BUILDING THE WORKFORCE OF TOMORROW

A Shared Responsibility

The Premier's Highly Skilled Workforce Expert Panel

Report submitted to the Honourable Kathleen Wynne, Premier of Ontario

June 2016

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Letter to the Premier

Dear Premier Wynne,

On behalf of The Premier's Highly Skilled Workforce Expert Panel, I am pleased to submit our strategy report and recommendations. It is our hope that this report will serve as a guide for actions that, upon implementation, will help to grow the highly skilled workforce, and will strengthen Ontario's economic prospects. We also hope that this report will assist in highlighting the good work that organizations and communities are already undertaking in this regard.

Our Panel recognizes our mandate as important and timely. The issues identified in this report are not necessarily new, but demographic and technological changes add a real urgency. Action is required now so that the transforming Ontario economy can maximize the opportunities being presented to it.

Over the past months, we have engaged stakeholders and have carefully weighed the ideas, opinions, and advice we have received. We have also considered how our recommendations could be informed by effective public policy, best practice and good research.

Our Panel recognizes that Ontario needs to move beyond established patterns with respect to workforce development. It requires new and collaborative approaches – to support individual talent, innovation, and entrepreneurship and to facilitate new incentives and opportunities. To use a sports analogy, we note that successful coaches actively seek out and recruit talented players. They develop each player's individual strengths and skills, and through discipline and patience, build a team that wins. They also have robust player development strategies that include identifying and providing real playing opportunities for young players through minor league systems. What is Ontario's equivalent for labour force development?

The Panel feels that the recommendations contained in this report are responsive to the needs of Ontario's workforce requirements, and if all partners step up and work together, Ontario will have the human capital it requires to grow and prosper.

Success will require that all partners – employers, educators, labour, communities and governments at all levels – rethink what it means to learn, understand how the workplace is changing, and consider how respective roles and responsibilities must adapt so that our people and our economy can reach full potential.

We thank you for the opportunity to provide advice on this very important subject, and we trust that the government will do its part to ensure the successful implementation of the Panel's recommendations.

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Sean Conway, Chair The Premier's Highly Skilled Workforce Expert Panel

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Executive Summary

In fall 2015, Ontario appointed five members to The Premier's Highly Skilled Workforce Expert Panel (Panel) – Chair, Sean Conway, and members Dr. Carol Campbell, Robert Hardt, Alison Loat, and Pradeep Sood (see Appendix E: Expert Panel Member Biographies). Panel members were selected based on their professional experience, knowledge of the business climate, and relationships with a cross-section of stakeholder groups, and on their understanding of employers, the education and public sectors, and issues related to the labour market.

The Panel was asked to develop an integrated strategy to help the province's current and future workforce adapt to the demands of a technology-driven knowledge economy – with a goal of doing so by bridging the worlds of skills development, education and training. The Panel was tasked to recommend a clear agenda and key set of directions for government and stakeholders, by August 2016.

During the course of its work, the Panel met with a wide range of interested parties – employers, educators, labour, students, worker representatives, training organizations, and community groups, among others. The Panel attended a number of public meetings including the 2016 Summit on Talent and Skills in the New Economy, held in Oshawa in late January 2016. It also reviewed and considered the latest research on best practices in other jurisdictions in Canada and around the world. The culmination of this work is presented in this final strategy document (report).

The report has been developed based on the premise that Ontario's workforce has long been its strength, but to compete and succeed in a fast-paced economy, Ontario's workforce must be equipped with skills and opportunities that meet all the needs of the jobs of today and tomorrow. The Panel envisions an Ontario economy in which employers understand that human capital is as valuable and necessary to business and productivity growth as other forms of capital. This would also be an economy where entrepreneurship and innovation are encouraged and nurtured.



In the short term, this means that Ontario employers must join their partners in education, labour, government and elsewhere to actively and creatively address regional and sectoral needs in the labour market and better integrate underrepresented groups including older workers, new Canadians, Indigenous peoples, and persons with disabilities, in an economy that is being rapidly transformed by both demographic and technological change.

The Panel has made 28 recommendations in six key themes and two other areas. The government should take a leadership role in implementing the following four recommendations:

 Establish a Planning and Partnership Table (PPT) chaired by representatives from employers, education and government. This Table would be a formal institutionalized body responsible for producing results in the area of skills development and experiential learning opportunities that contribute to increased linkages to employment and entrepreneurship. The PPT should not be a government-driven body but should be strongly and actively supported by all stakeholders. (Recommendation 1-1)



2. Establish a Workforce Planning and Development Office, in the provincial government, to drive the delivery of the Panel's recommendations and to support the government's role at the Planning and Partnership Table. (Recommendation 1-2)



3. The Ontario government must take a leadership role in developing and making generally available high quality labour market information so that everyone can make better decisions based on timely, relevant, and understandable information. The Panel strongly encourages the Ontario Government to use the Forum of Labour Market Ministers (FLMM) to drive this important reform. (Recommendation 2-1)



4. Expanding experiential learning opportunities is critical to success in the area of skills development. Therefore, Ontario should commit to strengthening and expanding experiential learning opportunities across secondary, post-secondary, and adult learning environments. As a first step, Ontario should commit to ensuring that every student **Executive Summary**

has at least one experiential learning opportunity by the end of secondary school (in addition to the existing volunteer requirements) and at least one by the time they graduate from post-secondary education. (Recommendation 3-2)

In the short term, the Panel recommends that priority should be placed on establishing the Planning and Partnership Table, as this group will provide the necessary foundation to support the implementation of the remaining recommendations.

Implementation of these recommendations is a shared responsibility among all parties. These parties must work together to: 1) communicate and be open minded to the possibilities of different ways of learning; 2) understand the changing nature of work; and 3) rethink traditional roles and responsibilities when it comes to effective and timely labour market development.

The Panel feels strongly that effective skills training is also a shared responsibility and that all parties must work together. Everyone involved must understand that communities have a critically important role to play in the design and delivery of effective programs. Successful skills training is a foundational aspect of local economic development and it requires community leadership, community engagement, and sensitivity to local/regional conditions. There is no substitute for strong, credible intermediaries who can focus community attention and support for the important work that must be done in this vital area of public policy. The rapidly changing global economy requires our meeting this challenge.

Introduction

Today, Ontario operates within a global economic environment that the World Economic Forum has described as the beginning of the Fourth Industrial Revolution.

Ontario's workforce is diverse and recognized as well credentialed. The percentage of students graduating within five years of starting high school in Grade 9 reached 85.5% in 2015, up from 84.3% in 2014.¹ In 2014, 66% of Ontario adults had a post-secondary degree or diploma, more than any member country of the Organisation for Economic Co-operation and Development (OECD).²

Developments in previously disjointed fields, such as artificial intelligence, robotics, nanotechnology, 3D printing and genetics, are building on and amplifying one another. Concurrent to this technological revolution is a set of broader socioeconomic, geopolitical and demographic developments with nearly equivalent impacts to the technological factors.³

> World Economic Forum The Future of Jobs, 2016

Yet looking ahead, challenges exist. To compete and succeed in this fast-paced economy, Ontario's workforce must be equipped with skills that meet all the needs of the jobs of today and tomorrow, and with the opportunities to realize their dreams and aspirations. And while educational institutions, employers, intermediaries and governments (federal, provincial, and municipal/local) are all engaged in training and developing Ontario's workers for a wide range of occupations, research also points to gaps that must be bridged and work that must be done to more fully ensure a highly skilled workforce for the future.

The Ontario economy is being rapidly transformed by demographic change.



Ontario's Aging Demographics

Sources: Statistics Canada and Ontario Ministry of Finance

Intermediaries play important roles in bringing partners together to understand the current and future workforce needs and to facilitate local solutions. They include organizations such as Ontario Federation of Indigenous Friendship Centres, Chambers of Commerce, workforce planning boards, and non-profit and business organizations.⁴

The Panel considered the following a starting point for discussion.

Troubling trends in literacy and numeracy

 According to the 2012 Program for International Student Assessment, Ontario students performed at the Canadian average and above the OECD average in reading, mathematics and science.⁵ However, between 2009 and 2013, Education Quality and Accountability Office (EQAO) testing showed a decline in math results – 4% for Grade 3 students and 7% for Grade 6 students.⁶



- For 2011-2012, The Programme for the International Assessment of Adult Competencies measured skill competencies in the following areas: literacy, numeracy and problem solving in a technology-rich environment (PS-TRE). Ontario scored above the OECD and Canadian averages in literacy.⁷ Average numeracy scores for adult Ontarians were slightly above the Canadian average but were below the OECD average.⁸
 - 47%⁹ of Ontarians have literacy scores and 53%¹⁰ have numeracy scores below Level 3 (identified by ABC Life Literacy as the level required to succeed in a technology-rich environment).¹¹

According to the 2013 Report on the Pan-Canadian Assessment of Science, Reading, and Mathematics, the mean score of Ontario Grade 8 students in science¹² and reading¹³ was significantly higher than that of Canadian students overall. The results for Ontario Grade 8 student achievement in mathematics were statistically similar to that in Canada overall.¹⁴

The Panel heard and read reports that indicated several groups are underrepresented in Ontario's labour market. Not only is this unacceptable in a society as diverse as ours, but Ontario is losing out on the economic and social gains that would be associated with their participation. For example, in a Canadian context, the national economy would experience an estimated gain of \$13.4 to \$17 billion if individuals with international/interprovincial credentials were better recognized.¹⁵

In 2015, Ontario's overall unemployment rate for those aged 15 years and older was 6.8%, compared to the following populations:¹⁶

- 11.9% for Indigenous peoples that live off reserve (includes persons who reported being an Aboriginal person, that is, First Nations, Métis or Inuk [Inuit], or those who reported more than one identity).¹⁷ There is strong evidence that official statistics under-report the trends.
- 16% for people with disabilities according to the 2015 Initial Report from the Partnership Council on Employment Opportunities for People with Disabilities.¹⁸
- 14.7% for youth.¹⁹



Ontario's Ministry of Finance projects that, over the next 25 years, immigration will account for all population growth in the working age population.²⁰



Impact of Immigration on Working-Age Population in Ontario

Sources: Statistics Canada and Ontario Ministry of Finance

 For immigrants aged 25-54, the unemployment rate (at 10.9%) is highest among those who have been in the province less than five years. While 80% of very recent immigrants to Ontario have post-secondary education, only 55% are working in highly skilled jobs.²¹



While 83% of Canadian education providers believe they are developing high-performing graduates, only 34% of employers and 44% of the graduates themselves believe they are prepared for the workforce.²²

McKinsey & Company, 2015



Introduction

Canadians and Canadian organizations are ill-prepared for economic change

- As part of a recent study, Deloitte examined the Canadian economy to better understand whether Canadian companies are prepared for the expected technology-driven disruption. Deloitte surveyed 700 business leaders across Canada. The study found that 35% of Canadian firms surveyed are wholly unprepared for disruption to their industries, and 43% of firms believe they are better prepared than they actually are.²³
- The Conference Board of Canada found that, in 2009, 31% of adult Canadians aged 25–64 participated in some form of non-formal job-related education. While this is slightly higher than the OECD average (28%), it is well behind leading European countries such as Sweden (61%), Norway (47%), and Finland (44%), as well as the United States (33%).²⁴

Given the rapid pace of change in the economy and the crucial importance of a highly skilled workforce to Ontario's economic future, the Panel recommends focused attention to these issues.

Vision

The Panel recognizes this as an opportunity to develop a shared vision and goals for growing a highly skilled workforce in Ontario, and to provide practical recommendations for the path forward.

During the Panel's engagement, stakeholders wanted to know the definition of a "highly skilled workforce". Some thought this project was about enhancing the profile of the skilled trades; others thought it was about increasing science, technology, engineering and math education and training; while others thought it was about enhancing innovation and entrepreneurship. The Panel feels that it is more useful for the province to focus on the workforce as a whole.

Our highly skilled workforce is diverse and vibrant. It consists of skilled tradespeople and engineers, musicians and artists, entrepreneurs and innovators, scientists and farmers, public servants and health care workers, and those that work in retail and in hospitality, to name but a few.

Our vision for this workforce involves:

- People from a young age are aware of all of the opportunities available to them, and they are given the opportunities to develop competencies, and skills, and to have hands-on experiences that allow them to pursue their passion, no matter what pathway they choose to take;
- People feel empowered to take responsibility for their own educational and career decisions and are committed to developing their own talent and skills at all stages of life and learning;
- People have a strong foundation in literacy, numeracy, and essential skills, –
 i.e., the skills individuals need to learn, work and adapt in the ever-changing
 knowledge-based economy;
- People display cultural competencies, have a high degree of civic literacy, and respect the diversity of all people in the workplace; and
- Employers value international experiences within their organizations.



In order to achieve this vision, employers, educators, training agents, intermediaries, labour, service providers, Indigenous and community organizations must collaborate. Stakeholders must come together and understand the changing nature of the economy, and proactively develop regional and sectoral solutions including plans to develop appropriate skills and related competencies.

To implement this shared vision, it will be important for government to transcend the traditional silos and ensure its programs speak to present and future reality. Success requires that all parties rethink what it means to learn and understand their roles and responsibilities for making sure that individuals are able to fulfill their potential.

Indeed, in a future of rapid technological change and widespread automation, the determining factor – or crippling limit – to innovation, competitiveness and growth is less likely to be the availability of capital than the existence of a skilled work force....Business will increasingly have to work with educators and governments to help education systems keep up with the needs of the labour market. Given rapid change in the skill sets required for many occupations, business must redirect investment to on-the-job training and lifelong learning.²⁵

> Klaus Schwab Founder and Executive Chairman of the World Economic Forum

In the short term, success involves:

- A clear government approach that demonstrates how skills development is tied to Ontario's economic development priorities. This includes, for example, explicit links between provincial growth sector strategies and provincial training programs.
- Examples of successful partnerships between educational institutions and employers are shared, and modeling of these partnerships is encouraged. Local champions are encouraged to participate in efforts to grow a highly skilled workforce and develop solutions to solve the skills gap at the regional and sectoral levels.



Vision

- An enhanced focus on foundational skills in the workplace, induction/ workplace orientation for new employees, and employment opportunities for underrepresented groups.
- Employers would provide on-the-job training for all workers, including literacy, essential skills and competency training to create a workforce that better adapts to technological change.
- Experiential learning, including volunteerism and community work, is undertaken by more employers and individuals, and recognized by companies, educational institutions and communities as providing valuable experience. Employers as well as individuals, including new immigrants, adults transitioning within the workforce, students and parents, understand the value of participating in order to develop the skills that employers require.
- Fostering resilience, creativity and entrepreneurship in an economy that has a greater call on these competencies.

In the long-term, the Panel envisions an Ontario economy in which employers understand that human capital is as valuable and necessary to business and productivity growth as other forms of capital. Measures of success include:

- Better alignment of federal and provincial initiatives related to growing a highly skilled workforce, especially in immigration policy, and much improved labour market information.
- All employers take a long-term and proactive approach to workforce planning, not only investing in their top performers but recognizing the importance of upskilling for those at the lower end of the skills spectrum.
- Local leaders proactively work with partners to anticipate labour market needs and develop solutions to address those needs at the regional level.
- Educational institutions understand they have a role to play not only in preparing the future workforce, but also in actively seeking ways to help employers, especially in the private sector, achieve their workforce planning goals.
- Intermediary groups such as chambers of commerce and business associations help to implement solutions, focusing particularly on engaging small and medium-sized enterprises.



• Government encourages and supports these efforts with strategic investments and programs, and places a greater emphasis on measuring the impact of programs and investments.

In our experiences, these things were true of the cities, large or small, that were working best...A standard question we'd ask soon after arrival was "Who makes this town go?" The answers varied widely. Sometimes it was a mayor or a city-council member. Sometimes it was a local business titan or real-estate developer. Sometimes a university president or professor, a civic activist, an artist, a saloon-keeper, a historian, or a radio personality. ...What mattered was that the question had an answer. And the more quickly it was provided, the better shape the town was in.²⁶

Findings of the Panel and Key Themes

As a result of discussions with stakeholders, the Panel has identified six key themes and two areas as crucial to growing a highly skilled workforce. These are based on recurring themes that came up throughout the engagement process. Additional research has validated all six themes as pressing issues.

This section includes – for each of the six themes – what is known about the theme (including research, best practices and existing government programs and policies that could be leveraged), the long-term goal, and recommended actions to reach that goal.





The Problem the Panel Addressed

The Panel was encouraged to see several examples of successful and creative partnerships among stakeholders. But the reality is that Ontario must do more to embed these collaborative practices in their normal business activities.

A symptom of working in silos is the "skills gap" discussion that has been ongoing for decades. During engagement, the Panel found that the nature of Ontario's "skills gap" depends on the region or sector being examined, and that no single solution or stakeholder would be able to close this gap. (See *Appendix F:* Summary of Stakeholders Consulted.)

The "skills gap" is broadly defined as the difference between the skills that employers need, and the skills that are available in prospective employees.

This finding is confirmed in a recent Business Council of Canada (BCC) (formerly the Canadian Council of Chief Executives) survey of the 90 largest Canadian private-sector employers. It found that large Canadian companies are not facing a comprehensive skills shortage. However, acquiring/developing leaders and specialized talent for critical roles like power engineering, IT security, certain Red Seal trades, mobile software development and engineering is a problem. Therefore for this group of businesses, shortages tend to be concentrated in certain sectors, occupations and regions.²⁷

The Panel recognizes that the province is diverse and that regional approaches are required. It saw and heard of many practices with promising partnerships and structures. However these examples have often not been evaluated to measure their impact and outcomes.

Hamilton Mayor Blue Ribbon Task Force on Workforce Development (Hamilton):

The Task Force was created in 2015 to address the following:

- Lack of skilled tradespersons for new and expanding employers in Hamilton;
- Aging demographics;



Building the Workforce of Tomorrow

Findings of the Panel and Key Themes

- Strong interest in collaboration throughout the city; and
- The need to articulate/understand the role of education in workforce initiatives.

Created by Mayor Fred Eisenberger, membership consists of local industry, business, labour, education and government leaders. It is chaired by Mohawk College President Ron McKerlie.

The Task Force will submit a formal report to Hamilton City Council in late summer or fall, 2016.

County of Simcoe, Simcoe Muskoka Workforce Development Board (SMWDB), and Employment Ontario Service Providers:

The County of Simcoe and the SMWDB have joined forces to help address local labour issues in the region. These two organizations have already successfully embarked on a number of programs aimed at addressing supply and demand issues in the labour market including Breakfast Simulcasts for employers and a county-wide job posting board (jobcentralsm.ca). This past February they hosted the first ever On-line Job Fair in Simcoe and Muskoka to connect employers to local job seekers. SMWDB and the County of Simcoe have heard from employers that seeking out the right candidate for postings can be difficult and therefore determined that offering this opportunity would provide a new tool for employers and job seekers to connect. The event connected 2,882 job seekers to more than 80 employers – resulting in approximately 1,800 one-on-one conversations and interviews.

"We know the County can play an important role in working with our municipalities and businesses to foster economic prosperity. This partnership is an important step in our renewed commitment to attract investment, support our businesses, create jobs and promote all we have to offer outside our borders", said County of Simcoe Warden Gerry Marshall.



Bombardier, Centennial College, and University of Toronto:

These partners have formed a not-for-profit enterprise, DAIR (Downsview Aerospace Innovation and Research), which is working with a consortium of like-minded academic institutions (including Ryerson University and York University) and industry (Pratt & Whitney, Honeywell, MDA, United Technologies, SAFRAN – Messier Dowty) and other multi-national companies to establish a hub of training, innovation and product development for aerospace in Toronto.

Toronto is currently the second largest hub for aerospace in Canada and Canada is the fifth largest aerospace economy in the world. This activity hopes to augment these rankings.

Forward-looking local initiatives that are making progress in addressing the skills gaps in their regions embody at least one of the following attributes:

- 1. Multiple employers in the region or industry sectors cooperate with one another and with educational institutions to design and fund initiatives and to train and hire graduates.
- 2. Classroom education is integrated with opportunities to apply new concepts and skills in actual or simulated work settings an approach proven to be the way adults learn best.
- 3. Training focuses on offering workers career pathways, not just skills for the initial job.²⁸

The Panel recognizes that achieving a shared vision for a highly skilled workforce will take time. In the short term, priority should be placed on implementing recommendations 1-1 and 1-2, as these bodies will provide the necessary foundation to support the implementation of the remaining recommendations.



1. Foundational Theme: Partnerships and Local Leadership



Growing a highly skilled workforce is everyone's responsibility. This theme recognizes that success will require partnership, communication and collaboration among all parties as they deal with existing realities and anticipate future needs of the workforce.

What we know

 In 2016, the Conference Board of Canada released a study stating that partnerships between business and post-secondary institutions help to generate and transfer new knowledge and technology, as well as address the skills and employment needs of students and employers.²⁹

We need to find ways to connect highly skilled Canadian military veterans and serving reservists to rewarding career opportunities in Ontario communities. Local partnerships are required to tap into this talent, and programs could be created and modeled on existing job matching programs.

Stakeholder Feedback

- The Business Council of Canada also acknowledged the importance of business and post-secondary institution partnerships. In 2015, it created a Business-Higher Education Roundtable with a membership that includes executives from the private sector, universities, colleges and polytechnics.³⁰
- Ontario colleges have shown leadership in developing partnerships with employers. The college system was designed to meet the needs of industry and colleges have many examples of training partnerships with employers who participate on program advisory committees advising on curriculum and labour needs.
- Multi-sector partnerships currently existing in Ontario could be leveraged to build on relationships and work already underway. These partnerships have often not been evaluated and analyzed to understand key factors for success. As one example, the Ontario Centre for Workforce Innovation (OCWI) is a collaboration led by Ryerson University with participation by



Humber College, Collège Boréal, George Brown College and eight other partner organizations. Its purpose is to provide a one-window source of best practices, to drive innovative approaches in employment and training programming, and to address labour market challenges in Ontario.³¹

Elements of a strong partnership:

- The benefits to both partners are clearly identified at the outset and are seen to be mutually beneficial and tangible;
- The goals of the partnership are specific, measurable, attainable, relevant and time bound;
- Opportunities are created to provide leadership development at the business; and
- Research opportunities are created that address business challenges by creating novel solutions to problems.



• Discussion on these issues has been ongoing for many years. The Panel has observed that without clear focus and associated accountability for each partner, progress is difficult to achieve. The Panel's recommendations will focus on addressing these two particular issues.

The goal is...

A shared sense of responsibility and on-going communication among parties that will ensure:

- Current and future employees have the skills that employers need;
- Employers recognize the importance of investing in the training and development of their employees; and
- Post-secondary institutions become the economic engines of communities through partnerships with employers, educational institutions and intermediaries.



Actions to get there

Recommendation 1-1: Establish a Planning and Partnership Table (PPT) jointly chaired by representatives from employers, education and government. This Table would be a formal, institutionalized body responsible for driving change and developing actionable solutions related to skills, talent development and experiential learning opportunities. This PPT should not be a government-driven body but rather a mechanism in which all partners are invested and action is their primary concern.

Membership would include: employers, students, labour, educational institutions, training agencies, intermediaries, Employment Ontario service providers, Indigenous and community organizations.

The mandate would include:

- Developing a three-year provincial implementation plan for growing a highly skilled workforce.
- Supporting the administration and evaluation of new and existing pilot projects.
- Enhancing employer engagement in the collection and dissemination of provincial and local labour market information.
- Developing approaches to "institutionalize" pilot projects that have demonstrated best practices, and measuring the success of these pilots.
- Engaging employers and their associations directly in addressing the barriers and challenges faced with hiring people with disabilities.



- Ensuring that all workers in Ontario display cultural competency that includes knowledge and awareness of First Nations, Métis and Inuit histories and rights.
- Building culturally competent, safe and inclusive workplaces.



Growth Sectors

The Planning and Partnership Table would focus on developing solutions for Ontario's priority growth sectors. Growth sectors should be selected by the PPT, using the following criteria:

- High potential for growth in the short, medium and longer-term.
- Impact on the current economy.
- Impact or anticipated impact of technological and demographic change on present and future staffing needs.
- Demonstrated capacity for collaboration.
- Nature and transferability of skills required.
- Priority placed on talent development.

Industry Tables would be established as sub-groups of the Planning and Partnership Table. The organization of these Tables should build on the well-established model found in colleges and in parts of the university system. Membership would include: employers (particularly those from the growth sectors identified by the PPT), labour, post-secondary institutions, training agencies, intermediaries, service providers, and Indigenous and community organizations.

Industry Tables would be selected based on growth sectors or regions selected by the PPT. These Industry Tables would be responsible for:

- Addressing mismatches between labour market supply and demand in the sectors or regions.
- Leveraging existing relationships with employers to determine the skills and qualifications that employers are seeking, and develop solutions to align curriculum, training and experiential learning opportunities for students, new immigrants and adults transitioning within the workforce to address these needs.
- Sharing best practices to inform provincial strategies.



Recommendation 1-2: Establish a Workforce Planning and Development Office, in the provincial government, to drive the delivery of the Panel's recommendations and to support the government's role at the Planning and Partnership Table. The Panel feels strongly that this Office should have an inter-ministerial orientation and be outward looking. The mandate of this Office would include:

- Leading initiatives that support workforce planning where key partnerships between employers, community and educational institutions are critical.
- Collaborating with employers, labour, educational institutions, training agencies, intermediaries, service providers, and Indigenous and community organizations to monitor and discuss the impact of the changing nature of the workplace on the existing and new labour force. This information would be reported to the PPT, as required.
- Monitoring policy files that intersect economic growth and talent development, including adult education, immigration, employment and training, the Business Growth Initiative and regional economic development, and identifying opportunities for greater alignment and coordination.
- Applying a talent development lens to major government policy initiatives, such as the recently announced Climate Change Action Plan, Patients First: Action Plan for Health Care, and response to the Truth and Reconciliation Commission recommendations.
- Commissioning research and evaluation on emerging and priority areas of labour focus and impact, for example, the changing technological nature of the workplace.
- Giving oversight of the current pilot being run by the Ministry of Advanced Education and Skills Development regarding the Local Employment Planning Councils (LEPCs).
- Giving oversight of workforce planning boards and the Ontario Centre for Workforce Innovation.
- Collaborating with employment and training organizations that work with underrepresented groups to understand current barriers to their accessing employment and develop appropriate solutions to support increased representation in the labour market.
- Working with the federal government to identify opportunities for alignment and collaboration.



Recommendation 1-3: To ensure focused implementation of recommendation 1-1, incent sector specific partnerships between post-secondary institutions and employers using the Differentiation Policy, which encourages post-secondary institutions to play to their unique strengths, and the revised university and college funding formula. The Panel notes that some of the recommendations made by Suzanne Herbert in her 2015 report to government touch on this important point.

2. Foundational Theme: Labour Market Information



This theme recognizes that it is difficult for parties to find accurate, timely labour market information with which to make decisions like choosing a career, developing educational and training programs, or undertaking workforce planning.

What we know

- Labour market information was widely cited as an area needing urgent attention. Stakeholders report that any information that is available is on multiple sites, hard to find, and challenging to interpret and apply to their particular needs.
- The 2016 Federal Budget reiterated a commitment by the federal government to provide students, workers, employers and educators with access to timely, reliable and comprehensive labour market information. It committed to work collaboratively with provinces and territories to provide information to equip Canadians with the tools to access a broad range of job opportunities.³²
- Labour market trends change rapidly enough that data needs to be regularly updated and forecasts refined for labour market information to be useful to people.
- The Panel asked stakeholders to articulate their specific labour market data requirements.



- > Students, adults transitioning within the workforce and guidance counsellors need:
 - Information on job availability and where these jobs are located;
 - Required education and training for jobs posted;
 - Tasks associated with particular jobs; and
 - Potential salary.



Building the Workforce of Tomorrow Findings of the Panel and Key Themes



- > Employers need regional and sector-based labour market demand and supply-related data.
- Governments at all levels need data to inform policies and to make program decisions. Some ministries are using their own centrally available core data, and are collecting regional and sector-based data independently.

The goal is ...

Anytime, anywhere access to easy-to-understand, quality assured labour market information that allows individuals to make decisions about future careers, employers to plan and find talent, and government to inform policy.

Actions to get there

Recommendation 2-1: Working with the federal government, Ontario should use the Forum of Labour Market Ministers to engage with other provinces and territories to develop an integrated national labour market information system. Ontario should take a strong leadership position on this vital issue.

This system should modernize and harmonize data collection (including Statistics Canada data) for dissemination across all provinces and territories. The system should also consider better ways of collecting data from employers.

Recommendation 2-2: The Workforce Planning and Development Office should:

- Lead a provincial Labour Market Information Strategy including conducting an inventory and value scan of currently available labour market information and data collection (local, provincial, aggregated and disaggregated) on metrics relevant for both skills development and economic growth across government ministries.
- Develop an Ontario-specific digital labour market information website to aggregate existing labour market information websites and data that would consider the information needs of various audiences.
- Develop options to increase awareness of online resources such as the Ontario Skills Passport and The Learning Partnership's Real Talk App.



• Work with ministry partners to collect and analyze entrepreneurship data to determine how innovation currently impacts the economy and how the government can support increased innovation. The Office should leverage data currently collected from all Ontario Network of Entrepreneurs (ONE) members through a program called Data Catalyst.

3. Experiential Learning and Mentorship 🕺

This theme recognizes that real-life experience and the advice and guidance of mentors can significantly assist entry into the workplace. Experiential learning goes beyond traditional forms of "learning by doing" such as co-op, and includes volunteering, apprenticeship, industry-recognized class projects, and mentorship.

These experiences are valuable for new immigrants, adults and students. Successful experiential learning programs provide value for the employer as well as the worker and provide individuals with opportunities to solve problems and work in interdisciplinary teams. Experiential learning also plays a valuable role in helping individuals make decisions about future careers and employment pathways.

The University of Waterloo has become a magnet for recruiters from Google parent Alphabet Inc., Electronic Arts Inc. and Amazon.com Inc., who seek the school's entrepreneurially-minded engineering graduates. Employers and school leaders say the students understand how to translate engineering projects into viable businesses.

Setting Waterloo apart is its cooperative learning model, which blends academic and practical experience. An in-house incubator, called Velocity, and an affiliated dormitory for student entrepreneurs provides opportunities for funding, mentorship and collaboration, according to the school.³³

Wall Street Journal





Findings of the Panel and Key Themes

The Panel supports learning beyond the classroom

Experiential learning includes:

- co-op education
- work-placement programs
- mentorships
- industry-recognized in-class projects
- internships
- summer jobs/experience programs
- volunteer positions
- apprenticeship

What we know

- There is a perception that many employers do not want to participate in experiential learning programs. However, the Panel found that once relationships among intermediaries, educational institutions and employers were formed, employers were eager to participate and saw the value to their organizations. The Panel heard that many employers established long-term relationships with their partners. The Panel heard repeatedly that the key to a successful partnership is a mutual understanding of the needs and expectations of the partners.
- Employer participation in, and support for, experiential learning programs tends to be limited because of employer concerns about certain kinds of administrative and/or operational requirements. This concern is particularly strong with respect to small and medium-sized enterprises, many of which have little to no human resource capacity. Employer participation is also limited due to onerous time/resource requirements associated with programs and at times misalignment between the required skills and aptitude of potential hires with business needs. The Panel feels strongly that experiential learning must become an important component of business activity at all levels. The Panel heard that intermediaries are often quite effective at easing the administrative and operational burdens i.e., de-risking, particularly for small and medium sized business.
- Ontario Bridge Training programs help skilled newcomers get their license or certificate in their profession or trade so they can find employment in Ontario commensurate with their skills and experience. There are good examples of employer partnerships in bridge training programs.



The goal is ...

Increased experiential learning and mentorship opportunities for students and individuals from underrepresented groups.

Actions to get there

Recommendation 3-1: Expand the Specialist High Skills Majors Program from the current provincial footprint of 14% of all students in grades 11 and 12 to 25% in the next three years. This program provides secondary students an opportunity to focus on a career path that matches their skills and interests. It also helps with their career development by exposing them to opportunities in the workforce. The Ministry of Education should work with the Planning and Partnership Table to expand the number of available program sectors and generate greater employer participation in this program.

Recommendation 3-2: Work with the Industry Tables to expand opportunities for experiential learning. As a first step, Ontario should commit to ensure that every student has at least one experiential learning opportunity by the end of secondary school (in addition to the existing volunteer requirements). Ontario should also commit to ensure that every student has at least one experiential learning opportunity by the time they graduate from post-secondary education. To support this Ontario should fund more placements (for students in all disciplines including liberal arts) in the growth sectors identified by the Planning and Partnership Table.

This recommendation is consistent with the Business Council of Canada's Higher Education Roundtable goal that 100% of Canadian post-secondary students participate in work-integrated and experiential learning opportunities.³⁴

The Ontario Public Service, a large employer in the province, should demonstrate leadership by expanding experiential learning opportunities within its ranks. The province could also increase the number of experiential learning opportunities for people with disabilities.

An intermediary with the capacity to leverage existing employer relationships, such as Magnet, should develop a process that would match co-op opportunities between employers and students at the secondary and post-secondary level. This would de-risk participation in co-op programs for educational



Building the Workforce of Tomorrow Findings of the Panel and Key Themes

institutions and streamline the process for employers. Magnet is a not-forprofit initiative founded by Ryerson University and the Ontario Chamber of Commerce.

Recommendation 3-3: The Ministry of Advanced Education and Skills Development should be given the mandate to consult with stakeholders to develop a modernized apprenticeship system reflective of the current business climate and focused on the integration of young people into the trades. This modernization could include moving all education components of an apprenticeship to the beginning of the program and establishing a central application process for anyone wanting to enter.

Recommendation 3-4: As a condition of funding through the Jobs and Prosperity Fund – a fund providing \$2.5 billion over 10 years to enhance productivity, bolster innovation and grow Ontario's exports – require recipients to provide a certain number of experiential learning opportunities for post-secondary students, new immigrants and adults transitioning within the workforce. The number of the experiential learning opportunities should be based on organization size.

Recommendation 3-5: To be responsive to business needs, post-secondary institutions should allow and recognize longer (8-12 months) co-op placements.

Recommendation 3-6: Ensure adult learners have access to quality learning opportunities (including experiential learning) that are adaptable and appropriate to their needs and contexts.



4. Promotion of Multiple Career Pathways

This theme recognizes that a fast-changing economy means constantly evolving options for jobs and careers. Students, new immigrants and adults transitioning within the workforce need a greater awareness and a real understanding of all the career possibilities, traditional and non-traditional, that are available to them, including the steps to get there. This includes careers in the arts, technology/innovation, and skilled trades as well as entrepreneurship.

What we know

- Parents and guardians have a strong influence on students' decisions regarding career pathways. However, the Panel heard that they are often not aware or not accepting of all the options available.
- Today's innovation-driven, science-based economy presents a clear opportunity to promote science, technology, engineering and math (STEM) pathways in new and attractive ways. For example, jurisdictions like British Columbia are introducing computer coding to the K-12 school curriculum. This not only provides students with an opportunity to learn skills for careers in technology, but helps them improve core transferable competencies like problem solving and the ability to think creatively.
- Throughout the engagement process, the Panel heard about the importance
 of building capacity in teachers and instructors in the K-12/Adult Credit
 systems, to support the development of a highly skilled workforce. Educators
 may require additional professional development to teach students how to
 use new and emerging technologies. Without this teacher training, the full
 potential of technology is not being realized.

Students should be encouraged to keep many doors open, to maximize opportunities.

Even if we know what we want to do, they should still encourage us to look into other programs, including at colleges.

It would be beneficial to have students who have experienced the process come back and help out.

Education Minister's Student Advisory Council





 Intermediaries play an important role in supporting new immigrants and adult learners by providing opportunities for them to meet, network, and obtain counselling about career options, and the skills required for these jobs.

The goal is ...

For individuals to understand the multiple learning pathways to many careers, and for students to have earlier exposure to non-traditional career pathways, including entrepreneurship and innovation.

Actions to get there

Recommendation 4-1: Review on a priority basis the Guidance and Career Education curriculum to ensure that it exposes students to a variety of learning pathways and opportunities and develop a plan to support guidance counselling including a professional development strategy and supports for all classroom teachers.

Recommendation 4-2: The Ministry of Education should develop a strategy to provide students in the K-12 system with exposure and access to the science, engineering and technology fields. This strategy should be complementary to Ontario's recently announced Math Strategy and use similar tools. This strategy should leverage best practices and innovative approaches already in existence, and use intermediaries where necessary to augment existing curriculum.

Recommendation 4-3: Provide professional development opportunities for teachers with a counselling role, to expand their knowledge of current and future labour market needs. This could include working with Local Employment Planning Councils, local business groups and other intermediaries.

Recommendation 4-4: Intermediaries such as the Brookfield Institute for Innovation + Entrepreneurship and Youth Fusion, with a demonstrated capacity to design and implement industry-recognized experiential learning projects, should work with school boards to introduce innovative practices designed to expose students to different career pathways in and outside the classroom.



ZerotoStartup: Celestica and Ryerson University have developed a joint initiative that provides young people between the ages of 12 to 17 with an experiential foundation in technology and exposure to entrepreneurship. It is supported by education that not only empowers young innovators to dream up the new companies of the future, but also to build the necessary skills to serve those new companies.

Recommendation 4-5: School boards should work with employers and intermediaries to develop community approaches to career counselling that provide students with exposure to role models and positive examples of traditional and non-traditional careers.

Youth Fusion is an example of an intermediary that contributes to creating closer links between training and employment while working to lower dropout rates. At-risk students have an opportunity to work on educational projects spanning 10 different fields. Employers from industries tied to the projects are also brought in as mentors to introduce students to career options and also shepherd them through the process of completing their projects.³⁵

Recommendation 4-6: Recognize that the Canadian military annually releases into the general economy thousands of highly trained individuals many of whom are anxious to pursue second careers. Employers, community leaders, policy makers, and intermediaries should be aware of and take advantage of this highly skilled labour pool and build bridges to it.



5. Strategic Investment in Human Capital

This theme recognizes that it is as important for a successful company to invest in its employees as it is to invest in equipment or other forms of capital.

What we know

- There are several reasons why employers, especially small and medium-sized enterprises, are not investing in human capital. These include:
 - > Uncertainty around economic conditions and the return on their investment;
 - High costs of training by third-party providers, causing an over-reliance by employers on ad hoc or informal training arrangements;
 - > Fear that an employee will find another job/be offered another job as a result of additional training; and
 - > Few relationships with education and training partners.
- Employers and intermediaries support cluster-based, sectoral and regional approaches to training and human capital development. These approaches reduce competition between employers by increasing the likelihood of employer participation in programs.
- The Social Research and Demonstration Corporation conducted a study to look at the effectiveness of workplace literacy and essential skills training in the Accommodations and Food Service sector in eight provinces. It found:
 - > Significant gains in productivity;
 - > Reduced error rates;
 - > Reduction in hiring costs; and
 - > Significant positive return on investment.³⁶


Large companies are increasingly looking to recruit or develop employees with strong social and emotional skills. Employers are looking for graduates who show nimbleness: an ability to navigate challenging and ambiguous environments. In a competitive labour market, applicants who display these traits are more likely to be hired and, over time, singled out for promotion.³⁷

Business Council of Canada



The goal is...

For Ontario employers to appreciate that human capital is as valuable and necessary to business and productivity growth as other forms of capital, and to proactively invest in employees including underrepresented groups.

Actions to get there

Recommendation 5-1: Launch a program that "franchises" successful in-house training programs developed by large employers, for adaptation by small and medium-sized enterprises. These models should support employees throughout the entire job continuum.

Recommendation 5-2: Launch a new training program for existing workers in their workplace to allow these individuals to acquire the skills and literacies that are required to adapt to the changing nature of their work or workplace.

Recommendation 5-3: Establish a "First Look" hiring process that requires employers who receive government contracts to consider qualified workers from local employment and training programs. The priority should be placed on hiring individuals from underrepresented groups. This builds on a model recently introduced by New York City.

New York City's First Look hiring process requires employers receiving City business to review and consider local qualified workers from workforce development programs at the front end of their hiring process. In the 2015 fiscal year, the City spent over \$17 billion in contracting. The City is committed to leveraging that purchasing power to get more opportunities for New Yorkers.³⁸ **Building the Workforce of Tomorrow**

Findings of the Panel and Key Themes



We worked with a mining company in Northern Ontario that identified a staffing need. We connected with 10 Indigenous youth who were seeking employment opportunities but needed math upgrades. The employer guaranteed employment to participants upon completion of academic upgrades. We worked with a local educational institution to develop and deliver a training program. The mining company created a classroom within the mine. Nine out of 10 individuals completed the upgrading and secured employment with the mining company.

Ontario Federation of Indigenous Friendship Centres

We work alongside Toronto's hospitality industry to provide new highly trained talent, and develop existing staff for higher performance and growth. Our training is designed to fulfill the current needs of the industry. The hospitality industry of Toronto actively participates in curriculum development and provides avenues for training placements and employment opportunities for our graduates. We also offer training courses to existing hospitality workers to help them advance professionally and personally. We work closely with the union, UNITE HERE Local 75, to offer free training opportunities for members. Our training programs for the current hospitality workforce provide skills that support individuals' advancement and mobility and help them access more hours and gain transferable skills. Also, we regularly offer computer and English classes at Hotel and Food Service properties to help build skills that support career and life goals.

Hospitality Workers Training Centre

The Siemens Canada Engineering and Technology Academy Pilot was launched in conjunction with five universities and colleges in Ontario and Alberta. Students are offered a full-time salary and tuition fees as part of their participation in the program, and also gain theoretical and real-life business learning experiences. They are partnered with mentors and placed as fully-active team members in business units.



6. Skills and Competencies

This theme recognizes that there is a skills and competencies gap – both real and perceived – and that it needs to be closed. The Panel broadly defines this gap as the difference between the skills and competencies that employers need, and the skills and competencies that are available in prospective employees. During engagement, the Panel found that the existence, extent and nature of Ontario's skills gap depends on the region and/or sector being examined, and that no single solution or stakeholder would be able to close this gap.

In some cases, the skills gap can be closed by an upskilling program that is shorter than a full degree or diploma.

What we know

- In some cases, skills gaps were perceived rather than real because:
 - Individuals might have the right set of skills and credentials for a job based on education and experience, but do not know how to articulate their skill set to potential employers;
 - > Employers are unable to articulate what they are looking for in an employee beyond the credential required for a job; and
 - > Employers do not always pay a competitive wage commensurate with the skills level required.
- Many jurisdictions, including the United States, the European Union and the Asia Pacific region, have or are developing competency-based assessment frameworks.³⁹ These frameworks can help employers gain an understanding of the specific competencies that are required for a job, making the recruitment process more efficient. They can also help workers get the right on-the-job support and training to make advancement possible.
- As part of the consultation held on modernizing the province's university funding formula, stakeholders noted that learning outcomes such as the development of transferable skills, including critical thinking, problem solving, leadership, and communication, should be measured. The perception was that students are not always aware of such skills even when they acquire them and, as a result, they may not be able to describe them when seeking employment.⁴⁰



- Post-secondary institutions can do a better job of measuring and credentialing the general cognitive and transferable skills that have been identified as important to the labour force, and identifying which teaching practices and schooling experiences most help in the development of these skills.⁴¹
- Skills such as critical thinking, ability to work in teams, creativity, problem solving and resilience were all recognized by stakeholders as important, and these align with the top skills for workers in 2020 as identified by The World Economic Forum.⁴² The Panel considers these skills to be complementary to core learning as gained through training and traditional education, including the arts, and through participation on sports teams.

Competency frameworks are helpful because they articulate the business and industry requirements that are essential components for the delivery of curriculum, skill assessment instruments, and certifications.

Canada West Foundation, 201643



Canada has one of the best-educated, most highly-credentialed workforces in the world – but that doesn't mean it is the most competent. In a world where competencies are the new credentials, Canadian workers could become even better at their jobs if we took some lessons from other jurisdictions. Slow adoption of competency frameworks is creating missed opportunities.

Canada West Foundation⁴⁴



The goal is...

To shift focus away from solely measuring traditional credentials – i.e., degrees and diplomas – to better recognizing competencies that speak to important skills in the workplace.

Actions to get there

Recommendation 6-1: The Ministries of Advanced Education and Skills Development and Education and employers should collaborate with partners on the development of an Ontario-specific skills and competencies framework, using the experiences of other jurisdictions as a guide.

Ontario should demonstrate leadership at the Forum of Labour Market Ministers table by proposing a strategy for a national competency framework.

Recommendation 6-2: Working together, the Industry Tables and the Planning and Partnership Table should identify "skills gaps" in the growth sectors and launch a short term training program specifically targeted at unrepresented groups, to better allow them access to employment opportunities in those growth sectors. The program could be delivered using the bridge training model and include a career guidance component.

This program should be funded on the basis of outcome metrics (e.g., quality of placement, duration of employment) and include an evaluation to inform future programs and policies.

Recommendation 6-3: Identify promising practices for the teaching of the competencies that are necessary for the current and future economy, such as problem solving, team work, and entrepreneurial spirit across curricular and extra-curricular learning opportunities, including through the arts, sports, math and science. The importance of these competencies should be communicated to students, employers, educators and parents.

Recommendation 6-4: Universities, colleges and private career colleges should look at ways to shift focus to needed skills and competencies.

Government's Role in Implementation

Throughout the engagement process, the Panel heard that the government cannot act alone to properly equip the workforce with the skills required for the jobs of today and tomorrow. It was made plain to the Panel that the proper role for government beyond establishing a good policy framework is to play an enabling and catalytic role.

The Panel recommends that the Ontario government play a leadership role in implementing the following four recommendations:

- 1. Establishing the Planning and Partnership Table (Recommendation 1-1);
- Establishing the Workforce Planning and Development Office (Recommendation 1-2);
- **3.** Working with the federal government to drive an integrated national labour market information system (Recommendation 2-1); and
- Expanding opportunities for experiential learning in the K-12/Adult Credit and post-secondary education system (Recommendation 3-2).

Role of the Federal Government

The Panel has identified ways in which the Canadian government can support the growth of Ontario's highly skilled workforce. These are informed by recommendations made in the 2012 report *Public Services for Ontarians: A Path to Sustainability and Excellence* (The Drummond Report).

1. Greater control of immigrant selection process

It is imperative that recent immigrants can integrate into Ontario's labour force. The Ontario Immigrant Nominee Program (OINP) is the province's selection program to retain international students and skilled foreign workers with Ontario credentials and work experience. Ontario's international student nominees demonstrate strong economic outcomes – over 82% are employed in high skilled occupations and report average earnings of over \$61K. Despite this success, the OINP is limited to a small annual allocation of 5,500 which represents only 5% of skilled immigrants coming to Ontario. The federal government is responsible for the selection of 95% of Ontario's skilled immigrants.⁴⁵

The Ontario Immigrant Nominee Program allows Ontario to nominate, for permanent residency, individuals who have the skills and experience to contribute to Ontario's economy, and assists employers in recruiting and retaining foreign workers. The program is operated in partnership with the federal government.⁴⁶

The Panel believes the province should work with the federal government to gain greater control over its immigrant selection so it can better respond to the needs of its economy and employers and, when necessary, retain and recruit top global talent.

ACCES Employment: This is a service provider that works with a network of over 1,000 companies across the Greater Toronto Area to provide experienced and job-ready new immigrants to employers through a customized recruitment and engagement process. The organization



engages corporate supporters at the leadership level to advise on programs and services to ensure they are responsive to employer needs. ACCES also collaborates with other community partners and complementary service providers to coordinate services to meet newcomers' needs.

Business Development Bank of Canada (BDC): "We have hired 40 employees from various ACCES Employment programs. These individuals are highly trained, bring languages and international experience that allow us to better serve our clients. They have become a competitive advantage for BDC. We have found these employees to be very loyal to the company since we were often the first employer to reach out, recognizing the value of their international skills."

2. More flexible labour market transfers

The Panel has heard that many Ontarians – including youth, recent immigrants and members of Indigenous communities – need help improving their skills to succeed in the labour market. It has also heard that the province's productivity and competitiveness depend upon improving workers' abilities across a broad spectrum of skill levels.

Unfortunately, the federal funding meant to support provincial employment and training programs does not meet the true needs of Ontario's labour market and often unfairly restricts access for those who need it most. For instance, the majority of people in Ontario who are unemployed – and nearly all of Ontarians with very low skill levels – are not eligible for Employment Insurance (El). And yet, almost 70% of federal funding for Ontario's employment and training programs is restricted to workers who are currently or were recently on Employment Insurance.

To help build a highly skilled workforce, Ontario requires greater flexibility with federal funding to support its vision for a modern employment and skills training system that helps all Ontarians succeed.

In this context, the Panel urges the federal government to:

- Offer greater flexibility for Ontario to meet the real needs of its workforce by broadening client and program funding eligibility; and
- Allocate labour market transfers to provinces and territories equitably, using a per capita funding formula.



The Panel strongly supports the Drummond Report recommendation that the province should advocate for a comprehensive training agreement that provides provinces with enough flexibility to better align and integrate programs and services, and to identify and respond to fluid labour-market needs.

Recommendation 7-1: The Province must engage the federal government on a priority basis to improve and effect meaningful change to labour market transfers, to better meet the employment and training needs of all Ontarians.

Labour Market Development Agreements: To help unemployed Canadians quickly find and return to work and to develop a skilled labour force that meets current and emerging needs of employers, the Government of Canada has entered into labour market development agreements with provinces and territories.

Through these agreements, Government of Canada funding enables provinces and territories to design, deliver and manage skills and employment programs for unemployed Canadians, particularly for those who are eligible for Employment Insurance benefits.⁴⁷

Canada Job Fund: This Fund includes the Canada-Ontario Job Grant which focuses on equipping people with the skills and training they need to fill available jobs. The Canada-Ontario Job Grant provides direct financial support to employers who wish to purchase training for their employees.⁴⁸

Recommendation 7-2: The Province should work with the federal government to conduct a coordinated, evidence-based review of training programs. The Province should also encourage the development of a National Skills Strategy and play a leadership role with the federal government.

Recommendation 7-3: The Province should work with the federal government to take a human capital/talent approach to new federal funding programs, for example, new investments in Indigenous Communities and in the Low Carbon Economy.

Measuring Success

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It is crucial that progress be monitored, measured and reported as Ontario works to grow a highly skilled workforce. This should occur on a provincial level and on a regional/local level, where possible.

The Panel recognizes that a one-size-fits-all set of metrics for the entire province is not viable. Ontario's diverse regions require unique solutions. Therefore, the Panel recommends tailored, program-specific evaluation approaches to measuring success in different regions. For example, the government could explore opportunities to provide funding for employment and training programs based on quality outcomes (e.g., full-time work, wage growth, job continuity) and not outputs (e.g., number of placements, number of clients served).

High level metrics such as graduation rates and unemployment rates remain important across the province. Metrics should be developed and adopted with consideration of program partners and the populations and communities the programs serve. Particular attention should be paid to measuring competencies and skills required for the current and future workforce, and the success of expanded employment opportunities for Indigenous peoples, people with disabilities, youth, and new immigrants. For example, the Panel recognizes Ontario's recently announced Math Strategy, to help support students achieve better results in mathematics, as an important investment for the increasingly knowledge-based economy. The Panel recommends that this Math Strategy be carefully monitored and evaluated to ensure that better results are achieved in mathematics.

Collecting data on a variety of metrics at provincial, regional/local and program levels will provide the government with a baseline to measure progress and to assess any necessary program modifications.

Recommendation 8-1: The Workforce Planning and Development Office should work with the Ontario Centre for Workforce Innovation and the Planning and Partnership Table to develop a performance evaluation framework and metrics to measure the impact of Panel recommendations as implemented by the government and partners.



The Panel recommends development of metrics and targets in the following areas:

- Experiential learning/mentorship at the K-12 and post-secondary level;
- Effectiveness of employment and training service programs;
- Learning outcomes, such as the development of competencies in post-secondary students in order to increase employment readiness of graduates;
- Education outcomes and pathways into pre-apprenticeship and apprenticeship programs including the Ontario Youth Apprenticeship program and the Dual Credit Program;
- Adult literacy and numeracy rates;
- Employer and post-secondary partnerships;
- Rate of entrepreneurship (e.g., number of new businesses, new growth-oriented enterprises formed, number of businesses closing, number of self-employed individuals, etc.);
- Outcomes from underrepresented groups referenced in this report; and
- Employer investment in training and mentorship.

Metrics should be reviewed annually, and key performance indicators and targets should be revised as appropriate. The Planning and Partnership Table should be responsible for issuing an annual report with annual metrics.

Conclusion

A highly skilled workforce is central to the strength and prosperity of Ontario, now and in the future. The Panel believes the recommendations made in this report will materially assist Ontario and its workforce achieve what is required in these fast moving, globally competitive, technologically-driven times.

The Panel calls upon all parties to work together on this critically important challenge. While the urgency is real, the opportunity is great. Collaboration, creativity and commitment should be the order of the day.

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- Labour organizations;
- Students/student associations;
- Intermediaries;
- Not-for profit organizations;
- Business associations;
- Employers;
- Regional roundtable participants; and
- Advisory groups and task forces.

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- Ministry of Aboriginal Affairs
- Ministry of Children and Youth Services
- Ministry of Citizenship, Immigration and International Trade
- Ministry of Economic Development, Employment and Infrastructure
- Ministry of Education
- Ministry of Training, Colleges and Universities
- Ministry of Finance

Certain ontario ministry names were changed on June 13, 2016.

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Glossary of Terms

Apprenticeship. Apprenticeship is an on-the-job training program for people who want to work in a skilled trade or occupation and includes learning new skills from skilled journeypersons. There are currently 150 apprenticeable trades in Ontario in four sectors: construction, industrial/manufacturing, motive power and service.

Bridge training programs. Ontario Bridge Training programs help skilled newcomers get their license or certificate in their profession or trade, so that they find employment commensurate with their skills and experience in Ontario. The Government of Ontario funds employers, colleges and universities, occupational regulatory bodies and community organizations to deliver bridge training programs, with support from the Government of Canada. Each bridge training program is unique, but in general they are designed to give internationally trained individuals:

- an assessment of their education and skills
- clinical or workplace experience
- skills training or targeted academic training
- preparation for a license or certification examination
- occupation-related language training
- individual learning plans to identify any added training needed

Competency. An ability or skill.

Credential. A document or certificate proving a person's qualifications.

De-risking. Easing the administrative or operational burden of participation in a program.

Dual credit programs. Dual Credit Programs are ministry-approved programs that allow students, while they are still in secondary school, to take college or apprenticeship courses that count towards both the Ontario Secondary School Diploma (OSSD) and a post-secondary certificate, diploma, degree or a Certificate of Apprenticeship.



Experiential learning. The process of learning or developing skills and abilities by placing students in workplaces, or in environments that simulate workplaces, so that they can learn while doing. In partnership with employers, this may include apprenticeship training, co-op placements, mentoring, and internships.

Forum of Labour Market Ministers. The Forum of Labour Market Ministers is composed of provincial and territorial ministers and the federal minister responsible for labour market issues. It is co-chaired by the federal government (Employment and Social Development) and a lead province (currently the Government of Québec). The lead province role has a two year rotation, with Québec in the role until March 31, 2017.

The Forum's current work is focused on priorities that include: labour market information, labour mobility, foreign qualifications recognition, programming flexibility, productivity issues, and strengthening apprenticeships.

Human capital. The individual and collective skills, knowledge, or other assets of individuals that can be used to create economic value for the individuals, their employers, or their community.

Intermediary. People or organizations that act as a link between multiple stakeholders in order to bring about an agreement or facilitate common goals.

Journeyperson. A certified Journeyperson is recognized as a qualified and skilled person in a trade.

Labour market. The supply of available workers relative to available work or employment opportunities.

Literacy. The ability to read and write; knowledge that relates to a specified subject.

Local champion. A respected and often well-known person in the community who promotes, nurtures, and advocates on behalf of a particular project or initiative.

Local Employment Planning Councils (LEPCs). Ontario has launched LEPC pilots as part of the Ministry of Advanced Education and Skills Development work to modernize employment and training programs and services. LEPCs will promote place-based approaches to workforce development, while generating and analyzing local labour market information.



Mentorship. An opportunity by which someone teaches or gives help and advice to a less experienced and often younger person.

Numeracy. The ability to use numbers and mathematical approaches in a range of contexts and to solve a variety of problems.

Ontario Centre for Workforce Innovation. The Ontario Centre for Workforce Innovation is a new centre of excellence in research and innovation that will improve the province's employment and training programs that support jobseekers' readiness for and success in the job market.

Twelve partner organizations, led by Ryerson University, will lead the new centre. The Centre will drive innovation in Ontario's employment and training system.

It will research the most successful employment and training programs in Canada and abroad, and use solid evidence to develop pilot projects that address emerging labour market challenges in Ontario.

Pre-Apprenticeship Training Program. The Pre-Apprenticeship Training Program helps potential entrants to the apprenticeship system develop their job skills and trade readiness so they will be prepared to find work as apprentices. Programs are up to 52 weeks in duration and may include the Level 1 apprenticeship in-school training or relevant apprenticeship training, relevant safety training and an 8 to 12 week work placement. Programs may also include trade readiness, employment preparation and academic upgrading. The Pre-Apprenticeship Training Program is open to a wide range of clients including:

- high school graduates
- early school leavers
- unemployed/underemployed youth and adults
- Employment Insurance/non-Employment Insurance eligible
- Indigenous peoples
- newcomers to Canada



Building the Workforce of Tomorrow Glossary of Terms

Programme for the International Assessment of Adult Competencies

(PIAAC). PIAAC is an international survey conducted in over 40 countries by the Organisation for Economic Co-operation and Development (OECD). It measures the key cognitive and workplace skills needed for individuals to participate in society and for economies to prosper.

Programme for International Student Assessment (PISA). PISA is a triennial international survey conducted by the Organisation for Economic Co-operation and Development (OECD), which aims to evaluate education systems worldwide by testing the skills and knowledge of 15-year-old students. To date, students representing more than 70 economies have participated in the assessment.

Red Seal trades. Designated Red Seal trades are governed by regulations under the Provincial and Territorial Apprenticeship Acts. These regulations outline the administrative procedures and in some cases the standards and conditions of training for specific trades (e.g. methods of registering apprentices, curriculum, accreditation, and certification). There are currently 57 designated red seal trades in Canada.

Skills. Demonstrated abilities gained from training, experience, or practice.

Specialist High Skills Majors. The Specialist High Skills Major Program is a Ministry of Education-approved specialized program that allows students to focus their learning on a specific economic sector while meeting the requirements to graduate from secondary school. It also assists in their transition after graduation to apprenticeship training, college, university or the workplace.

Statistics Canada. Statistics Canada is a federal government agency commissioned with producing statistics to help better understand Canada, its population, resources, economy, society, and culture.

Strategic Mandate Agreements. Agreements between the Ministry of Advanced Education and Skills Development and all 45 publicly assisted colleges and universities. The agreements make sure institutions are connected to various levels of the economy – from local to global – so students can gain experience through opportunities such as co-op programs and applied research, helping them create new businesses or find highly skilled work that will benefit Ontario.



Trades

- **Compulsory trade:** A trade in which registration as an apprentice, journeyperson candidate or certification as a journeyperson is mandatory. There are currently 22 skilled trades that are designated "compulsory".
- Voluntary trade: Every trade that is not identified as compulsory is, by default, voluntary. Certification is offered in some voluntary trades, but is not a requirement to practice in the trade.

Work-integrated learning. A formal program or arrangement between partners to enable students and individuals to learn while working on the job.

Appendix A: Summary of Recommendations

Foundational Theme: Partnerships and Local Leadership

Recommendation 1-1: Establish a Planning and Partnership Table (PPT) jointly chaired by representatives from employers, education and government. This Table would be a formal, institutionalized body responsible for driving change and developing actionable solutions related to skills, talent development and experiential learning opportunities. This PPT should not be a government-driven body but rather a mechanism in which all partners are invested and action is their primary concern.

Membership would include: employers, students, labour, educational institutions, training agencies, intermediaries, Employment Ontario service providers, Indigenous and community organizations.

The mandate would include:

- Developing a three-year provincial implementation plan for growing a highly skilled workforce.
- Supporting the administration and evaluation of new and existing pilot projects.
- Enhancing employer engagement in the collection and dissemination of provincial and local labour market information.



Appendix A: Summary of Recommendations



- Developing approaches to "institutionalize" pilot projects that have demonstrated best practices, and measuring the success of these pilots.
- Engaging employers and their associations directly in addressing the barriers and challenges faced with hiring people with disabilities.
- Ensuring that all workers in Ontario display cultural competency that includes knowledge and awareness of First Nations, Métis and Inuit histories and rights.
- Building culturally competent, safe and inclusive workplaces.

Growth Sectors

The Planning and Partnership Table would focus on developing solutions for Ontario's priority growth sectors. Growth sectors should be selected by the PPT, using the following criteria:

- High potential for growth in the short, medium and longer-term.
- Impact on the current economy.
- Impact or anticipated impact of technological and demographic change on present and future staffing needs.
- Demonstrated capacity for collaboration.
- Nature and transferability of skills required.
- Priority placed on talent development.

Industry Tables would be established as sub-groups of the Planning and Partnership Table. The organization of these Tables should build on the well-established model found in colleges and in parts of the university system. Membership would include: employers (particularly those from the growth sectors identified by the PPT), labour, post-secondary institutions, training agencies, intermediaries, service providers, and Indigenous and community organizations.



Industry Tables would be selected based on growth sectors or regions selected by the PPT. These Industry Tables would be responsible for:

- Addressing mismatches between labour market supply and demand in the sectors or regions.
- Leveraging existing relationships with employers to determine the skills and qualifications that employers are seeking, and develop solutions to align curriculum, training and experiential learning opportunities for students, new immigrants and adults transitioning within the workforce to address these needs.
- Sharing best practices to inform provincial strategies.

Recommendation 1-2: Establish a Workforce Planning and Development Office, in the provincial government, to drive the delivery of the Panel's recommendations and to support the government's role at the Planning and Partnership Table. The Panel feels strongly that this Office should have an inter-ministerial orientation and be outward looking. The mandate of this Office would include:

- Leading initiatives that support workforce planning where key partnerships between employers, community and educational institutions are critical.
- Collaborating with employers, labour, educational institutions, training agencies, intermediaries, service providers, and Indigenous and community organizations to monitor and discuss the impact of the changing nature of the workplace on the existing and new labour force. This information would be reported to the PPT, as required.
- Monitoring policy files that intersect economic growth and talent development, including adult education, immigration, employment and training, the Business Growth Initiative and regional economic development, and identifying opportunities for greater alignment and coordination.
- Applying a talent development lens to major government policy initiatives, such as the recently announced Climate Change Action Plan, Patients First: Action Plan for Health Care, and response to the Truth and Reconciliation Commission recommendations.
- Commissioning research and evaluation on emerging and priority areas of labour focus and impact for example, the changing technological nature of the workplace.

Appendix A: Summary of Recommendations



- Giving oversight of the current pilot being run by the Ministry of Advanced Education and Skills Development regarding the Local Employment Planning Councils (LEPCs).
- Giving oversight of workforce planning boards and the Ontario Centre for Workforce Innovation.
- Collaborating with employment and training organizations that work with underrepresented groups to understand current barriers to their accessing employment and develop appropriate solutions to support increased representation in the labour market.
- Working with the federal government to identify opportunities for alignment and collaboration.

Recommendation 1-3: To ensure focused implementation of recommendation 1-1, incent sector specific partnerships between post-secondary institutions and employers using the Differentiation Policy, which encourages post-secondary institutions to play to their unique strengths, and the revised university and college funding formula. The Panel notes that some of the recommendations made by Suzanne Herbert in her 2015 report to government touch on this important point.

Foundational theme: Labour Market Information

Recommendation 2-1: Working with the federal government, Ontario should use the Forum of Labour Market Ministers to engage with other provinces and territories to develop an integrated national labour market information system. Ontario should take a strong leadership position on this vital issue.

This system should modernize and harmonize data collection (including Statistics Canada data) for dissemination across all provinces and territories. The system should also consider better ways of collecting data from employers.

Recommendation 2-2: The Workforce Planning and Development Office should:

 Lead a provincial Labour Market Information Strategy including conducting an inventory and value scan of currently available labour market information and data collection (local, provincial, aggregated and disaggregated) on metrics relevant for both skills development and economic growth across government ministries.



- Develop an Ontario-specific digital labour market information website to aggregate existing labour market information websites and data that would consider the information needs of various audiences.
- Develop options to increase awareness of online resources such as the Ontario Skills Passport and The Learning Partnership's Real Talk App.
- Work with ministry partners to collect and analyze entrepreneurship data to determine how innovation currently impacts the economy and how the government can support increased innovation. The Office should leverage data currently collected from all Ontario Network of Entrepreneurs (ONE) members through a program called Data Catalyst.

Experiential Learning and Mentorship

Recommendation 3-1: Expand the Specialist High Skills Majors Program from the current provincial footprint of 14% of all students in grades 11 and 12 to 25% in the next three years. This program provides secondary students an opportunity to focus on a career path that matches their skills and interests. It also helps with their career development by exposing them to opportunities in the workforce. The Ministry of Education should work with the Planning and Partnership Table to expand the number of available program sectors and generate greater employer participation in this program.

Recommendation 3-2: Work with the Industry Tables to expand opportunities for experiential learning. As a first step, Ontario should commit to ensure that every student has at least one experiential learning opportunity by the end of secondary school (in addition to the existing volunteer requirements). Ontario should also commit to ensure that every student has at least one experiential learning opportunity by the time they graduate from post-secondary education. To support this Ontario should fund more placements (for students in all disciplines including liberal arts) in the growth sectors identified by the Planning and Partnership Table.

This recommendation is consistent with the Business Council of Canada's Higher Education Roundtable goal that 100% of Canadian post-secondary students participate in work-integrated and experiential learning opportunities.³⁴



The Ontario Public Service, a large employer in the province, should demonstrate leadership by expanding experiential learning opportunities within its ranks. The province could also increase the number of experiential learning opportunities for people with disabilities.

An intermediary with the capacity to leverage existing employer relationships, such as Magnet, should develop a process that would match co-op opportunities between employers and students at the secondary and post-secondary level. This would de-risk participation in co-op programs for educational institutions and streamline the process for employers. Magnet is a not-for-profit initiative founded by Ryerson University and the Ontario Chamber of Commerce.

Recommendation 3-3: The Ministry of Advanced Education and Skills Development should be given the mandate to consult with stakeholders to develop a modernized apprenticeship system reflective of the current business climate and focused on the integration of young people into the trades. This modernization could include moving all education components of an apprenticeship to the beginning of the program and establishing a central application process for anyone wanting to enter.

Recommendation 3-4: As a condition of funding through the Jobs and Prosperity Fund, a fund providing \$2.5 billion over 10 years to enhance productivity, bolster innovation and grow Ontario's exports, require recipients to provide a certain number of experiential learning opportunities for post-secondary students, new immigrants and adults transitioning within the workforce. The number of the experiential learning opportunities should be based on organization size.

Recommendation 3-5: To be responsive to business needs, post-secondary institutions should allow and recognize longer (8-12 months) co-op placements.

Recommendation 3-6: Ensure adult learners have access to quality learning opportunities (including experiential learning) that are adaptable and appropriate to their needs and contexts.



Building the Workforce of Tomorrow Appendix A: Summary of Recommendations

Promotion of Multiple Career Pathways

Recommendation 4-1: Review on a priority basis the Guidance and Career Education curriculum to ensure that it exposes students to a variety of learning pathways and opportunities and develop a plan to support guidance counselling including a professional development strategy and supports for all classroom teachers.

Recommendation 4-2: The Ministry of Education should develop a strategy to provide students in the K-12 system with exposure and access to the science, engineering and technology fields. This strategy should be complementary to Ontario's recently announced Math Strategy and use similar tools. This strategy should leverage best practices and innovative approaches already in existence, and use intermediaries where necessary to augment existing curriculum.

Recommendation 4-3: Provide professional development opportunities for teachers with a counselling role, to expand their knowledge of current and future labour market needs. This could include working with Local Employment Planning Councils, local business groups and other intermediaries.

Recommendation 4-4: Intermediaries such as the Brookfield Institute for Innovation + Entrepreneurship and Youth Fusion, with a demonstrated capacity to design and implement industry-recognized experiential learning projects, should work with school boards to introduce innovative practices designed to expose students to different career pathways in and outside the classroom.

Recommendation 4-5: School boards should work with employers and intermediaries to develop community approaches to career counselling that provide students with exposure to role models and positive examples of traditional and non-traditional careers.

Recommendation 4-6: Recognize that the Canadian military annually releases into the general economy thousands of highly trained individuals many of whom are anxious to pursue second careers. Employers, community leaders, policy makers, and intermediaries should be aware of and take advantage of this highly skilled labour pool and build bridges to it.



Strategic Investment in Human Capital

Recommendation 5-1: Launch a program that "franchises" successful in-house training programs developed by large employers, for adaptation by small and medium-sized enterprises. These models should support employees throughout the entire job continuum.

Recommendation 5-2: Launch a new training program for existing workers in their workplace to allow these individuals to acquire the skills and literacies that are required to adapt to the changing nature of their work or workplace.

Recommendation 5-3: Establish a "First Look" hiring process that requires employers who receive government contracts to consider qualified workers from local employment and training programs. The priority should be placed on hiring individuals from underrepresented groups. This builds on a model recently introduced by New York City.

Skills and Competencies

Recommendation 6-1: The Ministries of Advanced Education and Skills Development and Education and employers should collaborate with partners on the development of an Ontario-specific skills and competencies framework, using the experiences of other jurisdictions as a guide.

Ontario should demonstrate leadership at the Forum of Labour Market Ministers table by proposing a strategy for a national competency framework.

Recommendation 6-2: Working together, the Industry Tables and the Planning and Partnership Table should identify "skills gaps" in the growth sectors and launch a short term training program specifically targeted at unrepresented groups, to better allow them access to employment opportunities in those growth sectors. The program could be delivered using the bridge training model and include a career guidance component.

This program should be funded on the basis of outcome metrics (e.g., quality of placement, duration of employment) and include an evaluation to inform future programs and policies.



Recommendation 6-3: Identify promising practices for the teaching of the competencies that are necessary for the current and future economy, such as problem solving, team work, and entrepreneurial spirit across curricular and extra-curricular learning opportunities, including through the arts, sports, math and science. The importance of these competencies should be communicated to students, employers, educators and parents.

Recommendation 6-4: Universities, colleges and private career colleges should look at ways to shift focus to needed skills and competencies.

More Flexible Labour Market Transfers

Recommendation 7-1: The Province must engage the federal government on a priority basis to improve and effect meaningful change to labour market transfers, to better meet the employment and training needs of all Ontarians.

Recommendation 7-2: The Province should work with the federal government to conduct a coordinated, evidence-based review of training programs. The Province should also encourage the development of a National Skills Strategy and play a leadership role with the federal government.

Recommendation 7-3: The Province should work with the federal government to take a human capital/talent approach to new federal funding programs, for example new investments in Indigenous Communities and in the Low Carbon Economy.

Measuring Success

Recommendation 8-1: The Workforce Planning and Development Office should work with the Ontario Centre for Workforce Innovation and the Planning and Partnership Table to develop a performance evaluation framework and metrics to measure the impact of Panel recommendations as implemented by the government and partners.

The Panel recommends development of metrics and targets in the following areas:

- Experiential learning/mentorship at the K-12 and post-secondary level;
- Effectiveness of employment and training service programs;

Appendix A: Summary of Recommendations



- Learning outcomes, such as the development of competencies in post-secondary students in order to increase employment readiness of graduates;
- Education outcomes and pathways into pre-apprenticeship and apprenticeship programs including the Ontario Youth Apprenticeship program and the Dual Credit Program;
- Adult literacy and numeracy rates;
- Employer and post-secondary partnerships;
- Rate of entrepreneurship (e.g. number of new businesses, new growth-oriented enterprises formed, number of businesses closing, number of self-employed individuals, etc.);
- Outcomes from underrepresented groups referenced in this report; and
- Employer investment in training and mentorship.

Metrics should be reviewed annually, and key performance indicators and targets should be revised as appropriate. The Planning and Partnership Table should be responsible for issuing an annual report with annual metrics.

Appendix B: Proposed Timelines for Implementation

(First 6 Months)		(1-2 Years)		(2 +Years)	
Short-term Recommendations	Page #	Medium-term Recommendations	Page #	Long-term Recommendations	Page #
1-1	20	1-3	23	3-3	28
1-2	22	2-1	24	4-1	30
2-2	24	3-1	27	4-5	31
3-4	28	3-2	27	4-6	31
5-1	33	3-5	28	6-2	37
5-3	33	3-6	28	6-3	37
8-1	42	4-2	30	6-4	37
		4-3	30		
		4-4	30		
		5-2	33		
		6-1	37		1
	1	7-1	41		1
		7-2	41		
		7-3	41		

Appendix C: What the Panel Heard

To inform this report, the Panel met with educational institutions, employers, students, business associations, business leaders, labour, community organizations, and government organizations. The following section highlights some of the recurring feedback heard from stakeholders.

Growing a highly skilled workforce is a shared responsibility

- Training, education and employment need to be a shared responsibility among individuals, institutions, training agents, employers, intermediaries and all levels of government.
- While some community partnerships that focus on skills development do exist in Ontario, they do not exist on a broad scale. Successful partnerships need to be promoted to serve as models and as inspirations. Local leaders need to champion local initiatives and projects that focus on skills development to encourage greater participation within the community.
- Businesses, educational institutions, intermediaries, and unions should be working more closely together to develop a talent pool that possesses the skills and competencies to drive growth and to increase Ontario's competitiveness for the knowledge-based innovative economy of the future.

Local labour market information is needed to inform decisions

- Employers, students, educators, individuals re-entering the labour market, new immigrants, labour organizations, government ministries and municipalities are increasingly looking for regional labour market information to inform decisions.
- Multiple bodies distribute labour market information, including government ministries. This creates a complex web of information that is difficult to navigate.



Experiential learning is an effective way to develop the skills and competencies employers are seeking

- Students need more opportunities for high-quality experiential learning during K-12/Adult Credit and post-secondary education, including exposure to entrepreneurship. Experiential learning is also valuable for new immigrants and adults transitioning within the workforce.
- Employer participation is the biggest challenge to scaling-up existing experiential learning programs. Many small businesses are not aware of programs that are designed to fill the "skills gap" such as bridge training programs, Specialist High Skills Majors, and/or cannot afford the staff to coordinate involvement.
- Skilled trades are important to Ontario's economic growth. However, Ontario's apprenticeship system, which is a sub-set of experiential learning, is outdated and the system is designed in such a way that students and employers find it difficult to establish partnerships.

Individuals are not aware of the full array of education and career options available to them

- Students have limited access to career guidance throughout the K-12 system and find it challenging to make career decisions. Students who do receive career guidance actively seek it out. Effectively guiding students means exposing them to multiple fields and helping them to find and pursue their passions, which can range from arts, music and drama to science and math. Apprenticeship should be promoted as a pathway to entrepreneurship.
 - > Students would like career planning embedded earlier and throughout the curriculum in both the K-12/Adult Credit and post-secondary education systems.
- There are opportunities to better promote all career paths (including colleges and apprenticeships) and entrepreneurial pathways in the K-12/Adult Credit system (over and above the mandatory Grade 10 Career Studies course) at Employment Ontario service providers and other intermediaries.


The full benefit of strategic human resource planning is not being realized

- Business leadership and strategic thinking, which includes workforce planning and training, are consistent factors in sectors that are growing.
- Firms that have workers with higher essential skills, including literacy and numeracy, report higher employee retention rates, lower absenteeism, and increased production quality and productivity.⁴⁹

Competencies are as important as credentials

- "Social and emotional skills" are as valuable as technical skills: all sectors cite teamwork and project management skills as being as important as traditional skills such as math and reading.
- Individuals need to develop their existing skills and competencies, or acquire supplementary skills and competencies, to round out and enhance their skills set. This can often be done through the completion of short training and development programs, courses or projects (e.g., micro-credentialing or nanodegrees).
- In 2015, Ontario held consultations on modernizing the province's university funding model. Concerns heard included:
 - > employment readiness and value for money: participants stated that universities need to focus more on developing skills that match job expectations as measured by students' knowledge of a specific discipline when they graduate.⁵⁰

Appendix D: Panel Mandate and Scope of Work

In fall 2015, Ontario appointed five members to The Premier's Highly Skilled Workforce Expert Panel (the "Panel"). The group is composed of Chair Sean Conway and members Dr. Carol Campbell, Robert Hardt, Alison Loat and Pradeep Sood.

The Panel was asked to develop a strategy to help the province's workforce adapt to the demands of a technology-driven knowledge economy. During its tenure, the Panel was to assess how well the workforce was positioned to meet the needs of Ontario's economy and recommend an integrated approach for the government to bridge education, training and skills development with the demands of an evolving economic landscape.

Ontario chose the Panel members based on their professional experience, knowledge of the business climate, relationships with a cross-section of stakeholder groups and understanding of employers, the education and public sectors, and issues related to the labour market. The Panel engaged with stakeholders, including primary and secondary schools, post-secondary institutions, employers, labour organizations, students and youth, seniors, immigrant-serving organizations, people with disabilities and Indigenous communities.

Appendix E: Expert Panel Member Biographies

Sean Conway, Chair

Sean Conway is a Visiting Fellow with the Centre for Urban Energy at Ryerson University, and a Public Policy Advisor with Gowling Lafleur Henderson LLP. From 1975 to 2003, he was a member of the Ontario Legislative Assembly. During the Government of David Peterson (1985-90), Mr. Conway served as Minister of Education, and as Minister of Colleges, Universities and Skills Development. He has also served as Chair of the Board of Directors of the Ontario Centres of Excellence.

Mr. Conway holds a graduate degree in history from Queen's University. Upon leaving the legislature, Mr. Conway was the recipient of the Churchill Society Award for Excellence in the Cause of Parliamentary Democracy.

Dr. Carol Campbell

Dr. Carol Campbell is Associate Professor of Leadership and Educational Change at the Ontario Institute for Studies in Education (OISE), University of Toronto. Dr. Campbell is Education Adviser to the Premier and Minister of Education. She is known for her commitment to combining evidence from professional knowledge and research to develop professional capacity for educational improvement.

Dr. Campbell is Director of the Knowledge Network for Applied Education Research, a partnership between the Ontario Ministry of Education, University of Toronto and Western University to advance the mobilization and application of research and professional knowledge to improve educational practices in Ontario. Previously, Dr. Campbell was Senior Executive Officer for The Literacy and Numeracy Secretariat and was appointed Ontario's first Chief Research Officer for Education. She is a former Executive Director of the Stanford Center for Opportunity Policy in Education at Stanford University.



Building the Workforce of Tomorrow Appendix E: Expert Panel Member Biographies

Dr. Campbell holds a doctorate degree from the University of Strathclyde and was previously an academic at the Institute of Education, University of London and a policy advisor for government and school districts in the U.K.

Robert Hardt

Robert Hardt is President and CEO of Siemens Canada Limited. Mr. Hardt, an electrical engineer by training, regularly contributes to the manufacturing and technology dialogue in national media and through speaking engagements. He is passionate about developing the engineering profession and enhancing skills education in Canada and has built strong relationships between industry professionals and educational institutions.

Mr. Hardt is the Chair of the Canadian German Chamber of Industry and Commerce and an active member of the Business Council of Canada, The Learning Partnership, International Chief Executives in Canada (The Conference Board of Canada) and is on the Advisory Council, Manufacturing for the Canadian Manufacturers & Exporters.

Mr. Hardt holds a bachelor's degree in electrical engineering from Technical College Aachen in Germany and started his career with Siemens AG in 1988. He joined Siemens Canada in 2007, holding several senior management positions prior to being named President and CEO in 2012.

Alison Loat

Alison Loat is co-founder of Samara, a charitable non-partisan organization that improves political participation in Canada, and former Executive Director (2008-2015), when she led strategy, business planning, resource development and operations. Previously, she worked at McKinsey & Company, where she led teams that developed strategies for businesses and governments in Europe and North America.

Ms. Loat holds a Bachelor of Arts (Honours) degree from Queen's University and a Masters of Public Policy degree from Harvard Kennedy School. For her work in public service, she received the Public Policy Forum's Youth Leaders Award and the Queen's Gold and Diamond Jubilee Medals. Ms. Loat was named one of the Women Executive Network's 100 Top Women in Canada in 2013 and is a World Economic Forum Young Global Leader.



Pradeep Sood

Pradeep Sood is Chairman of Highbury Canco Corporation, a food processing company. He is Founder and Owner of XactScribe Inc., an Ontario-based transcription company using digital technology, and CEO of Starling Corporation, a management consulting company that provides advice to small businesses on market research, business development, supply chain, and financing.

Mr. Sood was formerly Chair of the Ontario Chamber of Commerce, Director of the Toronto Regional Board of Trade and Director of the Canadian Chamber of Commerce. He has had the honour of serving on business boards on all three levels of government.

Passionate about giving back to the community, Mr. Sood supports a number of community organizations, including the Royal Ontario Museum, Harbourfront Centre, the Textile Museum of Canada and the Bridgepoint Health Foundation.

He holds a Bachelor's degree in Economics (Honours) from Delhi University and has a Chartered Accountants designation from the Institute of Chartered Accountants of India. He is a member of the Institute of Corporate Directors at the University of Toronto's Rotman School of Management.

Appendix F: Summary of Stakeholders Consulted

Academics/education stakeholders/ post-secondary institutions

- Association des conseils scolaires des écoles publiques de l'Ontario (ACÉPO)
- Career Colleges Ontario
- Colleges Ontario
- Colleges Ontario Committee of Presidents
- Council of Ontario Directors of Education
- Council of Ontario Universities (Presidents)
- Don Drummond, Stauffer-Dunning Fellow at Queen's University
- Institute for Competitiveness and Prosperity/Martin Prosperity Institute
- Ontario Association of Adult & Continuing Education School Board Administrators
- Ontario Catholic School Trustees' Association
- Ontario College of Teachers
- Ontario School Counsellors Association
- Oshki-Pimache-O-Win Education and Training Institute (NishnawbeAski Nation)
- Ross Finnie, Full Professor in the Graduate School of Public and International Affairs at the University of Ottawa

Teachers' federations

- Ontario English Catholic Teachers
 Association
- Ontario Secondary School Teachers' Federation

Students / student associations

- Canadian Federation of Students Ontario
- College Student Alliance
- Minister's Student Advisory Council
- Ontario First Nations Young Peoples Council (Chiefs of Ontario)
- Ontario Student Trustees' Association (OSTA-AECO)
- Ontario Undergraduate Student
 Alliance
- Regroupement étudiant franco-ontarien (REFO)

Intermediaries

- Aboriginal Apprenticeship Board
 of Ontario
- ACCES Employment
- Canadian Association of Retired
 Persons
- Centre for Social Innovation
- Communitech
- Futurpreneur Canada
- Hospitality Workers Training Centre
- Innovonomics

Appendix F: Summary of Stakeholders Consulted



- LinkedIn
- Magnet
- MaRS Discovery District
- ONESTEP
- Ontario Centres of Excellence
- Ontario Centre for Workforce
 Innovation
- Ontario Federation of Indigenous
 Friendship Centres
- Pathways to Education
- Riipen
- Skills Ontario
- The Learning Partnership
- Toronto Region Immigrant
 Employment Council

Not-for Profit organizations

- ABC Life Literacy
- Frontier College
- Martin Aboriginal Initiatives
- Yves Landry Foundation

Business associations

- Business Council of Canada
- Canadian Manufacturers and Exporters
- Council of Ontario Construction
 Associations
- Ontario Chamber of Commerce
- Ontario Home Builders' Association
- Ontario Sewer and Watermain
 Construction Association
- Residential Construction Council
 of Ontario
- Toronto Financial Services Alliance

Regional roundtables/employers

- Baylis Medical
- Business Council of Canada's Business-Higher Education Roundtable
- Business Development Canada

City of Hamilton Blue Ribbon Task Force

- ArcelorMittal Dofasco
- City of Hamilton
- Hamilton Chamber of Commerce
- Hamilton Economic Development
- Hamilton Workforce Planning
- Maple Leaf Foods
- Mohawk College
- US Steel Car

Renfrew County Skilled Workforce Strategy Forum with educators, employers, labour market planners hosted by Algonquin College Pembroke Campus

- Algonquin College Ottawa
- Algonquin College Perth Campus
- Bishop Smith Catholic School
- Bonnechere Manor
- Canadian Nuclear Laboratories
- City of Pembroke
- Community Futures
- County of Renfrew
- Eastway
- EGM Insurance
- Hindjua Global Solutions
- KI
- Labour Market Group, Algonquin College Pembroke



Building the Workforce of Tomorrow

Appendix F: Summary of Stakeholders Consulted

- National Research Council
- Pembroke Hospital
- Renfrew County Catholic School
 Board District
- Renfrew County District School
 Board
- Renfrew Industrial Commission
- Upper Ottawa Valley Chamber
 of Commerce

Ministry of Training, Colleges and Universities' Service Delivery Advisory Group

- Centennial College (Toronto)
- Collège Boréal
- COSTI Immigration Services;
 Past President, Ontario Council of Agencies Serving Immigrants
- Employment, Skilled Trades, ESL & Immigrant Services
- Job Zone d'emploi
- KEYS Job Centre; President, Board of Directors, First Work
- Loyalist College
- MiziweBiik Aboriginal Employment
 and Training
- Ontario Association of Adult and Continuing Education School Board (CESBA)
- Ontario Network of Employment Skills Training Projects (ONESTEP)
- Sioux Hudson Literacy Council
- Southwest Centre for Community Programme Development (also known as Community Employment Services)

- Unemployed Help Centre of Windsor Inc.
- Victoria County Career Services
- VPI Inc.
- YMCA of Hamilton, Burlington, Brantford (aka YMCA Careerworx)
- YMCA of Owen Sound Grey Bruce
- Youth Employment Services (North Bay)

Simcoe Muskoka Workforce Development Board/County of Simcoe Roundtable with Employers and Educators

- County of Simcoe
- Creemore Breweries
- Deerhurst Resort/Horseshoe Resort
- District of Muskoka
- Fern Resort
- Georgian College
- Horseshoe Resort
- Innovative Automation
- Jarlette Health Services
- Lakehead University
- MacLean Engineering
- Ministry of Training Colleges and Universities Regional
- Ontario Provincial Police
- Simcoe Muskoka Workforce Development Board
- Tanger Outlet Mall
- Weber Manufacturing Technologies
- YMCA of Simcoe/Muskoka



Appendix F: Summary of Stakeholders Consulted

Ontario Chamber of Commerce Roundtable with employers

- BMP Metals
- GVA Lighting
- iS5 Communications Inc.
- Inflamax Research Inc.
- Macro Engineering
- Ontario Chamber of Commerce
- Therapure Biopharma
- Veriday
- York Metals

Government

- Employment and Social Development Canada (Federal)
- Ministry of Aboriginal Affairs
- Ministry of Children and Youth Services
- Ministry of Citizenship, Immigration and International Trade
- Ministry of Economic Development, Employment and Infrastructure
- Ministry of Education
- Ministry of Training, Colleges and Universities

Labour organizations

- CUPE Ontario
- International Association of Machinists and Aerospace Workers
- Labour Education Centre
- Ontario Federation of Labour
- Ontario Society of Energy
 Professionals
- Public Service Alliance of Canada

Other

- Brookfield Institute for Innovation + Entrepreneurship
- Griffiths-Sheppard Consulting
 Group
- Ontario College of Trades
- Partnership Council on Employment Opportunities for People with Disabilities







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