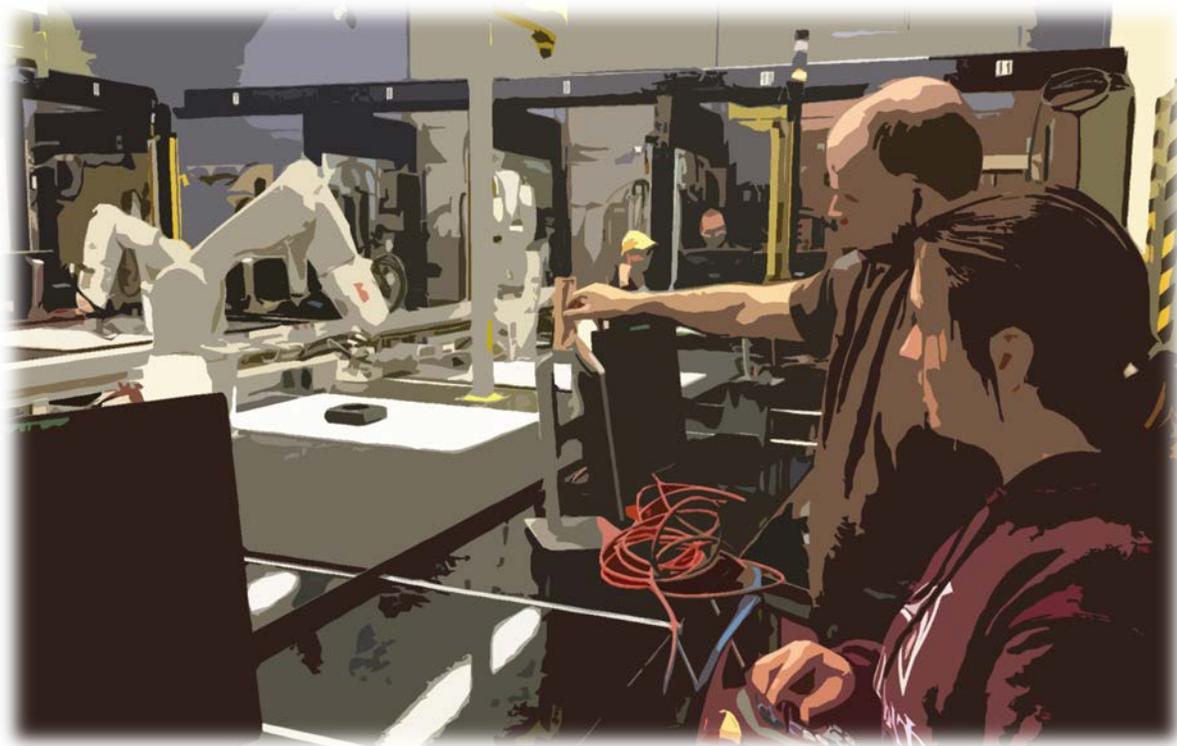


Future of Work

Preparing Students for a Changing Labour Market



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EXECUTIVE SUMMARY

Algoma's Labour Market is constantly changing and evolving. It is important to identify the trends which have an impact on our local labour markets and recognize how they will continue to affect Algoma's workforce and the student population that will be entering the workforce in the next 10-15 years, and beyond.

This report provides an overview of Algoma's Labour Market including a summary of employment by sector and occupations. It also highlights the trends that are having significant impacts including:

- Algoma's aging population and aging workforce (demographics)
- Changes in technology
- Adapting to change
- The changing nature of work

These trends will continue to have impacts on Algoma's labour markets for the foreseeable future and will create both risks and opportunities for students, post-graduates, individuals and employers. Recognizing and adapting to the changes will be key to maintaining a healthy labour market.

BACKGROUND

Both qualitative and quantitative methodologies were used to produce this report. In addition to an analysis of the data provided by Employment Ontario it includes the results of our continuous data analysis and our monitoring of emerging and critical workforce issues. We collect information from a wide range of stakeholders and in a variety of ways, such as feedback from consultations, surveys, research reports, industry groups and associations.

Unless otherwise noted, this year the labour market trends in this report are derived from three main sources of data:

- Research gathered from the Ontario Centre for Workforce Innovation (OWCI);
- Statistics Canada's 2016 Census data;
- An analysis of Statistics Canada's Canadian Business Patterns data for June 2017, and comparisons to previous years

The purpose of this report is to provide an update on Algoma's labour market conditions, characteristics, trends, and a look at the future of work for students in a rapid-changing economy. We hope that readers find the information relevant and applicable in the current context of our labour market. We are confident that this report will help educational service providers understand the usefulness and importance of the support they provide to Algoma's job seekers and post-graduates.

As with any report of this nature, the data included in the report represents a snapshot in time. Since the labour market in Algoma is always evolving, please use this report as guide to the overall trends that are impacting Algoma and visit awic.ca for the most up-to-date labour market research.

ABOUT AWIC

The Algoma Workforce Investment Corporation (AWIC) is Algoma's Workforce Planning Board. AWIC's goal is to provide access to easy-to-understand, quality assured Labour Market Information (LMI) for the Algoma region, that allows individuals to make decisions about future careers, employers to plan and find talent and communities' stakeholders to inform policy and support local workforces.

Operating as part of the Local Boards Network of Ontario, AWIC is one of 25 Workforce Planning Boards that are funded by the Ministry of Advanced Education and Skills Development (MAESD). AWIC services three main branches of customers:

- 1) Those looking to 'Build their Career': Students, adults transitioning in the workforce, guidance counsellors and parents (influencers);
- 2) Those looking to 'Build their Business/Organization': Employers;
- 3) Those looking to 'Build their Communities': Government at all levels, service providers, and community stakeholders

To note, all labour market information includes all data and analysis that relates to the employment and workforce in a region. Readers should consider this research as 'big picture' information that helps workforce planning boards identify trends impacting jobs postings and opportunities impacting job searches. For a further breakdown of the terms of reference used throughout this report regarding labour market research, please see Appendix 1.

We thank our sponsor for their support in publishing this report and our community partners for their generous participation in the research.

ABOUT OCWI

The Ontario Centre for Workforce Innovation (OCWI) is a research centre dedicated to building a skilled, resilient, and productive Ontario workforce. Their key activities are research, knowledge transfer and exchange, and capacity building. OCWI is a partnership led by Ryerson University and funded in part by the government of Canada and the Government of Ontario.

The Centre looks to build on evidence that works towards improving Ontario's employment and training services sector. OCWI follows a process of documenting/sharing local success stories, testing innovative solutions at the provincial level, creating an area that contributes to the exploration of new solutions, and compiling all information that focuses on targeted research. This research helps stakeholders design relevant solutions that address present workforce concerns and helps them prepare for potential future employment barriers.

This report was prepared by Mathew Lance, Algoma Workforce Investment Corporation (AWIC) based on the information gathered and presented for a Future of Work discussion by Jonathan Coulman, the Executive Director of the Algoma Workforce Investment Corporation (AWIC) and Crystal Olson, Regional Coordinator (OCWI).

ALGOMA'S LABOUR MARKET

Employers are divided into broad types of sectors:

- ✓ Goods-Producing Sector – organizations that make things
- ✓ Services-Producing Sector – organizations that provide services

79% of jobs in Algoma are in the Services-Producing Sector – which includes Healthcare, Retail, Education and all levels of Government

21% of jobs in Algoma are in the Goods-Producing Sector – which includes Manufacturing, Utilities and Construction

Table 1 provides the industry employment numbers for 2016, with comparisons to 2011, for Algoma. This data represents the industries employing the residents of these communities, not the actual jobs that are present in Algoma.

Algoma experienced a drop in the number of employed residents between 2011 and 2016, a difference of 2,285, representing a decrease of 4.6%. The largest decreases took place in Public Administration (-905, or -19.9%); Manufacturing (-845, or -15.8%); and Other Services (-370 or -16.7%). These were balanced out by several increases: Accommodation & Food Services (+455, or 13.3%); Agriculture, Forestry, Fishing & Farming (+155, or 24.0%); and Health Care & Social Assistance (+495, or 6.8%).

The major changes in the share of employment by industry were as follows: Health Care & Social Assistance (+2.2%); Public Administration (-1.5%); Accommodation & Food Services (+1.3%); and Manufacturing (-1.2%).

Table 1: Employment by Industry

	2016	Change between 2011 and 2016		Percent distribution by industry	
	Number	Number	Percent	2011	2016
ALL INDUSTRIES	47135	-2,285	-5%	100%	100%
Goods-Producing Sector	9760	-760	-8%	21%	21%
Manufacturing	4515	-845	-16%	11%	10%
Construction	3135	-85	-3%	7%	7%
Mining and oil and gas extraction	840	55	7%	2%	2%
Agriculture, forestry, fishing, and hunting	800	155	24%	1%	2%
Utilities	470	-40	-8%	1%	1%
Services-Producing Sector	37355	-1510	-4%	79%	79%
Health care and social assistance	7825	495	7%	15%	17%
Retail trade	5940	-220	-4%	13%	13%
Accommodation and food services	3875	455	13%	7%	8%
Educational services	3720	-380	-9%	8%	8%
Public administration	3650	-905	-20%	9%	8%
Administrative and support	2445	-80	-3%	5%	5%
Transportation and warehousing	2060	110	6%	4%	4%
Other services	1850	-370	-17%	5%	4%
Professional, scientific, technical	1485	-295	-17%	4%	3%
Arts, entertainment and recreation	1355	-110	-8%	3%	3%
Finance and insurance	1110	-105	-9%	3%	2%
Wholesale trade	875	-65	-7%	2%	2%
Real estate and rental and leasing	595	-65	-10%	1%	1%
Information and cultural industries	570	25	5%	1%	1%

Table 2 shows the ranking of employment by industry labour force percentage when looking at both the District of Algoma and Ontario. As you might expect, the ranking of Occupations (by job classification) follows the same trends as the Industry make up in Algoma. Most people work in Sales and Service occupations, which are also the top occupations in the province.

Algoma's mix of Goods-Producing jobs compared to Services-Producing jobs is similar to the province as a whole. However, the region relies more heavily on Public Sector jobs such as Healthcare and Public Administration than the rest of the province. High value Service Sector jobs in Law, Tech, Finance and Insurance tend to be clustered in urban centres and are not nearly as prominent in Algoma.

Table 2: Comparison of employment by industry in Algoma and Ontario

Industry	Algoma	Ontario
Goods-Producing Sector	21%	20%
Manufacturing	10%	10%
Construction	7%	7%
Mining, quarrying, and oil and gas extraction	2%	0%
Agriculture, forestry, fishing and hunting	2%	2%
Utilities	1%	1%
Services-Producing Sector	79%	80%
Health care and social assistance	17%	11%
Retail trade	13%	11%
Accommodation and food services	8%	7%
Public administration	8%	6%
Educational services	8%	8%
Administrative and support, waste management and remediation services	5%	5%
Transportation and warehousing	4%	5%
Other services (except public administration)	4%	4%
Professional, scientific and technical services	3%	8%
Arts, entertainment and recreation	3%	2%
Finance and insurance	2%	6%
Wholesale trade	2%	4%
Real estate and rental and leasing	1%	2%
Information and cultural industries	1%	3%

AGING WORKFORCE

Population changes in Canada

By 2030, the year in which the youngest baby boomers will reach age 65, close to one in four persons in Canada will be aged 65 years or over (22.2% in the high-growth scenario, 22.8% in the medium-growth scenario and 23.6% in the low-growth scenario) compared with 15.3% in 2013. (Stats Canada)

During the same period, the working-age population—persons aged 15 to 64 years, most of them being in the labour force—would decrease according to all projection scenarios, from 68.6% in 2013 to about 60% in 2030. Between 2030 and 2063, this proportion would remain fairly stable. (Stats Canada)

Population changes in Ontario

According to all projection scenarios, the population of Ontario would increase over the next 25 years, reaching between 14.8 million and 18.3 million inhabitants by 2038. Ontario would remain the most populous province according to all scenarios.

In all scenarios, immigration will remain the key driver of Ontario's population growth.

Based on the projection scenarios used, immigrants would represent between 24.5% and 30.0% of Canada's population in 2036, compared with 20.7% in 2011. These would be the highest proportions since 1871.

Population change in Algoma District

Three demographic trends will continue to have a significant impact on Algoma's local labour markets. These trends are an aging population, an aging workforce and an overall decrease in total population.

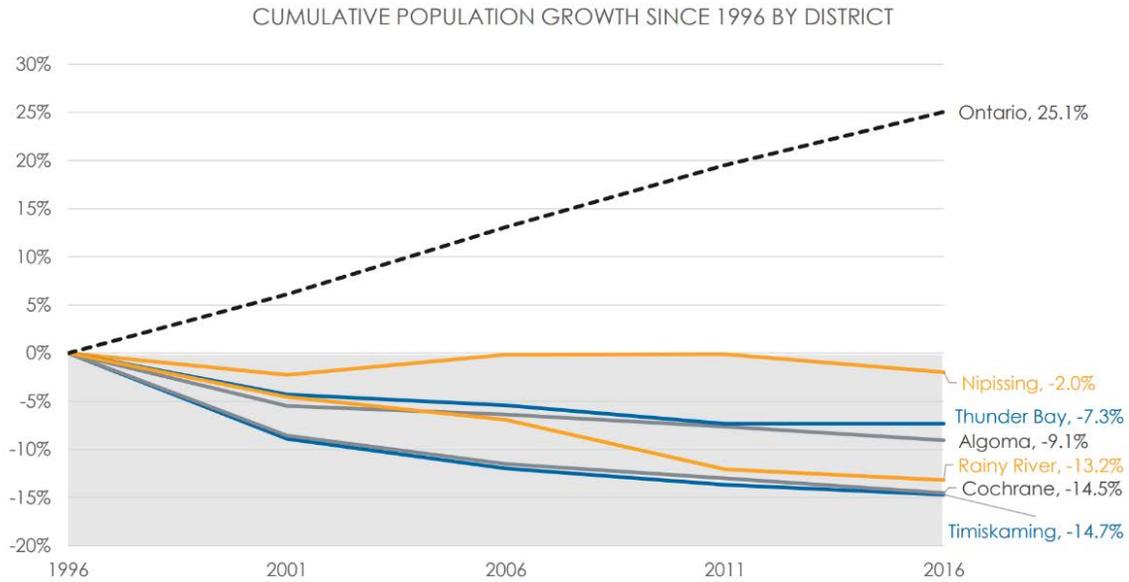
Facts:

- In 2016, the median age of Algoma is 49. (In 2011 it was 47.2)
- The median age in Ontario is 41.3
- 24% of Algoma's population is 65+
- From 2011 to 2016, Algoma's population decreased by 1.5%

In general, the decreases in population are a result of smaller family sizes and low levels of migration and immigration into the region. Figure 1, taken from the Northern Policy Institute's State of the North report (2017) supports this notion that even as Ontario's population as a whole continues to increase, there is a steady decrease in Northern Ontario Districts' populations due to greater youth outmigration, less immigration, and lower birth rates.

Figure 2 shows Algoma's population over the course of 30 years and how it has dramatically shifted. Therefore, we can deduce that based on our labour force replacement ration, for every two-people exiting the workforce there is only one person who can replace them. Additionally, Appendixes 2 and 3 capture Algoma's workforces by its close similarity to that of Sault Ste. Marie, Ontario.

Figure 1: Northern Ontario population growth and decline



Source: Author's calculation based on Statistics Canada, Census, Various Years.

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NORTHERN
POLICY INSTITUTE

INSTITUT DES POLITIQUES
DU NORD

Figure 2: Algoma's population change over 30 years

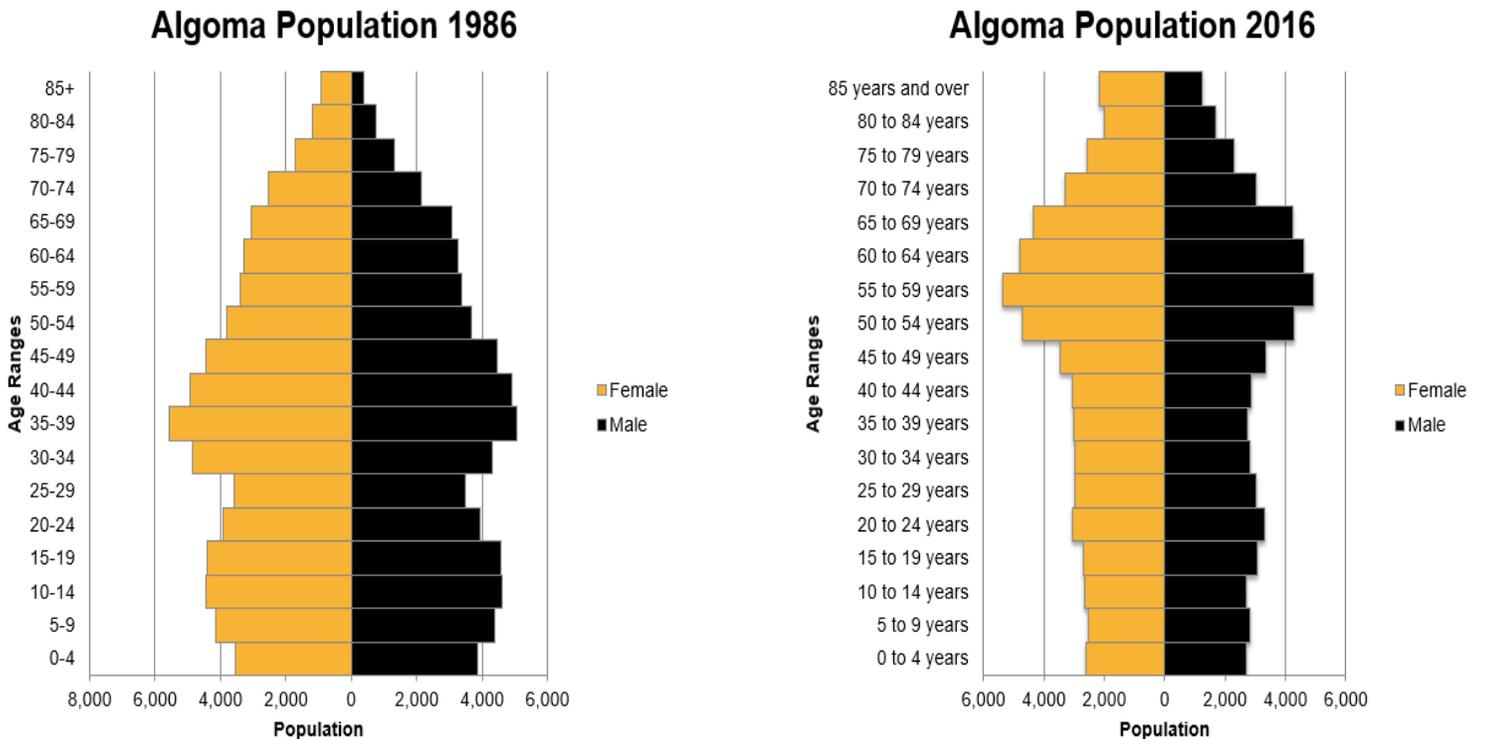


Table 3 highlights that in Algoma, almost half (47%) of the workforce is over the age of 45 and almost a quarter (23%) is over the age of 55. The occupations with the highest percentage of people over the age of 55 are:

- Manufacturing and utilities (29%)
- Trades, transport and equipment operators (29%)
- Business, finance and administration occupations (29%)

In the coming years we will see a greater number of people retiring from the workforce in Algoma which will create more opportunities/gaps across many occupations. Occupations that are already experiencing growth and have a higher percentage of people over the age of 45 will offer the most opportunities for those entering the workforce.

Table 3: Age of workforce by occupation in Algoma

National Occupational Classification (NOC) 2016	% 45+	% 55+
All occupations	47%	23%
0 Management occupations	58%	23%
1 Business, finance and administration occupations	58%	29%
2 Natural and applied sciences and related occupations	41%	20%
3 Health occupations	45%	21%
4 Occupations in education, law and social, community and government services	47%	20%
5 Occupations in art, culture, recreation and sport	35%	19%
6 Sales and service occupations	37%	20%
7 Trades, transport and equipment operators and related occupations	52%	29%
8 Natural resources, agriculture and related production occupations	31%	18%
9 Occupations in manufacturing and utilities	58%	29%

CHANGES IN TECHNOLOGY

In a study released in 2016 by the Brookfield Institute, it was estimated that 42% of the Canadian labour force is at a high risk of being affected by automation.

This is not a new phenomenon as technology and automation have allowed sectors such as manufacturing to become more productive with smaller work forces. In general, automation has provided manufacturers with a more efficient method of doing routine tasks in their processes. History has recorded the use of technology to generate similar or greater output while using skilled workers. However, as technology advances any job that is based on routine tasks is at risk of being automated, as the world moves into the fourth industrial revolution utilizing cyber physical systems.

In the same study, the Brookfield Institute highlights that the types of jobs with the highest risk of automation were not in the Goods-Producing Sector, but were all in the Services-Producing Sector:

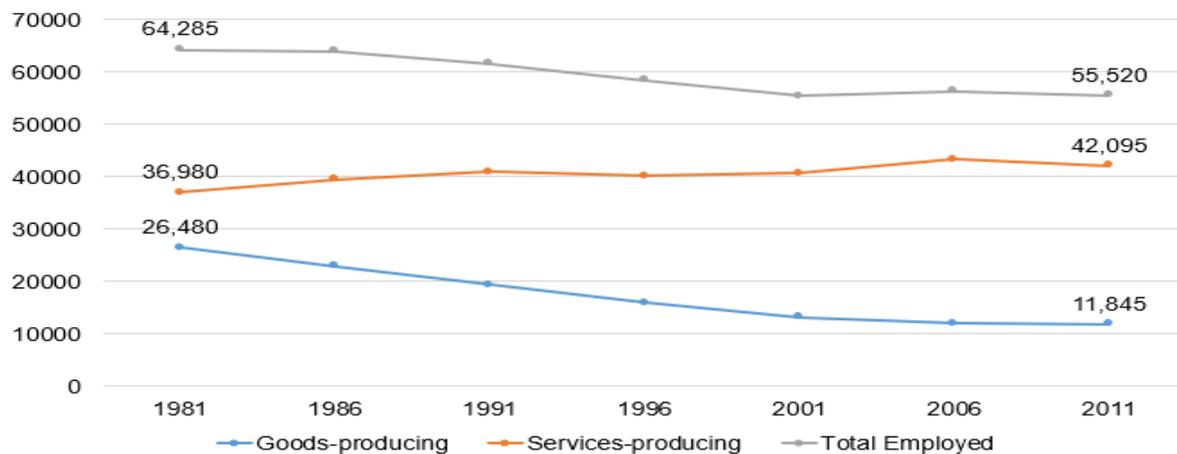
- Retail sales persons - 92% probability; 656,000 employees
- Administrative assistants - 96% probability; 329,000 employees
- Food counter attendants - 91.5% probability; 313,000 employees
- Cashiers - 97% probability; 309,000 employees
- Transport truck drivers - 79% probability; 262,000 employees

In Algoma we can see these changes on a daily basis, whether it is a kiosk in a restaurant, online banking or online shopping. Figure 3, taken from the Northern Policy Institute's report 'Human Capital Series – Algoma District,' highlights how Algoma's Labour Market has been affected by technology as more of the workforce moves to services-producing positions but less of a workforce is needed to generate the same or greater output of resources in goods-producing industries. From a retail sector perspective, an excellent example of the impact technology can have on a sector was in 2017 where the city of Sault Ste. Marie saw its Sears store close and submitted a bid for Amazon's new 50,000-employee headquarters.

Though technological advances that disrupt employment are not a new phenomenon, the accelerated pace of change is new. Consider agriculture, which historically was a labour-intensive activity to the extent that almost half of all Canadians worked on farms in 1881. By 2011, only 2% of Canadians worked in Agriculture. Clearly technological advances in machinery and crop sciences have meant that production has continued to grow while the number of people needed to maintain output has decreased to the current level it is today. This change has taken place rather gradually over 150 years.

Now consider driving-related jobs, such as long-haul truck drivers. The Brookfield Institute estimates at least half of the driving-related jobs that exist today will be impacted by advances in technology by 2021 – or in less than 10 years.

Figure 3: Algoma's changing workforce



Data Source: NPI Northern Projections: Human Capital Series – Algoma District. Author’s calculations based on Statistics Canada, Census of Canada (various years), and National Household Survey 2011, custom tabulation.

Furthermore, the institute states that there are certain types of jobs with the lowest risk to becoming automated in the Services-Producing Sector, representing between 175,000 to 363,000 employees spread out across all occupations and are all below 20% probability of becoming automated:

- Retail and wholesale trade managers
- Registered nurses (psychiatric included)
- Elementary and kindergarten teachers
- Early childhood educators and assistants
- Secondary school teachers

The C.D. Howe Institute comments within their 2017 report ‘Future Shock? The impact of automation on Canada’s labour market’ that it is very unlikely that employment in occupations highly susceptible to automation (35 percent of Canada’s employment) will be completely replaced by smart machines over the next few years. Canadian employment is concentrated in industries that have a low risk of automation, with industries where less than a quarter of the jobs are susceptible to automation accounting for 27.5 percent of total employment (4.9 million jobs). Industries where more than three-quarters of the jobs are at high risk of automation account for only 1.7 percent of employment (310,000 jobs). This implies that Canada’s diversified economy and labour force are well positioned to adapt to rapid technological change.

For Canada, technological change is increasing the demand for skills in the labour market and increasing the growth of middle- and high-income occupations, as opposed to displacing middle income earners, which is more common in the United States (C.D. Howe Institute 2017).

According to a recently published 2018 report by RBC, “Humans Wanted: How Canadian youth can thrive in the age of disruption,” more than 25% of Canadian jobs will be heavily disrupted by technology in the next decade. This report goes on to address various occupations being associated with one of six clusters, the probability of disruption, the current number of jobs available, and how these jobs may evolve, as illustrated in Table 4.

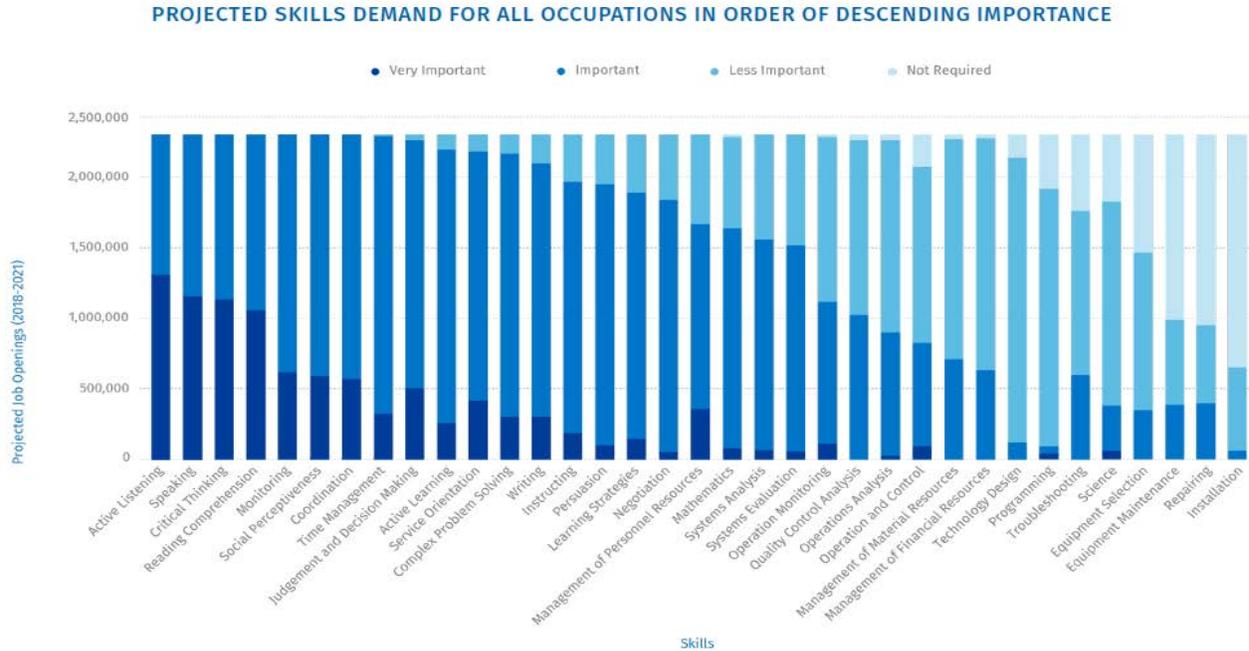
Table 4: Skills Clusters

Cluster	Risk of Disruption	Employed	Job Openings 2018-2021	Traditional Jobs to 21 st Century Jobs
Crafters	Very High	3.6 million	380,000	Bakers, cashiers to self-checkout supervisors
Doers	High	845,000	110,000	Machine operators to machine learning trainers
Technicians	Medium	1 million	130,000	Machinists, electricians to drone assemblers
Facilitators	Moderate	4.8 million	570,000	Customer service reps to drone operators
Providers	Very Low	6.2 million	850,000	Musicians to YouTube content creators
Solvers	Minimal	2.3 million	350,000	Mechanical engineers to driverless car engineers

Based on this data, provided by Employment and Social Development Canada (ESDC), approximately 2.4 million jobs will be created within the next 3 years but more than a quarter of them will be disrupted by technology. Furthermore, it's reported that 50 percent of occupations will undergo a significant skills overhaul. Those under 30 are the most at risk whereby they need to learn how to develop the muscle memory for skills development and mobility to go where the work is in demand.

Additionally, Figure 4 states the majority of skills that will be in demand over the next three years with popular skills attributing to occupations in the clusters of facilitator, provider, and solver roles.

Figure 4: Projected job openings and the skills required



Human's Wanted, 2018

The chart on projected skill demand supports the notion from Table 4 that 'soft skills' (communication, emotional intelligence, critical thinking, active listening, to name a few) are held to a higher standard for attracting employers due to their transferability between positions, with

technical skills being deemed necessary for certain positions. Additionally, employers look to continue hiring human resources whom are digitally literate and analytic with data. They may not automate their staff when careers involve labour costs, macro-economic cycles, competitive pressures, social acceptance, and regulatory approval (Humans Wanted, 2018).

Other quick Statistics Canada facts about Canada’s labour force in 2030 and Algoma District are:

- 1) 62% labour force participation rate (66% today); Algoma (57% today)
- 2) 20% of Canadians will be 65+ (17% today); Algoma (24% today)
- 3) 60% of Canadians will be of working age (66.5% today); Algoma (66.6% today)
- 4) 28% of Canadians will be foreign-born (22% today); Algoma (7.8% today)
- 5) 32% of Canadians will be visible minorities (22.3% today); Algoma (23% today)

Statistics Canada states that within the next decade they expect 500,000 workers to move up the skills ladder.

Ultimately, young people are encouraged to keep developing their careers by learning with new technology, understanding how to think differently, and take advantage of available opportunities to upgrade their skills.

ADAPTING TO CHANGE

Given the aging workforce, the rate of technological change and the changing nature of work, Algoma’s current and future workforce has to be adaptive in order to be successful.

The Human Resources Professionals Association (HRPA) cited the three most important attributes a person will need to be successful in the future workforce as stated in Figure 5:

Figure 5: Three most popular soft skills employers desire



These all represent ‘soft skills’ of the individuals and not the ‘technical’ skills the person may have to better prepare them for new economic realities. This is in recognition of the fact that the skills related to a particular job or the technology associated with the job will change very quickly.

We see this same emphasis on soft skills in AWIC’s annual survey of Algoma employers called the ‘EmployerOne’ survey. Knowing which skills employers value is important to know for job seekers and agencies that assist them as these skills can be developed and improved upon. Table 5 below compares the Top 10 skills identified in the ‘EmployerOne’ survey to those from Canadian and U.S.

sources. The most commonly referenced soft skills by employers are Customer Service Skills and Communication Skills, including Writing.

Table 5: Top 10 skills identified by employers in Algoma, in Canada and in the United States

Algoma	Canada	United States
Customer service skills	Communication skills	Communication skills
Communication skills (both oral and written)	Writing	Organizational skills
Self-motivated/ability to work with little or no supervision	Customer relations	Writing
Teamwork/interpersonal skills	Sales	Customer service
Problem solving, reasoning, creativity	Organizational skills	Microsoft excel
Technical skills	Microsoft office	Word + office
Professionalism	Policy analysis	Problem solving
Computer literacy skills	Supervisory skills/Leadership	Planning
Time management or organizational skills	Problem solving	Computer Skills + typing
Analytical/research skills	Teamwork	Research

Data Source: Algoma, employeronline Survey 2016; Canada, Workopolis – Thinkopolis VIII: The most sought-after skills in Canada in 2015; United States, Burning Glass – The Human Factor. The hard time employers have finding soft skills.

The rapid pace of changes in technology means that in order for Algoma’s workforce to adapt and keep pace we need to redefine our traditional structures of education and work:

- Lifelong continuous education needs to be the norm and the recognition of skills
- Aligning education, businesses and policy makers to keep pace with change
- Adapting traditional work structures

Learning opportunities and platforms are more readily available than at any other time in history. In addition to traditional College and University programs, individuals can add to their skill sets through online resources (e.g. Khan Academy, Udacity).

While skills can be quickly and easily acquired in theory, practical experiential opportunities are critical to skill development. In this regard, it is important that employers are aware of and recognize the many different channels in which a person can acquire the skills needed for a particular job.

Based on the World Economic Forum’s ‘Future of Jobs Report,’ there is a growing change in the skills demanded of students, essentially in areas of cognitive thinking, complex problem solving, and managing effective social skills. Additionally, Figure 6 illustrates the World Economic Forum’s (2015) new age of student understanding in areas of Information and Communication Technology (ICT) literacy, communication competencies, and leadership characteristics, among many others, that curriculums should be prioritizing to better prepare students for the workforce.

Figure 6: 16 skills required for the 21st century



Note: ICT stands for information and communications technology.

Source: World Economic Forum, *New Vision for Education: What are the 21st-century skills every student needs?* (2015)

THE CHANGING NATURE OF WORK

Generational Differences

Canadian employers see the greatest generational differences in employees' communication skills, their ability to adapt to change, and their technical abilities. Gone are the days of securing a job that becomes a life-long career, therefore employees need to become comfortable with continual change and working in various positions.

According to Robert Half Management Resources' research on 'How do generations of Canadian workers differ?' (2017), the job market increasingly requires higher education levels whereby Canada is ranked number one in the world for educational attainment. However, those that are in more vulnerable sectors of employment including Indigenous peoples, immigrants, those with disabilities, and those Not in Employment, Education, or Training (NEET) struggle with this new economic shift.

Research conducted for 'Get Ready for Generation Z' by Robert Half and Enactus highlights key differences in these skill areas among baby boomers (1946-1964), Generation (Gen) X (1965-1977), Generation Y (1978-1989) and Generation Z (1990-1999). These skills and competencies include:

- **Communication style:** Baby boomers tend to be more reserved, while Gen Xers favour a control-and-command style. Conversely, Gen Yers prefer a more collaborative approach to communication, and Gen Zers look towards in-person interactions.
- **Change management:** According to the research, Gens X and Y tend to see change as a vehicle for new opportunities, while Gen Z is accustomed to change and expects it in the workplace.
- **Technical skills:** When it comes to building their abilities, employer-backed training is expected by all workers. Baby boomers and Gen Xers most value traditional instructor-led courses or self-learning tools; millennials, which include Generations Y and Z, prefer collaborative and technology-centric options.

Therefore, those whom are Baby Boomers and are from Generations X are direct to being ambitious, creative and are often unimpressed by receiving wisdom from others or outside of a firm.

Additionally, learning continues to evolve as approached by Generation Y and Z's Millennials by:

- Utilizing social media in all aspects of life; to use it as a tool for employment and use it to improve their skills, knowledge and expertise through tutorials.
- Their need to feel valued at work and recognized for their contributions.
- They are more likely to work in jobs that are temporary; that require more experiential experience of the workplace to develop soft skills valued by employers.
- These workers (including youth) look for flexibility to obtain work-life balance.
- They look for firms that support the growth of entrepreneurship.

Therefore, these generations and the youth think beyond traditional processes and bureaucracies to achieve their goals.

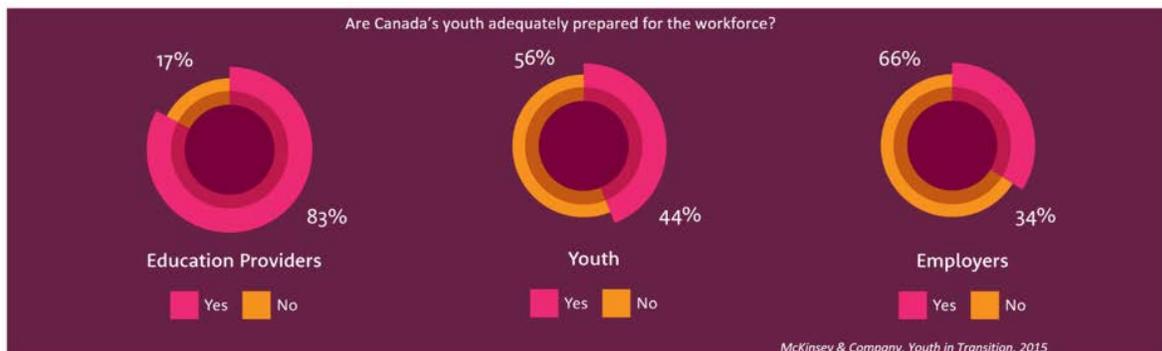
Defining the disconnect

A 2016 Brookfield Institute survey of 90 large Canadian private-sector employers identified teamwork, communication, and problem-solving capabilities as some of the most important skills for entry-level positions. These skills are often complemented by current technology but cannot be easily replaced.

Due to the rate of growth and change in new technologies affecting the workplace environment, employers need to take more of an interest investing in the training of their employees. Over the last decade there has been a decrease in businesses investing in professional training for their employees. One common theme is that many employers believe that there is a lack of loyalty in the youth that they hire, resulting in them being extra cautious to invest in their training. Such fear that employees will leave a company after only a few years for a 'better offer' puts youth at a disadvantage for often not being given the opportunity to receive real work experience in their communities, causing them to look for opportunities elsewhere (i.e. CMA's).

To add further insult to injury, many educational providers believe that students are receiving enough skills within their curriculum to be prepared for the workforce. Unfortunately, this is not the case as survey results in Figure 7 illustrate the disconnect between the perceptions of preparedness of students for the workforce between students, employers, and educators.

Figure 7: Perceptions of post-graduate preparedness



Source: The Brookfield Institute for Innovation + Entrepreneurship, 2017
Future-proof: Preparing young Canadians for the future of work

Educational Providers need to be consistently aware of new local labour market needs and trends to better prepare their growing student base. Youth need to be encouraged by educational institutions to seek continuous learning as knowledge platforms become more readily available. More employers are finding post-graduates attractive when they have some familiarity with data science as well as user-driven platforms in social media (YouTube, Facebook, LinkedIn, etc.) Youth should be made aware to further build on their technical skills via Massive Open Online Courses (MOOC's) and research areas that the labour market will be transitioning into within the next decade (i.e. Augmented Reality and Virtual Reality).

Precarious Employment

As Young Canadians finish school, begin work, look for homes and start families, they are “squeezed” by stagnant incomes, high costs, less time and mounting debts. They are more likely to be stuck in temporary or ‘precarious’ jobs than in the past, translating in a delay in their ability to fully participate in society. There has always been precarious work, however the rate of growth and opportunity due to the lack of full-time positions has led to the growth of the “Gig Economy.”

This Gig Economy may bring benefits in the flexibility of part-time or contract work for some whereas others may not be comfortable with the inherent job insecurity and uncertainty.

This increase in part-time and contract work also means that people will change jobs more often over the lifetime of their career. The job posting site Workopolis estimates that Canadians just starting out in their careers will have 15 different jobs over their lifetime. This adds to the notion that technology continues to support this new economy by allowing businesses to lower fixed costs and only hire workers on a short-term basis to complete a specific project without hiring full-time staff.

Therefore, workers are encouraged to look for skills that they can learn or build upon in their existing job and continue to look for the next job (the old adage ‘the best time to find a new job is when you have a job’, applies here). The concept of having a better idea of a path that will lead to a more desired field of employment or occupation is becoming more common.

Part-time and contract work is becoming the new normal when it comes to employment in Algoma.

<p>In the 2011 National Household Survey 23% of respondents in Algoma reported working part-time or for part of the year.</p>	<p>In the 2016 Census 53% of respondents in Algoma reported working part-time or for part of the year.</p>
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Looking back at the information presented throughout this report, we can conclude that educational providers can focus on the future of work by developing well-rounded students that are equipped for the new economic realities that they will be facing once they enter the workforce. Three core concepts surface that should be built upon throughout the curriculum.

Firstly, no Industry or job is completely immune to technical disruption. Therefore, educational providers can support the teaching of Information Technologies (IT) 101. This can support the fundamentals of IT, learning the necessary coding theories, and the terminology. Life-long learning needs to be stressed as more students need to understand the foundation of continuously building on their skills and becoming ‘Graduates for Life.’ Potential options for schools can involve reviewing past graduates and their programs while offering students incentives to upgrade their skills, such as providing free introductions to an IT course for past and future graduates.

Secondly, the Gig Economy is becoming more popular as more students, graduates, and those looking for second careers are moving from one part-time job to the next. Curriculums can include an ‘Independent Work Program’ that is taught to all students in all programs to become more

accustomed to the reality of self-employment. To further support this concept, more courses can be offered to teach students self-management, budgeting, contract knowledge, branding, accessing support services, and understanding the fundamentals of entrepreneurship.

Finally, educational institutions need to look into 'developing the pipeline' by not only educating students from Kindergarten to age 16 but also looking into a model that supports a Kindergarten to life model learning environment. It should be noted that very few jobs created in the coming years will not require a post-secondary education as more employers seek applicants with high-level experience and degrees. However, when looking at regional data almost a quarter of students graduating from the Algoma District School Board do not enter post-secondary educational studies. More efforts are needed to be made to expose students to various programs early in their learning and to industries that are very popular (e.g. Healthcare, Trades, IT) and break down any barriers that involve gender or to automation, creating a more prosperous future for schools, employers, workers and for our students.

APPENDICES

Appendix 1: Terminology

- **Population** for the purpose of the Labour Force Survey, defines the number of people 15 years of age and over.
- **Labour Force** is the total number people who are employed or actively looking for employment.
- **Participation rate** is the number of employed and unemployed as a percentage of the population. People who are Not included in the participation rate are those who do not work or cannot work (students, homemakers, incarcerated people, and retirees).
- **Unemployment rate** is the measure of people actively searching for work who cannot find any divided by the number of people in the labour force. Unemployment can be further broken down into voluntary (searching for other means of employment) or involuntary (fired or laid off).
- **Employment rate** is the number of employed persons as a percentage of the population that are 15 years of age or over.

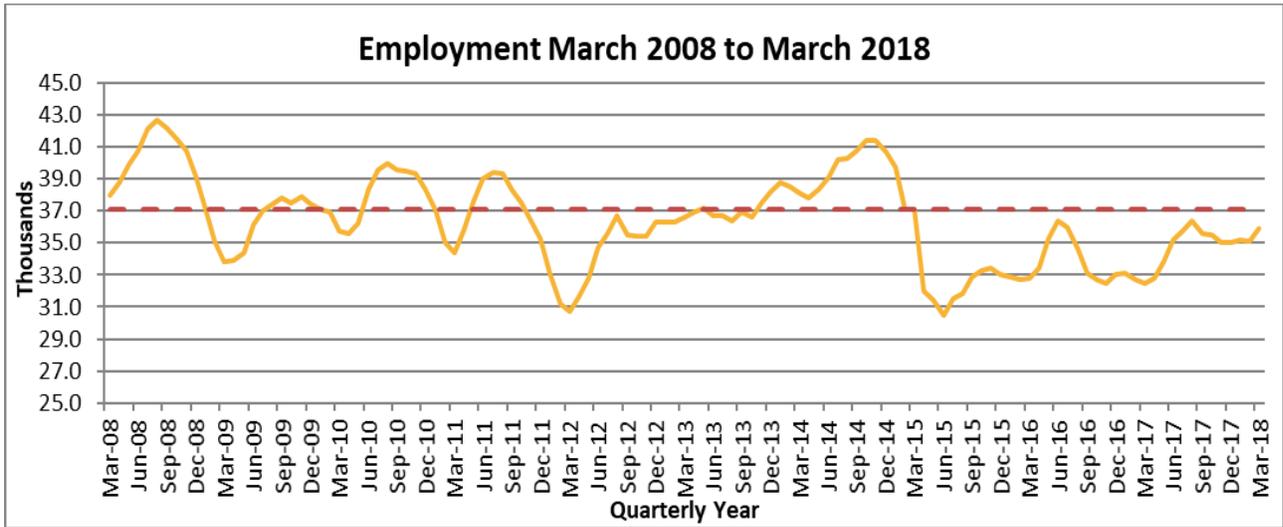
Appendix 2: Labour Force estimates for Sault Ste. Marie

	March 2018	March 2017	March 2016
Population ('000)	66.6	66.7	67.2
Labour Force ('000)	38.0	35.0	35.7
Employed ('000)	35.9	32.5	32.8
Unemployed ('000)	2.1	2.5	2.9
Not in Labour Force ('000)	28.6	31.7	31.5
Participation Rate	57.1%	52.5%	53.1%
Unemployment Rate	5.5%	7.1%	8.1%
Employment Rate	53.9%	48.7%	48.8%

What do the can we tell from the Employment Numbers

- The unemployment rate increased by approximately one percent since December 2017.
- Total number of jobs (employment) increased by approx. 3,400 from last year and increased by 800 jobs since February 2018.
- Participation and Employment rates have continued to improve annually. However, it should be noted that some of this improvement is from a decrease in the population, though there has been 3,000 new people added to the labour force.
- Participation and Employment rates close to 50% means that for every person in the participating local labour market, one person is not. This is related to Sault Ste. Marie's aging population, which is seeing more people retiring and leaving the workforce than entering it.

Appendix 3: Employment rate decade trend for Sault Ste. Marie





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