

# CTE Dual Enrollment: A GAME CHANGER IN RURAL TENNESSEE

By Candi Norwood

**E**ducators are waging war on unemployment and poverty in rural Tennessee through dual enrollment programs. There are approximately 50,000 K–12 students across 16 counties in the Upper Cumberland region of Tennessee. With much of the region considered rural, employment opportunities for students are a regular topic of discussion among educators. To prepare students for the workforce in small-town economies, school administrators are partnering with business and community leaders to create dual enrollment opportunities for Upper Cumberland students.

Along with them, local career and technical education (CTE) directors carefully consider labor market data for their districts when selecting programs of study.

In order to provide students with pathways to postsecondary education, high schools are taking full advantage of high-tech dual enrollment programs offered by area community and technical colleges.

Just in time to help with this need, the CTE division of the Tennessee Department of Education has revised its programs of study to include more rigorous math and literacy integration. The new standards are a fusion of general education concepts and CTE skills, allowing for a more seamless transition into the postsecondary arena.

## Partnerships With Industry

According to Tennessee labor market data, the majority of employment opportunities in the Upper Cumberland are based in manufacturing. Recognizing

this trend, Warren County now offers a dual enrollment mechatronics program with Motlow State Community College. Mechatronics is essentially a marriage of mechanics, electronics, engineering and computing. The program includes high-level mathematics and skills-based work with training equipment.

Tracy Risinger, who serves as the CTE director for Warren County and who established the mechatronics dual enrollment program with Motlow State at the request of local manufacturing businesses, explained one of the challenges in implementing the program:

“Some public relations had to be done in educating the public about mechatronics. Parents heard ‘manufacturing’ and were skeptical about what we wanted students to do in factories. Our students are being trained in highly technical skills which can, in turn, earn well above average pay.”

Warren County High School (WCHS) program instructor, Melissa Paz, is optimistic about what this program can do. “These kids can go out and have a career for life. They are going to be financially stable.”

Indeed, they can be. The average annual wage across all industries in the Upper Cumberland is \$31,165. A student who earns a Level 1 certificate at WCHS can graduate and immediately earn a \$35,000–\$45,000 salary with a local employer. If the student chooses to continue his or her education at Motlow, he or she can earn a Level 2 certificate, bumping up the pay to \$60,000. The student can then choose to take advantage of a bachelor’s degree at Middle Tennessee State University and earn \$60,000 or more a year—almost double the annual wage for the area. See Table 1.

According to the U.S. Census Bureau, an average of 16.5 percent of Tennesseans live in poverty. In Warren County, this number jumps to 21.1 percent. The dual enrollment options at WCHS give students the chance to pull themselves above the poverty line. At the high school level, students can take their future into their own hands and prepare a plan to be

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educated and gainfully employed within a couple of years.

WCHS also offers a Certified Nursing Assistant (CNA) program, and it hopes to become a testing site this year. Students complete a Therapeutic Nursing program of study and then are given the option to sit for the CNA examination.

The CNA program requires 100 hours of theory and clinical training. Students use the first semester to complete the classroom training hours. The second semester is spent at a local nursing home. Because it is not possible to achieve the number of hours needed during the normal school day, students work their duty stations from 6:55 a.m.–8:15 a.m., as well as commit to one eight-hour Saturday shift.

The level of commitment to the program becomes evident when you take into account that these high school students are beginning their studies a full hour earlier than other WCHS students. Completing this program and receiving the training boosts their chances for a career, as well as the option to work while attending school to achieve an advanced nursing degree.

### Meeting the Demand

According to Jobs4tn.gov, health care workers are in the top 10 fields in demand in Clay County, also part of the Upper Cumberland region. With classes offered in nursing education, forensics and medical therapeutics, 66 of the approximately 260 students (25 percent) at Clay County High School (CCHS) are participating in dual enrollment classes in the Health Science program through the Tennessee College of Applied Technology (TCAT)-Livingston. This percentage speaks to the student demand for programs that will lead to jobs, while allowing the option to stay close to family and friends.

Paula Boone, administrator of Celina

Health and Rehabilitation Center, agrees that dual enrollment classes create a natural pool of applicants for employment. “In my opinion, the Health Science program is invaluable to our organization, as well as our community. This class provides students the opportunity to obtain a certification that they can begin to use immediately upon graduation from high school. Certified nursing assistants are expected to be one of the health-care industry’s fastest-growing jobs in years to come.”

Participation in the program is paying off for graduates, as well. Boone has hired 26 CCHS students who have completed the Health Science program.

CCHS also offers dual credit programs in business and health science with Volunteer State Community College. In 2014, 46 percent of students had earned at least three hours of college credit through both dual credit and dual enrollment programs. This is up from 36 percent the year before.

The dual credit programs increase in popularity as more high school students graduate and go on to gainful employment. In a small community where few jobs exist, it quickly becomes apparent which high school offerings lead to work. This leads to significant growth in the program, a trend which is expected to continue.

### Tennessee College of Applied Technology

To the north in Overton County, students at Livingston Academy are bussed across the street to TCAT-Livingston. There, Myra West welcomes students studying health care, automotive technology, construction, cosmetology, welding and machine tools. TCAT offers online courses, as well as works with administrators to send instructors to high schools in the Upper Cumberland to meet the needs

School	Program
Warren County High School	<b>Mechatronics Program of Study</b> <ul style="list-style-type: none"> <li>• 9th Grade ⇒ Computer Aided Drafting I</li> <li>• 10th Grade ⇒ Computer Aided Drafting II</li> <li>• 11th Grade ⇒ Mechatronics I</li> </ul> MECH 1100 Electrical Components MECH 1200 Mechanical Components and Electric Motors <ul style="list-style-type: none"> <li>• 12th Grade ⇒ Mechatronics II</li> </ul> MECH 1300 Electro-Pneumatic and Hydraulic Control Circuits MECH 1500 Digital Fundamentals and PLCs <ul style="list-style-type: none"> <li>➤ Siemens Level 1 Certification Exam               <ul style="list-style-type: none"> <li>• Certified Siemens Mechantronics System Assistant</li> <li>• Level 1 Certification Salary \$35,000–\$45,000</li> </ul> </li> </ul>
Motlow State Community College	<ul style="list-style-type: none"> <li>• Associate of Applied Science in Mechatronics Technology</li> <li>• Level 2 Certification Exam Certified Siemens Mechatronics System Associate</li> <li>• Level 2 Certification Salary \$45,000–\$60,000</li> </ul>
Middle Tennessee State University	<ul style="list-style-type: none"> <li>• Bachelor of Science in Mechatronics Engineering</li> <li>• Level 3 Siemens International Mechatronics Certification</li> <li>• Level 3 Certification Salary \$60,000+</li> </ul>

**Table 1.** Warren County Mechatronics Dual Enrollment and Continuing Education Plan

of students. Dual enrollment at TCAT-Livingston for fall 2014 totaled 292 high school students in Jackson, Clay, White and Overton Counties. “Sometimes, there are more opportunities for students in larger counties. Students in rural areas jump on the chance to participate in these programs,” said West.

### Pathways Tennessee

Tennessee became a member of the multi-state consortium Pathways to Prosperity Network in December 2012. The objec-

tive of this consortium is to direct more high school students toward a postsecondary credential based on local/regional labor market demands. Currently, four of the nine Tennessee regions (Upper Cumberland, Southeast, Northwest and Southwest) are leading efforts under Pathways Tennessee, a statewide initiative.

The Highlands Tennessee, a committee dedicated to growing the relationship between education and economic development, is partnering with Pathways Tennessee of Upper Cumberland to develop

strong education career pathways for students, targeting Upper Cumberland’s industry strengths.

Presently, representation from four counties (Putnam, Jackson, Overton and White) makes up the core of the Highlands group. Together, leaders from various industries, K–12, postsecondary education and chambers of commerce collaborate on the implementation of robust academic/career pathways that lead to meaningful employment and economic stability for the Upper Cumberland.

“Participation in Pathways Tennessee opens the door to partnerships between secondary, postsecondary and industry. This time allows us to meet and brainstorm careers that will need employees in the near future,” explained West.

Lillian Hartgrove, vice president of workforce development and education for Highlands Tennessee, agrees. “Every dual enrollment opportunity for students in career and technical education is another opportunity to develop a workforce that will be ready for the job market in the region, state and country. Our school districts are expanding dual enrollment in career and technical education due to the increasing demand by area employers in advanced manufacturing, health science and information technology.”

Hartgrove believes dual enrollment is a critical factor in bringing jobs to the Upper Cumberland. “It was apparent in my first year with the local chamber of commerce how important a well-trained and highly skilled workforce was and still is to expanding existing industry and attracting new industry,” she said.

### Fear Factor

Many of the students who are participating in these programs are the first in their families to enroll in postsecondary education. The ability to attempt these classes while still in high school provides the stability that may not be present after graduation.

Sandra Crouch, director of White County Schools and a member of Pathways Tennessee in the Upper Cumberland, believes this can help students make

a decision to continue their education after they receive their high school diploma.

“I believe that one of the greatest advantages of CTE dual enrollment is that it takes away the ‘fear factor.’ Leaving the familiar environment of high school for the unknowns of postsecondary can easily cause students to give up on their plans,” she said. “Sometimes, it is just easier to get a job rather than deal with the uncertain situations associated with a new school, new instructors and unfamiliar peers. Dual enrollment equips students with the confidence needed to know they can be successful.”

Students taking these courses are finding that the academic demands in postsecondary courses require more effort than they may have put forth in their high school courses. The opportunity to learn this difference while still in high school is beneficial because it allows them to experience the coursework from the safety of familiar surroundings. They still have access to their teachers who can assist them in fine-tuning their study skills as they tackle advanced math and literacy in their CTE dual enrollment courses.

### Looking Forward

Gov. Bill Haslam’s “Drive to 55” initiative brings increased awareness to the fact that while 32 percent of working Tennesseans have a postsecondary degree or certificate, 55 percent will need one in order to be gainfully employed by the year 2025. Offering two years of free education at the postsecondary level, Tennessee Promise allows rural students, who might not otherwise be able to pay for an associate degree or credential, a chance to learn a profitable, employable skill. It also makes Tennessee the first state in the nation to offer its citizenry free K–14 education.

This fact has led many students to register for the program. As of the November 1, 2014, deadline, 56,571 Tennessee seniors (90 percent) had signed up for the program. Students are looking at their options and realizing rural does not mean underemployed.

Additionally, more school administrators are exploring and implementing

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industry-certification programs so that students may leave high school with a credential or the foundation to obtain one, thus giving students another option to be gainfully employed in their home counties.

Tennessee is committed to providing real academic/career pathways for its students, leading to meaningful employment, and dual enrollment is helping to answer the call for a skilled workforce in the 21st century. Through dual enrollment, students experience success at the postsecondary level while in high school, which encourages them to continue their education after graduation. For the Up-

per Cumberland region, dual enrollment has been a game changer by providing a growing educated workforce for its numerous rural areas. **Tech**

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### EXPLORE MORE

For more information about Pathways Tennessee, please visit <http://www.tn.gov/education/cte/PathwaysTN.shtml>.

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