

# IN-DEMAND SKILLED TRADES FINAL REPORT

2019





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## Acknowledgements

The Four County Labour Market Planning Board (Planning Board) is a community-directed, not-for-profit organization that specializes in providing labour market information for Bruce, Grey, Huron, and Perth counties. This report reflects input received from local employers regarding the skilled trades situation in the four county area.

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Sincerely,



Gemma Mendez-Smith  
Executive Director

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## **Executive Summary**

In Ontario, growing demand in skilled trades and mismatch of skills have been a phenomenon that raises many concerns. The Planning Board conducted this research project to study the current skilled trades situation in the four county area. More specifically, this report aims to add local employers' perspectives to the understanding of the labour market conditions in Ontario. Through both qualitative and quantitative analysis, this report identifies the in-demand skilled trades in the four county area and analyzes the underlying factors that cause this situation.

Main results show that the in-demand skilled trades in the four county area are licensed technicians, electricians, and industrial mechanics. The top three reasons for these hard-to-fill positions are the lack of certificated people in the labour market, lack of local transportation, and lower pay. With an aging workforce as the top issue for local employers, they are also concerned with a lack of available qualified workers in the market. In order to solve these problems, several recommendations are generated:

### **For Employers**

1. Paying competitive wages and benefit packages
2. Better working environments with solid training
3. More marketing to the younger generation

### **For the Government**

1. Offering local training options or more spots in trades schools
2. Changing perceptions towards jobs in skilled trades
3. Providing more financial assistance for both employers and employees
4. Other suggestions from employers

The report is divided into four parts. It first presents an overview of the economic situation in the four county area through analyzing 2016 Census data. Then the report discusses issues and challenges in the region and analyzes barriers related to apprenticeship by using local employer engagement surveys and focus group discussions. Finally, the report concludes with several recommendations for future improvement of skilled trades in the four county area. The evidence collected from this research project will inform and help government, industry and local communities work together to increase the quantity and quality of skilled workers in order to help local businesses thrive and grow.



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## Introduction

There is a growing debate on the increasing demand for skilled tradespeople in Ontario. Many reports have identified difficulties that employers in Ontario and Canada are facing in filling skilled trades positions. For instance, according to the Conference Board of Canada's Ontario Employer Skills Survey, 41% of employers were seeking workers with trades training (Stuckey & Munro, 2013, p. 16). The Ontario Chamber of Commerce's survey also shows that about 38% of businesses found it difficult to find workers with the right competencies in manufacturing or motive powers (OCC, 2013, p. 6). Based on Stuckey & Munro's estimates (2013), this mismatch in the labour market can cost \$24.3 billion in foregone Gross Domestic Product and \$3.7 billion in provincial tax revenues each year (p. 5). More significantly, Human Resources Professionals Association (2014) anticipates that "the shortage of skilled tradespeople will grow to 360,000 by 2025" (p. 2).

Evidently the high demand of skilled workers has been a severe issue that needs to be solved. This in-demand skilled trades report aims to add local employers' perspectives to the understanding of the labour market conditions in the four county area. Through both qualitative and quantitative analysis, this report identifies the in-demand skilled trades in the four county area and analyzes the underlying factors that cause this situation.

The report is divided into four parts. It first presents an overview of economy situation in the four county area through analyzing 2016 Census data. Then the report discusses issues and challenges in the region and analyzes barriers related to apprenticeship from local employer engagement surveys and focus group discussions. Finally, the report concludes with several recommendations for future improvement of skilled trades in the four county area. The evidence collected from this research project will help inform government, industry and local communities work together to increase the quantity and quality of skilled workers in order to help local businesses thrive and grow.

## In-demand Skilled Trades in Bruce, Grey, Huron and Perth counties

### Overview

In Ontario alone, there are 42 Construction Trades that are categorized under 22 occupations in the National Occupational Classification codes (NOC). In order to align the skilled trades categorization with the NOC, we used a program of trades chart produced by the Ontario College of Trades that shows the corresponding NOC for each skilled trade. We have also used the NOC to categorize these trades in order to access the 2011 National Household Survey and 2016 Census information for occupation. These two datasets are the most current available for the four county area.

In the table below we have found the top eleven Construction Trades occupations in the four county area and identified the trades that show existing or potential skills shortages. The three

key indicators below give us a sense of the availability of qualified workers for each of these trades occupations.

**Understanding Key Indicators:**

<b>% Change in employment 2011- 2016</b>	Suggests whether the number of workers in this occupation is growing or declining between 2011 and 2016. A positive number may indicate an increased demand for workers in that occupation.
<b>% Workers over 55 years</b>	Indicates that there may be pending retirements that will increase the demand for these workers now and in the future.
<b>Unemployment rates</b>	A low unemployment rate suggests that there are few available workers looking for work in such occupation.

**CONSTRUCTION TRADES**

**Table 1**

<b>OCCUPATION</b>	<b>NUMBER OF PEOPLE EMPLOYED 2016</b>	<b>% CHANGE IN EMPLOYMENT 2011- 2016</b>	<b>% WORKERS 55+ 2016</b>	<b>UNEMPLOYMENT RATE 2016</b>	<b>ACTIVE JOURNEYPERSON CERTIFICATES</b>
ALL FOUR COUNTY OCCUPATIONS	126, 735	-0.1%	27.9%	5.3	N/A
7233 Sheet metal workers	150	100% <sup>1</sup>	12.2%	8.9	Sheet Metal Worker 285 (C) Residential (Low Rise) Sheet Metal Installer 15 (C)
7251 Plumbers	225	-39%	21.0%	3.8	624 (C)

OCCUPATION	NUMBER OF PEOPLE EMPLOYED 2016	% CHANGE IN EMPLOYMENT 2011- 2016	% WORKERS 55+ 2016	UNEMPLOYMENT RATE 2016	ACTIVE JOURNEYPERSON CERTIFICATES
7252 Steamfitters, pipefitters and sprinkler system installers	75	-58%	33.3%	22.7	Steamfitter 164 (C) <sup>2</sup> Sprinkler and Fire Protection Installer <10 <sup>3</sup>
7271 Carpenters <sup>4</sup>	790	3%	26.1%	4.4	87
7281 Bricklayers	65	0%	28.6%	8.7	<10
7291 Roofers and shinglers	70	-41%	7.9%	5	<10
7294 Painters and decorators (except interior decorators)	135	-38%	35.4%	12.8	Painter and Decorator Commercial and Residential <10 Painter and Decorator Industrial 0
7311 Construction millwrights and industrial mechanics	1055	-1%	26.2%	4	<10
7313 Heating, refrigeration and air conditioning mechanics	145	12%	26.5%	3.9	Refrigeration and Air Conditioning Systems Mechanic 191 (C) Residential Air Conditioning Systems Mechanic 57 (C)
7521 Heavy equipment operators (except crane)	475	-13%	33.5%	9.2	Heavy Equipment Operator Tractor Loader Backhoe <10 Heavy Equipment Operator Excavator <10 Heavy Equipment Operator Dozer <10
7611 Construction	1075	25%	13.0%	10.9	Construction Craft Worker 0



OCCUPATION	NUMBER OF PEOPLE EMPLOYED 2016	% CHANGE IN EMPLOYMENT 2011- 2016	% WORKERS 55+ 2016	UNEMPLOYMENT RATE 2016	ACTIVE JOURNEYPerson CERTIFICATES
trades helpers and labourers					Concrete Pump Operator <10

Note:

1. The areas shaded with green indicate that this occupation is above the average for that particular estimate. These indicators signal an existing or potential shortage in skills trades.
2. C in the brackets shows the certificate of the occupation is compulsory.
3. Assumption is made that if any occupations have less than 10 journeyperson certificates in more than one county, it will be less than 10 for all four counties. We assume that the total number of journeyperson certificates will be small and there are no differences between one county and four counties.
4. Occupation in red indicates that the trade occupation has at least two major indicators highlighted.

From the chart above, we can see that most of the trades are shrinking with a negative trend in the percentage change in employment from 2011 to 2016. Only four trades are growing and indicate an increasing demand, namely, sheet metal workers, carpenters, heating, refrigeration and air conditioning mechanics, and construction trades helpers and labourers.

Unsurprisingly, every occupation has an increasing portion of workers aged over 55 in the labour force, which implies that the whole population is aging. This phenomenon clearly shows the need of future qualified works to replace these nearly retired experienced workers. While experienced workers are reaching their retirement, the market experiences in shortage of skilled workers. Especially some trades have an above average rate of workers ages over 55, i.e. steamfitters, pipefitters, bricklayers, painters and decorators (except interior decorators), and heavy equipment operators (except crane).

On average, the unemployment rate in the four county area was 5.3% in 2016 and many trades have a rate below this estimate. This implies that there are few available workers for such occupation openings. Such trades include plumbers, carpenters, roofers and shinglers, construction millwrights and industrial mechanics, and heating, refrigeration and air conditioning mechanics. In the past few years, the situation of having an extremely low unemployment rate in the four county area has become worse. The unemployment rate has consistently gone down and most recently was only 3.7% in 2018. This suggests that labour resources are very scarce in the region, demanding extra attention to be solved.

The occupations that have at least two of the three highlighted indicators mentioned above are carpenters and heating, refrigeration and air conditioning mechanics.

## RECENT TRENDS IN THE CONSTRUCTION SECTOR

According to Statistics Canada (2018), the employment of construction sector ranked as the 6<sup>th</sup> in the region. Many construction trades workers that are hired by the construction sector may also support other sectors. This year's EmployerOne survey shows that the construction sector is seeing growth as 91% of employers said they plan to hire in 2019. However, many construction employers continue to face recruitment challenges. The EmployerOne finds that:

- 78% of employers had a hard-to-fill position in the past year
- 48% of employers have spend over a year trying to fill hard-to-fill positions
- 97% view the available qualified labour as 'poor' or 'fair'

Even though technical skills are important in construction, the survey surprisingly finds that the top reason for hard-to-fill positions is the lack of motivation. When new employees are not self-motivated or their ability to work with little or no supervision is low, the productivity tends to be low and they are not likely to stay long in the position. According to the EmployerOne survey, hard-to-fill skilled trades positions reported by employers include labourers, carpenters, and drivers while the first one is consistent with the result from our key indicator analysis mentioned before.

## INDUSTRIAL TRADES

Table 2

OCCUPATION	NUMBER OF PEOPLE EMPLOYED 2016	% CHANGE IN EMPLOYMENT 2011- 2016	% WORKERS 55+ 2016	UNEMPLOYMENT RATE 2016	ACTIVE JOURNEYPerson CERTIFICATES
ALL FOUR COUNTY OCCUPATIONS	126, 735	-0.1%	27.9	5.3	N/A
7231 Machinists and machining and tooling inspectors	430	13%	21.8%	2.3	<10
7237 Welders and related machine operators	1185	20%	15.0%	5.3	13
7242 Industrial electricians	185	-26%	26.2%	6.8	25

OCCUPATION	NUMBER OF PEOPLE EMPLOYED 2016	% CHANGE IN EMPLOYMENT 2011- 2016	% WORKERS 55+ 2016	UNEMPLOYMENT RATE 2016	ACTIVE JOURNEYPERSON CERTIFICATES
7272 Cabinetmakers	165	-27%	14.3%	5.6	<10
7311 Construction millwrights and industrial mechanics	1055	-1%	26.2%	4	80
7511 Transport truck drivers	1995	-15%	41.6%	5.8	<10
9232 Central control and process operators, petroleum, gas and chemical processing	10	100% <sup>1</sup>	0.0%	66.7	<10
9241 Power engineers and power systems operators	1305	-18%	13.5%	1.5	19
9461 Process control and machine operators, food and beverage processing	560	3%	18.5%	2.7	0

Note:

1. 9232 Central control and process operators, petroleum, gas and chemical processing increased from zero occupation in 2011 to ten occupations in 2016, so we assume the percentage change of employment for this occupation is 100%.

The chart above shows a similar trend as the construction trades, namely, most of the trades are shrinking. The four trades that show an increase in employment

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between 2011 and 2016 are machinists and machining and tooling inspectors, welders and related machine operators, central control and process operators for petroleum, gas and chemical processing, and process control and machine operators for food and beverage processing.

Interestingly, only one occupation has a percentage of workers aged over 55 above average, that is transport truck drivers. 41.6% of them are approaching to their retirement age, which demonstrates the severe shortage of qualified skilled workers in this field in the future.

The trades occupations that have an unemployment rate below the average are machinists and machining and tooling inspectors, construction millwrights and industrial mechanics, power engineers and power systems operators, and process control and machine operators for food and beverage processing. These four trades indicate a need for available applicants to fill their vacant positions. The occupations that have at least two of the three highlighted indicators mentioned above are machinists and machining and tooling inspectors and process control and machine operators for food and beverage processing.

### **RECENT TRENDS IN THE INDUSTRIAL SECTOR**

Manufacturing is a key sector to most of the four county area, ranked as the 4<sup>th</sup> largest employment sector in the region (Statistics Canada, 2018). However, employers from the manufacturing sector also face recruitment challenges. The 2019 EmployerOne survey showed that:

- 82% had a position that was hard-to-fill
- 43% employers have spent over a year trying to fill hard-to-fill positions
- 93% view the available qualified labour as ‘poor’ or ‘fair’

Hard-to-fill skilled trades positions reported by employers in the EmployerOne survey include welders, managers, and production workers while the first one matches the findings from Table 2.

## MOTIVE POWER TRADES

**Table 3**

OCCUPATION	NUMBER OF PEOPLE EMPLOYED 2016	% CHANGE IN EMPLOYMENT 2011- 2016	% WORKERS 55+ 2016	UNEMPLOYMENT RATE 2016	ACTIVE JOURNEYPERSON CERTIFICATES
ALL FOUR COUNTY OCCUPATIONS	126, 735	-0.1%	27.9	5.3	N/A
7321 Automotive service technicians, truck and bus mechanics and mechanical repairers	1480	8%	17.7%	0.8	Tire, Wheel and Rim Mechanic 0 (C) Fuel and Electrical Systems Technician <10 (C) Transmission Technician <10 (C) Alignment and Brakes Technician <10 (C) Truck-Trailer Service Technician <10 (C) Automotive Electronic Accessory Technician <10 (C) Automotive Service Technician 1744 (C) Truck and Coach Technician 1273 (C)
7322 Motor vehicle body repairers	260	-21%	24.1%	6.9	Auto Body and Collision Damage Repairer 207 (C) Auto Body Repairer <10 (C) Automotive Painter <10

The above chart shows that automotive service technicians, truck and bus mechanics and mechanical repairers are in huge demand with its employment having grown from 2011 to 2016



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but the unemployment rate is extremely low as 0.8%. In other words, this trade is growing without many available qualified workers to fill new positions.

## **Employer Engagement Survey and Focus Group Responses**

In each engagement survey, a total of 14 questions were asked in order to collect each employer's insights relating to the in-demand trades in the four county area (please see Appendix A for survey questions). As of December 20<sup>th</sup>, 2019, 86 employers have participated and filled out the engagement surveys. Beside surveys, the Planning Board also held forums on November 13- 14 to discuss employers' experiences in finding skilled trades workers. A total of 25 employers from different counties joined this focus group discussion.

### **In-demand Skilled Trades**

In the survey, we asked employers to specify which trade positions are the hardest to fill and why. The most frequently cited occupations are listed in Appendix B. Nearly 11 percent of employers state that millwrights are the most difficult to fill occupations, followed by licensed technicians, licensed electricians, mechanical trades and professions, and welders. The top three reasons for these hard-to-fill positions are the lack of certificated people in the labour market, lack of local transportation, and lower pay for journeypersons. As small business owners, many employers are not able to pay experienced journeypersons at a rate that is competitive enough for them to stay. As a result, those skilled journeypersons will join a union or start their own businesses. These reasons are also confirmed with the focus group discussion results.

### **Issues and Challenges in the Region**

According to the survey results, employers think that an aging workforce is the most important issue that will severely affect the local skilled trades community over the next five years. As most of the experienced tradespeople are reaching their retirement age, local businesses will bear a huge loss if they cannot find skilled people to replace them. BuildForce (2017) estimates that in Canada, "roughly 250, 000 skilled tradespeople will retire over the next ten years" in the construction and maintenance industry alone. According to the recent Employment Ontario data, there are only 2, 229 active apprentices in the four county area in 2019 while the amount of workers aged over 55 was about one third of 126, 735 people employed in 2016 already. Therefore, recruitment in the skilled trades is crucial, not even mentioning the second most threatening issue in the region as being the lack of available labour for employers. Many employers cannot find apprentices or tradespeople to work for them, especially workers with good ethics and technical skills. These first two factors reflect the concerns of half of employers surveyed. The third mostly mentioned issue is the lack of youth who are interested in skilled trades. Several employers complain that the public school system is pushing students away from trades and many people still do not have the right knowledge or understanding about skilled trades. Similarly, half of employers from the focus group discussions also indicate that the youth are not interested or motivated to enter skilled trades. Their understanding of skilled trades are often limited and misled by their teachers and parents.

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## Barriers Related to Apprenticeship

Undoubtedly, employers of in-demand trades are facing different obstacles related to apprenticeship. As mentioned before, there is limited public transportation in the four county area and distances to be travelled in rural communities can be quite far. Apprentices also need to go to cities to take trades courses since no local schools are available. About 15 percent of employers think these situations can be a barrier for them. Another barrier would be the difficulty to find tradespeople in the market as there are limited young and qualified candidates in the market. Moreover, misconceptions regarding skilled trades and apprenticeships persist. The youth are told that skilled trades jobs are inferior to other jobs, so they would see such positions as their “least choice”. As one employer mentioned, these youth typically do not have interests in trades and they are not keen on doing manual labour work.

On the other hand, 85 percent of employers surveyed are currently sponsoring an apprentice, so their opinions on apprenticeship are worth noting. A third of employers experienced their apprentices leaving for trade schools during their busiest seasons. The time of schooling is always the most impactful factor for employers. It is also a challenge for them to lose their apprentices for two months straight as local trade schools are not available and apprentices have to go to schools that are two hours away. During these two-month training periods, the employers have to face a shortage of employees and a loss of productivity.

### Other Facts

In terms of how technological change would impact the skilled trades, about a quarter of employers indicate that their employees do not have adequate skills or trainings on new technology. The old technicians need to learn new skills in order to catch the technological change, which can be a tough learning curve for them. For the rest of employers, 17% of them indicate that the change does not impact their trades while 17% say that technological advancement has improved the productivity and efficiency of their trades.

Surprisingly, non-completion is not a problem from employers’ perspective. 85 percent of employers said that they either have not experienced apprentices drop out of their apprenticeship training or this situation was very rare. On the contrary, 75 percent of them indicated that they “have had great experiences with their apprentices and the skills they bring to [them].”

### Recommendations for Future Improvement

According to employers’ feedback, several recommendations are generated in order for the apprenticeship program to better respond to their needs and for future improvement of skilled trades in the four county area.

#### For Employers

1. Paying competitive wages and benefit packages

Half of employers indicate that employers need to pay a decent wage and a good benefit package to their employees in order to increase the number of apprentices and journeypersons in high-demand trades. Many employers surveyed provided the same feedback as “Employer should pay higher wages, have a benefit package, more incentives for apprentices such as paid sick days”. With better compensation, wages and benefits, the attractiveness of occupations in skilled trades will increase, especially towards potential employees.

## 2. Better working environments with solid training

Half of employers also think flexible working hours and good workplace environments would also work to induce apprentices and journeypersons. With more respectful and inclusive workplaces, apprentices tend to commit more to the training. Also, the employers suggest that local businesses should take OYAP students and register them as apprentices. If employers are willing to take on apprentices and provide the necessary training for that trade, these apprentices will become experienced tradespeople that benefit their businesses in the future. According to Canadian Apprenticeship Forum (2016), “Offering high-quality training and a positive learning environment attracts additional apprentices through word of mouth” (p. 20).

## 3. More marketing to the younger generation

Lastly, marketing is critical in the skilled trades as many students are not interested in trades. The most popular recruitment methods employers use are social media such as Indeed and Facebook and word of mouth to local shop teachers, co-op teachers or families. However, one employer said, “Employers should be out in public such as career fairs or public events to promote their trades”. Therefore, the employers also should consider attending job fairs and talking to students directly about their trades and career paths. In this way, students can get firsthand information from people working in the specific trades.

## **For the Government**

### 1. Offering local training options or more spots in trades schools

The most popular delivery models for employers surveyed are Block and Day release. Each has its own advantages and employers can choose either one to suit their needs. However, a few employers also think a local school would be the most ideal model. 18 percent of employers think that the government should provide more local apprenticeship training or more variety of trades training. While many communities do not have local schools and public transportation is not available, apprentices need to attend trade schools far away and pay for accommodations. One employer said, “Training needs to happen at the right time of the year. Training needs to happen locally (our apprentices are always having to go to the city, that's costly and they are away from their families). The wait time for a schooling offer is too long. Schooling should be offered locally”. If local training delivery agencies are approved and available, employers will no longer need to worry about the timing of schools and loss of productivity during school periods.

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This will benefit employees and save their time and money as well.

## 2. Changing perceptions towards jobs in skilled trades

It is common that skilled trades are not appealing to younger generations. Perceptions and stigmas towards trades are often difficult to change or eliminate. The government plays a significant role in raising awareness of career options and income possibilities in skilled trades. From our employer engagement survey result, 18 percent of employers think that the government should promote trades more to the public and provide the right information about trades and apprenticeship. Most of them think that more marketing about trades is needed to inform both students and their parents to remove the existing stigma related to skilled trades. They also suggest that marketing campaigns should reach youth earlier and educate schools better about the value of a career in the trades. 18 out of 25 employers who attended the focus group discussions also think it is important to educate students about skilled trades, especially at high school level. They suggest schools should provide more technical classes, increase exposure of trades, and promote trades as a desirable career option for students.

There are many benefits of working in skilled trades. According to the Canadian Apprenticeship Forum (2016), journeypersons indicate that their career can benefit people with “good pay, interesting work, full-time employment, satisfaction on building and creating something, opportunities to do different kinds of work, travel and the opportunity to work outside of an office environment” (p. 30). On the other hand, the 2016 Deloitte Millennial Strategy finds that millennials value work that “provides services and goods that make a positive difference to people’s lives, good work/life balance, opportunities to progress and flexibility (i.e. remote working, flexible hours)” (p. 20). While millennials’ values align with characteristics of careers in skilled trades sectors, it is important to effectively improve perceptions of skilled trades in order to attract youth.

## 3. Providing more financial assistance for both employers and employees

Other than promotion, 17.5 percent of employers surveyed suggest that the government should provide wage subsidies and tax credits for employers to help them to pay extra training and incentivize apprentices. These financial help can motivate employers to provide good wages and benefits for their employees as sponsoring an apprentice can be costly.

The government should also offer more financial assistance for employees. Several employers indicate that apprentices are not able to afford the expense of being away from home with little or even no income when they study at trades schools. Even though they apply for employment insurance, the benefits always come late. Therefore, apprentices need accessible financial support to finish their training and apprenticeship.

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#### 4. Other suggestions from employers

Many employers also think the government can release housing or transportation constraints so that people will choose to move to the four county area and stay. Ideally, the government can make the four counties an appealing place to live and work. The employers also mentioned the need of apprenticeship staffs in the four county area. According to one employer surveyed:

The apprenticeship staff is no longer available. We used to have a great working relationship with them. They would be available to us and the apprentices when we had questions or concerns. We don't know who or when we should be talking to the Ministry, the apprentices need support but they don't know who or when to contact someone.

Clearly, apprentices need administrative assistance from the government staffs on what needs to be done. This applies to employers as well. While enforcement officers always penalize employers for their mistakes, the employers indicate that they would prefer suggestions and ways to improve so they may avoid making mistakes in the future.

It is also notable that the rural setting plays an important role on skilled trades in the four county area. A few employers said that “rural internet is not always good and much of the training is done using the internet”, which can cause problems for both employers and employees especially during this fast-paced technological advancement period. Poor cellular and internet service in the county area place tradespeople at a disadvantage position in the beginning. Therefore, the government needs to take the rural context into consideration when relevant programming is made to help the in-demand skilled trades in the four county area.

#### Conclusions

Putting the evidence together, we see the high demand of certain skilled trades in the four county area, issues and challenges that employers are facing, barriers that are concentrated in the region. Such situation needs a change, which requires collective actions of employers, the government, and local communities. The recommendations that we have outlined will help them to work together to help local businesses thrive and grow.



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## Appendix A

### Employer Engagement Survey Questions

The following questions are designed to gather your perspective on a range of issues related to the skilled trades. In the pages that follow we have also included a brief profile of the Construction Trades sector with labour market indicators for a listing of the key occupations in this sector as context for these questions.

**PLEASE TAKE A MOMENT TO REVIEW THESE QUESTIONS AND BE PREPARED TO DISCUSS.**

#### General

- 1) Please describe what you see as the most important issues that are expected to impact the skilled trades in your community over the next five years?
- 2) How is technological change impacting the skilled trades in your organization?

#### Recruitment

- 3) What skilled trade positions (a. journeypersons and b. apprenticeship) are hardest for your organization to fill and why?
  - a. What methods have your organization used to fill those positions?
  - 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?

#### Training

- 4) Has your organization sponsored or is currently sponsoring an apprentice?
- 5) What impact does the in-school component have on your company?
  - a. Is there a delivery model best suited to your needs?

#### Apprenticeship System Improvements

- 6) What has been your organization's experiences with respect to apprentices dropping out of their apprenticeship training?
  - a. In your experience, what are some of the reasons that apprentices leave their apprenticeship, and are there things the Ontario government could do to help them complete?
  - b. How well has apprenticeship worked as a way of addressing your organization's skills requirements?
  - c. What barriers, if any, does your organization face related to apprenticeship?
  - d. What changes could the Ontario government make to the apprenticeship program to better respond to the needs of employers?

#### Closing

- 7) Do you have any further comments with respect to apprenticeship and/or the skilled trades?

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## Appendix B

### In-demand Skilled Trades List

#### **According to 2011 NHS and 2016 Census:**

7271 Carpenters  
7313 Heating, refrigeration and air conditioning mechanics  
7321 Automotive service technicians, truck and bus mechanics and mechanical repairers  
7231 Machinists and machining and tooling inspectors  
9461 Process control and machine operators, food and beverage processing

#### **According to Employer Engagement Survey results:**

Millwrights  
Licensed technicians, sheet metal, refrigeration  
Licensed electricians  
Industrial mechanic  
Welders

### Oversupplied trades

#### **According to 2011 NHS and 2016 Census:**

7252 Steamfitters, pipefitters and sprinkler system installers  
7294 Painters and decorators (except interior decorators)

Note: Occupations that experience a decrease in employment over 2011-2016 period and high unemployment rate over average 5.3% are defined as oversupplied.