



ANNUAL REPORT



2020-21

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100+ CAREER & TECHNICAL
YEARS OF **EDUCATION**
EXCELLENCE

MESSAGE FROM THE BOARD

The 2020-21 school year reshaped education and redefined the challenges typically faced by educators. When the walls of the classroom were stripped away, we watched our schools in the face of these challenges evolve, refocus and deliver the absolute best services they could to all students. CTECS school staff emerged as heroes during the COVID-19 pandemic, and will forever have our admiration and gratitude for their dedication, resilience and compassion.

As we enter a new school year, we are acutely aware that CTECS will continue to confront pandemic-related challenges. Additionally, CTECS will face a shift in leadership as Superintendent Wihbey steps down from his position to become the Superintendent of Region 17, and operationally as the district separates from the State Department of Education to become a freestanding agency in state government.

In the face of these impending organizational changes and a continued battle against COVID-19, the Board is committed to ensuring ongoing leadership and working to achieve success as a new independent agency in 2022.

As you read this report, I think you'll find there is a lot worth celebrating from 2020-21 despite its many obstacles, and we would be remiss to not acknowledge the contributions of Superintendent Wihbey as we recap the year's accomplishments.

In his 6 years of service, Superintendent Wihbey been a staunch advocate for this school system, and an ally to our business and industry partners. Among his many accomplishments are maintaining one of the highest graduation rates in the state, expanding opportunities for all learners by increasing work-based learning experiences, launching The Career Academy model, and growing the adult education program.

The Board is proud of the strides CTECS has made to ensure career and college readiness for all students, and in meeting Connecticut's growing need for a technically trained workforce – strides that would not have been possible without the efforts and collaboration of all CTECS stakeholders. This report reflects our collective efforts, and we thank you for your ongoing support.

Robert Trefry, Chairperson

Patricia Keavney, Vice-Chairperson

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MESSAGE FROM THE SUPERINTENDENT

Although the 2020-21 school year forced CTECS to shift and refocus some priorities to meet the immediate needs of students, we continued to move forward towards realizing our goals. This annual report offers evidence of CTECS' commitment to our greatest mandate: to prepare Connecticut students for life-long success in career and college, while supporting the workforce needs of Connecticut business and industry.

It goes without saying that I am proud of CTECS staff and students for their resilience over the last school year. Although the COVID-19 pandemic still affects us today, I am confident that with the lessons learned, we will emerge stronger and have more tools in our toolbelt with which to serve students. The positive impact of a technical high school education is too far reaching to offer our students anything less than our best.

To that end, over the coming school year CTECS will: remain hyper focused on addressing pandemic-related learning loss, and reacclimating students to full-time in-person learning; continue to focus on increasing credentials earned and Work-based Learning opportunities for students; and look towards program expansion in skilled-trade areas of high demand. It's critical we continue to create opportunities for current students, and extend opportunities to more of Connecticut's children and adults.

This is my final annual report as CTECS' Superintendent as I will be leaving the school district this fall. Serving this school system has been one of my greatest professional joys. CTECS is truly building the future of Connecticut for generations to come, and I feel fortunate to have played a small part in the story. Thank you for your support and collaboration over the last 6 years.

Sincerely,
Jeffrey Wihbey, Superintendent of Schools



OUR MISSION

The mission of the Connecticut Technical Education and Career System is to provide a world-class, unique and rigorous learning environment for high school students and adult learners that:

- Ensures both student academic success and career technical education mastery, as well as promotes enthusiasm for lifelong learning.
- Engages regional, state, national and international employers and industries in a vibrant collaboration to respond to current, emerging and changing global workforce needs and expectations.
- Prepares students for post-secondary education, including apprenticeships and immediate productive employment.
- Pursues and participates in global partnerships that provide CTECS students with international exposure and experience.

OUR VISION

The vision of the Connecticut Technical Education and Career System is to be the best technical education and career system in the United States.

OUR SCHOOLS

1. A.I. Prince Technical High School
Hartford

2. Bristol Technical Education Center
Bristol

3. Bullard-Havens Technical High School
Bridgeport

4. Connecticut Aero Tech School
Hartford

5. E.C. Goodwin Technical High School
New Britain

6. Eli Whitney Technical High School
Hamden

7. Ella T. Grasso Technical High School
Groton

8. Emmett O'Brien Technical High School
Ansonia

9. Harvard H. Ellis Technical High School
Danielson

10. H.C. Wilcox Technical High School
Meriden

11. Henry Abbott Technical High School
Danbury

12. Howell Cheney Technical High School
Manchester

13. J.M. Wright Technical High School
Stamford

14. Norwich Technical High School
Norwich

15. Oliver Wolcott Technical High School
Torrington

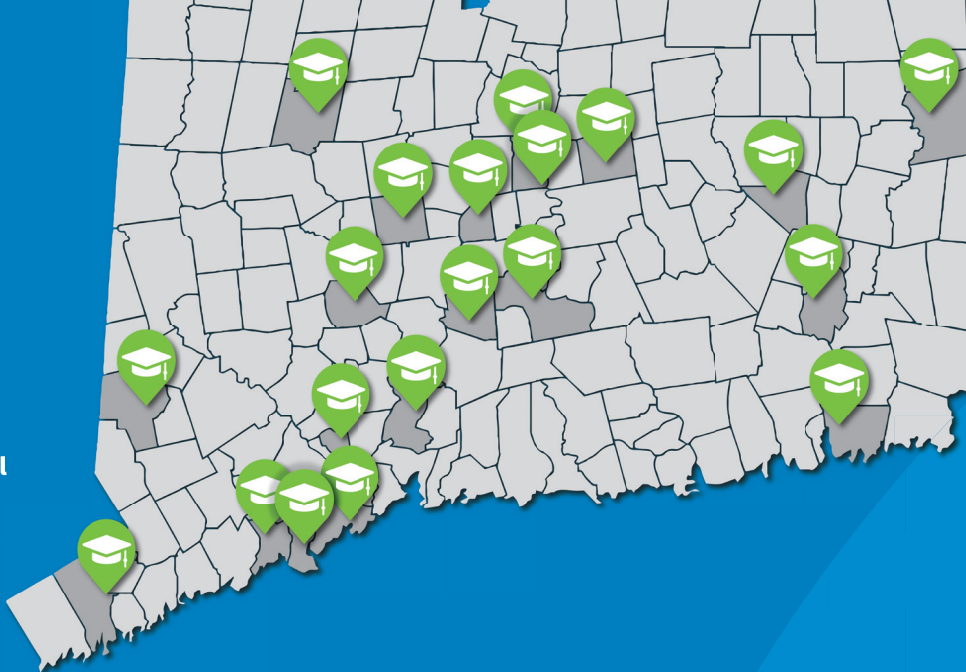
16. Platt Technical High School
Milford

17. Stratford School for Aviation
Maintenance
Stratford

18. Vinal Technical High School
Middletown

19. W.F. Kaynor Technical High School
Waterbury

20. Windham Technical High School
Willimantic



FOUNDATIONAL IMPERATIVES

The core mission of CTECS is to provide world-class career technical and academic education in preparation for careers in business and industry.

CTECS provides a healthy, safe and supportive environment in which students pursue their college and career pathways while developing leadership skills essential for their success.

CTECS strives to recruit, retain and advance students and staff of all backgrounds who share a wide range of perspectives and who contribute to the system's core mission of creating a talented and diverse workforce for the state of Connecticut.

CTECS will focus on attracting students who have an interest, affinity and aptitude for careers in business and industry.

CTECS program offerings will lead to a career in business and industry or post-secondary learning pathways in a high-demand job, which results in a high living wage.

CTECS will work closely with the Board of Regents and establish partnerships that create a clear and integrated pathway for students through post-secondary education, leading to licensure, certifications or degrees.

CTECS students will graduate with a strong academic background and the technological, problem-solving, team-building, communication and competitive skills required for success in life and careers.

CTECS will be aligned with and responsive to the needs of employers and the economic development priorities of the state through the development of corporate partnerships.

CTECS graduates will be academically prepared, so they have the option to attend college immediately after graduation or at some time in the future.

The core of CTECS education is STEM (Science, Technology, Engineering and Mathematics). All students will receive a relevant integrated education that connects science, technology, engineering and math to every area of learning as it pertains to every curriculum in all career clusters.

In order to respond to employer needs and to provide adult learning opportunities, **CTECS will develop additional career technical education programs** for committed adult students.

In order to provide learning opportunities for a wider population of high school students, **CTECS will develop opportunities**, including alternative part-time career technical education (CTE) programs for committed high school students who do not meet the current entrance requirements for traditional CTECS enrollment.

The recruitment, retention and professional development of highly talented and skilled administrators, teachers, consultants and staff is the cornerstone of student success and CTECS being able to meet its goals. Assuring this requires continuous professional learning options, including coaching, mentoring, modeling and providing adequate resources, materials and equipment.

CTECS will increase its visibility and be recognized nationally and internationally for its high-quality and innovative programs, along with its outstanding graduates. Relationships will be established locally, regionally, nationally and globally with employers, governmental agencies and other partners.

DISTRICT AT A GLANCE

20
SCHOOLS

31 TRADE
PROGRAMS

12 CAREER
CLUSTERS

166
CT TOWNS
REPRESENTED

6,787 INDUSTRY-RECOGNIZED
CREDENTIALS EARNED

11,499 **61% MALE**
39% FEMALE
TOTAL STUDENTS

97.2%
GRADUATION RATE

1,700+
STAFF & FACULTY

22 COLLEGE
PARTNERS

661 STUDENTS
PARTICIPATING IN
WORK-BASED LEARNING

600+
WORK-BASED
LEARNING PARTNERS

2,510 APPRENTICE &
EXTENSION STUDENTS

STRATEGIC GOALS



CULTURE, CLIMATE, INSTRUCTION

Cultivate and sustain safe, effective, collaborative schools for staff and students.



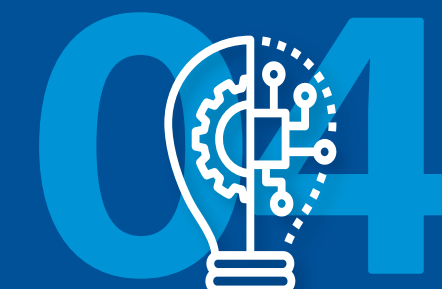
INDUSTRY ALIGNMENT & COLLABORATION

Collaborate with key regional employers to enhance and expand a coordinated statewide effort to develop curriculum, career pathways and experiential opportunities that cultivate highly-employable, workforce-ready students; respond to industry needs; and prioritize economic development.



ACCESS & OPPORTUNITIES

Partner and strengthen relationships with K-12 school districts and colleges to create clearly articulated career and technical education pathways and opportunities for a broader set of students and adult learners.



SYSTEMS OF EXCELLENCE

Redesign CTECS' operational model to facilitate flexibility, innovation and responsive education, to achieve success as a new independent agency.



HUMAN CAPITAL

Recruit, hire, develop and retain a diverse and high-quality CTECS workforce.

01 CULTURE, CLIMATE, INSTRUCTION

Cultivate and sustain safe, effective, collaborative schools for staff and students.

Seven schools (Bullard-Havens, Prince, Abbott, Emmett O'Brien, Norwich, Ellis and Cheney) have been certified as Level One under the High Reliability Schools model. Level One distinction means that schools have a safe, supportive and collaborative culture. These are the first schools in Connecticut to receive this certification.

A new youth suicide prevention policy includes efforts to connect school safety, climate, and improved efforts toward greater integration of special education students within the school community. Efforts are intentional toward building greater attachment with our students so we may be responsive to their needs.

Embarked on a 3-year cultural competency project with CT Center for School Change to ensure equitable outcomes for students of all racial and socio-economic backgrounds through the design of educational experiences that can respond to societal inequities, decrease socio-economic disparities, and close the achievement gap.

Implemented the Behavioral and Emotional Screening System (BESS), a district-wide social and emotional screening tool. This comprehensive screening will be taken by all students and used as a baseline for effective school climates, as well as deeper assessments for those students with indications of emotional needs.

Undertook a review of the math program to strengthen math delivery across schools and between classrooms. A new district-wide approach for teaching math was created where the teacher sets the pace for delivering material and is the primary provider of instruction. The revised program also includes clearer definitions of success that are more closely tied to students' post-graduation goals and careers.

New in the 2020-21 school year, breakfasts and lunches were available to all CTECS students for free, regardless of the school they attend. CTECS schools participate in the Community Eligibility Provision program, which provides access to free meals for all students, keeping them nourished and ready to learn.

COVID Response

CTECS Technology Services Team distributed over 7,000 additional devices to staff and students to improve virtual access to instruction, positioning the district for successful distance and on-premise teaching and learning.

In partnership with Columbia University, CTECS offered two workshops to parents and guardians on strategies for supporting in-person and remote learners.

Lalitha Kasturirangan, Eli Whitney Technical High School English Instructor, was awarded **UConn's Early College Experience Instructor Award for Excellence in Course Instruction.**

The College Board named Howell Cheney Technical High School a recipient of the **Female Diversity Award** resulting from the school's commitment to expanding young women's access to AP Computer Science Principles.



Meeting District Improvement Goals

Despite the pandemic, CTECS' rate of chronic absenteeism remained significantly below the average for Connecticut. Of note, Abbott Tech maintained a chronic absenteeism rate of 5%!

Thirteen technical high schools participating in the Fall 2020 SAT School Day saw an increase in the percentage of students at or above benchmark in literacy. On the PSAT9, Abbott Tech, Norwich Tech, and Wolcott Tech exceeded Connecticut's average for the percentage of students achieving at or above benchmark.

71% of students taking Advanced Algebra and Honors Algebra II met or exceed the benchmark for SAT.

Wilcox Tech Reading Teacher Alecia Walkuski made the **Renaissance National Honor Roll** by demonstrating a strong commitment towards student growth by using data to create meaningful lessons. **She is the only secondary educator in CT to earn this distinction over the last few years!**

Henry Abbott Social Studies Teacher Adrian Solis and his students contributed to the **first statewide curriculum for Black and Latino Studies**, providing Connecticut students in years to come a better understanding of the African-American, Black, Puerto Rican, and Latino contributions to United States history, society, economy, and culture.



02 INDUSTRY ALIGNMENT & COLLABORATION

Collaborate with key regional employers to enhance and expand a coordinated statewide effort to develop curriculum, career pathways and experiential opportunities that cultivate highly-employable, workforce-ready students; respond to industry needs; and prioritize economic development.



Eli Whitney Technical High School electrical students helped to install West Haven's first charging kiosk for electric cars.

CTECS is proud of the relationships that we have built with our incredible partners. With them by our side, we are able to provide our students with real-world experience that's crucial in preparing them for Connecticut's workforce needs. **The year, donations in support of CTECS programming included:**

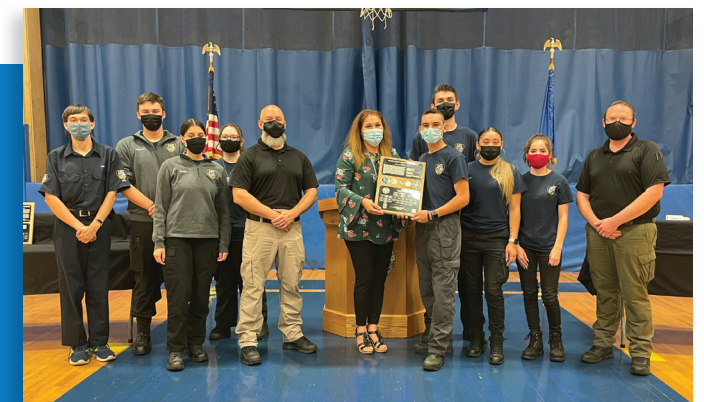
- A Swiss Style CNC machine from Swistek Machinery America. This donation helped open doors to a specialized career pathway.
- A Tsugami Swiss CNC Lathe machine from DaCruz Manufacturing.
- Eight (8) Alternate Energy Technologies DBS-80-64 solar thermal hot water systems from Green Bank.
- \$10,000 from the Eugene Atwood Foundation to purchase tools and equipment across all trades.



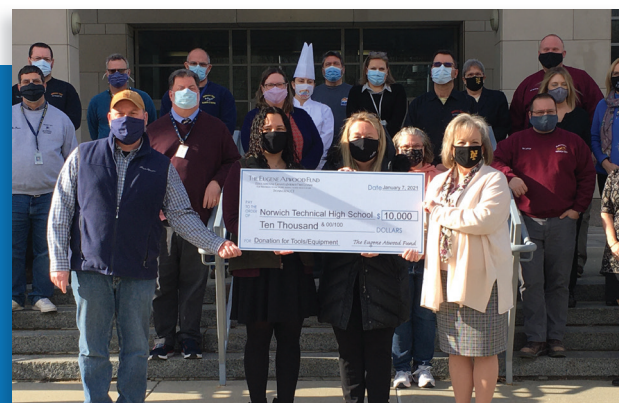
Abbott Tech Carpentry Juniors construct a three-car garage with a full loft.

Work-based Learning (WBL) and job shadowing numbers have increased despite the pandemic-related challenges. 661 students were placed in WBL as of June 2021. 6,786 industry-recognized credentials were earned.

On- and off-campus student production provided hands-on learning opportunities for students. The 2020-21 revenue for production in the Construction trades was \$61,800 with 283 submitted applications for off-campus production. These lower-than-normal numbers are a result of the Student Workforce finishing incomplete jobs carried over from spring 2020 COVID closures.



Forty-six Criminal Justice and Protective Services students were honored by the Connecticut Department of Public Health and the U.S. Department of Health and Human Services for critical support to federal responders during two deployments, which led to the activation of the school's emergency operations center. Students provided deployed responders with a daily briefing package that supplied emergency workers with information such as virus statistics, the availability of PPE, and the locations and contact information of emergency facilities.



Norwich Tech staff gathers to accept funding for tool and equipment upgrades from the Eugene Atwood Foundation.

Collaborated with Department of Labor on a \$780,000 grant for registered apprentice related-instruction training for building trades and the construction industry. This grant will provide additional opportunities for approximately 800 students. Of note, 2,510 students participated in adult apprentice education evening courses.



Murphy the Black Lab helped teach freshman students about canine body language, how to approach dogs safely, and handling/restraining techniques.

Vinal Technical High School was the first CTECS location to introduce a Veterinary Science program. The program will prepare students to enter directly into the workforce in the Veterinary Medicine field, or to further their education in a post-secondary school.

ACCESS & OPPORTUNITIES

Partner and strengthen relationships with K-12 school districts and colleges to create clearly articulated career and technical education pathways and opportunities for a broader set of students and adult learners.

The first Career Academy opened its doors at Wilcox Tech, offering Meriden Public Schools students three in-demand Career and Technical Education offerings: Culinary Arts, Facilities Carpentry, and Manufacturing. Twenty-three students participated. Students earn up to 2.5 credits per school year and industry-recognized credentials. Vinal Tech and Grasso Tech will open a Career Academy in January 2022. Of note, Governor Lamont's American Recovery Act Funds proposal included \$3.7 million to expand the Career Academy model across CT.



Lt. Gov. Susan Bysiewicz with Middletown-area politicians visited Vinal Tech to highlight Gov. Ned Lamont's proposal for the use of federal COVID-19 recovery funding to expand the Career Academy. Photo credit: Michelle Rappaport, Middletown Press

CTECS adopted a new admissions policy and process. The now virtual application process is parent driven, limits redundant handling of paper applications and data entry, and ensures all procedural safeguards for special education and section 504 students. This significant process improvement allows for applicants to be considered consistently across all technical high schools. The process proved successful, as all CTECS schools met enrollment goals for the 2021-22 school year.

With English Language (EL) students nearly doubling in fall 2022 enrollment, the district increased efforts to build the capacity of teachers to serve multilingual learners, and empower students with the academic language necessary for success by partnering with Ellevation, an EL program management solution.

Adult education evening apprentice programs developed new curriculum, and for the first time offered courses in an online format, increasing accessibility to related-instruction courses. Approximately 50% of enrolled adult students took courses online.



"The [Career Academy] program takes some time, but it's worth it. You get a good overview of manufacturing and learn how to work the machines. You'll leave with certifications and a few steps ahead of everyone else." – **Darren G., Grade 10, Career Academy Manufacturing Student**

SYSTEMS OF EXCELLENCE

Redesign CTECS operational model to facilitate flexibility, innovation and responsive education, to achieve success as a new independent agency.

On July 1, 2022, CTECS will become a separate state agency led by an Executive Director who will be appointed by the Governor, as established by Public Act 17-237, *An Act Concerning the Establishment of the Technical High Schools System as an Independent Agency*. Outcomes of this separation include greater mission clarity for CTECS and SDE; improved operational efficiencies; and greater fiscal control. Critical to CTECS' future growth is the ability for CTECS to become a freestanding agency in state government.

Twenty-nine staff positions have been identified as needed to fully separate. However, an ongoing challenge concerns the availability of legislative funding to support these new positions, and the capacity to hire in a timely manner.



*Platt Tech sustainable architecture students Katherine Patrick and Darion Artis were selected to go to the **2021 International Space Settlement Design Competition Finals at Kennedy Space Center**. Working with students from all over the Northeast, they presented proposals to terraform Mars to a panel of NASA, Boeing, and SpaceX judges.*

*Four Connecticut technical high school students brought home medals in the **2021 Skills USA National Competition**:*

- 1st Place** in Masonry, Alex Davis, Ellis Tech
- 2nd Place** in Technical Computer Applications, Dakota Kosiorek, Platt Tech
- 3rd place** in Electrical Construction Wiring, Toby Leonard, Norwich Tech
- 3rd Place** in Electronics Technology, Lucas Chaponis, Oliver Wolcott Tech

05 HUMAN CAPITAL

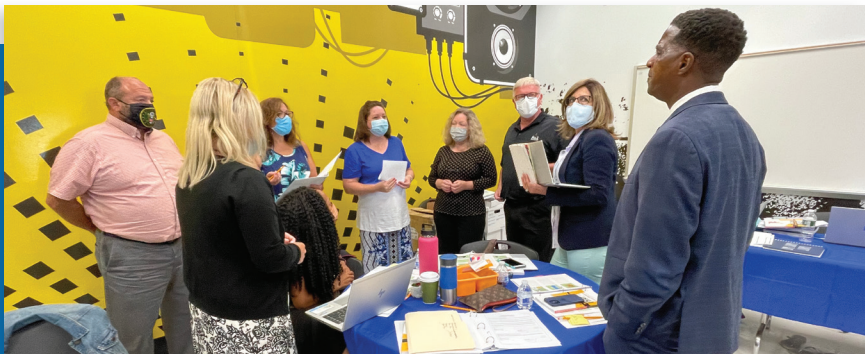
Recruit, hire, develop and retain a diverse and high-quality CTECS workforce.

Developed relationships with state university teacher preparation programs at UCONN, CCSU, SCSU and SHU to establish MOU and pipeline for student teachers/interns at CTECS.

Executed a contract with Frontline Applitrack for electronic recruitment and hiring of teachers, administrators and eventually all CTECS staff. The anticipated impact of this new software includes a deeper talent pool, streamlined recruitment and hiring process, reduced time from vacancy to hire, one-stop record collection and retention.



Norwich Technical High School's Director of School Counseling, Virginia DeLong, was named Connecticut School Counselor of the Year.



District administrators discuss issues of educational equity with presenter Dr. Anthony Muhammad during the annual leadership retreat.

Continuous and strategic professional development of CTECS' staff is the cornerstone of retaining the best talent, and ensuring student success. 2020-21 professional learning opportunities included:

- Increasing engagement, collaboration and problem solving in the classroom
- Trauma Informed Schools
- School Climate Culture and Connectedness
- Social and Emotional Learning
- Effective Teacher Supervision, Coaching and Evaluation
- Leading High Reliability Schools
- Supporting Beginning Teachers
- Data Coaching
- Collaborative Teams
- Educational Equity
- Promoting Feelings of Physical and Emotional Safety
- Building Trust
- Reducing Discipline
- Increasing SAT Scores
- Virtual Walk-throughs vs Observations
- Diversity and Inclusion
- Cultural Competency
- Researched- Based Strategies to Increase Student Engagement
- Managing Difficult Conversations with Teacher, Students and Parents
- Developing Proficiency Scales
- Leveraging Professional Learning Communities for School Improvement
- And more...

“CTECS gives us a lot of opportunities to improve our craft from the district-wide professional development, where I get to learn from other teachers, but I’ve also been given the opportunity to present at those meetings... Teachers and administrators are always willing to work together to do what is best for our students.” - **Michael Levandowski, Math Teacher, 2020 District Teacher of the Year, A.I. Prince Technical High School**

LOOKING TO THE FUTURE

2021-2022 PRIORITIES

PRIORITY 01

Address pandemic-related learning loss and reacclimate students to full-time, in-person learning by onboarding additional resources, such as reading, math and behavioral support specialists; and prioritizing social and emotional health.

Ensure equitable access and opportunities, regardless of race, gender, or socio-economic background for all current and prospective CTECS students through continuous evaluation of practices, reflection on outcomes and ongoing professional learning.

PRIORITY 02

PRIORITY 03

Continue to increase participation in Work-based Learning, job shadowing and internships, and increase earned industry-recognized credentials, giving students opportunities for real-world work experience that will prepare them for a career immediately after graduation.

Align acquisition of math skills with students' career-area aspirations.

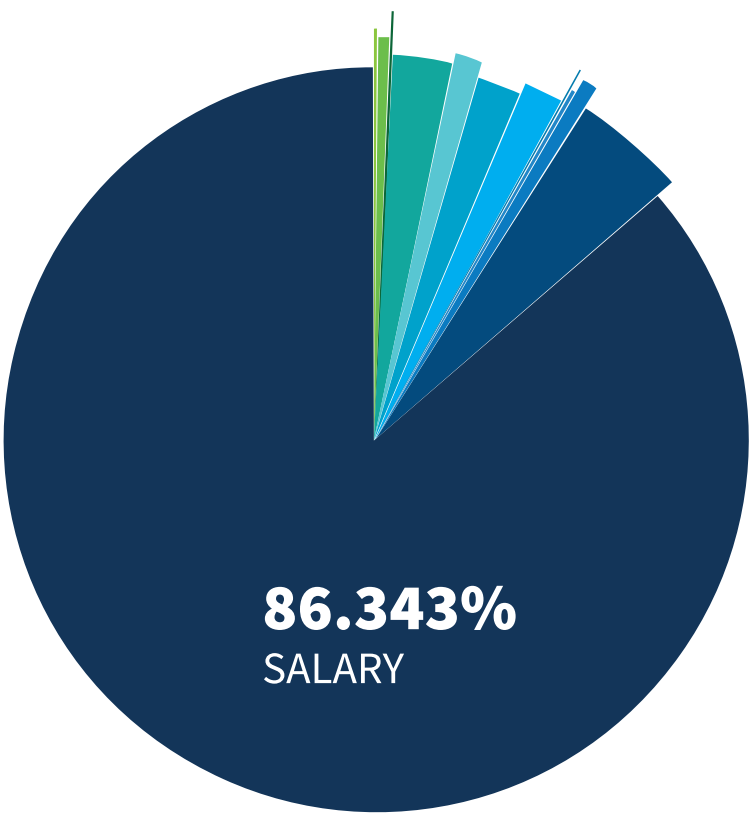
PRIORITY 04

PRIORITY 05

Expand in-demand Career and Technical Education programs in response to Connecticut's need for skilled labor; specifically, in the areas of manufacturing, information technology and health care.

FINANCIAL REPORT

2020-2021 TOTAL OPERATING BUDGET = \$160,625,475



Grant funding was used strategically to focus on high-quality programming in support of CTECS goals, including:

- Formation of equity teams
- Extended day programming
- Cultural competency training
- Level One certification for High Reliability Schools
- Special education learning strategies for teachers, students, and administrators
- Proficiency scales training
- Suicide prevention & crisis teams
- Enrichment programming at Title I schools
- Summer school credit recovery

0.121%
ADVERTISING & MARKETING

0.461%
FEES & PERMITS

0.078%
GRANT SALARIES & FRINGE

2.598%
PREMISES REPAIR & MAINTENANCE

1.184%
PROFESSIONAL SERVICES

1.868%
PUBLICATIONS, SUBSCRIPTIONS, DUES

0.073%
STUDENT AID

1.685%
SUPPLIES

0.138%
TECHNOLOGY EQUIPMENT, PROPERTY & SOFTWARE

0.605%
TRANSPORTATION & TRAVEL

4.845%
UTILITIES



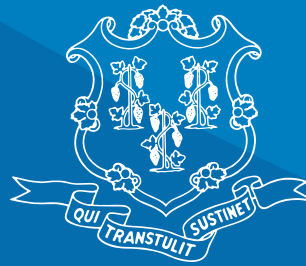
WWW.CTTECH.ORG

NEASC (NEW ENGLAND ASSOCIATION OF SCHOOLS AND COLLEGES) ACCREDITED

The CTECS is committed to a policy of affirmative action/equal opportunity for all qualified persons and equal access to Boy Scouts of America and other designated youth groups. The CTECS does not discriminate in any employment practice, education program, or educational activity on the basis of age, ancestry, color, civil air patrol status, criminal record (in state employment and licensing), gender identity or expression, genetic information, intellectual disability, learning disability, marital status, mental disability (past or present), national origin, physical disability (including blindness), race, religious creed, retaliation for previously opposed discrimination or coercion, sex (pregnancy or sexual harassment), sexual orientation, veteran status or workplace hazards to reproductive systems, unless there is a bona fide occupational qualification excluding persons in any of the aforementioned protected classes.



CONNECTICUT TECHNICAL EDUCATION AND CAREER SYSTEM



CTECS is established and maintained by the Connecticut State Board of Education and advised by the CTECS Board whose chairperson is appointed by the Governor.

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COMMISSIONER OF EDUCATION

Charlene M. Russell-Tucker

STATE BOARD OF EDUCATION

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Terrence Cheng, *Ex Officio*

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