FOCAL Initiative

‘MAKING PLANS FOR NIGEL’: INCLUSIVE TECHNICAL, VOCATIONAL EDUCATION AND TRAINING (TVET) IN THE EDUCATION SYSTEM

MARCH 2024

About the FOCAL Initiative

The Future of Canadian Automotive Labourforce (FOCAL) Initiative, funded by the Government of Canada, is a collaboration of the Canadian Skills Training and Employment Coalition (CSTEC), the Automotive Policy Research Centre (APRC) and Prism Economics and Analysis.

The FOCAL Initiative has produced labour market information and data related to Canada's automotive manufacturing sector, examine key trends affecting the automotive labour market, and produced forecasts of supply and demand for key occupations in the broader automotive sector.

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Executive Summary

Canada's automotive manufacturing sector continues to have a strong demand for people with skilled trades experience. Given FOCAL's projected retirements and the demand in the broader automotive sector and its supply chain, change is needed to ensure an adequate supply of qualified skilled trades personnel in the trades that are in demand. The paper addresses the issue of participation by youth in technical, vocational education and training (TVET) including skilled trades in the school system. The paper first provides some context by examining government data on youth participation in industrial trades. The paper highlights industrial trades in demand by auto and its supply chain. It also looks at education policy on TVET and best practices emerging in other jurisdictions and opportunities for Ontario and other provinces to offer youth in schools a variety of opportunities for career pathways including the skilled trades.

Trends in youth participation

- Based on the last two censuses, the labour force in Ontario and Quebec has aged for both assembly and parts production. The share of youth aged 15-24 years has also dropped from 2016 to 2021.
- The number of youth (15-24 years) with a skilled trades certificate or diploma in the labour force in Canada peaked in 2013 and decline thereafter.

Education and PSE Policy and Future Directions

- Ontario is looking to expand opportunities for apprenticeships in schools. Other countries such as Australian states/territories and states in the US have implemented such TVET policies for experiential learning and workplace-based learning for older students while they are still at school.

- The paper suggests that it is possible to re-introduce skilled trades and TVET, generally, in an inclusive manner that does not stream low-income students and students from equity-deserving groups. Equity and inclusion has to be a cornerstone of implementation. This will require moving away from thinking of education as a binary of academic versus vocational, with the latter being viewed as inferior, and instead develop a holistic curriculum that allow students to develop life skills and explore what they like to better orient them for choosing further studies and a career.

- Educational pathways should be flexible and allow students to change educational and career options, through collaboration with post-secondary educational (PSE) institutions.

- TVET in schools will also require equitable funding; accelerated teacher training for journeypersons to teach in schools; TVET in teacher education programmes; training of

career counsellors; use of third party trainers/intermediaries to support students and employers; and public accountability reporting on student outcomes and success during school and after graduation including student demographics.

Introduction

Skilled trades promotion in schools has become a focus of Ontario. This paper follows up on our 2022 paper *Youth Employment in Canada's Automotive Manufacturing Industry - Future of Canadian Automotive Labourforce Initiative* [1] .The automotive manufacturing sector continues to have a strong demand for people with skilled trades experience. Given FOCAL's projected retirements and the demand[2] in the broader automotive sector and its supply chain, provinces that support the broader automotive sector and supply chain with skilled human resources, need to understand opportunities for improving youth engagement and participation in the skilled trades. Our previous paper discussed age demographics in automotive manufacturing in Ontario and Quebec and auto regions; wages of youth in auto; opinions of employers, and attitudes of parents and young people about working in auto, which included opinions about employment security; and working conditions; the university-for-all mindset and school to work transitions; workplace culture and generational differences.

The paper provides an update on youth participation in apprenticeships post-pandemic, in industrial trades in demand by auto and its supply chain based on the latest labour market data. It also discusses the supply pipeline of youth direct from schools, and the challenges surrounding the promotion of the skilled trades as a viable career option for Canadian youth. It looks at best practises in education and policy and practices emerging in other jurisdictions and opportunities for Ontario and other provinces to offer youth in schools a variety of opportunities for career pathways through technical and vocational education (TVET) including the skilled trades, in an inclusive and equitable manner.

Methodology

The paper uses diverse data sources: secondary data from government sources – custom data requests from the RAIS database; Census 2021, and the Labour Force Survey (LFS); a literature review of articles, policy documents, reports, and online sources on TVET and apprenticeship in schools; and primary research data was used from interviews with CSTEC staff. It should be noted, that while some data is presented at the national level, and for Quebec which has auto related manufacturing, the majority of assembly and parts production occurs in Ontario, and education policy is provincial, so the discussion will focus on Ontario. The data focuses on industrial trades and trades related to the auto supply chain, but the policy discussion speaks to general TVET of which skilled trades is one component.

Trends in Registrations and Completions

New registrations in the trades are increasing which suggests efforts to promote the trades might be succeeding. However, completions continue to be an issue. The CAF report notes:

[1] See *Youth Employment in Canada's Automotive Manufacturing Industry - Future of Canadian Automotive Labourforce Initiative* at https://www.futureautolabourforce.ca/youth-employment-in-canadas-automotive-manufacturing-industry/

[2] See the *Forecast dashboard* (at https://www.futureautolabourforce.ca/focal-data-dashboard/) and other forecast reports on the FOCAL Initiative website.

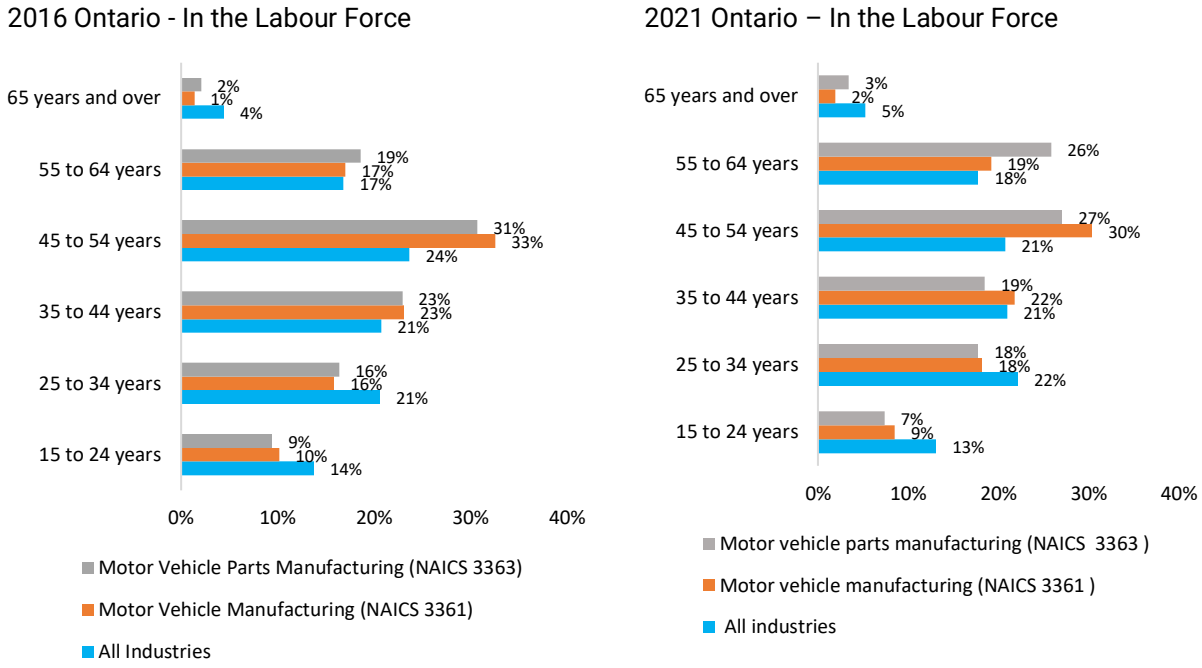
In 2022, new registrations in Canada's largest Red Seal trades reached 54,100, an increase of 15% (+6,900) from the previous year. Program completions have been slower to recover. Despite gains in 2022, program completions remain 6% (-1,400) below the pre-pandemic level (2024, p. 5).

Youth in Auto

Ontario Automotive Manufacturing Workforce Age Distribution, 2016 and 2021

Based on the last two censuses, the labour force in Ontario has shifted to larger shares in the 55-64 year group and 65+ age group from 2016 to 2021 for both assembly and parts production. When compared to the labour force in the overall economy, the ageing of the workforce in automotive is more apparent. The share of youth aged 15-24 years has also dropped from 9% in parts production in 2016 to 7% In 2021, and 10% in 2016 in assembly to 9% in 2021.

Figure 1: : Ontario Automotive Manufacturing Workforce Age Distribution, 2016 vs 2021

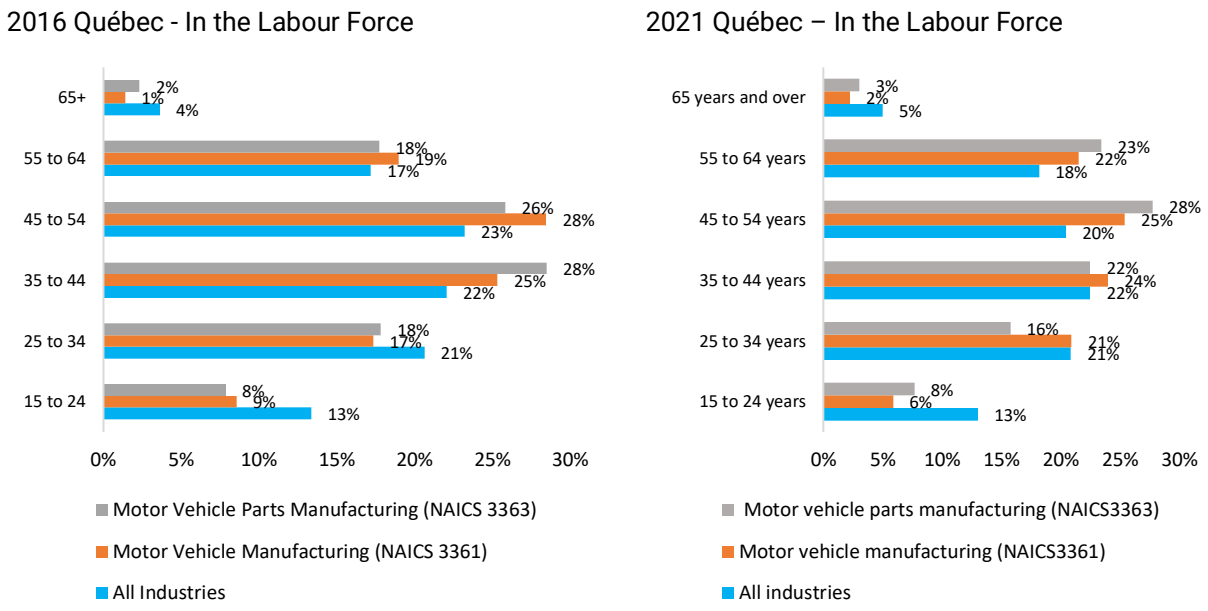


Source: Census 2016 and 2021

Québec Automotive Manufacturing Workforce Age Distribution, 2016 and 2021

Based on the last two censuses, from 2016 to 2021, the labour force in Quebec has shifted to larger shares in the 55-64 year group and 65+ age group for both assembly and parts production. When compared to the labour force in the overall economy, the ageing of the workforce in automotive is much larger. The share of youth aged 15-24 years has stayed the same at 8% in parts production, similar to the overall economy which stayed the same share at 13% in both Census years. But in assembly, youth share dropped from 9% in 2016 to 6% in 2021.

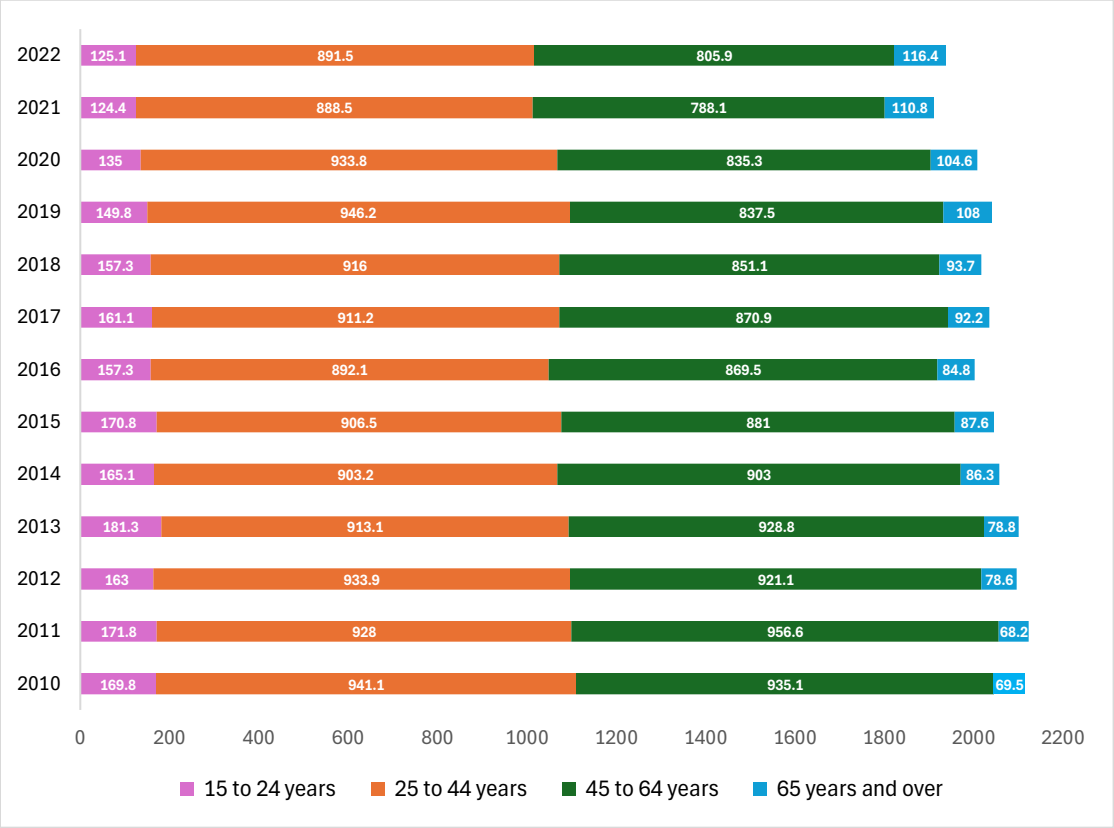
Figure 2: Quebec Automotive Manufacturing Workforce Age Distribution, 2016 vs 2021



Youth with Skilled Trades Credentials in the Labour Force

The table below shows the number of people with a skilled trades certificate or diploma in the labour force in Canada by age for the period 2010 to 2022. The number of people in the youngest age group (15-24 years) peaked in 2013, probably related to a peak in due to the double cohort in Ontario, but the numbers decline from there. Currently there are insufficient young people completing apprenticeships so improvements in the system of school to work transition may improve results.

Figure 3: Trends in Educational Attainment by Age for the Skilled Trades in the Canadian Labour Force



Source: Labour Force Survey, CSTEC Custom Request

Trends in Youth Apprenticeships in selected industrial trades

Very few people enter an industrial trade apprenticeship at a younger age (<20 years), which suggests they are in secondary school or entering college or university, or not in any educational institution. The RAIS data that collects apprenticeship registrations and certification data from provinces, show that there were no apprentices under 20 years old registered, except for *Heavy equipment and crane operators* (15) and *Heavy duty equipment mechanics* (3). People who drop out of a traditional college or university programme may return at an older age to the skilled trades. The table below shows the total number of apprentices aged 20-24 years from 2012 to 2022 in selected industrial trades. In the years, before the pandemic, there was a general decline in numbers until 2020, which severely affected apprenticeship registration and retention because of lockdowns. Numbers have not yet recovered to 2019 pre-pandemic levels for key trades except for *Heavy equipment and crane operators* and *millwrights*.

Table 1: Trends in Youth Apprentices in Selected Industrial Trades (20-24 years)

Year	Automotive service	Electricians	Electronics & instrument-tation	Heavy duty equipment mechanics	Heavy equipment and crane operators	Machinists	Millwrights	Sheet metal workers	Welders
2012	1,485	1,287	102	438	237	159	177	141	885
2013	1,251	1,272	75	336	243	126	183	138	759
2014	1,227	1,269	111	393	273	192	219	144	930
2015	1,170	1,356	135	459	201	129	204	135	900
2016	1,188	1,239	99	483	189	147	249	123	693
2017	1,137	1,248	105	504	147	144	234	111	681
2018	1,389	1,404	99	513	159	114	273	111	567
2019	1,395	1,374	96	492	201	126	240	105	453
2020	*966*	*885*	*39*	*309*	*192*	*63*	*147*	*60*	*267*
2021	1,203	1,164	45	414	237	114	225	117	345
2022	1,167	1,236	33	435	249	99	243	93	318

Source: Statistics Canada. Table 37-10-0089-01

Immigrant Youth in Trades

As discussed in our paper 'Immigrant Labour Supply in the Broader Automotive Sector and Supply Chain - Labour Update 2024, immigrants with skilled trades education have very low representation in the Canadian labour force and in manufacturing. This could be due to a focus on recruiting immigrants with university education using the human capital model. This begs the question of whether or not children of immigrants will be less likely to consider the trades as a career option, given that their parents and relatives do not have an awareness of the skilled trades. In addition, it could be that parents generally influence their children by encouraging them to pursue a university education. Research on social networks and social capital show that the first social network, the family network, has the most influence on children including educational and occupational aspirations. Since Bourdieu's (1977;1986) work on social capital and education, a multitude of studies (Coleman, 1988 and others) suggest that aspirations for higher education is influenced by parental education, so students with parents with university education tend to also go to university. Students may therefore not be aware of all their post-secondary options, unless their school or other people inform them.

Apprenticeship Policy in the Education System

The policy landscape for skilled trades education is complex and differentiated as Canadian provinces have control over education policy[3]. However, there are commonalities among provinces: skilled trades as an integrated part of the school curriculum has been marginalised for more academic subjects. The rise of the internet and the knowledge economy led to a focus on encouraging students to go to university and ignoring the ones who struggled and dropped out. The *higher education for all* discourse which has become popular in education policy in

[3] See CICIC diagram on TVET systems at https://www.cicic.ca/docs/PTeducation/Canada-s-Education-Systems-PDF.pdf

North America, makes the assumption that university is the best option for everyone, regardless of individual interests and aptitudes.

Requirements for obtaining journeyperson status vary across jurisdictions and trades. Apprentices become certified journeypersons after completing supervised on-the-job training, in-school technical training, as well as passing examinations – provincial and national. Several apprenticeship agencies have responsibility for trades promotions.

TVET in the Education System in Ontario

Trades promotion to youth became necessary after skilled trades education was removed from the school curriculum in Ontario. 'Streaming' (or tracking) of students occurs when those who have influence over students' educational choices, encourage or require students to pursue either academic or technical/vocational education and training, based on the students' perceived academic ability. Streaming reduces educational choices available to them. Over the years, different governments have attempted to reduce or eliminate streaming in the education system and failed (Pichette & Colyar, 2020). Current ways for secondary school students to get experiential learning of career options are through the *Specialist High Skills Majors,* the *Ontario Youth Apprenticeship Program (OYAP)*.

Ontario Youth Apprenticeship Program (OYAP) - School to Work Transition

The Ministry of Education notes that OYAP is a coop programme in high school that allows student to explore apprenticeship and consider careers in the skilled trades in four areas – motive power; services; construction; industrial. Eligible students in high school take college courses or apprenticeship training which count towards the Ontario Secondary School Diploma or Ontario Secondary School Certificate. With the OYAP Dual Credit Program, students can complete a semester of cooperative education in a trade, including completing the Level 1 (basic) apprenticeship in-school training at a partner college while still in high school. The outcomes of OYAP in terms of career focused education and student transitions from school to work are unclear given that data is not publicly available.

Specialist High Skills Majors (SHSM)

SHSM, according to the Ministry, is 'a specialized program that allows students to gain credits toward their Ontario Secondary School Diploma and focus their learning on a specific economic sector at the same time'. It targets Grade 11 and 12 students. Graduates receive an SHSM seal on their diploma after completing a specific bundle of 8-10 courses in the student's selected field; earn industry certifications; and gain skills on the job through cooperative education placements. It is organised around *apprenticeship training, college*, *university education*, and the *workplace*, and allows students 'to identify, explore and refine their career goals and make informed choices about their next steps after secondary school' (MOE Policy). There is an

option to be exposed to the Manufacturing sector[4] focusing on knowledge and skills required in various professions. Implementation in schools may vary across the province.

Government Policy Shifts – Skilled Trades *Stream*

Given the retirements of trades people, the Government of Ontario felt the need to increase opportunities for secondary school students to consider skilled trades as a career pathway. It announced in 2023[5] that it wanted to introduce a new process for students to enter the skilled trades faster by enabling students to pursue 'an accelerated apprenticeship pathway' from Grade 11. According to the government's consultation paper (2023), two models were being considered:

1. Equivalent Apprenticeship Learning – a student pursues apprenticeship learning full time but is still a schoolboard student; or,
2. Employer Supervised Apprenticeship – the apprentice would no longer be a student and is excused from attending school while pursuing apprenticeship learning full time.

Students who complete 16 credits (i.e., after completing Grade 10) would have to sign a Registered Training Agreement and work towards their Certificate of Apprenticeship. People for Education (2023) notes that if option 2 were to be implemented, Ontario would be the only province or territory in Canada implementing such a model. According to a May 2024 press release, the government has opted for option 1. The Focused Apprenticeship Skills Training (FAST), if legislation is passed, allows Grades 11 and 12 students 'to participate in more apprenticeship learning through additional co-operative education credits while completing high school' (Ministry of Labour, Immigration, Training and Skills Development, 2024). The section below looks at policy and programmes in other jurisdictions that could inform future planning for TVET and skilled trades in schools in Ontario and Canada.

Best practices in career-focused education in school

There are opportunities to learn from best practises in other jurisdictions in revising policy and programming around apprenticeships and TVET in schools.

United States of America

Career and Technical Education (CTE) in the US

The US, like Canada, is facing challenges with attracting youth to occupations that do not require a degree but still offer quality job opportunities in terms of compensation and job satisfaction: 'A critical workforce challenge in the United States is the skills gap, particularly

[4] See Manufacturing sector SHSM at https://www.ontario.ca/document/specialist-high-skills-major-policy-and-implementation-guide/manufacturing

[5] See Amendments to the Education Act made by the Better Schools and Student Outcomes Act, 2023 that received Royal Assent on June 8, 2023

among jobs that require either a high school diploma, postsecondary certificate, or associate's degree. Jobs requiring these "middle skills" outnumber the adults in the workforce who possess them, and this gap presents a barrier to American economic competitiveness' (US Dept. of Education, 2019, para 2). According to Georgetown University Center on Education and the Workforce (2017), there are 30 million jobs in the United States where a bachelor's degree is not required and which pay median earnings of $55,000 or more.

According to the *Strengthening Career and Technical Education for the 21st Century Act of 2018*, CTE 'provides individuals with rigorous academic content and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions, which may include high-skill, high-wage, or in-demand industry sectors or occupations, which shall be, at the secondary level, aligned with the challenging State academic standards adopted by a State…' (US Dept of Education, 2019). Edgerton (2022) notes that general education and academic skills are a critical component of secondary and postsecondary CTE programs since the precise technical skills needed in future occupations cannot be predicted.

The Department of Education, using different data sources[6], looked at public high school students who earned at least two CTE credits in a single CTE program of study or career cluster (CTE concentrator) to examine aspects of CTE participation and outcomes. Their findings suggest access to and participation in TVET or CTE education in secondary school was high and students had good labour market outcomes after they graduated:

- Nearly all public school districts offered CTE programs in high school .
- Three-quarter of the districts offering CTE courses are commonly dual credit (both high school and postsecondary credit).
- CTE programs were delivered in various locations by school districts including high schools (83%); part-time CTE centers (43%); 2-year community or technical colleges or 4-year colleges or universities (35%). About 30% of school districts also offered CTE programs online (including in blended/hybrid courses).
- Student participation in high school CTE was relatively high (77%).
- However, less than half of CTE participants in high school (37%) went on to concentrate in a specific area of CTE.
- In terms of equity-deserving groups (EDGs), American Indian/Alaska Native (45%), White (40%), and students of two or more races (37%) were more likely to be CTE concentrators. Male students (40%) were slightly more likely to be CTE concentrators

[6] National participation data were based on a longitudinal study using a nationally-representative sample of a *cohort of students* from the *High School Longitudinal Study of 2009* (HSLS:09), consisting of 9th grade public high school students in 2009–10 and followed up with a collection of high school transcripts in 2013 to examine course credits earned over the study period. The study included over 23,000 9th graders from 944 schools in 2009. National outcome data were based on a longitudinal study using a nationally-representative sample of a cohort of students from the Education Longitudinal Study of 2002 (ELS:02), consisting of 10th grade public high school students in 2001–02 and followed up with a collection of high school transcripts in 2004 to examine course credits earned over the study period. The study included over 12,000 10th graders from 750 schools in 2002.

than female students (33%). However, ESL students were less likely to be CTE concentrators than non-ESL (27% versus 37%). There was no significant difference between students receiving special education services versus students who did not.

- CTE concentrators graduated from high school at higher rates than their non-concentrator peers.
- CTE concentrators in high school were more likely than non-concentrators to earn an associate degree as their highest level of educational attainment within eight years of graduation (11% versus 7%).
- High school students who were CTE concentrators were employed full-time at higher rates (eight years after their expected high school graduation) compared to non-concentrators (72% versus 67%). In addition, a lower percentage of CTE concentrators than non-concentrators were employed part time or unemployed.

It is noteworthy that the top three most prevalent *career clusters* in high schools were: (1) Arts, Audio-Visual Technology, and Communication; (2) Business Management and Administration; and (3) Health Science. These are not related to traditional skilled trades. The research does not provide direct causal links between CTE concentration in high school to post-secondary credentials and labour outcomes, but there are indications from the cohort-based research that outcomes are more likely to be better for high school CTE concentrators in terms of earnings and full-time employment.

Secondary schools in the US offer different types of CTE:

- occupational - prepares individuals for specific fields;
- non-occupational CTE- Family and consumer sciences education which prepare students for roles outside the paid labour market; and general labour market preparation skills such as office skills and introductory technology skills.

There are several types of secondary school level CTE providers in the US which include:

- public and private comprehensive high schools including Bureau of Indian Education (BIE) schools;
- career academies within comprehensive high schools and organize a multiyear academic and CTE curriculum around a particular career theme;
- area CTE school - specialized schools or departments of secondary or postsecondary schools, used exclusively or principally for the provision of CTE;
- CTE-specific schools that teach core academics in the context of specific career pathways;
- juvenile justice facilities; and,
- cooperative programs with technical or community colleges Edgeton (2022).

CareerWise – an intermediary between schools and Industry

Careerwise, launched in 2016 in Colorado, is an initiative in the US that re-thinks youth apprenticeships. The programme focuses on the labour market needs of employers in four states in different apprenticeship areas - modern manufacturing, healthcare, hospitality, and knowledge-economy fields (financial services and technology). Careerwise services include student outreach and hiring, training and upskilling, and transition from apprenticeship into full-time roles. Apprenticeship, in this context, means work-place learning or work-integrated learning (WIL), which means apprenticeships are not only restricted to the skilled trades and it is open to all students. The pathway for students entering apprenticeships include university.

Dual credit programmes and Industry/State/School partnerships

Hamilton County Department of Education has established partnerships for 'Workforce Development & College Schools', which provide Early Postsecondary Opportunities (EPSOs) for students 'to earn postsecondary credit during high school to jumpstart their post-graduation plans' at ten schools. For example, the Mechatronics Academy at VW (MAV) is a partnership between Chattanooga State, Hamilton County Department of Education, and Volkswagen Chattanooga. The programme provides Grade 11 and 12 students with dual enrollment courses (with 36 hours of college credit), and priority in the VW apprenticeship programme, while providing exposure to the workplace and mechatronics as a career pathway. Parents have to apply to a lottery for their children as spaces are limited.

According to Association for Career and Technical Education (2023), CTE programs are offered in the manufacturing sector, which 'develop students' technical, academic and employability skills through work-based and hands-on learning, ensuring that they are prepared to enter a high-wage, in-demand career in areas such as semiconductor manufacturing, electric vehicle (EV) and battery manufacturing, and supply chains'. CTE has been expanded to middle school in the US in some states (Grade 6-8 for ages 11-13).

Other Jurisdictions

Australia has school-based apprenticeships. Students need approval from a *parent or guardian, school, and an employer* to complete part-time hours, learning on the job and at a training organisation, in addition to hours spent at school. It can take to 4 years to complete. High school students may or may not get paid, depending on the state and territory, which all have different requirements. Students have to utilise high school careers advisors or a Vocational Education and Training (VET) coordinator to find out the courses available to them geographically. Apprenticeship in Australia refers to both traditional apprenticeships and traineeships which combine learning at a training organisation and learning on the job. The level of financial support will vary between an apprenticeship and traineeship depending on the state or territory, and credential being pursued. An apprenticeship support network[7] provides support to students and employers in each state/territory. Students can call them for assistance. In the

[7] See https://www.apprenticeships.gov.au/who-to-contact/search-for-an-australian-apprenticeship-support-network-provider

UK (England, Scotland, Wales, Northern Ireland), while TVET courses[8] are available to secondary school students, school-based apprenticeships are not the norm. Apprenticeships start at age sixteen, the age at with compulsory education ends. Apprenticeships have equivalencies to traditional high school and PSE educational levels, and some may also provide an additional qualification (diploma, etc.). Germany is not a practical example for Canada as an apprenticeship model in schools, as they start streaming early in their education system.

Lessons for policy and practice in Canada

The issue of streaming cannot be forgotten in promoting skilled trades. Re-introducing trades has to be done in an inclusive manner. Parents of low-income students and students from equity-deserving groups (EDGs) may be worried that if their children choose the trades, that while they may be raising the income floor, they are also lowering their income ceiling. Providing the public with better labour market information about earnings potential across the skilled trades and other occupations would be useful for students and parents. FOCAL is doing some of this work through its occupational profiles that can be accessed by students, career counsellors, and parents, and others involved in advising students on careers.

The FOCAL Initiative would like to make some suggestions for promoting and strengthening policy and practice related to TVET and skilled trades in schools.

General education policy and practice

- Beyond the binary – Educators, parents, and policymakers need to re-think education as being siloed into 'academic' and 'vocational', and use a more holistic and inclusive framework in curricula for equitable student outcomes. Taylor (2020) notes that historically society 'values academic knowledge and the professional occupations associated with it over practical vocational knowledge.' Work-integrated learning is now being included in university programmes to make graduates more employable, so experiential learning at the school level should also be integrated into the curriculum.

- Informed career planning – For older students, skills-based and career-focused learning provides a chance for students to find out what subjects appeal to them and make informed choices. Career planning courses are currently a scholastic exercise with no hands-on experience. Provide students with information on the diverse educational pathways that they have, along with career pathways and earnings potential. Guidance counsellors need to have awareness of LMI resources to better support students.

- Age – Experiential learning at school or third-party centres can occur for junior high school (middle school) while workplace learning can focus on Grade 11 and 12.

8 See https://www.gov.uk/government/collections/gcse-subject-content

- Funding – Government has to fund TVET properly and equitably across schools geographically, where they have the right staff and equipment, and the right employers to sponsor students in apprenticeships.

- Streaming and Equity –Apply an equity lens throughout the policy-making process – research, consultations, implementation at the ministerial, school board and school level. This means understanding the history of streaming and not allowing history to repeat itself by educating staff on how to prevent streaming. This means for students of all backgrounds to have access to the same opportunities for courses - academic and TVET, with information available from teachers and guidance counsellors for all students.

- Agency and student-centredness – Students should have agency in deciding what courses they choose and complete for their high school diploma based on their interest, attitude and aptitude. This requires students to be exposed to TVET courses early as life skills while building a solid foundation required for future studies

- Classism and parental attitude – Conduct parent education and outreach for immigrant parents on diversity of career opportunities for students.

- Staff training – Train staff, teachers and counsellors in equity and inclusion in their educational programmes and in-school practices, with accountability for the latter from unions and government.

- Accountability – Schools need to track and report on student involvement in TVET and outcomes in terms of success, access and equity in high school and post-graduation, student demographics, chosen educational and career pathways of students and graduates to monitor for streaming. Colleges and universities also have to be supportive of student learning and provide students with flexible pathways to various PSE programs regardless of their focus in secondary school.

- Collaboration – Schools and post-secondary institutions (colleges, universities) need to collaborate to develop educational pathways for students (e.g., joint degrees between colleges and universities). Schools also need to collaborate with intermediaries, employers associations, supported by government, to assist staff and students with TVET in schools.

- Teachers in trades – Develop an accelerated pathway for journeyperson (JPs) to teach trades courses in high schools and upgrade teacher education programmes for trades education options.

Skilled Trades Reform

- Current options – Consider reform of current initiatives (OYAP; SHSM) to strengthen TVET and skilled trades education.

- Self-employment – Include entrepreneurship studies (similar to Blue Seal)[9] in trades programmes to allow options for self-employment and wage employment.

- Promote completions – For students who choose apprenticeships and a skilled trade, support completion to journeyperson status, whether they started in secondary school or after graduation. Government has to explore ways to ensure that employer sponsors encourage apprentices to complete (e.g. release to go back to school, time to study for exams, etc.).

- Apprenticeship Training Incentives – Simplify and remove red tape for employers to claim tax credits for training.

- Educational Choice and TVET – PSE institutions need to recognise JP as a credential to provide a pathway to further education if they wish to continue their studies at college or university.

- Role of intermediaries – Intermediaries[10] (third party NGOs) can provide a bridge and support to schools and students, and employers in workplace-integrated learning including apprenticeships.

[9] See Blue Seal Program | SATCC (saskapprenticeship.ca)
[10] See FOCAL Initiative (2020 June) paper on Intermediaries

Conclusion

The title of the paper, ‘Making Plans for Nigel’ (Moulding, 1979), refers to a song about overbearing parents whose son’s future "is as good as sealed" working for British Steel. The issue raised is parental expectation and influence on a child/student versus student choice in determining their future. This paper suggests that we center student choice and agency where children and students have information on all educational options**,** occupations and earning potential and allow them to make their own choices of school courses based on their own inclinations and aptitudes**.** A balance can be found between academic and TVET(life skills) learning at middle school and high school, where students have an opportunity to explore and find out what subjects appeal to them and make informed choices. Expose them to diverse subjects (academic and technical/vocational), built on a solid foundation of mathematical and English literacy, in a non-streaming, non-gendered manner. We can strengthen apprenticeships and TVET in secondary schools in an inclusive manner that does not stream or stigmatise students based on socio-economics, demographics, or perceived abilities. Choices that they make in high school should not restrict a student’s options after they graduate. If young people choose the trades, they should also have opportunities for degree level education through recognition of their education and workplace learning by colleges and universities. This flexibility is not only important for the individual in terms in terms of long-term wage earnings but for the employer and the labour market to have a postsecondary education and training system that facilitates lifelong learning and worker mobility.

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