get youth motivated to join trade"
- "I am deeply saddened with my experience with the masonry apprenticeship process, as an apprentice, journeyman, and business owner."
- "Need more people who are motivated"
- "I completed and enjoyed my apprenticeship and appreciate the effort you're putting forth to find ways to improve a necessary program"
- "THE TRADE IS IN A SAD STATE OF AFFAIRS, AND THERE IS NO COMPENSATION OR ASSISTANCE FROM ANY GOVERNMENT FACILITY OR ORGANIZATION"
- "I feel this is worthwhile as we are going to be in trouble, if not attracting new blood."
- "I believe the fail is not with apprentices but with the journey persons. There is A LOT of confusion about how we are licensed and what is required of us to be licensed now."
- "The union has not been advised regarding loss of many unionized jobs in the province resulting in a lack of trust."
- "Ontario government without proper consultation is set to bring in skill setting. This will devalue licenses electricians and other tradespeople."
- "Make the gas licenses apprenticeships"
- "This economy is going to collapse if the government doesn't make drastic changes soon."

- "This is an important program to the Landscape & Horticulture profession growth in awareness, participation and completion is needed."
- "We not only need people for our trades. We need "smart" and "willing individuals" to keep our trades alive and going."
- "OYAP appears to remove \$\$ credits for employers we would normally receive."
- "I realize how difficult it is to try to convince young people of a good thing. The challenge lying ahead of the government to fill the shortage is great"

8. Contextual Information

- a. Employer Engagement: Y
 - i. Type of engagement: Personal contacts, phone contacts, email contacts
 - ii. Number of engagements: 620 total: 125 phone and or direct contacts
 - iii. Total number of employers at engagements: 620
 - iv. Industries represented by engagements: construction, industrial, manufacturing, transportation, service
 - v. Engagement dates: October 1, 2019 December 10, 2019
- b. Survey: Y
 - i. How many employers were surveyed: 116 respondents
 - ii. How many employers of the occupation with vacancies that are hard to fill, or in-demand are in the local area (Approx.)? 88/116
 - iii. When was the survey completed? October 1, 2019 to December 10, 2019
 - iv. How were employers selected and contacted for the survey? Census data, Info Canada, Municipal business directories, local builders associations membership lists, contacted by personal contacts and email.
- c. Job Postings: N
 - i. Number of job postings for the local area:
 - ii. Job postings for the occupation as a percent of all posting:
 - iii. Job postings period:
 - iv. Other: Job posting data was included in EMSI data described in "part f" below.
- d. Existing Community or Local Labour Market Plan Report findings: Y
 - i. If yes, please explain: Referred to LLMP Report 2019 Eastern Workforce Innovation Board
- e. Existing sector and/or occupational outlook reports: Y

- i. If yes, please explain: Referred to Canadian Apprenticeship Forum Reports
- **ii. Report name**: Apprenticeship Demand in the Top Ten Red Seal Trades-Ontario, CAF, 2019 Report, Employer Consortia in Apprenticeship Report, April, 2016
- iii. **April, 2019**:, April, 2016
- f. Statistics Canada data: Y
 - iv. Census: Reference information: Census 2016 data and National Household Survey data 2016, Info Canada Employer Listings
 - v. Labour Force Survey: Reference information: EMSI data (Analyst), OMAFRA
 - vi. Other reference information: OMAFRA Data sources; Canadian Business Patterns, Census Data, National Household Survey, Survey of Employment, Payroll and Hours, Labour Force Surveys, Canadian Occupational Projection System, CANSIM demographics