Jobs for Locals at the Hamilton Port
A Demand-Led Strategy for Building Post-Secondary Pathways through Mohawk College

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JOBS FOR LOCALS
AT THE HAMILTON PORT

A Demand-Led Strategy for Building Postsecondary Pathways through City School by Mohawk

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Hamilton
A report prepared by:

City School by Mohawk

Community Access and Engagement

Mohawk College

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EXECUTIVE SUMMARY

Employers are increasingly facing challenges in meeting recruitment needs, even in regions with high unemployment rates. With funding from the Ontario Centre for Workforce Innovation, City School by Mohawk (City School) explored employment demand at Hamilton’s Port, in partnership with the Hamilton Port Authority and Workforce Planning Hamilton. We used a qualitative, employer-focused approach to document hiring opportunities, and then mapped them to short-term educational and training pathways that are accessible to job seekers in priority neighbourhoods.

Since launching the Community Access Strategy in 2010, Mohawk continues to lead the community and the province in mobilizing resources to increase the postsecondary participation levels of underrepresented and vulnerable individuals. City School is a neighbourhood-based educational initiative that delivers academic upgrading services, tuition-free academic courses, and skill-building workshops to individuals with limited educational experience. City School works within the community to better understand local needs and strengths in order to develop a community-engaged and evidence-based response to Hamilton’s well-documented income and educational disparities (e.g. Wingard, 2014).

From May to August, 2018, 24 employers at Hamilton’s Port participated in individual interviews to explore their employment-related needs, challenges, and connections to postsecondary institutions. Employers represented a range of Port sectors. Many are already engaged with postsecondary institutions, and 96% of those interviewed agreed to further collaboration with City School.

As a result of this research, and building on the ongoing relationships with Port employers, City School is developing a non-credit course, “Careers at the Port.” This course will be delivered in January 2019 at the Eva Rothwell Centre, located in one of Hamilton’s priority neighbourhoods that includes Port land. Port employers will participate throughout the course delivery.
INTRODUCTION

With funding from the Ontario Centre for Workforce Innovation (OCWI), and in partnership with the Hamilton Port Authority and Workforce Planning Hamilton (WPH), City School by Mohawk (City School) undertook a research project in order to determine which careers are in-demand at Hamilton’s Port (the Port) and to engage employers in the design and delivery of accessible educational initiatives. The objective of this work is to better understand and serve the needs of unemployed residents through new program development.

We conducted qualitative interviews with Hamilton Port employers and WPH provided labour market data to illustrate current and projected employment demands at the Port. These interviews explored in-demand careers, hiring challenges, educational pathways, and employers’ willingness to participate in City School programming. As such, the ultimate goal of the project was for City School to engage employers in the process of co-developing college programming to support local residents who are unemployed, while addressing local economic needs.

More specifically, the findings from this project are informing the development and promotion of postsecondary pathways through City School, primarily for residents of Hamilton’s priority neighbourhoods. These are communities found to have higher rates of unemployment and lower levels of educational attainment compared to the city as a whole (Wingard, 2014), many of which include or border Port land. City School’s existing tuition-free courses, including “Introduction to Construction” and “Introduction to Welding” have garnered high interest in these neighbourhoods, and we are mapping new curriculum and course offerings to support Port demand-led educational pathways so that residents can earn their first two college credits with City School. In this project, improving employment outcomes in Hamilton’s priority neighbourhoods and helping Port employers meet their workforce needs are approached as complementary endeavours.
City School by Mohawk

Since launching the Community Access Strategy in 2010, Mohawk continues to lead the community and the province in mobilizing resources to increase the postsecondary participation of underrepresented and vulnerable individuals. Mohawks’ Community Access Strategy has the following strategic objectives:

- To raise awareness of opportunities for, and pathways to, learning beyond high school;
- To support greater accessibility to postsecondary for marginalized communities, including low income, Indigenous, and underemployed populations, through diversified learning opportunities;
- To bring the college to the community through the establishment of neighbourhood-based learning hubs;
- To enhance the early college experience through mentorships, reach-ahead activities (e.g., Lego Robotics after school program), and dual credit opportunities for at-risk high school students.

In October 2015, City School by Mohawk launched an intentional strategy to deliver accessible postsecondary education using a community-based approach. City School is a neighbourhood-based initiative that delivers academic upgrading services, tuition-free and for-credit academic courses, and skill-building workshops to individuals with limited or previously challenging educational experiences. A core component of City School is the focus on Hamilton’s priority neighbourhoods, where educational and employment needs are greater.

City School programming is informed by local needs and opportunities in order to develop a community-engaged and evidence-based response to Hamilton’s well-documented income and educational disparities (e.g., Hamilton Community Foundation, 2018; Neighbourhood Action Strategy, 2014). Through place-based community and employer engagement, City School provides the flexibility and
responsiveness necessary for a successful demand-driven initiative, as described by Grierson et al. (2002).

**Research Objectives**

The research project had two primary objectives: The first was to explore the in-demand careers and relevant educational pathways for businesses at Hamilton’s Port; and the second was to initiate partnerships with Port employers to co-develop educational responses to their labour market needs. To do this, we performed in-depth interviews and used local data collected and analyzed by Workforce Planning Hamilton.

**Research Questions**

The interviews and labour market review sought to answer the following questions:

1. Which jobs are in demand at Hamilton’s Port?
2. What are the challenges that employers experience in recruitment and retention?
3. What is the role for Mohawk College and City School in preparing locals for careers at the Port?

See Appendix A for a detailed interview guide.
WORKFORCE PLANNING HAMILTON:
OVERVIEW OF HAMILTON’S LABOUR MARKET

Hamilton’s economy has changed in recent years, from its early days as a centre of secondary industry to a more modern, diversified economy. In fact, according to the Conference Board of Canada, it is recognized as one of the most diverse economies in all of Canada. The traditional steel-focused manufacturing sector has transformed into a high-tech advanced manufacturing hub, and other economic sectors have expanded considerably, with Healthcare and Social Assistance, Educational Services, and Finance and Insurance showing strong employment growth. Concordantly, employment is currently strong in Hamilton. Since the 2008 recession, Hamilton’s labour market has shown steady growth. Employment is increasing in many sectors and unemployment has declined. At times over the last few years, Hamilton’s unemployment rate has been among the lowest in Canada.

Workforce Planning Hamilton’s (WPH) annual EmployerOne survey findings highlight how this trend is affecting employers. Across all sectors in Hamilton, 82% of employers suggested that recruitment was either challenging or very challenging, representing a four percent increase from the previous year. Industries citing the greatest recruitment challenges were Construction, Manufacturing, and Professional Scientific and Technical Services. More specifically, 54% of employers completing EmployerOne identified having a hard-to-fill position. Lack of applicants, lack of qualifications and lack of work experience were most frequently cited as the reasons positions were left vacant. Furthermore, census data shows that Hamilton has an ageing workforce, and retirements are pending. As in other communities, a skills shortage or mismatch is affecting Hamilton employers.

A key challenge impacting recruitment is that most sectors now require more advanced skills and higher levels of education. The jobs requiring some sort of postsecondary education including apprenticeship have increased while the jobs requiring a high school diploma are decreasing. Since 2006, Hamilton has seen a 4%
growth in jobs that require a university education and a 4% decline in jobs requiring high school or less. This statistic represents well over 10,000 jobs in Hamilton. Furthermore, workers within occupations requiring high school or less are more likely to be precariously employed, with more part-time work and a higher unemployment rate.

Hamilton’s ageing workforce poses significant problems for employers in many sectors. Nearly one quarter of Hamilton’s workforce is over the age of 55. In some sectors, this problem is even more acute (e.g., Manufacturing and Wholesale Trade). This challenge is compounded by the fact that many employers do not have a succession plan in place, as identified in earlier research by the Mayor’s Blue Ribbon Task Force.

While on the one hand the economic profile of Hamilton is strong with a range of job opportunities at all skill levels, on the other hand there is a subset of the population who continue to have challenges accessing jobs in Hamilton. Individuals with barriers to employment, including youth, new immigrants, and persons with disabilities, have particular and unique needs, and they continue to have unemployment rates well above the population as a whole. Some individuals cannot access the labour market at all because their skills are not current and/or aligned with those that employers demand. Others lack even basic computer skills that are now required to be competitive for many entry-level jobs.

With an evolving economy and ever-increasing skills requirements, Hamilton’s employers have some challenges ahead. The Hamilton Port Authority’s tenants are no different; the employers that occupy the lands surrounding Hamilton harbour face those same challenges. The following section delves into the makeup of the employment sectors represented within the Port.
Hamilton Port

The Hamilton Port Authority (HPA) oversees one of the busiest ports on the Great Lakes. It is a multimodal transportation hub, providing users with direct marine, rail, and road connections. In addition to overseeing marine cargo shipping in Hamilton, the HPA is the steward of the lands bordering the Hamilton Harbour and as such provides property management and rental space to over 130 tenants.

Similar to Hamilton as a whole, the tenants of the HPA’s lands come from a broad range of industry sectors. Workforce Planning Hamilton uses the North American Industry Classification System (NAICS) to categorize the industries at the Port (see Table 1). This system allows comparison with census information to ensure the data can be used to identify trends or changes. While the make-up of Port sectors resembles the diversity reflected in Hamilton’s general economy, there are significant differences. For example, the Transportation and Warehousing industry is the most represented industry among Port tenants (31 businesses), whereas it ranks twelfth in the city as a whole.
Table 1. Profile of Hamilton Port Authority Tenants by NAICS Code – Number of Employers

<table>
<thead>
<tr>
<th>Profile of Hamilton Port Authority Tenants by NAICS Code</th>
<th>Number of Tenants</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation and Warehousing (NAICS 48-49)</td>
<td>31</td>
<td>28%</td>
</tr>
<tr>
<td>Manufacturing (NAICS 31-33)</td>
<td>19</td>
<td>17%</td>
</tr>
<tr>
<td>Wholesale Trade (NAICS 41)</td>
<td>17</td>
<td>15%</td>
</tr>
<tr>
<td>Construction (NAICS 23)</td>
<td>8</td>
<td>7%</td>
</tr>
<tr>
<td>Retail Trade (NAICS 44-45)</td>
<td>7</td>
<td>6%</td>
</tr>
<tr>
<td>Other Services (NAICS 81)</td>
<td>6</td>
<td>5%</td>
</tr>
<tr>
<td>Professional Scientific and Technical Services (NAICS 54)</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>Health Care and Social Assistance (NAICS 62)</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Public Administration (NAICS 91)</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>All Other Industries</td>
<td>10</td>
<td>9%</td>
</tr>
</tbody>
</table>

Transportation and Warehousing (NAICS 48-49)

Within the most represented Port industry, truck transportation is the largest subindustry, and truck driver is the most common occupation in this sector, as it continues to grow and has among the highest number of job postings. Other occupations showing the greatest growth in this sector over the last five years include jobs in supply chain, tracking and scheduling, accounting, and shipping/receiving. In 2017, 67% of employers in this sector identified hard-to-fill positions. The age of the workforce is older than average with 60% of the workforce in this sector over the age of 45 compared to 47% across all industries.
Manufacturing (NAICS 31 – 33)

Manufacturing is the third-largest employment sector in Hamilton and the second largest sector at the Port. Although once the largest industry in the city, advancing technology and other pressures have led to a significant decline in the size of the workforce. Despite these changes, there are still significant labour market pressures due to skills shortages—one might even say there is a skills crisis. From a skills profile perspective, Manufacturing requires workers at all skill levels. Skilled trades are in demand, and welder is the most common occupation in Manufacturing followed by millwright/mechanic. Labourers and production workers are also in high demand. In 2017, 79% of employers reported having a hard-to-fill position, and 43% of employers were finding recruitment very challenging.

Compounding the challenges associated with the lack of skilled applicants, Manufacturing has an older than average workforce with 26% of workers over the age of 55. Industrial trades workers are even older with 27% being over 55, accompanied by a low number of young workers joining the sector.

Wholesale Trade (NAICS 41)

Wholesale Trade is the eleventh largest sector in Hamilton and the third largest sector at the Port, with 19 businesses. Building material and supplies wholesalers represent the largest subsector by employment. Employment has stabilized for this sector and has shown little growth over the last five years.

Technical skills are in high demand in this industry. In-demand occupations include shippers/receivers, transport truck operators, and sales. Forty percent (40%) of Wholesale Trade workers are employed in jobs that usually require secondary school or on-the-job training. The Wholesaling workforce is older than average with 28% of workers being over the age of 55.

Construction (NAICS 23)

Construction is the fourth-largest sector at the Port, with eight businesses currently operating. Specialty trade contracting is the largest subsector in the industry,
representing over two thirds of the workforce. The Construction industry overall is experiencing skills shortage pressures. A unique challenge in this sector is that employment is cyclical with boom and bust periods. Currently, employment in Construction is relatively strong with high demand for skilled workers.

The skills requirements for this sector are high with 54% of workers employed in jobs that require college or apprenticeship training. In-demand jobs include construction trades helpers, plumbers, and AZ or DZ drivers. Forty-eight percent (48%) of Construction employers suggest that recruitment is very challenging, and 71% of employers have a hard-to-fill position.

**Retail Trade (NAICS 44-45)**

Retail Trade is the second largest employment sector in Hamilton, and the fifth at the Port. The Port is home to a small number of businesses that provide marine products and services to consumers. Generally, this sector has a great deal of turnover. WPH’s EmployerOne survey results for Retail Trade show that employers in this sector have little difficulty in finding qualified workers.

**Other Services (NAICS 81)**

This sector comprises a broad range of diverse and eclectic businesses primarily engaged in services, including personal care, activities related to religious organizations, and membership organizations. Interestingly, as an industry, Other Services shows a shrinking workforce.

**Professional Scientific and Technical Services (NAICS 54)**

The Professional Scientific and Technical Services sector has a small representation among Port employers. It is the sixth largest sector in Hamilton. As a sector, it has shown moderate growth of 5% between 2011 and 2016. Port employers come from a range of subsectors that are best described as engineering/construction and other business/industrial services.

This sector demands a highly skilled workforce, as 87% of the workforce has a postsecondary education. WPH EmployerOne survey results show that 72% of
employers in this sector have hard-to-fill positions and 43% of employers viewed availability of qualified workers as poor. From a skills perspective, employers indicated that technical/industry skills are a top priority.

**Healthcare and Social Assistance (NAICS 62)**

Healthcare and Social Assistance is one of the largest industries in Hamilton. The sector has seen strong and consistent growth for the last two decades, and ambulatory services have seen the most growth (35% between 2006 and 2016). With an ageing population, the demand for healthcare services will continue.

This industry has a higher than average educational profile, with 82% of workers having a college or university education, which is much higher than the average across all industries (57%). Common occupations include registered nurses, nurse aides, orderlies, and patient service associates.

**RESEARCH METHODS**

This study is based on a mixed methods research design. Data was collected from 24 semi-structured qualitative interviews and a labour market data review. A semi-structured interview (SSI) was chosen for the qualitative aspect of this mixed methods research project to garner a subjective understanding of employment demand at Hamilton’s Port. In this research project, local labour market statistics set the context, and the interviews added a more nuanced picture of employment demand and the challenges employers experience in meeting this demand.

**Interviews**

There were 24 semi-structured interviews conducted from May to August 2018, with 29 participants in total, representing 24 distinct employers. Each individual interviewed was involved with hiring in some capacity, with job titles such as Human
Resources Manager, Manager, Company Owner, or Chief Executive Officer. The length of each interview was 20 to 45 minutes. One or two representatives from each company participated in an interview. In-person interviews took place primarily in the interviewees' places of work, while four interviews were held offsite, at either the Hamilton Port Authority or Mohawk College. One phone interview was conducted.

With the support of the Hamilton Port Authority, all Port employers were contacted through email and invited to attend an information session to learn about the research project. After the information session, all Port employers were contacted (by email and/or phone) to participate in an interview. Interviews were audio-recorded and transcribed verbatim.

Data Analysis

The qualitative data collected in the 24 semi-structured interviews were analyzed using NVivo 12, a computer-aided qualitative data analysis research software. Thematic analysis was used for identifying, analyzing, and reporting patterns (themes) within data (Braun and Clarke, 2006).

Transcribed data was imported to NVivo. For the thematic analysis, we adopted the six phases of the thematic analysis approach of Braun and Clarke (2006). The first phase of the data analysis process is to read the interviews actively, become familiarised with the data, and begin searching for meanings and patterns. The second phase involves searching for themes. In the third phase, NVivo Nodes were created for each theme, and the data was coded to each theme and sub-themes. In the fourth phase, the themes and sub-themes were reviewed with the research team for refinements. In the fifth phase, the research team defined and named the themes and made the refinements to present the analysis. The final and sixth phase was the report writing.
RESEARCH FINDINGS

The primary focus of this research is to explore which jobs are in demand at Hamilton’s Port, and which types of training or postsecondary education pathways will help locals attain these jobs. During the interviews, we gathered information on the sectors represented by the employers, in-demand occupations at the Port, challenges in recruitment and retention, and the educational and skills requirements for the in-demand positions among Hamilton Port employers. We also sought to explore which in-demand and available jobs match feasible existing or potential postsecondary pathways.

Participant Data

To illustrate the representation of sectors, we adopted the North American Industry Classification System (NAICS). The 24 Port employers who participated in the research fell within nine NAICS categories (see Figure 2).
Table 2. Employers by Research by Sector

<table>
<thead>
<tr>
<th>NAICS</th>
<th>Number of Employers interviewed</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation and Warehousing (NAICS 48-49)</td>
<td>9</td>
<td>38%</td>
</tr>
<tr>
<td>Manufacturing (NAICS 31-33)</td>
<td>4</td>
<td>21%</td>
</tr>
<tr>
<td>Wholesale Trade (NAICS 41)</td>
<td>2</td>
<td>17%</td>
</tr>
<tr>
<td>Construction (NAICS 23)</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Retail Trade (NAICS 44-45)</td>
<td>3</td>
<td>8%</td>
</tr>
<tr>
<td>Other Services (NAICS 81)</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Professional Scientific and Technical Services (NAICS 54)</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Health Care and Social Assistance (NAICS 62)</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Public Administration (NAICS 91)</td>
<td>1</td>
<td>4%</td>
</tr>
</tbody>
</table>

Careers at the Hamilton Port

The 24 interviewed employers listed the occupations that are available or in-demand at their organizations. These occupations vary from low- to high-skilled labour as well as in the professional category. A summary of the jobs identified during the interviews is listed in Appendix B. Some of these positions overlapped among sectors. For example, engineering occupations are among the top in-demand jobs across four sectors: Transportation and Warehousing, Manufacturing, Construction, and Professional Scientific and Technical Services sectors. General labour is also common to most of these sectors.
Research Themes

All 24 employers interviewed identified having different recruitment strategies, ranging from posting online to hiring through contacts. Despite their diverse hiring strategies, 23 employers out of 24 mentioned at least one challenge in recruiting new employers. Among those challenges identified, shortage of talent, limitations of online job postings, finding seasonal employees, and attracting young workers, were among the most frequently cited.

Most employers indicated that they hire locally and prefer to hire local residents to foster longer-term retention. One interviewee said, “We usually try to hire locally, so we look for people who are local.” Some employers recruit across the country to find the right talent, but local is generally preferred. For example, “We have hired people from other parts of Canada, but we usually try to look for somebody who’s educated locally—lives locally—it makes it easier for people.”

Skills Shortage

Most sectors that employ trades-related positions report a shortage of talent or difficulties in finding employees with the appropriate skill set. Eighteen employers (75%) commented explicitly on a shortage of skilled workers. When describing the skill shortage, the words “challenge” and “competitive” were used by the participants 43 times.

As reasons for this described shortage or scarcity, employers cited current and expected retirements, challenges with awareness and attracting people to the industry, greater automation, and having an industry that is unique, niche, or specialized.

“What’s happening is there’s an incredible shortage of people that are fully trained. Even trying to find people that are in their apprenticeship program, they’re hired, or they’re not looking. It’s very difficult to find people that have
training. That is the most difficult thing, is finding people that have the proper training to come and work here.”

Another shortage noted by some employers is at the managerial level. The words “manager” and “supervisor” were used 47 times throughout the interviews. More than one employer described how they could hire more apprentices or less experienced workers if they had an additional supervisor to take on the associated responsibility and accountability.

“…The issue I find with us and where [we are] short is experienced supervisors. If I could find two or three more supervisors, I could easily hire for each one of those supervisors probably six to eight more guys. So, for each supervisor would be six or eight more guys that we’d probably hire because that’s where my shortage is right now.”

Greater automation means that less complex work can be done by machines, while the workers still needed must be more highly skilled and often able to integrate technology into their work. For example, one employer explained, “as we get more automated, I need less and less staff. But I need more skilled guys.”

One other view is that, because there is a skill shortage, companies use tactics like increasing the hourly rate to attract skilled workers into their companies. Most of the well-established companies also brought up their concerns around losing their skilled workers to other companies that can offer more competitive wages and benefits for skilled and experienced workers. For example:

“There's a lot of jumping ship that goes on in the trade. And so, people are always looking over the fence. It doesn't matter how good of a company you are, there's somebody who will offer you a dollar more.”

For almost all the occupations mentioned by the employers except general labour, formal credentials and work experience are mandatory requirements. Employers are looking for a minimum of two years and up to ten years of experience when they hire skilled workers.
Interviewees shared their concern that many individuals come out of colleges and universities without the required hands-on experience. The main barrier for these new graduates is to find an employer to hire them without work experience. One employer who hires people directly out of postsecondary education expressed that, as employers, they need to change their mindset to be more open to hiring new graduates. For example:

“...[A] challenge with working with McMaster/Mohawk is people coming out of school don’t have any experience, which is frustrating for people coming out of school, because how do you get experience if nobody’s going to hire you? And I think part of it is trying to change a mindset within our organization, too, that hiring somebody out of school is okay.”

Overall, 75% of the employers had difficulties finding “the right fit” for the skilled positions available in their organizations. In addition, the challenge of finding qualified supervisors and managers makes the skills shortage an issue for both skilled and unskilled workers, as companies cannot grow or sustain workers without skilled management.

Seasonal Work

Due to the nature of the work, 20% of employers reported requiring the highest number of employees during the summer. Many of these seasonal jobs can be categorized as general labour. Some other seasonal jobs include skilled labour and technical occupations, which require licenses. One employer shared, “The challenge is finding enough people for that short period time.” According to interviewees, hiring seasonal staff has been challenging for many years. One employer hires staff from March to November, and said, “the guys will work typically anywhere between 45 to 50 hours a week for nine months out of the year.” Some of these seasonal jobs involve working outside in harsh weather, which has become a deterrent. “They all wanted to work inside the office,” said another employer speaking to the expectations of new
workers. One employer’s strategy to reduce recruitment time is to give preference to previously employed students and workers.

Another challenge related to seasonal occupations is retaining people, given the low wages often associated with those positions. An employer said:

“The challenge is trying to get people to stay. And particularly in [the] service industry, we have limited funds available. So we wish we could pay more, which would probably allow to retain people longer.”

An Ageing Workforce

Another major challenge cited during the interviews is the ageing workforce. Although most of the employers interviewed described healthy retention rates, they shared concerns that a large portion of the experienced workforce is approaching retirement. Employers who described this issue included those from the recreational boating industry, recreational vehicle industry, and those involving skilled labour. They reported having a difficult time finding trained people for their facilities. One employer said:

“...there [are] very few programs that actually deal with [the] recreational boating industry. And there's a huge shortage upcoming because all the guys that are at that age now that are in the industry are starting to retire.”

This employer has already started going to universities, colleges, community organizations, and other marina facilities, to see whether they could find people at a younger age to train and retain in the industry. As explained,

“...to make the program successful, I think yeah, you got to start a younger age in the community, in the guidance counsellor's office and get that done. And then it's just going to be going, hitting the marinas. Right? Hitting all the recreational facilities.”
Recruitment Methods

All interviewed employers post jobs online, using services such as Indeed, LinkedIn, Charity Village, Workopolis, Facebook, Kijiji, and their corporate websites. Despite relying on this method, 25% of interviewed employers describe challenges, such as being “flooded with emails,” receiving applications from under- or over-qualified individuals, and lacking follow-up, e.g. “they become ghosts.” There was a common belief that most applicants do not fully read the ad before applying.

“Anytime you put an ad out anywhere, you get somebody who's working at McDonald's who has no experience flooding your email. So, you get discouraged by trying to find somebody just because you don't want to sort through 10,000 emails to find one possible person that might work and then they don't show up anyhow.”

Another barrier in hiring online is the difficulty of identifying candidates with the “right motivation.” Seventy-five percent (75%) of the employers have described that they look for motivation and a good match for the job. For example:

“The challenges now are finding people with the right motivation. And we'll, for example, run an ad on Indeed. But Indeed has-- it seems like we'll have people that are university graduates that want to start as a washer, and we know that's not going to work out. They probably didn't even read the ad.”

Employers know that sometimes people apply for jobs for which they are overqualified because they are desperate to get a job and earn an income. However, in the long run, employers explain that it is not sustainable to hire these individuals, as they are less likely to be invested and more likely to leave the job for a more appropriate opportunity.

Due to the challenges experienced with online recruitment, some employers said that they have begun working with schools, colleges, universities, community organizations, and settlement agencies to screen their prospected employees. For example,
“I started using the YMCA [employment] program. I started using that, which is awesome because we can bring them in, train the students, and they can actually turn into gas dock attendants after. So, three of my gas dock attendants this year are from the YMCA program last year. And they turned out to be really good employees for us. So, it's huge.”

Employers go beyond traditional strategies and host community job fairs, as well as partner with schools, colleges, and universities to meet their recruitment needs.

Seventy percent (70%) of employers reported using their networks to hire employees. These networks include friends, family members, other employers, partner organizations, and even the employees of the company. One employer said, “We’re looking more by word of mouth, so we’re looking for a friend of a friend or a colleague.” Another participant indicated that, “The best strategy that actually has worked for us is word of mouth.” Some employers have implemented employee referral programs to attract new talent, as shared by a participant:

“…if they recommend somebody and they come and they work for us, they get a bonus after three months. And if the person stays after six months, the person that did the recommendation gets another bonus.”

Soft Skills and Organizational Fit

Of those interviewed, 85% described the importance of soft skills when hiring employees. In discussing this challenge, one employer said, “It’s extremely important to hire the right people.” Employers talked about looking for people who fit the organization, and who are self-motivated, responsible, a team player, adaptable, and flexible. A few employers said that the first thing they look for is the “fit,” rather than the skill or educational qualifications, e.g., “I think we hire more for fit than we do for skill, understanding that you can probably train people.”

Apart from organizational fit, many employers described teamwork as a key skill. One interviewee said, “It’s very… team-oriented. We all work as a unit, and that
keeps everything running smooth.” Another said that, “The term or the phrase ‘not my job’ are not words that are accepted here because we’re all in this together.” For anyone who joins the company, teamwork is crucial and each worker is expected to take responsibility for the tasks that need to be done.

To work at the Hamilton Port, candidates with more refined soft skills are more likely to be successful. One employer said, “…the most important skill is ABC’s… A is for attitude, B is for behaviour, and C is for competency.”

Occupational Stereotypes and Negative Perceptions

Some occupations that are categorized as blue-collar roles have had challenges in attracting people, especially young people. An employer seeking truck drivers addressed the crux of this challenge:

“Getting younger people into the industry is difficult. They may not see it as a career opportunity for them. You can make good money in trucking. But it’s long hours, and it’s hard work. So, one of the challenges is trying to attract people to that industry, something that they would want to do.”

This employer also pointed out that some gender-based stereotypes are still an influence, making it difficult to attract female drivers for truck driving. This employer suggested that there is a need for proper awareness, with an aim to change mindsets about the statuses assigned to some occupations. This awareness is important because these blue-collar jobs are essential to the economy.

Even though many young people have formal educational qualifications or credentials, some employers reported that they prefer to first hire them for an entry-level position in the organization, then train them to progress in the job. However, many people are reluctant to start at such a level.

“Probably where we actually, in some ways, struggle the most is finding people that want to start at the bottom and work their way up. So, when we’re looking
for labourers or people to come in that will become operators, in time, they have to start as a labourer.”

Employers describe wanting to hire people in a more entry-level role in order to see whether they are the right fit for the organization before they hire them for a more senior position. One employer also said that, even though they hire graduates and skilled employees, they like to hire someone who is willing to do more manual labour and entry-level work.

“If I hire somebody as the technologist, I expect him to do mechanical assembly. There’ll be some report writing. Eventually, in their career, they’ll be supervising other people. But to begin with I want people who are interested in that.”

A negative stereotype about the geographic location also plays a role in recruitment. Hamilton, and the Port lands specifically, have been subject to negative perceptions and reputations. Employers reported that potential employees are more likely to look for opportunities in larger cities like Toronto. For example:

“...if you talk about Canada, and also, in particular, Hamilton, the challenge which today, and I’m sure other companies also have the same thing, that not everybody wants to work in Hamilton because the geography, because locations. Or probably, Hamilton has not marketed that well to the future employees.”

**Student Opportunities**

The majority of Port employers reported having opportunities for students. Of the interviewees, 20 (83%) have opportunities for students. Only four employers did not have opportunities for students, primarily because of licensing or safety requirements. For example, to be a truck driver, there is a mandatory entry-level training, as well as a certain number of driving hours.
Opportunities for students include co-op (short-term and long-term), placements, work experiences, internships, and seasonal summer employment. Most employers had a positive view on offering co-op placements or offering jobs to students. One employer from the Transportation and Warehousing sector was impressed by the new ideas that students can bring:

“Students can have a lot of opportunities because they come with the fresh ideas. That’s what I’ve always felt when they come. They don’t have any pre-mindset. They are fresher. So, they can be moulded, but at the same time, since they come quite fresh, they can have some new ideas.”

Some companies had success in retaining students in their organizations after their initial co-op or internship opportunity. At the Hamilton Port Authority, some of the managerial positions were filled with new graduates, who had started with the organization as co-op students:

“Quite a few of our people that are here right now working for us started as co-op students. The manager of our IT department started as a co-op student. Our director of engineering and maintenance started as a co-op student. In our design and construction department, we have two people working there, as well, who started as co-op students with us. So we’ve had quite a bit of success with co-op students.”

Success stories demonstrate the benefit for employers in training future talent. Students, moreover, get to explore the working environment and gain experience.

Pathways

More than 80% of participants listed at least one educational pathway that can lead to an entry-level job at the Hamilton Port. Engineering technology-related pathways, such as mechanical, electrical, civil, computer, or chemical engineering jobs, were most commonly mentioned across Manufacturing, Transportation and Warehousing, Construction, and Professional Scientific and Technical Services. In the
Manufacturing sector, employers are looking for at least postsecondary education and up to PhD completion. In finance jobs, Canadian Auditing Standards must be met.

Beyond education, some occupations require a special license. In the Transportation and Warehousing sector, for example, a wide range of specialties are required, including an AZ or DZ license, accounting certification, millwright certification, supply chain experience, a technical diploma, a firefighter program, and nursing or police certificates. A summary of the pathways mentioned during the interviews is listed in Appendix C.

**College Programming**

Generally, employers expressed a positive view of local postsecondary institutions (e.g., Mohawk College, McMaster University). They believed the educational institutes could support the Port employers in training their future employees. When asked what else Mohawk College could do to assist them, suggestions included diversifying existing certificate, diploma, and degree programs, introducing new programs, and partnering with Mohawk.

When commenting on Mohawk’s existing specialized industrial-focused courses, two employers said that they would recommend a more generalized, well-rounded program, rather than having it so specialized, e.g.,

“If you specialize too much, then you often have people having difficulty to where-- there are times when aerospace engineering is the fad, but then sometimes it’s not. If you’re a basic mechanical engineer, you can work in aerospace, or you can work in nuclear, or you can work in the oil and gas industry and things like this.”

This employer went on to recommend providing students with a broader understanding of the fundamentals of the whole industry and applying it to real-world settings. He also said, “I don’t expect the colleges and the universities to train somebody specifically for my job.” In a similar vein, another employer gave a specific
example of the success they experienced after hiring a computer science graduate from a university, and having them work as a mechanic:

“He’s very well-rounded. He’s catching on quick. We were wondering if the mechanical was going to work for him but he seems to be doing it very well. He’s got the electrical side down fairly well and, of course, the computer programming, he’s beyond the rest of us.”

For some of the more niche occupations, employers are looking for people with multiple skill sets and these jobs are becoming difficult to fill. A few employers suggested Mohawk College start new programs to prepare people for the in-demand jobs in the Hamilton area. One participant from the Transportation and Warehousing sector said:

“If [Mohawk] actually were able to set up your own driving school, you’d have people running, pounding down your door to take your graduates. It’s that desperate for people.”

An employer from the Retail Trade sector described a huge demand across the province for RV Technicians. When recommending that Mohawk develop a specific RV Technician program, he said, “So I think if that were involved in Mohawk’s training course, boy, what a breakthrough that would be.”

Some employers critiqued the way that postsecondary institutions promote their programs. They recommended that colleges and universities advertise the true starting salaries for the jobs that are available after graduation, rather than the salary that one may earn after years of experience. For example:

“One thing that I really have a problem with is when they advertise, "Come learn this trade and you can come out-- you can make $100,000 a year, or whatever. What happens is you have a 20-year-old coming out of your program thinking he’s going to walk into a job making 60, 80, 100 thousand dollars a year when the reality is he’s walking into a job and he’s going to be the [on the bottom rung] and he’s going to be making minimum wage.”
This employer went on to say, “I see that a lot with the colleges and universities, with the commercials and the print advertising, ‘Work in this certain field and make this much in a year.’ It fosters a huge sense of entitlement.”

Another suggestion for Mohawk College includes the promotion or awareness of jobs available in the community.

Employers who participate in the co-op program appreciate the opportunity, but some do have suggestions for improvement (at least concerning a co-op placement at their organization). One example given was to increase the length of the co-op program to one year, while another employer mentioned that he is “a big proponent” of the co-op programs as they are.

“I think it works on two levels. For the student, they get some practical work experience and you get to see a potential employer, how they operate, and just gaining that experience is invaluable.”

Employers indicated that they often treat co-op and internship programs as a trial period for potential new employees. If they are interested in retaining the individual full-time, they will make efforts to find a role for them.

Collaboration and Partnerships

One of our goals was to find out which employers would be interested in the potential of working with City School, beyond the interviews. Of the 24 employers interviewed, 23 (96%) of them were interested in further discussion or collaboration. Examples of possible collaboration include participating as a guest speaker, arranging tours at their facilities, participating in job fairs, or offering experiential learning opportunities.

All Hamilton Port employers run training programs for their employees. We wanted to find out whether the interviewees would collaborate with other Port employers to share the responsibility of training. Of the 24 interviewed, 21 employers
(88%) were interested in the potential of participating in joint training with other employers, particularly if it is relevant to their workplaces. The main advantage described was cost reduction. The employers who were not interested (12%) cited limitations imposed by policies and regulations in the company (e.g., union rules).

Limitations

Within the time frame, it was challenging to meet with some Port employers. Summer is one of the busiest times at the Port, due to ease of access to the harbour. We extended the interview end date from mid-July to August to meet the needs of interested participants, but were not able to accommodate all employers. Consequently, not all company types and Port sectors were represented in the interviews.

In addition, the participants’ positions in their companies were all at a level with hiring responsibility, often at a Manager level or higher. As such, we were unable to explore the views of many classes of workers and those of union leadership through this interview process. A wider participant group may have provided a more nuanced and fulsome analysis of the issues.

Even though the interviews were confidential, some of the questions, such as those probing salary or retention rates, were perceived as having the potential to affect company reputation. As a result, some participants declined to answer some questions or may not have been completely forthcoming.
DISCUSSION AND RECOMMENDATIONS

Despite existing knowledge of Hamilton’s overall labour market, this research study is the first attempt to understand the in-demand jobs at Hamilton’s Port, and the first time a local educational institution has begun to build collaborative connections to this network of Port employers. In combining Port-related labour market data with employer interviews, we present a fuller picture of localized demand and the challenges to be addressed in meeting such demand.

Our results indicate that employers at Hamilton’s Port struggle to fill positions requiring highly skilled individuals, especially when specific work experience is required beyond formal education. This finding aligns with our knowledge of the current skills mismatch or shortage in Ontario and Canada as a whole (e.g., Human Resources Professionals Association, 2014; ManpowerGroup, 2018; Sulivan, 2017). In a report by the Ontario Chamber of Commerce, the author argues that a skills mismatch is a “pervasive and growing challenge in the province [of Ontario].” The report connects this issue to a supply-demand mismatch, a deficit of soft skills (e.g., communication, creativity, interpersonal relations), and an ageing population (Sulivan, 2017, p. 4). Regarding supply and demand, the report suggests that students are pursuing qualifications in fields with limited employment opportunities, rather than those in areas that are needed by employers (Sulivan, 2017). Workforce Planning Hamilton (2018) reports that the jobs requiring some sort of postsecondary education including apprenticeship have increased, while the jobs requiring a high school diploma are decreasing. Such trends highlight the importance of colleges and universities in addressing these challenges.

In a 2018 Talent Shortage Survey, ManpowerGroup (2018) reports that 41% of Canadian employers cannot find workers with the skills they need, and that “one in four employers say filling skilled trades roles is harder this year than last” (p. 6). This report also lists skilled trades, drivers, engineers, office support, technicians, sales representatives, and professionals as among the ten most in-demand roles in Canada.
(ManpowerGroup, 2018). This list corresponds with the job titles listed by Port employers during the interview process (see Appendix A).

The interviewed employers described a lack of interest and awareness among the general public of the jobs available in the trades and at the Port. They reported that it can be difficult to attract people to their industries, due to negative stigma or lack of popularity and status compared to other sectors and career pathways. In addition, they described the importance of soft skills and some of the challenges in finding people with the requisite motivation, work ethic, and organizational fit.

While the interview findings and labour market data speak to employer demand, the initiatives of City School target individuals and populations in our community who continue to have challenges accessing jobs in Hamilton, despite the availability of employment. Examples of those facing barriers to employment include youth, new immigrants, persons with disabilities, and people with low literacy levels, including those who lack basic computer skills.

Recommendations for addressing the skills mismatch, from interview findings and the literature, include:

- expand awareness of Port businesses and career possibilities, while challenging negative perceptions and stereotypes
- improve and expand experiential learning opportunities
- promote career pathways in the skilled trades
- highlight the importance of soft skills for job seekers and provide opportunities for development

City School is acting on these recommendations through the creation of a new non-credit course aptly named, “Careers at the Port,” focused on improving and expanding learning opportunities for Hamilton’s more marginalized communities, providing soft skills training around work culture and interviewing, and bringing greater awareness to career pathways at the Port.
City School by Mohawk Course: Careers at the Port

Motivated by the research findings, and in further collaboration with Port employers, we are in the process of developing a City School course, “Careers at the Port.” This non-credit course will be delivered in January 2019 at the Eva Rothwell Centre, located in the Keith neighbourhood, a priority community that incorporates Port lands. Educational attainment and employment rates are lower in this area compared to Hamilton as a whole (Wingard, 2014), and it is intended that this new course will foster connections between residents and the jobs available in or near their community.

“Careers at the Port” will address issues of workplace readiness, awareness of careers at the Port, educational pathways, how to enter the skilled trades, and soft skill development. Participating Hamilton residents will have the opportunity to explore employment at the Port across all sectors. Course participants will meet employers and learn about locally available educational and career opportunities. At the culminating ceremony, a job fair will enable students to apply their newly refined interviewing skills with representatives from Port businesses, as well as connect to Mohawk College faculty and Port-related program areas. Funding for this project has been secured through Mohawk College’s Strategic Mandate Agreement with the Province of Ontario. We plan to continue to involve employers throughout the process of development, delivery, and evaluation, to ensure a truly collaborative and demand-informed approach.

Our findings on local labour market challenges and how to support vulnerable individuals who are un- or under-employed are especially relevant in the context of the local skills shortage and neighbourhood-level economic disparities in Hamilton. The research and the ensuing educational program development represents an innovative response to both community and employer needs.
Recommendations

We recommend further research on understanding Hamilton employers’ level of investment in educating, training, and supporting marginalized and vulnerable local job seekers. For example, do they see themselves as having a social responsibility to the community? We learned about their views on the roles of education providers, but we would like to know how they see their role and responsibility as employers when it comes to community unemployment and the skills mismatch. For example, do they see one of their roles as finding specialized educational opportunities for those who experience barriers?

Our findings led to the development of an open-access postsecondary non-credit course, to be delivered in partnership with Port employers, and offered tuition-free to vulnerable Hamilton residents. We plan to conduct further research to determine the effectiveness of this course on improving training and educational opportunities for vulnerable Hamiltonians, and in serving the employment needs of the employers involved.

We also recommend applying this model of research and course development to different sectors and employer networks to assess applicability and impact. Local employers from the Healthcare sector, for example, have already expressed interest in adapting this model to their field.

CONCLUSION

Our findings confirm that Hamilton Port employers face many of the same challenges seen across Ontario, especially concerning a skills mismatch. For example, the interview data reiterates the need for truck drivers (an in-demand career identified across sectors), skilled trades (e.g., welders, millwrights, and mechanics), general labourers, and those with on-the-job experience.
The interviews gave us greater insight into the current ways that Port employers work with educational institutions, and the ideas they have for furthering these relationships. For example, some employers recommended changes to Mohawk’s co-op placement (e.g., different or more flexible durations), while others made suggestions for new programs. Many of the employers struggling to find qualified workers are looking to educational providers to help fill the gap.

We learned that there is significant interest in collaborating with City School and other Port employers. Overall, interview participants expressed their interest in partnerships and taking an active role in addressing their employment challenges through involvement in educational initiatives. Some of these employers have already committed to participating in our new City School course, “Careers at the Port.” We look forward to measuring the success of this program, and to continued collaboration with employers in supporting job-seeking community members through demand-informed initiatives.
REFERENCES


Appendix A: Interview Guide

Jobs for Locals at the Hamilton Port:

A Demand-Led Strategy for Building Postsecondary Pathways through City School by Mohawk in Collaboration with the Hamilton Port Authority

1. Company overview

- What does your company do?
- What is your position/title in this company, and what is your role?
  - How long have you been working at this company?
- How many employees does this company have?
  - Part time, Full time, Seasonal, Contract, Co-op students, etc.
- What are the available jobs at your company?
  - Low skilled to high skilled?
  - Now? In 5 years?
  - What do those jobs require (e.g. education, certification, experience)?
  - What are the wages for these roles?
  - Describe your ideal employee – for most common job openings
- Do you have seasonal employment opportunities? If so, what kind?
- Do you have union jobs? If so, what percentage of jobs?
  - What type of training, certification, or union membership is required to get these jobs?
- What kind of opportunities are there for students (e.g. co-ops, internships, apprenticeships)?

2. Hiring, training, and retention – required skills

- Can you talk about your hiring experience?
- Can you describe your hiring practices (challenges, strategies, successes, goals)?
- How is your retention (challenges, strategies, successes, goals)?
- What type of training do you do (challenges, strategies, successes, goals)?

3. Employer views on hiring locals

- What portion of your employees are from local communities?
● What are the strategies your company uses in hiring people from Hamilton and surrounding communities?
● Have you encountered any challenges with hiring local talent? If so, please explain.

4. Next Steps and perceived role of Mohawk in helping with hiring, training, and retention

● What is the role that you see for education providers in hiring, training, and recruiting local talent?
● What are existing pathways that lead to jobs with your organization?
● If a brand new pathway could be created, what types of training and education would you want future employees to receive?
  o What could Mohawk College do?
● Would you consider a joint training opportunity with other Port employers for similar roles?

5. Collaboration with City School by Mohawk

● Would you be willing to have a conversation with City School by Mohawk on developing an education strategy to connect locals with job openings at the Port? YES/NO
  o If yes, can you provide contact information?
● Is there anything else you would like to add?

I. Thank You

On behalf of myself and research team, I would like to sincerely thank you for your participation in this study. Thank you for your time.
## Appendix B: Occupations at the Hamilton Port by Sector

<table>
<thead>
<tr>
<th>NAICS Occupation Category</th>
<th>Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation and Warehousing (NAICS 48-49)</strong></td>
<td>General Laborer, Millwright Machinists, Gas Fitter, Welder-Fitter, Office Admin, Maintenance, Boiler, Pump Repair, Insulator, Dispatcher, Junior, Dispatcher, Truck Driver, Accountant, Terminal Administrator, Logistics Transporter, Engineer, Civil Engineer, Environmental Manager, Crane Operator, Billings Clerk, Clerk, Sales Associate, Sailing-Crew, Captain, Deckhands or Deck Crew, Cook, Driver, Facility Assistant</td>
</tr>
<tr>
<td><strong>Retail Trade (NAICS 44-45) and Wholesale Trade (NAICS 41)</strong></td>
<td>Mechanical Millwright, Yard Manager, Service Manager, Washing And Detailing, Rental Technician, RV Technician, Shop Foreman, Accounts Payable/Receivable, Carpenter, Driver, Sales, Truck Drivers, Material Handlers</td>
</tr>
<tr>
<td><strong>Manufacturing (NAICS 31-33)</strong></td>
<td>IT Technologist, Engineering, Lab People, Supervisors, Technical People, Grain Graders, Class iii And Class ii Boiler (Operating Engineers), Fitters, Welders, Production, Laborer, Trainee Position, Estimator, Project Managers, Product Manager</td>
</tr>
<tr>
<td><strong>Construction (NAICS 23)</strong></td>
<td>Engineer, Civil Engineer, Mechanics Helper, General Laborer, Skilled Laborer</td>
</tr>
<tr>
<td><strong>Public Administration (NAICS 91)</strong></td>
<td>Bookkeeper, Administrative Support Staff, Program Manager, Marketing and communication, Tourism Product Development, Manager of</td>
</tr>
<tr>
<td>Other Services (NAICS 81)</td>
<td>Finance, Business and Communications Officer, Industry Relations Officer</td>
</tr>
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<td>-----------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Professional Scientific and Technical Services (NAICS 54)</td>
<td>Junior Technology, Junior Engineers, Mid-Level Technologist, Senior Technologist, Software And Quality Assurance, Engineering Operations, Mechanical Technologist, Electrical Technologist, Software Technologist, Mechanical Engineers</td>
</tr>
<tr>
<td>Health Care and Social Assistance (NAICS 62)</td>
<td>Nurse, Administrator, Driver, Assistant Specialist, Personal Support Worker, Coordinator, Manager</td>
</tr>
</tbody>
</table>
### Appendix C: Pathways, Qualifications and Experience Required for Each Sector

<table>
<thead>
<tr>
<th>NAICS Occupation Category</th>
<th>Pathways, Qualifications and Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation and Warehousing (NAICS 48-49)</strong></td>
<td>Millwright Training, AZ license or DZ license, Minimum Entry-Level Training program (Truck Driver), Supply Chain Management, Logistics, Post-Secondary Education, Technology Diplomas, Masters Level Education, Marine Experience, Supply Chain, Technology Diplomas, Industrial Millwrighting, Firefighter, Nursing, Police Certificate</td>
</tr>
<tr>
<td><strong>Retail Trade (NAICS 44-45) and Wholesale Trade (NAICS 41)</strong></td>
<td>Red Seal Technician, Marine Program, CNC Machining Experience, Electronics Experience, Mechanical Millwrighting Experience, Machinery moving and reading experience, Recreational Marine, RV Technicians</td>
</tr>
<tr>
<td><strong>Manufacturing (NAICS 31-33)</strong></td>
<td>Metal Fabricator Program, Finance CAS, Sales and Marketing, Business degree, Engineering, IT, Post-secondary education, Master’s degrees, PhDs, At least two years of work experience (Some mentioned minimum five years' experience) Labourer, there’s no certification required</td>
</tr>
<tr>
<td><strong>Construction (NAICS 23)</strong></td>
<td>Pre-Apprenticeship Refrigeration Course, Refrigeration Mechanic, Ozone Depletion Program, Gas Fitters License G2</td>
</tr>
<tr>
<td>Public Administration (NAICS 91) and Other Services (NAICS 81)</td>
<td>Smart Serve, Administrative Training, Bookkeeping, Accounting, Sports Tourism, Recreation And Leisure, Leisure Even Management, Cultural Studies, Business Development</td>
</tr>
<tr>
<td>-------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Professional Scientific and Technical Services (NAICS 54)</td>
<td>Electrical Engineering Technology, Mechanical Engineering Technology, Civil Engineering, Computer Engineering, Chemical Engineering</td>
</tr>
<tr>
<td>Health Care and Social Assistance (NAICS 62)</td>
<td>Administration, Social work</td>
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