



Skills for Jobs Task Force

Final Report
September 2020

Alberta 



Message from the Task Force co-chairs

The Honourable Demetrios Nicolaides, Minister of Advanced Education,

We are pleased to submit our final report on behalf of the Skills for Jobs Task Force (the Task Force). The report makes recommendations to advance Alberta's skills development agenda, with a focus on apprenticeship education and trades professions.

The purpose of the Task Force was to reimagine Alberta's skills development and apprenticeship model. With the Terms of Reference for the Task Force as our guide, we evaluated Alberta's skills and apprenticeship system with a focus on best practice in Canada and the world. We propose changes to strengthen and expand the apprenticeship system, and we make recommendations to assist in raising the esteem of apprenticeship-based education – that is, to elevate the understanding that apprenticeship education holds as much value, merit, and worth as other post-secondary credentials, and trade careers are as valuable as other professions.

Each of the 21 members of the Task Force believes passionately in our province and the role that skills have played and will continue to play in its success. We thank our colleagues for their dedication. Our varied backgrounds and experiences allowed us to learn from each other. Our positions on issues evolved through deep discussion and analysis.

We would like to thank all those we consulted with. Their insights and expertise were greatly valued and helped inform our recommendations.

Finally, we would be remiss if we did not acknowledge the support of staff from the Ministry of Advanced Education for their capable assistance.

Let us close by expressing our appreciation for this opportunity to lead such critical work. Our skills system is at the heart of our province's economic and social prosperity. We are proud, as well as humbled, to be given the opportunity to reimagine this system.

Dr. Glenn Feltham, co-chair

Dr. David Ross, co-chair

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Executive Summary

Purpose

The purpose of the Task Force is to reimagine Alberta's skills and apprenticeship system. To do so, we focus on four key objectives as set out in our Terms of Reference:

- To evaluate our skills and apprenticeship system and best practice in Canada and the world
- To propose changes to strengthen the system
- To examine ways to expand apprenticeship education to other careers beyond trades professions
- To raise the esteem of apprenticeship-based education – that is, to elevate the understanding that apprenticeship-based education holds as much value, merit, and worth as other post-secondary credentials, and trade careers are as valuable as other professions

Context

Skills matter! A skilled workforce is at the very heart of competitiveness and prosperity.

Skills systems focus on improving the skills of the labour force. While skills systems are normally defined more broadly than apprenticeship-based learning, this form of learning plays a critical and central role in the skills systems of advanced industrialized nations, including Canada.

While Alberta has been very well served by its skills and apprenticeship system, there is an imperative for change. Alberta's system emerged at a different time to meet different needs than those of today and the future. Technological, economic, and social change are transforming the world of work. Alberta's economy is being transformed. COVID 19 is further accelerating this pace of change.

To meet the emerging workforce needs of our province, Alberta's skills and apprenticeship system will also need to be transformed. It will need to reflect best practice, be nimble and relevant, and be purposeful in producing the right number of skilled workers, with the right skills, at the right time.

What we heard

Feedback from Albertans helped inform our recommendations. This feedback was received through focus groups, industry roundtables, industry workbook engagement, and an online survey of Albertans.

There were several recurring themes across all engagements. Themes emerged related to the broad skills agenda as well as more specifically to the skilled trade professions and apprenticeship education system.

In considering the broad skills agenda, participants noted the importance of learning through work (work-integrated learning) in skills development. The importance of educational pathways (advancing from one educational opportunity to another) was a recurring theme. Further, participants emphasized the importance of developing essential or soft skills in addition to technical skills.

Further important themes emerged related more specifically to the skilled trade professions and apprenticeship education.

Participants felt that there remains significant stigma associated with skilled trade professions and apprenticeship education. Further, the language associated with trades and apprenticeship are largely perceived to be negative (pejorative). Most students, parents, and non-trades industries do not see themselves in this language.

There is a lack of awareness of what apprenticeship programs are, how they work, and the nature of career opportunities. It was also noted that conversations about apprenticeships are infrequent, and often not positive, within households or the primary school system.

Non-trade professions felt there were significant benefits to using an apprenticeship learning model, or other work-integrated learning approaches. However, they felt that the current regulatory framework of designated trades was not appropriate or desirable for their professions.

Summary of recommendations

The primary focus of our recommendations relates to Alberta's apprenticeship system – six of our seven recommendation sections focus on apprenticeship-based education and regulated trade professions. However, we believed it was important to also provide recommendations on the broader future skills development agenda.

In considering a broader future skills agenda, recommendations are made to:

- establish an enduring Premier's Advisory Council on Skills
- make the skills system more purposeful,
- increase the role of workplace learning in education,
- make the skills system more data-driven,
- ensure that skills education is fully recognized and that it seamlessly leads to further education (expanding pathways), and
- support the development of essential skills (i.e., soft skills) in addition to technical skills.

Our second set of recommendations focus on providing a frame for apprenticeship-based learning in Alberta. We establish a definition of apprenticeship for Alberta and objectives for our apprenticeship system. The definition and objectives provide a foundation for new legislation and for expanding apprenticeship-based careers.

The third set of recommendations relates to the strengthening of apprenticeship education. Several recommendations focus on pathways into, through, and beyond apprenticeship education. It is important that pathways be both strengthened and expanded. Recommendations are made to strengthen the credentials received from completion of an apprenticeship – there should be formal academic recognition. Additional recommendations are made to expand and improve delivery models.

Our fourth set of recommendations focus on the expansion of the apprenticeship education model to other professions. The Task Force believed strongly that apprenticeship-based learning has significant value far beyond the traditional skilled trades in Alberta and Canada that currently use the model. The system should be significantly expanded. In expanding apprenticeships to other careers, there is an understanding that the regulatory regime for designated trades professions must be significantly modified, with flexibility for trades, occupations, or professions to adopt different governance models and certification requirements, as well as language that is appropriate for them.

The fifth group of recommendations concerns governance and roles. Foremost, the Task Force recommends that the *Apprenticeship and Industry Training Act* must be fully rewritten. It is anachronistic and no longer meets the current and emerging needs of Alberta. New legislation needs to be principles-based, nimble, and flexible. System roles need to be clarified and strengthened and governance models updated.

The sixth set of recommendations relate to funding and incentives. Funding models and incentives need to be better aligned with the objectives for the system. Simply stated, our current funding models and incentives are not aligned with producing the right number of skilled workers, with the right skills, at the right time. Changes are needed in the funding models for post-secondary and K-12 (both per student funding and capital funding), with appropriate incentives for employers.

Our final recommendations relate to parity of esteem – apprenticeship education should be understood to have as much value, merit, and worth as other post-secondary education, and skilled trade careers are as valuable as other professions. Recommendations throughout the report will improve the apprenticeship system, providing a stronger foundation for building parity of esteem. It is, however, also important to address the lack of knowledge and perceptions of the system.

I. Introduction

“Skills create opportunities and connect societies. They are the foundation of economic progress.” - WorldSkills 2020

The Skills for Jobs Task Force was appointed by Alberta’s Minister of Advanced Education, the Honourable Demetrios Nicolaides, in the fall of 2019. The purpose of the Task Force was to evaluate, and reimagine, Alberta’s skills and apprenticeship system. In doing so, we focus on four key objectives as set out in our Terms of Reference:

- To evaluate our skills and apprenticeship system and best practice in Canada and the world
- To propose changes to strengthen the system
- To examine ways to expand our system of apprenticeship to other careers
- To raise the esteem of apprenticeship-based education – that is, to elevate the understanding that apprenticeship-based education hold as much value, merit, and worth as other post-secondary credentials and trades careers are as valuable as other professions

In reimagining the system, we acknowledge that Alberta is starting from a position of significant strength. Alberta has historically had one of the best, if not the best, skills and apprenticeship systems in North America. However, the system can be further strengthened to meet our province’s emerging needs. As our province, country, and world changes, we must ensure that our skills and apprenticeship system continue to evolve consistent with best practice. We need a system that will allow Alberta, and its people, to compete against the very best in the world.

This report is structured as follows. Sections II through V provide context for our recommendations. Section II describes the imperative for change. This is followed in Section III by a review of Alberta’s existing skills and apprenticeship system, with a comparison to Canada and the world. Section IV sets out important trends in education that are impacting, and that will transform, skills development. Section V presents a summary of what we heard through the consultation process. Following this context and analysis, Section VI presents the Task Force recommendations. This section is broken into seven parts: the broader skills agenda; a definition of apprenticeship and objectives for the apprenticeship system, strengthening apprenticeship education, expanding the system to other careers, funding and incentives, and raising the esteem of apprenticeship-based education and careers. Final thoughts are presented in section VII.

II. Imperative for change

In considering the future needs for skills in Alberta's, it is important to examine the context in which these skills will be used. Fundamentally, Alberta and our broader world are changing. Rapidly.

Our changing world

Our world is evolving at a pace that is faster than ever before. It is becoming faster, flatter, more integrated, and much more competitive.

Our skills system must respond if Alberta, and its people, are to be competitive and prosperous. Simply stated, our skills system must be among the most nimble and relevant in the world if Alberta is to achieve its future potential.

What is the nature of change? It is multifaceted, complex, technological, economic, social, and environmental.

Changes in technology have a profound impact, including in Information Technology (artificial intelligence, big data, blockchain, machine learning, the internet of things), transportation (autonomous and electric vehicles, sensors), manufacturing (3D printing, robotics, automation) and materials (graphene, composites).

The pace of change has further accelerated in response to COVID 19. All organizations have been challenged to behave differently. This includes the delivery of skills education.

Alberta context

While change is pervasive throughout our world, it is even more pronounced in Alberta.

For several decades, Alberta has been Canada's economic engine. Much of Alberta's wealth generation relates to the energy sector. Alberta remains a world leader in conventional oil and oil sands production, supported by a skilled workforce that is among the best in the world. Our strength in energy provided a foundation for growth and the creation of a skilled workforce well beyond energy. Alberta develops, and attracts, outstanding talent. We should be justifiably proud of this.

However, Alberta has experienced a precipitous slide in energy prices since 2014 and has had sustained difficulty in getting bitumen to tidewater. This has had a profound impact on government revenue and on employment – particularly youth employment.

The Skills for Jobs Task Force builds on prior work. The Government of Alberta's *Blueprint for Jobs*¹ focuses on job creation. Skills development is a key pillar in that report. The *Blueprint for Jobs* points to a need to focus on key economic sectors to drive our future prosperity.

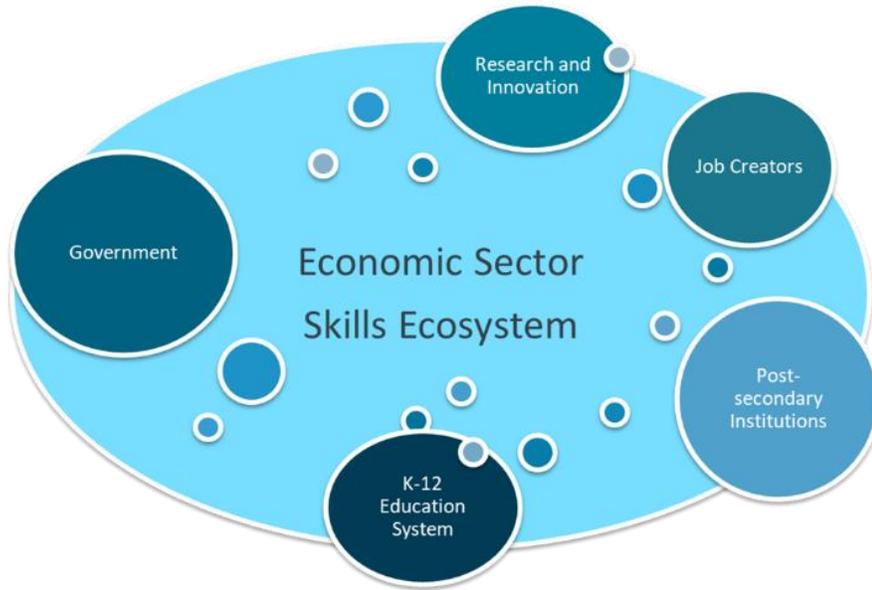
Since the release of the *Blueprint for Jobs*, Alberta, along with the rest of the world, has faced the social and economic impact of the COVID-19 pandemic. Alberta was harder hit than other provinces with a significant drop in the demand for oil and falling energy commodity prices. As of April 2020, the general unemployment rate is 13.0% (up from 6.7% in April 2019 and the unemployment rate for youth (18-24) is 29%.

Analysis further suggests even greater disruption to the labour market in coming years. Alberta's workforce will face significant transformation. Given the transformational changes in our world, and the economic challenges faced by our province, there is an imperative to reimagine Alberta's skills system.

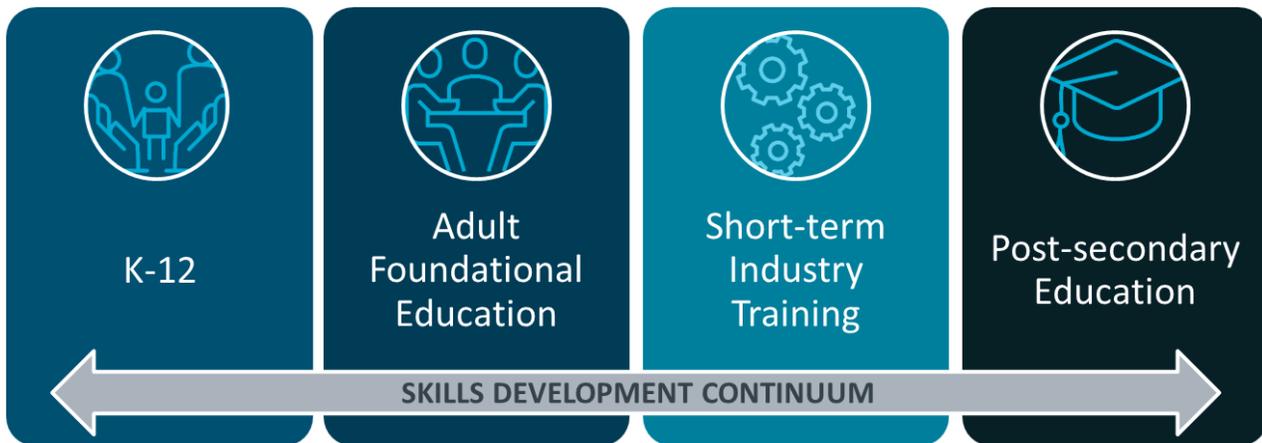
Alberta's economic recovery will rely on employers and job creators being able to access the talent they need and developing skills ecosystems around targeted economic sectors expected to drive prosperity

¹Government of Alberta (2020, February). [A Blueprint for Jobs](#). Budget 2020 | Alberta.ca.

Within a focused skills ecosystem, all Albertans will need to access opportunities for education, training, upskilling, and reskilling across the full skills development continuum leading to skills in demand by job creators



For unemployed or under-employed Albertans, this could also mean access to foundational education programming that provide basic academic and essential skills they need to succeed in further education and training programming. New approaches to capture and assess competencies developed through informal experiential learning can also play an important role in a skills agenda. Opportunities exist to build core, transferrable competency development into curriculum and assessments at various levels and for diverse occupations.



III. Review of skills systems in Alberta, Canada, and the world

Our system of skilled trades in Alberta and Canada evolved from the European trades and crafts systems.² Central to their model, and ours, is the concept of apprenticeship. While there continues to be similarities across apprenticeship-based skills systems, significant differences have emerged over time.

To reimagine Alberta's skills and apprenticeship system, it was important to first review, understand, and evaluate our existing system. It was also important to understand our national skills system, and best practice in other systems in the world. Significant time was spent on building these understandings. In this section, we provide an abbreviated summary.

Alberta

Description of system

Introduction

At the heart of Alberta's skilled trades system is a model of apprenticeship. Hands-on applied learning occurs on the job site, under the supervision of a journey person.

How does one complete an apprenticeship in Alberta? A person interested in becoming certified in a designated trade must find an employer that is willing to support them in their training. They will then register with the Government of Alberta as an apprentice. Most of their time as an apprentice will be spent learning on the job, interspersed with periods of classroom instruction at a post-secondary institution. Most apprenticeships in Alberta are designed to take three to four years to complete. On completion of all requirements, the person is designated by the Government of Alberta as a certified journey person holding a licence to work within the scope of a designated trade and is recognized as having completed an apprenticeship program. They may also receive a Certificate of Completion from the post-secondary institution where they attended the classroom instructional part of their apprenticeship.

Unlike other post-secondary options, apprenticeship in Alberta rarely begins in, or flows directly from, secondary school.³ There are options for students to begin apprenticeship education in high school through either the Registered Apprenticeship Program or the Career Technology and Studies Program. However, these programs are limited in scope in both the suite of career paths offered and consistency of offering across Alberta. In 2019, only 950⁴ high school students were registered in the Registered Apprenticeship Program out of approximately 220,000 students in grades 9 through 12.

In Alberta, the median age of an apprentice at registration is 27, and the average age is 29.

A partnership

Alberta's apprenticeship system is a partnership between employers and industry, government, post-secondary institutions, and individual apprentices.

- Employers register apprentices and provide on-the-job training. This workplace learning and mentorship are central to the success of the apprenticeship system. Most of an apprentice's time (approximately 80%) is on the jobsite.
- Government regulates trades professions, provides client service delivery, ensures legislative compliance, administers and funds apprenticeship education programs delivered by post-secondary institutions, and certifies qualified individuals.

² For a description of the Alberta Model, see Gordon Nixon, "The Alberta Apprentice System: A Model to Support Economic Development" *Canadian Apprenticeship Journal*, Vol 6 (Fall 2011).

³ Quebec is an exception in Canada. Students seeking apprenticeship opportunities begin their post-secondary studies through a CEGEP. CEGEPs represent the first stage of higher education and include pre-university programs and technical career programs.

⁴ Government of Alberta, Advanced Education, [Apprenticeship and Industry Training 2019 Statistical Profiles](#).

- The Apprenticeship and Industry Training (AIT) Board, appointed by the Government of Alberta, provides recommendations to government on education and certification standards for designated trade professions. A network of provincial and local industry committees (PACs and LACs) support the development these standards. The AIT Board is further responsible for setting entrance requirements for apprenticeship education as well as credit recognition.
- Post-secondary institutions deliver educational content based on the educational standards identified in course outlines approved by industry through the AIT Board. Institutions provide classroom instruction to registered apprentices as well as pre-apprenticeship programming to individuals who are not yet registered apprentices.
- Apprentices enroll in an apprenticeship with the Government of Alberta. They have accountability for their learning – they must complete on-the-job learning requirements and attend classroom instruction in a post-secondary institution.

Industry is at the heart of Alberta’s apprenticeship system, providing employment and training. About 80% of the hours spent in an apprenticeship in Alberta is on-the-job learning. Further, industry has a central role in the development of standards for the skilled trades through Provincial Apprenticeship Committees appointed by the AIT Board.

Alberta’s apprenticeship learning includes classroom instruction usually delivered in an eight-week block for each year of apprenticeship. This education is delivered – in almost all cases – by publicly funded post-secondary institutions, usually by Alberta’s polytechnics and community colleges. This education is similar in both nature and level to other education delivered by post-secondary institutions. It is rigorous. It is important to note, however, that it differs in important ways from other post-secondary education. First, the Alberta government, rather than the post-secondary institution, is the registrar. Second, the funding model differs significantly from that of other post-secondary education.

While Alberta’s skills education system has historically focused primarily on post-secondary and work-based learning, it is a lifelong learning system that includes K-12 education.

System structure

How is the system structured? The *Apprenticeship and Industry Training Act* is the governing legislation for regulating trade professions in Alberta, for which apprenticeship education programs are provided. The primary focus of the act is to regulate designated trades with apprenticeship education having a secondary attention. All professions designated under the act must be labelled as “trades” or “designated occupations”.

The legislation establishes certification categories with trades either designated as compulsory or optional certification. A worker in a compulsory certification trade must be either a registered apprentice or a certified journeyman. A worker in an optional certification trade can work for an employer who is satisfied that person has the skills and knowledge expected of a certified journeyman. In either case, participation in an apprenticeship education program is mandatory for unqualified individuals. For either compulsory or optional certification trades, regulated certification standards must exist, regardless of whether they are necessary or desired. For mature professions, the level of regulation may be appropriate and effective, while emerging professions may lack a maturity required to ensure effective regulatory framework as well as governance. The legislation further designates occupations, in which industry is wholly responsible for providing training and thereby do not require apprenticeships.

Alberta currently has 47 designated trades, 18 of which are compulsory certification trades and 29 of which are optional certification trades.⁵ These are presented in Appendix D.

Automotive technicians, electricians, plumbers, and welders are all compulsory trades. Carpenters, millwrights, and roofers are not. Although there are 47 designated trades, 90% of apprentices are registered in only 20 trades.

Most of Alberta’s trades are highly successful and viable; however, some struggle with long-term viability. This is particularly true where industry support is lacking or where regulatory requirements do not effectively support the trade.

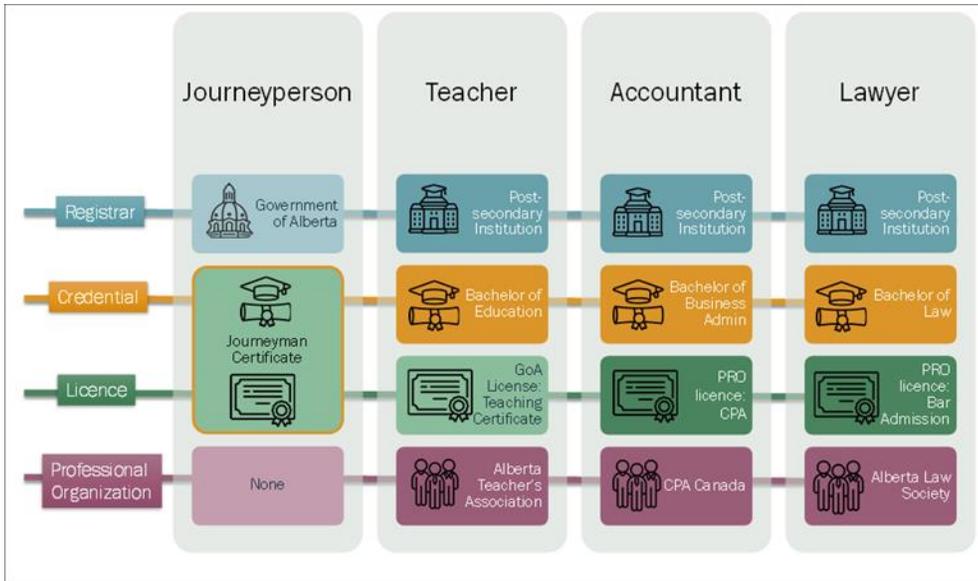
An important element of the regulatory governance model in Alberta is that the province is responsible for both education and certification. This differs significantly from the model for other professional careers (e.g., lawyers, accountants, medical professionals) where there is separation between education and certification. In most professions, individuals gain academic skills and competencies through a post-secondary educational program informed by industry standards (often including industry accreditation), that is administered and governed by the institution. Professional certification is then provided through

⁵ Government of Alberta, Apprenticeship and Industry Training, [List of Compulsory and Optional Certification Trades](#).

a separate regulated professional body that also governs ongoing professional development as a requirement to maintain licensing. While some professional bodies are regulated by government, others are fully independent and self-regulating.

It is further worthwhile to note that, unlike other professions, the sole focus of Alberta’s regulated trade professions is on initial certification. There is no ongoing membership or tracking of certified individuals. The legal authority and responsibility for ongoing professional development has not been assigned to government, the AIT Board, or anyone else. This does not mean that journeypersons do not receive ongoing professional development. In many instances, employers and trade unions provide significant levels of post-certification training. However, this training is not required to maintain certification and is not set out under the Act.

The following illustrates the regulatory governance model for the skilled trades (e.g., electrician or welder), teachers, accountants, and lawyers.



Strengths

Alberta’s apprenticeship system has historically played a critical role in building prosperity for the province and its people. The system has produced a significant number of people in the skilled trades most needed to advance Alberta’s economy – particularly to advance the energy sector. In some years, Alberta produced about 20% of the skilled tradespeople in Canada. This was critical to advance our province.

Those that completed an apprenticeship have been well positioned for success. Journeypersons in Alberta earned more, on average, than those with a university degree.

A strength is the extensive role of industry and practitioners in determining education and certification standards and the value of applying those standards consistently across the province. This has allowed for greater mobility within the province and ensured that all apprentices had the same high level of proficiency on certification.

The connection with industry is both broad and deep. Most of the education received by an apprentice is on the worksite. Further, industry is at the table in providing direct input through the Industry Network Committee, which informs the AIT Board on all dimensions of training and certification standards.

Challenges

Alberta's apprenticeship system is not broken – it is strong. However, there are significant challenges and opportunities for improvement.

Alberta's apprenticeship system is tied to the cyclical nature of our province's economy. During times of economic growth demand for skilled labour, including apprentices, is high. Conversely, demand drops during an economic downturn. We need a system that can help even out that demand. A system that prepares individuals for the next opportunity in a changing economy. This is an issue given the cyclical nature of Alberta's economy. The system needs to produce the right number of people at the right time to meet future labour market demand and ensure individuals have the skills and competencies to address talent gaps.

The regulatory environment, starting with the *Apprenticeship and Industry Training Act*, is very prescriptive. While it leads to consistency and uniformity, it is not responsive to our changing world. It simply is not responsive and nimble – it can take several years to update curriculum, or to designate new trades. It would be difficult, if not impossible, to significantly increase apprenticeship education programs without fundamentally changing legislation and governance. The structural rigidity requires that every designated trade profession or new occupation fit into the same mold, regardless of whether it is relevant or appropriate. In addition, the language used in the *Apprenticeship and Industry Training Act* is anachronistic. It is not inclusive. To summarize, the regulatory environment restricts rather than empowers expansion of the system.

There is a diminished role for post-secondary in the current system – it is narrowly defined to be that of a deliverer of programs on behalf of the Government of Alberta. There is no representation from post-secondary institutions in the system governance model that develops educational and certification standards. The lack of formal representation by post-secondary in governance impacts efforts to ensure credential recognition and develop educational pathways and strong competency-based assessment. This is not consistent with other professions in Canada and abroad. Further, post-secondary academic credentials are not provided. For those who achieve certification, the current Journeyman Certificate is not recognized as a post-secondary credential and has limited and unstandardized credit recognition. This ultimately limits the ability of trades professionals to pursue further education and training or shift into other careers and professions.

Alberta's legal framework places a primary focus on licensing and compliance. While originally intended to promote and ensure safety, this focus creates significant duplication with the Alberta Labour Code, the *Occupational Health and Safety Act*, and other legislation. Further, this focus makes it more difficult to expand apprenticeship education to other careers where safety is not a primary factor (e.g., information technology). The approach and scope of regulation may not be appropriate for some existing trade professions, as well as most new potential professions. Further, in Alberta, apprenticeship is under the Ministry of Advanced Education. Safety enforcement is not a core mandate of this ministry. Overall, the approach and scope of regulation may not be appropriate for some existing trade professions, as well as new potential professions. The regulatory environment hampers responsiveness, adds costs for government and employers, and reduces efficiency and nimbleness.

A challenge also exists in very low completion rates for apprenticeship programs compared to other post-secondary programs. Lower completion rates contribute to a longer-term trend in stagnated certification rates, which will continue to hamper Alberta's ability to meet future labour market needs.

Finally, previous research as well as the engagement conducted on behalf of the Task Force indicates that skilled trade professions are not viewed as valuable careers by many. Opportunities exist to implement raising awareness strategies for youth, including providing better information to high school teachers, counsellors, and parents on the important benefits of work-integrated learning. The Task Force believes that increasing the parity of esteem will occur by a multi-pronged strategy that includes raising awareness activities, strategies to strengthen pathways, increasing the value and recognition of apprenticeship credentials, and expanding the application of the apprenticeship model to more diverse professions.

The Task Force came to a clear consensus on the importance and value of work-integrated learning approaches that is applicable to Alberta's broader educational system – from K-12 through to short-term training and post-secondary education.

Canada

The task force reviewed Canadian programs, as well as provincial apprenticeship systems.

Canadian programs

Mobility and harmonization

We further discussed the migration of skilled trades professionals within Canada.

An important aspect of the Canadian system is mobility. In 2015, Canadian premiers signed the Provincial-Territorial Apprentice Mobility Protocol. Central to this protocol was mutual recognition of training, on-the-job-education, and examination results for apprentices. It further allowed apprentices to move between provinces without interrupting their education.

A second element is harmonization. Alberta is participating in the Apprenticeship Harmonization Initiative (AHI) led by the Canadian Council of Directors of Apprenticeship. An aim is to have significant alignment across jurisdictions of classroom instruction, educational levels and periods, total program hours, and use of the Red Seal name.

Red Seal program

The Red Seal Program, established in the 1950s, is Canada's standard of excellence for skilled trades. The Red Seal is a partnership between the federal, provincial, and territorial governments administered in each province and territory under the guidance of the Canadian Council of Directors of Apprenticeship. There are 56 Red Seal Trades across Canada – primarily in the industrial trades. From 1952 to 2016, Alberta has produced more Red Seal journeypersons than any other Canadian jurisdiction (about 29%).

Provincial systems

We examined the apprenticeship structure of British Columbia, Saskatchewan, Ontario, Quebec, and Nova Scotia. Let us highlight differences between the systems.

The governance model in other provinces differ from Alberta. British Columbia, Saskatchewan, and Nova Scotia utilize independent regulatory agencies. This differs from Alberta where AIT Board is advisory. While Ontario previously used an independent agency model, it has recently disbanded the Ontario College of Trades and shifted the legal authority over regulated trades to government. Administration of the system is paid for in all provinces through government funding.

There is a significant difference in the number of recognized trades between provinces: Alberta 47, British Columbia 80, Saskatchewan 49, Ontario 144, Quebec 130, and Nova Scotia 70. The nature of certification differs significantly between provinces. While Alberta has 19 compulsory certification trades, British Columbia currently has no compulsory trades. While Ontario has recently moved to have no restricted trades, it has introduced restricted practices on who can perform certain activities within the scope of a designated trade.

International apprenticeship systems

In reimagining Alberta's skills system, it is valuable to examine best practice from around the world. Alberta can, and should, learn from other systems. However, it is important to recognize that each system was developed in an economic, social, cultural, and historic context.

In considering other systems, there is significant value in focusing on the traditional Germanic dual credit model (used in many European nations). However, it is worthwhile to also examine other models – New Zealand, Ireland, Singapore, and the United Kingdom – as they have different characteristics and/or are undergoing change.

The Germanic system

In defining a future skills agenda, most reports explore and analyze the Germanic system of apprenticeship. There is good reason for this. The Germanic apprenticeship system is viewed widely as a driver of innovation, productivity, and national competitiveness. Great pride is taken in the system, both by those who completed an apprenticeship and those who chose a different educational pathway.

The Germanic system of apprenticeship – also called the dual or VET (vocational education and training system) – developed over several centuries. It is practiced in several countries and regions, including Germany, Austria, South Tyrol (the North of Italy), Switzerland, and the Netherlands. While the Germanic system differs in significant ways between jurisdictions, there are many common elements.

The system employs an apprenticeship model. This model is a partnership between the learner (and his or her family), a high school, and an industry partner. The education begins in grades 9 or 10, depending on the jurisdiction. The student will sign a 3- or 4-year contract, usually with a single firm. The student will spend an increasing amount of time in the workplace (in some jurisdiction 75% in grade 12). If the apprentice meets all requirements, he or she will graduate with a high school diploma and a skilled trades designation (e.g., journey person).

The education provided in the workplace is taken very seriously. Most firms have pedagogically qualified trainers. Some employers use full-time trainers. Employers participate in the system for a variety of reasons, but primary among them is a belief that it is a way to build a highly qualified workforce.

An important element of the Germanic system is a full set of pathways from the skilled trades into further education. A skilled trades designation is never a dead end. The primary pathway from apprenticeship to post-secondary is through the *Fachhochschulen* (essentially universities of applied sciences or polytechnics). These institutions offer undergraduate and applied Master's degrees. Their primary focus is on applied STEM including business and economics, engineering, computer sciences and IT, and design. While relatively few students go from a trade into a traditional university (which in the Germanic system tend to be liberal arts focused), there are pathways to allow them to do so. The following quote describes the philosophy well.

“The appeal and high standing of vocational education and training in Austria derives from a wide diversity of paths, from the high quality of training, characterized by a particularly close link between theory and practice, and from the permeability of the education system. No educational path in Austria ends in a blind alley. Whether vocational education and training is provided entirely within an education establishment or in the dual system, the option of seeking higher qualification...remains open to all” Austrian Federal Ministry of Education, Science and Culture

Apprenticeship-based education is used for far more careers under the Germanic system than in Canada and the United States. Jurisdictions tend to have more than 200 apprenticeship-based careers (Austria has approximately 250 and Germany 350), which span a wide range of occupations. These include the skilled trades, information technology, all things business (including banking and accounting), and many health fields. The philosophy may be described as,

“... apprenticeships should be available in almost every area of economic activity, including new areas such as information technology” Austrian Federal Ministry of Education, Science and Culture

Each jurisdiction places a focus on early awareness of careers, usually beginning in elementary school. They ensure that the student, and his or her parents, have a full understanding of career options early in life. Formal counseling for careers begins in elementary school – but culminates in classes in career studies (often in grade 7).

Youth unemployment is very low in jurisdictions using the Germanic model. The programs tend to be very closely aligned to labour market needs. All are characterized by much clearer linkages between labor market needs and educational programs, all offer programs leading to qualifications in a wide range of occupations (white collar as well as blue collar, high tech as well as trades), and all serve a broad cross-section of students.

What differs across the Germanic system? There is a very different take-up rate, from a low of 25% to a high of 80% (in parts of Switzerland). The funding of the system differs significant between jurisdictions (the mix may include federal, provincial, local, and industry funding). The outcomes differ. Parts of Switzerland, Austria, and South Tyrol have the strongest outcomes.

The following narrative from *The Gold Standard: The Swiss Vocational Education and Training System* (2015), describes well the choice made by young people in Switzerland.

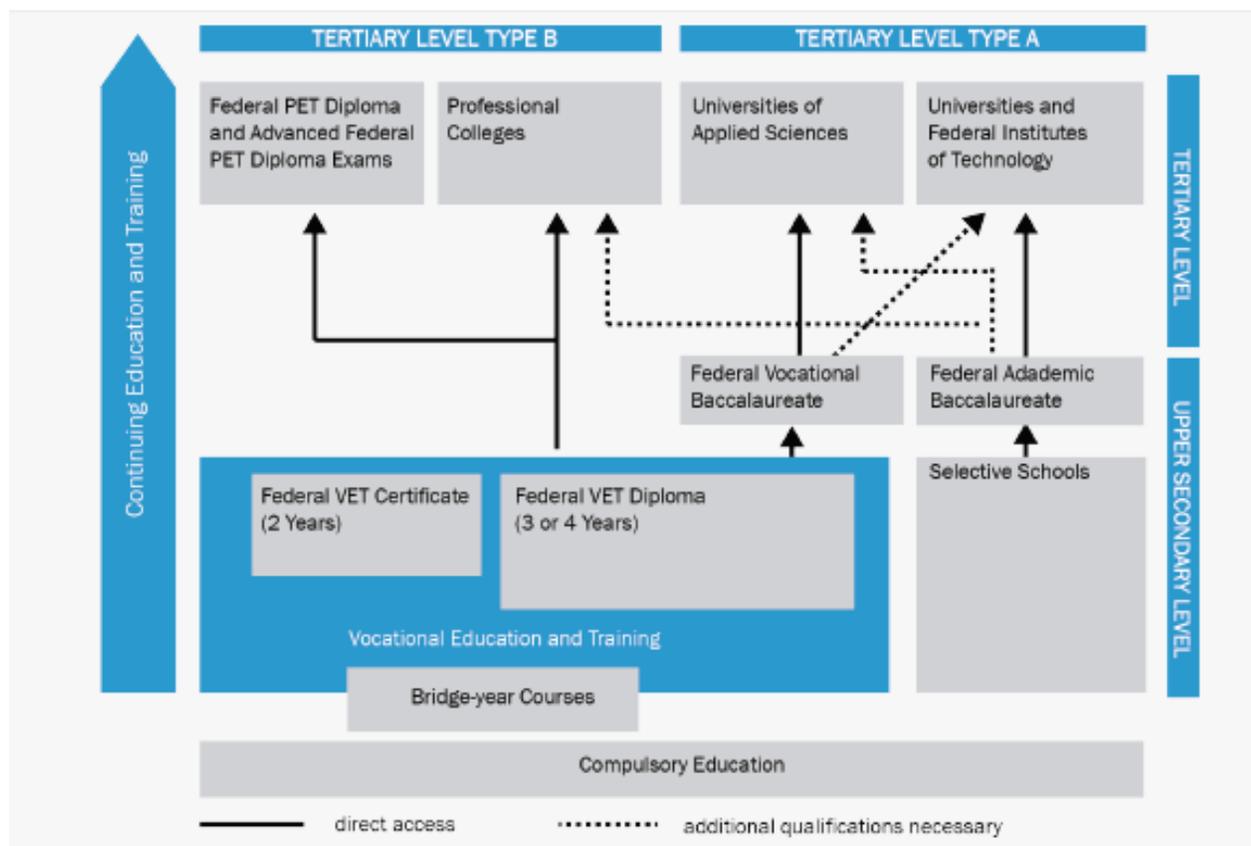
“If ... they want the opportunity to choose from among 240 different occupations, running the gamut from the traditional trades and crafts to banking, insurance, IT, health and social care, dance, and pre-engineering, upper secondary vocational education [an apprenticeship] is a very attractive option. It has four features that make it especially attractive to many young people:

- It immediately puts young people in a setting with adults, where they are treated differently than in school and given more responsibility coupled with lots of coaching and support.
- The learning is much more hands-on, contextualized, and applied: academic concepts are made real.
- Students are paid while they are learning, typically the equivalent of about \$600-\$700 a month to begin, growing to \$1,100- \$1,200 by the third year, and this for three to four days of work a week at the most.
- And at the end of the apprenticeship they have a nationally recognized qualification that is portable, and the opportunity to move.

... It shouldn't surprise us that over 70 percent of young Swiss take the vocational route.

The following diagram sets out, at a high level, the educational pathways in Switzerland. This is similar across all countries that follow the Germanic apprenticeship system.

FIGURE 1: THE SWISS EDUCATION SYSTEM



Gold Standard: The Swiss Vocational Education and Training System (2015)

Other systems

Let us briefly examine the skills system in four countries: New Zealand, Singapore, Ireland, and the United Kingdom. The focus will be on specific aspects that differ from our experience, and on significant change they are undertaking to their system. Across these systems there are certain common themes: significant reinvention of their skills system, the growing number and diversity of apprenticeship-based careers, the growth of pathways, youth development and career development, the importance of a quality work experience, and the importance given to increasing parity of esteem.

It is worthwhile to briefly analyze New Zealand because of their scope and pace of change in their skills system. New Zealand is currently undergoing a transformation. As part of this they have established:

- Workforce Development Councils to elevate industry participation.
- Regional Skills Leadership Groups to ensure the skills needs of the region are met.
- A structure – Te Taumata Aroni – to ensure Maori participation.
- The New Zealand Institute of skills and Technology, through consolidating sixteen Institutes. The resulting institution has about 10,000 staff and 280,000 students.
- An enhanced focus on on-the-job learning.
- Centres of Vocational Excellence – to drive innovation and excellence in vocational education by strengthening links with industry and communities.
- A funding model with single-source funding.

Ireland has had a relatively robust apprenticeship system, delivered in training centres, schools, and colleges. One of their strengths has been pathways from the skilled trades to degrees. Their system, with high engagement and high employment focus, provides incentives both for students and for employers. Their system is also fairly encompassing. Of note, in 2016 they expanded their apprenticeships into finance, insurance, and polymer processing technology. They have recently initiated a National Skills Council and are very focused on making decisions based on labour market information.

Singapore is very purposeful in all they do in the development of skills. It is, therefore, interesting to note that they have no tradition of apprenticeship. They are, however, very purposeful in advancing a skills agenda. They have created a Future Economic Council, a Committee on the Future Economy, and a Council for Skills, Innovation and Productivity. At an industry level, they have developed Industry Transformation Maps. They are actively applying best practice. They are promoting enhanced internships of 2 to 6 months, with significant financial incentives both for the learner and the employer. They have a focus on pathways. They are focused on providing information – career discussion begins in middle school with a heavy investment in career guidance. They want people to make informed decisions. They are investing heavily in state-of-the-art facilities and equipment. An overall objective is to increase productivity, efficiency, competitiveness, and employability.

We thought we would close with a brief description of the United Kingdom skills system, as the North American system largely evolved from theirs. The system in the United Kingdom is facing significant challenges – both in perception and in outcomes. It is a system in trouble. They are therefore focused on how to improve their model. They believe that both the quantity and quality of work experiences (work-integrated learning) needs to be improved – there is a belief that apprentices are largely used as unskilled labour. There is an initiative to create degree apprentices – an alternative route to gaining a degree from a craft (skilled trade). Further, there is a focus on employability skills and career advice. To pay to improve the apprenticeship system, there is an apprenticeship levy of .5% of payroll over £3 million.

IV. Trends in education

Education systems, both in Alberta and around the world, are being transformed. This will impact skills and apprenticeship-based education and careers. Four concepts are of particular importance and are fundamental to our recommendations: educational pathways, work-integrated learning, lifelong learning, and essential or soft skills. Each concept is described briefly below.

Pathways

Pathways define how a learner moves and progresses from one educational experience to another.

As we look to the future, how we structure and support pathways will take on much greater importance. Lifelong education is both an expectation and a necessity. Those who do not continue to learn will be left behind. The human capital of our people will play a paramount role in our economic prosperity and societal well-being.

So, how does our pathway system currently work? In short, not well! Pathways are often opaque and largely designed around the notion that a person will graduate from high school, will attend university (and complete their formal education), will get a job, and will ultimately retire.

Our primary school system (K through 12) is largely independent of our post-secondary system. Further, the principle academic focus of the system is on preparing students for a single pathway – university. There is little emphasis on preparing individuals for other forms of education or for work.

Within post-secondary education, pathways tend to be linear. They work well if you progress on a narrow pathway (from an undergraduate in English, to a MA in English, to a PhD in English), but not where an individual is changing fields.

Of perhaps greater importance, some forms of education are dead end (terminal). Apprenticeship-based education is largely perceived to be an academic dead end – that is, that there are few pathways to further education. Unfortunately, this is not only a perception but carries significant truth. Alberta and Canada differ from other apprenticeship systems around the world that have extensive pathways for those completing an apprenticeship.

Prior education is rarely fully recognized, with the impact that learners are often starting from scratch. Further, it is often difficult to transfer between educational institutions – particularly when you have not completed a program.

For those returning for education, our pathways systems work even less well – in general, they simply is not designed for this.

The challenge for education is to ensure there are seamless pathways, that there is full recognition of past learning, and that no education is ever dead end. Learners should have options to continue their educational journey throughout life – options that build on and fully recognize the education they have taken

For apprenticeship learning, there should be clear and multiple pathways into, through, and beyond certification.

Work-Integrated Learning

There is a continuum of work-based learning opportunities called work-integrated learning (WIL). These experiences can range from a few weeks of work to a full apprenticeship. The Co-operative Education and Work-Integrated Learning Canada (CEWIL Canada) defines work-integrated learning as follows:

Work-Integrated Learning (WIL): Work-integrated learning is an experiential education model that formally and intentionally integrates academic studies with workplace and practiced learning. WIL experiences tend to include an engaged partnership of an academic institution, a host organization such as an employer, and a student. WIL can occur at the course or program level and includes the development of learning outcomes related to employability, personal agency, or further learning.

Along with apprenticeship education, CEWIL Canada lists the following other categories of work-integrated learning:⁶

- Co-operative Education (co-op alternating and co-op internship models)
- Internships
- Entrepreneurship
- Service Learning
- Applied Research Projects
- Mandatory Professional Practicum/Clinical Placement
- Field Placement
- Work Experience

The Task Force believes strongly in the value of work-integrated learning in all forms, both in high school and post-secondary.

Lifelong learning

Historically, post-secondary institutions have focused on delivering programs leading to academic degrees, certificates, and diplomas. However, more and more learners and employers demand shorter, more focused programs to advance their careers. The primary focus of these shorter programs has been post-certification – that is, to advance careers through lifelong education. These programs often receive recognition in the form of a “badge” – credentials that indicate a demonstrated competency in a specific skill or set of skills.

Bow Valley College is a Canadian leader in this. Their Pivot-Ed initiative provides learners a portfolio of skills and competencies that will help them to “pivot in their career and meet the needs of the workforce.” They recognize the need for people to upskill and reskill continuously.

Essential (soft) skills

Skills are often viewed synonymously with technical skills; however, to succeed in a career, it is important to have both technical and essential skills. Note that the literature uses many terms interchangeably for essential skills including: essential skills, enabling skills, soft skills, or fundamental skills. We use the phrase “essential skills” to be consistent with the language used by the Government of Canada.

In discussions with industry, the development of essential skills is viewed as equally important to technical skills. Essential skills contribute to a resilient workforce capable of responding to economic disruptions and labour market transformation. They provide a foundation for learners to progress within their chosen career and to be lifelong learners prepared for our changing world and empower individual and organizational success.

It may be most effective to teach essential skills within the context of the person’s chosen field.

Examples of essential (soft) skills valued by employers include professionalism and ethical behaviour, communications, collaboration, leadership and group dynamics, problem solving and decision making, and career awareness.

The list of Essential Skills in the Government of Canada Framework include reading, document use, writing, numeracy, oral communication thinking, digital technology, working with others, and continuous learning.

⁶ For definitions of each of these forms of work-integrated learning: https://www.cewilcanada.ca/What_is_WIL_.html

V. Views of Albertans

Consultation process

Public engagement played an important role in informing Task Force recommendations. The engagement process focused on four objectives:

- To determine the awareness and understanding of apprenticeship and how it is currently delivered in Alberta;
- To evaluate Alberta's skills and apprenticeship system, identifying barriers and opportunities to expand the system;
- To explore the perceived level of esteem for apprenticeship relative to other post-secondary education; and
- To gauge the level of openness and desire for aspects of the apprenticeship model for careers and occupations for which such a model is not currently used.

Advanced Education contracted Leger Inc. (Leger) to manage the engagement process.

Focus groups were used to gain insights and understand perceptions of students, parents, and educators in Alberta about apprenticeship education and skilled trades professions.

Industry roundtables were used to gather insights from industries and professions who have not traditionally participated in the current apprenticeship system.

Leger also created a "Tools of Engagement" package that included a discussion guide and workbook for use by Task Force members to engage with their colleagues and professional networks via one-on-one meetings and/or group discussions. The purpose was to capture the perspectives and feedback from individuals, companies, organizations and/or associations that have a significant stake in Alberta's current and future apprenticeship education system.

Summary of feedback from consultations

Focus groups

The following presents observations from focus groups of Educators, Parents, and Students.

Educators

The educators who participated felt that trades (apprenticeships) were not held in high esteem. They believed these perceptions were held broadly by many including:

- Parents – who often feel that anything less than a university education is second rate
- Teachers – who feel that the goal of school is academics, not preparation for a career
- The System – that is weighted against trades-related course work in secondary school. Trades education is elective, with the measure of success (including the big diploma exam in Grade 12) being narrowly focused on academic disciplines
- Students – who view the trades as lesser than other choices.

"Much maligned and very important role in society and student's life. Some parents HATE the idea that their kid might go into trades."

"The skills trade profession is highly necessary in Alberta and provides many essential services. Skill trades are a valuable asset to society. They are sometimes overlooked, under appreciated, or under valued."

"Wonderful opportunity. Potential. Reasonable path for students to follow, a way for high school students to join 'adulthood'."

To help get students interested in a career in skilled trades, educators suggested showing them the long-term outcomes and success stories of other students, salary expectations, and dual credit programs, as well as educating parents of the benefits.

Parents

Most parents participating in the focus groups had limited awareness of apprenticeship programs and what a career in skilled trades can offer their children. Some feel an apprenticeship may be a great career option for some people but would prefer their child go to university or college. Some also noted that they felt a skilled trades career was riskier than a university or

college education because they perceive the skills learned in specific apprenticeship programs as non-transferable, unlike university or college programs.

There were, however, a few parents who felt that a career in trades was the best option for their child and felt that it was good honest work (particularly in the rural south region). They noted that they feel that an apprenticeship program can be harder than some university and college programs and that there is a sense of pride in working in the skilled trades.

Most parents agreed that there was a stigma attached to the trades – that is was not as coveted as a university or college education. However, some felt that this was more due to the school system (teachers and counsellors) promoting university as the ultimate goal.

Some parents also noted that when they hear the word ‘apprenticeship’ they think trades; however, when they hear the words ‘practicum’ or ‘work placement’, they think doctor, nurse, social work, etc.

Some positives regarding skilled trades as noted by parents were the strong focus on soft skills, immediate career opportunities once finished with schooling, as well as generally high salaries right from the start.

When discussing the idea of work-integrated learning opportunities, all parents had positive perceptions. They felt that giving students the opportunity to experience potential careers of interest would be very beneficial, with some mentioning that it would help bridge the gap between what is taught in school and the skills needed in the real world.

Students

Nearly all student participants noted that skilled trades are essential to society; however, their awareness about apprenticeship was lacking.

“I think skilled trade professions offer choice for people and are beneficial for someone who is passionate about a specific thing.”

“An interesting career that requires an education, even though people often associate trades with being uneducated.”

“Good, although don’t know much about them.”

“Makes me think manual labour.”

Students expressed hesitancy to enter into an apprenticeship, primarily because they felt it would limit with their career options. They felt an apprenticeship was a dead end. They viewed the pathway as very narrow: pick a trade, complete the apprenticeship, work for life. They felt that a university or college education was more forgiving (less narrowing), giving them more flexibility in their career choice.

Students felt that a career in trades was lesser of an achievement than a degree/diploma/certification – this perception was held more strongly among students who were new Canadians.

Many students mentioned that attaining a university or college education was always discussed in their household growing up and always part of the plan, while apprenticeship programs and skilled trades were not talked about as much. Some even commented that the trades were a fallback option.

In regard to career option support within high school, many students commented that they received little to no guidance about apprenticeships and the trades from teachers or counsellors.

Industry roundtables for industries not currently using apprenticeship

Apprenticeship – Industry representatives were asked during the roundtable discussions to discuss what comes to mind when they hear the word ‘apprenticeship’. Some common mentions that came up at each discussion were, skills-based, mentorship, on-the-job training, and life experience.

Skills gaps – When asked what the main skills gaps were within each of their industries, all participants, irrespective of industry, noted there was a significant disconnect between educationally based knowledge of the profession/industry and real-life application. At each roundtable discussion, participants discussed that basic soft skills (including communication, critical thinking, conflict management, relationship building, and decision-making processes) were greatly lacking among industry employees).

“Soft skills are an area not focused on in technical and trades traditional training. Most program advisory committees comment on the lack of soft skills.”

“Having leadership skills and interpersonal skills, basic customer service skills. Even when we hire summer students, they don’t have these types of skills. There is a gap in the programming that the schools are doing. Professors need to teach these soft skills. How to market yourself-resume, cover letter, people are not aware they don’t know how to market themselves.”

Participants were asked how willing they were to hire someone with little to no experience. Many participants mentioned that practical and soft skills were the biggest factors in their hiring decisions and that they unfortunately do not have the luxuries of time and resources to hire people without the basic requirements needed for the position. They generally feel that theoretical skills tend to be of lower importance because those are generally easier to teach someone who has the desire as they work within the organization and industry.

Interest in apprenticeship learning – Most participants expressed at least some interest in developing an apprenticeship-type program for their industry, citing that the application of on-the-job learning and structured mentorship specifically could refine their training practices while providing consistent industry standards, where applicable, while bridging the skills gap (soft skills) many are currently facing.

Language – One of the main challenges appears to be the terminology and language used in the standard apprenticeship definition, with most participants saying that revisions would need to be made to have it better fit within their organization/industry. Some also expressed concern that the current perceptions of the term ‘apprenticeship’ could devalue their industry by taking away the perspective of being a professional rather than a skilled tradesperson.

Employer resources – Another issue that came up when discussing introducing an apprenticeship program into industries that do not currently have one was the resources needed to carry out an apprenticeship program. Many participants expressed concern about high turnover of employees throughout the duration of their apprenticeship, as well as about having the staff with the time and resources (internally) to mentor and guide apprentices through their program. Some felt that in order to have an apprenticeship program work within their organization they would need to have some minimal training amongst themselves and minimal standards as well.

Work-Integrated Learning – Some participants mentioned that other forms of work-integrated learning – perhaps a co-op/internship/formal mentorship type program – would be better suited for their industry than an apprenticeship model, with shorter program duration and less interruption of the workplace and demand on resources.

Regulation – Roundtable participants were also asked about their impressions of regulated professions. Many felt it elevates the profession and how it is perceived. Some participants also took the conversation in the direction of regulated practices overregulating the full scope of a profession. For some professions, the level of regulation is unnecessary and undesirable. In other cases, they indicated that having regulated practices would be beneficial (particularly among hospitality and health industry participants).

Obstacles to apprenticeship – When asked what information they would need to overcome some of the obstacles they foresee with applying an apprenticeship program to their industry, most participants mentioned the need for collaboration, support, and buy-in from post-secondary institutions, key industry stakeholders, and government.

“We have to get away from the current state and need to look at what could it be. What is best for the industry.”

Industry workbook engagement

Stakeholders understood the foundation of our apprenticeship model – that it is comprised of instruction at a post-secondary institution and on-the-job training facilitated by a journey person.

The apprenticeship model was seen to provide quality education that leads to a highly employable career path. It was understood that there was minimal cost to the apprentice when compared to other post-secondary programs. While stakeholders were split as to whether the apprenticeship model is seen as a post-secondary equivalent, stakeholders highlighted that this model of learning produced well-sought journey persons that fill vital roles in society. Stakeholders also believe that Albertans perceived the apprenticeship program as having a good reputation.

The greatest perceived barrier to Alberta's skills and apprenticeship system was highlighted through the reoccurring theme of a lack of awareness.

Suggestions for improvement took an educational approach and focused on highlighting and educating about the trades earlier in schools. It was also suggested that additional education and training to those acting as mentors would improve the program. Marketing efforts were suggested to raise awareness of the trades and the apprenticeship program.

Online survey

An online survey of more than 1000 Albertans was conducted in July 2020. Participants included youth, parents, employers, and educators. Let us briefly summarize some key results.

Education programs – Respondents were asked broadly about the importance of different aspects of education. In short, the results support the notion that skills, and alignment with work, matters.

Overwhelmingly, respondents believed it was important to: learn skills that lead to employment opportunities (ranging from 86% to 93%), apply their classroom learning to a real world situation (80% to 93%), and learn skills leading to future skill or career development opportunities (73% to 94%). More than 70% of all respondent groups believed it was important that the program lead to a post-secondary credential. Most also believed that programs should allow a person to “earn while they learn” (ranging from 66% to 75%). Academic knowledge and dual credit opportunities were of lesser importance to respondents.

About three quarters of employers believe that the people they hire have skills gaps. This includes a gap in soft skills (77%), practical knowledge and skills (77%), and theoretical knowledge (73%). Of interest, employers place the most importance on practical knowledge and skills.

Apprenticeship – Respondents had some familiarity with apprenticeship education. Most respondents understood apprenticeship included learning on the job from a mentor and associated it with trades (over 80% for each respondent group). However, the number of respondents who were very familiar with apprenticeship was low (7% of youth, 10% of parents, and 15% of K-12 educators).

Of concern, a larger proportion in each respondent group viewed apprenticeships as for those not academically inclined (ranging from 36% for youth to 58% for post-secondary educators).

It is worthwhile noting that respondents viewed tradespersons as professionals (ranging from 75% to 85%). However, in each respondent group less than a third of respondents strongly agreed that a tradesperson has completed a post-secondary education, and 75% of youth view tradespersons as labourers.

VI. Recommendations

This section of the report presents the Task Force recommendations. We first present recommendations related to a broader future skills agenda for the province. This is followed by six recommendation sections that are more narrowly focused on apprenticeship-based education and careers.

Context is provided for each recommendation.

1. A future skills agenda

While much of the focus of this report is on apprenticeship, it was important that we also focus on a broader skills agenda. The recommendations provided in this section are relatively general in nature.

Recommendations are made to make the skills system more purposeful, including the introduction of a Premier's Advisory Council on Skills, to increase the role of workplace learning in education, to make the skills system more data driven, to ensure that skills education is fully recognized and that it seamlessly leads to further education (expanding pathways), and to support the development of essential skills (i.e., soft skills) in addition to technical skills. A future skills agenda should align with Alberta's emerging economy. This alignment is necessary for our province, and its people, to prosper in our rapidly changing world.

A more purposeful skills system

Leading skills systems are purposeful. Normally, their skills agenda is actively supported at the highest level of government (e.g., the Premier). This is important for several reasons. Skills cut across ministries and portfolios. Skills are central to economic and societal success. Further, this involvement elevates the perception and understanding of skills. They are often supported through a leader's (e.g. Premier's) enduring advisory council, which provides guidance at a broad strategic level.

Leading systems also implement rigorous skills strategies focused on producing the right number of people, with the right skills, at the right time. These systems put in place structures that ensure continuous evaluation and improvement with input from stakeholders.

For example, New Zealand has introduced Workforce Development Councils to elevate industry participation, Regional Skills Leadership Groups to ensure the skills needs of the region are met, and Centres of Vocational Excellence. Alberta should consider the introduction of similar structures.

To support and elevate skills, advisory committees on skills have been introduced in many leading jurisdictions that provide guidance to the provincial or federal leader. This is particularly important given the importance of skills and that the skills system tends to cross government portfolios. In Alberta, these portfolios include the Ministry of Advanced Education, Education, and Labour and Immigration.

Recommendation 1.1

That an enduring Premier's Advisory Council on Skills be established.

Recommendation 1.2

Expedite the development of a skills strategy to complement Alberta's Recovery Plan, including supporting government's priority economic sectors and in-demand occupations.

Recommendation 1.3

Develop further structures consistent with the skills strategy to elevate industry participation, to ensure the skills needs of Alberta are met, and to support excellence.

Work-Integrated Learning

The Task Force believes strongly in the importance and value of work-integrated learning – that is, that there is significant power in learning through work. This is true for all forms of work-integrated learning – including co-op, internships, service learning, field placements, and apprenticeships.

Curriculum can be delivered in many ways beyond the classroom context, including in workplaces and employment settings. Work-integrated learning enhances education and helps build both technical and essential or soft skills. It helps prepare people for work.

In comparison to other nations, Canada and the United States have, until recently, largely ignored this form of learning – much to the detriment of learners, industry, and society.

Best practice is to have work-integrated learning experiences both in high school and in post-secondary. Post-secondary institutions in Alberta are expanding their opportunities, while the federal government is supporting work-integrated learning using employer-subsidies as part of its Student Work Placement Program.

Interest in the application of work-integrated learning in high school is a focus around the world, including in Alberta. In its Recommendations on Direction for Curriculum, Alberta's Curriculum Advisory Panel recommended: "Provide students with opportunities to learn outside the classroom, including experiences with elements of the workforce and community involvement."

We therefore recommend the following:

Recommendation 1.4

Expand the system of work-integrated learning as a model for skills development.

Recommendation 1.4.1

Post-secondary programs will ordinarily include an opportunity for work-integrated learning. Increasing the application of work-integrated learning into post-secondary programs should occur across subjects and programs, but particularly in occupationally focused programming with strong labour market demand.

Recommendation 1.4.2

Prior to graduation, all high school students will have an opportunity to engage in work-integrated learning.

A data driven system

A future skills agenda should align with Alberta's emerging economy. This alignment is necessary for our province, and its people, to prosper in our rapidly changing world.

In examining other countries that have highly functioning skills systems, a common element is that they have strong data to support decisions. Alberta's skills agenda needs to better align education and training with labour market demand.

Recommendation 1.5

Alberta needs to strengthen its labour market information and forecasting and the use of this information to support the skills agenda. The information should include not just job titles but skill profiles that clarify talent requirements, particularly for in-demand occupations.

Aligning incentives

As part of a broader skills strategy, it is important to review and revise the myriad of incentives, including funding. Alignment is critical if a skills strategy is to succeed. Perhaps most important are the incentives for learners and employers to engage in learning through work – that is, work-integrated learning.

Recommendation 1.6

Review incentive structures to employers, post-secondary institutions, and learners to ensure that they align with desired skills outcomes.

Recommendation 1.6.1

Develop incentives for Alberta employers to engage in work-integrated learning for youth and unemployed or under-employed adult Albertans.

Skills education

There are compelling reasons for changing how Alberta delivers skills education and the nature of content. Skills education should normally be delivered using a competency or outcome-based approach. We need to include employers, in a meaningful way, into education. There should be an increased emphasis on the development of essential (soft) skills. We need to significantly expand our skills delivery models to meet life-long learning needs. This includes the nature of credentials and improving career pathways. Those who do not continue to learn will be left behind. The human capital of our people will play a paramount role in our economic prosperity and societal well-being.

Competency-Based Learning

A competency-based approach to skills education provides a strong learning environment for acquiring skills. The goal of competency-based learning is as follows:

“Competency-based learning refers to systems of instruction, assessment, grading, and academic reporting that are based on students demonstrating that they have learned the knowledge and skills they are expected to learn as they progress through their education... The general goal of competency-based learning is to ensure that students are acquiring the knowledge and skills that are deemed to be essential to success in school, higher education, careers, and adult life.” - The Glossary of Education Reform

While much of the education delivered in Alberta’s polytechnics and community colleges is, or is shifting to, competency or outcome-based learning, it is used far less in universities.

Recommendation 1.7

Increase the emphasis on competency or outcome-based delivery of education that is targeted to occupational programs, career-focused, and aligned with key economic sectors that will support recovery and longer-term sustainability.

Essential (soft) skills

There are compelling reasons to ensure that not only technical skills, but also essential or soft skills, should be emphasized. There was consensus among all stakeholder groups, and the Task Force, that there needs to be a greater emphasis on the development of essential (soft) skills to address critical talent needs identified by employers. These skills are also necessary for an individual to be able to advance in all career fields. These skills should be emphasized in K-12 education, in post-secondary education, and in learning on the worksite.

Recommendation 1.8

Programs of skills development should emphasize, both through curriculum and assessment essential competencies (soft skills in addition to technical skills).

Inclusion of employers into education

The separation of education and work in Canada is neither productive nor healthy for our society. The voice of employers (both the public and private sector) needs to be at the table, both in K-12 and post-secondary, in a meaningful way.

Most programs in Alberta's polytechnics and community colleges have program advisory panels. They are used less in universities. The distance between education and work is greatest in K-12.

Alberta's Curriculum Advisory Panel, in its Recommendation on Direction for Curriculum, recommended:

“Create opportunities to bring the needs of Alberta's employers into the curriculum-development process.

Employers should have the opportunity to provide ongoing advice on the knowledge and skill requirements Alberta's students need to succeed in the workplace. Understanding the needs of employers with respect to the skills of future workers could enhance student learning throughout K-12 and hold the potential to lead to greater career success upon graduation.”

While there is significant employer engagement in the skilled trades (i.e., the industry network committees help inform the AIT Board on all dimensions of training and certification standards), this level of employer engagement is rare in non-trades education.

In short, the ties between education and employment need to be significantly strengthened.

Recommendation 1.9

Strengthen mechanisms and processes that capture and reflect the evolving needs of employers and economic sectors.

Lifelong learning

Lifelong learning has become essential to the success of individuals and society. The skills a person has acquired on the completion of a traditional credential (apprenticeship, degree, diploma, certificate) will not mark the end of their education. Rather, the person will need to continue to learn. Historically, our post-secondary system has not been structured to meet this need. Additionally, throughout their life, adult learners will need to have academic competencies that allows them to participate and be successful in education and training programs. Basic academic skills and workplace essential skills are the building blocks upon which Albertans can successfully embark on lifelong learning.

An important element will be the support of lifelong learning through shorter, more focused programs that support that support career transition and upskilling. This education should be recognized toward further education.

Recommendation 1.10

Establish a framework for incorporating shorter career-focused education and training programs that help Albertans advance in their career (upskill), transition between careers, and prepare to enter an academic program.

Pathways

Lifelong education can be empowered, or undermined, by the system of educational pathways. Pathways define how a learner moves and progresses from one educational experience to another.

How we structure and support pathways will take on much greater importance in the future where lifelong education is both an expectation and a necessity.

Recommendation 1.11

That the province of Alberta develop a new pathways framework that ensure that prior education is fully recognized by all post-secondary institutions in Alberta. Central to this is block transfer.

2. Definition of apprenticeship and principles for the system

To set a frame for recommendations for apprenticeship-based careers, the Task Force believed that it was important to first define the concept of apprenticeship and to set out principle expectations for the system. The resulting definition and objectives would form a frame for new legislation and for expansion of apprenticeship-based careers.

Definition of apprenticeship

Research and our engagement confirm that many, if not most, Albertans lack appreciation and a clear understanding of our apprenticeship education and system.

It is important that there be a clear definition of apprenticeship for Alberta. The definition we developed, and recommend, focuses on the role of work, partnership, and post-secondary education.

To be considered an apprenticeship, the majority of learning would occur on-the-job with strong mentorship. This is consistent with what we see in leading apprenticeship systems around the world, including the Germanic model. Apprenticeship differs from other forms of work-integrated learning in two respects. It places greater emphasis on on-the-job learning (the majority of learning occurs on the job), and the nature of mentorship is usually at a far deeper level (working with, and learning directly from, a certified journey person).

An apprenticeship is a partnership between the apprentice, the employer, an educational institution, and the Government of Alberta.

Finally, an apprenticeship leads to formal post-secondary academic recognition, with pathways to further learning opportunities and careers. Note that this last criterion has aspirational elements. While the apprentice receives periods of post-secondary education, they do not receive formal academic recognition. Further, pathways from apprenticeships are weak.

Recommendation 2.1

An apprenticeship in Alberta is defined as:

- A work-integrated learning opportunity where the majority of learning is through meaningful work experience and mentorship.
- A committed partnership between an apprentice, an employer or sponsor, an educational institution, and the Government of Alberta.
- A post-secondary educational program that results in formal academic recognition and supports pathways to future learning opportunities across a diversity of careers.

Principles for the apprenticeship system

In reimagining Alberta's apprenticeship system, it was important to develop principles or expectations for the system. Along with the definition of apprenticeship, the principles would provide the foundation for a new legislative framework and expansion of apprenticeship-based careers.

The following principles were informed through consultations, our review and analysis of other apprenticeship systems, and the insights of those on the Task Force.

Alberta's apprenticeship system should be competitive with other leading jurisdictions worldwide. To be so it must reflect best practice, today and into the future.

It must be adaptable and nimble. Our world is changing at a dizzying pace – Alberta's apprenticeship system needs to adjust and keep pace.

The system should be purposeful and aligned with labour market demand. It should produce the right number of people, with the right skills, at the right time. This is in the interests of the apprentice, industry, and our province.

An apprenticeship is not dead-end. There will be seamless and effective pathways into, through, and following apprenticeship education.

An apprenticeship leads to an academic post-secondary credential, which is recognized both within and outside Alberta.

The system elevates the understanding and perception of apprenticeship-based learning, promoting parity of esteem.

The roles of all in the system are clearly defined and understood – apprentices, mentors, employers, post-secondary institutions, and the Government of Alberta.

Finally, the system is appropriately resourced.

Recommendation 2.2

Alberta's apprenticeship system will be guided by the following principles. The system will:

- Be forward looking and reflect best practice.
- Be nimble, adaptable, and responsive to emerging needs.
- Align learning and career opportunities for Albertans with labour market demand.
- Meet the needs of learners, industries, and professions.
- Provide effective learning and career pathways into, through, and beyond apprenticeship education.
- Provide post-secondary academic credentials.
- Provide credentials that will be recognized in other jurisdictions and recognize credentials from other jurisdictions.
- Promote parity of esteem such that apprenticeship education is understood to have as much value, merit, and worth as other post-secondary education, and skilled trade careers are as valuable as other professions.
- Have clearly defined roles for apprentices, mentors, employers or sponsors, post-secondary institutions, and government.
- Be appropriately resourced.

3. Strengthening apprenticeship education

Alberta has historically had a strong apprenticeship system, which has served our province and its people well. However, the system can be significantly strengthened through a focus on pathways, credentials, delivery, and partnerships.

Pathways

Pathways define how a learner moves and progresses from one educational experience to another.

Alberta's apprenticeship system, while successful, has not been defined by strong pathways. Essentially, pathways into, through, and from apprenticeship are limited and restrictive.

There should be clear and multiple pathways into, through, and beyond certification. Apprenticeship-based education should never be terminal (dead end). Pathways should exist that span careers – that is, they should enable lifelong learning. There should be full recognition of prior learning and experience.

There is a general lack of awareness of how one enters an apprenticeship, the process while in an apprenticeship, and opportunities following certification. Perhaps the greatest perception issue identified is that an apprenticeship is a dead end.

To be effective, there needs to be a clear understanding of existing pathways – there is currently little awareness. Existing pathways need to be strengthened. New pathways need to be created.

Building Awareness of Pathways

If one is to change the perception of apprenticeship-based education and resulting careers, it is perhaps most important to build awareness of pathways. Our focus groups of educators, parents, and students each indicated that it was important that an educational program. "Has recognizable pathways or opportunities to ladder into further learning; gives students the ability to continue to develop knowledge and skills throughout their lifetime." Our consultations further found that there was a paucity of knowledge about apprenticeship education and pathways into, through, and beyond. This must be addressed.

Recommendation 3.1

That existing pathways into, through, and beyond apprenticeship education be identified and promoted.

It is important that existing pathways be strengthened. This includes pre-apprenticeship programs, dual credit, and entry and recognition into the apprenticeship system.

Pre-apprenticeship

Some of Alberta's pre-apprenticeship programs – which provide pathways into apprenticeships – are very effective. For example, Women Building Futures provides programming that supports women in entering the construction, maintenance, and driving industries. Its innovative programming focuses on developing technical and essential (soft) skills.

While there are areas of strength, Alberta needs a stronger overall system of pre-apprenticeship pathways. This system should focus on Albertans who are unemployed, or under-employed, and who may not have sufficient academic or essential skills that will promote successful outcomes.

Recommendation 3.2

Strengthen pre-apprenticeship programming for adults that helps them develop basic academic and essential skills and increase successful transition and completion of an apprenticeship program.

Dual credit

Dual credit programming – courses that receive both high school and post-secondary credit – strengthens pathways. In providing post-secondary academic credit, the learner is more likely to continue onto post-secondary education. It further elevates the course, and how it is perceived, within high school. It is therefore important that more skills courses receive dual credit.

Recommendation 3.3

Expand the system of dual credit, and make courses available in earlier grades (e.g., grade 9).

Entry into apprenticeship system

Strong pathways are characterized by recognition of past accomplishments and structures to overcome academic deficiencies. In entering into the apprenticeship system, it is important that apprentices be empowered to succeed. Their academic background and experiences should be acknowledged and recognized.

It is important that the requirements to enter into, and proceed in, an apprenticeship program align with what is necessary to succeed. There should be a full review of pre-requisites for apprenticeship education, as well as progression requirements.

Further, past academic accomplishment should be recognized for credit where it is relevant to an apprenticeship program.

Recommendation 3.4

That existing pre-requisites for apprenticeship education be examined to ensure requirements are aligned with the academic and basic skills required for successful progression and completion of an apprenticeship education program.

Recommendation 3.5

That relevant certificate, diploma, and university degree programs be recognized for credit, where applicable, to relevant apprenticeship education programs.

Expanded sponsorship

Our apprenticeship model has historically been defined narrowly in terms of employment. Essentially, an apprentice will have a single employer. Other successful models around the world take a more expansive view.

Recommendation 3.6

Increase access to apprenticeship opportunities by creating multiple pathways to apprentice registration that recognizes a broader array of sponsors, beyond a single employer, and supports a broader approach than the current “employment-first” model.

Full recognition beyond the Apprenticeship

Apprenticeship-based education is largely perceived to be an academic dead end – that is, it is perceived that there are few pathways to further education. Unfortunately, this is not only a perception but carries significant truth. Alberta and Canada differ from other apprenticeship systems around the world that have extensive pathways following the completion of an apprenticeship.

Foundational to parity of esteem is recognition of apprenticeship learning toward further post-secondary education. This recognition should reflect the breadth and depth of learning both in the classroom and through work. An example is NAIT’s Trades to Degrees program.

However, pathways from apprenticeship are rare. This may be the result of general impressions, as well as structure. Many in universities do not value apprenticeship education. More important, our structure does not.

The Alberta Credential Framework “facilitates learner pathways, promotes educational quality and credential recognition, and fosters system co-ordination and accountability.” No academic credit is provided for apprenticeship under this framework – under standard credits, it is N/A (not applicable). Given credits are not reflected for apprenticeship learning under this framework (reflecting the length of time in learning), it is little wonder that apprenticeship learning is not generally accepted toward further post-secondary education in Alberta. This must change.

Recommendation 3.7

That a system-wide post-secondary model be developed for recognition of apprenticeship learning with an overriding principle of full recognition. Apprenticeship learning should be recognized for block transfer (full recognition of a completed program), for partial completion and for prior learning assessment. Appropriate recognition should be reflected in the Alberta Credential Framework.

Recommendation 3.8

Incorporate relevant technical and practical information from applicable apprenticeship programs into other post-secondary credentialed learning, for example, engineering, to increase exposure and raise parity of esteem.

Apprenticeships while in high school

Alberta’s K-12 system is not currently structured to support, or elevate, apprenticeship education.

Compared to leading international jurisdictions, Alberta lacks strong and effective pathways into apprenticeship for youth. With few exceptions (most notably Registered Apprenticeship Program and Career and Technology Studies), apprenticeship in Alberta does not begin in, or flow directly from, secondary school as it does in Europe.

Throughout much of the industrialized world, apprenticeship is an established, and central, high school educational pathway. This is true of most of the world’s most productive countries. It is worthwhile noting that many jurisdictions around the world that have not historically had apprenticeship pathways in high school are studying, and emulating, leading systems including the Germanic model.

There is support in Alberta to provide apprenticeship-based learning for learners while in high school. In its Recommendations on Direction for Curriculum, Alberta’s Curriculum Advisory Panel recommended: “Undertake an examination of curriculum that can be delivered in a dual structure, similar to the Germanic Model...”

Recommendation 3.9

That a program be developed in which a student engages in an apprenticeship while in high school (e.g., similar to the Germanic model) – this apprenticeship education would also contribute toward a post-secondary designation.

It is further important that we support high school educators in the skilled trades. Skilled trades teachers under the Germanic model are almost always certified journeypersons. We should encourage and develop additional pathways to allow those teaching in the skilled trades in Alberta to achieve journeyperson status. Further, we need to expand pathways to allow journeypersons to become certified as teachers.

Early engagement

The success of pathways relies on knowledge and understanding. In most countries, this knowledge begins early – usually in elementary or junior high school.

While Alberta's Career & Technology Foundations (CTF) Program provides awareness of apprenticeship education, it needs to be expanded, supported, prioritized, and strengthened.

Recommendation 3.10

That early engagement programs be strengthened for elementary and junior high school to increase awareness of pathways into apprenticeship education.

Competency map and curriculum

A historic strength of Alberta's apprenticeship system is the role of industry, which plays the central role in defining competencies and curriculum. This must be preserved. A weakness of the system is that, relative to all other professions, the post-secondary system plays a diminished role – a role narrowly defined as a deliverer of programs. The post-secondary system and institutions have little input in defining competencies or in setting curriculum.

It is important that the core competencies and curriculum that guide apprenticeship education be forward looking and reflect best practice. On completing an apprenticeship, a journeyperson should have a depth of current knowledge that elevates industry.

It is important that industry plays the central role in the development of core competencies to develop in an apprentice, including both technical and essential competencies. This must be preserved. In consultation with post-secondary institutions and other stakeholders, industry should develop the competency map that defines the core competencies of the profession, both technical and essential competencies.

Curriculum delivered by post-secondary institution must follow from the competency map. In partnership with industry, and closely aligned with the industry competency map, the post-secondary system and institutions should develop curriculum in the delivery of apprenticeship-based post-secondary education. Industry will take leadership on evaluating the development of competencies on the worksite.

Recommendation 3.11

Industry, in consultation with the post-secondary system and institutions and other stakeholders, will develop a high-level apprenticeship competency map that is forward looking and reflects best practice. It will define core competencies expected on certification. The competency map will include both technical and essential competencies and will be reviewed annually.

Recommendation 3.12

Curriculum should be developed by the post-secondary system in partnership with industry. It must be aligned with the industry competency map and include both technical and essential skills. It will be reviewed annually, with a full review every five years or fewer.

Credentials

Currently, completion of an apprenticeship education program leads to a journeyman certification issued by the Government of Alberta. Post-secondary recognition tends to be in the form of a certificate of completion (rather than a formal academic parchment such as a certificate or diploma). To increase parity of esteem, and open pathways, it is critical that there be formal academic recognition at a higher level.

For those who achieve certification, the current Journeyman Certificate is not recognized as a post-secondary credential. This ultimately limits the ability of trades professionals to pursue further education and training or shift into other careers and professions. In setting a course for a skills agenda for Alberta, it is critical that no credential or pathway is terminal, but rather provides building blocks to lifelong learning and career progression. Examples exist in other international jurisdictions, including Australia and Singapore, where differentiated credentials associated with apprenticeship are in place and are highly recognized by both educational providers and employers.

Perhaps as a consequence of the Journeyman Certificate not being recognized as a post-secondary credential, the Alberta Post-secondary Credential Framework does not currently include standardized credit toward further post-secondary education. This is concerning and must change.

Recommendation 3.13

That successful completion of an apprenticeship education program receive a formal academic designation. This will, for three- and four-year apprenticeships, be an academic diploma.

Recommendation 3.13.1

The Alberta Post-secondary Credential Framework be updated to include standardized credit recognition for individuals completing an apprenticeship education to ensuring individuals can engage in continuous learning and career development throughout their life.

Delivery models

A central component of our definition of apprenticeship is that it is “a work-integrated learning opportunity where the majority of learning is through meaningful work experience that leverages a mentorship model.” Under this definition, the important role of mentors and supervisors that instruct apprentices cannot be overstated. Quality on-the-job learning and meaningful work experience can only be achieved through strong and formalized mentorship.

Apprenticeship post-secondary education in Alberta has historically been delivered in a traditional (and somewhat rigid) structure. This includes a defined set of hours per week, number of weeks, and number of periods. Opportunities exist to expand access, progression, and completion by developing and leveraging online, distance, and innovative delivery methods.

Opportunities also exist to ensure apprentices have quality on-the-job learning and meaningful work experience through improved mentorship and effective competency-based assessments.

Recommendation 3.14

Strengthen the quality of on-the-job learning through programs that support mentors, supervisors, and employers.

Recommendation 3.14.1

Put in place mentorship training programs for supervisors and certified individuals accountable for instructing and mentoring apprentices.

Recommendation 3.14.2

Incorporate into training for mentors and supervisors ways to support the development of essential (soft) skills for apprenticeship, such as communication, teamwork, and value for learning.

Recommendation 3.14.3

Programs should include training in conducting quality competency-based assessments of the full range of skills and knowledge that must be acquired on the job and upon which apprenticeship program progression and completion is reliant.

Recommendation 3.15

Online, distance education and alternative delivery models be developed and expanded so apprentices can engage in broader opportunities for classroom instruction to progress and complete their program.

4. Expanding the apprenticeship system to other careers

In most industrialized nations, apprenticeship education plays a far larger role in skills development. For example, many European nations have more than 200 apprenticeship-based careers, while Alberta has 47.

To understand the potential for apprenticeship-based education, it is worthwhile considering the breadth of apprenticeship-based careers in Alberta relative to leading international jurisdictions.

Countries are similar in providing apprenticeship-based trades in certain traditional areas – for example, automotive, plumbing, and electrical are offered in almost all jurisdictions. However, other jurisdictions have expanded their apprenticeship-based skilled trades to capture new careers in traditional industries. For example, many systems support new apprenticeships in the construction industry, including in composites and materials, cladding, and pilings. That is, they tend to have significantly more skilled trades in traditional industries.

However, the largest differences occur in areas we would not consider to be skilled trades. This is easiest to understand if one looks at the categorization of skills at WorldSkills – “the world championships of vocational skills”. WorldSkills brings together competitors from across the world to compete in six categories of apprenticeship-based careers: construction and building technology, creative arts and fashion, information and communications technology, manufacturing and engineering technology, social and personal services, and transportation and logistics (the list of WorldSkills trades is provided in Appendix D). Alberta’s designated trades fall primarily into three of these categories: construction and building technology, manufacturing and engineering technology, and transportation and logistics. But, even in these categories, there are several trades not recognized in Alberta. For example, mechatronics and prototype modeling are skills under manufacturing.

Alberta has almost no apprenticeship in the other three skills categories: information and communications technology, creative arts and fashion, and social and personal services (other than baker, cook, landscape horticulturist and hairstylist).

It is worth noting that in most industrialized countries, apprenticeship-based careers are far broader than those reflected in WorldSkills. For example, in Switzerland, the primary path into a business, information technology, or health discipline is through an apprenticeship. The way to become a Swiss banker is through apprenticeship.

These differences matter. Apprenticeship-based learning is the highest form of work-integrated learning. It creates stronger professionals and a more productive province. It is a bridge to the world for work and reduces unemployment (particularly youth unemployment).

To expand the apprenticeship system, it is important that this intention be clearly stated, that a new legislative framework be developed that empowers (rather than restricts) expansion, and that language be adopted for each trade, occupation, or profession that is consistent with its history and aspirations.

Expanding the apprenticeship system

Apprenticeship-based learning has significant benefits to the learner, to the employer, and to society. Our use of apprenticeship-based learning is far narrower in Alberta than in most of the leading industrialized systems (the list of Alberta’s trades is provided in Appendix D). This should change. Alberta’s system should encourage, and support, the expansion of apprenticeship learning in all areas that would benefit from this model.

The Task Force believes strongly that the use of apprenticeships in Alberta for skills development should be significantly expanded.

Recommendation 4.1

Significantly expand apprenticeship education to professions where it best meets the needs of learners and industry.

Expansion must be supported by industry and driven by data and evidence that the apprenticeship model will provide the best learning outcomes in areas where there is labour market demand. In considering where expansion may occur, it is worthwhile to focus on areas where our apprenticeship system differs from other leading jurisdictions. As noted earlier in this report, the philosophy under the Germanic model is that apprenticeships should be available in almost all areas of economic activity. Under their system, they have 200 to 350 defined apprentice pathways to careers. It is also worthwhile considering the apprenticeship areas in WorldSkills, as these reflect core apprenticeship disciplines across the world.

Notable differences include:

- Industrial trades – while Alberta has significant strength in delivering apprenticeship education in the industrial trades, it has fewer certified industrial trades than most jurisdictions. Notably absent are emerging industrial trades such as composites and cladding.
- Information Technology – information and communication technology are learned through apprenticeship throughout much of the world. WorldSkills includes five IT skills disciplines: Information Network Cabling, IT Network Systems Administration, IT Software Solutions for Business, Print Media Technology, and Web Design.
- Engineering – In Alberta, the pathway to become an engineering technologist is primarily through post-secondary academic diploma programs (although in some cases – such as Instrumentation and Control Technician – the learner may also choose to learn through apprenticeship). This differs significantly from the Germanic system where engineering technology is delivered through their apprenticeship model. Further, Alberta has little emphasis on emerging engineering areas of engineering technology, such as Mechatronics and Robotics – core apprenticeable trades in most industrialized countries.
- Services – throughout much of the world, social and personal services are learned through apprenticeship education. This includes services and social care, restaurant services, and driving.
- Business – throughout much of the world business disciplines are learned through apprenticeship models. These include accounting, banking, insurance, marketing, and finance.

A more flexible and inclusive system

To expand the number of apprenticeship-based careers, Alberta's legislative structure needs to change. As will be discussed further in the recommendation section on governance, new legislation needs to be consistent with the definition of apprenticeship and the objectives for the apprenticeship system.

Recommendation 4.2

Create a more flexible regulatory regime based on the above definition of apprenticeship and the objectives for the system.

Language

The language around apprenticeship in Alberta is an impediment to the expansion of apprenticeship-based learning. Professions designated under the *Apprenticeship and Industry Training Act* are labelled as “trades”, which does not resonate with other professions including the information technology sector, tourism and hospitality, or financial or human services. In many industries, neither learners or industry partners see themselves in the existing language.

Recommendation 4.3

Adopt language for each apprenticeship program that is consistent with the history and nature of the trade, occupation, or profession. That is, completion of an apprenticeship may, or may not, lead to a certification of journey person. It may lead to a different professional designation.

5. Governance and roles

Existing legislation (the *Act*) provides a significant impediment to advancing Alberta's apprenticeship system. It will be difficult, if not impossible, to expand the apprenticeship education model, and to advance parity of esteem, under the current legislative regime. The *Act*, and accompanying regulations, needs to be fully rewritten. This provides an opportunity to modernize system roles and governance models that will reduce red tape and improve flexibility and nimbleness.

New Legislation

New legislation should be introduced based on the definition of apprenticeship and the objectives or expectations for the system, as set out earlier in this report. It should empower growth and be responsive.

Recommendation 5.1

That the *Apprenticeship and Industry Training Act*, and accompanying regulations, be rewritten. The new act will:

- Clearly define apprenticeship education.
- Be consistent with the objectives for the apprenticeship system.
- Support parity of esteem of apprenticeship education and skilled trades professions.
- Provide flexibility that allows the system to be nimble, empower innovation, and be responsive to future needs.
- Allow for an expanded application of the apprenticeship education model to a broader range of other professions (e.g. industrial trades, personal services, IT).
- Reduce regulatory complexity.
- Clarify the nature of regulated trades professions and certification standards that serve as a license to work.
- Create legislative separation between authority to create apprenticeship education programs from provisions that regulate trades professions to ensure that the apprenticeship learning model can be provided for other careers and professions

System roles and governance

In revising legislation, it is important to clarify the role of stakeholders.

The AIT Board will provide broad strategic oversight to the system. Employers will continue to play a central role through educating and mentoring apprentices, leading the development of competency maps, and partnering in the development of curriculum. The role of post-secondary institutions will be the development of curriculum, the delivery of programs, and the conferral of an academic designation.

Recommendation 5.2

System roles and governance should reflect:

- The Government of Alberta will fund, support, and regulate the apprenticeship system. The Ministry of Advanced Education will continue to govern the apprenticeship system, while engaging with other ministries including the Ministries of Education; Jobs, Economy and Innovation; Labour and Immigration; and Infrastructure.
- Alberta's AIT Board will provide broad strategic oversight to the apprenticeship system. Further, it will consult with all stakeholders (including industry and post-secondary) in the development of competency maps and in the designation of trades.
- Post-secondary institutions will develop curriculum, deliver programs, and confer academic credentials.
- Employers remain central to the apprenticeship system, educating and mentoring apprentices on-the-job and participating in the development of competency maps and curriculum.

Consultations with partners

Strong apprenticeship systems consult broadly and deeply. This should be a hallmark of governance.

Recommendation 5.3

Alberta's system must be a committed partnership between an apprentice, an employer or sponsor, an educational institution (post-secondary or K-12), and the Government of Alberta. However, meaningful consultation must occur more broadly. Consultation into the apprenticeship system needs to be broad based, with a formalized structure to regularly consult in deep and meaningful ways. This will include other important partners in apprenticeship education and skilled trades' professions such as Women Building Futures or CAREERS: The Next Generation. Structures and engagement mechanisms should reflect broad regional and industry sector representation to ensure diverse perspectives are considered.

Regulation

The existing *Apprenticeship and Industry Training Act* serves two purposes or roles: regulation of trades (licensing and compliance) and apprenticeship-based learning for designated trades. The regulation role has dominated, leading to a focus that is inconsistent with the expansion and strengthening of the apprenticeship education.

Much effort is undertaken to ensure that only qualified individuals are performing tasks and functions associated with the regulated scope of designated trades. While compliance activities are necessary to ensure accountability, this heavy emphasis means limited resources are available to ensure quality on-the-job learning – such as mentoring apprentices, conducting effective competency assessments, or increasing apprentice and employer engagement. Both the compliance function and apprenticeship learning need to be appropriately funded.

The structural rigidity also means the governance framework over every designated trade profession and any new occupation must fit into the same mold, regardless of whether it is relevant or appropriate. While the current model of regulation may make sense for certain trades, it may not for all. For some professions, the level of regulation is unnecessary and undesirable.

While originally intended to promote and ensure safety, the regulatory focus creates significant duplication with the Alberta Labour Code, *Occupational Health and Safety Act*, and other legislation. Further, this focus makes it more difficult to expand apprenticeship education to other careers where safety is not a primary factor (e.g., information technology). The approach and scope of regulation may not be appropriate for some existing trade professions, as well as most new potential professions. Further, in Alberta, apprenticeship is under the Ministry of Advanced Education. Safety enforcement is not a core mandate of this ministry. Overall, the approach and scope of regulation may not be appropriate for some existing trade professions, as well as new potential professions. The regulatory environment hampers responsiveness, adds costs for government and employers, and reduces efficiency and nimbleness.

There is support for the legislative and administrative separation of apprenticeship education and the regulation of trades – that is, there should be separate legislation each owned and administered by the most appropriate ministry.

Recommendation 5.4

Create legislative separation between apprenticeship education and the regulation of trades professions.

Compulsory and optional trades

In Alberta, regulated trades are designated as either compulsory or optional. To work in a compulsory trade, the person must be either a registered apprentice or a certified journeyperson. A person in an optional certification trade can work for an employer who is satisfied that the person has the skills and knowledge expected of a certified journeyperson. For both compulsory and optional certification trades, regulated certification standards exist. These are critical for some trades to ensure a high standard and to protect the worker and the public. However, regulated certification standards and exclusive scope of practice may not make sense in all circumstances, particularly as we look to an expanded model of apprenticeship.

The Task Force believes that industries and professions need the flexibility to determine the appropriate scope and nature of regulated activities. These should differ by trade – one size does not fit all. Determining the appropriate regulatory model should be based on clear industry support, including employers and practitioners.

For mature professions, the level of regulation may be appropriate and effective, while emerging professions may lack a maturity required to ensure effective regulatory framework as well as governance.

We expect that those trades currently designated compulsory would continue to use and strengthen their existing regulatory model – it has served industry and the province well. For some existing optional trades, there may be value in changing their regulatory model. They may choose to become compulsory trades or choose a different model entirely. New industries and professions leveraging the apprenticeship education model need to have flexibility in whether to apply a regulated professional model as well as the scope of regulated activities, if any.

The language used to describe the regulatory regime – compulsory versus optional – is confusing to those not fully informed about the system.

Recommendation 5.5

Allow industries and professions to determine the appropriate regulatory model and scope of regulated activities.

Professional bodies

The Task Force examined the use of professional bodies in regulating trade professions. There are compelling reasons to establish such bodies. They would raise the esteem of trade professions. They would provide a structure and monitoring for professional development and maintaining certification. A further role for professional bodies is to protect the public.

While there may be significant value for some professions to adopt a professional body, this may not be appropriate for all trades.

Recommendation 5.6

That a designated trade, where the particular trade finds it beneficial, be empowered to create a professional body.

6. Funding and incentives

It is important that Alberta's apprenticeship system be supported by funding and incentives structures that align better to the objectives for the system. This includes the funding model for educational providers, both post-secondary and K-12, and incentives for employers.

Post-Secondary Funding

Post-secondary operational funding has two components. Institutions that offers apprenticeship education receives base funding, similar to how non-apprenticeship students are funded. If the institution fills apprenticeship seats above the number of their base funding, they will receive supplemental per-student funding for those seats.

When post-secondary institutions expand their seats to meet demand, they assume a significant risk. If there is a reduction in seats, the institution is responsible for all costs associated with staff reductions and other associated expenses. This hit Alberta's two polytechnic institutions disproportionately in the current downturn.

It is important that funding for apprenticeship education be separate from other envelopes. It is significantly different in cost from other forms of postsecondary education.

Recommendation 6.1

To achieve the goals of a new skills agenda, post-secondary Institutional Management Agreements (IMAs) should reflect clear expectations for occupational programming, including completion and graduation rates, with targeted funding tied to achieving stated outcomes.

Recommendation 6.2

Review the existing hybrid funding model for apprenticeship classroom instruction that includes both block funding through base operating grants to post-secondary institutions and supplementary seat-based funding and explore all potential funding sources.

Recommendation 6.2.1

Apprenticeship classroom instruction should be funded in a sustainable way separate from non-targeted block funding.

Skills funding for K-12

The emphasis on skills education in Alberta's high schools has diminished significantly over time. This may be, at least in part, a result of the funding models. Alberta has moved to a funding model that uses single envelopes for education and capital (block funding).

This differs fundamentally from many other advanced jurisdictions where schools receive targeted funding for the delivery of skills education. There are compelling reasons for this. If the maximum number of students in an automotive class is 16, and in a physics class is 40, a school facing financial constraints will likely eliminate the automotive class first. Similarly, capital funding is based on the number of students per square metre. Shops use significant space, and equipment is costly – particularly if it is regularly updated.

Many jurisdictions further provide targeted funding to support student enrolment in work-integrated learning programs such as the Registered Apprenticeship Program (RAP) and for dual credit courses.

Note that we are not implying that there is insufficient funding in the system – our concern is with how funds are allocated within schools. The block funding model has led to schools reducing their focus on the skilled trades and closing labs.

Recommendation 6.3

That the funding model for pre-apprenticeship and apprenticeship (RAP) education in our high school system be reviewed.

Recommendation 6.3.1

Funding for infrastructure and equipment for labs should be separate from the general infrastructure funding envelope.

Recommendation 6.3.2

Funding for high school skilled apprenticeship education should be through a separate envelope that reflects the true cost.

Recommendation 6.3.3

Funding for work-integrated off-campus programming should be provided through a separate envelope.

Employer Incentives

In considering opportunities to expand apprenticeships, the Task Force explored possible employer incentives. We would note that there are mixed views on the success of employer incentives to support apprenticeship. This may be based on existing federal incentives, which are perceived to be complicated to access and not of sufficient value to impact decisions. It is possible that increased employers' engagement in apprenticeship would benefit from providing financial incentives to hire new apprentices. In reviewing systems outside Canada, some offer direct financial incentives, and some do not.

Some expressed a need to improve the apprenticeship experience. A focus of these discussions was on the value of supporting mentorship. In many leading apprenticeship systems, mentors are provided formal pedagogical training and significant recognition. This is not currently the case in Alberta.

Recommendation 6.4

There should be long-term incentive structures for employers to hire and retain apprenticeship students (and to support other forms of work-integrated learning).

Recommendation 6.5

There should be incentive and recognition structures for employers to improve the quality of on-the-job learning for apprentices.

7. Parity of esteem of apprenticeship education and trades professions

The perception of apprenticeship-based learning is critical to the future of Alberta's apprenticeship system and the success of our skills agenda and our province. We need to build parity of esteem – apprenticeship-based education should be understood to hold as much value, merit, and worth as other post-secondary credentials and resulting careers are as valuable as other professions. Essentially, we need to work on the apprenticeship brand.

In prior sections of this report, we focused on changing the reality of apprenticeship-based learning and trades careers. These changes are important and form a foundation for parity of esteem. But perceptions matter – it is also very that the apprenticeship system and learning be understood and be held in high regard.

Many are working to bridge the knowledge and perception gap. CAREERS: the Next Generation, Women Building Futures, Skills Alberta, Alberta's polytechnics and colleges, associations, unions, and many others are elevating our knowledge, and perception, of skills careers. The newly created Alberta Trades Hall of Fame "recognizes and honours people who've demonstrated extraordinary dedication and commitment to their trade and who've advanced apprenticeship and industry training in Alberta".

While many are trying to increase knowledge of skills careers, there is little understanding by most Albertans of careers in the skilled trade professions. Further, there remains negative stigma for many Albertans associated with careers in the skilled trades.

The Task Force reviewed existing data and perspectives of Albertans on the extent that skilled trade professions are viewed as valuable careers. Opportunities exist to raise awareness for youth, including providing better information to high school teachers, guidance counsellors, and parents on the important benefits of work-integrated learning and apprenticeship.

The Task Force believes that increasing parity of esteem will occur through strategies that raise awareness and understanding, strengthen pathways, increase the value and recognition of apprenticeship credentials, and expand the application of the apprenticeship model to more diverse professions.

Increase Knowledge

There is a fundamental difference between the understanding and appreciation of trades professions between Canada and Europe.

There is a knowledge gap. Albertans, and Canadians, are not in general knowledgeable about the role that apprenticeship and the skilled trades play in Canada's economy and in building a competitive advantage. Further, they have little appreciation of what it means to become a tradesperson – to be a journeyman.

There continues to be a perception that apprenticeships are for individuals who cannot succeed academically, rather than a form of education that leads to rewarding careers for those who love to work with their hands. There is little understanding of the level of math and science necessary to earn certification today.

Results from our consultations are consistent with there being a significant knowledge gap. Our consultations found a lack of awareness of what apprenticeship programs are, and how they work, across all stakeholders – students, parents, educators, and non-trade industries. It was also noted in consultations that conversations about apprenticeships are not happening within households or the primary school system.

There is a significant opportunity to improve the knowledge of all on the benefits of apprenticeship programs and how they foster educational and individual growth. It is further important to start conversations earlier, to help counter the stigma of apprenticeships being perceived as a fallback path.

Recommendation 7.1

Increase knowledge of apprenticeship learning opportunities. This would include a focus on career opportunities, pathways, and a realistic understanding.

Recommendation 7.1.1

Formalize a communications and rebranding strategy for apprenticeship learning.

Recommendation 7.1.2

Expand discussion of apprenticeship learning opportunities in K-12 education, including a formalized role for industry ambassadors to raise awareness and promote the value of apprenticeship education opportunities and careers in skilled trades.

Change the Language

Part of the perception of apprenticeships and skilled trades relates to the use of language. Many descriptors are perceived as pejorative and non-inclusive.

Recommendation 7.2

Use language that elevates the prestige of trades professions.

Recommendation 7.2.1

In describing trades, and careers in the trades, words including skills and professional should be used. For example, the phrase skilled trades professional is descriptive and elevates understanding and esteem.

Recommendation 7.2.2

Language should be gender neutral and inclusive.

Inclusivity

Skilled trades are not perceived to be inclusive. In fact, the statistics support this belief. For example, in many traditional trades, there are relatively few women and indigenous learners. In 2018, of the 3,066 registered in Automotive, only 106 were women and 132 indigenous. This differs significantly for hairstylist in which 1906 of 2248 were women.

Recommendation 7.4

Comprehensive strategies need to be adopted that result in safe, inclusive, and welcoming learning and workplace environments. Trade professions must be inclusive. This includes gender, ethnicity, and race. A more inclusive environment will ensure our skilled workforce reflects our society and will improve the overall perception of skilled trades professions.

Professionalize Trades Careers

The professionalization of trade careers will significantly impact their perception. While some of this relates to language used, it is also important to embrace core elements of being professional. Perhaps the most important element is the requirement of ongoing professional development to maintain certification.

Recommendation 7.3

Elevate and professionalize the skilled trades professions.

Recommendation 7.3.1

Establish professional development requirements to reflect that ongoing professional development is necessary to maintain certification.

VII. Final thoughts

We are truly blessed to live in Alberta, where we have unlimited opportunities for success. But for our province and people to fully achieve this success, Alberta's skills and apprenticeship system will need to evolve. It will need to produce the right number of skilled workers with the right skills at the right time. It will need to reflect best practice. It will need to reflect parity of esteem – apprenticeship-based education should be understood to hold as much value, merit, and worth as other post-secondary credentials, and resulting careers are as valuable as other professions.

We believe that the recommendations in this report will support Alberta in achieving these goals.

Alberta needs a broader future skills agenda that is more purposeful, increases the role of workplace learning in education, ensures the skills system is data driven, ensures that skills seamlessly lead to further education (expanding pathways), and supports the development of essential skills (i.e., soft skills) in addition to technical skills.

Central to Alberta's skills system is apprenticeship. While the system has historic strengths, it needs to be reimagined. We establish a definition of apprenticeship for Alberta and principles for our apprenticeship system. The definition and objectives provide a foundation for new legislation and for expanding apprenticeship-based careers.

The system will not achieve its potential under existing legislation. The Task Force recommends that the *Apprenticeship and Industry Training Act* be fully rewritten. It is anachronistic and no longer meets the current and emerging needs of Alberta. New legislation needs to be principles-based, nimble, and flexible. System roles need to be clarified and strengthened and governance models updated.

Apprenticeship education can be strengthened. Improving, and building awareness of, pathways is important. This includes pathways into, within, and following certification. Competency maps and curriculum need to be based on best practice and developed in partnership between industry, post-secondary, and other stakeholders. Completion of an apprenticeship must lead to an academic credential – there must be formal academic recognition. Finally, educational delivery models need to be expanded.

The apprenticeship education model should be significantly expanded to other professions. The Task Force believed strongly that apprenticeship-based learning has significant value far beyond Alberta's traditional skilled trades. To do so, the regulatory regime will need to be significantly modified, with flexibility to adopt different governance models and certification requirements, as well as language that is appropriate to the profession.

Funding models and incentives need to be better aligned with the objectives for the system. Simply stated, our current funding models and incentives are not aligned with producing the right number of skilled workers, with the right skills, at the right time. Changes are needed in the funding models for post-secondary and K-12 (both per student funding and capital funding), with appropriate incentives for employers.

Finally, we need to elevate, and educate, about apprenticeship education. Apprenticeship education should be understood to have as much value, merit, and worth as other post-secondary education, and skilled trade careers are as valuable as other professions.

The purpose of the Task Force was to reimagine Alberta's skills development and apprenticeship model. We have done so!

There is much to do. In considering next steps, the Task Force suggests the following. It is important to establish the enduring Premier's Advisory Council on Skills – a first challenge for the Council may be to provide input on the implementation of the recommendations from this report. We further believe that it is important to begin the process of drafting new legislation based on our definition of apprenticeship and principles for the system. This will empower the transformation of the system.

Appendices

Appendix A: Task Force biographies

The 21-member task force includes representatives from industry, labour, community agencies, government, and educational leaders in both K-12 and post-secondary.

Glenn Feltham, Co-Chair, former President and CEO, Northern Alberta Institute of Technology (NAIT)

Glenn Feltham served as President and CEO of NAIT from 2011 to 2019. As NAIT's sixth president he led the institute in its vision to become one of the world's leading polytechnics, with a focus on relevance and responsiveness. During his presidency, NAIT experienced unprecedented success and growth. Glenn further played a leading role in advancing the post-secondary system in Canada and Alberta, serving as chair of Polytechnics Canada as well as chair of the Council of Post-Secondary Presidents of Alberta. Glenn continues to work tirelessly to help build economic prosperity through skills development. He holds many educational and professional designations, including a Master of Business Administration degree from the University of Montana, a law degree from Queen's University, and a PhD in accounting from the University of Waterloo. In addition to his accomplishments in post-secondary education, Glenn has made significant contributions to Edmonton, Alberta, and to Canada. This includes having chaired or served on economic, governmental, academic, cultural, and social boards.

David Ross, Co-Chair, President and CEO, Southern Alberta Institute of Technology (SAIT)

David joined SAIT as its President and Chief Executive Officer in March 2013. Previously he served as President of Langara College and as Vice President Administration and Chief Financial Officer at Kwantlen Polytechnic University. David brings over 30 years of post-secondary experience across several provinces. Internationally, he is on the boards for the League for Innovation, the Global Education Network, the Global Applied Education Network and has chaired the Canadian Bureau for International Education. Nationally, he has sat on boards for the National Sciences and Engineering Research Council, Polytechnics Canada, the Business Higher Education Roundtable and previously on the Board for CICan. He was Chair of British Columbia Colleges and the Post-Secondary Employers Association of British Columbia. Recent local board experience includes Calgary Economic Development and the Calgary Homeless Foundation. David holds a Bachelor of Science (Biology) and Master of Business Administration from Dalhousie University, a Master of Aquaculture from Simon Fraser University and a PhD from the University of Nebraska.

Jackie Armstrong-Homeniuk, MLA, Fort Saskatchewan-Vegreville, and chair of the Alberta Skilled Trades Caucus

Since April 2019, Jackie has served as the Member of the Legislative Assembly for Fort Saskatchewan-Vegreville. She is currently a member of the Standing Committee on Privileges and Elections, Standing Orders and Printing and the Standing Committee on Alberta's Economic Future. She previously served on the Special Standing Committee on Members' Services and the Standing Committee on Resource Stewardship. Prior to serving with the Legislative Assembly, she owned and operated a small business in Vegreville for close to 35 years. Jackie has been a volunteer and active member of the Vegreville business community, including roles with the Vegreville Rotary Club, the Vegreville & District Chamber of Commerce and the Vegreville Economic Development Board. She has completed her post-secondary studies at the University of Calgary and also at MacEwan University in Edmonton. She holds a journeyman certificate for beautician/hairstylist and a diploma in insurance adjustment. As a certified trades professional, she understands the rewards and fulfilment that can come with a career in the trades.

Brad Bagnall, instructor, Trades Centre of Excellence, Bowness High School

Brad Bagnall is a Construction and Trades Centre of Excellence teacher at Bowness High School in Calgary. He has a Bachelor of Education degree from the University of Alberta. Brad has spent 14 years teaching for the Calgary Board of Education (CBE) in junior high and high school construction shops. He builds a large variety of projects to familiarize his students with career possibilities in the skilled trades. Brad works directly with Bowness High School's partners in the construction industry to deliver unique skilled trades related programming specifically within the Trades Center of Excellence Program offered to grade 11 & 12 students. From playhouses to cabinets and cutting boards, the project work completed by his students all relates to different skillsets desired of workers in the construction and manufacturing industries. In 2017, Brad began mentoring and supporting Construction teachers within the CBE as an accredited Tool Skill Evaluator with the Woodwork Career Alliance of North America.

j'Amey Bevan, chair, Alberta Apprenticeship and Industry Training Board

As a skilled trades professional with over 20 years experience in the industrial construction and maintenance industry, j'Amey is a passionate advocate for apprenticeship education, continuous learning, supportive work environments and trades mastery. She is Director of the Boilermakers National Training for Canada, and Chair of the Alberta Apprenticeship and Industry Training Board. In addition, j'Amey currently serves as a director on the Alberta Workforce Essential Skills Board and the Canadian Apprenticeship Forum Board, as well as the chair of the Interprovincial Alliance of Board Chairs of Canada. She has earned a boilermaker certificate with a Red Seal endorsement, as well as an Achievement in Business Competencies Program (Blue Seal) certificate and a Master of Arts in leadership through Royal Roads University.

Stuart Cullum, president, Olds College

As president of Olds College, Stuart works to strengthen the college's leadership role in Alberta's evolving and innovative agriculture sector. Stuart is an executive leader with a wealth of experience in private industry as well as in the finance, post-secondary and not-for-profit sectors. He holds bachelors degrees in arts and education from the University of Lethbridge and a Master of Business Administration from the University of Alberta, as well as various other academic certifications. Prior to his current position, he held the roles of Vice President Academic and Chief Operating Officer at Lethbridge College, Vice President Agriculture at Northlands, and Executive Director, novaNAIT (NAIT's Applied Research and Company Development division). While in these roles, Stuart and his team established programming and centres for research, teaching and learning, company development and entrepreneurship, attracting partnerships.

Ann Everatt, president and CEO, Northern Lakes College

Ann recently retired as the President of Northern Lakes College. Over the past 40 plus years of her career, Ann has worked across Canada in a variety of post-secondary institutions, beginning as a faculty member and then progressing into more senior management roles. She has worked in both small, remote and northern colleges and in large urban-based colleges. Prior to Northern Lakes College, she worked at Fanshawe College in London, Ontario, Northern College in Timmins, Ontario and at Keyano College in Fort McMurray. Ann has been a strong advocate for increasing access to trades programs and post-secondary education for rural and northern students as well as implementing dual credit programs for students in partnerships with a number of school boards. She also partnered with Careers: The Next Generation to offer Trades Training Camps for youth in Alberta's northwestern region. At Northern Lakes College, she led in the implementation of the Trades Training Transformers, which can be mobilized in any community to provide a complete trades lab experience where needed.

Shane Getson, MLA, Lac Ste. Anne-Parkland, and member of the Alberta Skilled Trades Caucus

Shane was elected as the Member of the Legislative Assembly for Lac Ste. Anne-Parkland on April 16, 2019. He currently serves as deputy chair on the Standing Committee on the Alberta Heritage Savings Trust Fund and is a Member of the Standing Committees on Resource Stewardship. Prior to serving with the Legislative Assembly, he spent 15 years in the construction industry, most recently in the position of project director. He also worked as a senior manager of planning and execution for a private company in the energy sector from 2008-2012. Shane attended the Northern Alberta Institute of Technology (NAIT), where he received a diploma in civil engineering technology in 1996.

Laura Jo Gunter, president and CEO, Bow Valley College

Laura Jo Gunter became NAIT's seventh President and CEO on August 24, 2020. An innovative leader, she brings extensive post-secondary knowledge and an entrepreneurial spirit to her role. Prior to joining NAIT, Laura Jo was President and CEO of Bow Valley College in Calgary. Under Laura Jo's leadership, Bow Valley College works to ensure students receive the skills they need to be productive in the workforce and adaptive to industry challenges. Throughout her career, Laura has held progressively senior roles in both academic institutions and the private sector, and has served on several academic boards. She holds a Bachelor of Journalism degree from Carleton University, and a Master of Business Administration from Queen's University.

Paul Heyens, CEO, Alberta Glass

Paul is the owner and chief executive officer of Alberta Glass. He is the past-chair of the Alberta Construction Association and a past member of the Alberta Apprenticeship and Industry Training Board. Paul attended SAIT as a glazier apprentice and earned a journeyman certificate with a Red Seal endorsement in the glazier trade. He worked in the industry until 1994, when he co-founded Alberta Glass. Today, Alberta Glass is one of Western Canada's largest full service glazing contractors

employing many journeypersons and apprentices. He is proud to have worked on such iconic buildings as Calgary's Bankers Hall and the Bow, as well as Edmonton's City Hall and Muttart Conservatory.

Dave King, dean, School of Trades and Technology, Lakeland College

As an experienced skilled trades professional and former instructor, Dave uses his wealth of knowledge to help students at Lakeland College build their skills and progress towards successful careers. Dave is a Red Seal certified automotive service technician and heavy equipment technician as well as achieving his Alberta Blue Seal certification. He currently serves on the board of directors for Skills Canada Alberta, is a member of the North East Alberta Apprenticeship Initiative (NEAAI), a member of the National Council of Deans of Apprenticeship, Trades and Technology (NCDATT) as well as vice chair of the Alberta Deans of Apprenticeship and Trades (ADAT).

Ray Massey, president, Skills Canada Alberta

Ray is a lifelong champion of apprenticeship education. Ray currently serves as the president of Skills Canada Alberta, a non-profit organization that encourages youth to explore skilled trades and technologies careers through Olympic-style competitions. He recently was elected secretary of Skills Compétences Canada. Ray has earned a journeyperson certificate with Red Seal Endorsement in the painter and decorator trade. As a business owner, Ray was always eager to apprentice new workers and help others develop their skills and build successful careers. He continues to lead by example and has served on boards of several apprenticeship and trades organizations, including the Alberta Apprenticeship and Industry Training Board, the Canadian Council of Directors of Apprenticeship, the Interprovincial Alliance of Board Chairs of Canada, and the Canadian Apprenticeship Forum.

Andy Neigel, president and CEO, CAREERS: the Next Generation

Andy is currently the President and CEO of CAREERS: The Next Generation Foundation. Prior to his work with CAREERS, Mr. Neigel provided leadership in the forest industry for more than 25 years.

Andy earned a Bachelor of Science degree in forestry at the University of Alberta and a Forestry Diploma at the Northern Alberta. He is a retired Registered Professional Forester both in Alberta and in British Columbia and a graduate of the Queen's School of Business, Executive and Leadership programs. In 2015, he received his ICD.D designation through the Institute of Corporate Directors.

Currently, Andy is Board Director on the Forest Resource Improvement Association of Alberta and the Northern Alberta Institute of Technology.

Terry O'Flynn, president and founding partner, Prism Flow Products Inc.

For decades, Terry O'Flynn has been supporting Alberta's oil and gas industry and the community. Terry is the President and founding partner of Prism Flow Products Inc. and enjoys numerous business interests in Alberta and Western Canada. He has contributed his business and governance experience to several boards and fundraising initiatives. He currently serves as the Chairman of the Alberta Enterprise Group, the Board of the Jerry Forbes Centre for Community Spirit, and with his wife, Grace, is Co-Chair of the 2021 IIHF World Junior Hockey Championships. He has served in the past on numerous boards including the Alberta Alpine Ski Association, the Canadian National Ski Team, the Edmonton Oilers Community Foundation, the CFL's Edmonton Football Club; as well as several private industry company advisory boards. Terry, Grace and their family of 8 have resided in Beaumont for 38 years.

Terry Parker, executive director, Building Trades of Alberta

Prior to serving as the executive director of the Building Trades of Alberta, Terry was the executive director of the Saskatchewan Building Trades Council for twelve years. Terry has worked as a glazier and as a business agent for the International Union of Painters and Allied Trades. His extensive time in leadership roles has given him a wealth of experience in the unionized construction and maintenance industries. Terry is a graduate of the University of Manitoba, where he earned a Bachelor of Arts degree in political science.

Dennis Perrin, Alberta and prairies director, Christian Labour Association of Canada (CLAC)

Dennis provides oversight and support for CLAC's operations in Alberta, Saskatchewan, and Manitoba. Dennis began his career with CLAC in 2004, and has worked in its Edmonton, Fort McMurray, and Saskatoon offices. Dennis is now based in Edmonton and holds a Bachelor of Science degree in biology and environmental studies from The King's University in

Edmonton. He is a former member of the Saskatchewan Labour Relations Board, and is passionate about the skilled trades. He's worked closely with like-minded organizations such as Skills Canada and the Canadian Apprenticeship Forum to advance the skilled trades a viable and necessary career path.

Amanda Rosychuk, senior vice-president, Drainage Services, EPCOR, and board chair, Women Building Futures

Amanda leads Drainage Services for EPCOR Utilities, where she is responsible for the maintenance, design and construction of the sanitary and stormwater systems providing safe and reliable services to the citizens of Edmonton. Prior to this position, Amanda held various senior operational roles and provided leadership and governance in the cross-company functions of Human Resources, Information Services, and Public and Government Affairs. Amanda joined the Board of Directors of Women Building Futures and currently serves as Board Chair. Women Building Futures is a non-profit organization that empowers women and transforms their lives by preparing them for careers leading to economic prosperity through industry recognized training in maintenance and construction related trades and the driving and operating industries. Amanda holds a bachelor of science in electrical engineering from the University of Alberta and is a graduate of the executive masters of business administration program.

Tony Tomkiewych, presiding officer, Provincial Apprenticeship Committee-Industrial Mechanic (Millwright)

Tony is a champion of skills and apprenticeship education. He has been involved with skilled trades since the age of sixteen. His interest in the skilled trades led to a Red Seal as a journeyman Industrial Mechanic (Millwright). As an employee, Tony was always eager to encourage apprenticeship and registered apprenticeship opportunities with his employers and help others develop their skills and build successful careers. He continues to act as an ambassador for skilled trades to local youth and schools in his rural community. As a member of the Industrial Mechanic (Millwright) Provincial Apprenticeship Committee since 2012, Tony helps improve Alberta's apprenticeship and industry training system. He is an active skilled trades professional with Pembina Pipeline Corporation.

Paul Verhesen, president and CEO, Clark Builders

As President and CEO of Clark Builders (2005 – 2019), Paul grew Clark Builders to one of the top general contractors in Canada. A strategic leader, Paul values innovation, technology and continuous improvement. He is a past board member of the Canadian Construction Association and past chair of the Edmonton Construction Association/Alberta Construction Association. Paul holds a Bachelor of Science in civil engineering and maintains his Professional Engineering Certification with APEGA and continues to support Clark Builders as a Board Director.

Colin Ward, chief operating officer, Ward Bros. Construction Ltd.

As chief operating officer at Ward Bros. Construction Ltd., Colin leads one of the largest general contracting and consultation management businesses in Southern Alberta. Colin joined Ward Bros. Construction after graduating from the civil engineering technology program at Lethbridge College. Throughout his career, he has had significant board experience, having served on the Alberta Construction Safety Association, Economic Development Lethbridge, Lethbridge College Foundation, Lethbridge Construction Association, as well as the Alberta Construction Association, which he chaired in 2011-12.

Jason Wright, director, Education & Apprenticeship, Sheet Metal Workers Local 8 and president, Building Trades of Alberta Training Society

A sheet metal journeyman who also holds a Red Seal, Jason has worked across western Canada in the residential, commercial and industrial sectors, and as an educator. He is currently the director of education and apprenticeship for the Sheet Metal Workers International Association in Alberta and is active in training, coaching and tutoring apprentices in multiple disciplines. He is a national construction safety officer and a certified Oil Sands Safety Association instructor, sits on several provincial and national trades boards, and collaborates with Alberta Apprenticeship and Industry Training to improve and enhance legislation, curriculum and exams for new and changing trades.

Appendix B: Abbreviated Terms of Reference

Skills for Jobs Task Force Abbreviated Terms of Reference

Purpose

The Skills for Jobs Task Force (Task Force) will report to the government on how to reform Alberta's skills and apprenticeship system to expand opportunities and build parity of esteem between career options including the skilled trades.

Background

The Government of Alberta's Skills for Jobs Task Force will improve the lives of Albertans through reimagining our skills and apprenticeship model – a model that spans high school, post secondary and the workplace. Apprenticeship-based learning plays a critical role in building a skilled workforce and prosperity in advanced nations. For our province to prosper, it is important that apprenticeship-based learning be valued as highly as other forms of post secondary education – that is, the resulting credentials be perceived to hold as much value, merit and worth as other post-secondary credentials. This reflects parity of esteem!

The skills challenge facing Alberta is real and pervasive. Alberta's youth unemployment rate is very high – 11.6% as of February 2019. At the same time, in certain skilled trades Alberta is experiencing shortages, which will grow in the coming years. About 3,000 skilled trades professionals are expected to retire each year. As well, in skills areas outside our traditional apprenticeship system, there are currently significant shortages of skilled workers. For example, there is ongoing demand in Alberta's growing Information and Communication Technology (ICT) sector (e.g. information systems analysts, computer programmers, and web designers). Alberta's energy expertise also provides many opportunities to expand into the green economy. In summary, there is a skills mismatch – we have young people without jobs, and jobs without people.

A highly educated workforce is critical to ensure Alberta achieves its economic potential in both traditional and emerging sectors. Alberta's post-secondary participation rate has consistently been lower than other provinces, with disadvantaged populations being less likely to participate (including rural, Indigenous, and newcomers). Apprenticeship education opportunities holds great potential to engage these more diverse post-secondary learners.

A number of strategies under the Skills for Jobs Initiative are to be launched to address this issue; however, a long-term roadmap is needed to identify how apprenticeship education can be expanded and strengthened in Alberta, so that Albertans can find rewarding careers in their home province.

Mandate

The Task Force will:

- 1) Evaluate Alberta's skills and apprenticeship system and its place in Canada and the world:
 - Summarize and analyze how the Alberta system currently works;
 - Examine how to better streamline apprenticeship programming by working with other provinces and territories to better harmonize provincial mobility for apprenticeships and skilled trades professionals;
 - Analyze the broader Canadian system, and how Alberta fits within this system; and
 - Analyze other systems, including the Germanic system.
- 2) Propose changes that strengthen Alberta's skills and apprenticeship system:
 - That meets Alberta's current and emerging labour market needs – that is, a system that provides the right number of skilled workers with the right skills at the right time;
 - That focuses on best practice and emerging best practice;
 - That attracts youth of all backgrounds who have a passion for working with their hands;
 - That is cost effective and nimble;
 - That strengthens the relationship to business and industry;
 - With a governance framework that is aligned with best practice and achieving the system goals;
 - Exploring if provincial grants, loans, tax credits and other incentives support participation in apprenticeship education leading to careers in the skilled trades;
 - That provides timely and compelling information about careers;
 - That has the right number of apprenticeship positions supported by industry across all sectors of the economy; and
 - That strengthens pathways into the system, and within the system (including Blue Seal Certification).

- 3) Support parity of esteem
 - Evaluate attitudes within Alberta related to skills education and apprenticeship system – how do Albertans currently perceive the skilled trades?
 - Evaluating programs that raise awareness about apprenticeship among youth;
 - Present recommendations that will strengthen knowledge of, and grow appreciation of, the skilled trades;
 - Evaluate current policies and practices to determine if they support, or undermine, parity of esteem; and
 - Undertake focus groups with youth, educators and parents to better understand their perceptions of the skilled trades and the apprenticeship model and explore opportunities to change that perception.

- 4) Examine ways to expand the apprenticeship model to other careers:
 - Identifying legislative roadblocks and/or red tape;
 - Evaluate how Alberta can develop a more expansive apprenticeship model that supports a broader range of career choices; and
 - Identify and engage key industry sectors in an expanded model.

Appendix C: Task Force meetings

The Task Force has met 11 times since its establishment in October 2019. At first, the Task Force meetings were held on a monthly basis, alternating between Edmonton and Calgary. However, due to COVID-19 physical distancing restrictions, the Task Force adapted to holding more frequent meetings using remote technology. Since July 2020, the Task Force has blended in-person and virtual meetings utilizing safe and effective physical distancing protocols.

The following is a schedule of the Task Force meetings with a brief summary of the meeting objectives.

October 29, 2019, Calgary

In this inaugural meeting, the primary focus was to give the Task Force members a common understanding of the current apprenticeship system in Alberta, with particular focus on the legislative framework, system governance structure, and the skilled trades and apprenticeship programs and pathways.

December 5, 2019, Calgary

The primary focus of this meeting was to expand the Task Force members' common understanding of apprenticeship models by expanding to their knowledge of systems in other Canadian jurisdictions, specifically in British Columbia, Ontario, Quebec and Nova Scotia. The Task Force also reviewed Pan-Canadian initiatives such as the Interprovincial Standards (Red Seal) Program, the Provincial-Territorial Apprentice Mobility Protocol and the Trade Harmonization Initiative. In addition, the Task Force reviewed the apprenticeship systems in international jurisdictions such as the Germanic region including Switzerland, as well as Ireland, United Kingdom, New Zealand and Singapore.

January 13, 2020, Edmonton

The primary focus of this meeting was to expand the Task Force members' knowledge of Work-Integrated Learning Pathways and the *Apprenticeship and Industry Training Act*. The Task Force also participated in facilitated discussions on expanding and leveraging the apprentice education model as well as how to increase public awareness and engagement in apprenticeships. In addition, the Task Force discussed their requirements for the upcoming stakeholder engagement activities.

February 13, 2020, Calgary

The primary focus of this meeting was for the Task Force to review the diverse ways that Albertans are educated and certified in different professions. The Task Force also held facilitated discussions on clarifying the concept of apprenticeship education, the strengths and weaknesses of the current model for regulating trades professions, and the opportunities and challenges of expanding the apprenticeship education model to other occupations.

March 10, 2020, Edmonton

The focus of this meeting was to provide the Task Force with an update on the research and stakeholder engagement activities that were conducted prior to the instigation of COVID-19 meeting restrictions. In addition, the Task Force commenced discussions on their recommendations document with a particular emphasis on defining what constitutes an apprenticeship and how it differs from other forms of work-integrated learning.

May 21, 2020, via Web Conference

The focus of this meeting was for the Task Force to discuss the devastating impact of COVID-19 on Alberta's industries and education and training systems, and how the education and skilled trades systems must be able to adapt to global and economic challenges. The Task Force continued their discussions on their recommendations document.

June 16, 2020, via Web Conference

The focus of this meeting was for the Task Force to continue their discussions on their recommendations document, with particular attention to the development of a broader skills development narrative.

June 30, 2020, via Web Conference

The focus of this meeting was to review the stakeholder engagement 'What We Heard' documents. The Task Force members continued their development of the recommendations document.

July 28, 2020, Edmonton

The focus of this meeting was to review the current apprenticeship system's governance structure and the roles of all the stakeholders. The Task Force members continued their development on the recommendations document.

August 25, 2020, Edmonton

The focus of this meeting was to review the findings of a survey of stakeholders not currently engaged in the apprenticeship system. The Task Force members reviewed a preliminary draft of the recommendations document.

September 17, 2020, via Web Conference

The focus of this meeting was for the Task Force to confirm recommendations and support for the final report.

Appendix D: Trade professions

Alberta

Compulsory certification trades

To work in a compulsory certification trade, a person must either hold a recognized trade certificate or be a registered apprentice in the trade. An employer wishing to hire persons to work in the trade must hire only certified journeypersons in that trade or apprentices registered in the trade and working under the supervision of a certified journeyperson. Compulsory certification trades usually involve work where public and worker safety needs to be closely monitored.

The 18 compulsory certification trades are:

- Appliance Service Technician
- Auto Body Technician
- Automotive Service Technician
- Boilermaker
- Crane and Hoisting Equipment Operator
- Electrician
- Elevator Constructor
- Gasfitter
- Hairstylist
- Heavy Equipment Technician
- Ironworker
- Motorcycle Mechanic
- Plumber
- Recreation Vehicle Service Technician
- Refrigeration and Air Conditioning Mechanic
- Sheet Metal Worker
- Steamfitter-Pipefitter
- Welder

Optional certification trades

An individual is permitted to work in an optional certification trade if the employer deems the individual to have the skills and knowledge expected of a certified journeyperson in the trade. Employers may employ uncertified journeypersons and use uncertified journeypersons to supervise and train apprentices on the job. An employee working in an optional certification trade and learning the trade MUST become a registered apprentice if that employee is not deemed qualified.

The 29 optional certification trades are:

- Agricultural Equipment Technician
- Baker
- Bricklayer
- Cabinetmaker
- Carpenter
- Communication Technician
- Concreter Finisher
- Cook
- Electric Motor Systems Technician
- Floorcovering Technician
- Glazier
- Industrial Mechanic (Millwright)
- Instrumentation and Control Technician
- Insulator (Heat and Frost)
- Landscape Horticulturalist
- Lather (Interior Systems Mechanic)
- Locksmith
- Machinist
- Metal Fabricator (Fitter)
- Natural Gas Compression Technician
- Outdoor Power Equipment Technician (OPET)
- Painter and Decorator
- Parts Technician
- Powerline Technician
- Power System Electrician
- Roofer
- Sprinkler Systems Installer
- Transport Refrigeration Technician
- Water Well Driller

WorldSkills 2019

The following are the apprenticeship skills areas in WorldSkills:

- Construction and building technology
- Architectural Stonemasonry
- Bricklaying
- Cabinetmaking
- Carpentry
- Concrete Construction Work
- Electrical Installations
- Joinery
- Landscape Gardening
- Painting and Decorating
- Plastering and Drywall Systems
- Plumbing and Heating
- Refrigeration and Air Conditioning
- Wall and Floor Tiling
- Creative arts and fashion
- Fashion Technology
- Floristry
- Graphic Design Technology
- Jewellery
- Visual Merchandising
- 3D Digital Game Art
- Information and communication technology
- Cloud Computing
- Cyber Security
- Information Network Cabling
- IT Network Systems Administration
- IT Software Solutions for Business
- Print Media Technology
- Web Technologies
- Manufacturing and engineering technology
- Chemical Laboratory Technology
- CNC Milling
- CNC Turning
- Construction Metal Work
- Electronics
- Freight Forwarding
- Industrial Control
- Industrial Mechanic
- Manufacturing Team Challenge
- Mechanical Engineering CAD
- Mechatronics
- Mobile Robotics
- Plastic Die Engineering
- Polymechanics and Automation
- Prototype Modelling
- Water Technology
- Welding
- Social and personal services
- Bakery
- Beauty Therapy
- Cooking
- Hairdressing
- Health and Social Care
- Hotel Reception
- Pâtisserie and Confectionery
- Restaurant Service
- Transportation and logistics
- Aircraft Maintenance
- Autobody Repair
- Automobile Technology
- Car Painting
- Heavy Vehicle Technology

Appendix E: What we heard

Industry Round Tables

Methodology

Leger held three roundtable discussions with industry stakeholders on February 26, March 2, and March 4, 2020.

The first two discussions were held in Edmonton, and the final discussion in Calgary.

The process began with Leger searching for participants representing industries that hire skilled workers that are not currently trained using an apprenticeship model and inviting them to attend the sessions. The industries represented included information technology, financial services, tourism/hospitality, healthcare, human services, and forestry as well as organizations that recruit skilled workers for these industries. Leger facilitated and analyzed the results of the sessions. In cases where attending in-person roundtable discussions was not possible, Leger conducted one-on-one interviews with the stakeholders, over the telephone.

Participant totals were as follows:

February 26, 2020 – Edmonton – 12 participants

March 2, 2020 – Edmonton – 10 participants

March 4, 2020 – Calgary – 18 participants

One-on-one interviews (March 2020) – 18 participants

Apprenticeship word association

Representatives were asked during the roundtable discussions to discuss what comes to mind when they hear the word 'Apprenticeship'. Some common mentions that came up at each discussion were, skills based, mentorship, on-the-job training, and life experience. A full list of mentions can be seen below:

**INDUSTRY ROUNDTABLES
WORD ASSOCIATION – APPRENTICESHIP**

- Skill based
- Practical application
- Practical
- Honest work necessary, not glam
- Trade career (blue collar)
- Excellent model of theory with practice (not recognized by society)
- Real time learning
- Business acumen
- Custodial
- Workplace exposure
- Pay it forward
- Alberta
- Accountability and reliability
- Work integrated learning
- Building relationships
- Calibration concerns
- Network development
- Intrapreneurship
- Entrepreneurship
- "Free labour"
- Job specific education
- Continuous learning
- Vocational
- Hands-on experience
- Technical skill
- Stigmatizing specific industries
- Credential
- New career path
- Early exit from high school
- Immersive learning
- Craftsmanship
- Real world experience
- Unpaid or low pay
- Technical knowledge
- Social learning
- Working interview
- Train or trainer
- Usually perceived as focused on a skilled trade
- Technical rather than theoretical skills
- Experiential learning
- Learn as you earn
- Paid
- Applied skills
- Skilled trades
- Career path
- Education - work balance
- Fast track to a job
- Affordable
- Regular performance assessment
- Journeyment as end goal
- Modular learning
- Soft skills that are balanced
- Resistance to stress
- Work skills
- Numeracy literacy
- Experience in a wide range of areas, broader education
- Adaptability

Main skill gaps

When asked what the main skills gaps were within each of their industries, all participants, irrespective of industry, noted there was a huge disconnect between educationally based knowledge of the profession/industry and real-life application. At each roundtable discussion participants discussed that basic soft skills (including communication, critical thinking, conflict management, relationship building, and decision making processes) were greatly lacking among industry employees. A full list of mentions can be seen below:

“Soft skills are an area not focused on in technical and trades traditional training. Most program advisory committees comment on the lack of soft skills.”

“Having leadership skills and interpersonal skills, basic customer service skills. Even when we hire summer students, they don’t have these types of skills. There is a gap in the programming that the schools are doing. Professors need to teach these soft skills. How to market yourself- resume, cover letter, people are not aware they don’t know how to market themselves.”

INDUSTRY ROUNDTABLES
INDUSTRY SKILLS GAPS – FINANCE AND IT

- Integration of individual into cultures (challenges with boomer to millennials)
- Listening
- Ability to network
- Conversations / relationship building
- Data driven decision making
- Writing and communications
- Teaming
- Management controls
- Innovation and feedback processes
- Seeing industry perspective vs. academic
- Attitudes to quality
- Agile
- Develops
- Collaboration - sharing
- Relationship building ideas
- Artificial intelligence - programming
- Cyber security - programming
- Integration of IT everywhere
- Professionalism / Etiquette
- Open to feedback and acting on it
- Innovation mindset - trying to grow internally
- Utilization of artificial intelligence
- Agile methodologies to test and try
- Product management
- Agile development
- Ability to network
- Digital skillsets
- Critical thinking
- Real world' experience
- Modern languages
- Adaptability
- Modern architecture
- Software craftsmanship
- Software engineering
- Retention in Alberta of intermediate/senior talent
- Junior development mindset - focus on solving problems, lack of big picture project management
- Growth mindset
- Soft skills
- Communication skills
- Communication
- UX/UI design
- Recognition of overseas qualifications
- Apprenticeship grants are too limited
- Technical sales
- Problem solving
- Systems thinking
- Communicating with developers for non-tech people
- Leadership - accountability
- Conflict navigation skills

INDUSTRY ROUNDTABLES

INDUSTRY SKILLS GAPS – HUMAN RESOURCES / TOURISM / NOT-FOR-PROFITS

- Health and safety
- Leadership and management
- Innovation
- Foundational knowledge in early childhood development
- Interpersonal skills
- Theory vs. practical
- Infection control
- Standards in industry
- Need right people in the right position
- Human resources in general
- Relationship management skills
- Emotional intelligence skills
- Interpersonal and conflict resolution
- Conflict management skills
- Communication skills
- Practical experience in policy development
- Practical training specific to needs of a role
- Soft skills that can be applied in the job
- Self motivated in learning
- Data analysis
- Social media strategist
- Excel skills
- Digital
- Resume and interview skills
- Face to face communication skills
- Phone conversation skills
- Occupation specific knowledge
- Attitude
- Critical thinking
- Interpretation skills
- Task management
- Learning skills
- Lifelong learning
- Adventure/nature guides
- Heritage carpenters
- Collaboration
- Confidence in selling
- Tourism operations management
- Customer service training
- Consultation vs. order taking
- Decision making
- Problem solving
- Written communication
- Email communication

Participants were asked how willing they were to hire someone with little to no experience to which many participants mentioned that practical and soft skills were the biggest factors in their hiring decisions and that they unfortunately don't have the luxuries of time and resources to hire people without the basic requirements needed for the position. They generally feel that theoretical skills tend to be of lower importance because those are generally easier to teach someone who has the desire as they work within the organization and industry.

Development of apprenticeship-type program

Most participants expressed at least some interest in developing an apprenticeship type program for their industry citing that the application of on-the-job learning and structured mentorship specifically could refine their training practices while providing consistent industry standards, where applicable, while bridging the skills gap (soft skills) many are currently facing.

One of the main challenges appears to be the terminology and language used in the standard apprenticeship definition, with most participants saying that revisions would need to be made to have it better fit within their organization/industry. Some also expressed concern that the current perceptions of the term apprenticeship could devalue their industry by taking away the perspective of being a professional rather than a skilled tradesperson.

Another issue that came up when discussing introducing an apprenticeship program into industries that do not currently have one was the resources needed to carry out an apprenticeship program. Many participants expressed concern about high turnover of employees throughout the duration of their apprenticeship, as well as about having the staff with the time and resources (internally) to mentor and guide apprentices through their program. Some felt that in order to have an apprenticeship program work within their organization they would need to have some minimal training amongst themselves, and minimal standards as well. Some participants mentioned that perhaps a co-op/internship/formal mentorship type program would be better suited for their industry, with shorter program duration and less interruption of the workplace and demand on resources. A full list of mentions regarding what makes participants optimistic and pessimistic about an apprenticeship program can be seen below:

INDUSTRY ROUNDTABLES

OPTIMISTIC MENTIONS ABOUT APPLYING AN APPRENTICESHIP MODEL

- May catch some dentists that aren't hiring people in the trade. Maybe if there is an option for training of the person. May attract the right people.
- Training is not a standard.
- Alberta labour market is going to have people looking for opportunity. This ten years ago wouldn't have worked, there's a lot more people who are looking to re-skill. People are indecisive, so maybe people can start something that gives them certain life exposure.
- When I chat with high school students they don't know what they want to do. Alberta market could champion this. Large percentage of young people that don't know.
- Getting paid on the job - when moving from one industry to another, don't need to take time away from the labour market to learn.
- If people choose an apprenticeship program - kind of having a piece of paper that shows what you can do.
- Putting aside the economic struggles that we are facing, exposes people to hospitality. There is a career path specifically honed in on hospitality.
- Tourism in Alberta will benefit if hospitality increases.
- We have many people working in the industry of child education, we could do great things for families in the regulated system. If we could grow that it would be great. More great people is would be beneficial.
- Help to have the right systems in place for the right training. There's this great program to get experience, get training. You can be working right away in dental assisting- would highlight the great things people are doing.
- Every program could be an apprenticeship, it doesn't mean it is the same.
- In an apprenticeship program, it is not an employer based training program, it is a sector based program.
- I think the mentoring portion is incredibly important. There are some programs in the states where some students work with ranchers and then they get cows at the end of the year, or land. So you are set up to have a business when you are done. There is a reward when they are done. For the professional designations, if it is not legislated, then they won't do it. For biologists and chemists it's not legislated. The thing that it lacks is that there is a mentality that it is an old boys club and they are protecting themselves. There is a risk that they will do the bare minimum. It needs to be a competency based program.

INDUSTRY ROUNDTABLES

PESSIMISTIC MENTIONS ABOUT APPLYING AN APPRENTICESHIP MODEL

- Industry buy in. You need to identify a lot of champions that think this is a good idea.
- Communications important
- Maintain the foundation of your profession
- May devalue the profession. I don't know what apprenticeship means, how much theory is provided, how is the theoretical knowledge shared? What's the percentage of theory to practical? I would hate to lose the training that we currently have. If you can teach it to anyone off the street.
- The word, and it needs to be changed - tough to crack, no point avoiding it, how do you communicate it, how do you value. All polytechnics fight with that it's not as special to do an apprenticeship.
- How do you define professionalism? What is a professional? The definition is going to change. Because we have access to so much knowledge at the same time, the information changes because people can contest the knowledge all the time. If we redefine who a professional is then that changes the way we look at the industry.
- Real time job opportunities that aren't available anymore. No more jobs. Idea about the program is to have people get a real job. I think that's the real challenge. After investing so much time and resources in training. We can only absorb them into our organization then there's not room for the organization to absorb them.
- Hotels have a hard time filling roles, so there will be jobs.
- Who is evaluating the employer? Government mandates the model. Need a model to regulate standards (feel beneficial and needed in profession/industry. One thing to have a standard who is enforcing it to ensure that the apprentice is receiving the right on the job training.
- Early childhood educators - desperately needed educators who are educated.
- There is validity to look at it. You are going to get a lot of pushback. I don't think going to an apprenticeship model is going to fill the gaps, or get people in the industry. The risk is you change an entire model and it doesn't work. People may not go to school at all and may not be very successful. To shift the model where there is more onus on the employee, and they can't have the apprentices all go back at the same time. I would say tell me why. And tell me that it will absolutely work, and then I'll go down that path.
- There is a stigma around the word apprentice and that is a word for the trades. That resistance to trades will be huge. If government comes in and says there is an extra requirement, it will take 10 years to make the structural changes, but again, getting everyone to buy in, it will be half a generation to make a change. You need to make sure you are creating value for the employers and older people.

INDUSTRY ROUNDTABLES

PESSIMISTIC MENTIONS ABOUT APPLYING AN APPRENTICESHIP MODEL

- It is more like co-op and mentorship wording that is associated with the finance program. Right now we don't have either of those programs.
- For an apprenticeship you are paid for being on the job. For accounting and finance, they don't want to pay for someone who can do the job. Banks and financial institutions are not willing to breach the confidential.
- For the trades there is the assumption that there is a lot of grunt work, and there is not that in industries such as finance.
- My concern is the equivalency, and I go elsewhere in Canada I want to make sure that everything carries across. And what if other places aren't on an apprentice program, do I have to go to school and start again? I just don't see it working, it is too easy to point out all of the flaws, and the benefits won't outweigh it.
- I can't see industries wanting to deal with the hassle.
- The model has been there for a long time. It would be chaos trying to get a business school to become an apprentice model. The logistic of trying to handle that, it would be a nightmare. It would take a decade to implement. It would be over a decade to make it happen. And you better be sure it is the right change, to make sure it happens.
- We tried to get our finance program with a one year placement, and we had struggles getting employers to accept the students. The students become a liability.
- At tourism, we take interns in different areas and from institutions. I don't think it would be hard to be mandated in the industry. When I was a tourism instructor, it was a challenge to find vetted good places to put my students to gain some experience and knowledge by being at their place. It is your responsibility to make sure your students would work. I don't think it would work.
- I think there are certain industries where it could work, and there are other industries where it won't work. I think we can see where we can carry that model over into other areas, but it is a very industry specific analysis. Some industries are too broad.

Impressions of regulated professions

Roundtable participants were also asked about their impressions of regulated professions. Many felt that seeing that someone has a distinction often elevates their position as well as how they are perceived within an organization, and in terms of hiring would often tip the decision in their favour when up against someone without the same distinction.

Some participants also took the conversation in the direction of regulated practices over regulated professions, indicating that having regulated practices would be beneficial within their organization (particularly among hospitality and health industry participants).

When asked what information they would need to overcome some of the obstacles they foresee with applying an apprenticeship program to their industry, most participants mentioned the need for collaboration, support, and buy in from post-secondary institutions, key industry stakeholders, and government.

"We have to get away from the current state and need to look at what could it be. What is best for the industry."

Focus groups

Methodology

Leger held five focus groups with Alberta students, parents and educators on March 3, March 4, and March 22, 2020.

The first three groups were conducted in Calgary with students, parents and educators, and the other two groups in Lethbridge with students and parents.

The participants were recruited from the general population of Alberta, using a questionnaire to screen for the target audiences: high school students, parents of high school students, and high school teachers and counsellors. Leger was responsible for recruiting for, facilitating, and analyzing the results of the focus groups.

Participant totals were as follows:

March 3, 2020 – Calgary – Students (6pm): 10 participants

March 3, 2020 – Calgary – Parents (8pm): 10 participants

March 4, 2020 – Calgary – Educators (6pm): 10 participants

March 22, 2020 – Lethbridge – Students (6pm): 10 participants

March 22, 2020 – Lethbridge – Parents (8pm): 10 participants

Educators summary

Educators appear to be very much in the ‘trades’ sphere which was very different from some of the parent and student perspectives that were observed. They felt that trades got a bad wrap and felt that it was a combination of all parties involved that were to blame:

- Parents, who feel anything less than a university education is second rate;
- Teachers, who think academics is the goal of school;
- System, that is weighted against trades related course work in secondary school, things like off-campus credits not being as valuable - the fact that shops-like courses are electives and the big diploma exam in Grade 12 is the academic focus; and finally the
- Students, who lack drive and direction and quite frankly don't appear to care to explore the options available to them.

“Much maligned and very important role in society and student’s life. Some parents HATE the idea that their kid might go into trades.”

“The skills trade profession is highly necessary in Alberta and provides many essential services. Skill trades are a valuable asset to society. They are sometimes overlooked, under appreciated, or under valued.”

“Wonderful opportunity. Potential. Reasonable path for students to follow, a way for high school students to join ‘adulthood’.”

In order to help get students interested in a career in skilled trades, educators suggested showing them the long term outcomes and success stories of other students, salary expectations, dual credit programs, as well as educating parents of the benefits as well.

HANDOUT							
How important are the following aspects of an education program?							
	5 Very important	4	3	2	1 Not at all important	I'm not sure	Average
Being grounded in work-integrated learning; students have an opportunity to apply what they've learned in the classroom in a real- world situation.	9	1					4.9
Learning specific skills and developing competencies that leads to employment	9	1					4.9
Being considered a "post-secondary" educational program; leads to a post- secondary certificate, diploma or degree	5	5					4.5
Has recognizable pathways or opportunities to ladder into further learning; gives students the ability to continue to develop knowledge and skills throughout their lifetime	5	4	1				4.4
Being able to earn while you learn	3	3	4				3.9

Parent summary

Some parents appear to have limited awareness of what apprenticeship programs and a career in skilled trades can offer their children, indicating that they feel it is a great career option for some people but would prefer their child go to university or college. Some also noted that they felt a skilled trades career was riskier than a university or college education because they perceive the skills learned in specific apprenticeship programs as non-transferable, unlike university or college programs.

There were some parents who felt that a career in trades was the best option for their child and felt that it was good honest work (particularly in the rural south region). They noted that they feel that an apprenticeship program can be harder than some university and college programs, and that there is a sense of pride in working in the skilled trades.

Most parents agreed that there was a stigma attached to the trades, that they are not as coveted as a university or college education. However, some felt that this was more due to the school system (teachers and counsellors) promoting university as the ultimate goal. Some parents also noted that when they hear the word *apprenticeship* they think trades; however, when they hear the word *practicum* or *work placement*, they think doctor, nurse, social work, etc.

Some positives regarding skilled trades as noted by parents were the strong focus on soft skills, immediate career opportunities once finished with schooling, as well as generally high salaries right from the start.

When discussing the idea of work-integrated learning opportunities, all parents had positive perceptions. They felt that giving students the opportunity to experience potential careers of interest would be very beneficial, with some mentioning that it would help bridge the gap between what is taught in school and the skills needed in the real world.

HANDOUT							
How important are the following aspects of an education program?							
	5 Very important	4	3	2	1 Not at all important	I'm not sure	Average
Being grounded in work-integrated learning; students have an opportunity to apply what they've learned in the classroom in a real-world situation.	12	6	2				4.8
Learning specific skills and developing competencies that leads to employment	13	6		1			4.7
Being able to earn while you learn	12	6	2				4.6
Has recognizable pathways or opportunities to ladder into further learning; gives students the ability to continue to develop knowledge and skills throughout their lifetime	11	8	1				4.5
Being considered a "post-secondary" educational program; leads to a post-secondary certificate, diploma or degree	10	6	3		1		4.3

Student summary

Nearly all student participants noted that skilled trades are essential to society; however, awareness over apprenticeship in general is lacking.

"I think skilled trade professions offer choice for people and are beneficial for someone who is passionate about a specific thing."

"An interesting career that requires an education, even though people often associate trades with being uneducated."

"Good, although don't know much about them."

"Makes me think manual labour."

Students appear hesitant of entering into an apprenticeship because they feel that they will be limited with their career options due to the perceived structured path of – pick a trade, complete apprenticeship, complete education, work for life. They felt that a university or college education is more forgiving, giving them more flexibility in their career choice, would result in more career options once finished, and gives them opportunities to change their mind and change paths without losing credits for courses already taken. The notion that a career in trades was lesser of an achievement than degree/diploma/certification was a more common perception among new Canadians.

Many students also mentioned that attaining a university or college education was always discussed in their household growing up, and always part of the plan, while apprenticeship programs and skilled trades were not talked about as much, some even commenting that the trades were always perceived as their fallback option.

Regarding career option support within high school, many students commented that they received little to no guidance from teachers or counsellors, resulting in their opinions of their post-secondary options being solely based off discussions at home.

HANDOUT							
How important are the following aspects of an education program?							
	5 Very important	4	3	2	1 Not at all important	I'm not sure	Average
Has recognizable pathways or opportunities to ladder into further learning; gives students the ability to continue to develop knowledge and skills throughout their lifetime	12	6	1	1			4.5
Being able to earn while you learn	13	3	2	2			4.4
Being grounded in work-integrated learning; students have an opportunity to apply what they've learned in the classroom in a real- world situation.	9	8	3				4.3
Learning specific skills and developing competencies that leads to employment	11	5	3	1			4.3
Being considered a "post-secondary" educational program; leads to a post- secondary certificate, diploma or degree	5	4	6	3		2	3.3

Workbook summary

Methodology

Members of the Task Force conducted group discussions and interviewed individuals involved in the apprenticeship system, between March 17 and June 15, 2020.

The interviews were conducted using a workbook of questions prepared by Leger. The Task Force members returned the completed workbooks to Leger for analysis. A total of 58 workbooks were received and analyzed by Leger.

Concepts of apprenticeship

Stakeholders share the understanding that the core components of how apprentices learn their trade in Alberta is through a mix of theory-based instruction held at a post-secondary institution with a core component of on-the-job training facilitated by a journey person. Stakeholders identified the apprenticeship education model as having an 80:20 blend, where 80% of the learning takes place on-the-job. Here apprentices are learning to work in a real-world industry setting. The partnership between employers and post-secondary institutions was highlighted, indicating the necessity of both attributes to form the education model. Stakeholders acknowledged that the apprenticeship experience may not look the same for all apprentices based on: the length of time they take to complete their apprenticeship (2 to 4 years); the quality of the journey person they apprenticed under; and the difference in trades for compulsory certifications or red seals.

“Apprenticeship is a post-secondary education program consisting of on-the-job training provided by an employer and technical training at an approved technical training provider.”

“The technical training at school does still play an important role in apprenticeship development but on-the-job training provides valuable real-life learning.”

“Direct, practical, hands-on experience under the supervision of a journeyman for most of the training period which varies by trade. Theoretical training and exam invigilation at an educational institution.”

“The core components of apprenticeships are the work experience and the classroom learning. Being a tradesman is so much more than just the “skill” one learns and all of that needs to be conveyed during the time of apprenticeship.”

“The ability for an apprentice to immerse themselves into industry to develop a frame of reference and fundamental understanding of the type work, work environment, and the required skills/competencies to be successful, then to attend technical training to refine their understanding and address areas of weakness.”

Apprenticeship as an equivalent to a post-secondary education

Stakeholders were split 50/50 as to whether or not apprenticeship is viewed as an equivalent of a post-secondary education program.

Those who viewed apprenticeship as not equivalent to a post-secondary program highlighted the following reasons:

- Trades are for the less academically inclined. Many stakeholders alluded to a perceived public perception that those who do not do well in school are best suited for the trades. Trades are seen as having a lower barrier to entry as they supposedly require a lower level of math and less advanced high school courses. One stakeholder noted that this stigma perpetuates itself beyond applying for the apprenticeship program as trade positions rarely advertise that they need a certification in order to apply for that role and that post-secondary education (even as an apprentice) is not a mandatory requirement.
- University degrees are deemed necessary for success. Stakeholders indicated that there is a belief that to be successful or to advance in a career a university degree is necessary. Likewise, there is a perceived notion that there are few advancement opportunities for those in the trades.
- Trades are dirty. A few stakeholders indicated that some believe the trades to be “dirty” and require a lot of manual labour which can be hard on the body and overall health. Likewise, the working conditions of a job in the trades in regards to worksite location can also be viewed as undesirable because of the necessity to work away from family or in a camp setting.
- Lack of understanding about the trades. Many stakeholders referenced that Albertans in general may not be aware of what it takes to participate in an apprentice program and the value the education and training can have. Additionally, when Albertans think of the trades, most think of Oil and Gas and lack the understanding of what else is considered a trade.
- Unaware of trade opportunities. Stakeholders indicated that there is a general lack of awareness surrounding the trades, but more specifically a lack of awareness around what opportunities exist within the trades.
- Parity of esteem. A couple of stakeholders acknowledged that trades are essential to the economy, however, trades are not seen in the same light as other professions. This has become more apparent during Covid-19, with those in the trades being deemed as essential.

“A lot of people don’t realize there is just as much, or sometimes more, training required and skills needed to become a journeyman than to graduate with a university degree.”

“There is a stigma that it requires a lower level of math. I hear this, I see it and then I have to deal with it in my class, helping students catch up and learn math skills and problem- solving skills.”

“Historic concerns relate to instability of employment (boom / bust – layoffs), physically demanding and hazardous occupations – health impacts over the long term, remote worksite locations (impact on family life) and less compensation / pay than jobs available to those with post-secondary education.”

“I don’t believe there is wide knowledge of what is involved with apprenticeship training. There is also different treatment of supports available to apprenticeship students over other students. I have been a teacher and principal in the public system and there is a huge lack of understanding of the value of trades.”

Those who viewed apprenticeship as equivalent to a post-secondary program highlighted the following reasons:

- Definition of post-secondary. As highlighted by many stakeholders the definition of post-secondary is education after high school, which would include apprenticeship.
- Length of program. As acknowledged by stakeholders, an apprenticeship takes the same length of time as an equivalent university or college degree (4 years).
- Different form of learning. Just like other post-secondary programs, an apprenticeship requires extensive learning and skill development. However, in an apprentice program, a large proportion of the learning and skill development occurs at the worksite.
- Journeypersons are well-sought after. Those who have completed their apprenticeship are well-sought out and can obtain high paying positions in addition to having practical experience.
- Trades are important to the workforce. Trades are valued equally, or in some stakeholders' opinions, more so by society.
- It is important to acknowledge that, although some stakeholders view apprenticeship as equivalent to other post-secondary programs, many of those who view it as equivalent also stated that their opinion may not be shared by society given the reasons listed above.

“Post-secondary education includes Universities and Colleges, as well as Trade and Vocational schools”

“I have been a journeyperson for a good number of years and am very proud of my abilities, and therefore I feel it equivalent to a post-secondary education.”

“The apprentice spends, in most cases close to 4 years of their life learning a trade, the only difference is that the majority of this training is on-the-job, as opposed to learning everything in a classroom.”

“Trades are just as important to the workforce, if not more so. I don't think one should be valued more than the other.”

“Simply by the value [apprenticeship] provides to society through the integrity required to design, construct, and maintain our infrastructures, manufacturing, transportation, logistics and technological systems”

Strengths and weaknesses of Alberta’s apprenticeship education model

When thinking about the model of apprenticeship described, the stakeholders listed the following as advantages and disadvantages about the way apprentices learn their trades in Alberta.

Advantages	Disadvantages
<p>The advantages of the way apprentices learn their trades fall into four key themes: quality of education, cost, mentorship and career path/opportunities.</p> <p>Quality of education</p> <p>High quality training for all apprentices</p> <p>Education/training provided by post-secondary institutions that aligns with industry standards</p> <p>Combination of technical and practical experience allows for a strong development of skills</p> <p>Flexible schooling in terms of timing, location, and trade type</p> <p>An apprentice can learn at their own pace</p> <p>Curriculum is built by the industry</p> <p>Small class sizes</p> <p>Immersive training</p> <p>Short educational commitment which is ideal for more hands-on learners</p> <p>Cost</p> <p>Government funding allows for a low amount of debt upon graduation</p> <p>Earn a living while completing training</p> <p>Perceived overall lower cost to education</p> <p>Mentorship</p> <p>Strong foundation or support for technical training from journeypersons</p> <p>Access to good mentors who provide encouragement and support</p> <p>Networking opportunities</p> <p>The ability to learn from experts</p> <p>Develop soft skills like collaboration and problem solving with assistance</p> <p>Career path/opportunities</p>	<p>The disadvantages of the way apprentices learn their trades fall into four key themes: course structure, impact of the economy, mentorship and work environment.</p> <p>Course structure</p> <p>Large quantity of course material pushed into an 8-week program length</p> <p>Potential for the curriculum to be out-of-date</p> <p>Students can struggle to get through the compressed information in technical training</p> <p>Material being taught may not be relevant</p> <p>Laid off when taking technical training</p> <p>Entrance requirements may be too low, allowing in unqualified (or not yet ready) apprentices</p> <p>Limited opportunities to explore complimentary educational programs (e.g., Law, Finance, HR)</p> <p>Not all schools offer all trades / Limited seats for technical training in certain communities</p> <p>Apprentices do not receive the ‘college’ experience</p> <p>Impact of economy</p> <p>Getting hired can be dependent on the economy, specifically in Oil and Gas related trades</p> <p>Apprentices may be unable to return to technical training in “busy” season</p> <p>Work can be slow during economic downturns</p> <p>Employers may not be able to afford apprentices during downturn</p> <p>Mentorship</p> <p>Journeyman may not be a good teacher</p> <p>Inconsistent quality of instructors/instruction</p> <p>Work Environment</p> <p>Need a job to get into the trade (catch-22)</p>

<p>Can start program in high school (RAP program)</p> <p>Can get into high demand occupations</p> <p>Can become dual ticketed</p> <p>Become highly employable upon completion</p>	<p>Company where the apprentice works may have limited learning opportunities</p> <p>There can be large variations between job sites</p> <p>Not enough variety in tasks provided by employer</p> <p>Employers may not be willing to hire students</p> <p>Imposed age restrictions at camps limit opportunities</p> <p>Employers may not want to take on the cost to train an apprentice</p> <p>Employers can prevent apprentices from completing the program if technical training falls in the busy season</p> <p>Workplace can provide improper training</p>
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Advantages and disadvantages of the technical training block format for apprentices

Stakeholders listed the following as advantages and disadvantages from the perspective of the apprentice with apprentices taking their technical training in a block release format.

Advantages	Disadvantages
<p>The following are advantages from the perspective of an apprentice taking their technical training in a block release format.</p> <p>Affordability</p> <p>Apprentices can earn a wage while learning</p> <p>Short time on EI – prevents the need and pressure to gain other work</p> <p>Schooling is well subsidized</p> <p>Program attributes</p> <p>Minimal class time</p> <p>Do not have to juggle the demands of studying while working/Can focus on schooling</p> <p>Flexibility in the program to take back-to-back training if economy is slow</p> <p>Apply real-world schooling to learning</p> <p>Can refine skills learned in the classroom</p> <p>Opportunities</p> <p>Can experience different employers</p> <p>Wide range of learning opportunities</p> <p>Have the ability to network</p> <p>Collaboration with a larger group of apprentices</p>	<p>The following are disadvantages from the perspective of an apprentice taking their technical training in a block release format.</p> <p>Condensed Learning</p> <p>Quantity of course work covered</p> <p>Not enough time to learn everything</p> <p>Long periods of time between technical training</p> <p>Limited seating available</p> <p>Employment Concerns</p> <p>Apprentices may be discouraged by employer to go to technical training during busy periods</p> <p>Seasonal nature of some trades makes it hard for apprentices to leave work</p> <p>Can be hard to find work placements after training</p> <p>Apprentices can fear losing their job or being replaced</p> <p>Easier to apply for schooling than it is for the job</p> <p>Personal Concerns</p> <p>Potential needs for relocation or need for travel to attend school</p> <p>Lack of financial support/not enough financial support to pursue classroom training</p>

Advantages and disadvantages of technical training block format for employers

Stakeholders listed the following as advantages and disadvantages from the perspective of the employer with apprentices taking their technical training in a block release format.

Advantages	Disadvantages
<p>The following are advantages from the perspective of an employer about apprentices taking their technical training in a block release format. Employers can:</p> <ul style="list-style-type: none"> Take advantage of slower times to temporarily lay off their apprentice so they can complete their training Schedule training to be done over the course for a year Schedule when they will bid on projects that require more manpower Plan for absences Learn different technologies and perspective from students Gauge apprentice's progress Get tax savings for hiring apprentices Let go apprentices who are not a fit Get skilled labour at a reduced rate 	<p>The following are disadvantages from the perspective of an employer about apprentices taking their technical training in a block release format. Employers can/are:</p> <ul style="list-style-type: none"> Lose an employee for 8 weeks. Lose continuity on the job site Experience challenges replacing apprentice for extended absence Unsure if apprentices will come back after technical training Disagree or contradict what was taught at technical training Unwilling to pay more for a higher-level apprentice

Barriers to completing the apprenticeship program

Stakeholders identified the following as barriers that hold back apprentices from making progress and completing their program.

- Economic conditions. Stakeholders noted that when the economy is in a downturn, there is less work available. Apprentices who are in training struggle to find a job to return to, whereas those in a job are concerned they may not be able to return to their job post-technical training.
- Seat demand. Depending on the program, intake may be full, not offered or limited when the apprentice is ready to take technical training, prohibiting progress with their apprenticeship.
- Employment concerns. Stakeholders acknowledged that some employers keep their apprentice from going back to school for multiple reasons, whether it be the busy season and they can't go without the manpower, or that they do not want to pay the apprentice an increased rate when they return. On the other hand, apprentices are concerned that if they are to attend technical training, they could be laid off during this time period.
- Academic struggles. Multiple stakeholders brought up the concern entrance requirements may not be high enough for some apprentice programs. The lack of reading, comprehension, and math skills can hold apprentices back from completing their apprenticeship. Likewise, poor performance on exams can become a barrier for completing their apprenticeship. Also, there is little incentive to return to technical training for those who dislike schooling.
- Financial concerns. Despite the ability to apply for EI while on technical training, some apprentices cannot support their family or lifestyle on this income. Also, apprentices who work away from home or require short- term housing to complete their technical training can face financial barriers.
- Personal concerns. Some apprentices experience family struggles or a change in family life that could disrupt their apprenticeship completion. Likewise, health concerns and injuries can prevent program completion.
- Inclusion. Some apprentice's experience work-place bullying or can feel excluded from the workplace when their work environment is not inclusive. It was noted by stakeholders that those who were of an ethnic minority or women were most likely to experience this.

“Since Apprentices’ demand to attend technical training is determined based on their home address, rather than their employment location, the availability of programs in the region that they are working in may not reflect accurately in offering their chosen trades.”

“Employers unscrupulous dealing to keep apprentice from going to school.”

“As apprentices progress through their training they become more expensive to an employer. And therefore, lose their job and can’t continue.”

“Entry requirements are too low and many students struggle once they attend formalized training because they were not ready for it.”

Opportunities to improve how apprentices learn

Stakeholders provided the following examples and suggestions of opportunities to improve how apprentices learn their trade.

- Method of Technical Training delivery. Multiple stakeholders suggested diversifying the way that technical training is delivered such as providing the option of e-learning and distance learning. By allowing courses to be completed online, apprentices could opt to take technical training while working at their own pace to minimize the barriers of financial concerns, personal concerns, and family obligations.
- Pre-trades courses. Many stakeholders recommended creating a pre-trades or pre-apprentice course that would allow students to learn the basic skills before applying for their initial employment. Course material suggestions included: an apprenticeship overview; understanding what essential and basic skill competencies are; safety training; personal budgeting; and an outlined expectation of the apprentice/employer relationship.
- Improve exposure and access to trades in high schools. Many stakeholders acknowledged that educating those at a younger age about the trades could better prepare younger students for taking on an apprenticeship role. Educating high school students could include identifying the necessary courses to take in order to get into the trades and placing emphasis on the necessity of these courses (specifically math). Other examples suggested by stakeholders included:
 - Hosting Skilled Trades Nights/Try a Trade/Trade specific trade fairs
 - Offer dual credit opportunities for high school students to start their technical training at a younger age
 - Establish more fully functioning shops in high schools to expose students to the trades and updating shops to include current technology (e.g., access to technology to work on electric cars)
 - Make high school trade classes a requirement for access into the trades
 - Highlight and promote skills competitions for the public and high school students to learn more about the trades
- Provide more training to mentors/journeyman. Many stakeholders acknowledged that the apprentices’ experience with the journeyman greatly affects their apprenticeship experience. Suggestions for finding better qualified and more engaged journeymen include:
 - Providing journeymen with professional mentorship training. It was also noted that this should be incorporated into the apprenticeship program – teaching apprentices how to be good mentors in their final year of their apprenticeship.
 - Provide certifications for qualifications on how to train and mentor apprentices.
 - Mentors should follow a mentorship program where they are required to do multiple check-ins with the apprentice to ensure they are learning, but also with their employer so that the mentor also feels supported.
- Support for employers. Many stakeholders identified the need for employers to be supported through either financial incentive, access to training, or a network of resources to draw from during the apprenticeship program.
 - An example of a resource or training that could be made available to employers includes a training module for employers which would notify the employer of what the student is expected to learn in a specific time frame. This would provide the employer with additional subject matter so they have additional context to what skills the apprentice is developing.
 - Financial incentives mentioned included tax breaks and grants.
- Diversifying the workplace experience. A couple of stakeholders alluded to diversifying or offering apprentices multiple experiences throughout their apprenticeship program to allow them to get exposure to different work environments. One stakeholder proposed a “work experience trading program” where third-year apprentices trade employment with another third-year apprentice for another company for a defined period of time.
- Add a business competency component. A couple of stakeholders remarked that it would be valuable for apprentices to gain basic skills such as marketing, accounting and finance to enable their success if they are to pursue a career as an entrepreneur post-certification.

- Micro-credentialing. One stakeholder recommended recognizing and tracking shared competencies between trades with micro-credential certification while encouraging full apprenticeship completions.
- Adopt a competency-based model. One stakeholder suggested evaluating the apprenticeship program using a competency-based model where apprentices are assessed based on their ability to perform basic skills instead of the number of hours completed.

"Turn classroom material into online/digital learning to prevent any family obligations."

"I firmly believe that some pre- apprentice training should have to be completed before sending apprentices to employers. A one- or two-week course on PPE, basic hand tools, safety, etc. would go a long way to helping the apprentice, and to enticing the employer to take an apprentice."

"Adding a small component in the final year on how to properly train apprentices and some resources they can always find as every new journey person who stays in the trade will have multiple apprentices under them throughout their careers."

"Companies could use some guidance on the overall training methods in order to allow the student the best training possible. This would make the training more uniform throughout the various industries."

On-the-job training: education and training required for new hires

Stakeholders were asked to provide the level of education and training required for new hires when thinking about their own industry or profession.

- Most employers want new hires with a little education or training. The majority prefer new hires to have a high school education or some previous experience. And although some were willing to take on new hires without any prior education or experience, it was not preferred.
- Employers benefit from previous education or experience. For employers, the workplace is often safer and more efficient when new hires have had some basic training or education prior.
- New hires benefit from previous education or experience. For new hires, the prior education or training can be coupled with on-site learning, thus creating a broader understanding and greater ability to develop certain skills.
- Can be dependent on the trade. The level of training or education required for new hires was also noted as dependent on the trade, complexity, or skills needed to succeed in certain workplace environments.
- A willingness to learn can make up for lack of skill. Education and experience are not all employers are looking for. If a new hire shows a willingness to learn, a lot of the training and learning can be done on- the-job depending on the situation.

"Without some basic trade training new hires risk the safety of all the individuals on the work site and can hinder efficiency due to little or no basic knowledge."

"High school preferred but not mandatory...we can teach the skills they need to learn."

"This varies depending on the trade a person decides to pursue but usually a high school diploma will suffice."

"All skills can be learned onsite, adding a schooling portion helps ensure a broad understanding of system."

"The attitude and employability skills are the important criteria for success of an apprentice. Employers tell us they are prepared to teach the skills if the attitude and work ethic are there."

Industry employer willingness to take on new employees with minimal experience

Stakeholders were asked if employers in their industry were willing or unwilling to take on new employees with little to no knowledge, qualifications, or relevant work experience, and what makes them willing/unwilling.

Willing

- Most are willing to take on new employees with minimal experience. Among industry employers, the main sentiment was that most are willing to take on new employees with minimal experience. New hires can be trained and learn on-the-job, as long as both the employee and new hire are willing to put in the effort.
 - A good attitude and work ethic are key. Employers often look for a good attitude and work ethic, along with a willingness to learn. If a new hire is willing to put in the effort to learn, and employer can be willing to train.
 - 'Green' employees are valuable. Some employers see the value in having a "green" apprentice, or someone with little to no experience that can be moulded to fit the employers needs and culture, thus developing into skilled long-term employees that are beneficial to the employer.

Unwilling

- Can be costly and time consuming. The cost and time of training new hires can be a deterrent for some employers. It can be seen as an inconvenience to work on skill development in apprentices with lesser experience and knowledge.
- A downturn in the economy results in fewer jobs for new hires. If there are less jobs available, employers are more likely to hire someone with more experience and training. Employers can be more willing to invest in their current employees because the economic situation does not allow them to bring on new hires.

"If a person shows ambition and eagerness, it's something that we look at. Hiring on attitude is more important than hiring on skill, you can teach almost anything to an employee with the right attitude."

"Our experience is that most employers are now realizing that there is a strong benefit in having an apprentice who is green but who can be molded into the specific work culture of the company. That being said there is a significant cost to those initial hires for employers."

"The hassle of mentoring and bringing on new employees with very few skills; not wanting to spend the time on skill development."

"With the economy changing they have current employees who need new skills and will use them over a new person."

Industry employer willingness to work with RAP students

Stakeholders were asked if employers in their industry are willing (or unwilling) to have younger apprentices on-the-job, such as high school students in the Registered Apprenticeship Program (RAP).

Willing

- Most are willing to work with RAP students if the conditions are right. RAP students can be energetic and eager to learn. Additionally, they do not require a high wage. Employers can see the value in introducing students into the trades at a young age.
 - Good for community and industry as a whole. Hiring RAP students can help develop a workforce within the community of skilled tradespeople. It can also be good for existing journeypeople, as it can be inspiring and fulfilling to be able to pass on knowledge.
 - Train from the ground up. Employers see the value in not having to break certain bad habits by having someone completely new to the trades. Similar to hiring employees with less skills, the prospect of training a "green" RAP student is appealing to employers as they can be moulded to fit the needs and culture of a workplace.
 - Trust with RAP program has been built. Employers sometimes need to be persuaded to hire RAP students, as they may not want to bring on a younger employee. If the employer has had a previous good experience with the RAP program, then they are more likely to bring on another student.

Unwilling

- Age restrictions. There are some employers that have a policy of not hiring anyone under 18, which makes RAP students unavailable as potential employees.
- Not enough time to train. It was mentioned that a deterrent to the hiring of RAP students was that some employers do not feel they have the proper maturity or employability skills, and there is not enough time to properly train them to work safely.

"Employers need young energetic workers that are eager to learn and are not demanding a high wage."

"Reigniting the passion of current employees by giving them a chance to train and share their knowledge with youth."

"If a young person shows motivation, application, and diligence in the work, employers seem to be willing and excited about the prospect of bringing in someone whose bad habits they don't have to break."

"With RAP students there needs to be a bit more convincing and persuading to get them to hire...If provided with a good RAP student and the employer has a positive experience, they are more likely to take on more."

"There are companies that have a blanket rule of not hiring anyone under 18."

"There isn't enough time to make these experiences rewardable and keep the individual safe."

Importance of soft skills in new hires

Stakeholders were asked the importance of new hires having already developed soft skills.

- Soft skills are deemed important, even essential, to some employers. New hires coming in with soft skills were mentioned to perform better, and generally last longer in their careers. Soft skills play an important role in the success of both the employer and the employee.



Communication



Teamwork



Willingness to learn

- Existing employees adjust better to those with soft skills. Mentors and other employees will adjust better to new hires if they possess the ability to communicate, work with a team, or be adaptable to certain workplace situations.
- A lack of soft skills from new employees can cause friction in the workplace. New hires without soft skills can cause friction within a workplace as they may not fit in with the team or be able to communicate.
- A lack of soft skills can lead to unsafe practices and inefficient procedures. Soft skills, also referred to as 'street-smarts', were noted as essential factors in ensuring that the work is being done in a safe manner, and that the processes are efficient.
- The need for soft skills can be dependent on the situation. Only two stakeholders explicitly stated that soft skills are not important, as they just need bodies to fill the position. However, some also stated that it depends on the situation whether soft skills are relevant or not.

"These skills are essential to a well- functioning, long-standing and healthy workforce."

"It really depends on the trade and tasks that need to be performed."

"Communication is essential to the trades person to justify their time and accountability. Constantly problem solving and working on a team and independently."

"If you cannot function within the team or have the ability to communicate with your journey person you will not leave with the proper skills."

"If an apprentice can't get along in a shop or communicate with other employees or cause friction it slows all productivity."

Industry employer willingness to develop soft skills on-the-job

Stakeholders were asked about the willingness of employers to develop soft skills on-the-job.

- Soft skills can be developed with proper mentorship. If an employer is willing to invest the time to develop soft skills in an employee, they will assign a mentor. Soft skills cannot be taught in a classroom setting but, with the right mentor, can be developed on-the-job. If an employee is willing to learn, a mentor can be willing to help foster certain soft skills.
- Workplace culture can develop soft skills. Depending on the culture of the workplace, certain soft skills can be developed and enforced. The environment in which a new hire is trained can play a role in developing soft skills, even if it is not specifically an item for employees to be trained on.
- Developing soft skills is not a priority for some employers. For some employers, developing soft skills is not seen as a priority as it may not be directly related to day-to-day duties.
- Not enough time or money to train for soft skills. There is a level of soft skills that is expected in an employee when they are hired. Employers generally do not want to invest the time and money into developing soft skills. It is not seen as a fundamental part of on-the-job training.

"Some people are naturally better communicators, educators and teachers and if you can find a combination of a great mentor with a student who has a willingness to learn- that equals success for both the employer and the person being hire."

"It is hard to instill soft skills in a work environment as time is money and every time a person is not billable it costs money."

"The "Hire for Values, train for Skills" approach explores whether these softer skills are inherent in an individual as part of a values alignment with the company. Some basic level of proficiency in these soft skills is required (though some of these skills can be developed on-the- job) for employment success."

"They are demonstrated on-the-job site not taught, however, they can be definitely enforced and developed on the job site."

Mentorship: role or value of mentorship in supporting a quality learning experience for apprentices on-the-job

Stakeholders were asked the willingness of employers to develop soft skills on-the-job.

- Mentors are key to the development of an apprentice. Mentors provide guidance to apprentices by giving them one-on-one experience to learn to trade. They are the core foundation of the apprenticeship model, according to most stakeholders. A mentor provides valuable experience to an apprentice that is outside of what can be taught in a classroom.
- Good mentors make good tradespeople. A mentor that is patient, encouraging, and willing to teach is crucial to the development of good tradespeople. A mentor that lacks teaching skills may hinder an apprentice's learning capability and interest in the trade. Mentors can help build a stronger workforce.
- Mentors pass on years of knowledge. Mentors have accumulated many years of experience and knowledge that can be incredibly useful to an apprentice. A wide range of contexts can be taught to an apprentice to help them receive a more well-rounded learning experience.
- Mentors go beyond teaching technical skills. Beyond teaching hands- on skills that are applicable within the trade, a mentor can help guide an apprentice by preparing them for a range of physical and mental demands of the job.

"Good mentors create a stronger workforce."

"Having a quality journeyperson that is willing to teach their skills, has the patience to listen, and explain everything so that the apprentice understands things is extremely important. Negativity, bullying, ridicule will make for a poor apprentice."

"Value is very high of mentorship in supporting a quality learning experience for on-the-job. They pass on past knowledge and personal experience from the trade."

"The role of the mentor is not only about teaching the technical skills, or the employability skills. It is also about helping the student navigate the range of mental and physical readiness of the job."

Additional supports for a mentorship role

Stakeholders were asked about additional supports for a mentorship role.

- Mentorship course training. Most stakeholders mentioned that it would be beneficial to have some sort of mentorship training for journeypeople. This course would include coaching techniques, best communication practices, and the importance of different learning strategies. Once completed the training, there could be a symbol that indicates completion on the journeypersons card or certificate.
- Accountability for mentors. Having a mentor's name tied to an apprentice to provide accountability. This ensures the quality of training provided is acceptable and mentors take responsibility for their actions. This could also include the review of a mentor by an apprentice in their guidebook.
- Online forum for mentors. An online forum where mentors can communicate with each other and share tips and tricks for certain situations when dealing with apprentices.
- Guideline for mentors. A notebook that provides guidance to mentors. This includes information on what is expected of the apprentice.
- Financial incentives for mentors. A mentor would receive some sort of financial incentive or compensation for taking on a RAP student or apprentice. This could also include rewarding the mentor when an apprentice becomes a journeyperson.
- Flexible work schedule for mentors. A mentor's work schedule could be relaxed or flexible due to the time they need to take to train an apprentice.
- Mentorship as a duty. There should be more emphasis on mentorship as a duty, not as a task that can be brushed aside.

"Additional mentorship course training would prove beneficial to enhance the techniques of the mentors existing traits. With this in mind hopefully we can create more journeypersons to share their qualities and invest in the new apprentices entering into the trades."

"I'd like to see the Journeyperson's name tied to the apprentice in some way. This way there is some validation and responsibility on the journeymen to ensure the quality of training provided."

"Financial incentive for mentoring a RAP student (directly to the mentor)."

"Possibly, more emphasis on the mentoring of the apprentice as a duty, not just something that should be done."

Benefits and supports for employers to provide quality on-the-job training for apprentices

Stakeholders were asked about the willingness of employers to provide quality on-the-job training for apprentices.

- Incentive for following through with apprentices. A bonus or incentive could be given to employers for training an apprentice into a journeyperson. This could be in the form of a tax credit, or a type of recognition.
- Training guides for employers. Employers could be given training guides to help tailor training and learning to the apprentice. It could help the employers see what needs to be focused on.
- Write-off for tools. The appropriate tools can be written off by the employer in order to set up an apprentice for success in the program.
- Support from AIT on site. Having an employee from AIT visit employers to offer support in training on site.
- Clear guidelines and expectations. An employer should have clear guidelines and expectations of what tasks an apprentice needs to complete. If they cannot be completed within one workspace, then there should be a potential to 'job-share' with other employees.

"Employers could get a bonus or incentive for following through with an apprentice from indenturing to journeyman status. This could take the form of a tax credit or some other vehicle."

"A loose training guideline for each year."

"If you're a specialty shop you may need to job share with another shop that can offer a different training aspect so the apprentice will learn all the needed skills."

"Write off of appropriate and necessary tools to start apprentice off properly from the start."

"Would it help if someone from AIT went out to site and connected with employers to offer support in training?"

Supports and incentives for employers to hire new apprentices with minimal relevant work experience

Stakeholders were asked about supports and incentives employers would like to see in order to hire new apprentices with minimal relevant work experience.

- Tax credits, grants, and wage subsidies. There was a general feeling that there needs to be some sort of financial incentive for the employer such as grants, a wage subsidy, or tax credits. Subsidized wages may encourage employers to take on newer employees with less experience.
- Access to mentorship training and supervisor training. Having access to mentorship and supervisor training can help ensure that apprentices are receiving proper training and employers feel supported in the training process.
- An initial incentive, but not ongoing. Apprentices do not take long to add value to an organization, so an initial incentive may persuade employers, but it does not need to be ongoing once the apprentice is providing value to the company.
- Increase safety training for students. Employers are often worried about the safety of their worksite. Increase safety training for apprentices can help persuade employers.

"I also like the idea of mentorship and supervisor training. Not everyone understands how to be a good mentor or supervisor."

"Definitely some sort of funding to offset the training would be a huge perk for an employer."

"Remember that students generally do not take long to add value to an organization. So again, perhaps a small initial incentive, but otherwise no."

"Increase safety training programs for students and make them more easily accessible."

"Financial supports – particularly in a downturn, tax credits, direct wage subsidy or grant (so apprentices aren't the first ones to get laid off when work slows down)."

Incentives for employers to provide RAP style internships

Stakeholders were asked about what supports and incentives would employers like to see in order to provide RAP style internships.

- Tax credits, grants, and wage subsidies. Similar incentives used for new hires can be used for RAP students. Like new hires, the cost of training can be expensive to the employer. A financial incentive to help offset this cost can encourage employers to take on more RAP students.
- Put money in education, not the labour force. Instead of putting money in employers, money can be spent in education. Having proper training and education for RAP students in high school can benefit the industry and have them coming into their work placements better prepared.
- RAP students should have previous safety training. Before entering the workforce, RAP students should have some sort of safety training. At minimum first aid training, CSTS, fall protections, and WHIMIS. If a RAP student has previous safety training, it could incentivize an employer to hire them.
- More flexible school schedules for RAP students. The schedule of a RAP student in high school may not fit well with an employer's schedule. Having a RAP student work only a half day can be challenging for employers and their schedule.

"Incentive grants could be offered to employers to be reimbursed for their part in training the students during practicums. It would enhance the opportunity of a new apprentice attaining permanent employment."

"Don't subsidize industry, change education – put the money there! In the long run, benefits to Industry and of course to our labour force will be much greater."

"RAP students should have at minimum first aid training, CSTS, fall protection, WHIMIS and an understanding of safety."

"I personally am not a fan of starting RAP students before grade twelve, our work schedule does not fit well with students working ½ days or something similar unless they are in grade twelve and will continue to work for us when they graduate."

Perceptions of skilled trade professionals

Stakeholders were asked if Albertans hold positive perceptions of the skilled trades. Much like the response to whether apprenticeship is viewed as an equivalent of a post-secondary education program, stakeholders were split. A similar proportion of those who agreed that apprenticeship is equivalent to a post-secondary program agreed that Albertans have a positive perception of skilled trade professionals. However, considerably more stakeholders had a mixed opinion about Albertans' perceptions of skilled trade professionals.

Stakeholders who did not think Albertans held a positive perception of the skilled trades thought so for the following reasons:

- Lack of understanding about the importance of the trades. Stakeholders acknowledged that Albertans may not understand the training that goes in to becoming a skilled trained professional. Likewise, they acknowledged that in high school, teachers do not know as much about skilled trades or where to find information on them, so they could be less likely to share that information with high school students.
- Perception of low paying jobs. Stakeholders alluded that, to be considered successful or to have a high paying career, a university degree would be required.
- Trades are for those who did not do well in school. The perception is maintained that an apprenticeship is not equivalent to a post-secondary degree and that the trades are for those who didn't do well in school.

For stakeholders that held a mixed opinion they echoed the reasons of those who agreed and disagreed that Albertans held a positive perception of skilled trades in Alberta. Many of those who were mixed acknowledged that not all Albertans feel the same way and that it depends on the person and how exposed to the trades they are/were. Stakeholders also compared the perceptions of trades in Alberta to other provinces and acknowledged that the perceptions of trades in Alberta could be considered more positive than other provinces or countries due to the amount of skilled trade professionals in Alberta.

"The misconception still exists that, in order to have a well-paying, secure job, you must hold a university degree."

"For some reason some people believe that trades people are less educated than people with a university or college degree."

"I think there is a general lack of knowledge of the importance of trades both in the general public and in schools."

Stakeholders who did think Albertans held a positive perception of the skilled trades thought so for the following reasons:

- Skilled trades professionals are valued members of society. Stakeholders acknowledge that skilled professionals not only contribute to their community but to their province as a whole. It was also acknowledged by stakeholders that nearly everything you do in your day to day life may at some point been worked on by a skilled trades professional, making them a valued and essential part of society.
- Alberta has lots of trade professionals. As mentioned by multiple stakeholders, Alberta has a large population of skilled trades professionals and that contributes to the positive perception.
- The Apprenticeship program in Alberta has a good reputation. Stakeholders believe that the apprenticeship program in Alberta has a good reputation as evident by the hardworking trades people it produces.

"Skilled trades professionals are viewed as hard-working, meaningful members of society who provide the foundation for economic growth in the province."

"Alberta is a blue-collar province. We all are aware of the value of skilled trades persons to fix our vehicles, build our houses, manufacture products, etc."

"Alberta's economy and culture has been built by trades people and are one of the great resources of the province."

Opportunities to improve the perception of skilled trades as viable career option

Stakeholders identified the following opportunities as ways to improve the perceptions of skilled trades as a viable career option of Albertans. The main theme throughout all suggestions below is raising awareness for the trades.

- Promoting programs that are inclusive and highlight diversity in the trades. Stakeholders referred to different programs that could be highlighted included Women Building Futures, Skills Canada Alberta, Careers: The Next Generation.
- Provide more transparency on the trades. Stakeholders acknowledged that those considering the trades may not be aware of the wages that could be earned or the demand for certain occupations. Likewise, in Alberta when most think of the trades they think of Oil and Gas, and do not realize the other trade occupations available to them.
- Provide more education about trades in schools. Stakeholders noted that changing perceptions starts young. By teaching and informing students from a young age of the career opportunities available to them, students will be able to gain a greater understanding of what the trades are and how they are a viable career option for all.
- Expand what it means to be a “trade”. As mentioned by multiple stakeholders, expanding what it means to be a trade could help remove the negative associations with trades. This could include renaming the trades as a whole or altering trade names so that they are portrayed as more skilled such as “Millwright” becoming “Industrial Mechanic”.
- Marketing. Nearly all stakeholders suggested some form of marketing campaign to improve perceptions, whether it be social media campaigns, digital advertising or television ads. Most of the ideas involved highlighting success stories or “champions” of the trades.

“We need to continue the conversations in the schools in order to increase understanding and appreciation among youth and the teacher influences.”

“Early exposure in an educational setting. Societies views take a long time to change, but we should start now – right from grade school through high school”

“The biggest opportunity I believe is by expanding the definition of skilled trades beyond the current one. If we could change the definition of a trade from being perceived as purely “construction” and have it included in a much broader range of what I would call “occupational technologies” the population would begin supporting it more.”

“Show off some of the “champions” or “success stories” in our province.”

“Through media showing not only the mundane things we do but also the specialized skills and their uses.”

Benefits of compulsory certification

Stakeholders were given the following definition:

Compulsory certification means that in order to perform any duties that fall within the scope of a trade, an individual MUST be a certified journeyperson, or a registered apprentice working under the supervision of a certified journeyperson.

Stakeholders provided the following opinions on how compulsory trades benefit employers, employees and Albertans.

For All:

- Peace of mind/ Safety. Nearly all stakeholders alluded to the peace of mind of both employers and Albertans that the work being done is being done correctly and to the highest safety standard.

For Employers:

- Guaranteed safety. Employers can be assured that their employee understands how to perform their tasks safely while doing a quality job.
- Hiring reassurance. Employers will be able to hire certified trades people and be assured that they have the level of training and skill necessary to do the job.

For Employees:

- Consistent standard of training. For employees who require certification, they can be assured that there is a consistent standard of training being provided in order to meet the certification requirements. All employees would be taught the same skills.
- Encourages the completion of certification programs. In order to get a job in a trade that requires compulsory certification, employees must complete their certification program.
- Safe work environment. If all employees receive the same certification training and share the same understanding of the safety protocols, there will be a great sense of safety in the workplace.

For Albertans:

- Enhanced trades reputation. Certification promotes and maintains a strong reputation for the trades in Alberta, and reinforces that trades provide essential value to society. It also would reduce those who are uncertified from participating in the trade and potentially harming the reputation of the trade by performing an unsatisfactory or unsafe job.

Barriers and challenges of compulsory certification

Stakeholders identified the following as barriers or challenges of compulsory certification for employers or industries.

- Creating a gap in the workforce. A few stakeholders were concerned that imposing compulsory certification would take journeypersons out of the work force for a period of time to get certified leaving a potential gap in the work force.
- Financial constraints. The completion of a compulsory certification would come at an extra cost to those working in the trades. It could also result in the need to purchase extra material and documentation. For employers, there is an assumption that a certified trained employee would cost more. For employers, it could also be harder initially to find certified employees. Additional financial constraints include the employer's ability to finance the certification process.
- Time commitment. The time commitment associated with a compulsory certification could prevent people from working in the trades.
- Unable to address labour force shortage with foreign workers. By imposing a compulsory certification on the trades, this could potentially limit the opportunity to bring in foreign workers during a labour shortage due to lack of certification. A compulsory certification could also limit interprovincial mobility if there was no recognition for certifications from other jurisdictions.
- Prevents skilled workers from doing work. Much like the concern about being unable to utilize foreign workers, there are many more- local trades people who are skilled in their job but would not get certified and would then be unable to work.
- Technology concerns. Stakeholders are concerned that compulsory certification will not keep up to speed with current technology and advances in the field. Likewise, when an individual is certified, the technology they utilized during their certification may not be prevalent today.
- Trade confinement. Some stakeholders are concerned that a compulsory certification would prevent apprenticeships from expanding their skill set and trying something else. A compulsory certification could make it harder for apprentices to become multi- disciplined.

"Will limit opportunities to bring in foreign workers to address a workforce labor shortage."

"Short term demand spikes are challenging to satisfy when trades are compulsory."

"There are a lot of very talented skilled workers out there that can do the job but are not indentured apprentices so are not allowed to do the work."

"Apprentices can become 'pigeon- holed' in a particular trade if they want to try something else. Not easy to become multi trade disciplined. "

"It would cause employers and industries to have to pay more. And they would also have to send their apprentices off for technical training with raises other issues."

"High wages for trained employees."

Online Survey

Methodology

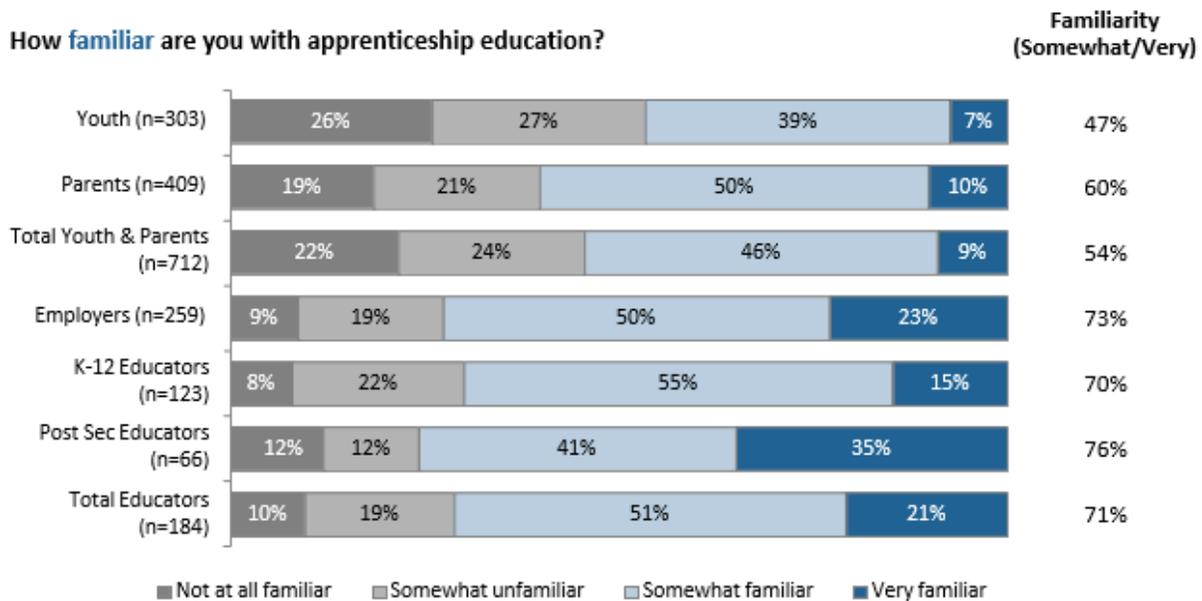
The content of this survey summarizes the findings of an online survey that was conducted by Leger in summer 2020. A total of 1,062 surveys were completed between July 2 to July 20, 2020 using Leger’s online LEO panel. The survey was conducted with the following groups of Albertans:

- Youth, under 25 years of age
- Parents of youth
- Employers
- K-12 Educators including teachers and counsellors
- Post-secondary Educators

As a non-random internet survey, a margin of error is not reported (margin of error accounts for sampling error). Had these data been collected using a probability sample, the margin of error for the total sample size (n=1062) would have been ±3 percentage points, 19 times out of 20. Due to rounding, percentages may not sum to 100%

Familiarity

For all groups, more are somewhat than very familiar with apprenticeship education. Employers and educators are more familiar with apprenticeship education than youth and parents.



Base: Albertans Albertans
 Q1: How familiar are you with apprenticeship education?

Involvement in apprenticeship education

Apprenticeship education is most strongly associated with learning on the job and mentorship, and it is also commonly associated with trades professions. Youth demonstrate having the least agreement for all statements and more 'don't know' responses, indicating an overall lack of awareness.

To what extent do you agree or disagree the following are involved in apprenticeship education?

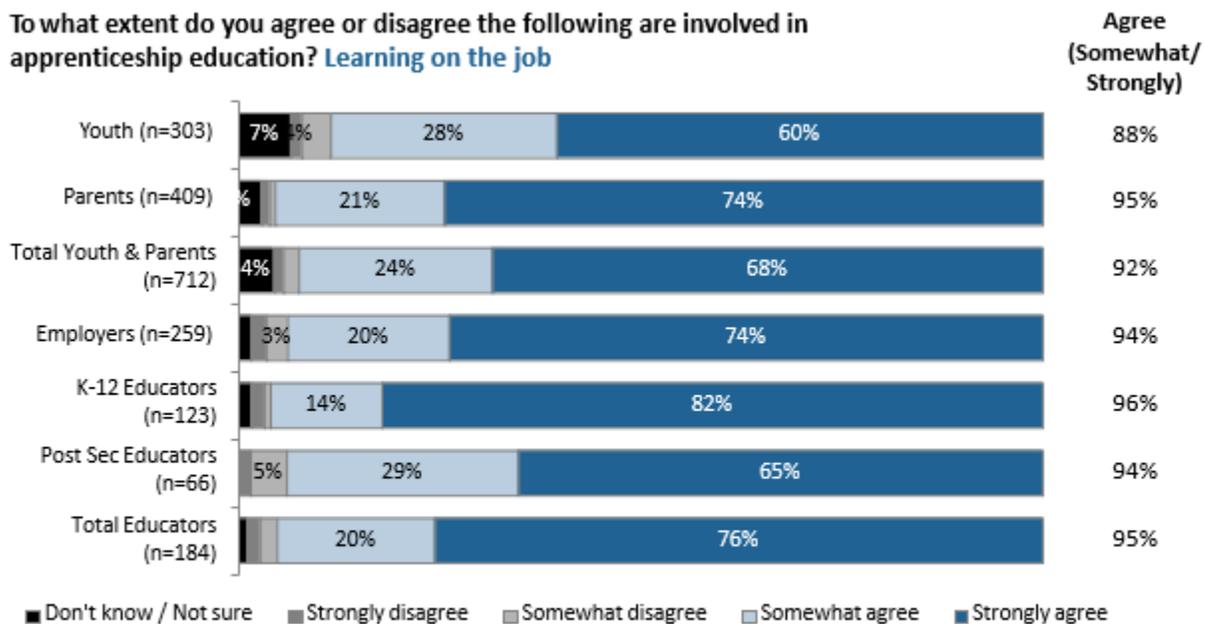
% Agree (Somewhat / Strongly)	Youth (n=303)	Parents (n=409)	Total Youth & Parents (n=712)	Employers (n=259)	K-12 Educators (n=123)	Post Sec. Educators (n=66)	Total Educators (n=184)
Learning on the job	88%	95%	92%	94%	96%	94%	95%
Learning from an experienced mentor who knows the job	89%	95%	92%	93%	95%	92%	94%
Is for individuals going into trades professions	82%	89%	86%	88%	86%	83%	86%
Learning in a classroom	56%	79%	69%	78%	81%	83%	82%
Is for individuals who are not academically inclined	36%	38%	37%	44%	39%	58%	46%

Base: Albertans

Q2: To what extent do you agree or disagree the following are involved in apprenticeship education?

More Albertans in all groups strongly agree that learning on the job is involved in apprenticeship education, than somewhat agree. Parents, employers, and K-12 educators agree with this statement more than youth.

To what extent do you agree or disagree the following are involved in apprenticeship education? Learning on the job



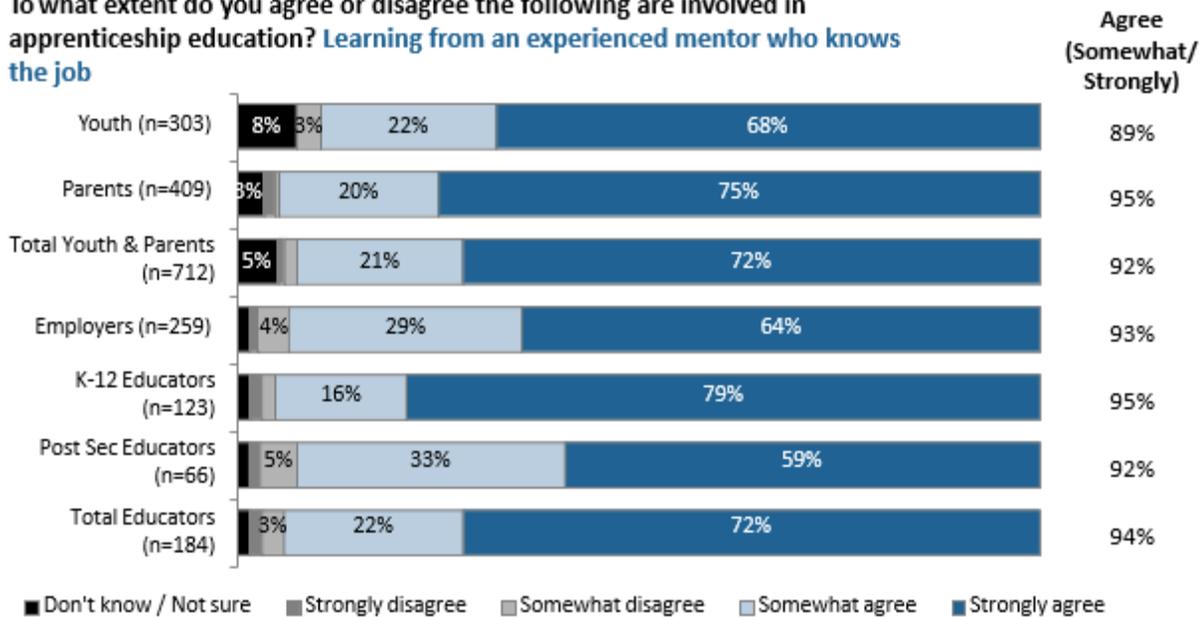
Base: Albertans

Responses 2% or less are not labelled.

Q2: To what extent do you agree or disagree the following are involved in apprenticeship education?

Learning from an experienced mentor who knows the job is considered to be an aspect of apprenticeship education as all groups have high agreement with this statement. Parents and K-12 educators agree with this statement more than youth.

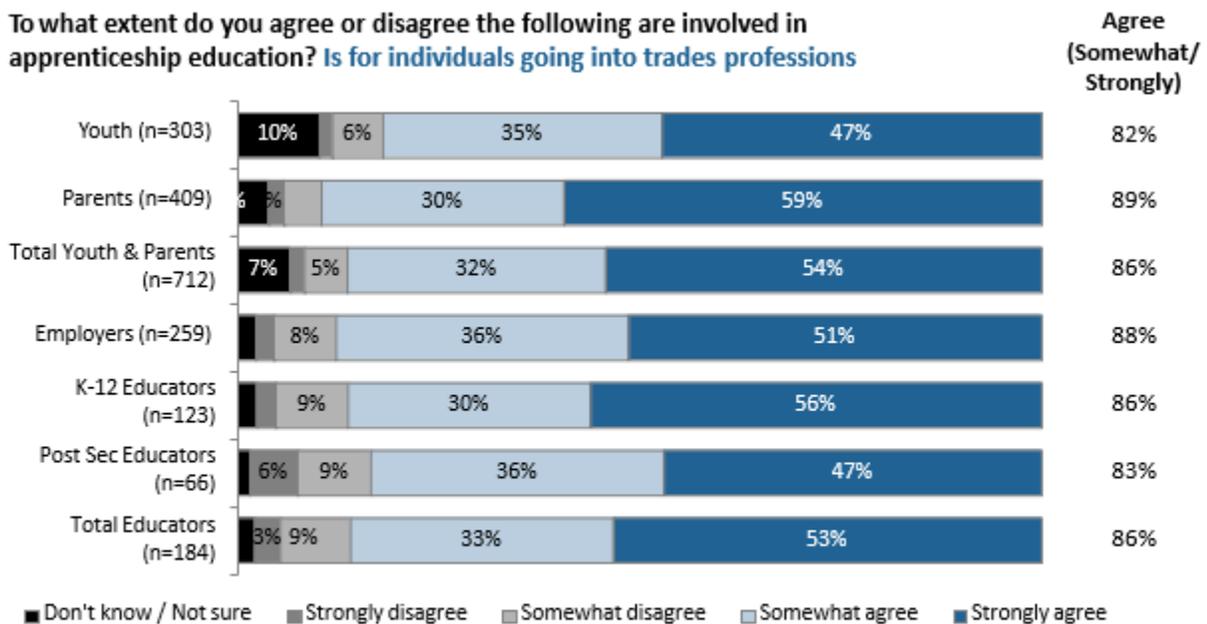
To what extent do you agree or disagree the following are involved in apprenticeship education? Learning from an experienced mentor who knows the job



Base: Albertans
 Responses 2% or less are not labelled.
 Q2: To what extent do you agree or disagree the following are involved in apprenticeship education?

Around eight in ten Albertans think that apprenticeship education is for individuals going into trades professions. Parents agree with this statement more than youth.

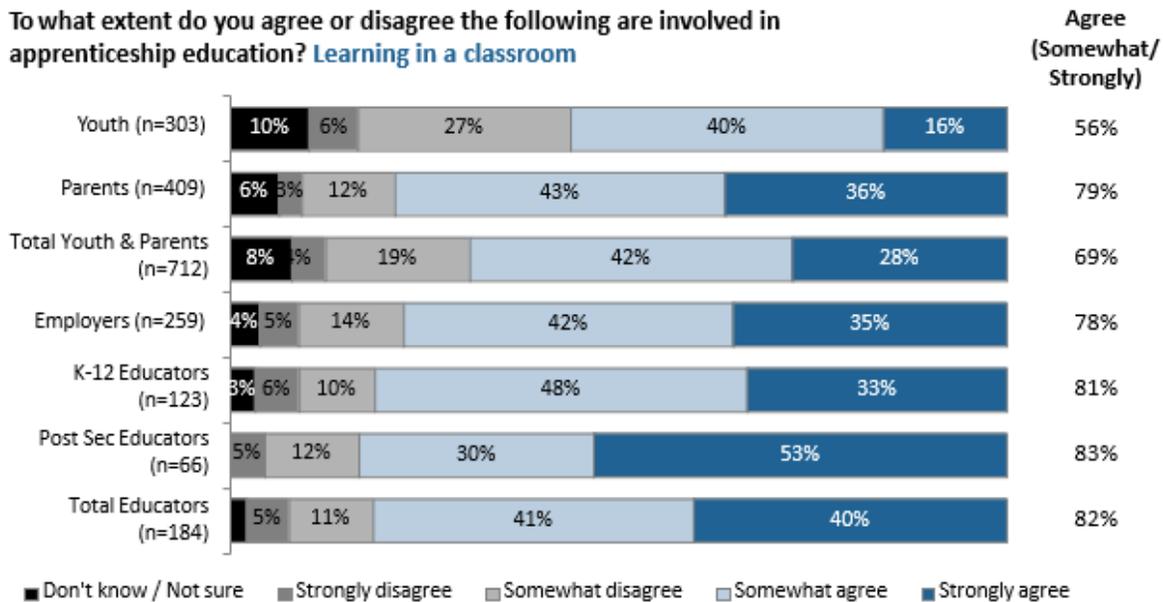
To what extent do you agree or disagree the following are involved in apprenticeship education? Is for individuals going into trades professions



Base: Albertans
 Responses 2% or less are not labelled.
 Q2: To what extent do you agree or disagree the following are involved in apprenticeship education?

There is high agreement that classroom learning is involved in apprenticeship education, except among youth. Parents, employers, K-12 educators and post-secondary educators all agree with this statement more than youth.

To what extent do you agree or disagree the following are involved in apprenticeship education? *Learning in a classroom*



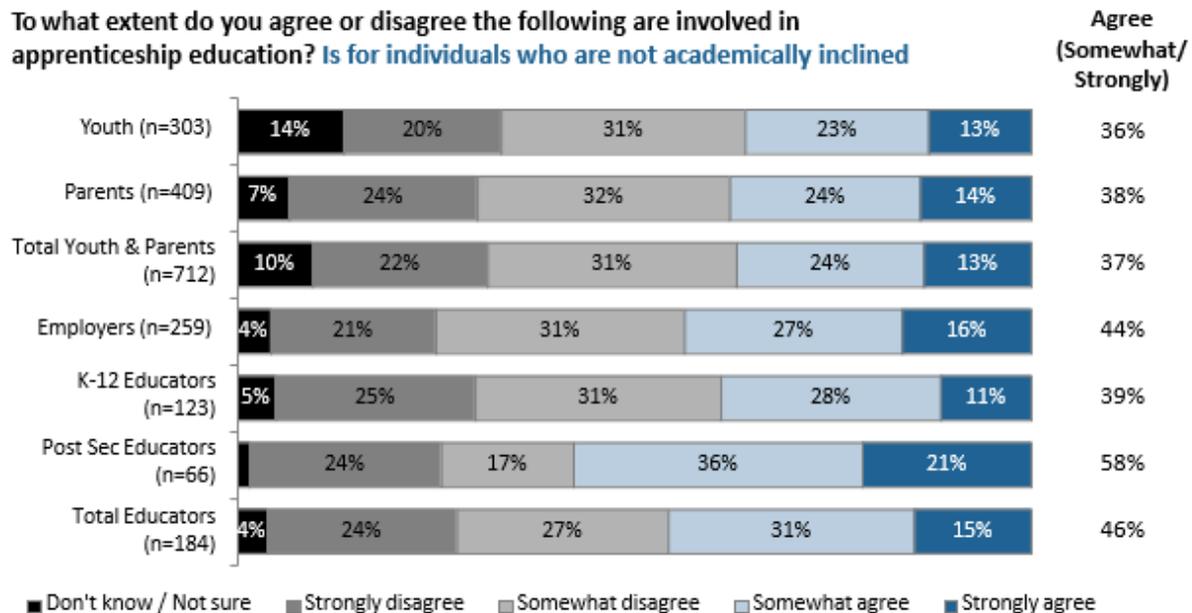
Base: Albertans

Responses 2% or less are not labelled.

Q2: To what extent do you agree or disagree the following are involved in apprenticeship education?

Levels of agreement with the statement 'is for individuals who are not academically inclined' are lower than for the other statements asked, but still substantial. Post-secondary educators agree with this statement more than all other groups.

To what extent do you agree or disagree the following are involved in apprenticeship education? *Is for individuals who are not academically inclined*



Base: Albertans

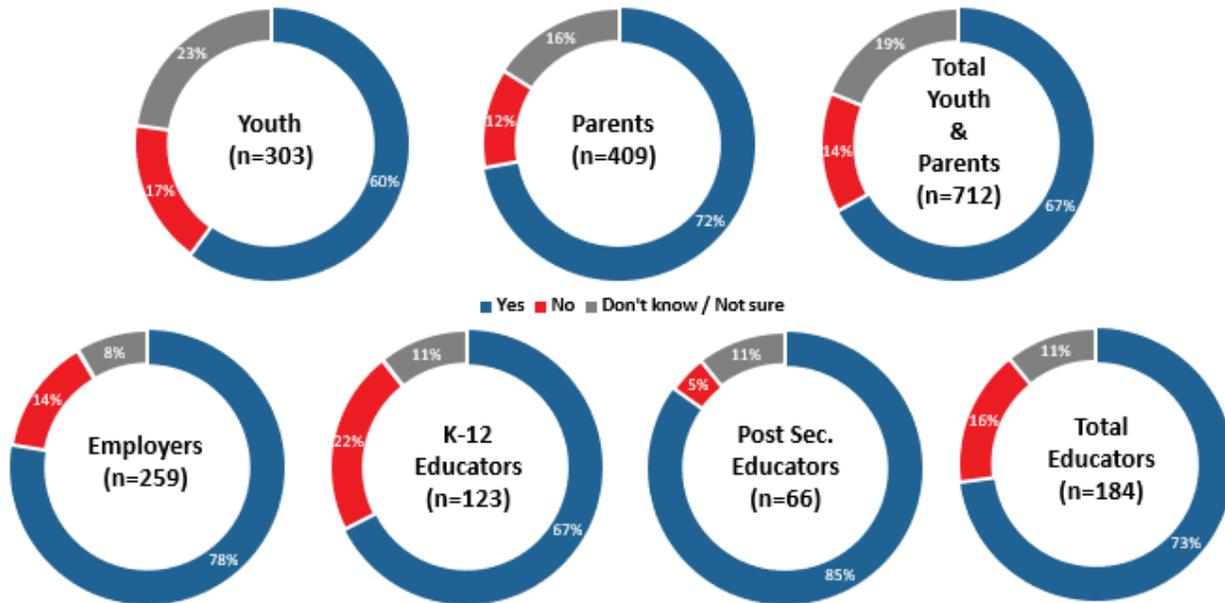
Responses 2% or less are not labelled.

Q2: To what extent do you agree or disagree the following are involved in apprenticeship education?

Apprenticeship at post-secondary level

Majorities of all groups think an apprenticeship program is at a post-secondary level. This opinion is held most widely among post-secondary educators and least among youth. Parents, employers, and post-secondary educators agree an apprenticeship program is at a post-secondary level more than youth.

Do you think an apprenticeship program is at a post-secondary level?



Base: Albertans

Q3: Do you think an apprenticeship program is at a post-secondary level?

Youth and parents who think an apprenticeship program is at a post-secondary level provide as most frequent reasons that 'education beyond high school is considered post-secondary' and 'you are on a career path/learning specific skills'. Employers and educators more frequently mention the requirement of completion of grade 12 or equivalent.

Reasons apprenticeship is at a post-secondary level

	% Mentioning	Youth (n=182)	Parents (n=295)	Total Youth & Parents (n=477)	Employers (n=201)	K-12 Educators (n=83)	Post Sec. Educators (n=56)	Total Educators (n=134)
Education beyond high school is considered post-secondary		19%	18%	18%	10%	13%	11%	12%
You are on a career path/Learning specific skills		15%	13%	14%	10%	12%	7%	10%
It requires more involved and advanced training		15%	12%	13%	8%	10%	9%	10%
Required completion of grade 12 or equivalent		4%	8%	7%	15%	18%	9%	14%
It is done through, or in partnership with a college, university or trades school		7%	13%	10%	7%	11%	11%	11%
It is a combination of in-class learning and mentored work experience		5%	8%	7%	9%	7%	4%	6%
Apprenticeship programs are equally valuable as college or university degrees		12%	5%	8%	5%	6%	4%	5%
Students are more mature and prepared at a post-secondary level/May not be prepared at the high school level		5%	6%	6%	5%	10%	7%	8%
Apprenticeship programs can begin during high school		5%	5%	5%	4%	16%	2%	10%
Apprenticeship programs are completed during post-secondary education		5%	4%	4%	4%	11%	-	7%
Includes on the job training/Actually working at the job		8%	3%	5%	5%	4%	2%	3%
Should already possess basic skills/knowledge		2%	3%	3%	5%	5%	-	3%
It is for people not interested in pursuing academics/People only wanting to enter the workforce		6%	1%	3%	0%	1%	-	1%
General positive		1%	1%	1%	4%	-	2%	1%
Working with a mentor/Connecting with an experienced employer		1%	1%	1%	1%	1%	-	1%
I am neither familiar with or participated in apprenticeship programs		1%	1%	1%	<1%	2%	-	1%
It is not a degree program/The learning period is too short to be considered post-secondary		1%	<1%	1%	-	-	-	-
Comparable to a high school education		1%	<1%	<1%	-	-	-	-
Other (Please specify)		4%	10%	8%	9%	11%	11%	10%
Nothing		1%		<1%	8%	1%	29%	12%
Don't know		4%	4%	4%	0%	-		
Prefer not to answer		2%	4%	3%	7%	-	7%	3%

Albertans who think an apprenticeship program is not at a post-secondary level mention ‘apprenticeship programs can begin during high school’ as their reasoning.

Reasons apprenticeship is not at a post-secondary level

% Mentioning	Youth (n=52)	Parents (n=49)	Total Youth & Parents (n=101)	Employers (n=36)	K-12 Educators (n=27)	Post Sec. Educators (n=3*)	Total Educators (n=30*)
Apprenticeship programs can begin during high school	23%	37%	30%	19%	81%	33%	77%
It is for people not interested in pursuing academics/People only wanting to enter the workforce	12%	10%	11%	22%	4%	-	3%
It is not a degree program/The learning period is too short to be considered post-secondary	17%	14%	16%	11%	-	-	-
Apprenticeship programs are completed during post- secondary education	4%	6%	5%	-	11%	-	10%
It is done through, or in partnership with a college, university or trades school	2%	2%	2%	8%	4%	-	3%
Apprenticeship programs are not offered at post-secondary institutions	4%	2%	3%	6%	-	-	-
Comparable to a high school education	4%	2%	3%	6%	-	-	-
Students are more mature and prepared at a post- secondary level/May not be prepared at the high school level	2%	6%	4%	-	-	-	-
Working with a mentor/Connecting with an experienced employer	-	2%	1%	3%	4%	-	3%
Includes on the job training/Actually working at the job	2%	2%	2%	3%	-	-	-
I am neither familiar with or participated in apprenticeship programs	4%	2%	3%	-	-	-	-
General positive	2%	4%	3%	-	-	-	-
Education beyond high school is considered post-secondary	2%	-	1%	3%	-	-	-
It is a combination of in-class learning and mentored work experience	2%	2%	2%	-	-	-	-
Should already possess basic skills/knowledge	-	4%	2%	-	-	33%	3%
Required completion of grade 12 or equivalent	-	-	-	3%	-	-	-
You are on a career path/Learning specific skills	2%	-	1%	-	-	-	-
Apprenticeship programs are equally valuable as college or university degrees	2%	-	1%	-	-	-	-
It requires more involved and advanced training	-	2%	1%	-	-	-	-
Other (Please specify)	12%	16%	14%	17%	15%	33%	17%
Don't know	12%	2%	7%	6%	-	-	-
Prefer not to answer	8%	4%	6%	3%	11%	-	10%

Albertans who are not sure if an apprenticeship program is at a post-secondary level mention that 'I am neither familiar with or participated in apprenticeship programs' as their reasoning.

Reasons Albertans are unsure if apprenticeship is at a post-secondary level (part 1 of 2)

% Mentioning	Youth (n=69)	Parents (n=65)	Total Youth & Parents (n=134)	Employers (n=22*)	K-12 Educators (n=13*)	Post Sec. Educators (n=7*)	Total Educators (n=20*)
I am neither familiar with or participated in apprenticeship programs	51%	35%	43%	27%	31%	14%	25%
Apprenticeship programs can begin during high school	13%	15%	14%	18%	23%	14%	20%
Apprenticeship programs are completed during post-secondary education	6%	8%	7%	9%	8%	-	5%
Apprenticeship programs are not offered at post-secondary institutions	3%	2%	2%	5%	8%	-	5%
It is not a degree program/The learning period is too short to be considered post-secondary	3%	3%	3%	-	-	-	-
Education beyond high school is considered post-secondary	1%	2%	1%	-	-	-	-
It is a combination of in-class learning and mentored work experience	3%	-	1%	-	-	-	-
Includes on the job training/Actually working at the job	1%	-	1%	5%	-	-	-
It is for people not interested in pursuing academics/People only wanting to enter the workforce	-	2%	1%	5%	-	-	-
Working with a mentor/Connecting with an experienced employer	1%	-	1%	-	-	-	-
You are on a career path/Learning specific skills	-	2%	1%	-	-	-	-
Comparable to a high school education		2%	1%	-	-	-	-
Other (Please specify)	9%	6%	7%	-	-	-	-
Nothing		2%	1%	5%	-	-	-
Don't know	19%	29%	24%	27%	38%	57%	45%
Prefer not to answer	4%	2%	3%	9%	-	14%	5%

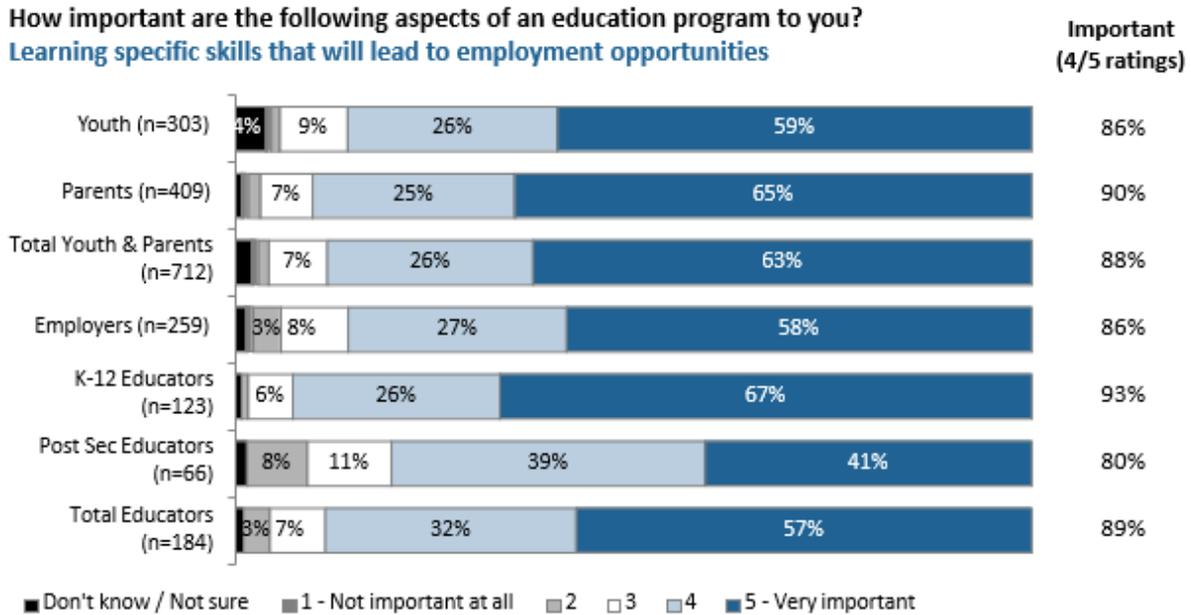
Important aspects of an education program

The three aspects that are rated most important in an education are ‘learning specific skills that will lead to employment opportunities’, ‘having opportunities to apply what is learned in the classroom in a real world situation’, and ‘leads to future skill or career development opportunities’.

How important are the following aspects of an education program to you?

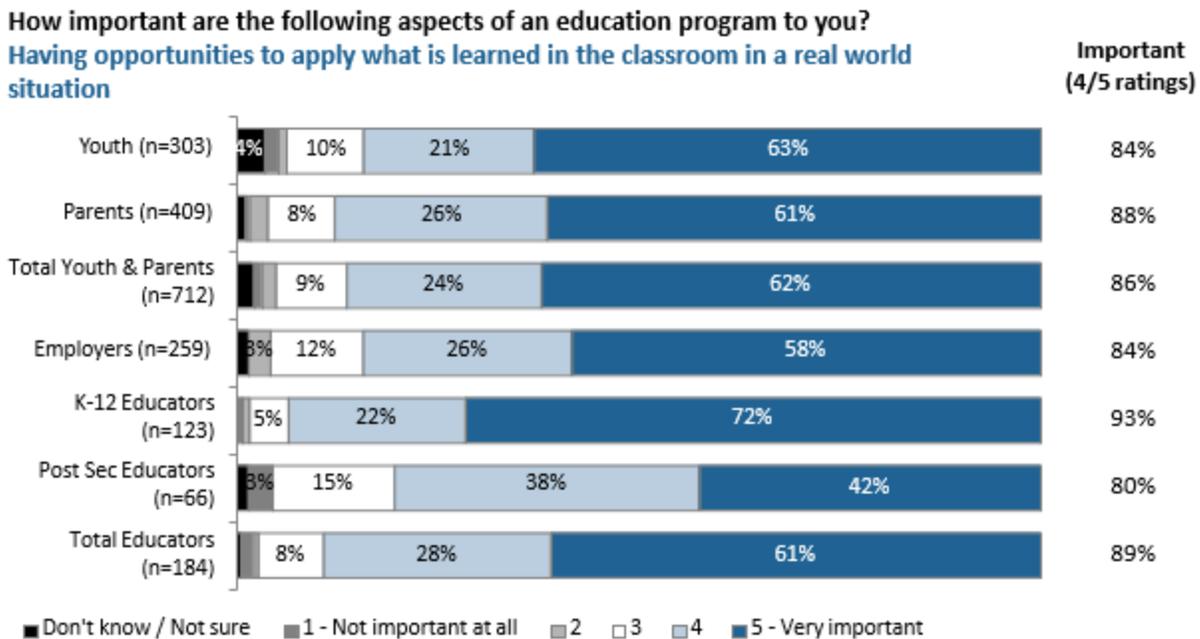
% Important (4 / 5)	Youth (n=303)	Parents (n=409)	Total Youth & Parents (n=712)	Employers (n=259)	K-12 Educators (n=123)	Post Sec. Educators (n=66)	Total Educators (n=184)
Learning specific skills that will lead to employment opportunities	86%	90%	88%	86%	93%	80%	89%
Having opportunities to apply what is learned in the classroom in a real world situation	84%	88%	86%	84%	93%	80%	89%
Leads to future skill or career development opportunities	83%	89%	87%	82%	94%	73%	87%
Being in a program that leads to a post-secondary credential	71%	75%	73%	74%	79%	74%	77%
Being able to earn while you learn	66%	74%	70%	71%	75%	67%	72%
Focused on academic knowledge	62%	55%	58%	61%	59%	74%	64%
Dual credit opportunities where credit is provided for high school and post-secondary at the same time	48%	60%	55%	52%	68%	50%	62%

Nine in ten K-12 Educators and Parents think that it is important to learn specific skills that will lead to employment opportunities. K-12 educators think this aspect is more important than youth, employers, and post-secondary educators.



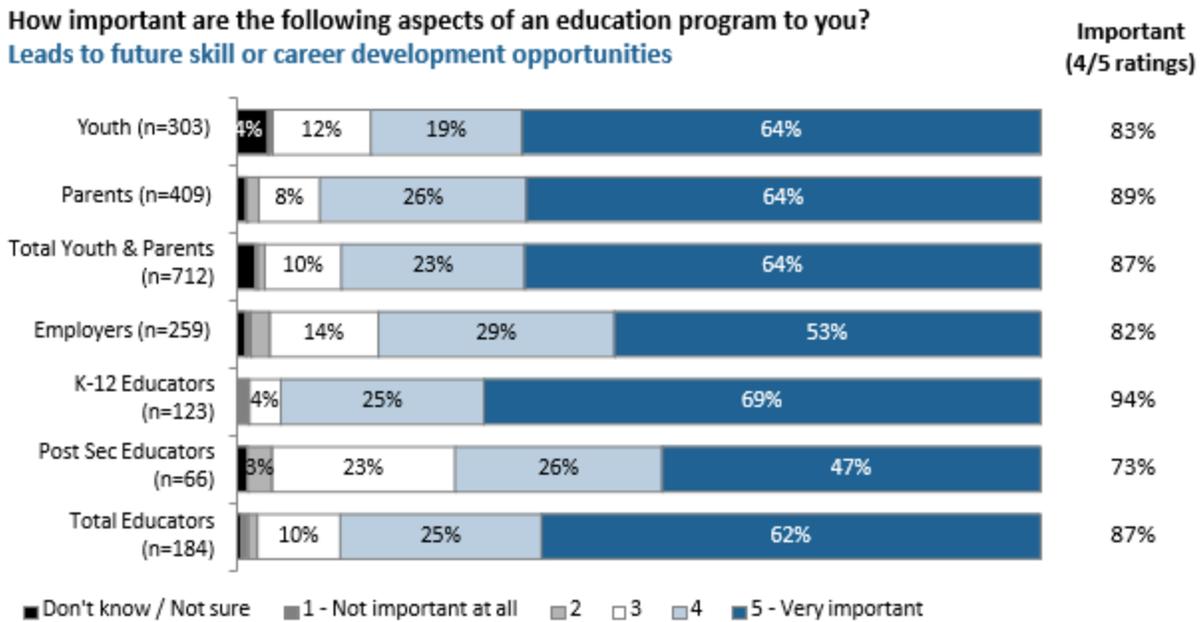
Base: Albertans
 Responses 2% or less are not labelled.
 Q5: How important are the following aspects of an education program to you?

The importance of having opportunities to apply what is learned in the classroom in a real world situation differs the most between K-12 and post-secondary educators. K-12 educators think this aspect is more important than youth, employers, parents, and post-secondary educators.



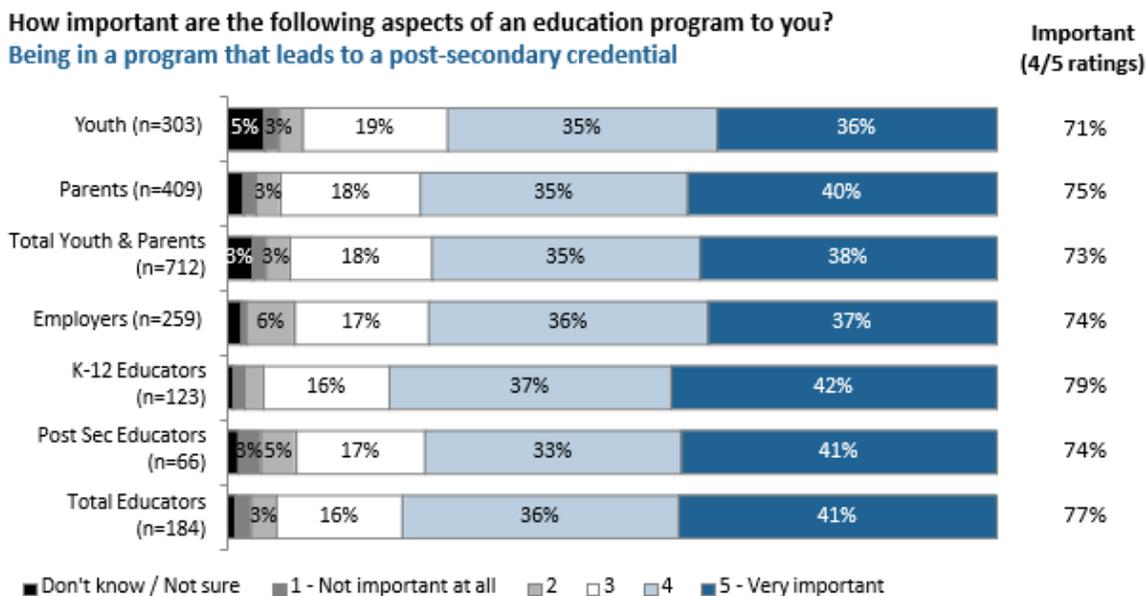
Base: Albertans
 Responses 2% or less are not labelled.
 Q5: How important are the following aspects of an education program to you?

Over nine in ten K-12 educators think it is important an education program leads to future skills or career development opportunities, in comparison to three-quarters of post-secondary educators. Parents and K-12 educators think this aspect is more important than youth, employers, and post-secondary educators.



Base: Albertans
 Responses 2% or less are not labelled.
 Q5: How important are the following aspects of an education program to you?

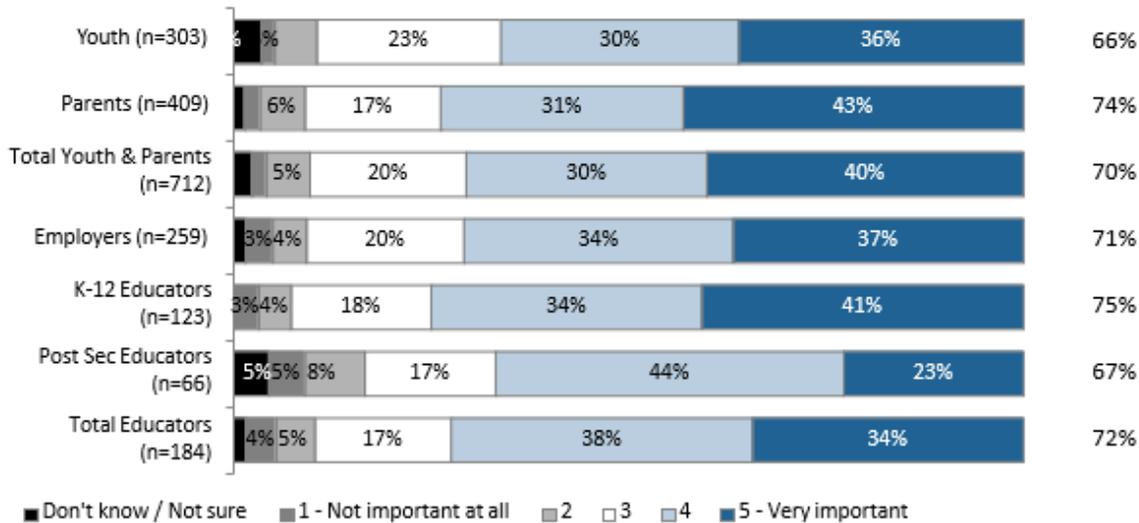
Around three-quarters of Albertans think being in a program that leads to a post-secondary credential is important.



Base: Albertans
 Responses 2% or less are not labelled.
 Q5: How important are the following aspects of an education program to you?

Over two thirds of Albertans think being able to earn while you learn is important, with parents and K-12 educators rating it higher in importance. Parents think this aspect is more important than youth.

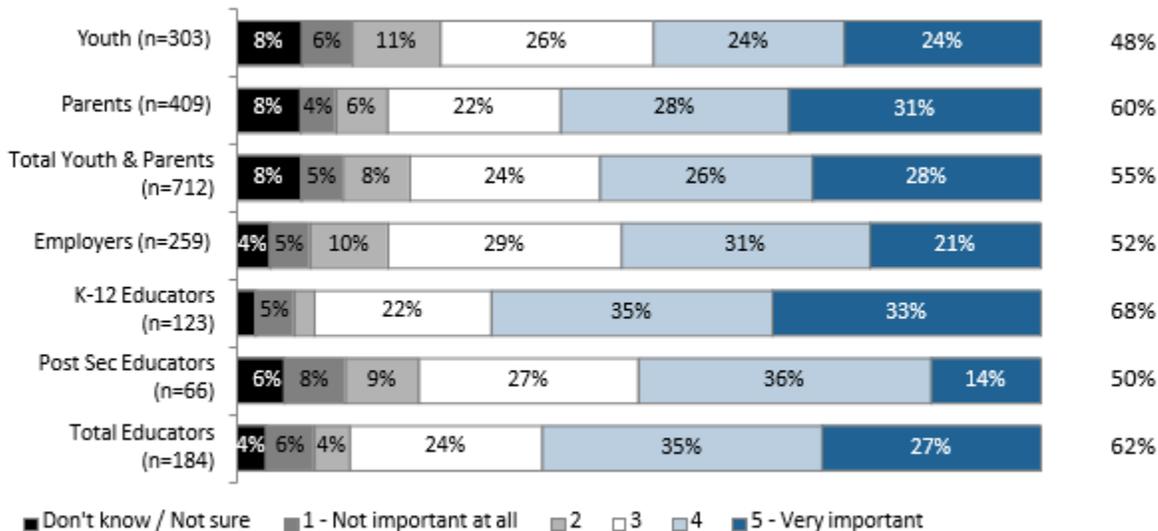
How important are the following aspects of an education program to you?
Being able to earn while you learn **Important (4/5 ratings)**



Base: Albertans
 Responses 2% or less are not labelled.
 Q5: How important are the following aspects of an education program to you?

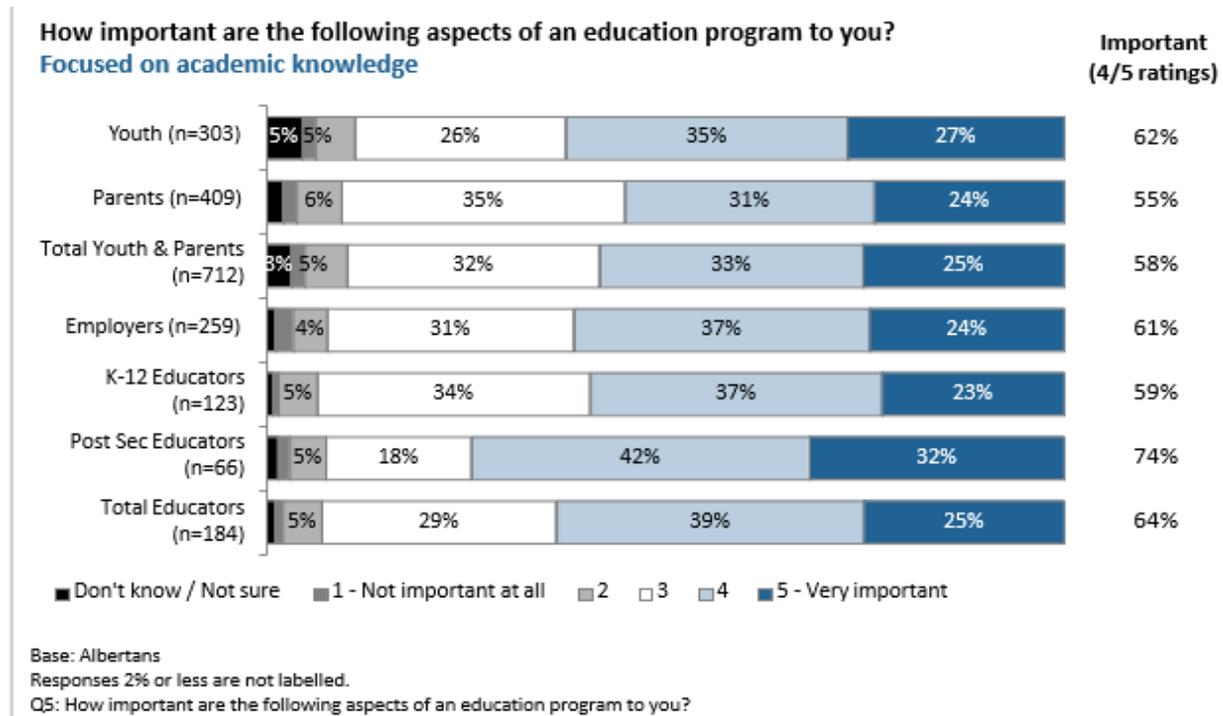
Less than seven in ten K-12 Educators agree that dual credit opportunities where credit is provided for high school and post-secondary at the same time is important compared to just under half (48%) of youth. Parents think this aspect is more important than youth. K-12 educators think this aspect is important more than employers and youth.

How important are the following aspects of an education program to you?
Dual credit opportunities where credit is provided for high school and post-secondary at the same time **Important (4/5 ratings)**



Base: Albertans
 Responses 2% or less are not labelled.
 Q5: How important are the following aspects of an education program to you?

Three-quarters of Post Secondary Educators think it is important that an education program is focused on academic knowledge, while around six in ten of the rest of Albertans think it is important. Post-secondary educators think this aspect is important more than all other groups.



Interest in pursuing a career in the trades

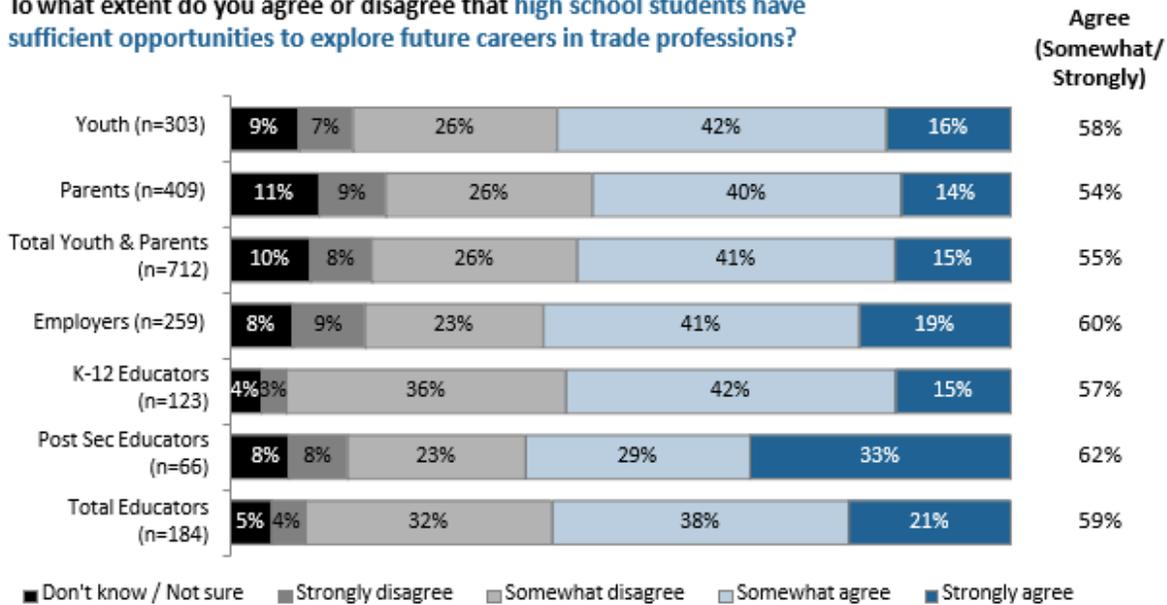
The top piece of advice Albertans would give someone interested in pursuing a career in the trades is research information, followed by 'follow your dreams' (with the exception of Post Secondary Educators, who did not mention this as much).

Advice for someone interested in pursuing a career in the trades

	% Mentioning	Youth (n=303)	Parents (n=409)	Total Youth & Parents (n=712)	Employers (n=259)	K-12 Educators (n=123)	Post Sec. Educators (n=66)	Total Educators (n=184)
Research information (Including in-demand industries, key people involved, needed education, etc.)	11%		15%	13%	13%	18%	12%	16%
Follow your dreams/Do what makes you happy/Go for it	16%		11%	13%	10%	11%	3%	8%
Trades and trades people will always be in demand	6%		15%	11%	14%	13%	8%	11%
The trades are lucrative and rewarding	8%		12%	10%	10%	10%	3%	8%
Choose a trade that interests you and you are passionate about	10%		10%	10%	5%	11%	3%	8%
The trades are important and essential	5%		9%	7%	6%	10%	2%	7%
It is a fulfilling and interesting career path/It is a good career path	6%		6%	6%	9%	5%	6%	5%
I would be supportive and encourage their decision	12%		5%	8%	3%	4%	3%	3%
Work hard/Continue learning/Develop your skills/Do your best	8%		5%	6%	5%	7%	8%	7%
Find a good mentor/Apprenticeship program	6%		3%	4%	5%	7%	3%	5%
There are many opportunities for advancement/You can develop a new skill set	3%		3%	3%	5%	8%	3%	7%
Not all jobs require university education	2%		5%	4%	2%	6%	3%	5%
A trades program can help you learn applicable, relevant skills and experience	2%		5%	4%	3%	2%	5%	3%
Trades are hard work/Physically demanding/Dangerous	3%		2%	3%	2%	2%	5%	3%
I would help them get started/Help them enroll in any necessary programs	3%		2%	2%	2%	3%	-	2%
Seek out a reputable educational institution	4%		1%	2%	2%	2%	-	2%
Ignore any stigma regarding the trades/There is no shame in a trades career	2%		3%	3%	1%	1%	-	1%
A shorter educational path to employment	2%		2%	2%	1%	2%	-	2%
General positive	2%		1%	2%	3%	2%	3%	3%
You will gain hands-on experience and education while working	2%		1%	2%	2%	1%	2%	1%
Some people are more hands-on	2%		1%	2%	1%	2%	2%	2%
I would encourage them to get a post-secondary degree	<1%		2%	1%	1%	-	-	-
Education for trades is more affordable	1%		1%	1%	1%	1%	-	1%
It can lead to self-employment	<1%		1%	1%	1%	2%	2%	2%
Other (Please specify)	8%		12%	11%	12%	15%	20%	17%
Nothing	2%		1%	1%	8%	2%	24%	9%
Don't know	9%		7%	8%	6%	3%	5%	4%
Prefer not to answer	4%		4%	4%	6%	3%	9%	5%

A majority of all groups agree (somewhat or strongly) that high school students have sufficient opportunities to explore future careers in trade professions, with post-secondary educators standing out from other groups by agreeing more strongly.

To what extent do you agree or disagree that high school students have sufficient opportunities to explore future careers in trade professions?

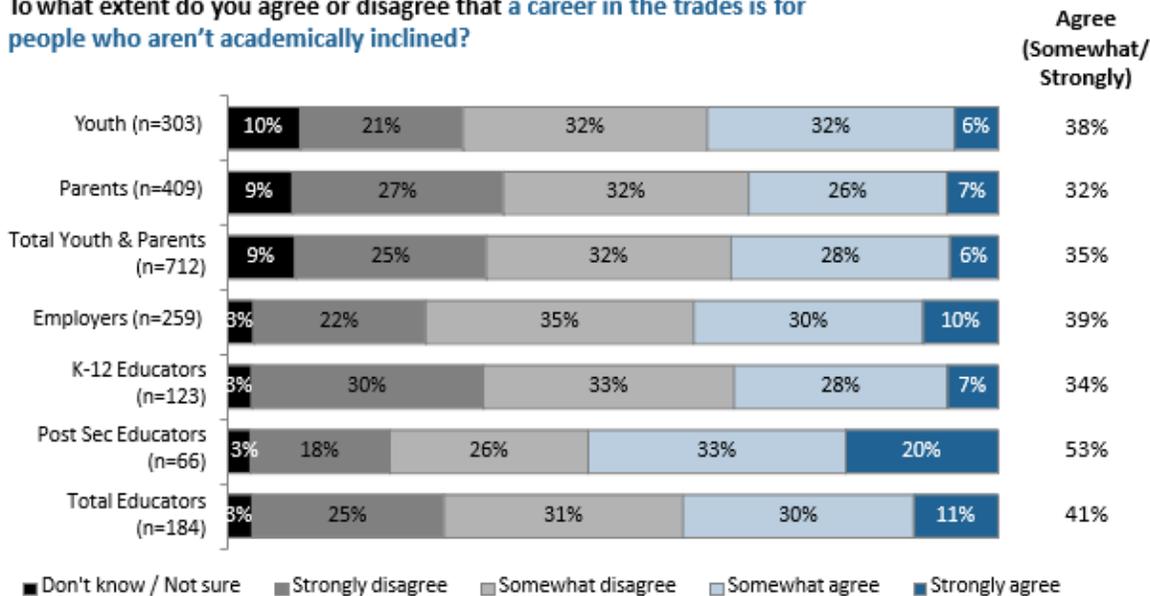


Base: Albertans

Q8: To what extent do you agree or disagree that high school students have sufficient opportunities to explore future careers in trade professions?

Agreement is lower for most groups when asked if a career in the trades is for people who aren't academically inclined. This lower agreement is still substantial, and a slight majority for post secondary educators. Post-secondary educators agree with this statement than all other groups.

To what extent do you agree or disagree that a career in the trades is for people who aren't academically inclined?



Base: Albertans

Q9: To what extent do you agree or disagree that a career in the trades is for people who aren't academically inclined?

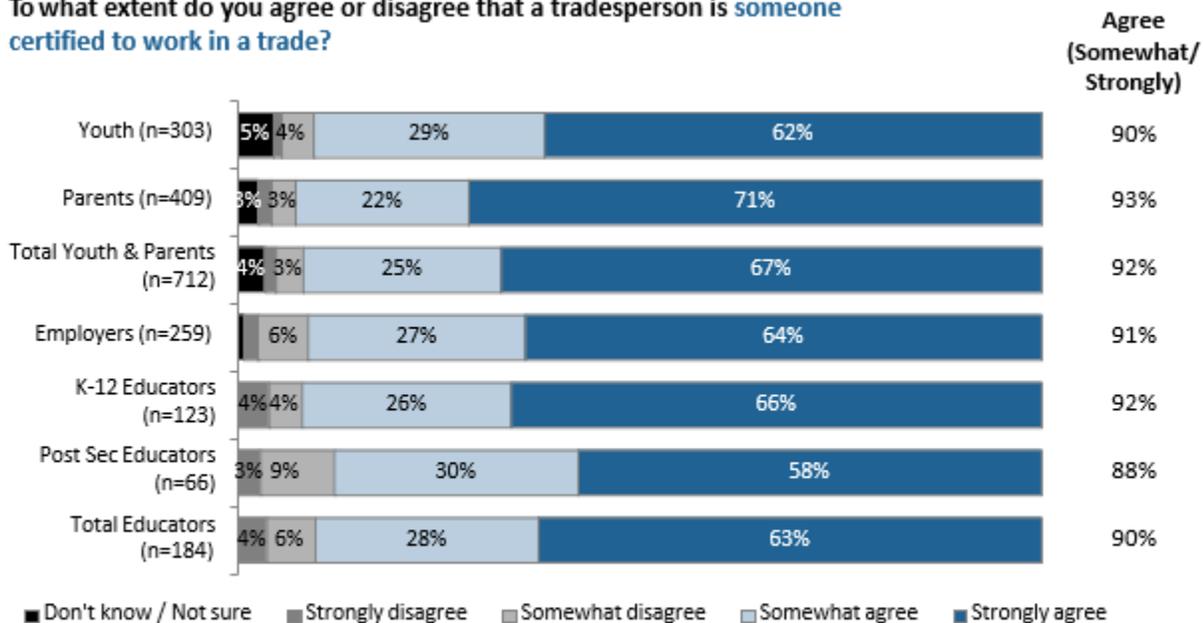
Perception of trades people

Overall, all groups agree most that a tradesperson is someone certified to work in a trade, successful, and an individual that works with their hands.

% Agree (Somewhat / Strongly)	Youth (n=303)	Parents (n=409)	Total Youth & Parents (n=712)	Employers (n=259)	K-12 Educators (n=123)	Post Sec. Educators (n=66)	Total Educators (n=184)
Someone certified to work in a trade	90%	93%	92%	91%	92%	88%	90%
Successful	88%	91%	90%	89%	91%	91%	91%
An individual who works with their hands	88%	86%	87%	88%	83%	91%	86%
A professional	84%	85%	85%	81%	75%	80%	77%
An individual who works in an industrial, mechanical or construction-related job	78%	83%	81%	85%	81%	79%	81%
An individual who has completed a post- secondary education	67%	75%	72%	71%	72%	74%	73%
A labourer	75%	59%	66%	62%	69%	61%	66%

All groups agree that a tradesperson is someone certified to work in a trade.

To what extent do you agree or disagree that a tradesperson is someone certified to work in a trade?



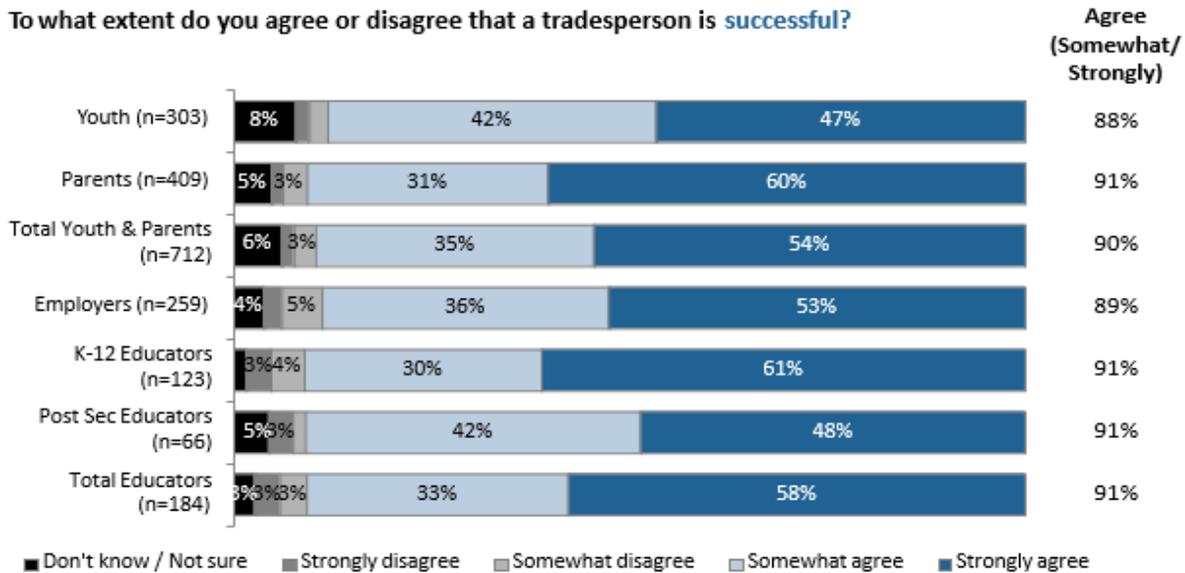
Base: Albertans

Responses 2% or less are not labelled

Q10: To what extent do you agree or disagree that a tradesperson is...

All groups agree that a tradesperson is successful.

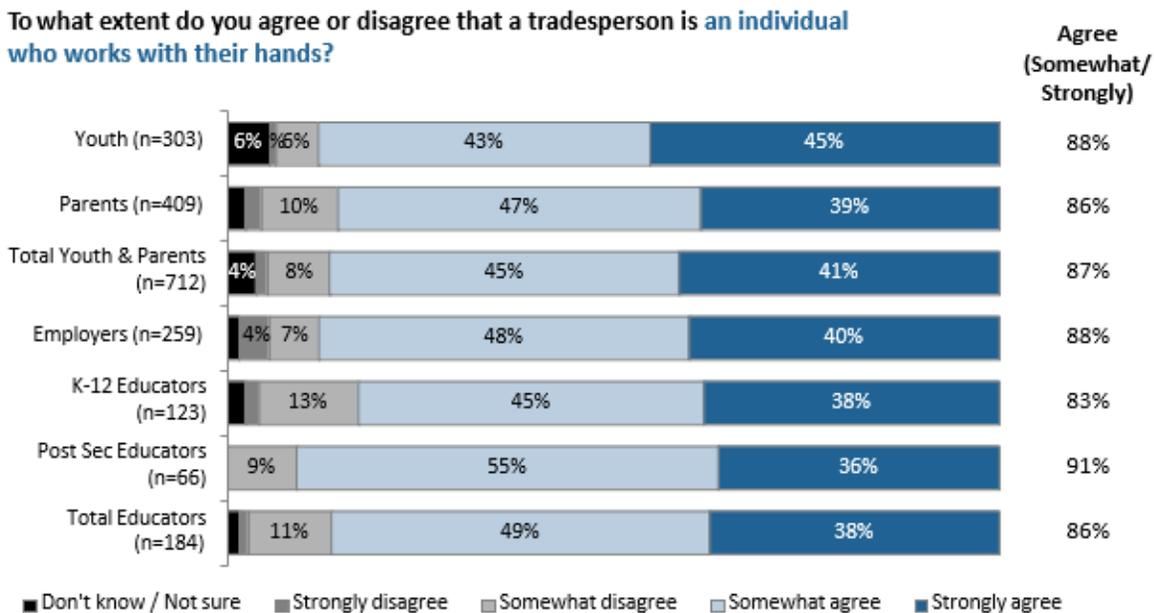
To what extent do you agree or disagree that a tradesperson is successful?



Base: Albertans
 Responses 2% or less are not labelled
 Q10: To what extent do you agree or disagree that a tradesperson is...

Most Albertans agree that a tradesperson is an individual who works with their hands.

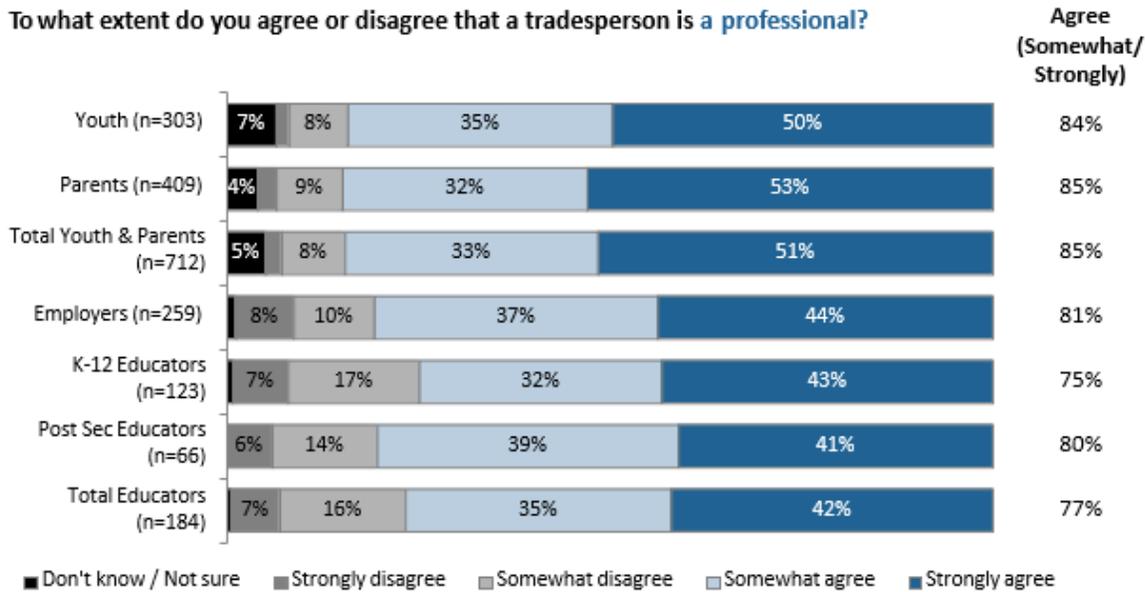
To what extent do you agree or disagree that a tradesperson is an individual who works with their hands?



Base: Albertans
 Responses 2% or less are not labelled
 Q10: To what extent do you agree or disagree that a tradesperson is...

Around eight in ten of all groups agree a tradesperson is a professional. Youth and parents agree with this statement more than K-12 educators.

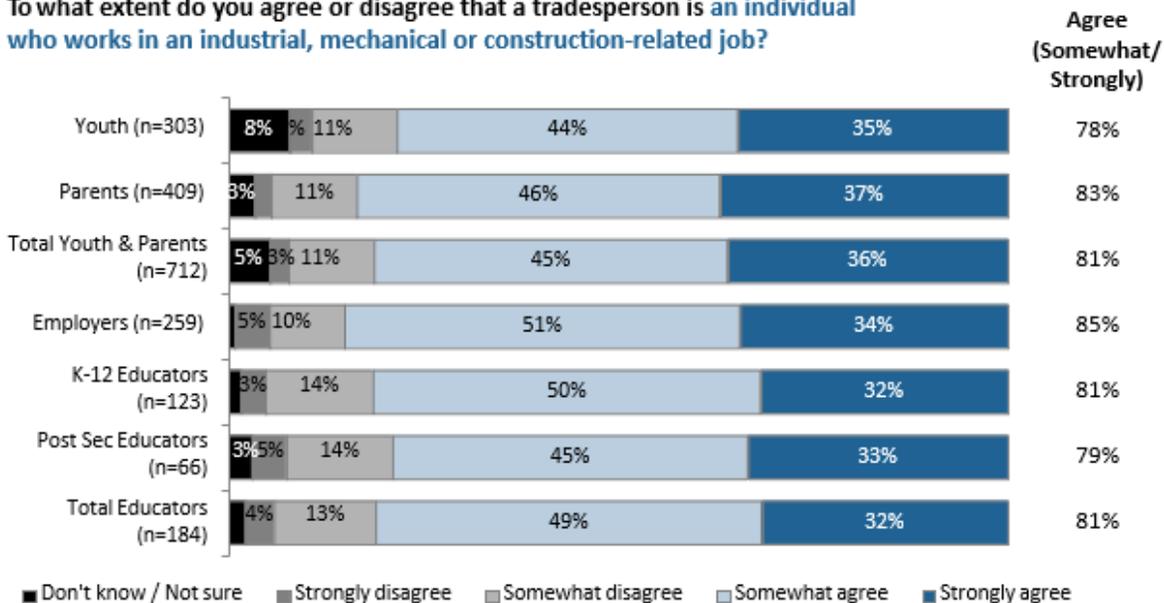
To what extent do you agree or disagree that a tradesperson is a professional?



Base: Albertans
 Responses 2% or less are not labelled
 Q10: To what extent do you agree or disagree that a tradesperson is...

Around eight in ten agree that a tradesperson is an individual who works in an industrial, mechanical or construction-related job. Youth and parents agree with this statement more than K-12 educators.

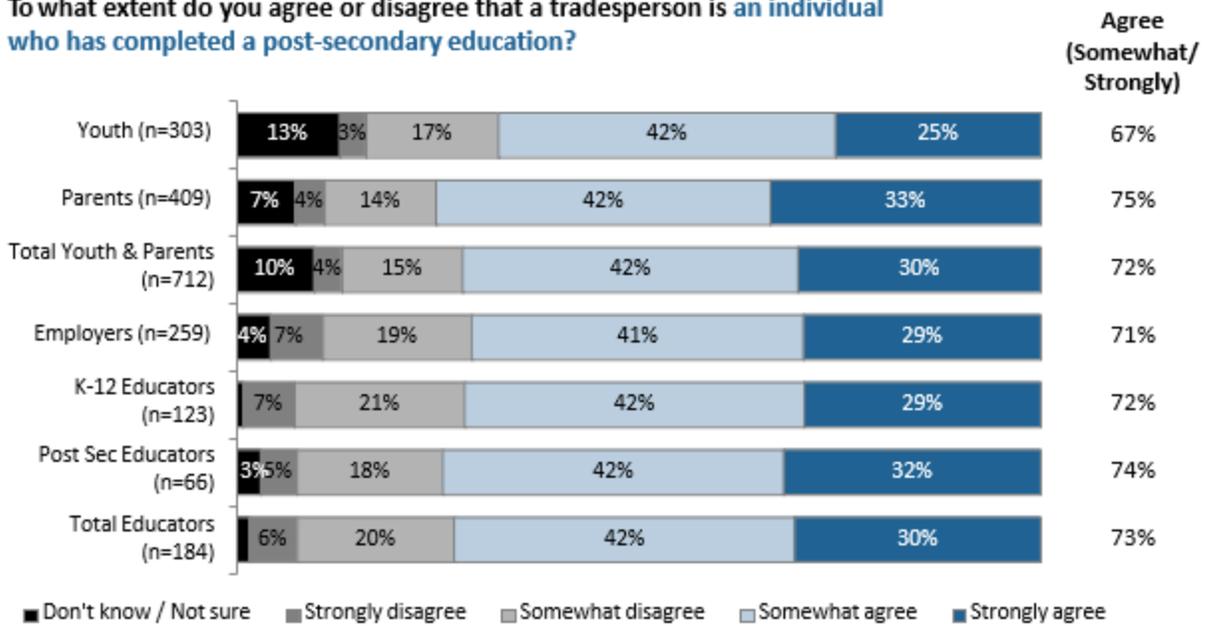
To what extent do you agree or disagree that a tradesperson is an individual who works in an industrial, mechanical or construction-related job?



Base: Albertans
 Responses 2% or less are not labelled
 Q10: To what extent do you agree or disagree that a tradesperson is...

Three-quarters of parents and post-secondary educators agree that a tradesperson is an individual who has completed a post-secondary education. Parents agree with this statement more than youth.

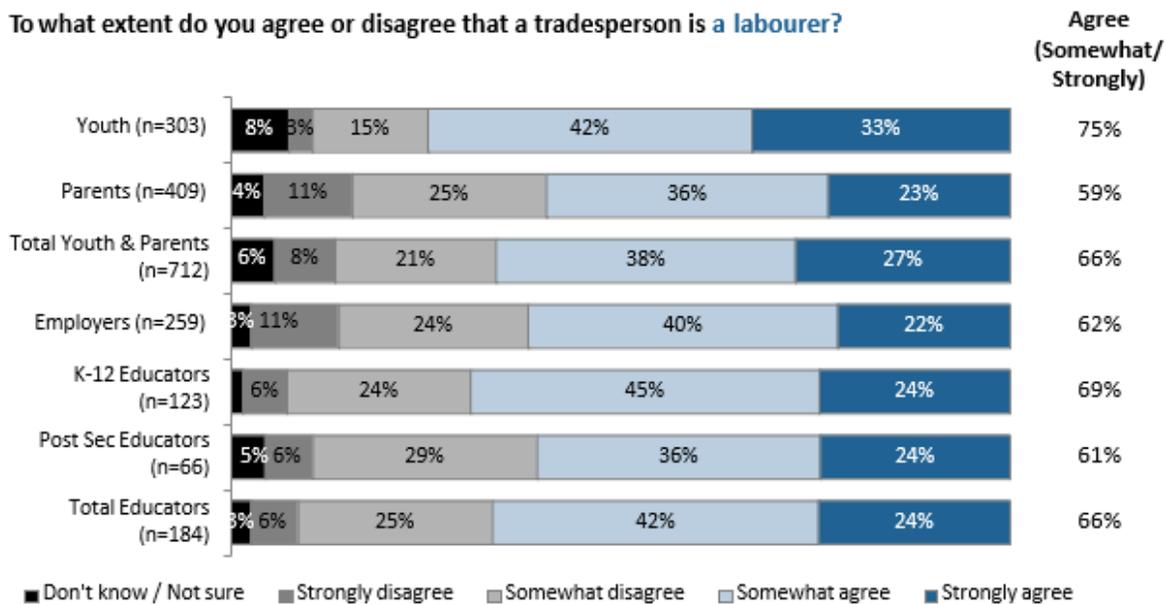
To what extent do you agree or disagree that a tradesperson is an individual who has completed a post-secondary education?



Base: Albertans
 Responses 2% or less are not labelled
 Q10: To what extent do you agree or disagree that a tradesperson is...

Youth agree more than other Albertans that a tradesperson is a labourer. Youth agree more with this statement than parents, employers, and K-12 educators.

To what extent do you agree or disagree that a tradesperson is a labourer?



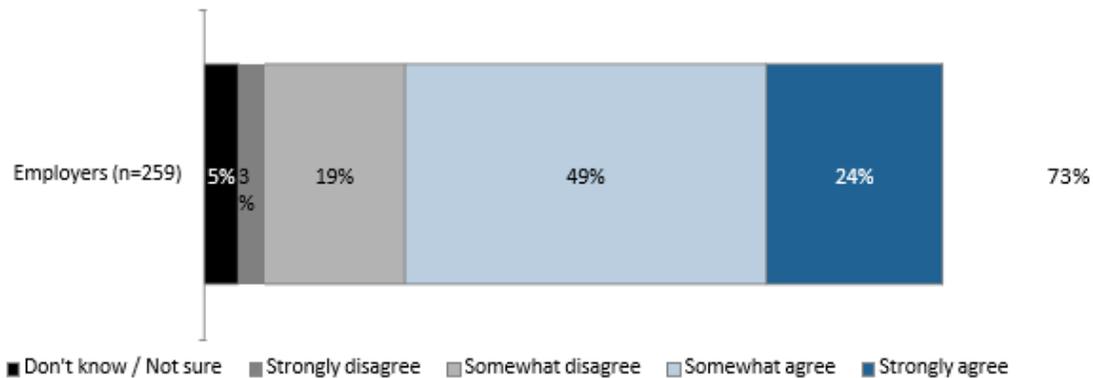
Base: Albertans
 Responses 2% or less are not labelled
 Q10: To what extent do you agree or disagree that a tradesperson is...

Employers' opinions on skills needed

Almost three-quarters of employers agree there are gaps in the skills of people they hire or are looking to hire in terms of theoretical knowledge.

To what extent do you agree or disagree there are gaps in the skills of people you hire/are looking to hire in terms of... **Theoretical knowledge**

Agree
(Somewhat/
Strongly)



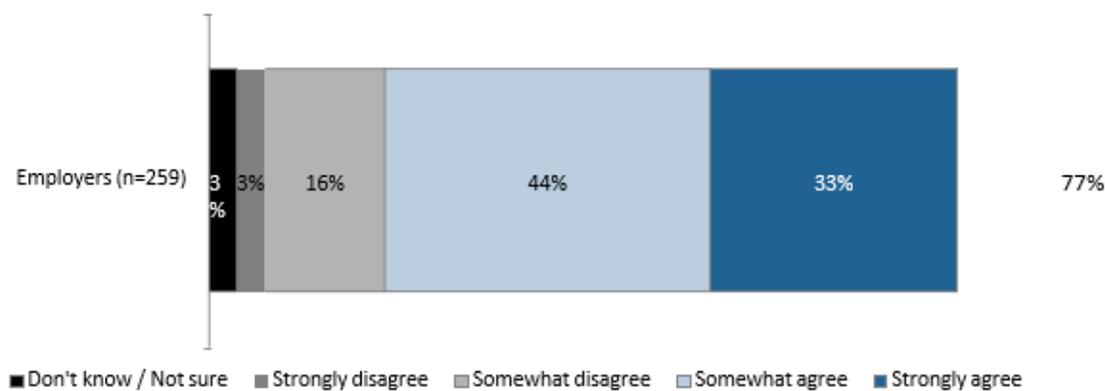
Base: Albertan employers

Q11: To what extent do you agree or disagree there are gaps in the skills of people you hire/are looking to hire in terms of...

Just over three-quarters of employers agree there are gaps in the skills of people they hire or are looking to hire in terms of practical/knowledge skills.

To what extent do you agree or disagree there are gaps in the skills of people you hire/are looking to hire in terms of... **Practical knowledge/skills**

Agree
(Somewhat/
Strongly)



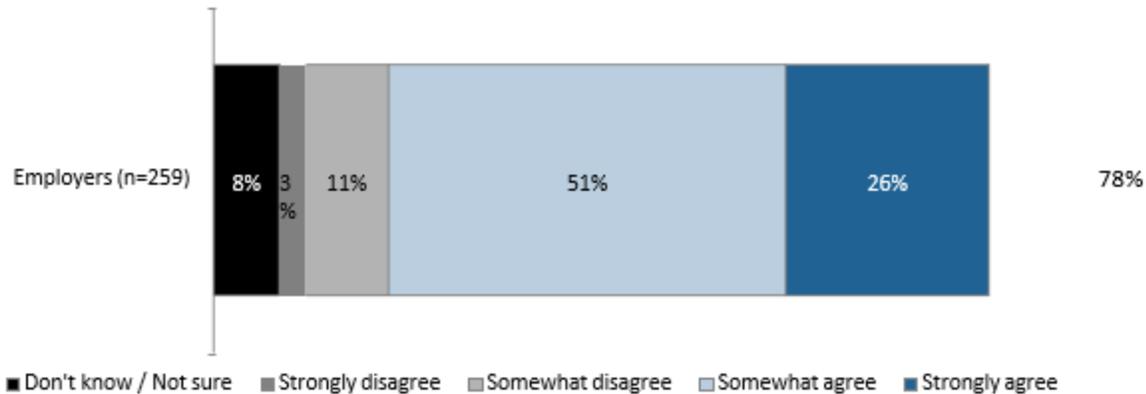
Base: Albertan employers

Q11: To what extent do you agree or disagree there are gaps in the skills of people you hire/are looking to hire in terms of...

Close to eight in ten employers agree there are gaps in the skills of people they hire or are looking to hire in terms of soft skills.

To what extent do you agree or disagree there are gaps in the skills of people you hire/are looking to hire in terms of...**Soft skills**

Agree
(Somewhat/
Strongly)



Base: Albertan employers

Q11: To what extent do you agree or disagree there are gaps in the skills of people you hire/are looking to hire in terms of...

Employers place the most importance on practical knowledge/skills, followed by theoretical knowledge and then soft skills.

Theoretical knowledge

% Importance	Employers (n=259)
0-20	26%
21-40	56%
41-60	15%
61-80	1%
81-100	1%
Average (mean)	31.1%

Practical knowledge/skills

% Importance	Employers (n=259)
0-20	4%
21-40	43%
41-60	39%
61-80	13%
81-100	1%
Average (mean)	45.8%

Soft skills

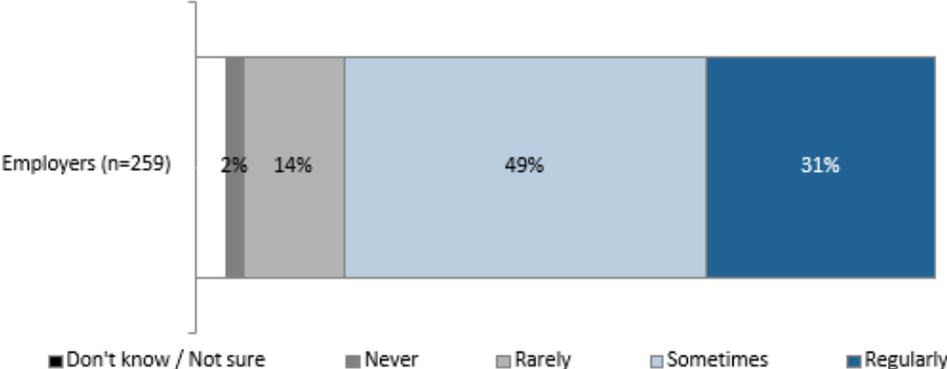
% Importance	Employers (n=259)
0-20	56%
21-40	36%
41-60	7%
61-80	1%
81-100	<1%
Average (mean)	23.2%

Base: Albertan employers

Q12: Please rate the percentage of importance you place on each of the following skills, from 0% to 100%, where 0% is the least possible importance and 100% is the greatest possible importance. Your three scores must add up to a total of 100%.

Three in ten employers regularly hire people who don't have all of the skills and experience to do the job, with the expectation of training them.

How often do you hire people who don't have all of the skills and experience to do the job, with the expectation you will need to train them?



Base: Albertan employers

Q13: How often do you hire people who don't have all of the skills and experience to do the job, with the expectation you will need to train them?

Respondent profile

	Youth (n=303)	Parents (n=409)	Total Youth & Parents (n=712)	Employers (n=259)	K-12 Educators (n=123)	Post Sec. Educators (n=66)	Total Educators (n=184)
Gender							
Female	61%	58%	60%	44%	67%	32%	55%
Male	38%	41%	40%	55%	32%	67%	43%
Other	1%		<1%	<1%	-	-	-
Prefer not to say	<1%	<1%	<1%	1%	1%	2%	1%
Age							
Under 25	100%	-	43%	n/a	11%	16%	12%
Under 15	1%	-	1%	n/a	-	-	-
15-24	99%	-	42%	n/a	11%	16%	12%
25-34	-	3%	2%	n/a	23%	10%	20%
35-44	-	15%	9%	n/a	19%	19%	20%
45-54	-	46%	26%	n/a	21%	19%	20%
55+	-	36%	21%	n/a	26%	35%	27%
55-64	-	33%	19%	n/a	19%	26%	20%
65+	-	3%	2%	n/a	6%	10%	7%
Education							
Less than high school	8%	2%	5%	1%	1%	-	1%
High-school graduate	31%	10%	19%	3%	7%	-	4%
Some post-secondary (including apprenticeship education)	25%	11%	17%	10%	2%	2%	2%
Post-secondary Certificate or Diploma	12%	29%	21%	17%	5%	8%	6%
Journeyman Certificate	1%	4%	3%	2%	-	3%	1%
Post-secondary Undergraduate Degree	18%	32%	26%	36%	61%	26%	49%
Master's degree	2%	8%	5%	23%	23%	44%	29%
Doctorate degree	-	3%	2%	7%	1%	17%	7%
Other	-	-	-	<1%	1%	2%	1%
Prefer not to say	3%	1%	2%	1%	-	-	-

	Youth (n=303)	Parents (n=409)	Total Youth & Parents (n=712)	Employers (n=259)	K-12 Educators (n=123)	Post Sec. Educators (n=66)	Total Educators (n=184)
Employment status							
High school student	10%	-	4%	-	2%	-	1%
Post-secondary student	43%	1%	19%	2%	4%	2%	3%
Apprentice	1%	-	<1%	2%	2%	-	1%
Employed Full Time	15%	49%	35%	70%	65%	67%	67%
Employed Part Time	16%	12%	14%	9%	21%	12%	17%
Unemployed	11%	14%	13%	2%	4%	5%	3%
Self-employed	-	9%	5%	13%	1%	9%	4%
Other	2%	12%	8%	2%	2%	6%	3%
Prefer not to say	3%	2%	2%	-	-	-	-
Household Income							
<\$85K	48%	31%	38%	57%	28%	45%	34%
<\$45K	32%	10%	19%	11%	11%	6%	9%
Less than \$15,000	10%	1%	5%	-	2%	-	1%
\$15,000 – \$24,999	10%	2%	5%	2%	4%	-	3%
\$25,000 - \$44,999	12%	6%	9%	9%	5%	6%	5%
\$45K-<\$85K	16%	22%	19%	47%	18%	39%	25%
\$45,000 - \$64,999	9%	11%	10%	32%	7%	29%	15%
\$65,000 - \$84,999	7%	10%	9%	15%	11%	11%	10%
\$85K+	26%	55%	43%	38%	59%	47%	55%
\$85,000 - \$104,999	7%	17%	13%	15%	12%	15%	14%
\$105,000 - \$149,999	12%	20%	17%	13%	21%	15%	19%

\$150,000 or more	7%	18%	13%	11%	25%	17%	22%
Prefer not to say	27%	14%	19%	4%	13%	8%	11%

	Youth (n=303)	Parents (n=409)	Total Youth & Parents (n=712)	Employers (n=259)	K-12 Educators (n=123)	Post Sec. Educators (n=66)	Total Educators (n=184)
Employment status							
High school student	10%	-	4%	-	2%	-	1%
Post-secondary student	43%	1%	19%	2%	4%	2%	3%
Apprentice	1%	-	<1%	2%	2%	-	1%
Employed Full Time	15%	49%	35%	70%	65%	67%	67%
Employed Part Time	16%	12%	14%	9%	21%	12%	17%
Unemployed	11%	14%	13%	2%	4%	5%	3%
Self-employed	-	9%	5%	13%	1%	9%	4%
Other	2%	12%	8%	2%	2%	6%	3%
Prefer not to say	3%	2%	2%	-	-	-	-
Household Income							
<\$85K	48%	31%	38%	57%	28%	45%	34%
<\$45K	32%	10%	19%	11%	11%	6%	9%
Less than \$15,000	10%	1%	5%	-	2%	-	1%
\$15,000 – \$24,999	10%	2%	5%	2%	4%	-	3%
\$25,000 - \$44,999	12%	6%	9%	9%	5%	6%	5%
\$45K-<\$85K	16%	22%	19%	47%	18%	39%	25%
\$45,000 - \$64,999	9%	11%	10%	32%	7%	29%	15%
\$65,000 - \$84,999	7%	10%	9%	15%	11%	11%	10%
\$85K+	26%	55%	43%	38%	59%	47%	55%
\$85,000 - \$104,999	7%	17%	13%	15%	12%	15%	14%
\$105,000 - \$149,999	12%	20%	17%	13%	21%	15%	19%
\$150,000 or more	7%	18%	13%	11%	25%	17%	22%
Prefer not to say	27%	14%	19%	4%	13%	8%	11%

	Employers (n=259)
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Main business activity	
Agriculture, Forestry, Fishing and Hunting	4%
Mining and Oil and Gas Extraction	7%
Construction	7%
Manufacturing	5%
Utilities	2%
Transportation and Warehousing	3%
Professional, Scientific and Technical Services	15%
Management of Companies and Enterprises	1%
Administrative and Support	2%
Educational Services	11%
Health Care and Social Assistance	10%
Wholesale Trade/Retail Trade	8%
Information and Cultural Industries	3%
Finance and Insurance, Real Estate and Rental and Leasing	4%
Arts, Entertainment and Recreation	3%
Accommodation and Food Services	3%
Other Services (except Public Administration)	4%
Public Administration	4%
Other (please specify)	2%

Don't know	1%
I prefer not to answer	1%

Employers (n=259)

Business Owner	
Yes	100%
No	-
Number of employees (n=259)	
None (yourself only)	
1 to 10 employees	29%
11 to 20 employees	10%
21 to 50 employees	17%
51 to 100 employees	11%
More than 100 employees	32%
I prefer not to answer	1%
Position in business/organization (n=259)	
Employee	18%
Owner	21%
CEO/President	6%
Executive Director	4%
Partner	6%
Executive Vice President	1%
Senior Vice President	<1%
Vice President	1%
Director	6%
Manager	20%
Supervisor	12%
Other: please specify	5%
Prefer not to say	<1%

Appendix F: Resources

Alberta

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