

# The Alberta 2013-16 Provincial Dual Credit Strategy: Laying the Groundwork

February 14, 2017

A REPORT OF THE PROVINCIAL DUAL CREDIT STRATEGY STEERING COMMITTEE

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FOR FURTHER INFORMATION, CONTACT THE PROVINCIAL DUAL CREDIT STRATEGY (PDCS) STEERING COMMITTEE CO-CHAIRS, CATHY FABER, CHERYL KNIGHT OR RON WOODWARD OR THE CASS EXECUTIVE DIRECTOR, BARRY LITUN.

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### **PDCS Steering Committee (January 2017)**

Cathy Faber, Co-Chair  
Cheryl Knight, Co-Chair  
Dr. Ron Woodward, Co-Chair  
Tess Cocchio  
Evan Dearden  
Dr. Kelly Harding  
Michael Kulchisky  
Heather Mirau  
Dr. Barb Mulholland  
Sandra Pochylko  
Calvin Seaman  
Dr. Alice Stewart Wainwright  
Chris Thomas  
Rozlyn Wick

### **Past Members of the PDCS Steering Committee**

Dr. Dot Negropontes  
Dr. Robert Boudreau  
Andy Neigel  
Gordon Shaw  
Drew Zieglansberger

## TABLE OF CONTENTS

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<b>Executive Summary</b> .....	1
<b>1. Introduction</b> .....	3
I.    Setting the Context .....	3
II.   Inter-Ministerial Involvement .....	3
III.  Projects and Data Sources .....	3
IV.  Partnerships .....	5
<b>2. Operational Parameters – First Steps and Approaches</b> .....	5
I.    Roles and Responsibilities .....	5
II.   Time Investments.....	6
III.  Program/Curricular Design .....	7
IV.  Student Engagement.....	8
<b>3. Financial Factors</b> .....	9
I.    Funding Sources (Inputs) .....	9
II.   Costs by Function .....	9
III.  Fiscal Pressure Points .....	11
<b>4. Key Lessons Learned</b> .....	11
I.    Project Narrative Stories .....	12
II.   Sustainability Implications .....	14
III.  Necessary Conditions for Sustainability .....	14
IV.  Dual Credit Successes.....	15
V.    Dual Credit Challenges .....	16
VI.   Dual Credit Key Learnings .....	18
VII.  Financial Sustainability.....	19
VIII. Key Factors for a Successful Dual Credit Model .....	20
IX.   Necessary Factors for a Long Term Dual Credit Framework .....	21
X.    Conclusions.....	22
<b>5. Recommendations</b> .....	23
I.    Student Centered.....	23
II.   Flexible.....	23
III.  Accountable .....	23
IV.  Sustainable.....	24

V. Excellence .....	24
<b>6. References.....</b>	<b>25</b>
<b>7. Appendix A – Literature Review Executive Summary .....</b>	<b>26</b>

## EXECUTIVE SUMMARY

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The May 2013 Provincial Dual Credit Strategy (PDCS) recognized the profound link between an effective education system and a well-prepared labour force positioned to compete in a global economy. The goals of the Strategy included improved high school completion rates and post-secondary transition rates, as well as enhanced labour force entry and expanded local partnerships supportive of dual credit programming. Fifty-one approved projects were created and implemented beginning in the fall of 2013. Several of the partnerships included more than one MOU with multiple school authorities and partners with the result that in the 51 projects a total of 62 dual credit program opportunities were delivered.

Data for this report was provided through an on-line data collection instrument completed by school jurisdiction staff, with support from post-secondary staff and/or business/industry staff. A Literature Review was completed parallel to this report and a summary is included in Appendix A. The full Literature Review is appended to the full Technical Report. Several common messages emerge from the Literature Review across the many state and provincial jurisdictions that have demonstrated positive experiences with dual credit. The research supports that dual credit students gain a more seamless student experience in navigating between secondary and post-secondary systems and thus are more likely to:

- Complete high school, and enter college shortly after high school and less likely to be placed in remedial English or math.
- Be prepared for college and have higher first year grade point averages.
- Have higher second year retention rates and four and six year completion rates.
- Have shorter time for completion of a bachelor's degree.
- Increasingly, dual credit can be described as an educational structural reform and powerful post-secondary completion strategy.

The universal theme that emerges from the project narratives is that the Provincial Dual Credit initiative from 2013 to 2016 has been a successful story with compelling evidence of effective partnerships between secondary, post-secondary and business/industry. The survey data and the Literature Review provide substantial evidence that the Provincial Dual Credit Strategy now should be expanded to a Provincial Approach to Dual Credit. This conclusion is based on the clear benefits to students through a more personalized education program, and to society through improved high school completion and post-secondary transition rates as well as enhanced labour market opportunities.

The experiences gained through laying the groundwork for a Provincial Approach to Dual Credit over the past three years has generated conclusions and recommendations presented within and at the end of this report. There is now a need to envision a broader provincial approach building on the efficiencies that can be achieved with a provincial model. The essential infrastructures are already in place. What is needed now is the commitment within the Alberta government and across the secondary, post-secondary and business/industry sectors to build the bridges to link the existing structures. The means to get there are defined in the Recommendations detailed herein.

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# 1) INTRODUCTION

## I SETTING THE CONTEXT

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The May 2013 Provincial Dual Credit Strategy (PDCS) <http://www.albertadualcredit.ca/provincial-dual-credit-strategy.html> recognized the profound link between an effective education system and a well-prepared labour force positioned to compete in a global economy. The goals of the Strategy included improved high school completion rates and post-secondary transition rates, as well as enhanced labour force entry and expanded local partnerships supportive of dual credit programming. The document envisioned, “...five guiding principles: student-centred, flexibility, accountability, sustainability and excellence [that] will guide the development, design and implementation of the Strategy to ensure a seamless system and excellence in educational experiences for all students” (Alberta Government, 2013: 10). These guiding principles provide useful reference points for reflecting back on the successes and challenges experienced as the Strategy was implemented between 2013 and 2016, as well as a starting point to build a relevant framework for a universal dual credit model for the province.

The Strategy also called for two future actions: the development of a plan for a lifelong learning transcript, and a review of the initial implementation of the Provincial Dual Credit Strategy. This report is the fulfillment of the second future action.

## II. INTER-MINISTERIAL INVOLVEMENT

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Three ministries, Education, Advanced Education, and Human Services<sup>1</sup> contributed 5.35 million dollars<sup>2</sup> to support the initial work of the PDCS through an application process administered by an arm-length entity, the Dual Credit Steering Committee, which was supported by the College of Alberta School Superintendents. The earmarked 5.35 million dollar support monies supplemented existing High School Credit Enrollment Unit funding at the secondary level and Campus Alberta Grants at the post-secondary level. Business/industry contributions were also anticipated. A fourth ministry, Indigenous Relations, joined the ministerial group in 2015. An additional \$884,775<sup>3</sup> has been awarded for the administration costs of the project from 2013 – 2017, including the costs incurred by the volunteer Steering Committee.

## III. PROJECTS AND DATA SOURCES

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Dual credit funding requests defined in Table 1 were considered in two primary phases, June and November 2013 and in April 2014. In total 85 funding requests totaling \$11.4 million were received with 51 getting final approval for a total funded amount of \$5.35 million.

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<sup>1</sup> “Enterprise and Advanced Education” changed the Ministry name to ‘Advanced Education’ in 2015. Human Services withdrew and Labour joined the Strategy in 2015.

<sup>2</sup> The 5.35 million dollars were supported by Education (\$3 million), Advanced Education (\$1.35 million) and Labour (\$1 million).

<sup>3</sup> The \$884,775 administrative monies were supported by Advanced Education, (\$447,500), Labour (\$400,000), and Education (\$37,275).

<b>Table 1 – Funding Requests and Total Allocations</b>				
<b>Intake Date</b>	<b>Number of Total Applicants</b>	<b>Amount Requested</b>	<b>Number of Funded Applicants</b>	<b>Funding Awarded</b>
<b>June 2013 and November 2013</b>	48	\$7,078,200	27	\$3,220,000
<b>April 2014</b>	37	\$4,343,794	24	\$ 2,130,000
<b>Totals</b>	85	<b>\$11,421,994</b>	<b>51</b>	<b>\$ 5,350,000</b>

The 51 approved projects <http://www.albertadualcredit.ca/opportunities.html#> were created and implemented beginning in the fall of 2013. Several of the partnerships included more than one MOU with multiple school authorities and partners with the result that in the 51 projects a total of 62 dual credit program opportunities were delivered. The above URL provides information on the school authorities and post-secondary institutions engaged in each of the projects.

Data for this report was provided through an on-line data collection instrument completed by school jurisdiction staff, with support from post-secondary staff and/or business/industry staff, assigned responsibility for administering the dual credit projects. In a small number of cases the post-secondary representative held primary responsibility for completing the instrument, and for one opportunity the business / industry representative held primary responsibility to do so. The instrument was designed by the ACAT Dual Credit Articulation Sub-Committee with input from the PDCS Steering Committee and was administered by Sitebuilder 360, Inc. Data entry began in June 2016 and was closed in early November 2016. A copy of the data collection instrument is provided in Appendix A in the full technical report.

Close-ended, quantitative data was summarized by Sitebuilder 360 in MS Excel and were then captured and converted to charts by the writer. Open-ended, qualitative input was converted to MS Word and given content analysis, where patterns of input were categorized and quantified and reported in table format. The audit trail of content analyses are available in Appendices B through J in the full, technical report.

Limitations of the data collection survey instrument were influenced by the complexity of the 51 projects and the number of projects in one district that in some cases contributed to some redundancy in survey responses. Some of the answers may be very context specific and, typical for survey data, is based on the way that the respondent interpreted the questions. Additionally, the survey results reported here are in addition to data collection and research tools administered by the Ministries prior to and over the duration of the Strategy.

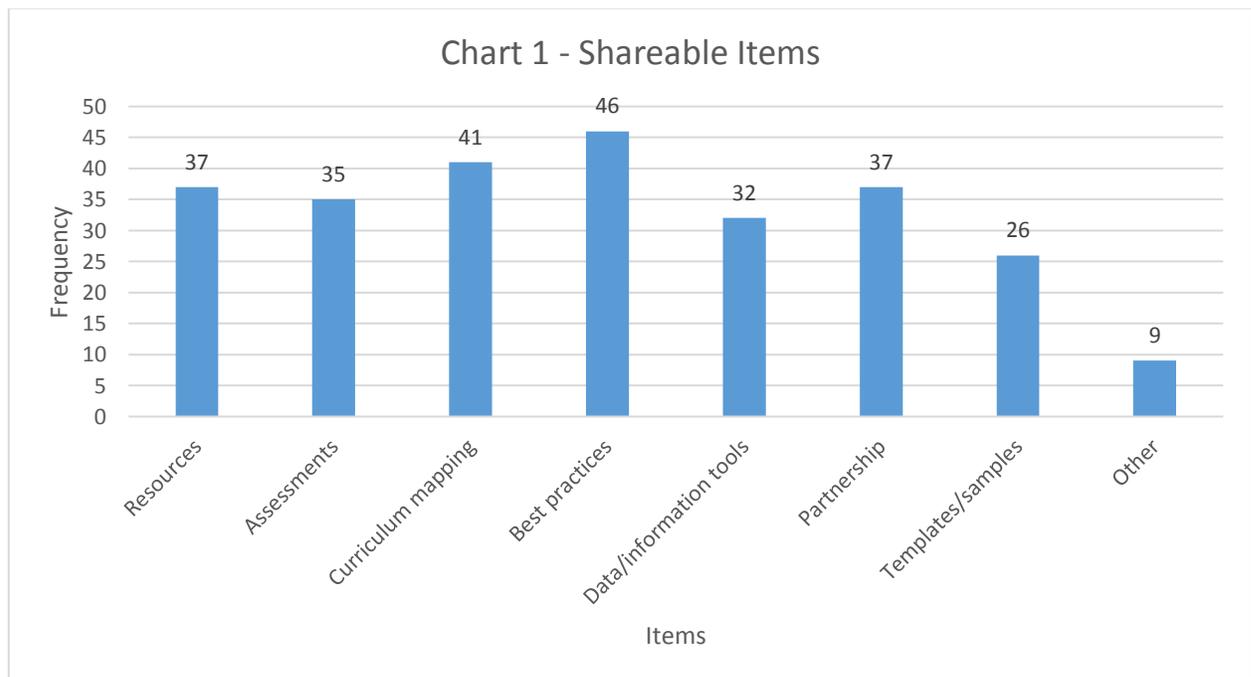
## IV. PARTNERSHIPS-

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The dual credit strategy had a broad reach across the province with 48 of 61 provincial school boards, 21 of 26 post-secondary institutions and 128 businesses/industries engaged in varying degrees in the related partnerships. Two First Nations Education Authorities participated.

The terms of most (76%) of the partnerships were defined in MOU's. Forty-five of the 51 projects included an agreed upon fee schedule or specifically identified how and when fees would be determined. In response to Question 24 in the survey, 45 of 52 respondents indicated a plan to continue the dual credit project after June 2016, four said they did not plan on continuing and three were unsure.

Project participants were asked in Question 26 to identify if specific categories of items have been or will be shared provincially to support the dual credit strategy and next steps. The frequency that each category was checked is presented in Chart 1. Best practices and curriculum mapping were the most frequently selected items, but an extensive degree of sharing across the categories is noted.



## 2) OPERATIONAL PARAMETERS – FIRST STEPS AND APPROACHES

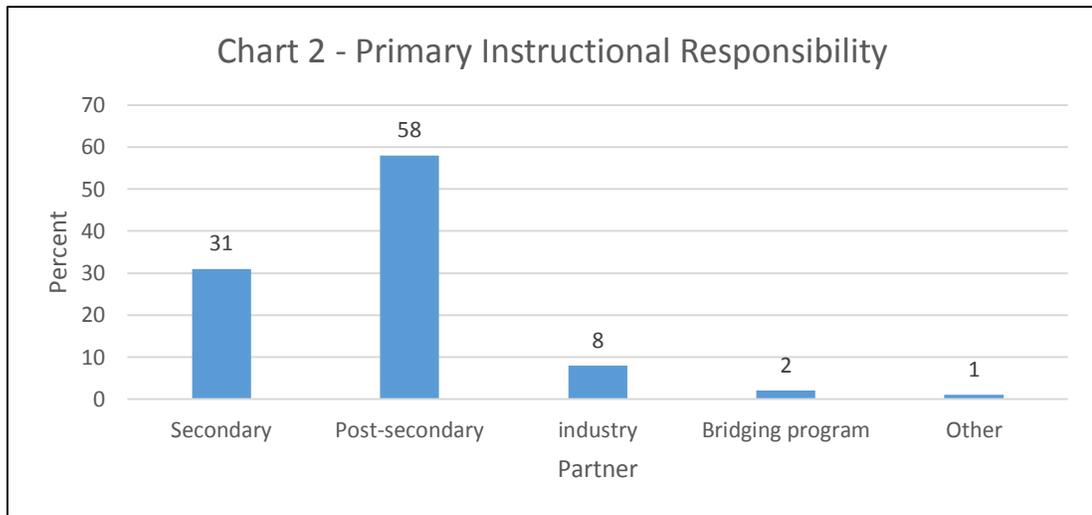
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Section 2 is based on survey data that describes contextual factors that helped shape each of the projects.

### I. ROLES AND RESPONSIBILITIES

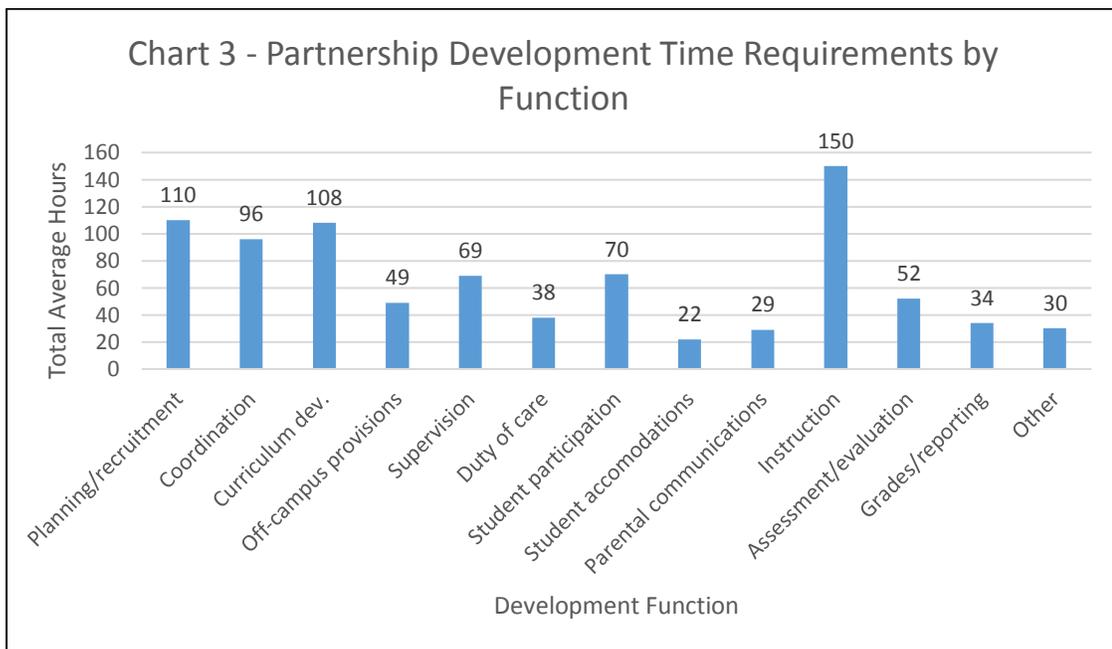
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In the majority of projects the primary responsibility for student instruction (Chart 2) rested with a post-secondary partner in relationship to an assigned certified teacher also directly involved.

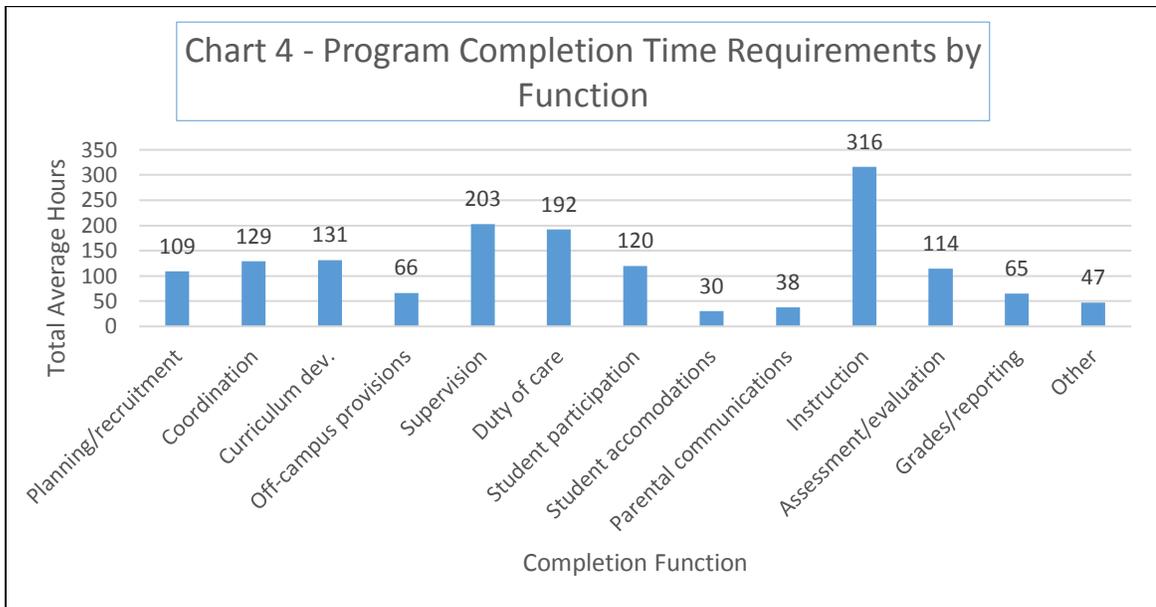


## II. Time Investments

On average across the projects a total of 857 hours was required to “...develop your partnership.” The breakdown of the total time requirements by function is detailed in Chart 3. After instruction, the front end functions of planning/recruitment, curriculum development and coordination were the most significant development time investments.

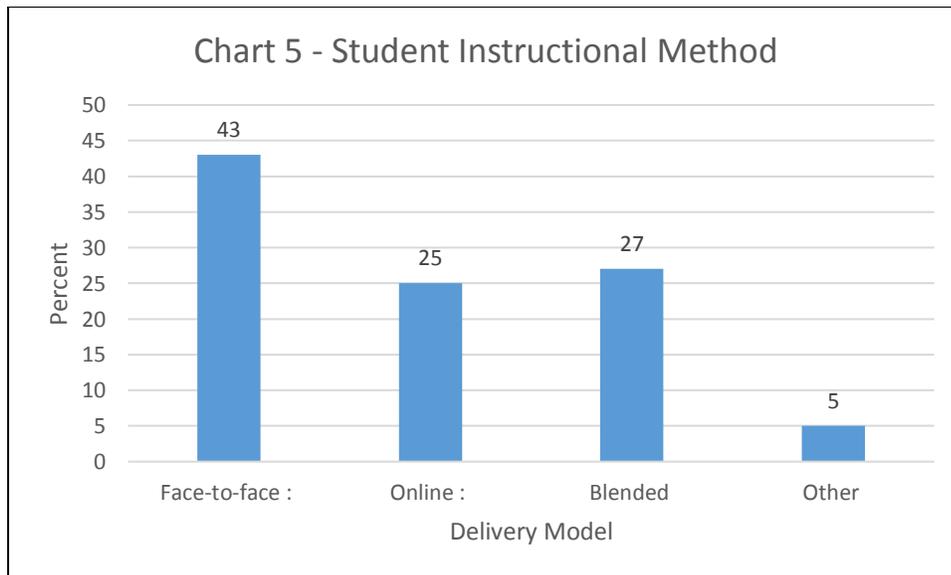


Supplemental to the survey question (#3) regarding time required to develop the dual credit program, respondents were asked in Question 9 to identify the total hours required to complete key items for the program. The total average hours to develop and deliver a dual credit program was 1,560. This data is presented in Chart 4.

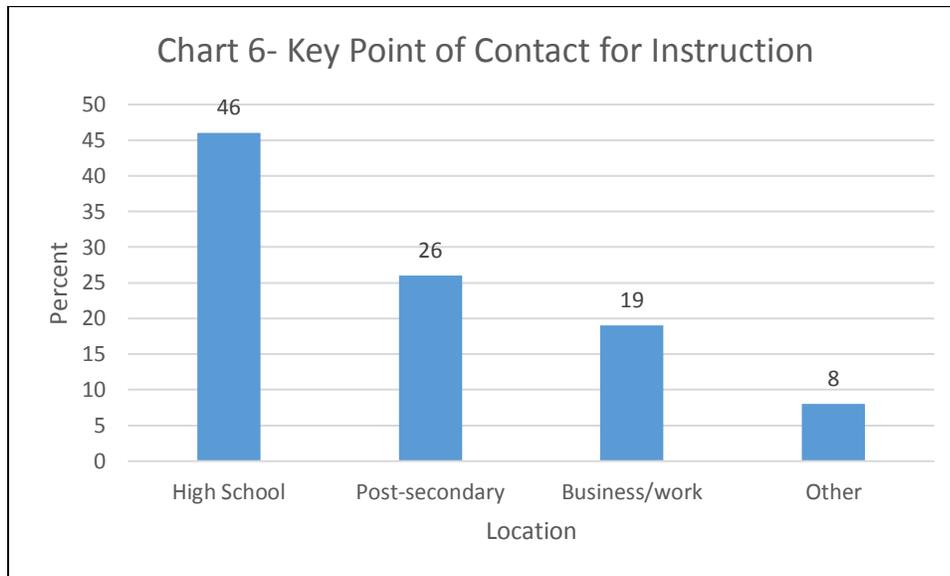


### III PROGRAM/CURRICULAR DESIGN

The instructional models (chart 5) used to deliver the dual credit programs to students were primarily face to face, followed by blended and on-line. In addition, 70% of the programs were reported to have been cohort-based, with a total of 86 cohorts that have completed a program between September 2013 and June 2016. An additional 15 cohorts were estimated to complete a program with funds extended beyond June 2016.



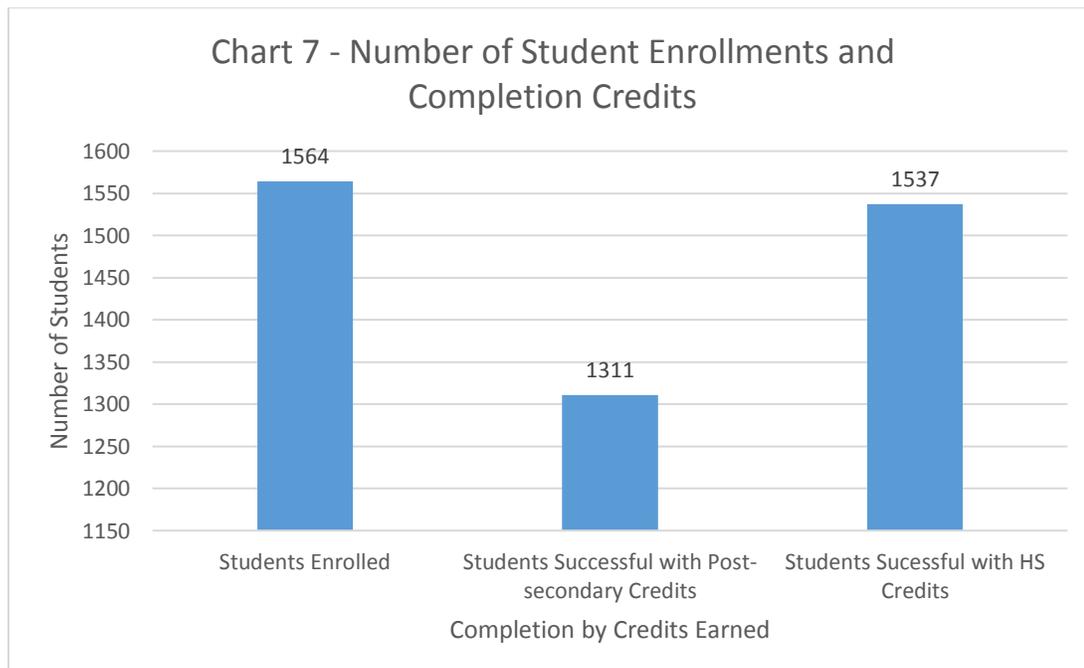
The most frequent location for instruction (Chart 6) was the high school setting (46%), followed by post-secondary venues and then business/work sites.



In terms of cohort participants, 85 percent of the projects involved student cohort composition premised completely on strategy-funded high school students versus course cohorts blended with non-strategy funded post-secondary/industry students.

#### IV. STUDENT ENGAGEMENT

Student engagement (Chart 7) between 2013 and 2016 across the 51 projects or 62 opportunities totaled 1564, of whom 1311 (84%) were reported to have earned post-secondary credits, and 1537 (98%) earning high school credits.



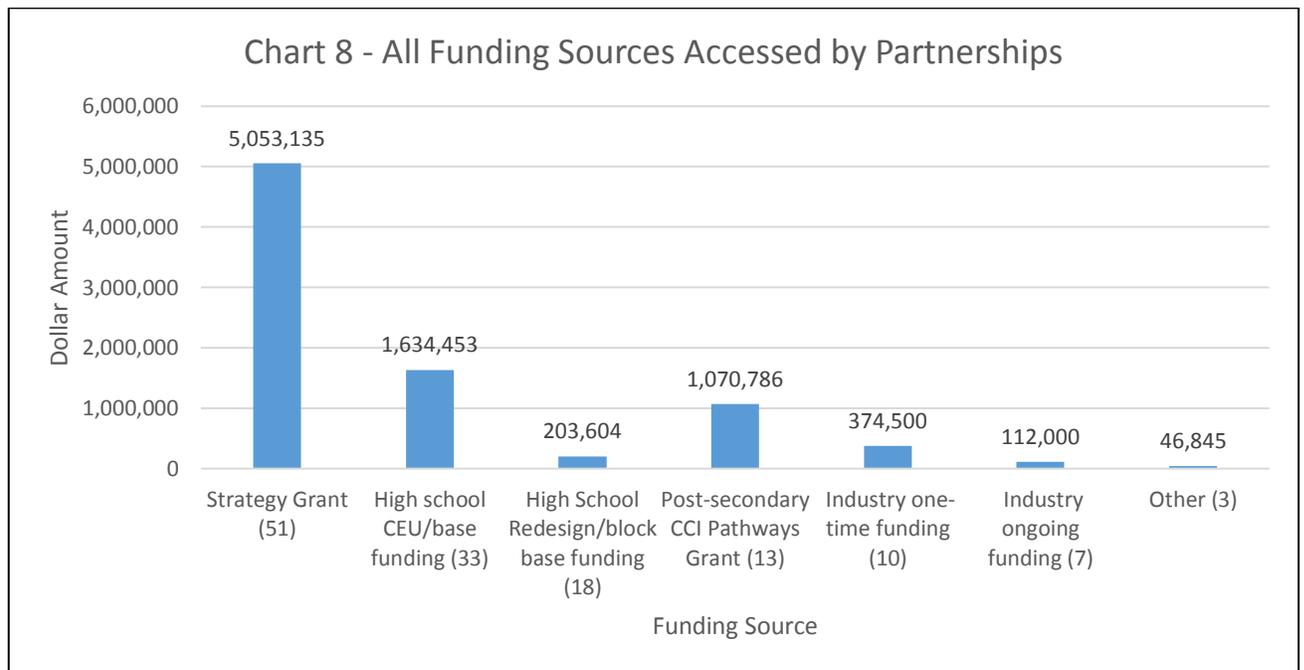
### 3. FINANCIAL FACTORS

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This section presents quantitative data on the 51 partnerships and 62 opportunities financial information and grant funding, including sources, costs and fiscal pressures. One caveat to note is financial data collected by survey is less accurate than data based on audited financial statements and should be interpreted as informed estimates of financial variables.

#### I. Funding Sources (Inputs)

Seven funding sources across the secondary, post-secondary and business/industry sectors were identified and are detailed in Chart 8. The number of partnerships that reported funding for each category are noted in parentheses in the funding source descriptions on the X axis. The total amount of funding from all sources is \$8,495,323.

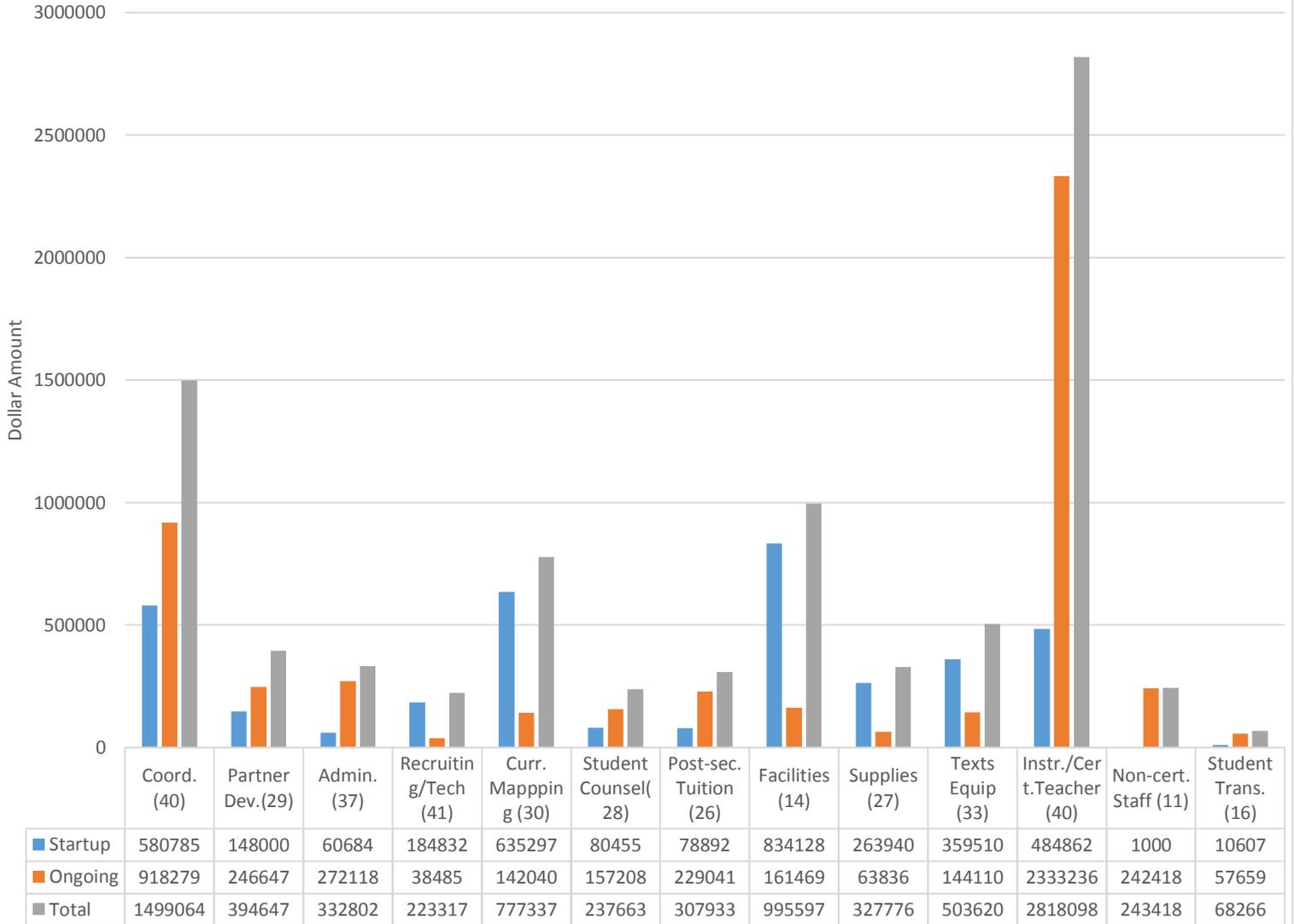


Survey respondents indicated a total of \$349,868 of tuition was waived for the students enrolled in dual credit courses. This amount reflects a per student savings of \$224 assuming the total tuition savings were equally distributed across all 1564 students. Respondents also reported allocating \$343,424 from CEU or High School Redesign/block base (secondary) funding towards post-secondary tuition costs.

#### II. Costs by Function

Startup, ongoing, and both or total costs are reported in Chart 9. Respondents had the option of entering a N/A or not applicable entry for each cost category. The number of partnerships that provided cost data is indicated in parentheses in each case in Chart 9 on the X axis descriptor.

Chart 9 - Startup, Ongoing and Total Costs by Category



Cost Category

■ Startup ■ Ongoing ■ Total

The total startup, ongoing and grand total costs reported in Chart 9 were \$3,722,992, 5,006,546 and \$8,729,538 respectively. The single biggest cost was instructor/certified staff followed by coordination, facilities and curriculum mapping respectively.

Survey respondents reported spending \$4.13 million of the \$5.35 million Dual Credit Strategy Grant with a remaining \$1.18 million<sup>4</sup> to be spent post-June 2016 as requested by 22 of the 51 partnerships.

### III. Fiscal Pressure Points

Survey respondents who reported shortfalls in funding were asked to identify the factors that most greatly contributed to the fiscal pressures. The factors are identified in Table 2.

Table 2 – Project Cost Pressures	
Frequency	Fiscal Pressure Factor
18	Instructor/Certified Teacher costs
11	Coordination/consultant
11	Post-secondary Tuition
10	Curriculum Development/Mapping/Updates costs
6	Planning/Partnership Development and Agreement/Legal costs
5	Administrative and/or Staff Travel Costs
5	Materials/Supplies costs
5	Textbooks/Resources/Equipment costs
5	Student Transportation
5	Other
3	Marketing/Recruitment
3	Student Counseling
3	Facility costs
1	Non-certified Staff

Three of the four most frequent cost pressures also were reported as the highest cost factors reported in Chart 9.

## 4) KEY LESSONS LEARNED

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This section reports on the open-ended, qualitative responses from the 51 dual credit project respondents relative to each of the 62 dual credit program opportunities. The objective was to capture rich descriptions of the dual credit experience and recommendations for the future of dual credit programs in Alberta. Options were provided for more than one partner to provide responses.

<sup>4</sup> A discrepancy of .04 million in totalling dollars spent and to be spent relative to the total grant is attributed to reporting error.

## I. Project Narrative Stories

Respondents were asked to provide a narrative that “explains the story” of the dual credit opportunity including information on partnership background, implementation, and coordination; program features and student benefits; as well as financial factors. Preliminary content analysis of the stories identified four major themes: Partnership Dynamics, Program Design Issues, Financial Factors and Student Effects. Each of these four major themes was given a further content analysis to identify sub-themes. These sub-themes and their frequency of mention are detailed in Table 3 and are further explained below. One caveat, while frequency of mention may provide some insight to the importance of a sub-theme, lower frequency items may still hold significant strategic importance. The detailed text submission content analysis is provided in Appendix B in the full technical report.

<b>Table 3 – Project Narrative Stories</b>		
Major Theme	Sub-themes	Frequency
<b>Partnership Dynamics</b>	Business Key to Successful Project	18
	Multiple Partners Engaged	16
	Multiple Year Time Lines	11
	Staff Contributions to the Project	11
	Networking to Build Support	8
	Community-based Support	8
	Labour Sector Connections Relevant	6
	Successes Achieved	6
	Challenges Encountered	5
	Extendable Project	3
	Priority for Post-Secondary Institution (PSI)	2
<b>Program Design Issues</b>	Curriculum Mapping Links to PSI Curriculum	21
	Curriculum Mapping Links to Industry	12
	Curriculum Mapping Challenges Encountered	7
	PSI Setting for Course	6
	On-line Course Delivery	6
	Staffing Shared	5
	Face to Face Instruction	3
	Blended Model (on-line and face to face)	2
	Industry Setting for Course	2
	Coordinators Critical	1
<b>Financial Factors</b>	Grant Fund Impact Key Support	10
	PSI Contribution Important	7
	Industry Partner Contribution	5
	CEU Fund Application	5
	Self-sustaining Model	4
	Challenges Noted	2
<b>Student Effects</b>	Links to Post-secondary Study	21
	Links to Employment Opportunities	15
	Supports for Students	9
	Personalized Learning Support	5
	Limited Benefits	4
Increased High School Completion	3	

The universal theme that emerges from an overview of Table 3 is that the Provincial Dual Credit initiative from 2013 to 2016 has been a successful story. In terms of the Partnership Dynamics the linkages with business and industry, the realization of multiple partners and local staff contributions are notable. Additionally the value of community support, relevant labour sector connections and successes achieved are mentioned a total of 20 times. Some challenges were noted, particularly with coordinating aspects of multiple partnerships.

Program Design frequently mentions the value of linking high school curriculum with post-secondary curriculum and with the needs of industry, both of which add value to course relevance for students. Curricular mapping challenges were noted seven times and typically addressed the complexities involved in aligning high school with post-secondary programs. A wide variety of course designs and settings were described with on-line and blended models expanding student access to the dual credit opportunities.

Recommendation I.a. Dual credit should be expanded for all students and become a permanent program.

Recommendation II. b. Dual credit courses should be part of the regular program offering for any high school student whether locally initiated by school authorities and/or PSI's or by Alberta Education or Alberta Advanced Education and be coordinated at the provincial level.

Recommendation II.c. School authorities should consider a combination of blended face to face and asynchronous (flexible timing) on-line delivery to ensure access to students regardless of location.

Financial Factors most frequently recognized the value of Dual Credit Strategy Grants without which most of these opportunities would not have been launched. Post-secondary financial contributions were seen as important in seven specific projects. As well, industry contributions were key supports in five of the stories. CEU funding was a key resource and when student enrollments met or exceeded 15 students four of the opportunities were seen as self-sustaining.

Student Effects were overwhelmingly described as positive with great benefit attached to the links with post-secondary curriculum for high school students. Similarly 15 of the dual credit opportunities were seen to have direct links to employment opportunities for students. These linkages provided a chance to more directly support students and to personalize learning as was mentioned in total in 14 projects. Where limited benefits were noted it was tied to challenges in establishing the dual credit program. Direct observation of benefits for students' high school completion were shared three times.

Recommendation I.b. Dual credit programs should be broadly conceptualized across any relevant industry certification or secondary/post-secondary curricular program. Dual credit has demonstrated more personalized student learning attractive to a wide variety of learners including highly capable students looking for programming not available within mainstream secondary curriculum or to students who need more direct entry to the work world.

## II. Sustainability Implications

Question 72 asked survey respondents to identify attributes of dual credit opportunity sustainability with implications for maintaining the partnerships over the longer term. These sustainability factors and their related frequency of mention are summarized in Table 4. Detailed content analysis is provided in Appendix C in the full technical report. Most frequently mentioned was the application of CEU funding in support of dual credit opportunities, with a minimum number of between 10 and 15 students per course sometimes noted.

Sub-themes	Frequency
Sustainable with CEU funding (and x students per course)	12
Sustainable with PSI support	11
Sustainable with provincial DC framework	10
Sustainable with multiple partners	9
Sustainable with business/industry support	4
Sustainable with staffing costs (coordinator) supported	4
Sustainable with blended program	3

The importance of post-secondary institution (PSI) support in terms of subsidized costs and in-kind supports were identified 11 times. The provision for and need for a provincial dual credit framework covering a range of items from program design to on-going funding support was mentioned 10 times. The need for multiple partners to achieve economies of scale and the value of business/industry partners were noted nine and four times respectively. Staffing cost supports were identified four times with the role of coordinator specifically noted three times. Importantly, the value of blended programs as a means to make dual credit programs accessible to a wider range of students and hence achieve cost efficiencies was suggested.

Recommendation II.a. The four ministries (Indigenous Relations, Labour, Education, and Advanced Education) should continue to work together with additional ministries, school divisions, post-secondary institutions, and business and industry partners to provide dual credit opportunities.

## III. Necessary Conditions for Sustainability

Question 72 in the survey had a supplemental question, 72-1, that asked respondents to further explain why and describing the factors supporting sustainability of the dual credit project, or to identify conditions necessary for sustainability to continue. Given the overlap between Question 72 summarized above, and Question 72-1, 28 projects responded to Question 72 and 23 responded to question 72-1 exclusively. Given that the two questions had subtle differences the responses to each question are reported separately and the summary of responses to question 72-1 are detailed in Table 5. Detailed content analysis is provided in Appendix D in the full technical report.

Sub-themes	Frequency
Strategy funding continued	16
Optimal enrollment numbers	7
Labour demand	7
Staffing efficiencies	6
Multiple partners – post-secondary institution support	6
Blended programs	3
Facilities available	3
Business/industry support	3
Provincial Dual Credit framework – curriculum mapped–student supports	3

Continuation of ear-marked funds supporting the dual credit initiative was the most frequently identified necessary condition for sustainability, followed by optimal enrollment numbers, often linked with CEU funding, and the importance of labour demand for the dual credit outcomes that was observed to stimulate both student/parent support as well as business/industry support. Other necessary conditions were staffing efficiencies where a certificated teacher was authorized or accredited to also teach the post-secondary aspect of the dual credit courses. Economies of scale premised on multiple partners were also noted six times as were the economies achieved with blended programs that extended access to more students. Other necessary conditions were business/industry support in specific contexts and the need for a provincial framework for dual credit programs.

Recommendation IV.c. Alberta Education and Alberta Advanced Education will need to develop a provincial governance structure that would streamline coordination provincially to allow for local implementation and facilitate, manage and support dual credit programs and opportunities. The adoption of a provincial approach to dual credit programming will achieve a number of efficiencies associated with curricular mapping, coordination, facility use, etc. that will contribute to the sustainability of the PDCS.

Recommendation III.a. A specific reporting category should be created within the Alberta Accountability Framework for basic education to monitor student outcomes including: dual credit course completion, high school completion and transition to post-secondary studies, for students enrolled in dual credit courses. This data would contribute to evaluation of the Provincial Dual Credit Strategy over time.

## **IV. Dual Credit Successes**

Survey respondents were asked to identify key dual credit successes in Question 73 of the survey instrument. Fifty of the 51 project respondents provided input to this question. Content analysis of the feedback indicated two general categories emerged, successes for students, and successes attributable to the administration of the projects. Forty-one projects reported one or more student successes. The pattern and frequency of the student and administrative successes are summarized in Table 6. Detailed content analysis is provided in Appendix E in the full technical report.

Most frequently noted (n=29) were enhanced understanding or awareness of career/post-secondary pathways now available to the students. Equally mentioned in terms of frequency (n=16) were: enhanced insights into post-secondary education contexts, enhanced engagement with their education, and successfully completing dual credit course(s). Additional student success with flexible programming and experiential learning attributed to the dual credit courses were each noted two times.

Recommendation II.d. Alberta Education should review high school graduation requirements to incorporate dual credit courses as a component of high school completion and reflect this in a revised high school transcript.

Sub-themes	Frequency
Students – enhanced career/PSI pathways	29
Students – enhanced insight into post-secondary education	16
Students – enhanced engagement	16
Students – dual credit courses completed	16
Students – flexible programming	2
Students – experiential learning	2
Administration – enhanced inter-organizational understanding	18
Administration – networking with post-secondary institutions	17
Administration – networking with business/industry	12
Administration – networking with other school authorities	9
Dual credit growth anticipated	17

Numerous administrative benefits or successes were identified by 35 projects, often with multiple mentions, accruing from the dual credit projects. The most frequently mentioned (n=18) was enhanced inter-organizational understanding between the school authority and post-secondary institutions or business/industry organizations. These enhanced understandings were often seen to have indirect benefits for students within the context of a more connected community. Seventeen projects noted successes flowing specifically from their networking with post-secondary institutions, and 12 projects specifically mentioned benefits from their relationships with business/industry, while nine projects identified successes flowing from networking with other school authorities. Lastly, within the context of reporting successes, 17 projects expressed that growth in their dual credit programs was anticipated or evolving.

## V Dual Credit Challenges

Question 74 asked respondents to describe key dual credit challenges revealed during their project. All 51 projects provided responses and two projects said they experienced no challenges and their projects were sustainable. These were exceptions, however, as most projects reported multiple challenges as summarized in Table 7. Detailed content analysis is provided in Appendix F in the full technical report.

Table 7 – Dual Credit Challenges	
Sub-themes	Frequency
Student access – scheduling or transportation	17
Student access – difficulty levels of dual credit courses	15
Financial costs	29
Administration – PSI/business-industry liaison	20
Administration – time requirements – planning or reporting	16
Administration – building awareness of DC opportunities	11
Program – curriculum mapping	16
Program – lack of a provincial dual credit model	4
Staffing – turnover	8
Staffing – roles awareness/clarity, PD, inefficiencies	6

Challenges linked to student access matters were noted in total in 22 projects for a total of 32 mentions with 17 linked to scheduling or transportation issues and 15 associated with course difficulty levels generally and in three projects difficulty was linked to the on-line nature of course delivery. Twenty-nine challenges associated with meeting the financial costs of the projects were noted in 25 of the projects, most commonly as a general issue and in 7 cases in relationship to staffing costs specifically. In 18 projects cost issues associated with block funding or CEU funding structures were mentioned. The following quote captures funding challenges particularly due to inconsistency and multiple sources:

Our biggest challenge is the financial instability and inconsistency that exists due to CEU funding. Multiple funding structures and lack of clarity make future planning more difficult.

Administration challenges were a major issue with 47 total mentions in 26 of the projects. Most commonly noted (n=20) were challenges in establishing or maintaining post-secondary institution or business industry liaison relationships, followed by the time requirements for planning or reporting dual credit opportunities (n=16) and for building awareness within a school authority around the dual credit opportunities (n=11).

The most common challenge (n=16) related to program matters were linked to curriculum mapping or aligning secondary with post-secondary curricula. Closely related to this challenge was the need for a provincial dual credit model identified by four projects. The last set of challenges dealt with staffing matters, both dealing with staff turnover (n=8) and with staff development matters involving professional development, role clarity and certification for secondary – post-secondary instruction.

Recommendation IV.d. Funding should not be a barrier to proceeding to a provincial model (premised on positive returns on investment), given the many student and societal benefits of dual credit strategies as identified in this report and the associated Literature Review and the efficiencies associated with a provincial approach to dual credit.

## VI Dual Credit Key Learnings

Survey respondents were asked in Question 75 to describe their “key learnings regarding completion of dual credit partnership development and curriculum mapping processes.” Forty-seven of the 51 projects provided feedback on this question detailed in Table 8. Content analysis of the feedback identified four major categories: Staffing relationships, curriculum issues, general program needs, and student related matters. Detailed content analysis is provided in Appendix G in the full technical report.

The most frequently mentioned key learning focused on staffing issues as they pertained to establishing or maintaining positive and effective inter-organizational relationships. These staff relationships were often described as critical for transcending organizational differences between the secondary and post-secondary sectors and in ensuring students experienced a successful dual credit experience.

Sub-themes	Frequency
Staffing – inter-organizational relationships	22
Curriculum – local mapping inefficient	17
Curriculum – local mapping inconsistent	6
Curriculum – locally developed courses effective	6
Curriculum – CTS and post-secondary courses align well	5
Curriculum – course fit with local labour demand key	1
Program – provincial dual credit model needed	17
Students – selection and counselling key	9
Students – experiential or personalized learning key	8
Students – flexible programs key	4

Seventeen projects commented on the inefficient nature of local curriculum mapping and 11 of these respondents linked this perceived inefficiency to the need for a provincial dual credit model as a means to address this issue, and four who noted inefficiency also noted inconsistency in the curriculum mapping processes. In total 17 respondents called for a provincial approach to dual credit programming in Alberta.

In contrast to concerns about inefficient or inconsistent curricular mapping were 6 respondents who noted positive experiences in developing locally developed courses supporting dual credit and 5 respondents who commented positively on the pre-existing alignment of CTS and post-secondary courses. In total 10 respondents mentioned one or the other positive aspect of curriculum development. One respondent commented on the importance of ensuring dual credit courses align with local labour market demand as a means to stimulating student and parent interest.

Student issues also emerged repeatedly with nine projects commenting on the importance of appropriate selection of students well suited to meeting the expectations associated with dual credit courses and the value of counselling to support student selection. The value of dual credit courses supportive of experiential or personalized learning was noted by eight respondents and four also reflected on the flexibility of programs as added student benefits associated with the dual credit courses.

Recommendation IV.e. The Alberta Government should develop a dynamic provincial communication plan defining dual credit roles and responsibilities, dual credit course options, support systems and professional development opportunities for teachers. Examples and program information for secondary, post-secondary and business communities would be provided.

Recommendation I.c. Alberta Education should adopt a provincial policy requiring all grade 7-12 students to have a personalized plan that documents ongoing career development linked to student’s ability, aptitudes, interests and achievement and is used in the dual credit course selection process for high school.

## VII Financial Sustainability

Questions 76 and 77 asked respondents if the dual credit opportunity was financially sustainable without additional funding, and would the respondent consider running other dual credit opportunities in the future. There were three nil responses to question 76 and six nil responses to question 77.

Of the 48 responses to the sustainability question 14 said “yes” and 34 said “no.” The negative responses were content analyzed to identify the cost pressures that were identified that made financial sustainability a challenge and these factors are summarized in Table 9. Detailed content analysis is provided in Appendix H in the full technical report.

Sub-themes	Frequency
Program – overall costs	20
Program – block funding short fall	14
Staffing - post-secondary instructor or coordinator costs	4
Students – low or declining interest	4
Students – greater than 22 required to offset costs	1
Curriculum mapping costs	4

The most frequent observation was that multiple or overall program costs exceeded available funding. Of the 20 comments about overall costs, six of these also commented on the limitations linked to block funding versus CEU funding sources. Block funding associated with high school redesign was seen as a limiting factor. The following quote from one survey respondent captures these multiple issues well:

Within the current high school funding framework, neither of the two existing high school funding models (i.e., CEU funding, block funding) were designed to specifically accommodate and support the delivery of dual credit programs and opportunities. CEU funding by itself does not provide sufficient funding to cover the costs of both post-secondary tuition and the time required of school district personnel (certified teachers, administrative and support staff) to coordinate, supervise and support program delivery. As previously noted, block funding leaves even a greater gap in the funding available for dual credit. Over time, the current enthusiasm and support for dual credit may diminish if school authorities deem the continuing burden of its extra costs outweigh its educational merits.

Other specific cost pressures were linked to low or declining student interest in dual credit courses, and the costs of curriculum mapping that were described as an on-going cost demand to keep courses current with changes in post-secondary curriculum design.

Interestingly, even with the cost pressures identified in the responses to Question 76, of the 45 responses to the question of whether the respondent would consider running other dual credit opportunities in the future, 43 answered, “yes.” One of the two respondents who answered no provided some insightful feedback relative to the challenges noted above regarding curriculum mapping, specifically:

Stop articulating high school curriculum to post-secondary curriculum. Instead, establish a system for approving post-secondary courses as available in the K-12 system. This is done relatively seamlessly in other provinces and across much of the United States. As long as we continue to pretend that the K-12 curriculum can meet all of our students needs as is, we will be limited to what we can do for Alberta students, both in scope and in cost. Locally Developed Courses and provincial “pathways” are not the answer. These are still simply trying to push a square peg in a round hole, and in some ways is even worse because it is requiring us to create a whole new third layer of curriculum that will need ever-greening and upgrading every time things change in the post-secondary world.

Recommendation IV.a. A provincial framework should be made for implementation, curriculum, sustainable funding, policy and awareness of programs, given the evidence that dual credit is a positive initiative for students with enhanced relevant learning opportunities.

## VIII Key Factors for a Successful Dual Credit Model

Question 78 asked respondents to identify key factors that, “...need to be considered in establishing a successful provincial dual credit model or framework for Alberta.” All 51 projects responded to this question, but one simply commented, “To be determined” and thus was not included in the content analysis of the qualitative feedback. A summary of the themes derived from the content analysis is detailed in Table 10. Details of the content analysis are provided in Appendix I in the full technical report.

The most commonly identified factor was the need for a provincial model or approach to dual credit programming noted by 32 respondents, nine of whom identified this factor uniquely, i.e. with no other factors provided. Background rationales for a provincial approach were linked to observations of a need for a focused dual credit funding structure (n=16) and the previously noted inefficiency of local curriculum mapping (n=4). Other sub-themes linked to the concept of a provincial approach included a model that provided for flexibility in relationship to local contexts (n=3) or that supported streamlined processes (n=2), or provided a means to share best practices (n=1).

Sub-themes	Frequency
Program – provincial model needed	32
Program – student outcomes data needed	6
Program – ensure pedagogy is appropriate to student goals/needs/age	6
Program – provincial communications plan needed	4
Finance – increased dual credit funding or CEU grants	31
Finance – fund coordinators	3
Staffing – address secondary/post-secondary certification	4

Closely related to the idea of a model that supports sharing best practices were four additional project responses that identified the need to develop a provincial communications plan supporting dual credit programming. Also related to program design were six inputs that noted the importance of ensuring pedagogical dual credit courses are appropriate to secondary students’ goals, needs or ages.

Financial factors were the second most frequently identified factor with 31 projects noting the need to increase dual credit funding through a specific dual credit grant/fund or via increased CEU grants. Three of the 31 respondents calling for general dual credit funding more specifically called for funding specifically to pay for dual credit coordinators. A staffing factor was identified by four respondents regarding the need to streamline the certification of staff across the secondary and post-secondary domains. Single comments noted the importance of inter-organizational relationships, the importance of student selection/counselling and one also critiqued the survey tool as inadequate for capturing the specific financial details underlying the dual credit projects.

Recommendation V.a. Alberta Education and Alberta Advanced Education should jointly work with Alberta Faculties of Education to create mechanisms and pre-service and in-service opportunities to certify teachers qualified to teach specific dual credit courses.

## IX Necessary Factors for Long Term Dual Credit Framework

The final question in the dual credit survey asked respondents for their recommendations regarding what factors need to be included in a “long-term plan/dual credit framework for Alberta.” Two respondents did not answer this question and one simply commented, “I am not sure”, therefore, a total of 48 comments were analyzed in the content analysis of this question. An audit trail of the content analysis is provided in Appendix J in the full technical report.

The most frequent critical factor identified by 40 project respondents was the need for a provincial model for dual credit programming. Five respondents noted this need without further breakdowns of the background rationale, but 35 expanded the reasoning with additional specifications detailed in Table 11. The most common associated benefit of a provincial dual credit model (n=21) was seen as a means to share best practices, outcomes data, etc. to stimulate opportunities to enhance dual credit programming over time. The next most frequent benefit (n=20) was seen as a means to eliminate the inefficiency of local curriculum mapping. Nineteen respondents suggested a provincial model would contribute to enhanced student access to dual credit courses, especially for rural students in small school systems. Sixteen respondents linked sustainable funding as a feature of a provincial model and

these 16 were supplemented by an additional five respondents who uniquely call for provincial dual credit grants.

Sub-themes	Frequency
Program – Provincial model needed	40
- To share best practices, data, etc.	21
- To streamline curriculum mapping	20
- To enhance equitable student access	19
- To provide sustainable funding	16
- To enhance partnerships	3
Finance – Provincial dual credit grants	5

One respondent cautioned that an over-emphasis on funding should be avoided in favor of programming features such as Prior Level of Achievement (PLAR) assessment linked to challenge exams as a means to stimulate dual credit programming within existing post-secondary entry level courses.

Recommendation IV.b. Collaboration and partnerships are essential for success and should be further developed on curriculum, policy and a sustainable funding framework.

Recommendation V.b. Use dynamic Human Resource Development (HRD) planning and anticipated business/industry needs to help define the priorities in the development and adoption of courses within the provincial dual credit framework.

Recommendation V.c. The HRD planning inputs to the PDCS should include provincial partnership agreements with business and industry with opportunities for expanded business engagement.

## X Conclusions

This report provides considerable evidence that the Provincial Dual Credit Strategy has met with a strong commitment by secondary, post-secondary and business/industry partners to making student transitions to post-secondary study and the work place a more seamless process. Many of the structures to make a provincial dual credit strategy universal are already in place. What is required now is to use the experience and insights gained during the past three years to define a provincial approach to dual credit available to every Alberta secondary student.

## 5) Recommendations

The recommendations incorporated within this report are based on the Literature Review and the PDCS survey data and are organized here according to the five principles upon which the PDCS is based, i.e. student-centred, flexibility, accountability, sustainability and excellence and are not presented necessarily in order of priority.

### I. Student-Centered

- a. Dual credit should be expanded for all students and become a permanent program.
- b. Dual credit programs should be broadly conceptualized across any relevant industry certification or secondary/post-secondary curricular program. Dual credit has demonstrated more personalized student learning attractive to a wide variety of learners including highly capable students looking for programming not available within mainstream secondary curriculum or to students who need more direct entry to the work world.
- c. Alberta Education should adopt a provincial policy requiring all grade 7-12 students to have a personalized plan that documents ongoing career development linked to student's ability, aptitudes, interests and achievement and is used in the dual credit course selection process for high school.

### II. Flexible

- a. The four ministries (Indigenous Relations, Labour, Education, and Advanced Education) should continue to work together with additional ministries, school divisions, post-secondary institutions, and business and industry partners to provide dual credit opportunities.
- b. Dual credit courses should be part of the regular program offering for any high school student whether locally initiated by school authorities and/or PSI's or by Alberta Education or Alberta Advanced Education and be coordinated at the provincial level.
- c. School authorities should consider a combination of blended face to face and asynchronous (flexible timing) on-line delivery to ensure access to students regardless of location.
- d. Alberta Education should review high school graduation requirements to incorporate dual credit courses as a component of high school completion and reflect this in a revised high school transcript.

### III. Accountable

- a. A specific reporting category should be created within the Alberta Accountability Framework for basic education to monitor student outcomes including: dual credit course completion, high school completion and transition to post-secondary studies, for students enrolled in dual credit courses. This data would contribute to evaluation of the Provincial Dual Credit Strategy over time.

## IV. Sustainable

- a. A provincial framework should be made for implementation, curriculum, sustainable funding, policy and awareness of programs, given the evidence that dual credit is a positive initiative for students with enhanced relevant learning opportunities.
- b. Collaboration and partnerships are essential for success and should be further developed on curriculum, policy and a sustainable funding framework.
- c. Alberta Education and Alberta Advanced Education will need to develop a provincial governance structure that would streamline coordination provincially to allow for local implementation and facilitate, manage and support dual credit programs and opportunities. The adoption of a provincial approach to dual credit programming will achieve a number of efficiencies associated with curricular mapping, coordination, facility use, etc. that will contribute to the sustainability of the PDCS.
- d. Funding should not be a barrier to proceeding to a provincial model (premised on positive returns on investment), given the many student and societal benefits of dual credit strategies as identified in this report and the associated Literature Review and the efficiencies associated with a provincial approach to dual credit.
- e. The Alberta Government should develop a provincial communication plan defining dual credit roles and responsibilities, dual credit course options, support systems and professional development opportunities for teachers. Examples and program information for secondary, post-secondary and business communities would be provided.

## V. Excellence

- a. Alberta Education and Alberta Advanced Education should jointly work with Alberta Faculties of Education to create mechanisms and pre-service and in-service opportunities to certify teachers qualified to teach specific dual credit courses.
- b. Use dynamic Human Resource Development (HRD) planning and anticipated business/industry labour market information to help define the priorities in the development and adoption of courses within the provincial dual credit framework.
- c. The HRD planning inputs to the provincial PDCS should include partnership agreements (MOU's) with business and industry with opportunities for expanded business engagement.

## 6. References

Alberta Government. (2013). Provincial dual credit strategy: Call to action. Retrieved from <http://www.albertadualcredit.ca/provincial-dual-credit-strategy.html>

## 7. Appendix A – Literature Review Executive Summary

The purpose of this literature review is to provide a broader context to inform the long term planning of dual credit programs in Alberta. Dual credit assists students in making meaningful career decisions that enable seamless transitions to education at the post-secondary level. These programs allow for the earning of both high school and post-secondary credits for the same coursework. By participating, students explore career pathways that complement their own unique talents and abilities so that they may join a skilled and educated work force.

Research supports that dual credit students are more likely to:

- Complete high school, and enter college shortly after high school and less likely to be placed in remedial English or math.
- Be prepared for college and have higher first year grade point averages.
- Have higher second year retention rates and four and six year completion rates.
- Have shorter time for completion of a bachelor's degree.

In 2013, the Provincial Dual Credit Strategy (PDCS): Call to Action, recognized the need for Alberta to be responsive to competitive labor demands and develop engaging and relevant learning experiences for students. There are four goals to the strategy:

- Increase learner retention and completion rate of high school programs
- Increase participation of young adults in post-secondary programs
- Assist young adults in making meaningful connections to current and emerging labour markets
- Expand local partnerships to offer dual credit programming.

The PDCS was supported with \$5.35 Million in funding and 51 grants were provided to secondary, post-secondary and business and industry partnerships for program development.

In October of 2015, Alberta held its first provincial dual credit symposium with the purpose of providing input and direction for the future of dual credit programming. The symposium concluded that dual credit is a positive initiative (with relevant, learning opportunities for students) and that improvement could be made in: implementation, curriculum, sustainable funding, awareness of programs, and policy.

Also in 2015, the Alberta Council on Admissions and Transfer (ACAT) reported on its Learner Pathways Modernization Initiative (LPMI) with the goal of providing a seamless student experience in navigating the post-secondary system. Students are to have better access to pathway information, better connections to program information and more student-relevant information about admission, application, transcript and scholarships. A gap analysis was conducted for dual credit programs, high school to post-secondary student pathways, and work will continue as they move through a four year phase program plan.

High school completion rates, dual credit programs and post-secondary success are examined. The Alberta School Boards' Association identifies four (of eight) factors on completion rates that overlap and compliment Alberta Education's High School Completion Strategic Framework. These factors examined

with the framework's core strategies of tracking progress, student engagement, successful transitions, collaborative partnerships, and positive connections support research on dual credit programs and can assist students and the province in obtaining the post-secondary results of dual credit.

### **Critical Policy Components from the Literature - British Columbia**

The B.C. Ministry of Education (MOE) has been offering dual credit programs since 2005. Policy is set by the MOE and a registry of all dual credit programs is maintained. The goals of dual credit include: preparation for post-secondary, career pathways, acceleration/challenge, cost savings, recruitment, community outreach, educational choice, and student engagement. Funding is given to school districts provided they have: agreements with post-secondary institutions, the district pays for tuition and students have an annual plan. The province also has an Accelerated Credit Enrollment in Industry Training (ACEIT) program for first year apprenticeship training. School districts pay tuition from an Industry Training Authority allotment.

B.C. also has the Northern Opportunities Partnership (NOP). A collaboration of regional aboriginal organizations, education (both secondary and post-secondary) and business/industry partners. The NOP supports student (and parents) in pursuing academic, vocational, trades, and apprenticeship careers. A NOP director works with a regional learning council and working group to deliver dual credit programs and encourage participation. Building relationships with aboriginal organizations and First Nations schools is a major priority for the NOP. This program is a model for dual credit delivery and implementation.

### **Ontario**

Ontario has a full K-12 career and life planning program. All grade 7-12 students are required to have a Individual Pathway Plan (IPP) that documents career development and is used in high school course selection. The province has a dual credit policy and program requirements document (2013) that includes policy on: granting credits, teacher qualifications, roles and responsibilities, program delivery, information for students, and requirements for assessment, evaluation and reporting. All dual credit courses must be approved for the Ontario Secondary School Diploma (OSSD) credit and be delivered by public institutions and qualified educators. A secondary teacher must always be involved in some capacity (instruction, remediation, support, or supervision).

High school students may also take a School Within a College (SWAC) program where grade 11 or 12 students can take high school on a college campus while completing their OSSD. SWAC programs assist students in diploma completion and successful transitions to college, technical and apprenticeship training. They are part of a provincial School College Work Initiative Strategy that offers dual credit courses, work experience and jobs to students.

### **United States: Policy and Funding**

Dual credit (dual enrollment and concurrent enrollment) has systematically connected secondary to post-secondary education in the United States for over thirty years. It can be described as an educational structural reform and a powerful post-secondary completion strategy. Collaboration and coordination between secondary and post-secondary providers are a matter of practice, policy and legislation. Policy and funding are complex as the traditional boundaries between high school and post-secondary disappear.

Research indicated that policy developers are best guided by 13 model policy components in four broad areas of policy development: access, finance, course quality and transferability of credit.

Throughout the literature, the need for sustainable funding frameworks is pervasive. High school funding makes up the vast majority of costs; however, significant funds are provided by community colleges and four year institutions. Funding models are different and vary considerably across Canada and the US. Frameworks are negotiated and range from dual credit courses where the tuition is fully covered to courses where the student (parents) pay full tuition. Costs may also be influenced by funds coming from a district, post-secondary, a foundation, or a business/industry partner. Other funding sources may include tuition bursaries and scholarships.

### **Collaboration**

Throughout the literature, successful dual credit programs come from building trust and collaborative relationships with all stakeholders. Partnerships are essential and groups must work together to develop curriculum, implement programs and find funding that works for students. Being responsive to employer input and developing partnership networks with business and industry is important. In a knowledge-based global economy, dual credit has the potential to assist students in successful transitions to post-secondary education and improve completion rates. Early engagement in personalized career pathways empowers students to go on with their education and enables them to make a positive contribution to a skilled, competitive and educated work force.

### **Key Findings**

Research supports dual credit being expanded for all students as a permanent program.

A provincial framework for dual credit would be a positive initiative for students providing enhanced relevant learning opportunities, and should apply to implementation, curriculum, sustainable funding, policy and awareness of programs.

Collaboration and partnerships are essential for success and should be further developed on curriculum, policy and a sustainable funding framework.

Early intervention (grade 7) is needed to help students identify their interests and career pathways for future course selection and participation in dual credit programs.

Dual credit programs systematically connect high school and post-secondary education bringing them together in a seamless middle ground. Increasingly, dual credit can be described as an educational structural reform and powerful post-secondary completion strategy.