

**Study on Delivery of
Vermont Technical College Degree Programs
at Career Technical Education Centers in Vermont
Report to Vermont Legislature**

VERMONT TECH

Project for Dual Enrollment with CTE



**REPORT FROM VERMONT TECHNICAL COLLEGE
JANUARY 2020**

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Executive Summary

Introduction

Vermont Technical College (Vermont Tech) has been charged with Sec. 17 of Act 80: ***DELIVERY OF VERMONT TECHNICAL COLLEGE DEGREE PROGRAMS AT CAREER TECHNICAL EDUCATION CENTERS IN VERMONT; STUDY; PILOT PROGRAMS***, to study how to best deliver all or a portion of fully accredited Vermont Tech associate degree programs at Career and Technical Education centers (CTE) in Vermont. “The study shall explore the viability of a new program to provide a locally convenient, accessible, and financially affordable option to high school students and adult learners who want, while still enrolled with their CTE centers, to also enroll in a high-demand, high-skill, industry-specific associate degree offering and/or a pathway to a degree.”

This is an opportunity for many reasons, including:

- Providing industry-demanded training to Vermont high school and college students.
- Preventing students from spending money and time having to repeat what is already learned at Career and Tech Centers.
- Providing access to and incentivizing participation for all students, regardless of demographics.
- Offering more positive experiences for students to consider staying in-state for post-secondary education.
- Better college retention: once enrolled as a student, retention is higher than for the average college student.
- Completion of Industry recognized credentials and/or college credit bearing courses while in high school, which is attractive to employers.

Findings in Brief

There is good news: Vermont Technical College is positioned as a leader, helping to move innovative and bold initiatives forward on behalf our Vermont students, their families and the future growth and prosperity of Vermont. We believe this program could launch a new pathway that will become a model for how Vermont governmental agencies, local school systems, and institutions of higher education can collaboratively drive positive socio-economic change for our citizens. We expect this project can contribute to the Vermont Education Agency's strategic vision: ***All Vermont learners attain their post-secondary goals by having access to career and technical education systems that are equitable, efficient, integrated and collaborative.*** It can also result in high quality, conveniently located and delivered career options that are in high demand.

There are hurdles, and some barriers, but contingent upon cooperation at several levels across the state, it can be feasible for Vermont Tech to offer articulated credit to high school age students attending a Career and Tech Center **that would be sequentially aligned toward an Associate's Degree.** Vermont Tech will need support from a host of entities to be successful, see below. Timing is an issue, as it relates to the Vermont Tech's 2020 process of accreditation, so an extension of the planning process may be necessary. The initial pilot should be program(s) most ready to implement. Additionally, CTE funding pilots currently happening at this time may provide essential information for determining funding streams in the coming years.

Specific challenges discussed in this report and appendices will need to be addressed for this program to be successful. Including but not limited to:

- Accreditation requirements must be met to assure Vermont Tech and CTE's remain fully accredited.
- Demographics: CTE's are struggling with enrollment as are high schools and colleges. Adding this option creates three entities vying for tuition dollars: High schools, CTE and the Vermont Tech.
- Timing: Adequate time is needed to market and attract students. Vermont Tech has its decennial accreditation review this fall. There is limited capacity to initiate this project while preparing and completing that review.
- Critical mass: Will there be enough students to make this cost effective.
- Funding: Vermont Tech does not have funding beyond the pilot to fund necessary position(s) to assure success.

We therefore recommend that the next step in the study be the implementation of an enhanced set of articulation agreements (a “pre-pilot”) in the fall of 2020 along with continued planning leading to official pilot implementation of two programs in fall of 2021. Pilots should be aligned with workforce demand and use industry partners that can assist with initial funding. All accreditation issues must be satisfied in order to keep Vermont Tech in New England Commission of Higher Education (NECHE) accreditation compliance.

Recommended Roles and Responsibilities

Vermont Tech

1. The bigger picture of educating and training a diverse skilled and educated population for our state is a foundational part of the culture of the college.
2. Continue the good work happening with industry partners, including internships and apprenticeships. The high job placement rates that Vermont Tech has had for decades is due to the rigor of its courses, the applied technical opportunities, and its relationship with the community and businesses. Clearly defined pathways are key and can be strengthened.
3. In coordination with the Vermont State College system and its protection of aligned and rigorous curriculum, Vermont Tech will continue to improve on acceptance of credit for similar coursework from other state colleges in Vermont.

Vermont State Colleges

1. Along with the Agency of Education (AOE), Post-Secondary options need to be organized in one, easy-to-understand map for the student, parent, school, and community. The customer should never get the feeling that any of these options are in competition with one another.
2. While VSC aims to keep the “entrepreneurial nature” of the four individual state colleges, the student and parents interested in attending a state college need to see a user-friendly front line and coordinated options. The relevance here is that Vermont Tech, and all the VSCs in the future need to embark on a continuous improvement process that will improve access and ease of use for all customers.

Agency of Education

1. AOE’s department overseeing the college-in-high-school (or Fast Track) options for Vermont students, needs to be coordinated and easy to navigate. See #1. for VSC above.
2. Continued support and guidance around federal Perkins and other funding sources is key. This includes continued work with the legislature to change or waive unforeseen barriers to accessibility, especially with First Generation students.

3. Pathways that are aligned with articulation agreements and industry standards must have ongoing communication support among all partner entities, including Vermont Tech, Vermont State Colleges, all Career and Tech Education, Vermont Department of Labor, the Governor's Administration, as well as high school personnel. Additionally, the requirement of quality Personalized Learning Plans need to be in place statewide. Students who seek to take advantage of this opportunity must have a clearly aligned pathway.

Proposed Budget and Timeline

The budgets below include a budget for the remainder of the pilot study, 0-6 months. The "Development of Pilots" budget is an estimate of the next 6-18 months. That budget requires federal Perkins funds administered by the Vermont Agency of Education to be successful. An actual budget for operating a program(s) remains to be developed once the full pilot programs are identified and realistic enrollment projections can be developed.

Proposed study budget for next 18 months based on:

- 2020 enhanced articulation agreements (Pre-Pilots); 2021 implementation of official Pilots
- Realistic student timeline of 2 years at CTE (11th+12th or 12th+13th years)
- Consortium created and guided by Perkins V to receive funds. This includes industry, education, and involved CTEs.
- Vermont Tech instructor stipends for summer of 2020 collaborative work between CTE instructors and VTC instructors, leading to one or two Pre-Pilots with articulated curriculum matches (we recommend Manufacturing/Engineering and Ground Transportation-Diesel).
- Faculty Supervision, curriculum stipends, continued oversight and curriculum work
- Marketing needs
- Extensive Professional Development for all involved
- Advising and management staffing to support students and programs

Expenditures	Development FY20 0-6 Months 1-1-20 to 6-30-20	Development of Pilots & Implementation of Pre-Pilots FY21 6-18 Months 7-1-20 to 6-30-21
VTC Program Manager	\$ 30,000	\$ 80,000
VTC Program Assist.		\$ 70,000
Outreach, PD, and Training	\$ 20,000	\$ 50,000
VTC support stipends	\$ 30,000	\$ 30,000
Supplies/mileage	\$ <u>10,000</u>	\$ <u>10,000</u>
 Subtotal	 \$ 90,000	 \$240,000
 Indirect (25%)	 \$ 22,500	 \$ 60,000
Contingency (10%)		\$ 30,000
 Total VTC Costs	 <u>\$112,500</u>	 <u>\$330,000</u>
 Revenue		
Legislative Pilot Funding	\$ 12,500	\$157,000
Perkins Reserve	\$100,000	\$ 0
Perkins Higher Ed		\$100,000
Perkins Consortium		\$ 73,000
		(increase \$200,000 for full implementation)
CTE Center Credits @ \$125	\$0	\$ 0
		(future years will include tuition revenue from CTE centers)
Possible VTC Revenue	<u>\$112,500</u>	<u>\$ 330,000</u>

Full Report

Introduction

Congress and the State of Vermont aims to provide high school age students enrolled in career and tech centers, and who are ready to take college level coursework, with the opportunity to do so. The Fast Track to College Act (Bill #S.2736 introduced in the Congress this year) asserts: “By the end of junior year, one in four high school students meet all four ACT[®] College Readiness Benchmarks. Each year, an estimated 850,000 students are prepared for a faster, cheaper path to and through college. ... When students demonstrate college readiness, they should have a meaningful opportunity to “Fast Track” into college-level course work on a full-time basis without financial barriers that could prevent them from pursuing an expedited path to a degree.” (Appendix 1)

This report is a set of observations, challenges and opportunities that comes from a culmination of statewide CTE and other stakeholder interviews, research on what is happening in other states, and working with teams through scenarios of viable options for a Vermont system of Fast-Tracking for college ready Vermont high school students. Is it feasible? Yes, but it requires a changed funding and operational model for Career and Technical Education (CTE) Centers and Vermont Technical College. There will need to be thoughtful adjustments to rules, careful consideration with regards to accreditation requirements, additional funding for CTE and Vermont Tech for start-up, and full-on communication and cooperation among agencies and entities, schools and business, administrators and instructors to ensure that what is best for the student includes a rigorous, genuine education and experiential opportunity. It must align with traditional curriculum and modern industry demands. And it must consider the whole student as they set goals in their personalized learning plans to follow the pathways available to them.

The Vermont Agency of Education’s strategic vision for Career and Technical Education aligns with regional workforce demands as well as the above goals: ***All Vermont learners attain their post-secondary goals by having access to career and technical education systems that are equitable, efficient, integrated and collaborative.*** As this report shows, there will be barriers and hurdles to overcome in reaching this goal that will take objective resolution and increased vertical and horizontal system integration and collaboration.

History of Section 17 of ACT 80

This section was originally seen as its own bill, one which might help with the state's demands of a skilled labor force, its declining student population, and the youth and brain drains to other states. Over the course of the 2019 legislative session, it was merged with the Workforce Development Act of 2019 as part of the annual Vermont state budget. The parameters of the study, written in the bill, are below:

In structuring the study, Vermont Tech shall consider:

1. alignment of degree programs with workforce priority needs and career pathways identified by the Agency of Education;
2. prevailing industry wages and gender equity in each identified career pathway;
3. coherence with existing, State-supported postsecondary programs for secondary students, such as dual enrollment and early college programs under the flexible pathways laws, including potential impacts to, and alignment with, those programs;
4. sustainable funding models, including costs for students, institutions, and adults;
5. the financial risks of programmatic and funding model changes, with the goals of not negatively impacting the accreditation status or the financial status of any institution; and
6. management of class scheduling and CTE partnerships to ensure access and programmatic success. (Appendix 2)

Purpose of Bill

“Sec. 17. DELIVERY OF VERMONT TECHNICAL COLLEGE DEGREE PROGRAMS AT CAREER TECHNICAL EDUCATION CENTERS IN VERMONT; STUDY; PILOT PROGRAMS

(a) Study by Vermont Technical College. The Vermont Technical College (Vermont Tech) shall study how to best deliver all or a portion of fully accredited Vermont Tech associate degree programs at CTE centers in Vermont. The study shall explore the viability of a new program to provide a locally convenient, accessible, and financially affordable option to high school students and adult learners who want, while still enrolled with their CTE centers, to also enroll in a high-demand, high-skill, industry-specific associate degree offering and/or a pathway to a degree.”

Vermont Tech's Charge for Project

Vermont Tech is uniquely positioned to be chosen for this exploration. As part of the Vermont State College system, its mission aligns with that of many of Vermont's Career and Tech Centers. Additionally, the college has sought to improve and clarify the definition of career pathways, and it has sought impressive end results for students by partnering with industry. The rigor of Vermont Tech's curriculum and instruction has helped to sustain its 96 to 99% placement rates year after year, including 2019 when 99% of Vermont Tech's graduates obtained a job or went on to obtain a higher degree. The specific charge for this work is to determine under what circumstances is it feasible to offer a portion or all of an accredited degree at CTE centers?

Career and Tech Centers are poised to participate in this venture for as many reasons, including that State Board of Education rules and Vermont statute 1551a already permits Vermont students of any age without a diploma to enroll in technical center programs at no cost to them. (Regular high school students must un-enroll from their home high school to become Early College students.)

We assume that if it is found feasible to initiate a system at Vermont Tech for this opportunity, the state would want to replicate successful pilots with more Vermont Career and Tech centers partnering with Vermont Tech. We also assumed that replication would be available for Tech Centers with the other state colleges: Castleton University, Northern Vermont University – Johnson and Lyndon, and with Community College of Vermont. This document is written with these assumptions. However, we recognize that the CTE programs, curriculum, and instructors around the state are unique. Not all will be appropriate, but for those that are, we feel that exact duplications and blanket articulation agreements won't serve the students or institutions. Each program must be reviewed to assure it is appropriate for post-secondary credit recognition and, if so, how to best offer it to the college ready students of its region.

Each of the state colleges are unique as well. In the future, there will be some Fast Track programs best suited for one state college and others best suited for another.

Career Pathways and Workforce Priority Sectors

Act 189 of 2018 defines Career Pathways as a “combination of rigorous and high-quality educational, training, and other experiences and services, beginning not later than seventh grade.” More generally, a career pathway is “a sequence of learning experiences that span secondary and postsecondary systems, blend rigorous core academic and career technical instruction, offer focused career guidance and advisement systems, include high-quality work-based learning experiences, and culminate in postsecondary or industry credentials of value”. (Appendix 3)

In research of other states’ systems, we found that there were as many ways to address this offering as there were states doing it. For example, North Carolina’s Career and College Promise (CCP) is directed through the Community College System. More than 50 Community Colleges across the state are managed from a central location in Raleigh. All dual enrollment instructors are employees of the North Carolina Community College system and have credentials necessary to teach at a college level. Their data collection is polished. Regions of the state work with their own industries, but the centralized management helps them with efficiency. Throughout the state, there were two key common themes:

1. Students must have Career Exploration opportunities from K-college.
2. Some students must have a portfolio and planning document that shows their Career Pathway to take advantage of NC’s CCP program in some regions of the state. see snapshot of website menu – (Appendix 4)

The University of Texas has a Dual Credit system in place. However, some recent thorough studies reveal **directions for their next steps**. They found that students who took dual enrollment courses in high school (all who went on to college carried with them a median of 18 credits), had a much higher rate of staying in college and graduating than those who did not. The UT system has been like Vermont in that there is not a set of sequential coursework to take based on career pathways at the post-secondary level while in high school. Students may take dual credit courses from the UT system without regard for a pathway toward a career. While there may still be advantages to students accessing these courses and credits, the study revealed many similar concerns heard in Vermont: “The analysis of dual credit at UT academic institutions presents a complex story that includes personal and philosophical differences about whether high school students should take college courses. Students report that dual credit has a positive impact on their college experience, while at the

same time faculty, advisors, and enrollment managers from UT System institutions voice concerns about the quality and rigor of dual credit opportunities offered in Texas.” (Appendix 5)

In the end, the data gave UT and Texas educators a starting point from which they might improve. Like other states have concluded, guided career pathways and a version of Personalized Learning Plans will help students take better advantage of the Dual Credit system in Texas. “Overall, students’ exposure to even one dual credit course has a positive impact on student success outcomes. More time and research are needed to understand better how dual credit programs can personalize the dual credit experience (number of hours and type of courses) and maximize timely graduation and success based on students’ future interests and academic goals.”

College in High School Presently in Vermont

The programs below have been effective in introducing students who are college ready to post-secondary options for their educational and training goals. Introduced in different years for various audiences, they allow Vermont students to begin to navigate the world of career and college.

Dual Enrollment and Concurrent Enrollment

1. Concurrent Enrollment

- a. What is concurrent enrollment? National Alliance of Concurrent Enrollment Partnerships (NACEP) defines it as: “the subset of dual enrollment courses taught by college-approved high school teachers. Concurrent and dual enrollment partnerships and early college programs successfully transition students from high school to college.”
- b. Because concurrent enrollment systems use approved high school level teachers, they are a relatively low-cost way to allow students in urban, suburban, and rural high schools and career centers to access a faster track to college. Students experience the rigor of college level academics, yet they do not have to leave their peers, their extracurricular activities, or their adult support systems.
- c. According to NACEP, “Concurrent enrollment also facilitates close collaboration between high school teachers and college faculty that fosters alignment of secondary and postsecondary curriculum.” In other words,

Career Pathways that lead through college to careers are more easily developed when there is good communication amongst the educators involved.

- d. Dual and Concurrent Enrollment enables
 - High School and Tech Center juniors or seniors have an opportunity to get an early taste of higher education.
 - It's a chance to take a class that may not be available at a student's home school.
 - Students may earn high school credit toward graduation requirements *and* earn college credits all at the same time (which may help to lighten or accelerate the first-year course load at college).
 - It's free. Through the legislated Next Generation funding, Vermont residents enrolled in public high schools are entitled to two vouchers for college courses.

2. Early College

- a. Early College is full-time enrollment by a high school senior Vermont student for one academic year in a program offered by an approved Vermont post-secondary institution in which the college credits also apply to secondary school graduation requirements.
- b. Through Vermont's Act 77 Flexible Pathways Initiative, Early College is tuition free for students.
- c. Early College enables the student to experience a variety of college course offerings that may prepare them for subsequent college years.

Potentially, Early College students who follow a clear pathway of sequenced courses necessary for a degree could cut their total costs to complete that degree.

3. Voucher System

- a. This is the term used when students take advantage of dual and concurrent enrollment in Vermont at approved Vermont post-secondary institutions (1, above).
- b. Students may use up to two vouchers, or courses, to access college courses for either on-campus classes or concurrent courses offered at their home Tech Centers or High Schools.

4. Fast Forward

- a. So as not to be confused with the more recent vouchers, Fast Forward “tickets” have been available to students enrolled in Career and Tech Centers for nearly two decades.
- b. Unlike the vouchers born of Flexible Pathways legislation, Fast Forward tickets may only be used in concurrent college level classes offered by approved CTE program instructors as part of their CTE curriculum.
- c. Like the choice of attending a Tech Center in high school, Fast Forward offers the student a career pathway.

5. VAST – Vermont Academy of Science and Technology: Offered exclusively at Vermont Tech. VAST is an independent, accredited high school exclusively for high school seniors. At VAST, students receive a high school diploma and complete a year of college at the same time.

- a. Any 11th grade student is eligible to apply to attend either the Randolph Center main campus or the Williston campus during their 12th grade year.
- b. Students come from all areas of Vermont and from surrounding states as well.
- c. Admission is not guaranteed.
- d. VAST has been approved as a tuition-free program for Vermont students by the Vermont State Legislature since 1988. The State pays Vermont Tech 87% of the state base education rate, which is just over \$8800 per student this year. Any gaps each year, must be made up by Vermont Tech.
- e. Students are expected to cover the cost of books and any applicable fees.
- f. Students who stay at Vermont Tech beyond their VAST year are automatically awarded the “VAST-forward Scholarship” of \$2,000 a year, provided by Vermont Tech, for up to three years.
- g. Every VAST student takes a minimum of 15 Vermont Tech credits each semester.

- h. VAST students may major in many of Vermont Tech's associate or bachelor's degree programs.
 - i. At the end of VAST, students automatically become a sophomore at Vermont Tech, having completed their first year of their degree, tuition-free.
6. Advanced Placement Courses and/or International Baccalaureate courses
- a. Many high schools still offer Advance Placement type classes.
 - b. Some Vermont post-secondary schools accept them for placement and/or credit.
 - c. Some post-secondary institutions do not. They instead rely on other placement or admissions assessments.

Flexible Pathways

The legislation that opened up the possibilities for students to gain academic knowledge and practical skills at their own rate of learning sets the stage for this next step of fast-tracking students who are appropriately ready for college. The same two themes that emerge from other states with successful college in high school systems are embedded in the Act 77 legislation:

1. Personalized Learning Plans (PLP's) are "documentation of an evolving plan developed on behalf of a student in an ongoing process involving a secondary student, a representative of the school, and, if the student is a minor, the student's parents or legal guardian and updated at least annually by November 30; provided, however, that a home study student and the student's parent or guardian shall be solely responsible for developing a plan. The plan shall be developmentally appropriate and shall reflect the student's emerging abilities, aptitude, and disposition. The plan shall define the scope and rigor of academic and experiential opportunities necessary for a secondary student to complete secondary school successfully, attain postsecondary readiness, and be prepared to engage actively in civic life. While often less formalized, personalized learning and personalized instructional approaches are critical to students in kindergarten through grade 6 as well."
2. Career Pathways, a focused set of reachable goals toward an interest and/or career, must be a part of the process for students seeking to be on a fast track to

and through college. As the 2011 Harvard report Pathways to Prosperity began to shine the light on the direction of the educational system nationwide, the follow-up: Creating Pathways to Prosperities – A Blueprint for Action, set out to guide the educational community in the direction for efficient, student driven learning and training. (Appendix 6)

Stakeholders and Their Priorities

- Commerce concerns – To quote former ACCD Secretary Michael Schirling: “We’re undertaking a holistic approach to solving Vermont’s worker shortage. We must provide relevant and industry-demanded training to our native high school and college students, we need to attract more out-of-state college students to Vermont and retain those students in our workforce, and we must import new working-age adults to Vermont. Our colleges and universities play a key role nearly every step of the way.” (July 2019)
- Student needs – Advantages for students
 - Prevents students from having to repeat what’s already learned.
 - Students don’t pay for up to 2 years of college.
 - Equally incentivizes participation for all students, regardless of demographics
 - Students may be intellectually ready, but still 17 or 18 years old and more comfortable in their tech center or high school surrounded by their peers.
 - Students will be more positive about staying in-state for post-secondary education.
 - Retention once enrolled as a student is higher than for the average college student.
 - Completion of Industry recognized credentials or college credit bearing courses while in high school is attractive to employers.
- Vermont State Colleges and VSC Chancellor – From the VSC White Paper: “The Vermont State Colleges System must adapt, innovate, and leverage its strengths in order to secure a bright future.”
- Workforce and industry needs - *State Workforce Development System Report of Findings & Recommendations: Act 69 (2017), Sec. E.1, January 15, 2018 | January 26, 2018 rev* – recommended a wrap-around approach to alleviating Vermont’s skilled labor gap that relied heavily on Career and Tech Centers and the promise of relevant training for college and career if barriers to access (especially financial), were dealt with. This included the enforcement of student

PLPs, career exploration, and career pathways, beginning in the younger grades. It also included collaboration with post-secondary, specifically:

- Continue funding for the Career Pathways Coordinator position at the Agency of Education. This position is vital to the sustainability of a Career Pathways system.
 - Develop and implement statewide curricula and minimum standards for CTE programs that are proficiency based and align with the goals of Act 77 and providing students with Personalized Learning Plans.
 - Ensure implementation of Career Pathways remains on schedule and drive to increase rapid deployment of programs across the state. See reference schedule in (Appendix 7)
 - As part of the statewide economic development plan, market relevant CTE and technical education and training opportunities available to current and future students, adult learners, and employers as informed by employers, Economic and Labor Market Information data (ELMI), and the Comprehensive Economic Development Strategy (CEDS).
 - CTE Regional Centers will work with post-secondary institutions to provide opportunities at these Centers and at High Schools for students, both secondary and adult, to receive training and education that will lead to a degree or credential of value, both during the school day and in the evening. Eliminate barriers at our CTE and high schools for our post-secondary institutions to offer courses at those facilities.
 - CTE Regional Centers will partner with employers and post-secondary education and training providers to expand the availability of job specific training and apprenticeship programs to meet regional employer needs as informed by employers, Economic and Labor Market Information (ELMI) data, and the Comprehensive Economic Development Strategy (CEDS)
- Career and Tech Centers – improving on their offerings from program enrollment to include all or part of an Associate Degree. Marketing value for student recruitment. According to ACTE, twenty states, including Vermont are addressing this topic in policy.
 - Vermont K-12 schools – Clearer state-led pathways should help high schools guide students. However, Personalized Learning Plans will need at least partially consistent formatting and enforced offering. Additionally, increased numbers of students who choose to attend Career and Tech Centers so as to take advantage of this new opportunity, will greatly change the look of high school budgeting, especially for small schools.

- Community and Agencies - VT Talent Pipeline, McClure Foundation, Vermont Futures Project, Advance VT, VDOL, and others share a common concern for the health of the state’s workforce, the drain of youth from the state, and the long-term economic growth in the state. These stakeholders include the collaborative vision of Career and Tech and post-secondary education as a key to keeping young Vermonters in the state through college and into careers.
 - From their website, VTP aims to use “supply chain principles to call on business and public policy leaders to transform education and workforce systems to be employer-led and demand-driven. The TPM Academy trains state and local leaders, business associations, employers, and economic development agencies to drive partnerships with their education and training providers based on need.” (<https://www.vermonttpm.org/>)



- The McClure Foundation “is guided by a vision of a vibrant Vermont economy in which no promising job goes unfilled for lack of a qualified applicant. Its grants build equitable access to the education and training pathways that lead to Vermont’s promising jobs.” (<https://www.vermontcf.org/McClureFoundation/Home.aspx>)
- Regarding Career & Tech Education in Vermont, the Vermont Futures Project recommends: “To expand the workforce supply, the Vermont Futures Project will investigate and recommend changes to the Career Technical Education system so that more high school students can pursue post-graduation career opportunities. Special attention will be spent on researching alternative funding and governance models and integrated academic offerings.” (<https://vtfuturesproject.org/workforce-talent-recommendations/>)
- Advance VT understands that “100% of Vermont’s high-growth, high-wage jobs through 2028 will require a postsecondary credential.” Additionally, in regards to bringing equity to all would-be workers in Vermont, Advance VT prescribes at state that “must invest in promising practices and policy innovations to address structural injustice in postsecondary

attainment...so that people from all walks of life find belonging in our workplaces and educational institutions,”
(<https://advancevermont.org/vision/>)

Accreditation Organizations and Issues

- Higher Learning Commission – This organization is a regional accrediting entity for post-secondary institutions in 19 states around the North Central part of the United States. They are listed here because nearly eight years ago they commissioned a study on the common practices in dual credit programs with the expectation that they would then use the information to formulate guidelines within their accreditation process. This study consisted of interviewing educational officials in 47 states and reading state policy and statistics. It measured volume of dual credit activity from 2002 and again in 2010. It presented benefits and drawbacks of dual enrollment. It did not distinguish dual enrollment from concurrent enrollment or from early college programs. Implications for regional accreditation included a suggestion that “dual credit has more positive than negative impact, on average.” But it also stated that quality of programs “remain a pressing issue.” (Appendix 10) In general, Higher Learning Commission gleanings from the study were to double down on the institutions awarding dual credit, making sure that they have complete control of every aspect of the courses and advising that they formally evaluate more often than the rest of the institution was evaluated. Since that time, this organization has worked with states and schools who offer the opportunities to students, giving guidance and standards guidelines to the entities they accredit.

- NEASC/NECHE – The New England Commission of Higher Education, NECHE, is the accreditation organization for Vermont’s post-secondary institutions. On their website, Dual Enrollment, Concurrent Enrollment, and Early College are not available for search. However, there is a NECHE “Policy on Dual Enrollment Programs” that was published in March of 2014. It was revised two years later. Its main source of information comes from the above study by the Higher Learning Commission. The guidelines for accreditation are very similar to the HLC’s expectations. However, NECHE does suggest that schools look into following the standards of NACEP:
 - “Institutions considering dual enrollment programs are encouraged to review the standards of the National Alliance of Concurrent Enrollment Partnerships (NACEP). While the Commission does not require institutions to secure accreditation from NACEP for its dual enrollment programs, NACEP’s standards provide useful insight into best practices for dual enrollment programs in the areas of curriculum, faculty, students,

assessment, and program evaluation. Further information is available at www.nacep.org.”

Colleges

- Colleges from other states are involved in creating post-secondary opportunities for high school and career & tech students. Colleges from across the country offer concurrent enrollment for high school students in many forms.
 - Some, like mentioned earlier in North Carolina, have a standardized, well-oiled machine that starts with dual enrollment professors who are hired as employees of the NC Community College system.
 - Some colleges in the U.S. are partners with one or two specific area high schools and have joined as one entity. In fact, in Indiana, post-secondary schools must offer some form of dual credit and high schools must offer at least 2 dual credit and 2 AP courses to any student who would qualify.
 - In some states, such as Maine, there are strong independent connections among concurrent enrollment colleges, eleven of which are members of NACEP, and secondary institutions. For example, Southern Maine Community College partners with 13 high schools and 13 CTE centers for more than 50 courses. This has been established in legislation: Title 20-A: EDUCATION, Part 3: ELEMENTARY AND SECONDARY EDUCATION, Chapter 208-A: POSTSECONDARY ENROLLMENT.
 - Participating Massachusetts secondary schools and colleges work together to provide concurrently enrolled students as many supports as they would receive in high school. Although it isn't as systemic as in other states, some partnerships are very tight. For example, the Lynn School District offers “academic and student support services, including academic advising, career counseling, free tutoring, computer labs, and library access are provided to maximize success.”

NACEP estimates that, nationally, students in four out of five high schools take dual enrollment courses and that 30% of those students are from career and tech schools.

Challenges and Opportunities for a Pilot Program and Beyond

We have identified important assets and program components already in place or under active development that would become building blocks in the development of a pilot program, as well as critical needs and challenges. Some of these issues would need to be addressed in order to move forward with the pilot and others could be explored during the pilot for eventual resolution if the pilots were successful enough to warrant further expansion. In broad categories, these issues include funding sources, statutory and governance parameters, accreditation requirements, professional development and supervision, curriculum development, and sustaining the close coordination of multiple partners.

	Current program components and challenges	Issues requiring resolution for a successful first pilot	Needs, challenges, and potential issues to be addressed with further expansion
FUNDING	<p>Reimbursement rate for dual enrollment and early college is lower than regular in-state tuition.</p> <p>Legislative appropriation to VSAC for stipends partially covers textbook costs for low-income students in dual enrollment courses.</p> <p>Federal Perkins funding currently supports 2 “Fast Forward” tickets for concurrent enrollment in CTE’s.</p>	<p>Pilot budget must account for total actual costs of program.</p> <p>AOE to increase Perkins post-secondary reserve funds, which could be used to support pilot expenses.</p> <p>Expand eligibility of VSAC stipend to students enrolled in pilot.</p>	<p>Host CTE’s will need sufficient resources to cover student and course materials and equipment, lab maintenance, and other direct program costs.</p> <p>Perkins funding is limited and sustainability needs to be addressed beyond one-year pilot.</p>

	Current program components and challenges	Issues requiring resolution for a successful first pilot	Needs, challenges, and potential issues to be addressed with further expansion
GOVERNANCE & STATUTORY REQ.	<p>Act 77 “Flexible Pathways” established Personalized Learning Plans, Dual Enrollment (vouchers for 2 classes) and Early College Program.</p> <p>Act 77 currently requires students to unenroll at their HS to participate in Early College, eliminating access to resources such as free/reduced lunch and special education services.</p> <p>VT Agency of Education (AOE) has authority to develop and implement VT’s Perkins program.</p>	Some mechanism and funding to provide continued access to free/reduced lunch and special education services may be required if pilots are to utilize existing Early College resources.	Current governance and funding model creates competition between CTE’s and high schools for same students (and tuition dollars), creating a disincentive to support students enrolling in CTE programs.

	Current program components and challenges	Issues requiring resolution for a successful first pilot	Needs, challenges, and potential issues to be addressed with further expansion
<p>POST-SECONDARY ACCREDITATION</p>	<p>VTC and CCV currently maintain accreditation standards by hiring and supervising CTE teachers qualified to serve as concurrent enrollment faculty.</p> <p>Delivery of less than 50% of the total credits in a degree program at a CTE does not require substantive changes to the college's accreditation.</p>	<p>Any CTE teachers involved in the pilot would need to have appropriate qualifications or be supported to attain these and be supervised by college personnel.</p> <p>Pilot phase CTE programs should be limited to delivery of less than one year of college credits at the CTE.</p> <p>Approved CTE teachers must be evaluated on a periodic to ensure ongoing quality of instruction (as is required at Vermont Tech).</p> <p>Courses must meet the same stated outcomes at all locations, and provided evidence of such outcomes.</p>	<p>CTE's would need to hire teachers with a Bachelor's degree and encourage existing teachers to obtain a degree. Tuition support may be needed for current CTE teachers.</p> <p>Colleges will need to go through an accreditation substantive change process for all CTE locations where more than 50% of the education for an associate degree is delivered. These CTE's must be evaluated for meeting postsecondary accreditation standards, including facilities, educational capacity, curriculum, quality control, and equity. This process will include self-studies, site visits at each CTE, and reports to the accreditor. In a fully developed system, capacity to meet these accreditation standards would require additional base operations funding.</p>

	Current program components and challenges	Issues requiring resolution for a successful first pilot	Needs, challenges, and potential issues to be addressed with further expansion
<p>PROFESSIONAL DEVELOPMENT & SUPERVISION</p>	<p>VTC's Career & Technical Teacher Education Program (CTTEP) provides an alternative route to licensure program, serving practicing educators who are teaching under an apprentice license and do not yet have a bachelor's degree.</p> <p>One district in southern VT has developed a teaching contract that allows for supervision and evaluation of teachers and curriculum by a partner college. This was done precisely because they anticipated the expansion of concurrent enrollment and need to meet postsecondary accreditation requirements.</p>	<p>Increased VTC staffing for supervision of qualified pilot CTE teachers will be required.</p> <p>Funding is required for VTC faculty and CTE teacher collaborative work on pilot curriculum development.</p> <p>Participation in the pilot will require clear agreement by CTE directors, teachers, and collective bargaining units on supervisory expectations and roles.</p>	<p>Expansion of CTTEP would engage potential concurrent instructors in higher level educational attainment, as well as provide a robust system of professional development for all CTE and Vermont Tech faculty and staff involved.</p> <p>New joint models and protocols for hiring, supervision, and ongoing professional development of CTE teachers by both the CTE director and the college will likely need to be developed.</p>

	Current program components and challenges	Issues requiring resolution for a successful first pilot	Needs, challenges, and potential issues to be addressed with further expansion
CURRICULUM DEVELOPMENT		Pilots may need to address curriculum changes (and associated necessary teacher professional development) beginning in grade 9 to ensure student readiness for college-level coursework by grade 11.	
PARTNERSHIP COORDINATION	Current local partnerships between colleges and individual CTE's provide virtually all communication and administration of Fast Forward concurrent enrollment opportunities.	Funding is required for communication/marketing of the pilot as a pre-identified, sequential series of dual/concurrent enrollment courses for 11 th and 12 th grade students. To the extent that pilots rely on use of existing college courses delivered via dual enrollment, scheduling differences between CTE and postsecondary will need to be addressed.	A sustainable full model will require committed resources to maintain the level of professional development and coordination needed to address all ongoing administration of the program, including scheduling, curriculum development, professional development, contractual issues, etc.

Process for Implementation

Pilot CTE-VERMONT TECH Programs



Process Timeline: This timeline is based on a **Fall 2021 implementation. It is recommended that implementation be extended to 2021**

Next Steps during 2020:

- Decide on two pilot Vermont Tech programs for application of this project.
- Work with professors at Vermont Tech to begin alliances.
- Gather instructors from CTE centers across the state to work during the summer of 2020 with Vermont Tech aligned program instructors to develop budgets, curriculum, methods of instruction, delivery models, assessment goals, marketing essentials, and professional development needs for the two pilots.
- Develop enhanced articulation agreements that will lead to official pilots and future programs.
- Garner interest from CTE by providing applications to CTEs that have similar programs and interest in partnering. Host orientation for CTE admin looking to apply for this system.
- Work with AOE and VSC to formalize Post-Secondary-while-in-high-school system with marketing to clarify definitions and options for parents, schools, and students.
- Meet with AOE to determine specifics on funding for pilots. Continue conversation on financial sustainability for this system.
- Begin to set up Professional Development for involved admin, instructors, and counselors at Vermont Tech and future selected CTEs.
- Develop state-wide marketing plan including acquiring the funding or using pilot funding to implement.
- Choose Pilots and work with CTEs to begin preparations. Decide on the methods of instruction and delivery model for each pilot.
- Utilize Vermont Tech's new Interdisciplinary Studies Bachelor's Degree program to support the process for CTE instructors gaining eligibility to teach college level coursework within their Tech Center programs.

- Settle on Consortium to access Perkins and AOE training for funding of pilots out into the future.
- Develop Professional Trainings for all involved.
- Begin to run Professional Development sessions for instructors, professors, administrators, student supports on:
 - Concurrent and Dual Enrollment
 - Articulation Agreements
 - College Level Rigor
 - Assessments
 - Curriculum
 - Industry Partnerships
 - Accreditation requirements
 - Distance learning
 - Child development
 - Record keeping
 - Evaluation of programs
 - Scheduling
 - Scope and sequence
 - Management/evaluation of teachers
 - General advantages, pitfalls, and culture of college while in high school.
- Work with AOE, CTEs, and Vermont Tech to assure Perkins and other funding is set and/or applied for.
- Facilitate meetings with CTEs and Vermont Tech for curriculum alignment. Finalize Pathways.
- Roll out marketing information to state, parents, students, school personnel.
- Reach out to the larger industries for continued and new partnerships. Bring industry partners already involved with Vermont Tech into the discussion.
- Send information to CTE School Counseling Coordinators, including requirements to 'wrap-around' students and their PLPs and Pathways. Also, market to high school counselors for use with students not yet enrolled in a CTE.
- Provide student applications: Fall 2020/January 2021.

Appendices

1. Fast Track to College Act – <https://all4ed.org/wp-content/uploads/2019/09/Fast-Track-one-pager-FINAL.pdf>
2. Act 80, Section 17
3. Act 189 <https://education.vermont.gov/student-learning/flexible-pathways/career-pathways>
4. Snapshot of website menu for CCP in North Carolina: [Career & College Promise](#)
5. Further Research
6. <https://www.utsystem.edu/sites/default/files/documents/ut-system-reports/2018/dual-credit-and-success-college/utsystem-dualcreditstudy.pdf>
7. <http://www.agi.harvard.edu/pathways/CreatingPathwaystoProsperityReport2014.pdf>
8. http://gbicvt.org/files/2018/01/S.135_WorkingGroup_WorkforceDevelopment_FinalReport_Legislature_1.15.18.pdf
9. <https://www.vsc.edu/wp-content/uploads/2019/08/Securing-the-Future-Whitepaper-08.26.19.pdf>
10. ACTE report on states addressing CTE policy, (including Concurrent Enrollment)
11. Higher Learning Commission Study on Dual Credit Programs and Courses
12. NECHE Policy on Dual Enrollment
13. VT Talent Pipeline - <https://www.vermonttpm.org>
14. Advance VT - <https://advancevermont.org/>
15. State CEDS - <https://accd.vermont.gov/economic-development/major-initiatives/ceds>
16. McClure - <https://www.vermontcf.org/McClureFoundation/Home.aspx>
17. Pilot Program Application
18. Sample Student Application
19. Program Majors Considered for Pilot
20. Project Advisory Board
21. Interviewed for Research – List
22. Challenges and Opportunities – Detailed Narrative
23. Perkins V Outline

Appendix 1. Fast Track To and Through College Act

Fast Track To and Through College Act (S.2736)

Sponsored by U.S. Senators Maggie Hassan (D-NH) and Todd Young (R-IN)



By the end of *junior year*, one in four high school students meet all four ACT® College Readiness Benchmarks. Each year, an estimated 850,000 students are prepared for a faster, cheaper path to and through college. Nearly one-third of students who are academically ready for college early come from low-income families. Among those students, one-quarter are Black, Latinx, and/or Native American.

When students demonstrate college readiness, they should have a meaningful opportunity to “Fast Track” into college-level course work on a full-time basis without financial barriers that could prevent them from pursuing an expedited path to a degree. The [Fast Track To and Through College Act](#) aims to increase college completion and reduce college costs by redesigning the senior year of high school for academically prepared students, aligning secondary and postsecondary course work, improving postsecondary credit transfer, and allowing federal Pell Grants to cover dual-enrollment costs for eligible students.

Grants to State–School District–College Partnerships

The Fast Track To and Through College Act authorizes competitive grants to states that have or will develop

- statewide high school graduation policies that allow students to complete their secondary course work prior to senior year;
- statewide Advanced Placement (AP), International Baccalaureate (IB), and dual-enrollment credit recognition policies that apply at all in-state public colleges to ensure college-level course work taken in high school counts toward a college degree;
- statewide credit transfer agreements for introductory college courses that apply at all in-state public colleges to ensure college credits follow students between institutions;
- statewide strategies for increasing equity in access to advanced course work in high school; and
- guarantees that ensure that by the end of the grant period all college-ready students in all school districts have access to two “Fast Track” pathway options:

(1) an early college “Fast Track” pathway consisting of a full-time load of introductory college-level course work during senior year of high school offered free of charge through AP, IB, dual-enrollment, or online programs such as edX or

(2) an early high school graduation “Fast Track” pathway where students receive an early high school graduation scholarship for use at any in-state public college when they graduate high school in three years instead of four. (See the illustration on the next page.)

Priorities to Determine Awards

The Fast Track To and Through College Act prioritizes funds to states that

- already have adopted policies to better align their K–12 and higher education systems;
- commit to develop multiple “Fast Track” pathways, including those that integrate career and technical education and work-based learning aligned with high-wage, in-demand jobs; and
- propose to expand access to “Fast Track” pathways and advanced course work in districts serving a high number or percentage of historically underrepresented students.

Use of Funds

Grant funds will be awarded to partnerships of state K–12 education agencies, public higher education systems, and school districts to implement programs and activities that improve student preparation for, and participation in, accelerated academic work. States can use funds to

- expand AP, IB, and dual-enrollment courses for “Fast Track” and non-“Fast Track” students;
- offset fees for AP, IB, College Learning Examination Program (CLEP), and similar tests for all “Fast Track” students;
- provide professional development for AP, IB, and dual-enrollment instructors; and
- reach out to students, particularly historically underrepresented students, and parents to build awareness of “Fast Track” pathways.

Appendix 2. Act 80, Section 17

ACT 80, Sec. 17. DELIVERY OF VERMONT TECHNICAL COLLEGE DEGREE PROGRAMS AT CAREER TECHNICAL EDUCATION

CENTERS IN VERMONT; STUDY; PILOT PROGRAMS (a) Study by Vermont Technical College. The Vermont Technical

College (VTC) shall study how to best deliver all or a portion of fully accredited VTC associate degree programs at CTE centers in Vermont. The study shall explore the viability of a new program to provide a locally convenient and financially affordable option to high school students and adult learners who want, while still enrolled with their CTE centers, to also enroll in a high-demand, high-skill, industry-specific associate degree offering. VTC shall collaborate with the CTE centers and the Agency of Education in conducting the study. In structuring the study, VTC shall consider:

- (1) alignment of degree programs with workforce priority needs and career pathways identified by the Agency of Education;
- (2) prevailing industry wages and gender equity in each identified career pathway;
- (3) coherence with existing, State-supported postsecondary programs for secondary students, such as dual enrollment and early college programs under the flexible pathways laws, including potential impacts to, and alignment with, those programs;
- (4) sustainable funding models, including costs for students, institutions, and adults;
- (5) the financial risks of programmatic and funding model changes, with the goals of not negatively impacting the accreditation status or the financial status of any institution; and
- (6) management of class scheduling and CTE partnerships to ensure access and programmatic success.

(b) Reports.

(1) On or before December 15, 2019, VTC shall submit a written report to the House and Senate Committees on Education and the State Board of Education with its findings and recommendations from the study required under subsection (a) of this section.

(2) If VTC recommends from its study that all or a portion of fully accredited VTC associate degree programs should be offered at CTE centers in Vermont, then VTC shall, in the fall 2020 semester, conduct up to two pilot programs that offer these degree programs in at least two CTE centers. If these pilot programs are conducted, on or before January 15, 2021, VTC shall submit a supplemental written report to the House and Senate Committees on Education and the State Board of Education with its findings and recommendations from the pilot programs.

(c) Any program designed and implemented pursuant to this section subsequent to the pilots shall not be funded by the General Fund.

Appendix 3. Act 189 of 2018

No. 189
2018

Page 1 of 35

No. 189. An act relating to workforce development.

(H.919)

It is hereby enacted by the General Assembly of the State of Vermont:

* * * Stakeholder Alignment, Coordination, and Engagement * * *

Sec. 1. FINDINGS AND INTENT

(a) Findings. The General Assembly finds:

(1) A skilled and productive workforce is critical for the economic vitality of Vermont. However, as with all states throughout New England, Vermont currently faces several key labor market challenges:

(A) Employers throughout our State are facing an extremely serious and ongoing skills gap due to the lack of qualified workers to fill a wide range of jobs across multiple sectors, today and into the future.

(B) Vermont has one of the lowest unemployment rates in the country, and there are not enough workers at all skill levels to fill current job vacancies.

(C) Many Vermonters are underemployed and require training to update their skills and find job opportunities that match their interests.

(D) Many Vermonters who are unemployed or underemployed face significant barriers to employment and require more support to overcome these barriers.

(E) Vermont youth currently access postsecondary learning at the lowest rates in New England and with significant inequities of access that are

Appendix 4. Snapshot of website menu for CCP in North Carolina

The screenshot shows the top navigation bar of the NC Community Colleges website. The logo on the left reads "NC COMMUNITY COLLEGES" with the tagline "CREATING SUCCESS" below it. The navigation menu includes links for "About Us", "Jobs", "Directory", "Foundation", "State Board", and "Find a College". There are two buttons: "For Colleges" and "For Students", followed by a search bar with the placeholder text "search" and a magnifying glass icon. Below the navigation bar is a yellow banner with the text "Home > Academic Programs". The main content area is titled "Career & College Promise" and contains the following text: "Success in today's global economy may require a two-or four-year degree, a certificate or diploma. Through Career & College Promise (CCP), qualified high-school-age students in North Carolina have the opportunity to pursue these options, tuition free, while they are in high school, allowing them to get a jumpstart on their workplace and college preparation." To the right of this text is the "NC CAREER & COLLEGE PROMISE" logo. Below this is a paragraph: "If you are a community college faculty or staff member, please review the information below for additional insight. CCP provides three pathways to help advance eligible students' post-high school success:" followed by three bullet points: "College Transfer - College transfer pathways provide tuition-free course credits toward the Associate in Arts or Associate in Science that will transfer seamlessly to any public or participating private college or university.", "Technical Careers - Earn tuition-free course credits at an NC Community College toward a job credential, certificate or diploma in a technical career.", and "Innovative High Schools - Begin earning tuition-free college credits as a high-school student by attending an approved Cooperative Innovative High School." At the bottom of the content area is a section titled "CCP Documents and Resources" with a note: "*For questions regarding Career and College Promise, contact Lisa Eads via email or at (919) 807-7133."

Appendix 5. Supporting Organizations and Resources

Supporting Organizations

CHSA – The College in High School Alliance (CHSA) is a coalition of progressive national and state organizations committed to policies that support high-quality dual enrollment, concurrent enrollment, and early college high schools.

- NACEP - The National Alliance of Concurrent Enrollment Partnerships (NACEP), also a member of CHSA above, has the goal of advancing quality college courses for high school students, supporting programs, practitioners, and policy to advance concurrent and dual enrollment programs. NACEP also provides an accreditation review that does not take the place of regular college or high school quality accreditation, but seeks to provide dual enrollment standards and models to members who request. NACEP Standards are measurable criteria that address quality in concurrent enrollment and college provided faculty model programs. The standards are the basis for accreditation, but all concurrent enrollment and college provided faculty model programs can benefit by using the

standards as a framework for program development.

- NEACEP - The New England Alliance of Concurrent Enrollment Partnerships (NEACEP) was founded in 2013 as a subgroup of NACEP. This group works to promote the value, quality, and advocacy of concurrent enrollment partnerships like the National Alliance for the New England states. Educational entities, mostly colleges, high schools, and career and tech centers may join, but are not required to go through the lengthy accreditation process (which is not unlike the rigorous NECHE process). Vermont is the only New England state that does not have an educational institution that is a member of NACEP.
- As relayed earlier, there are several organizations from industry, as well as the Vermont administration and legislative bodies who have encouraged the enhancement of present post-secondary opportunities for Vermont students.

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Appendix 6. University of Texas Study on Dual Credit

<https://www.utsystem.edu/sites/default/files/documents/ut-system-reports/2018/dual-credit-and-success-college/utsystem-dualcreditstudy.pdf>

Appendix 7. Creating Pathways to Prosperity Report

<http://www.agi.harvard.edu/pathways/CreatingPathwaystoProsperityReport2014.pdf>

Appendix 8. State Workforce Development System Report of Findings & Recommendations

http://gbicvt.org/files/2018/01/S.135_WorkingGroup_WorkforceDevelopment_FinalReport_Legislature_1.15.18.pdf

Appendix 9. Serving VT's Students by Securing the Future of the VSC System

<https://www.vsc.edu/wp-content/uploads/2019/08/Securing-the-Future-Whitepaper-08.26.19.pdf>

Appendix 10. ACTE report on states addressing CTE policy, (including Concurrent Enrollment)

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Appendix 11. Higher Learning Commission on Dual Credit Programs and Courses

<https://www.hlcommission.org/Publications/publications-list.html?highlight=WyJkdWFsliwiY3JlZGl0liwiZHVhbCBjcmVkaXQiXQ==>



Policy Category <i>Note: A single bill or policy can address multiple policy categories.</i>	Number of States Addressing Policy Category	States
Funding <i>Policies address significant changes in CTE funding, such as increasing or decreasing allocations, creating a scholarship or grant program, or investing in a pilot program.</i>	30	AL, AK, CA, CO, CT, GA, ID, IL, IN, IA, KS, MD, MA, MI, MO, MT, NH, NJ, NY, NC, OK, PA, SD, TN, TX, UT, VT, VA, WA, WI
Industry Partnerships/Work-Based Learning <i>Policies address engaging industry to drive student learning through work-based learning or other means.</i>	26	CO, FL, GA, HI, IN, IA, KY, MD, MA, MI, MO, NV, NJ, NY, NC, OK, OR, PA, RI, SD, TN, UT, VT, VA, WA, WI
Dual/Concurrent Enrollment, Articulation and Early College <i>Policies address student transition to the next level of education through dual/concurrent credit attainment, credit transfer agreements and early college programs.</i>	20	CO, GA, ID, IL, IN, IA, KS, KY, MD, MA, MT, NV, NM, NY, OH, OK, TN, VT, VA, WA
Industry-Recognized Credentials <i>Policies address attainment of credentials recognized by industry, including micro-credentials, such as badges, and educational degrees.</i>	18	AL, AZ, CA, CO, FL, GA, ID, IA, KS, MI, MO, NV, OK, SD, TN, VA, WA, WI
Graduation Requirements <i>Policies address CTE as an optional or required avenue for earning academic credit and/or meeting high school graduation requirements, including diploma endorsements and seals.</i>	18	GA, ID, IN, KY, ME, MD, MI, NV, NH, OH, OK, PA, SD, TN, VA, WA, WI, WY
Access/Equity <i>Policies address access to CTE as well as strategies that support success within CTE for specific populations.</i>	17	CA, FL, GA, ID, IL, IA, MD, MI, MO, NJ, NY, NC, OK, OR, VT, VA, WA
CTE Teacher Certification/Development <i>Policies address the recruitment, preparation, certification and professional development of CTE faculty and staff.</i>	15	HI, IL, IN, IA, MD, MI, MO, NC, OH, OK, OR, PA, TX, VT, WY
Career/Academic Counseling <i>Policies address career awareness, exploration and guidance and counseling, including academic and career planning and career awareness activities.</i>	14	AL, CO, ID, IN, MI, MO, NV, OH, OK, OR, TN, VT, VA, WA
Governance <i>Policies address responsibility within the state for CTE, including new committees or task forces and transfers of authority.</i>	13	AL, IL, IN, MO, NH, NM, NY, OK, UT, VT, VA, WA, WI
CTE Standards/Accreditation <i>Policies address defining the knowledge and skills developed by CTE, including curriculum standards, standards for work-based learning and postsecondary accreditation.</i>	11	GA, HI, IA, MO, NY, OH, OK, PA, TN, VA, WY
Data, Reporting and/or Accountability <i>Policies address data and research activities that support CTE, including the use of labor market information and the inclusion of career readiness within accountability systems.</i>	10	DC, FL, MD, MA, MO, NH, OH, VA, WA, WY
STEM <i>Policies explicitly address Science, Technology, Engineering and Mathematics (STEM) education.</i>	10	AL, HI, ID, IA, MD, MO, OK, PA, VA, WA

Table 1: Number and postal abbreviations of states adopting new CTE-related policies in 2018, by policy category

Appendix 12. NECHE Policy on Dual Enrollment Programs

https://www.neche.org/wp-content/uploads/2018/12/Pp128_Policy_on_Dual_Enrollment_Programs.pdf

Appendix 13. VT Talent Pipeline

<https://www.vermonttpm.org>

Appendix 14. Advance VT

<https://advancevermont.org/>

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Appendix 15. State CEDS

<https://accd.vermont.gov/economic-development/major-initiatives/ceds>

Appendix 16. McClure

<https://www.vermontcf.org/McClureFoundation/Home.aspx>

Appendix 17. Pilot Program Application



CTE Program Application for VERMONT TECH-CTE College Program

Name:

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Date:

Partner High Schools:

Career and Tech Center:

CTE Program:

Requested VERMONT TECH program
toward Associate Degree:

Please Attach:

- Cover Letter of Application
- Instructors' resumes and transcripts. If instructor(s) are lacking in educational attainment/certification, how will you bring the program in line with Vermont Tech/NECHE accreditation requirements? What will the curriculum delivery and applied learning look like?
- History of program articulation agreements
- Curriculum and Assessments
- IRCs, Awards, CTSO Involvement, Scholarships, Employability Skills, etc. that are a regular part of the program

- Are there particular businesses in your region that you have worked with or would like to work with in this endeavor? Please include a letter or letters of support from these industry members.
- Last three years' enrollment and number of students with potential for success in this college track. Include narrative of prospects for this program in the near future.
- CTE Program Proficiency Details
- Narrative of plans to intensify Instructor and School Counseling wrap-around for all students with their PLPs and Pathway Plans to Employment and/or Post-Secondary
- Details around CTE academic support available to students who enroll
- How will you make sure students in this system have text books and other supplies necessary, including possible occasional travel?
- Do you plan to use Perkins V funding for any of the above? If so, how?
- Can you commit to Professional Development (with Vermont Tech's assistance) for involved admin, instructors, and counselors? What might that look like?

Appendix 18. Sample Student Application
(to be used in conjunction with regular Vermont Tech application)



**Student Eligibility for
VERMONT TECH-CTE College Program**

Name: _____ Town: _____
Date: _____ High School: _____
Age: _____ Career and Tech Center: _____
Grade: _____ Present CTE Program: _____

Requested Vermont Tech program
toward Associate Degree:

Please Attach:

- Cover Letter of Application from student – 3 pages
- Transcript
- Grades, IRCs, Awards, CTSO Involvement, Scholarships, Employability Skills, etc. not on Transcript
- 3 Letters of recommendation, at least 2 from CTE adults
 - Letters must speak to student:
 - Maturity
 - Employability Skills
 - Potential and Responsibility for doing college level work
 - Known extra activities such as jobs, apprenticeships, co-ops, sports, projects, clubs, etc.
 - Distance learning potential (as part of student plan)
 - Other circumstances pertinent to student’s ability for success
- Accuplacer Scores (for pilot, other scores and measurements to be determined at a later date)
- CTE Program Proficiency Details

Appendix 19. Program Majors Considered for Pilot

A. Advanced Manufacturing and Engineering

High Tech, High Pay, High Demand. This is a major that would lend itself well to a 2+2 program. Once students attained their Associates Degree, they might be more likely to continue on for their BS. At least three schools are very interested in working toward this partnership with Vermont Tech and each in its own way would be a good choice: Southwest Tech Center, North Country Career Center, and River Valley in Springfield have all expressed interest. River Valley's instructor also teaches the exact same curriculum at Vermont Tech as an adjunct professor, making the coordination of curriculum that much easier to initiate.

Advantages

- Standardized Curriculum and Assessment would not be hard to develop.
- Easily replicated after 1st year pilot for those interested in partnering.
- Good lab space at CTE centers.

Challenges

- Students attend schools outside of Vermont for their oiled programs and partnerships with industry.
- The nature of the curriculum (already at a college level in textbook) makes it difficult to use differentiated instruction. Teachers do it but having one or two students in the concurrent enrollment program for Associates Degree will be a challenge.
- Funding must be addressed. However, some costs can be helped with Perkins funding.

*From the AOE website:

Advanced Manufacturing

This career pathway will help students to build careers in a key economy sector in Vermont.

About the Advanced Manufacturing Sector:

Manufacturing jobs pay a family-sustaining wage. In 2017, average annual compensation was \$65,130.13 in Vermont (National Association of Manufacturers)

Manufacturing companies in Vermont employ about 30% of non-farm jobs (National Association of Manufacturers)

The manufacturing sector employs in the country around 13 million people

Aerospace and pharmaceutical manufacturing are the top subsectors in terms of job growth as of 2018 (National Association of Manufacturers) Much of the growth in manufacturing has taken place in high tech sub-sectors—car industry, aviation, computers and electronics.

B. Ground Transportation: Diesel and/or Auto Technology

Auto is the one CTE program that most Tech Centers in Vermont offer and that has used the same standardized curriculum and testing for many years at the high school level.

Advantages

- Standardized Curriculum and Assessment throughout the state.
- Easily Replicated after 1st year pilot for those interested in partnering
- Good lab space at CTE centers

Challenges

- Many CTE teachers do not have degrees or advanced educational attainment
- Students often attend schools outside of Vermont for their well-oiled programs and partnerships with industry. Articulation agreements are plentiful from outside Vermont.
- Time limitations: estimation of about one year of Associates level can be done with two years of schooling + nights, some weekends, and summer classes.
- The nature of the curriculum (already at a college level in textbook) makes it difficult to use differentiated instruction. Teachers do it, but having one or two students in the concurrent enrollment program for Associates Degree will be a challenge.
- Funding must be addressed, however some costs can be helped with Perkins funding.

See appendix A. Sample program proposal.

C. I.T. and Computer Networking

The Information Technology, Software Engineering, and Computer Engineering programs at VERMONT TECH have well-deserved reputations for their role in building Vermont's emerging technology workforce. CTE centers such as HACTC and GMTCC also have active computer technology programs that prepare students to obtain widely-used industry-recognized

credentials (IRCs) such as Cisco's CCNA certification. Many of these IRCs are also reasonably well-aligned with courses in the Vermont Tech curriculum, and it may be possible to develop articulation agreements that fast-track student with these credentials towards a degree in one of Vermont Tech's computing majors.

Also of note is CCV's new Cyber Academy program, a partnership with Socratic Arts offering two 10-week modules in Network Traffic & Log Analysis and Digital Forensics & Incident response. It may be possible for student to acquire the prerequisite skills for these modules during their CTE programs, allowing them to complete the courses quickly upon graduation. In the years following this pilot if successful, CCV and the other Vermont State Colleges will be able to offer these opportunities within the VSC system.

Advantages

- Exams to obtain IRCs provide an existing mechanism to verify content mastery in these areas.
- Standardized curriculum for these credentials.
- Potentially a smaller impact on Vermont Tech program enrollments and finances since students are often in their majors for four years.
- Teachers at Randolph Tech Center and Springfield have already been working with AOE for 2 years to standardize pathways and curriculum and would welcome this opportunity.

Challenges

- Some CTE teachers do not have degrees or advanced educational attainment.
- Exams to obtain an IRC are not free; some exams can cost as much as \$300 to sit for.
- CTE centers must pay for the training materials required to prepare students for these exams.
- Funding – A combination of successful student learning would result in IRC achievement and college credits. By sharing teachers at both facilities, Early college concurrent rates of 20% CCV tuition rates could apply so that the CTE would not lose tuition for the students.

D. Culinary Arts/Hotel Management/Travel and Tourism

Vermont is the only state in the country that does not have a Culinary program offering within the state college system. Given that the state's

economy hangs on Tourism and the demand for all levels of positions in the industry is very high, this could drive a new VERMONT TECH program.

Advantages

- Curriculum and Assessment can be standardized throughout the state as a new program for VERMONT TECH.
- Instructor and Union push-back not an issue as this is not a present VERMONT TECH major.
- Good lab space at CTE centers.
- Fulfill the gap for state college programming.
- Several of Vermont's CTE chef-instructors have taught at NECI or other post-secondary institutions prior to joining the CTE world.
- Program/major can easily be turned into a 2+2 degree using the VERMONT TECH Business major or the VERMONT TECH Ag major for the localvore tourism boom in the state.
- Burlington Tech Center has a proposal well developed that would include adult students and could be built on for the purposes of this new system of concurrent enrollment. See Appendix B.

Challenges

- Many CTE teachers do not have advanced educational attainment.
- Students often attend schools outside of Vermont for their well-oiled programs and partnerships with industry. Except for New England Culinary Institute, articulation agreements are from outside Vermont.
- Funding must be addressed, however, some costs can be helped with Perkins funding.

E. Construction Technology/Management

For the last two years, CTE Construction instructors have been training to teach one standardized curriculum.

Advantages

- Standardized Curriculum and Assessment throughout the state.
- Easily Replicated after 1st year pilot for those interested in partnering
- Good lab space at many CTE centers
- There are a few CTE center candidates that have college level curriculum already, including Lyndon Institute's Career and Tech Center.

Challenges

- Many CTE teachers do not have degrees or advanced educational attainment
- Most employment requests do not require any degree and this means less incentive for students to sign on unless they are specifically looking for the Management opportunities offered at the college level at VERMONT TECH.
- Some issues with acceptance of credit earned while in high school.
- Funding must be addressed. However, some costs can be helped with Perkins funding.

F. Agriculture and/or Forestry

Demand is there for the lower wage positions and Entrepreneurial opportunities await creative and college ready students. Like Culinary Arts, this is a staple industry for Vermont and there is an opportunity to help save what the tourist come to see in Vermont if more students were attracted to a program in this content area. Possible centers for this partnership would include Green Mountain Tech in Hyde Park (Jeffersonville farm), Lyndon Institute Career Center, and Hannaford Center in Middlebury.

Advantages

- Good lab space at CTE centers
- Could be a stepping stone for further education at VERMONT TECH and UVM.

Challenges

- Ag and Forestry curriculum is vastly different throughout the state.
- Funding must be addressed. However, some costs can be helped with Perkins funding.

*****General Technology Degree(s)

The GET Degree is an option that could stand on its own or be part of a specific 2+2 or 1+1+2 articulation agreement with VERMONT TECH and a CTE. Houses in the Engineering and Computing schools, the program is designed to provide students with flexible, interdisciplinary educational opportunities, with a focus on technology and career-oriented coursework. This Associates of Applied Science (AAS) can be expanded to include other majors that would guide students on a pathway, yet still explore career options available to them. Other programs that this degree pathway could align with include Culinary Arts HVAC, Manufacturing, and others.

Appendix 20. Project Advisory Board

We are fortunate to have a team of experts in the community and are grateful for their insight and guidance as we embarked on the development of a statewide system of post-secondary credentials and credit for high school students enrolled in Tech Centers. This team came together to advise in three full board meetings leading up to the presentation of this document.

Advisory Board Members for this feasibility project included:

- Patricia Moulton, President, Vermont Technical College
- Brad Ferland, Deputy Secretary, VT Agency of Administration
- Maureen Hebert, Associate Dean of Continuing Education and Workforce Development
- Oscar Aliaga, State Career Pathways Coordinator, Agency of Education
- Ana Gaillat, Dean of Academic Affairs, Vermont Tech
- Tricia Coates, Director of External and Government Affairs at Vermont State Colleges
- Lyle Jepson, Director, Vermont Career & Technical Teacher Education Program, Vermont Tech
- Allan Rodgers, Professor of Business, Vermont Tech
- Jay Ramsey, Vermont State CTE Director
- Rosemary Distel, Associate Academic Dean, Vermont Tech
- Jason Gingold, Director, Randolph Technical Career Center
- Jeremy Oullette, Asst. Professor, Computer & Information Systems, Vermont Tech
- Sarah Buxton, Vermont Dept of Labor
- Michelle Sama, Asst Professor of Science, Vermont Tech
- Steven Airoidi, Asst Director, Vermont Academy of Science and Technology, Vermont Tech
- Dylan Giambatista, Legislator
- Sherry Lussier, Project Manager for this study, Vermont Tech

Appendix 21. List of contacts interviewed in research

- Patti Coultas, Coordinator, Career & Technical Education, North Carolina Community College System
- Oscar Aliaga, Pathways Coordinator, VT Agency of Education
- Toni Mara, Early College Coordinator, VT Agency of Education
- Jay Ramsey, State CTE Director, VT Agency of Education
- Pat Guken, Director, St. Johnsbury Academic Tech Center

- Eileen Illuzzi, Director, North Country Career Center, Newport
- Jason Gingold, Director, Randolph Tech Center
- Dana Peterson, Director, Hannaford Career Center, Middlebury
- Chris Gray, Vermont Tech instructor & River Valley instructor of Advanced Manufacturing & Engineering
- Scott Farr, Director, River Valley Tech Center, Springfield
- Nate Demers, Director, Cold Hollow Career Center, Enosburg
- Melissa Connor, Director, Stafford Tech Center, Rutland
- Bill Lucci, Adult Education, Stafford Tech Center, Rutland
- Doug Heavisides, Director, Hartford Area Career Center
- Penny Chamberlin, Director, Central Vermont Career Center, Barre
- Cheryl Niedzwiecki, Instructor, Burlington Tech Center
- Bob Travers, Director, Center for Technology, Essex
- Ana Gaillat, Academic Dean, Vermont Tech
- Rosemary Distel, Asso. Academic Dean, Vermont Tech
- Jeb Spaulding & Tricia Coates, VSC Chancellor's Office
- Joe Bellavance, Strategic Enrollment Consultant
- David Silverman, VSC Trustee
- Mike Lawler and Admin Team, Southwest Tech Center, Bennington
- Nancy Weiss, Director, Wyndham Career Center, Brattleboro
- Elaine Collins, President, Northern Vermont University
- Pat Moulton, President, Vermont Tech
- Jason Di Giulio, Director, Lyndon Institute Tech Center
- Erik Remmers, Director, Green Mountain Technology & Career Center, Hyde Park
- Chris Damato, Asst Director, Green Mountain Technology & Career Center, Hyde Park
- Dr. Tony R. Reggi, Education Program Administrator I (Coordinator, Career & Technical Education) North Carolina Community College System
- Dr. Bob Witchger, Director, Career and Technical Education, North Carolina Community College System
- Dr. Lisa Mabe Eads, Director, Academic Programs, North Carolina Community College System
- Lee Ann Wright and Lisa Durocher, Director and Asst Director, Northwest Tech Center, St. Albans
- Chip Troiano, State Representative
- Jason Finley, Co-op and Adult Ed Coordinator, Randolph Tech Center
- John Kidder, Professor, Mechanical Engineering Technology
- Andrew Myrick, Professor, Construction Management

Appendix 22. Challenges and Opportunities Detail

FUNDING:

Presently Colleges that participate in early college or VAST get reduced funding for students. Sustainability is an issue, especially if students and pilots are successful and expansion is anticipated.

1. **Challenge:** Depending on the Articulation Agreement and the status of the student in the joint program, Vermont Tech revenue during the pilot stage could come in different ways

Opportunities

- a. If the student remains a CTE student with credits being given by Vermont Tech for approved curriculum delivery and student success at the end of each course, Vermont Tech revenue could consist of Voucher and Fast Forward income. Although Perkins V will mean changes to the distribution of Fast Forward funding, present Perkins distribution might look like the following: Over the school year and possible summers, two vouchers \$400 each per student, and up to six Fast Forward tickets @ \$100 each per student for a total of \$1,400 per student. The cap of Fast Forward tickets would need to be waived and possibly the host CTE would pay for four of the FF courses for a total of \$400 per student. With Perkins V approved, there will be flexibility of the funding distributed within the approved college, but not to be on a student by student basis. The timing of the Perkins V roll-out is such that we can predict that Vermont Tech may be able to work with AoE to direct the funding to programs with CTE student concurrent enrollment.
- b. If the student becomes a Vermont Tech student, VAST guidelines might follow. The student would not be living on campus as VAST students presently do and would not be charged as such. However, VAST students are not eligible for federal financial aid and likely no large VSAC assistance as well.
- c. In either case, the articulation agreement must include specific details about the payment of fees and books through some collaboration with Vermont Tech and the host CTE.
- d. This initial pilot funding scenario is not sustainable should the new system of Associates Fast Tracking and Dual/Concurrent Enrollment be successful across the state in all VSC and CTEs. This funding issue beyond the first-year pilot will need to be dealt with before the end of the first year.
- e. The Legislature can't mandate that AoE do anything specific with Perkins. By statute, AoE has the authority to develop the state plan and

implement the Perkins program. We could propose how Perkins might be used with specific details of how this program might work, but it needs to be outlined in the state plan and that will be complete by the end of December 2019

- f. Like Vermont Association of Career and Tech Education Directors, (VACTED), other Perkins recipients (CCV and Vermont Tech) could form a consortium to pool Perkins funds. Adult CTE could also be involved as part of the consortium. However, Perkins funding is not increasing so adding funding for this program could detract from other currently funded Perkins activity if reserves are not maintained or funding levels decrease.
 - g. In the Perkins V state plan, AoE is no longer supporting individual student costs of \$100 per course for Fast Forward. CTE students will still be limited to 2 tickets, but instead of reserving \$60,000 to pay the colleges for that, AoE will be increasing the amount of the post-secondary reserve to \$200,000 and Vermont Tech and CCV will have the opportunity to submit proposals for the use of these funds to revise concurrent enrollment curriculum, and to develop new courses/programming.
 - h. The legislature gives VSAC some funds to manage a book stipend program to help high school students pay for college textbooks. In light of future expectations with concurrent enrollment, we recommend expansion of this program.
 - i. The Early College program is well funded. Vermont has a dual/concurrent enrollment system. They both can be leveraged through curriculum alignment and articulation.
 - j. Marketing: We are saying that this is different from what already happens in Vermont. It is a **pre-identified, sequential series of dual/concurrent enrollment courses for 11th and 12th grade students**. We are saying to a student/family: If you use your dual enrollment/fast forward tickets together in this way in 11th/12th grades, then it will reduce your post-high school debt load and accelerate your attainment of an associate degree.
2. **Challenge:** CTE Funding: Presently High Schools and CTEs vie for the same students with the state tuition to fund prospective schools tied to those students. This would create a system where three entities are after the same student tuition dollars. Through Act 135, two CTE funding pilots are underway in Vermont. We recommend a close examination of possibilities for alternative financing of CTE in this state. A long term funding solution for CTE is desperately needed. The current funding formula is a disincentive for home schools to send

students to CTE. This is a disadvantage to students today. Vermont Tech providing programing at CTE will exacerbate this existing condition, decreasing opportunities for students.

3. **Challenge:** Funding for each student: If fees, books, and other costs fall on the student, they are not yet allowed to apply for VSAC or FAFSA since they do not have a diploma. Nor can they apply for most scholarships while still in high school.

Opportunities

- a. There is an existing dual enrollment stipend administered through VSAC that could be expanded to include eligibility for these students.
 - b. If concurrent classes with specified pathways and sequence toward degree are agreed upon, the host CTE may be required to find funding for these costs, as well as for materials and lab upkeep.
4. **Challenge:** Funding: Limited state funding only sustains a break-even budget for Vermont Tech; any additional unfunded burdens will jeopardize the current levels of graduation and job placement rates and programmatic quality.

Opportunities

- a. The Early College program is well funded. Vermont has a dual/concurrent enrollment system. They both can be leveraged through curriculum alignment and articulation.
 - b. See 1.a. above
5. **Challenge:** Accreditation: Teachers must have higher degrees to teach at Associates level. Some content areas do not have higher degrees or have alternatives for degrees: Apprentice, Journeyman, and Master Electrician levels and testing, for example.

Opportunities

- a. Per the Higher Ed Commission, "Faculty teaching in career and technical education college-level certificate and occupational associate degree programs should hold a bachelor's degree in the field and/or a combination of education, training and tested experience. CTE would need to hire teachers with a Bachelor degree and encourage existing teachers to obtain a degree. Tuition support may be needed for current CTE teachers.
- b. However, NECHE guidelines also state that faculty and staff have qualifications that "are measured by advanced degrees held,

evidence of scholarship, advanced study, creative activities, and teaching abilities, as well as relevant professional experience, training, and credentials.” Through the strong supervision of instructors and curriculum delivery, as well as exemplary communication with NECHE, the use of appropriate CTE staff as adjunct and teaching assistants may be accepted.

- c. At Vermont Tech, a well-established program: Career & Technical Teacher Education Program, (CTTEP), exists as an alternative route to licensure program, serving practicing educators who are teaching under an apprentice license. Expansion of this program would engage potential concurrent instructors in higher level educational attainment, as well as provide a robust system of professional development for all CTE and Vermont Tech faculty and staff involved.
6. **Challenge:** Accreditation: Financial viability for the college and the satellite CTE center must be taken into account and this may jeopardize accreditation. For example, if more than 50% of the Associates Degree courses are taken on the CTE campus, NECHE guidelines require Vermont Tech seek a “substantial change” in their accreditation. NECHE states that the “policy requires ... off-campus programs and distance education programming be reviewed as part of its comprehensive evaluation (of the college).” Distance courses and Off Campus programs where more than 50% of the education happens, must be evaluated at the college level of compliance, including facilities, educational capacity, curriculum, quality control, and equity. This includes self-studies, site visits at each Tech Center, and reports to NECHE as to sufficient resources: financial, human, physical, and technological for each Tech Center. In a fully developed system, capacity to meet these evaluation standards would need to be developed. This would require funding for staff.

Opportunity

- a. In a one-year CTE program, Vermont Tech could grant credit for less than 50% of the degree requirements. This could be enhanced with on-campus summer courses following both the junior and senior year for a program with concurrent enrollment.
7. **Challenge:** Accreditation: Off-campus and distant programming must be integrated into the regular planning processes of the institution.
- a. Not necessarily a barrier, this will be addressed in the NECHE required Substantive Change application upon the implementation of concurrent enrollment.

8. **Challenge:** Accreditation: Supervision and Evaluation: Most CTE teacher contracts do not include supervision and evaluation beyond the CTE Director. For accreditation purposes of the college, CTE teachers must also be supervised and evaluated by the college. This may become a union dispute and creates capacity challenges for Vermont Tech. Faculty from Vermont Tech would need to conduct on site evaluations. Fitting that in to the calendar and work load will be a challenge for Vermont Tech.

Opportunities

- a. At least one district in southern Vermont has developed a teaching contract that allows for supervision and evaluation of teachers and curriculum by a partner college. This was done precisely because they anticipated the expansion of concurrent enrollment and knew the accreditation requirements.
- b. Articulation agreements could be written so that CTE instructors who are approved to run concurrent courses are evaluated by the CTE Director with certain protocols and the curriculum supervised by both the CTE and Vermont Tech.
- c. In the case of dual enrollment where the instructor is an employee of the college, supervision and evaluation will automatically come from Vermont Tech.
9. **Challenge:** Accreditation: Credits versus proficiencies: Vermont students graduate with proficiency scores that may not align with either the college or the NECHE evaluation team.
- a. This is something that will need to be addressed in the articulation agreements, as well as any communications and arrangements the CTE has with their sending high schools. The challenge is exacerbated by the fact there is no single system nor should single recommendation for how portfolio based assessment be conducted in Vermont. So students may be evaluated differently district by district or even school by school.
10. **Challenge:** Distribution of instructors and necessary supervision: Programs held off campus could impact enrollment at Vermont Tech campuses. Concerns by CTE faculty that their positions may be on the line, especially if they have not gained an educational level required to teach at the college level.
- a. Legitimate concerns, but not necessarily barriers to implementation. Thorough data should be kept to discover if there is any correlation to

campus enrollment. These are high school students and not usually campus students, apart from VAST.

- b. Vermont Tech is uniquely set up to train and educate willing CTE instructors who desire to be a part of the Fast Track to College system and wish to attain the appropriate level of degree. The Career & Technical Teacher Education Program, (CTTEP), exists as an alternative route to licensure program, serving practicing educators who are teaching under an apprentice license. Expansion of this program engage potential concurrent instructors in higher level educational attainment, as well as provide a robust system of professional development for all CTE and Vermont Tech faculty and staff involved.

11. **Challenge:** Student Services: If students are considered college students, how does the IEP stay intact or transition to college 504? Does advocacy move from school adults to student self-advocacy with 504? This may require additional resources to be defined and funded at the CTE and college level to ensure equity and standards of support are met for these students.

Opportunities

- a. If the student is not required to un-enroll from high school and tech center, they are still a high school student. This is another positive result when an approved high school instructor teaches the curriculum. In this scenario, the IEP or 504 team continues on as usual. (Individualized Education Plans and Act 504 teams are set up by law for students with a range of disabilities so that they may get help they need to ensure that they have the same access to an education as students without disabilities. College students who have had this support while in high school, must transition to a self-advocacy model.)
- b. If the student must change their enrollment to the college as in VAST and Early College in Vermont, the student must move from having advocates to advocating for themselves. While colleges have accommodations for students, additional tutoring or other assistance may be needed. This presents another funding challenge for Vermont Tech and participating colleges. This too may require additional funding.
- c. The transition specialists at Vocational Rehabilitation should be a part of the team before the student applies. All supporting adults on the team would work according to the Early College manual in first, determining the appropriate placement of the student, and then guiding the student through the transition to college level work.

12. **Challenge:** Definitions and marketing: Vermont already has Dual enrollment, Concurrent enrollment, Vouchers, Fast Forward, and Early College. Marketing yet another format for students to attend post-secondary school while still in high school will only confuse students and their parents further.

Opportunities

- a. Both the AoE and the Vermont State College system must organize and market the many options for high school students in a way that is welcoming and not confusing for student and parents. A simple matrix of options that is user friendly is utilized in other states. Vermont Tech, VSC, and AoE can borrow other ideas around this issue.
- b. Marketing: This new program is different from what already happens in Vermont. It is a pre-identified sequential series of dual/concurrent enrollment courses for 11th and 12th grade that says to a student/family: If you use your dual enrollment/fast forward tickets together in this way in 11th/12th grades, then it will reduce your post-high school debt load and accelerate your attainment of an associate degree. This needs to be thoroughly marketed to parent and students. Additional targeted marketing dollars will need to be provided.

13. **Challenge:** CTE students only: Some might see this idea as discriminating to high school students who choose not to attend a Career and Tech Center because this opportunity does not include them.

Opportunities

- a. Vermont Futures Project shows that a large percentage gap of students do not attend any college and do not attend CTE. Stigma around CTE attendance still needs to be removed and students allowed to attend. This is not easy as this stigma exists after decades of CTE. This requires targeted marketing that speaks directly to students and parents.
- b. Engage High School students: Consistent marketing to remove stigma of CTE and let parents and students see the opportunities available. This will be ongoing and can utilize alumni as time goes on. Professional Development for all faculty and administration may help with high school bias as well.

14. **Challenge:** Scheduling:

Colleges and high schools do not have similar calendars; nor do they run class schedules in the same way that colleges do.

- a. Additionally, software classroom and learning management platforms are often different from high school to college, (i.e. Canvas vs PowerSchool). These issues should be addressed in Professional Development for all involved in this endeavor and any future system upon successful completion of this pilot. Aligning schedules is a major challenge and would need to be a priority for secondary and post-secondary. It will take time to phase in to a common schedule, if that can be designed.
- b. Some CTE programs are full day, some half day, and some fit into 90-minute blocks. Consistency for this initiative will be a challenge.
- c. Professional Development, Articulation Agreements, and especially constant communication and collaboration are key to making these differences work. This adjustment will take additional funding for both Vermont Tech and CTE centers.
- d. See Process Timeline, including Professional Development topics below.

15. Challenge: Time Commitments: Fulfilling high school classes as well as college classwork takes up too many hours in a day to be a successful opportunity for a student. Given the limited time a student is at a Tech Center, it would not be possible to deliver a 60 credit associates degree during that time frame, even if summer session is added to the design.

- a. The chosen Pilots will have to address this so that expectations are not unreasonable. A full Associates Degrees would not be a reality until sometime in the future. It is likely students will have to take classes in their junior year of high school or CTE to maximize college credits and be prepared for the rigor of college.

16. Challenge: The CTE will have to commit to upkeep and purchase of equipment needed to run specific programs at the level need for college level courses.

- a. This is a requirement of the accreditation of Vermont Tech. Most Tech Centers update their equipment, labs, and curriculum to meet the changing industry needs. In Vermont, many applied learning labs have newer equipment than colleges for certain programs.
- b. See CTE program application for this pilot below.

17. **Challenge:** Student preparedness to excel at the college level before completing high school.

- a. Along with program approval, instructor qualifications, and assessments of the student, other measurements and subjective qualifications will need to be used in determining the appropriateness of student placement. See sample student application below.

Appendix 23. Perkins V Outline

DRAFT

- Vermont present and future CTE plans for post-secondary partnerships are depicted in the new Perkins V plan to be finalized by the end of December: One of the seven “Investment Priorities” for the state Perkins plan places the focus on enhancing post-secondary opportunities. Its vision is strengthened with career pathways and educational collaboration.

