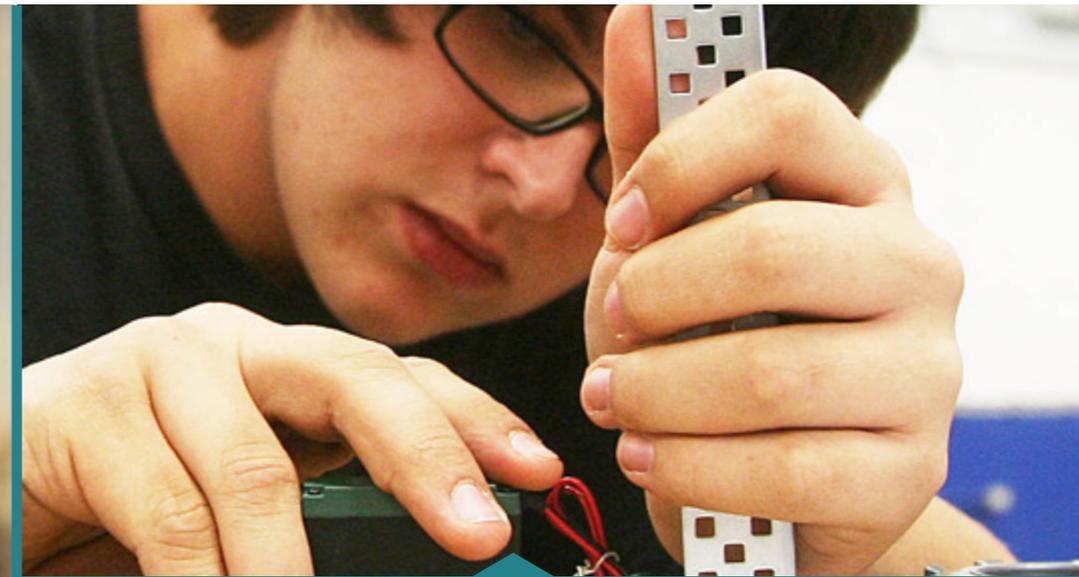




## Central Kentucky Welding Classic



Carter County Career Technical Center: filling the needs of students and the community



Pulaski County Area Technology Center Natural Gas Pipeline Technician Program



NARA Expands Program to Include Locust Trace Students

### Also in this issue:

- Associate Commissioner's Notes & Upcoming Events
  - KCTCS and OCTE: Building Partnerships
    - KOSSA Testing goes Online
- Growing through Community Partnerships in Green Co.
  - Budgetary Talking Points

# Associate Commissioner's Notes

Greetings, CTE Champions!

There has never been a better time to be involved in Career and Technical Education (CTE) as a teacher, administrator or student. This realization is not only from a statewide prospective but nationally, as well. Educational entities are realizing the value of CTE and the workforce is demanding highly skilled employees to fill an ever growing need.

In Kentucky, Senate Bill 1 set in motion an awareness of how important CTE is by establishing new testing guidelines including new accountability measures to ensure students meet College and Career Readiness goals.

Soon after passage of the landmark legislation, state educational leaders began the process of bringing back together all secondary CTE administrative systems to form a more unified office to oversee all CTE endeavors in Kentucky.

Today, Kentucky has one of the most comprehensive secondary and postsecondary CTE sectors of any state in the country.

But getting there has not been easy and staying there won't happen without continued support from educational, business and industry, and legislative partners.

While the CTE sector has endured the continued budget cuts over the last two biennium budget cycles, it has incurred collateral damage by way of unfilled teaching positions, unanswered request for new schools and the inability to offer programs for all students wishing to take CTE classes.

Innovative approaches have been taken by many ATC and CTC principals and directors to fulfill their local area needs and business and industry partners have helped, as well. But as the need for more students with CTE backgrounds grows, the lack of adequate funds cannot be ignored.

As today's business and industry sector demands more highly skilled employees, it is imperative secondary CTE entities continue to supply the foundational learning to set students on the proper course for post-secondary education and workforce opportunities, not only for themselves but for the very communities in which they live.

I encourage you all to keep up the good work as we move forward and as always, strive to reach higher with CTE.

Sincerely,  
Dale Winkler  
Associate Commissioner –  
Office of Career and Technical Education



## Upcoming CTE Events

### February

February 4 - 6, 2014

National Automotive Technical Education Foundation (NATEF) Medium/Heavy Duty Truck Task List review workshop in Leesburg, Virginia.

### March

March 3, 2014

Region 1 FBLA Leadership Conference  
Murray state university, Murray, Ky

March 13, 2014

Region 2 FBLA Leadership Conference  
Kentucky Wesleyan College, Owensboro, Ky

March 17, 2014

Region 3 FBLA Leadership Conference  
Jefferson Community and Technical College-Southwest Campus, Louisville, Ky

March 6, 2014

Region 4 FBLA Leadership Conference  
Northern Kentucky University, Highlands Heights, Ky

March 3, 2014

Region 5 FBLA Leadership Conference  
Morehead State University, Morehead, Ky

March 7, 2014

Region 6 FBLA Leadership Conference  
Eastern Kentucky University, Richmond, Ky

March 13-14, 2014

HOSA Future Health Professionals  
Crowne Plaza Louisville Airport Expo Center

March 19-21, 2014

KY FCCLA 69th Annual Leadership Conference  
Galt House in Louisville

Events to be listed in the Summer CTE Newsletter calendar should be submitted no later than March 1, 2014. See below for contact information.

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All photos and stories by Tim Thornberry unless noted otherwise.

# Central Kentucky Welding Classic



*The welding competition involves different types of welding methods including the use of various tools. Here a participant puts the final touches on his competition piece with an acetylene torch.*

In what has become one of the most-anticipated events of its kind, the annual Central Kentucky Welding Classic (CKWC) once again brought students from across the state to participate in one of the top secondary education welding competitions in the region. Chris King, welding instructor at the Hughes Jones Harrodsburg Area Technology Center (ATC), hosts the tournament each November. He said some of the best student welders in the state compete for scholarships and prizes.

This year those scholarships and prizes amounted to more than \$50,000 with the top winner getting a full scholarship to the Tulsa Welding School (TWS), one of the premiere postsecondary welding institutions in the country and a five-time sponsor of the CKWC.

For nearly a decade students have been taking advantage of the scholarship opportunities offered at this event, King said.

“We started with three schools and this year there were 14 that participated,” he said. “It is one



*Harrodsburg ARC Welding Instructor Chris King gave instructions to the welding competition participants prior to the start of the event.*



*The U.S. Department of Labor estimates that welding jobs will increase by 15 percent in the next 10 years and that properly skilled welders with up-to-date training should have the best job prospects. The CKWC brings Kentucky's best secondary welders together for the annual competition.*

of the largest welding competitions in the state, and they are coming from all parts of Kentucky."

King added that participating students are likely to move into the field after graduation, and federal statistics show there will be available jobs in the sector.

The U.S. Department of Labor estimates that welding jobs will increase by 15 percent in the next 10 years and that properly skilled welders with up-to-date training should have the best job prospects.

Those prospects are even greater in certain areas. King said the good thing about the field is the availability of employment, with jobs that can pay in excess of \$35 per hour for those with quality skills.



*Certified Welding Inspectors served as judges for the Central Kentucky Welding Classic, Pictured from left: Barry Jackson, retired welding instructor from Barren Co. ATC and owner of Jackson Welding and inspection in Glasgow; Mason Wilson, owner of Wilson Welding, Fabrication and Inspection in Nicholville; and John Westerfield, Custom Tool and Manufacturing in Lawrenceburg.*

Getting a head start at the high school level is important for those looking to continue their education in the sector, said King, who gets his students ready for their postsecondary studies, while an institute like TWS gets them industry ready.

Garrett Milby, the admissions representative with TWS in Jacksonville, Fla., was on hand to present students with their scholarship certificates.

He said the school also helps to secure materials for the event in addition to providing scholarships ranging from a full ride for the top welder to \$500 for every student participating in the tournament.

"We have a rich tradition and have been in Tulsa, Okla., for over 60 years and in Jacksonville since the early 2000s. We've been putting guys and gals out



*With the average age of welders in this country at 56, it is estimated that approximately half a million welders will be needed in the next 10 to 15 years. Starting at the high school level is critical in filling those positions.*

into the welding industry for a long time," he said.

Milby added that there are many different types of welding positions available in the job market and different types of degrees available from TWS, including certifications and an associate degree program.

"A student can actually complete the welding program and the associate degree in about 14 months," he said. "And we're not just limited to welding; we also have ship fitting fabrication, a pipe fitting program and an electro-mechanical technologies program, and all these can be completed usually in nine months or less."

TWS also will help a student in their job search, be it near their home, somewhere in the country or even in the world, added Milby.

"Students will be diverse in that they can go anywhere they want to go," Milby said.

He noted that the average welder in this country is 56 years old and approximately half a million welders will be needed in the next 10 to 15 years.

"Right now is a golden time in the welding industry because of the fact those baby boomers are now retiring. We have got to replenish that supply and meet that demand," said Milby.

He praised the secondary welding programs in Kentucky and said 56 students from this state went to Jacksonville for a TWS tournament this year, and six of the top 10 in the event were from Kentucky, including first- and second-place winners.

Jeff Spears, a manufacturing engineer with Hobart Corporation who helped observe the contest, said he had to take a completely different job to get hired when he started, but it was his welding background that helped in that process.

"I knew once I got in the plant, I had the opportunity to bid on other jobs," he said. "I had training in welding from the Casey County ATC, and I know that helped me get my foot in the door. You have to be confident in what you're doing and I was pretty sure that if I could get in the plant, I would show them what I could do."

That mindset has obviously paid off for Spears, and he thinks the same can happen for those students who are enrolled in CTE programs today.

"If it hadn't been for the welding at Casey County, I'm not sure where I would be," he said. "Now, I'm a manufacturing engineer and it all starts at this level for these students. Getting training at the high school level is a huge asset for the students."

Darrin Robinson is the welding instructor at Grant County High School's Career and Technology Center. This year marked the third year in which he has brought students to the welding contest. Having a relatively new program, he said it's important to get his students involved in such events to



First Place-Rockcastle County ATC



Second Place-Nelson County ATC



Third Place- Meade County ATC

make them better in their program by seeing the best.

“Our kids, like all the others in this program, value their work, and they want their work to be better,” said Robinson. “They put a lot of practice into it, and I think the scholarship money really intensifies their wanting to do well.”

He pointed out that the students he brought are his best welders, but when they get into a competition such as the CKWC, all the participants are good welders.

“They see that and I think it makes them want to try a little harder,” he said. “They will learn from this experience, and that is really what we are trying to do, prepare them for the next step.”

Besides educational and industry support for CTE programs such as welding, King said it’s also important to have local and state government officials involved as well. State Rep. Kim King spoke to the contestants and related her own experience to them.

“As I serve on the economic development committee in Frankfort, I hear from businesses and industries all that time that we need to have more highly trained students coming out of their high school careers ready for these jobs,” she said. “My husband, son and brother all are currently welding, and they started their career right here in this very building.”

Kim King added that she believes in everything that goes on in training students to have a functional, workable trade they can use right out of high school.

Milby said he thinks the welding industry will not only provide employment opportunities for students, but jobs that pay well.

“There is such a shortage in the career and tech fields, we’ve got to find them somewhere. I think if we can start exposing students and giving them the opportunity to explore these programs, we can get these kids jobs starting at \$12 to \$15 an hour with some making over \$30 per hour,” he said. “America is not going to stop building or moving forward, and we have got to have these students.”

**CKWC Attendees:**

- Harrodsburg ATC
- Southside Career and Tech Center
- Rockcastle Co. ATC
- Franklin Co. Career and Tech Center
- Casey Co. ATC
- Montgomery Co. ATC
- Garrard Co. ATC
- Nelson Co. ATC
- Bullitt Co. ATC
- Boone Co. ATC
- Monroe Co. ATC
- Corbin ATC
- Grant Co. ATC
- Meade Co. ATC

**CKWC Individual results:**

- 1st Bradley Ford / Meade Co.
- 2nd Duncan Brothers / Nelson Co.
- 3rd Chris King / Harrodsburg
- 4th Matt Alexander / Rockcastle Co.
- 5th Cole Reed / Casey Co.

# Community Colleges and High School Tech Centers: Building Partnerships One School at a Time

Billie Jean Cole, associate dean of student affairs at Big Sandy Community and Technical College (BSCTC), and Keithen McKenzie, BSCTC associate dean of academic affairs with technical programs, often go to the Belfry Area Technology Center (ATC) to discuss postsecondary options with students and how to make a smooth transition into the community college system.

Cole said having a working relationship with ATCs and career and technical centers (CTC) is important.

“If our students are going to have the opportunities that we want them to have in the state of Kentucky, this partnership is vital,” she said. “It’s important to have a dialogue with the principals weekly or monthly so we are working to have all the opportunities in place for the students.”

Faculty from BSCTC often visit their counterparts at the ATCs and CTCs, as well to share information in making sure the transition from high school to college is seamless, Cole added.

McKenzie said the relationship between the college and the high school career and tech centers serves as a stepping stone for students transitioning to the postsecondary level, and high school programs are a great foundation for moving on to advanced studies at the college level. He also said that ATCs or CTCs often will have articulation agreements with the college.

“With the electricity program at Belfry, we have an articulation agreement for their students so when they take certain classes, they can take that into the community college and get credit for it,” he said. “They don’t have to retake the classes, and that gives them a head start in their higher education. They can move on and get their degrees a lot faster and get into the workforce and get a good job.”

McKenzie added that students can learn to do something they want to do and have marketable skills because of the opportunities available and the many different programs offered at both the high school and college levels.

Belfry ATC Principal Annette Harris said her main focus as an administrator is to have every student educationally prepared for the next level of school or



*Billie Jean Cole, right, associate dean of student affairs at Big Sandy Community and Technical College, discussed opportunities with Belfry ATC students on a recent school visit.*

in the workforce.

“Our relationship with BSCTC has flourished in the last few years. We have common goals, high expectations and we set priorities for students and their educational progress,” she said. “This relationship, with all the expectations of college- and career-readiness goals, is even more vital at this time than it has been in the past.”

Harris added that one of the most rewarding parts of her job is to have a student come back after going on to BSCTC or into a successful career and having done so as a result of what they learned at the school.

Justin Williamson has been enrolled in the Belfry ATC’s carpentry program for three years and plans to attend BSCTC.

“I would like to go to BSCTC for two years and then maybe transfer to a university,” he said. “I might get into HVAC or stay with carpentry. I’m not sure at this point.”

Williamson, like so many CTE students, will leave high school with choices and a sense of what the workforce is like because of the education he has re-



*Nick West, center, and Payton Mullins, right, are both former Belfry ATC students enrolled in the electricity program at BSCTC's Pikeville campus. Here they worked with a fellow student on a classroom project.*

ceived. Many of Belfry's students are attending the various BSCTC campuses.

Nick West and Payton Mullins are enrolled in the electricity program at BSCTC's Pikeville campus and say the experience they had at Belfry better prepared them for college.

"I want to be an electrician in the coal mines, and I took the electricity program at Belfry ATC and it helped me come to the next level," West said. "It prepared me and gave me the basics I needed here at BSCTC."

Mullins passed his certification exam in carpentry at the ATC and saw a need to learn more about electricity after becoming involved in home remodeling.

"My plans are to get my degree in electrical wiring at BSCTC and go into commercial wiring as a profession," he said.

Instructors at BSCTC also see the advantages students have by beginning in CTE programs offered at the secondary level.

Joe Compton is a teacher in the BSCTC electricity and electronics department. He said the school has a close relationship with the ATCs and CTCs in the area.

"When those students come to this program, they actually know quite a lot and are not just starting out," he said. "I find those students are really ready to go into the labs more so than someone just off the street. It's amazing and, in fact, what we normally do is team students without a background with the ones that come here from the ATCs or CTCs to kind of mentor them, and they do a wonderful job. I find that it's an outstanding relationship we share with the instructors at the area technical centers."



*John Maynard, an electricity and electronics teacher at BSCTC works with a student in class. He said those students that have a high school background in the subject do well in his class.*

John Maynard, another electricity and electronics teacher at BSCTC, said high school students who have a CTE background are well-prepared when they make it to college.

"The people that have been there have a little bit of experience. They are good at completing the program and attending class. They're just really good students," he said.

In today's educational environment, partnerships between the secondary and postsecondary sectors are vital in advancing students from one level to another. The Office of Career and Technical Education and the Kentucky Community and Technical College System (KCTCS) are using their partnership to better prepare students for the workplace.

The relationship between the Belfry ATC and BSCTC is a prime example of what success can be achieved when the two educational entities work together, said Cole.

"The partnership between Belfry ATC and BSCTC is successful because we are first and foremost concerned about the well-being of our students," she added. "We instill in students that the training and education they receive makes them marketable and employable in today's workforce. We're creating legacies."

# Carter County Career Technical Center: Filling the Needs of Students and the Community

Every program in the Carter County Career and Technical Center (CTC) is involved in some sort of learning activity that not only benefits students but often the community, Principal Steve Stubbs said.

“Though we are situated in a rural area of the state, our students are getting real-world, big-time educational skills that have and will continue to take them as far as they want to go, from their local community to communities around the world,” said Stubbs.

As is often the case, CTCs and Area Technology Centers (ATCs) provide valuable services to community groups as well as their own school systems.

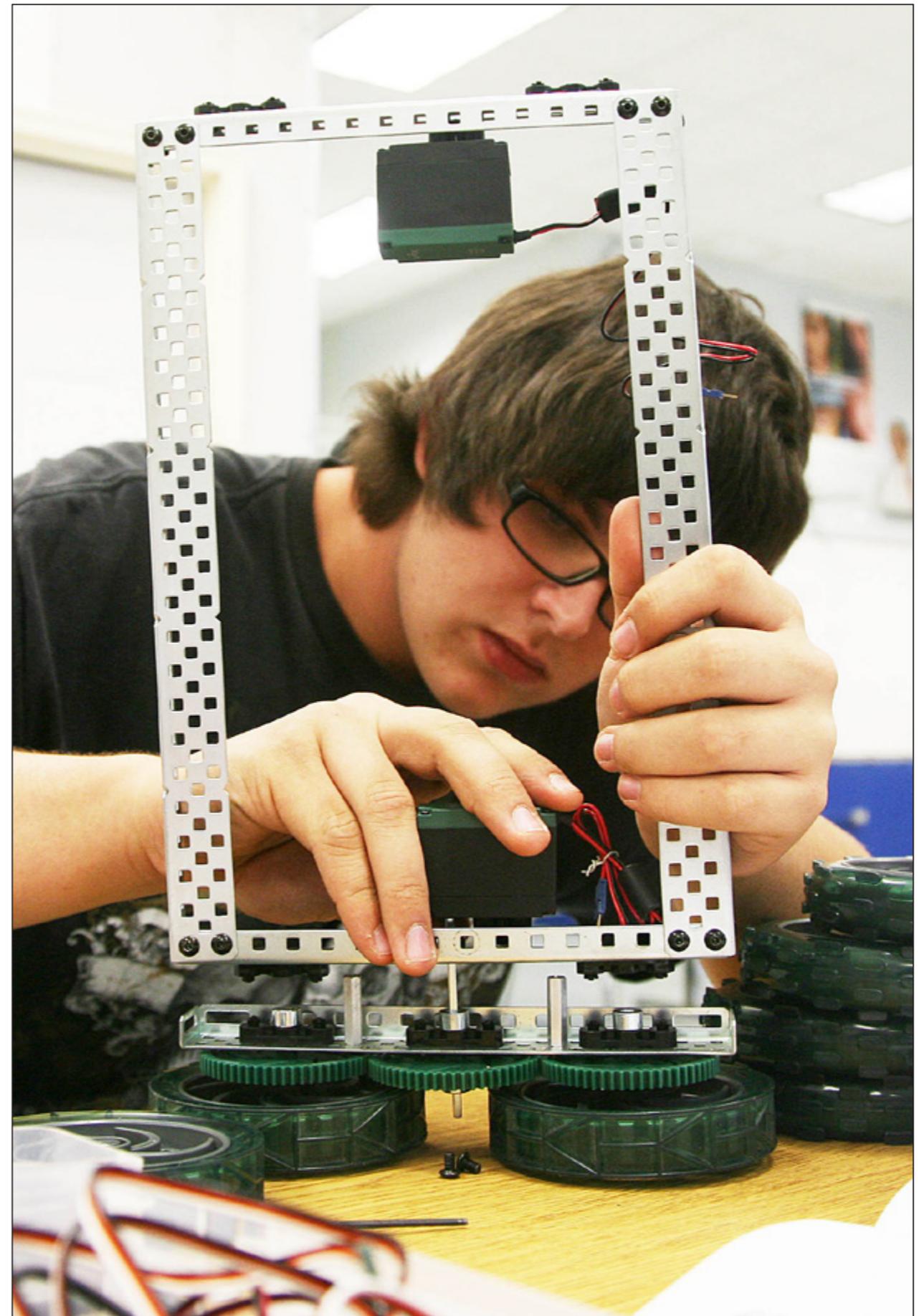
“Currently the Computer Aided Drafting (CAD) students and SkillsUSA members are collaborating with the Construction Technology (CT) program on a project at Carter Caves State Resort Park,” Stubbs said. “The students are re-designing many of the fairways at the mini-golf course and have created many conceptual designs, as well as detailed drawings, for some of the fairways. These detailed drawings are being used by the carpentry class to build to size the new additions to the miniature golf course.”

The CT program, taught by Larry Dacci, also is building storage buildings to be used at some of the local schools.

“When our teachers bring their programs together in a collaborative effort, the result is always something bigger than either program, and it is always good,” said Stubbs.

The CAD class, taught by Stephanie Hensley, also has created drawings for a shelter house at one of the local elementary schools and has worked with local general contractor Lowell Burton to create residential floor plans that have been built in the community.

*Information Technology student Steven Plummer upgraded a motor for greater torque to meet assignment spec requirements on a robotics project.*





*Computer Aided Drafting student Harley Fannin focused on details in board drafting fundamentals.*

Stubbs said the class benefits students as they transition from high school to a postsecondary level.

“Many of the students leaving the program go on to postsecondary training where they have earned degrees as technical draftsmen, designers, engineering technologist and engineers,” Hensley said. “I have had other students leave the program after two years and enroll in a welding, electrical or construction program at the postsecondary level. These students often come back and tell me how much their drafting knowledge has allowed them to advance in their careers.”

The Information Technology program, taught by Brian Coleman, also is proving to be a great starting point for college and career for students.

“We believe that it is not enough to merely enter the workforce with the necessary technical and soft skills but to excel and demonstrate the standard for others to follow,” said Stubbs. “Additionally, students may choose to seek postsecondary degrees at either two- or four-year institutions. To that end, our students diligently work to acquire the skills, character and knowledge necessary to successfully complete their chosen area of study and/or degree.”



*Construction Carpentry Techology student Randall Zeigler made sure the wall for a log cabin was square. The cabin is a collaborative project with Carter Caves State Resort Park and CCCTC.*

Statistically, more than three-fourths of the Information Technology (IT) graduates at Carter County CTC move on to the postsecondary level.

IT students are assisting the Olive Hill Chamber of Commerce in designing, developing and implementing a community service cable TV channel via the construction and sound-proof video and audio recording studio, Stubbs said.

The class also has developed an advanced robotics demonstration for the middle school’s robotics competition to be held at Ashland Community and Technical College.

What really measures the success of a program is the success of its students, said Stubbs. And the IT program alone has plenty to brag about, including a student who designed and fabricated a component on a NASA satellite orbiting the earth. Another IT student received a Computer Engineering degree from the University of Louisville and now works from home in Denton for a company that services more than 85 percent of the nation’s airports’ computerized arrival, departure and announcement systems as a computer programmer. Still one more student is employed by the military in a high-level security position for the United Nations offices in Geneva, Switzerland, as



*Construction Carpentry Technology student Carli Burton measured while working on the Carter Caves community project.*

a computer security engineer specialist.

“These are students from a very small town who are getting a very big educational opportunity,” said Stubbs. “And those are just samples of the successes that have come from here and will continue to come from here.”

Along with the high-tech programs, Carter County CTC is steeped deep in the traditional programs, as well.

“The welding program, for instance, is essential to the community as welding jobs make up a large portion of our area’s industry,” said Stubbs. “While in the program and working to learn and become a welder with industry

standards, the students are engaged in real-world projects, which are used to enhance the education they receive in the classroom with the connection to real live work.”

The welding program is taught by Derek Hazlett. Hazlett is fresh out of industry and brings a real-life perspective to the students’ education. Hazlett also has received his American Welding Society Certified Welding Inspector credentials to offer students more opportunities in the welding program.

Welding students also are working with the CAD and IT departments in fabricating an information kiosk near the front entrance of the CTC that contains information about each program in the school via an interactive computer screen.



*Construction Carpentry Technology student Charles Brewster placed rafters on a storage building that will be used at Tygart Elementary School.*

Health Science (HS) programs, taught by Mary Lou Deharte, have seen marked increases in enrollment across the nation, and Carter County is no exception. Recently HS students traveled to four of the largest elementary schools in the county to conduct vision screening for the 1st and 3rd grades. The students also are about to begin their Nursing Assistant program.

“This program will allow the students to sit for the State Registered Nursing Assistant exam,” said Stubbs. “Once the students pass the exam they will be on the Kentucky Board of Nursing state registry for nursing assistants and can work at any healthcare facility in the state.”

The HS students also have been involved in many community projects, including “Remembering 9/11 Day,” “Breast Cancer Awareness Day,” and an educational bulletin board at the school titled “Do Not Text and Drive.”

For more information about the Carter County CTC, go to



# Pulaski County Area Technology Center Natural Gas Pipeline Technician Program

Beth Hargis knows how important partnerships are to the success of Career and Technical Education (CTE) programs. It is the foundation on which the programs are built, she said.

As principal of the [Pulaski County Area Technology Center](#) (ATC), Hargis has enjoyed partnerships between local business and industry, local government and the local community college.

Those relationships have gotten the ATC's newest project off the ground. A Natural Gas Pipeline Technician Program is set to begin at the school, signaling the development of a program to fill not only a local need but a growing demand for technicians across the country.

"I believe this program will provide a meaningful and lasting occupation for those students who become involved," she said.

Hargis added that with the introduction of this program at the ATC comes the recognition of it not only being the first of its kind in the state's secondary education sector, but likely the first high school program of its kind in the nation.

"We have researched this for months to make sure we have all the proper components in place to ensure success and have not found anything like it anywhere, from a secondary education standpoint," said Hargis.

The program began as an initiative from Somerset Mayor Eddie Girdler, who was frustrated trying to hire qualified gas pipeline technicians, explained Hargis.

Somerset owns a natural gas pipeline that spans seven counties, and the city recently opened a natural gas fueling center and is moving toward a natural gas fleet of city vehicles.



*Somerset Mayor Eddie Girdler addressed students, educators, community officials and business and industry representatives during a reception to kick off the new program at Pulaski County ATC. In the background is Principal Beth Hargis.*

"As the natural gas industry expands and those currently working in the industry retire, the ability to find qualified technicians is becoming more difficult," Hargis said.

The American Petroleum Institute notes the oil and natural gas industry in the U.S. currently supports approximately 9.2 million jobs and expects 1.4 million additional jobs by 2030.

With the need for future technicians, Girdler not only suggested a pipeline technician program at the ATC, but the city has provided the start-up funding.

"This truly has become a team effort between the superintendents from Pulaski County and Somerset City schools, Mayor Girdler, Somerset Community College, the Office of Career and Technical Education (OCTE), and Industrial Training Services (ITS), which has provided the basis for the curriculum we will use," said Hargis.

Maci New, a senior at Somerset High School, has the distinction of being



*City of Somerset Gas Employees discuss training curriculum with Maci New. The Natural Gas Pipeline Technician program began this year at the school. New was the first to sign up for the program.*

the first student to sign up for the program. She said the opportunities presented by such a program interested her, and she felt like the program would provide a future career.

“I think this is very exciting. It’s all new and my friends are really excited for me to do this,” she said.

New said being a female in what has traditionally been a male-dominated field doesn’t deter her but gives her a sense of accomplishment even before the classes begin.

“It’s very empowering. Being a girl I think it makes it all the more worthwhile and satisfying when I achieve something,” she said. “I know there will be a lot of information to learn and a lot of hands-on activities, but I want to see what parts of the program interest me. I just want to make something of myself.”

New added that she likes her math and science classes a lot and can see where much of what she has learned in those courses will benefit her in the natural gas program.

Dale Winkler, Kentucky Department of Education associate commissioner, said CTE programs have always been a way for students to take what they learn in a traditional classroom setting and put it to use in a more hands-on environment.

“I think this program will link well to the math and science curriculum the students are experiencing in their other classes, and in doing so, I think the connection will make these students better in both their academic and CTE programs,” he said.

Winkler added that the partnership that created the pipeline technician program is indicative of what happens when community agencies and their local education entities work together.

Hargis said providing such a program at the secondary level builds a strong foundation for students who wish to make it an occupation one day.

“Students that participate in a class such as this or other CTE programs



*David Hargis, Somerset Fuel Center Manager, explains natural gas fueling processes to Maci New, the first student at the Pulaski County ATC to sign up for the new Natural Gas Pipeline Technician program.*

have a much better idea of what they want to do as they enter college and/or the workforce,” she said. “I think having that foundation provides them a better opportunity at being successful no matter what they do.”

The Pulaski County ATC will begin training students from local high schools in November with classes in “Technologies Basic to the Delivery of Natural Fuel Gases” and “Preventing/Controlling Worksite Incidents.”

Other programs offered at the school, which serves high school students from Somerset and Pulaski County schools, include automotive technology, construction carpentry, health sciences, information technology and welding.

Officials from the local government, school systems and business associations recently gathered at the ATC to celebrate the beginning of the program.

In addition to Hargis, those participating in the event included Pulaski County Schools Superintendent Steve Butcher, OCTE Policy Advisor Laura Arnold, SCC Provost Tony Honeycutt, Kentucky Gas Association Executive Director Matt Tackett, ITS Executive Vice-President Jason Garland, Somerset Mayor Eddie Girdler and Somerset Independent Schools Superintendent Boyd Randolph.

Since 1977 Industrial Training Services (ITS) has been providing consistent and documented training for the pipeline industry. In 1977 founder, Dr. Paul Lyons PH.D, answered an opportunity by the Kentucky Gas Association to create a standardized program for the gas companies in Kentucky. That began a long lasting relationship with the Kentucky Gas Association that still stands today. Since its beginnings, (ITS) provides training, operator qualification, and data base services to pipeline operators and contractors throughout the United States. ITS has partnered with associations and 3rd party Assessment Centers across the U.S. to deliver the full line of ITS products.

# KOSSA Testing Going Online



*Moving KOSSA to this online system will provide school leaders and teachers with individual student and school data that is more detailed than it was in the past.*

Testing plays an integral role in determining how well students have retained classroom information and is an essential component in achieving college- and career-readiness goals, according to Pam Moore with the Office of Career and Technical Education.

“Making it more readily available and allowing more students to have access to these various tests only makes sense in reaching these goals,” she added.

That idea served for the basis of taking the [Kentucky Occupational Skill Standards Assessment](#) (KOSSA) online for the first time in its 14-year history. KOSSA is the only assessment developed in the Kentucky Department of Education (KDE) and is used as one of the components to measure career readiness.

KOSSA was developed to match industry standards and is endorsed by business and industry as a benchmark for what a student needs to know to get a job in a particular field. In fact, business leaders collaborated with Career and Technical Education (CTE) leaders to develop the test, and business leaders also assist CTE in updating tests.

“Collaboration with business and industry partners ensures that we are addressing the needed technical skills for specific pathways but also ensuring students leave high school with the foundational academic and employability skills that are essential to success in any career or postsecondary education opportunity a student pursues,” said Moore.

She added that this system is based upon clear and concise standards identified by employers across the state, which culminates in a performance-based training and assessment system.

“Skill standards provide a common language, goals and reference points for employers, students and educators,” Moore said.

She added that with these commonalities, educators are better able to design curricula to meet industry needs.

“Students have a better understanding of what they must know and be able to do in order to prepare for careers, and employers have in place an efficient system for recruiting and evaluating potential employees,” Moore said.

## **The online transition**

With the transition from a paper/pencil test to an online environment, there have been some changes in the assessment for this school year. Associate Commissioner Dale Winkler said the changes to KOSSA during this transition have been based on the recommendations of business and industry partners



*KOSSA was developed to match industry standards and is endorsed by business and industry as a benchmark for what a student needs to know to get a job in a particular field.*

and educators to better meet the goal of preparing students for 21st-century careers.

“The business and industry partnership with CTE in general, and especially with the KOSSA assessment, has proven to be invaluable in our efforts to give students the most up-to-date information as we move toward our college- and career-readiness goals,” he said.

Those changes include:

- addressing common academic and employability skills across all KOSSA areas.
- modeling a test format recognized by business and industry groups for valid state and national certifications
- mirroring the assessment after others used in the Unbridled Learning accountability system.

Transitioning to the online system has multiple benefits for students, schools and for accountability reporting:

- more complete and accurate data for federal and state reporting
- more robust reporting of student-, school- and state-level data
- detailed feedback for students on strengths and areas of improvement related to chosen career pathway
- better identification of gaps in curriculum and instruction
- shorter turnaround time on reporting results to schools and students

## **From a business perspective**

Carl Wicklund of [Wagstaff Inc.](#), an aluminum casting manufacturer based in Spokane, Wash., is the plant manager for the company’s Hebron, Ky., facility. He has been instrumental in providing recommendations for the manufacturing portion of the KOSSA assessment. Wicklund said any assessment that can help students understand and learn the opportunities that exist for them has got to be a huge benefit.

“In the ‘90s we heard a lot from the government about being a service economy, and it kind of took away from the manufacturing side, but now all of a sudden there’s all these manufacturing jobs, and really good-paying jobs, so there is opportunity for these students,” he said.

Wicklund added that with all the new technology in industry, there is a need for students to have a lot of different talents, knowledge and disciplines, and they need the core skills to move forward.

He also said that, for once, manufacturing, as well as other job careers have credence at the high school level, and to know of new technologies used in these jobs, students need to begin learning about them in high school as well as learning in relationship to what is needed locally. Students need to begin learning in high school about the new technology used in local manufacturing jobs as well as other locally industries.

“You have to have an assessment tool that reflects the local needs,” said Wicklund. “There are certain needs in some areas that don’t necessarily cross paths in all areas. So you need to be able to tailor that assessment.”

He pointed out that while there are some national industries in Kentucky, there is a huge number of smaller industries, and if those businesses are going to stay around, they have to be supplied with well-qualified workers.

While KOSSA is a component of Kentucky’s accountability system for college- and career-readiness, Moore said she believes it is more important to consider the value of KOSSA in preparing students as they transition from high school.

“Moving KOSSA to this online system will provide school leaders and teachers with individual student and school data that is more detailed than it was in the past,” she said. “They will be able to look at student performance based on mastery of specific standards identified by business and industry as essential for success in today’s workplace.”

With this transition, Moore said she sees a couple of benefits. First, teachers will have data to support instructional practices that are working well and identify gaps in curriculum and instruction, and secondly, students will receive feedback on personal strengths and areas of improvement in their chosen career and technical education career pathway.

# Green County Area Technical Center: Growing through Community Partnerships

At a time when needs are many and funds are few, it takes innovative thinking to move forward in education. That's a concept Green County Area Technology Center (ATC) principal Linda Floyd fully embraces.

Floyd inherited solid traditional Career and Technical Education (CTE) programs, but they came with a budget that limited expansion and partnerships with local industries in need of high-quality employees.

"We have automotive technology, health sciences, wood technology, business technology, marketing education, welding, computerized manufacturing machining and electricity," she said. "But business and industry's biggest needs were in industrial maintenance."

That was a program Floyd had neither the money to fund nor room to place.

"But I did have the individual components that industry was looking for; a combination of electrical technology, machine tool and welding," she said.

Instead of thinking about what she couldn't do, Floyd focused on facing this challenge in a different way. In doing so, the school has created a pilot program that allows students enrolled in the electricity, computerized manufacturing machining and welding programs to earn a credit toward industrial maintenance certification.

"I don't think this has ever been done before, but tough economic times call for a little bit of innovation, and if I had brought on an industrial maintenance program with a new teacher, it would have competed with the existing programs I have," Floyd said. "So, actually this real-



*Green County Area Technology Center (ATC) principal Linda Floyd and Murakami Manufacturing, USA President Michael Rodenberg are collaborating through the TRACK initiative.*

ly was a better fit."

This pilot program is a direct result of Green County's involvement in the [Tech Ready Apprentices for Careers in Kentucky](#) (TRACK) initiative that couples the ATC with a business and industry partner to give students pre-apprenticeship credit while still in high school.

Murakami Manufacturing USA, located in nearby Campbellsville, is serving as the school's industry TRACK partner. The company is closely tied with the automotive industry creating the exterior mirror components for Toyota and Lexus vehicles.

Murakami President Michael Rodenberg said he visited the Green County ATC's satellite robotics program located at Campbellsville University and realized his company had an array of obsolete parts that could be useful to the program.



*A donation of parts to the Green County ATC is worth \$90,000 and will enable students to continue their work in robotics, which is an extension of the electricity program at the school.*



*Green County ATC electricity students have already started utilizing electronic components donated to the program by Murakami Manufacturing, USA.*

That donation of parts, worth \$90,000, will enable students to continue their work in robotics, which is an extension of the electricity program at the Green County ATC.

“I’m a big believer in developing local talent, and if you can develop the

students locally they are going to stay,” Rodenberg said. “What Ms. Floyd is doing at the ATC is allowing us to eventually bring students into our organization and provide a career for the long term.”

He added that many of the processes within his facility require knowledge in robotics, and that has been one component Green County ATC electricity instructor David Rauch has included in his curriculum as it relates to the industrial maintenance program.

“I get them hooked on the program with the robots,” Rauch said.

Rodenberg also said that many areas within the Murakami facility require knowledge in many of the same areas taught in the career and tech centers.

“It’s not only electronics, but the mechanical side and the design side involving drafting,” he said.

With these skills, students gain the capacity to become long-time employees.

“If you look at where the automotive industry is today within North America, it just continues to grow, and within this region there is a significant number of our customers who want us to be close by,” Rodenberg said. “So as we look forward to their growth, we hope to continue to grow, as well.”

Rodenberg said the relationship between business/industry and education is critical in growing those businesses.

“We want to be an employer of choice in our area, and one way is to develop relationships with the school systems,” he said. “There are a lot of aspects to this business that require different talents. If we can have those relationships with the schools and openly communicate with students to come see our facility with some of these apprenticeship opportunities, we think that will help us in the long run to become that employer of choice, which is one of our goals as an organization.”

Rodenberg said that reaching students at the high school level and having them work through something like the pre-apprenticeship program will give them a feel for something they may want to do as a career.

Green County Schools Superintendent James Frank said the big picture involves bringing more industry to the area, and recognizing and using CTE can be a big factor in doing so.

“We also realize there are jobs out there waiting for these students, and we’re trying to figure out a way to prepare them for these jobs,” he said. “We hear every day from industry leaders that there are jobs (available) that are going unfilled, so we want to do what we can to prepare students for that. We think we have everything in place to do so.”

Frank said these new and existing programs at the ATC help meet these goals. Additionally, getting a solid foundation in CTE at the high school level is necessary to help meet industry demands. He also said that being involved in

CTE at an even younger age is important.

“We’ve seen the importance of reaching the 8th graders, we’re trying right now to do that, and I think that is where it has to start,” Frank said.

He emphasized that the kind of collaboration existing at the Green County ATC is important for the students both for those planning to attend college and those choosing a career path and overcoming old perceptions of what CTE is really all about is essential.

“I think our mindset has to get caught up with where we really are in these technology centers. It’s still on that old vocational setting, and it’s completely different from that now,” Frank said.

Donna Patterson, the instructional supervisor for Green County Schools, said one thing being done in their system to help change any old perceptions is a rotation program for freshmen, and soon for 8th graders, to spend time in each of the CTE classes. This will give them more time to decide what classes they like best.

“Now (students) have three-and-a-half-week rotations when those teachers can sell the programs and inform them of what the programs are all about; how high level these programs really are; and the amount of math and science that’s really involved with it,” she said. “The students, as well as parents, are learning earlier that the ATC is no longer that same vocational school that we all grew up with; they are advancing with the times.”

Patterson also said she thinks an intentional focus needs to be maintained on continually changing those old opinions.

The Green County ATC not only serves its home county but also students from neighboring Taylor County and the Campbellsville Independent school districts.

Roger Cook is the superintendent for Taylor County Schools. He said the value of CTE is apparent.

“I think it is more important than at any time in years past that we get students ready for careers,” he said. “This is my 38th year of education, and it seems like we’ve always concentrated on the college bound more than we have getting our students who don’t go to college, ready for life.”



*Building robots is now a part of the electrical technology program at the Green County ATC.*

Cook added that getting a start at the high school level is beneficial to students and that a lot of the career jobs pay more money than with the professional licenses.

“It depends on what you get prepared for especially if you get into the computer aided workforce,” he said.

Cook said his district has had four straight years without any student dropouts and to do that, you have to provide them with studies in areas in which they are interested. His viewpoint is to tailor the students’ education to what they are interested in, thus lessening dropout problems and potentially increasing career readiness. Floyd also has worked with the Taylor County Economic Development Authority (TCEDA) in bringing awareness to the programs at the ATC.

TCEDA Executive Director Ron McMahan has worked with Floyd to help start a satellite robotics program so Taylor County and Campbells-

ville Independent students may take advantage of the program offering at an earlier age without having to travel to the ATC. Currently, freshmen in those two school districts can’t attend the ATC due to scheduling issues that prevent more than one CTE elective.

“So we brought the program to them,” Floyd said

Because it’s a neutral satellite, Campbellsville University is providing the space, and TCEDA helped with the robotics components as well as the software and computer needs.

McMahan said by getting the students involved early, the goal is to get them to stay in that type of a program as juniors and seniors or even beyond.

“The TRACK program is a great model to get high school students involved in an area that could prove to be a lifelong career for them, and hopefully their careers will be spent in our community business and industry sectors,” he said.

Floyd said she is excited about the prospects for the students at her school, especially with the support the school has received from educational and industry leaders.

“It’s amazing what good things can happen when we work together,” she said. “The collaboration between our existing programs, our school districts’ superintendents and our area industries has produced opportunities that will benefit our students for a lifetime.”

# North American Racing Academy Expands Program to Include Locust Trace Students

Dixie Hayes walked through the barn areas of Keeneland looking for just the right horses to bid on during the recent fall sale. She looked carefully at each weanling that was paraded past her, taking notes and conferring with her fellow buyers.

This scene was repeated with buyer after buyer during what has become one of the most widely attended sales of its kind in the world, the Keeneland November Breeding Stock Sale.

But Hayes isn't a thoroughbred farm owner or manager. She is a teacher – a program coordinator with the [North American Racing Academy](#) (NARA), which is located within the Bluegrass Community and Technical College (BCTC), and her comrades are actually her students.

Hayes, who has a degree in equine management from Midway College, teaches the Equine Studies program at BCTC and at [Locust Trace Agri-Science Farm](#) located in Fayette County.

"We've merged the two programs, basically, and we're trying to create a filtering system where students interested in the equine industry go from the high school program into our two-year associate's program and into a four-year degree program if they're interested," she said. "NARA now has the Horseman's program based out of Locust Trace, so as a result, high school seniors and juniors can take these college-level classes with college students and gain high school and college credit."

Hayes added that the high school students are getting a chance to experience college while in high school.



*Students in the North American Racing Academy program look over a weanling during the recent Keeneland Sales.*

"The really neat thing is that the high school students are taking a college-level class with a college instructor but at the dual credit state fee, which is \$50, and Fayette County Public Schools has been gracious enough to pay that for these students," she said.

This arrangement saves the students tuition costs while giving them a taste



*Dixie Hayes, center, is the program coordinator with the North American Racing Academy. Here she explains to her students what to look for when examining a horse to buy for the program.*

of being in college.

Hayes wants to bring in 10 Locust Trace students each year into the program.

“Our goal is that by the time the seniors graduate, they will have gone through four classes with us (BCTC) and that will make them eligible for a college-level certificate,” she said.

Those students, in turn, will experience internships with local horse farms and trainers and apply what they have learned in their classes.

“We’re also doing a workforce certificate for the other students at Locust Trace who are not eligible to come into this program,” Hayes said.

This semester marks the first for the merged programs and, while dual credit with the two schools has been present, this is a first in having the college class taught at the high school.

NARA was established in 2006 by Hall of Fame jockey Chris McCarron as a jockey school.

“It has expanded and now includes a Horseman program, and I came on about three years ago,” said Hayes. “Since then, 100 percent of our Horseman

graduates have been placed in internships and hired from those internships.”

Students are being placed all across the country and throughout the world, Hayes added.

“We have already sent several students to Dubai and this year, we’re looking to go to France,” she said.

Being in the Horse Capital of the World, industry support has been strong for the program, according to Hayes.

“The industry, especially since we have expanded, they have been very interested in what we’re doing with the Horseman’s program,” she said. “My goal is that these students are well versed and that they’re ready for careers as trainers, farm managers and bloodstock agents and able to come into the industry well-rounded.”

The program helps students learn about conformation in its bloodstock class. Equine conformation deals with the correctness of a horse’s bone and muscle structure and how that can affect the sale price of a horse, she said.

As students walked around Keeneland looking at horses, Hayes discussed things like conformation with them in deciding on what horses they should consider bidding. Buying young horses to resell in a year is one component of the program and gives students a hands-on perspective of a part of the business in which they could one day be involved.

Students also learn to identify conformational defects and confer with veterinarians about the issues, something that gives them a different perspective should they decide to go into equine veterinarian services, Hayes noted.

With Locust Trace housing an advanced veterinarian tech laboratory, students interested in that area have a distinct advantage with both programs there.

Hayes said many people don’t realize how many different jobs are related to the horse industry, like those working in the coordination of sales such as the ones at Keeneland; nomination managers who select the mares to be bred with the stallions; and many office positions on farms and at race tracks, just to name a few.

“There is just a plethora of jobs and that is one of our goals, to make these students aware of what the job opportunities are,” she said.

Hayes has experience in many of the jobs, having managed several large farms in the area, including that of a licensed trainer for three years. But teaching filled a void she felt in those other jobs.

“After my last management position, I had just sold my first million-dollar horse, but I wasn’t satisfied. I still had not reached what I wanted in career goals, so I decided to get into teaching,” she said. “I love the program and I love teaching students who want to learn something that they want to learn about.”

Those students are benefiting from Hayes’ experience and knowledge of horses and the horse business.

Bailey Hughes is a senior at Locust Trace. She grew up in the horse industry, so choosing the program was natural.

“I always saw the racing side, but I never saw what goes on behind the scenes like buying and selling, the bloodlines and what makes a great racehorse,” she said. “I wanted to be a part of that.”

Hughes added that she hopes to stay in the business and keep the family name going in the industry.

“My parents have been very supportive, and when I heard this was available, I jumped at the chance and asked every day who made it in, and I was on the list.”

Lindsey Marcum also is a senior in the program. Having attended Locust Trace for a year, she heard the program was coming and thought it would be a great opportunity to learn more about the Thoroughbred side of the horse industry.

“I’m really the first one in my family to be truly interested and want a career in the horse business,” she said. “But my family has always been into farming.”

Marcum added that she didn’t realize she would get to go to a place like Keeneland and put what she was learning into practical use, but it has been really surprising and fun as well as helpful in the classroom.

“We have learned how to read the sales books and about conformation; how the horse is put together and what makes them a great racehorse,” she said.

Corrie Buckles, another senior student also brought horse and farming backgrounds to the program.

“I wanted to be with the horses. That’s what I came for,” she said. “I wanted to get involved in the BCTC program to learn more about the Thoroughbred industry. It was intriguing to me to learn about the breeding, the bloodstock and the sales.”

Buckles said she would like to finish the program at BCTC and likely transfer to Morehead State University. She hopes to have a farm one day and stay in the breeding, bloodline and sales end of the business.

“This program has taught me a lot already, and I’ve learned so many things I would not have learned yet, so I think it is very beneficial,” she said.

While the buying trip ended without a purchase, the group did get to bid



*The Keeneland sales arena is one of the most recognized in the horse industry. The most current sales event brought nearly \$200 million for more than 3,000 horses.*

and experience the atmosphere.

Hayes said the idea was to bring a horse back to the school, work with it for a year and take it back to sell and make a profit.

“We will try again at the next sale,” she said. “The market was very strong this year, so the prices were phenomenal, which is great for sellers but not so much for buyers.”

With a purchase, Hayes said the students will learn about the bloodline, pedigree analysis and how to feed and train the horses properly over a year to ensure proper growth through nutrition and training plans.

As with any business, the idea is to buy and sell while making a profit, so in addition to the equine industry, students also are getting a first-hand look at the world of business.

The day ended with students and teacher watching buyers from all over the world bid in one of the most famous horse-selling venues in the world. Quite an experience, they all agreed and with the training they are receiving, maybe some of these future Thoroughbred professionals will sell their first million-dollar horse someday soon.

# Kentucky Career and Technical Education

## Talking Points

### Kentucky CTE: A Snapshot

- Each year approximately 140,000 Kentucky high school students take at least one CTE course.
- In 2013, of the nearly 44,000 Kentucky high school graduates, nearly half of them were CTE concentrators.
- Ninety-eight percent of students that take three or more CTE courses graduate from high school.
- Sixty percent of graduating students in the 2011-2012 school year who were CTE completers with four credits in a career pathway, moved on to a post-secondary institution.
- There are approximately 96 different CTE pathways currently being taught in Kentucky.
- More than 30 CTE classrooms are currently empty due to a lack of funds to hire new teachers.
- Local CTE programs have not received any increase in funding for a decade.
- State ATC's have endured more than 30 percent of budget cuts since 2008.
- More than 3,500 students could attend CTE programs if new funding streams are acquired.

### Budget Request

- Additional funding will allow an equipment update and the hiring of 35 teachers in programs aligned to Kentucky's high-demand, industry sectors.

**Requested funding: FY 15-\$3,100,000; FY 16-\$3,100,000**

- Under the new accountability model, school districts must move 50 percent of high school graduates who are not college and/or career-ready to college and/or career-ready between 2010 and 2015. The Kentucky Occupational Skill Standards Assessments are used to measure technical skill attainment (career readiness) upon completion of a technical program and will assist with this effort.

**Requested funding: FY 15-\$240,000; FY16-\$264,000**

- Several districts have added new area vocational centers and programs and are requesting state funding to help support initiatives under 702 KAR 2:140. These initiatives will help to provide students with more career preparation programs and improve career readiness.

**Requested funding: FY15-\$3,300,000; FY16-\$3,300,000**

- ACT/WorkKeys assessments measure a student's ability to achieve a Silver, Gold, or Platinum National Career Readiness Certificate (NCRC). Students holding the NCRC will also assist Kentucky counties that are pursuing the status of Work Ready Communities, which is an initiative to bring businesses to the Commonwealth.

**Requested funding: FY15-\$1,115,500; FY16-\$1,115,500**

Current evidence supporting the growth and expansion of CTE for all Kentucky students includes the following:

- There is a strong body of evidence that shows that participation in high school CTE increases the likelihood of students completing high school. This is a necessary and first condition to helping students become college and career ready.
- Extensive, experimental research conducted by the National Research Center for Career and Technical Education and applied research conducted by the Southern Regional Education Board's High Schools That Work has demonstrated that a carefully implemented curriculum integration strategy can significantly improve the mathematics and literacy skills of CTE participants.
- An emerging body of evidence shows that students who concentrate in CTE (i.e., take three or more sequential high school CTE credits) are more likely to attend college, especially two-year colleges, than comparable students who do not concentrate in CTE.

