TOMORROW’S FRAMEWORK

CTHSS STRATEGIC PLAN ANNUAL REPORT
Dr. Nivea L. Torres, Superintendent of Schools
November 16, 2015
1. Prince Tech
2. Bristol TEC
3. Bullard-Havens Tech
4. CT Aero Tech School for Aviation Maintenance Technicians
5. Goodwin Tech
6. Whitney Tech
7. Grasso Tech
8. O'Brien Tech
9. Ellis Tech
10. Wilcox Tech
11. Abbott Tech
12. Cheney Tech
13. Wright Tech
14. Norwich Tech
15. Wolcott Tech
16. Platt Tech
17. Stratford School for Aviation Maintenance Technicians
18. Vinal Tech
19. Kaynor Tech
20. Windham Tech
Projected Annual Job Openings

OCCUPATIONS REQUIRING POST-SECONDARY NON-DEGREE AWARD

PROJECTED WITH THE LARGEST NET ANNUAL OPENINGS FROM 2012-2022

Change in Jobs

CONNECTICUT INDUSTRY SECTOR EMPLOYMENT GROWTH
SEPTEMBER 2014 TO SEPTEMBER 2015

* Data from CTDOL Annual VOTECH Report
ARCHITECTURE AND CONSTRUCTION
- Sustainable Architecture
- Carpentry
- Electrical
- Facilities Management
- Heating, Ventilation and Air Conditioning (HVAC)
- Masonry
- Plumbing and Heating
- Plumbing, Heating and Cooling

AGRICULTURE, FOOD AND NATURAL RESOURCES
- Bioscience and Environmental Technology

SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM)
- Pre-Electrical Engineering and Applied Electronics Technology

MARKETING, SALES AND SERVICE
- Marketing, Management and Entrepreneurship

HUMAN SERVICES
- Early Care and Education
- Hairdressing and Cosmetology

INFORMATION TECHNOLOGY
- Electronics Technology
- Graphics Technology
- Information Systems Technology

ARTS, AUDIO/VIDEO TECHNOLOGY AND COMMUNICATIONS
- Digital Media
- Sound Production Technology

HEALTH SCIENCE
- Health Technology
- Biotechnology

TRANSPORTATION, DISTRIBUTION AND LOGISTICS
- Automotive Collision, Repair and Refinishing
- Automotive Technology
- Diesel and Heavy-Duty Equipment Repair

HOSPITALITY AND TOURISM
- Culinary Arts
- Tourism, Hospitality and Guest Services Management

MANUFACTURING
- Automated Manufacturing Technology
- Mechanical Design and Engineering Technology
- Mechatronics
- Precision Machining Technology
- Welding and Metal Fabrication

CONNECTICUT TECHNICAL HIGH SCHOOL SYSTEM
CAREER CLUSTERS
GOAL 1:

Partner with business and industry to develop career technical education programs that provide CTHSS students with the skills and work habits to be successful in a dynamic 21st-century work environment.
GOAL 1: Accomplishments

Trade Technology Advisory Committee

- Membership has increased by 18% and included Business and Industry representatives during the 2014-15 school year.
- The CTHSS has 206 active TTACs representing 33 Career Pathways.
- CTHSS production work has increased by 5% totaling $880,000.
- Expanded Career and Technical Education programs in response to current workforce needs.

Skills Connect Employability Skills Assessment to be administered to all twelfth-grade students to determine workplace readiness.
“Coming together is a beginning; keeping together is progress; working together is success.”

– Henry Ford
EASTERN CT MANUFACTURING PIPELINE INITIATIVE
SEPTEMBER 2014 TO SEPTEMBER 2015

FIGURE 1. EASTERN CT MANUFACTURING PIPELINE INITIATIVE LOGIC MODEL

SITUATION
- Electric Boat’s (EB) Groton, CT facility needs to hire 520 workers per year for several years.
- No short-term training programs exist to prepare adult workers for careers at EB.

INPUTS
Long-term regional partnership – workforce, education/training, industry
- 4 regional American Job Centers (AJCs) (12,000 customers annually)
- Community College (CC) Advanced Mfg. Centers ($18 million State + $15 million USDOL funds)
- Technical High School (THS) renovated mfg. labs ($10 million State funds)
- System-wide MOU between CCs + THS for use of THS mfg. labs
- Federal Investing in Manufacturing Communities Partnership designation (shipbuilding focus)

KEY COMPONENTS
5-Stage Program:
1) Recruit & Assess
2) Basic Skills & Work Readiness Training
3) Custom Occup. Training
4) Supportive Services
5) On-the-Job Training

OUTCOMES
SHORT-TERM
- 400 participants enter employment (350 at EB)
- EB hiring needs met
- Increased collaboration between industry and AJCs

LONG-TERM
- Multiplier effect of mfg. jobs (1.56) increases regional employment + economic impact
- EB’s long-term future in CT assured
- U.S. Navy continues to rely on EB for submarines
- National replication of customized training model

Stage 1:
- 1,350 receive assessment
- EB online application
- Information session

Stage 2:
- 130 complete job readiness program

Stage 3:
- 450 enroll in customized training
- 425 complete customized training program/earn certificate

Stage 4:
- 450 receive support services
- 450 receive case management

Stage 5:
- 350 receive on-the-job training at EB

Evaluation & Dissemination:
- Evaluation of program outcomes
- National dissemination of customized training model
ALIGNMENT BETWEEN K-12, POST-SECONDARY AND ADULT PROGRAMS

GOAL 2:

Create an alignment between K-12, post-secondary and Adult programs to provide a continuum of educational services resulting in readiness for career and college.
GOAL 2.4: Refine the District’s Admissions Policy

In May of 2015, the CTHSS entered into a voluntary agreement with the Office of Civil Rights (OCR) to monitor the system’s admissions and applications processes.

Systemic actions taken to create a more equitable admissions process:

• Posting a detailed description of the application process on our website.

• Beginning the application process timeline earlier and holding student planning meetings before the end of the student’s 8th grade school year whenever possible.

• Reinforcing with CTHSS staff the necessary steps to ensure that each incoming class of students is representative of the surrounding community.

• Developing jointly with SDE a comparison document which explains key differences between the CTHSS and a traditional high school.
GOAL 2.1C

Establish Career and Technical Education (CTE) programs for students who are not enrolled in the comprehensive four-year CTHSS program through a “Pre-Technology” after-school program.

**Bullard-Havens**
- 2015-16
- Carpentry
- Culinary Arts
- Manufacturing
- Masonry

**E.C. Goodwin**
- 2015-16
- Carpentry
- Culinary Arts
- Manufacturing

**A.I. Prince**
- Adults Evenings
  - 2013-14 (cont.)
  - 2nd Semester
    - Carpentry
    - Manufacturing
    - Masonry
    - Weatherization
- High School
  - After-school
  - 2015-16
  - Under Development

**E.C. Goodwin**
- 2015-16
- Adults Evenings
  - 2013-14
    - 2nd Semester
      - Information Systems
      - Manufacturing
      - Weatherization
- 2014-15
  - Manufacturing
  - Masonry
  - Weatherization
Establish Career and Technical Education (CTE) programs for students who are not enrolled in the comprehensive four-year CTHSS program through a “Pre-Technology” after-school program.

**Eli Whitney**
2014-15
Carpentry
Manufacturing
Plumbing

2015-16
Carpentry
Culinary Arts
Manufacturing
Plumbing

**Wolcott**
*High School After-school*
2015-16
Manufacturing

*Funded by Torrington BOE & Torrington Chamber of Commerce*
*CTHSS providing in-kind: security, equipment & supplies*

**W.F. Kaynor**
*High School After-school*
2015-16
*Under Development*
A total of 5,307* apprentices in Connecticut, of which:

- 1,786 apprentices are in the Electrical career path.
- 1,152 apprentices are in the Heating/Cooling and Sheet Metal career path.
- 723 apprentices are in the Plumbing/Pipefitting career path.
- 158 apprentices are in the Manufacturing career path.
- The remaining 1,488 apprentices are divided among the Carpentry, Masonry, and Laborer career areas.

*As of 10-24-15
Goal 2.3: Expand CTHSS adult CTE programs

Aligning with the state’s workforce needs:

- Over 2,200 apprenticeship students enrolled for the 2014-15 school year,
- Enrollment numbers for the 2015-16 school year are looking to surpass last year’s numbers.
  - 27% of the Connecticut apprentices come from the CTHSS 9-12 program.
  - 42% of Connecticut apprentices come from the CTHSS Evening Apprenticeship-related Instruction Program.
  - That’s a total of 69% of apprentices in Connecticut coming from the CTHSS!

The CTHSS offers Apprenticeship-related Instruction Training at six convenient locations across the state!
Educational Compact between the CTHSS and the BOR

• Share space, equipment, material, and instructors.

• Allow technical high school students to earn college credit from the regional community-technical college.

• Developed a memorandum of agreement through the Connecticut Advanced Manufacturing Initiative (CAMI) utilizing the CTHSS precision machining labs to expand programming at the Community College Advanced Manufacturing Centers and Manufacturing programs.
Naugatuck Valley Community College (NVCC)
- Abbott Tech – Satellite site for NVCC’s Advanced Manufacturing certificate program
- Kaynor Tech – NVCC incumbent worker training; QA & CNC basics

Quinebaug Valley Community College (QVCC)
- Ellis Tech – QVCC’s Advanced Manufacturing certificate program

Housatonic Community College (HCC)
- Platt Tech – HCC’s incumbent worker training; CNC programming

Middlesex Community College (MXCC)
- Wilcox Tech – MXCC’s Manufacturing certificate program

Manchester Community College (MCC)
- Cheney Tech – MCC’s Manufacturing certificate program; manual & CNC machining
Manufacturing Programs

1. Prince Tech
2. Bristol TEC
3. Goodwin Tech
4. Whitney Tech
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6. O’Brien Tech
7. Ellis Tech
8. Wilcox Tech
9. Abbott Tech
10. Cheney Tech
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Manufacturing Partnerships with Community Colleges

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GOAL 3:

Transform the CTHSS with Innovative Program Designs that are responding to Connecticut’s workforce needs, thus positioning the system as a leading force in career technical education.
GOAL 3: Accomplishments

CTHSS is represented at state and national organizations to increase awareness and recognition including:

- SkillsUSA

Summer 2015: We had 16 events in the top 10 and 14 in the top 20. According to the national statistics the students were already considered to be in the top 2% in the nation before entering the national event.

- Two students earned a gold medal, Brett Hawran & Jacob Hawran from Prince, placed 1st in Audio Radio Production.
- One student earned a silver medal, Adrian Zygadlo from Platt, placed 2nd in Technical Computer Application.
- National Association of State Directors of Career Technical Education.
- National Career Pathways Network.
- Association of Career and Technical Education.
- Eastern State Apprenticeships Council.
GOAL 3: Accomplishments

- The Connecticut Technical High School System, in partnership with Energize Connecticut, has developed the nation’s first green construction learning laboratories for CTE high school students.
- The E-House initiative is administered by Connecticut Light & Power and The United Illuminating Company.
- E-House construction is in progress or complete at 12 schools.
Career/Technical Education
Program Expansion Plan

2014-15
• HEALTH TECH
  Henry Abbott Technical High School
• INFORMATION SYSTEMS
  E.C. Goodwin Technical High School

2015-16
• BIO-ENVIRONMENTAL
  A.I. Prince Technical High School
• BIO-TECHNOLOGY
  Norwich Technical High School
• INFORMATION SYSTEMS
  W.F. Kaynor Technical High School and Eli Whitney Technical High School
• MANUFACTURING
  Bullard-Havens Technical High School
• MECHATRONICS
  E.C. Goodwin Technical High School
• WELDING
  Ella T. Grasso Technical High School

2016-17
• HEALTH TECH
  Bullard-Havens Technical High School and A.I. Prince Technical High School
GOAL 3.2: District-wide Cohesive Marketing and Recruitment Efforts
GOAL 3.2: The pipeline for workforce development in CT
“Life-ready students are prepared to pursue successful careers and lead fulfilling lives as productive citizens… They are proficient with a wide range of additional skills needed to keep learning and adapt through their lives.”

– Conley, 2014
Work Ready

Meets basic expectations regarding workplace behavior and demeanor.

Indicator of Achievement:
Number of students participating in a Work-based Learning (WBL) program.

CTHSS WORK-BASED LEARNING ENROLLMENT (SECONDARY AND ADULTS)

- 2013-14: 457
- 2014-15: 651
Possesses specific knowledge necessary to begin an entry-level position.

Indicator of Achievement:
Number of students who have obtained industry-recognized portable, stackable credentials.

Additionally, over 1,300 students in grades 9-11 have earned credentials.
Possesses knowledge and learning skills necessary to succeed in a certificate program.

Indicator of Achievement: Number of graduates completing dual enrollment courses at community colleges or state universities.
FOUR-YEAR GRADUATION RATES

CTHSS COMPARED TO STATE AVERAGES – RACE/ETHNICITY

College Ready

- All Students
- Hispanic
- Non-Hispanic
- Indian or Alaska Native
- Asian
- Black
- White
- Two or More Races

CTHSS 2013
CTHSS 2014
STATE 2013
STATE 2014
FOUR-YEAR GRADUATION RATES

CTHSS COMPARED TO STATE AVERAGES – ADDITIONAL DEMOGRAPHICS

- Male
- Female
- ELL
- Non-ELL
- Eligible For Free Lunch
- Eligible For Reduced Lunch
- Not Eligible For Lunch
- Special Education
- Non-Special Education

Graph shows graduation rates for different demographics and years, comparing CTHSS and State averages.