



BE PREPARED TO STAND OUT

14 August 2020

TO: Concord School Board and Superintendent Murphy
FROM: CTE Director Steve Rothenberg
R/E: CRTC Covid Operational Dilemma - Preparation for 8/17//20 Board Meeting

DRIVING QUESTIONS (and answers):

- **How is the career and technical education (CTE) experience unique and therefore worthy of consideration to open with a reasonable level of on-site student engagement?**
 - CTE is a national model based on a balanced curriculum emphasizing the application of both technical and core academic knowledge (theory) to real-world situations (aka project based learning). Learning is designed to take place in our advanced labs and on-site businesses as well as actual industry sites where work-based learning is sponsored.
 - CTE differs from traditional education in that it functions in a distinct triangular partnership with industry and post-secondary education. Our programs are constantly evolving based on defined feedback around designing the most optimal career pathways aligned to both economic and employment trends. This mindset is unique to us in secondary education.
 - 90%+ of the students we serve are mature juniors and seniors. Our value proposition is to support them to realize, embrace and build their own post-secondary pathway. Student survey data indicates that this is an area we excel at.
 - In addition, in the simplest terms, our students do not have the industry tools and equipment to prepare them for careers at home. A Chromebook is not a portal to a medical, cosmetology or HVAC career.

- **How should you consider the “regional” nature of the Concord Regional Technical Center (serving about 450 sending school students and 250 CHS students) in any decision?**
 - The CRTC is a “super regional center” in its design. We are not replicated anywhere else in our region
 - The CRTC is supported by federal Perkins funds, as well NH tuition and transportation funds in order to provide the resources necessary to deliver the most authentic experiences to regional students (see map in visuals section).
 - We play a significant factor in how our eight sending schools schedule their students, as well as hire their teachers. Our growth in enrollment has changed schools. We are very much intertwined.
 - The CRTC has three noteworthy elements in its core value proposition that are not part of the regular high school program:
 - Relevant, rigorous, and applied learning
 - Quality relationships
 - Career pathways experience



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- Our programs are a huge part of a student's high school life, as they attend double-period classes five days a week, for two years. Often our students extend their career pathway vision to a job, Early College or other similar opportunities.
- We have been working with all of our sending schools over the past two months to help create "space" for the CRTC. Of note, 7 of our 9 schools will be open for hybrid learning at this time. These regional students are stuck right now because they are allowed to attend their home school but have no option for attending CRTC. (see table of all schools in the visuals section)
- **What particular CRTC programs do not lend themselves to 100% off-site models? (note: this metric goes beyond the CRTC to include CHS science and engineering labs).**
 - Here is a tiered list of our programs based on the priority to be on-site:
 - Tier I programs include: *Automotive Tech, Construction Trades, Cosmetology, Culinary & Pastry Arts, Emergency Services and Computer Engineering.*
 - Tier II is *Health Science, Criminal Justice, Theater & Film: Acting, and Education & Behavioral Science.*
 - Tier III is *Computer Engineering* (software portion, not engineering portion) and *Graphic Design* (even this model demands Adobe Creative Suite software which, at this time, does not run on Chromebooks).
 - The CRTC places a priority on attendance, and has the strictest attendance expectations of any of the nine high schools we serve. The very nature of our applied learning and extensive lab work demands daily attendance.
- **What are similar NH-CTE and CCSNH programs doing at this time? What is the position of regulatory and/or governmental bodies on opening CTE programs?**
 - The vast majority of NH-CTE centers will be open in September in hybrid mode. Salem CTE is opening at 100%. Many are opening at 50/50. Milford CTE reversed its decision to do off-site and is now hybrid. *One difference we have, compared to other NH-CTE centers, is our large percentage of sending school students. (In contrast, Nashua has very few sending students therefore their opening debate is localized to Nashua students only.)*
 - The Community College System of NH (CCSNH) is dividing classes into lab and non-lab on all seven campuses. Per Chancellor Huard, "Hands-on courses like labs will be conducted in person, with social distancing built in to classroom set-ups and scheduling." Non-lab college classes are off-site.
 - The NH Department of Education has embraced opening NH-CTE Centers.
- **If we open, what scale would it be at? What particular factors would we need to get a handle on to create a sustainable and effective model? What is our confidence level at different operational levels?**
 - Most of our facilities have large floor plans so social distancing students is not a major issue. We would meet all safety requirements and run at 50-75% class capacity on a daily basis per

class (in most cases students can be further split between labs and classrooms with one teacher overseeing).

- Our challenge is to flexibly schedule across nine schools so that we can stabilize daily enrollment, which is hard, but possible. Of the seven hybrid schools, none have adopted the same schedule (see table in visuals). Early in the game we strongly suggested that we were going to hold our “core” schedule in place; therefore schools planned their revised schedules around us.
 - Some students would need to self-transport. Busing is a challenge that we are working on. The state has expressed a willingness to help sending schools by providing reimbursement for more buses.
 - We ran CRTC Competency Boot Camps this summer (we were one of the first public schools in NH to iron out and implement detailed safety protocols). We were successful (example: 22 students earned LNA licenses in May), and learned a great deal. Our model was, and would be based on *mutual responsibility*, including by students, teachers, and staff. Our mindset parallels CCSNH’s “[student social contract](#)”.
 - We are prepared to meet all safety requirements. Our faculty understands this from a business perspective and is fully on board. In addition, two of our employees, Sharon Bean RN and Brian Beauman EMT, have been working all summer in the healthcare industry. They bring a real-time professional perspective given their direct experience with COVID preparedness, including at Concord Hospital.
- **What could the short- and long-term effects be on student enrollment patterns?**
 - Some year I and II students will drop out of CRTC before we start (the pattern has already started) given that their “makeup” is to learn through applying knowledge and skills. These students will miss an opportunity that won’t resurface in their public school lifetimes.
 - Year I students will have no tangible context to applied learning, including the use of tools. We may lose them during the year.
 - Year II students will be denied the level of applied learning, including work-based learning experiences, so critical to their successful transition to post-secondary college or career plans. We may lose them during the year.
 - We’ve been in crisis before when the legislature wanted to cut all CTE funding in 2010. We lost teachers, specialists and industry relationships. It hits us hard. CTE teachers bring the unique quality of deep industry experience to the job, and they cannot easily be replaced.
 - CRTC students choose to attend, and that an important factor in that choice is the word-of-mouth endorsements of current CRTC students. A fully remote learning environment would temper those endorsements, and force us to rethink our “lifeblood” recruitment model
 - **What is the profile of CRTC students? Who are our stakeholders?**
 - Academically, we look very similar to the general population of CHS. Cut the bottom and top academic performer off the curve, and we are a match.



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- National data shows CTE students graduating high school at a higher rate than the general population. More than 78% go on to college.
- The majority of our programs have an obligation to focus on recruiting, enrolling and graduating nontraditional students (by gender, race). Twenty percent of students in these CRTC programs are nontrad (example: females in Auto Tech; males in Educational and Behavioral Science) which far surpasses the actual percentages in industry. We have an [extensive annual model and specific activities](#) focused on supporting this effort that extends to area middle schools.
- We have a very loyal following including current students and their parent/guardians, alumni students and parent/guardians, industry partners, post-secondary partners, legislators and industry groups. We have a new group on Facebook called “Friends of the CRTC” that is growing. Check it out.
- **Are there any other related dilemmas worthy of review?**
 - **Emergency Services II:** Uniquely, this program is run by actively employed and certified (NH Fire Academy) firefighters and emergency medical technicians. Year I is an exposure year to FF and EMT (including an LRCC course) and year II students go out in the community and take either or both EMT and Firefighter Certification classes. We have 12 students who are ready to start at sites like: Granite State EMS (now!), LRCC (September) and the NH Fire Academy (spring). We have already enrolled students in Granite State EMS and LRCC. Some are becoming affiliated with local departments.
 - **CRTC+:** Students who are going beyond their CRTC program, in their year II or year III of CRTC, to complete work-based learning and/or college courses while still in high school. Example: we have a number of students starting HVAC, welding and auto tech courses at MCC this fall (while still in Construction Trades). We also have had some health science and education seniors taking general ed courses at NHTI to get a jump start on their college programs.
 - **Non-CRTC:** We would group our programs with a handful of large scale CHS classes that also are driven by labs: Freshwater Ecology, AP Environmental Science, Science of Survival and all Engineering (TechEd) courses. George Golden and Lise Bofinger can clarify.
 - **Education and Behavioral Science:** This program is located at Abbot-Downing. We’ve been working with Principal Blinn to develop a model.
- **What is the CRTC’s projected revenue? Are there any other related costs?**
 - At 450 sending students, the general budget income is ~\$2,650,000 for SY 20/21.
 - -\$5,888 for every sending student lost. This income goes to the general budget (25% receivable FY21 and 75% receivable in FY22)
 - -\$442 for every student lost. This income goes to the CRTC Trust (100% receivable FY21) - used for CRTC equipment and related
 - With fewer students, we should be able to reduce our \$74K general budget by at least half.



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DATA:

2020/21 Enrollment 8/13/20				
<u>Program</u>	<u>YEAR I</u>	<u>YEAR II</u>	<u>YEAR III</u>	<u>Non-CHS Students</u>
Automotive Tech	59	39	0	80
Computer Eng	26	15	0	16
Construction Trades	40	21	0	39
Cosmetology	28	20	0	42
Criminal Justice	39	21	0	38
Culinary & Pastry Arts	39	19	0	35
Education & Beh Sci	39	22	0	37
Emergency Services	28	12	0	32
Graphic Design	35	28	0	40
Health Sci	82	48	2	74
Theater & Film:Acting	16	13	1	20
Theater & Film: Prod	12	5	0	10
<u>Totals</u>	443	263	3	463
CRTC Career Communications English	22 CHS and TBD Sending (fluid - every year at this time) serves Year II and Year III			

Enrollment by School 8/13/20			
<u>School</u>	<u>Year I</u>	<u>Year II</u>	<u>Year III</u>
Bow	55	29	0
Concord	154	95	3
Hillsboro-Deering	27	4	0
Hopkinton	19	10	0
John Stark	21	16	0



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Kearsarge	11	16	0
MV	83	56	0
Pembroke Academy	46	38	0
Pittsfield	12	3	0
Other (Bishop Brady, PACE, Parker Academy)	11	0	0
TOTALS	439	267	3

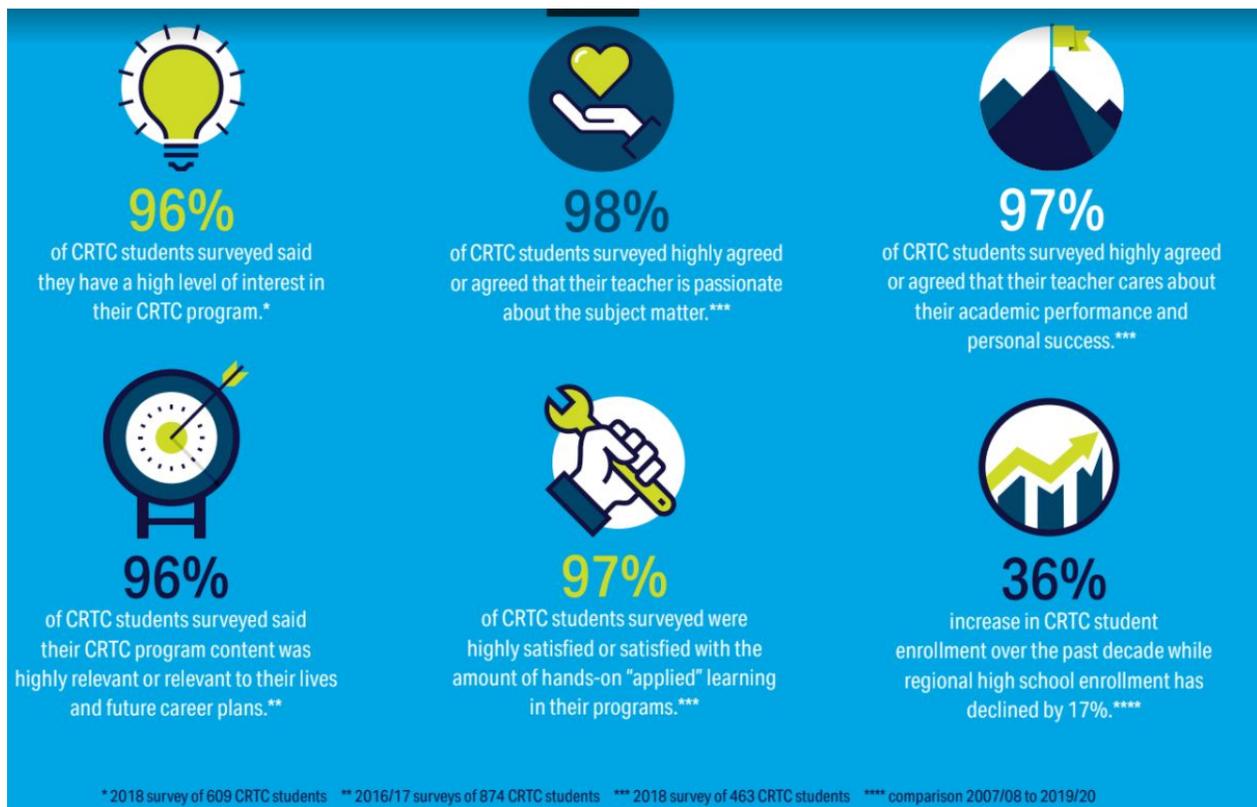
CRTC - School / Year	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Bow HS	587	522	507	486	516	587	625	659	664	625
Concord HS	1795	1785	1743	1730	1669	1701	1665	1654	1603	1526
Hillsboro-Deering HS	473	449	405	409	411	380	342	355	350	342
Hopkinton HS	329	316	315	299	268	270	271	270	273	308
John Stark Regional HS	792	750	726	720	709	688	673	668	660	673
Kearsarge Regional HS	650	598	567	546	567	566	555	541	570	555
Merrimack Valley HS	887	890	867	858	840	846	840	837	850	840
Pembroke Academy	927	888	884	856	851	832	810	799	776	810
Pittsfield Middle HS	155	160	171	163	171	158	166	167	168	166
total footprint 9-12	6595	6358	6185	6067	6002	5900	5947	5950	5914	5845
approx juniors/seniors **	3298	3179	3093	3034	3001	2950	2974	2975	2957	2923
CRTC enrollment 10/1	608	539	540	542	519	545	593	615	662	697
CRTC percentage	18.44%	16.96%	17.46%	17.87%	17.29%	18.47%	19.94%	20.67%	22.39%	23.85%

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VISUALS:

hybrid	Mo	Tu	W	Th	Fr
Bow	all students	all students	X (buses will run)	all students	all students
Concord	all remote	all remote	all remote	all remote	all remote
HD	A	A	X	B	B
Hopk	7 periods every	7 periods every	X	7 periods every	7 periods every
John Stark	X	A	B	A	B
Kear	six day cycle, hybrid, if choose CRTC, must be 100% off-site at Kearsarge				
MV	X	A	B	A	B
PA	all remote	all remote	all remote	all remote	all remote
Pitts	A	B	X	A	B

Schedules across nine schools (7 hybrid) X=remote/deep clean day



STATE OF NEW HAMPSHIRE

Career and Technical Centers and Satellites within Regions

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