Transitions from Credentialed CTS Apprenticeship Pathways to Apprenticeship



Forecasting, Analytics and Research Unit March 1, 2023



Agenda

- 1. Background
- 2. Methodology
- 3. Results
- 4. Discussion and next steps

Albertan

Background- Purpose of the project

 Pathways of students after enrolling in Dual credit programming.

- Students in Grade 10, 11 or 12 can earn credits toward:
 - a high school diploma or certificate of achievement
 - a post-secondary certificate, diploma or degree
 - first-period apprenticeship



Background-Types of Dual Credit

- CTS Single/Dual Enrolled dual credit courses
- Career and Technology Studies (CTS) Apprenticeship Pathways



Project Phases

- Phase 1- Transition from Dual Enrollment to postsecondary education.
- Phase 2- Transition patterns of CTS Apprenticeship pathway completers.
- Phase 3- Transition patterns of students enrolled in RAP.
- Other questions
 - Post-sec completion patterns among CTS completers vs. Others
 - Transition from pathways to non-Apprenticeship post-sec programs



Methodology



What is a dual credit pathway?

- A dual credit pathway is a course or a selection of courses in the CTS program.
 - Students explore career opportunities and develop the knowledge, skills, attitudes and values they will need on the job.

 Focus for this phase of analysis is CTS Apprenticeship Pathway completers.

Data Sources and Linkage

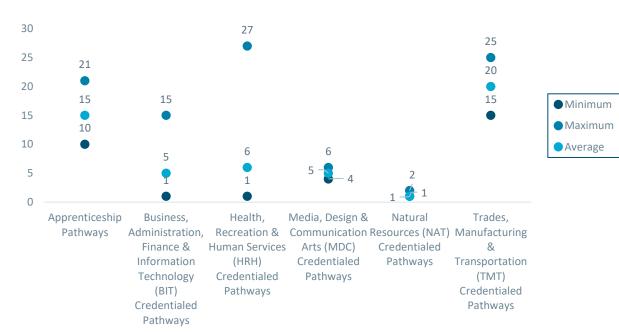
- Alberta Education
 - Apprenticeship PathwayCompleters dataset(2016-2018)
- Skilled Trades and Professions
 - Apprenticeship Trade and Occupations Management System dataset (2014-2022)

Alberta Student Number



On an average, credentialed pathways within the TMT and Apprenticeship Occupational Areas had the most number of courses required to complete the pathway.

Number of Required Courses for CTS Credentialed Pathways* By Occupational Areas

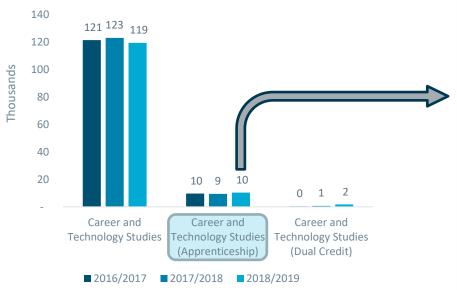


^{*}For example, CTS credentialed pathways in the Apprenticeship occupational area range from 10 required courses for Automotive Service technician to 21 for Hairstylist.



Enrolment in CTS Apprenticeship Pathways

Number of students enrolled in different CTS Subject areas by year (in thousands)



CTS Apprenticeship Pathway	Number of Students enrolled in 2018/2019	
Hairstylist	7,515	
Cook	2,180	
Baker	420	
Automotive Service Technician	273	
Welder	136	
Agriculture Equipment Technician	87	
Pipe Trades	67	
Carpenter	58	
Electrician	29	
Auto Body Technician	10	
Heavy Equipment Technician	7	
Industrial Mechanic (Millwright)	*S	
Cabinetmaker		
Landscape Horticulturist		
Painter and Decorator		
Parts Technician		
Grand Total	10,378	

^{*}S=Suppressed



Apprenticeship related pathways

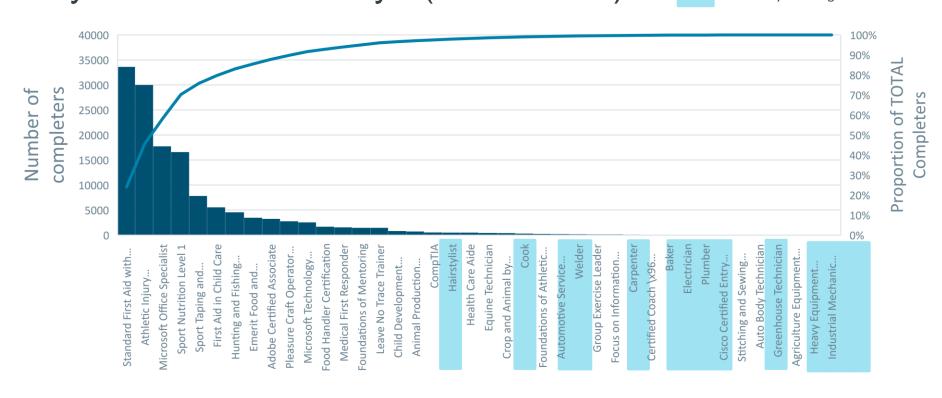
Year	All Credentialed CTS Pathway Completers	Credentialed CTS Apprenticeship Pathway Completers
2016	35,699	390
2017	35,646	448
2018	36,599	450
TOTAL	107,944	1,288

Of the 64 CTS pathways that had credentialed completers, 13 were related to Apprenticeship.

- 1. Agriculture Equipment Technician
- 2. Auto Body Technician
- 3. Automotive Service Technician
- 4. Baker
- 5. Carpenter
- 6. Cook
- 7. Electrician
- 8. Hairstylist First Period
- 9. Hairstylist Second Period
- 10. Heavy Equipment Technician
- 11. Industrial Mechanic (Millwright)
- 12. Plumber
- 13. Welder

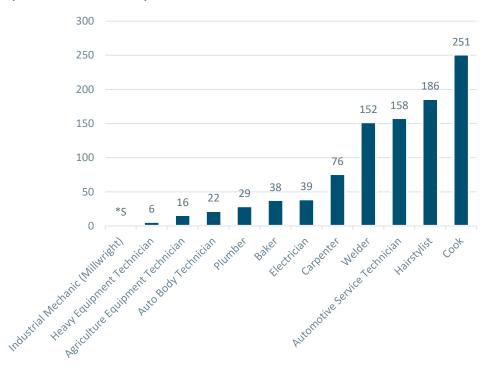


Number of CTS Credentialed Pathway Completers by Different Pathways (2016-2018)



Over three quarters of
Apprenticeship pathway
completers were from four trades;
Cook, Hairstylist, Automotive
Service Technician and Welder

Distribution of CTS Credentialed Apprenticeship Pathway Completers (2016-2018)



^{*}S=Suppressed for n<6

Data Cleaning

What counts as a successful transition into Apprenticeship?

A student who completed a CTS Apprenticeship pathway

And

Appeared in ATOMS (Apprenticeship database) with a Application Status of

- Approved
- Registered Apprentice
- Registered non-progressing
- Cancelled and
- Completed

- Number of students that completed a CTS Apprenticeship pathway <u>and</u> show up in the ATOMS database (730)
 - Within 4 years (725)
 - In any trade
 - Analysis of their <u>first</u> entry

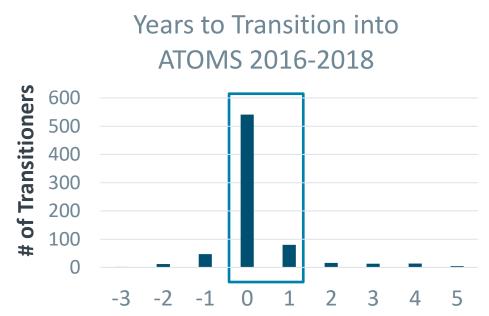
Classification: Protected A

Results

Albertan

Transition Into a Trade after Completing a Credentialed Apprenticeship Pathway

Pathway completion Year	Number of Credentialed CTS apprenticeship pathway completers who transitioned into a Trade within four years.	*Total Credentialed CTS Apprenticeship pathway Completers	Four-year Transition Rate
2016	220	323	68.7%
2017	259	376	69.7%
2018	246	402	61.2%
TOTAL	725	1101	65.8%



Years to Transition

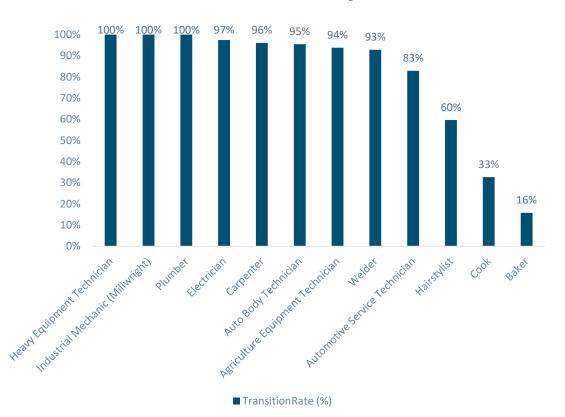
* 0 = transitioned in the SAME year as CTS completion

^{*}Numbers are different from Slide 11 due to data cleaning.

Students completing Heavy
Equipment Technician and
Industrial Mechanic pathways
had a 100% transition rate to
Apprenticeship while those
completing Baker and Cook
pathways had the lowest
transition rates.

While hairstylists form a majority of credentialed Apprenticeship pathway completers, only 60% of them transition to formal apprenticeship.

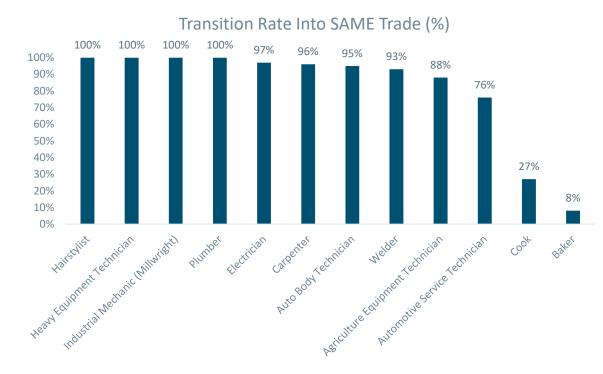
Transition rate by Trade



Completers from majority of the CTS Credentialed Apprenticeship pathways transitioned into the same trade.

Students who completed Cook or Baker CTS Apprenticeship Pathways had the least sametrade transition rate.

Transition into the same Trade



^{*}Includes individuals who transitioned into multiple trades

CTS Transitioners into ATOMS in a Different Trade

- # of transitioners into another trade:
 - Automotive Service Technician (35)
 - Welder (34)
 - Cook (22)
 - Carpenter (11)
 - Electrician (6)
 - Plumber (6)
 - Agriculture Equipment Technician (S*)
 - Baker (S*)
 - Auto Body Technician (1)

Automotive. Electrician Carpenter Cabinetmaker Plumber Hairstylist Carpenter Welder COOK Ironworker Electrician Automotive Service... Heavy ..

Classification: Protected A

^{*}S=Suppressed for n<6

Summary

- On average, there are fewer CTS Apprenticeship Pathway
 completers compared to non-apprenticeship credentialed pathways
 possibly due to more apprenticeship courses required to complete
 the pathway.
- Over two thirds of CTS Apprenticeship pathway completers successfully transitioned into a Trade.
- Majority of transitioners (85%) pursue the same trade.
- Calculation of a pathway completion rate is complex, and we will pursue this after discussing with stakeholders.



Next Steps/Phase

- Pathway completion rates and Apprenticeship completion rates for transitioners.
 - Need to define Apprenticeship Pathway Participation
- Transition from RAP program into classroom training and the impact of CTS plus RAP vs. just CTS or just RAP.



Questions?



Acknowledgement

- Alberta Education
- Skilled Trades and Professions
- ACAT Secretariat
- Team members

Kelly Nisbet, Senior Data Analyst Krishna Modupalli, Research Lead Forecasting, Analytics and Research Unit

