

# Real Return on Investment

*Career and Technical Education Student Organizations (CTSOs) are co-curricular avenues to college and workplace preparation benefitting students, schools and the community.*

**C**areer and Technical Education Student Organizations (CTSOs) embody the first definition of “education” in the *American Heritage Dictionary of the English Language*: “The act or process of imparting knowledge or skill.”

- CTSOs offer the opportunity to enhance member knowledge to become productive, cooperative citizens who contribute to society.
- CTSOs encourage the member to obtain a basic academic foundation and apply that to a gainful endeavor leading to self-sufficiency and an opportunity to improve living standards.

CTSOs are a proven conduit for student success. School investment in CTSOs supports student achievement, keeps students engaged, leads to higher graduation rates, and supports College and Career Readiness accountability goals. Students who participate in CTSOs are better equipped to pursue postsecondary studies and contribute to their employers and workplaces. CTSO competitive events and organizational activities promote leadership, teamwork, and problem-solving skills. Thus, CTSOs help prepare individuals to be responsible and contributing members of the community.

Career and Technical Education Student Organizations (CTSOs) are not extracurricular student clubs. CTSOs are co-curricular organizations named in the federal Carl D. Perkins Career and Technology Education Act as integral components of a system of career pathways. Each CTSO helps students assimilate academic instruction with process training to more fully develop real-world skills. CTSO members are better positioned to be productive members of the community, whether that community is postsecondary education or the work site.

**M**ORE THAN ONE-THIRD OF HIGH SCHOOL STUDENTS enrolled in Career and Technical Education (CTE) courses in Kentucky participate in one of eight CTSOs. CTE covers the teaching disciplines of agriculture, business, communications, construction, engineering and technology, family and consumer sciences, health science,



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## **‘CTSOs stress employability skills’**

information technology, manufacturing, marketing, pathways to careers, and transportation. Total CTSO membership in Kentucky is more than 46,000 students.

- DECA, for marketing students, more than 2,450 members.
- Family, Career and Community Leaders of America (FCCLA), more than 6,480 members.
- FFA, for agriculture students, more than 14,100 members.
- Future Business Leaders of America (FBLA), more than 8,600 members.
- Future Educators Association (FEA), more than 2,000 members.
- Health Occupations Students of America (HOSA), more than 3,800 members.
- SkillsUSA, for communications, construction, manufacturing and transportation students, more than 6,100 members.
- Technology Students Association (TSA), more than 2,500 members.

**THROUGH CTSOS**, students are able to learn, practice and refine their action and application in ways not traditionally or typically available in the classroom setting:

- CTSOs stress employability skills -- the ability to listen, speak and interact with others -- which surveys from the American Society of Training and Development and the National Association of Manufacturers indicate is what employers most value in entry-level workers.
- CTSOs reinforce the importance of academic attainment, as evidenced in higher accountability scores compared to other groups.
- CTSOs promote critical thinking by challenging members to develop solutions to potential, real-life problems.
- CTSOs advance workplace competency through competitive events providing members with an opportunity to demonstrate their skill level, all of which supports achievement of industry certifications. CTSO members have a higher attainment rate on Kentucky Occupational Skill Standards Assessments (KOSSA).
- CTSOs advance entrepreneurship through opportunities to experiment with business development. Successful examples of member-developed businesses are recognized annually.
- CTSOs enhance citizenship; as self-governing organizations, members learn the importance of representation and participation.
- CTSOs allow members to examine different careers and life directions, which can help in career selection and self-motivation.



**“CTSO members attend school at significantly higher levels, achieve at significantly higher levels, and are engaged daily at higher levels when compared to non-members,”** Kendall Kearns, pre-engineering teacher at Jessamine Career and Technology Center, Nicholasville, Ky.,

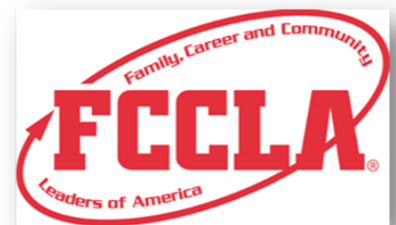
wrote in conclusion to an action research project for his Eastern Kentucky University graduate course. He sampled students participating in project-based learning with real-world objectives at Jessamine Career and Technology Center. He measured attendance, grade point average and student engagement, which was an assessment obtained from teachers.

The engagement assessment measured:

- Students who are CTSO members in my class are able to make real world connections with the content.
- Students who are CTSO members in my class are more punctual than those who are not.
- CTSO members display the ability to work well in small group instruction.
- CTSO members display a greater amount of leadership in the classroom than non-members.
- Students who are CTSO members remain on task longer than non-members.
- CTSO members require less redirection than non-members.
- CTSO members generally give a greater amount of effort on assignments than non-members.
- Students who are CTSO members score higher on project-based-learning assignments than non-members.
- Students who are CTSO members have fewer behavioral referrals than non-members.
- CTSO members display a higher level of problem solving-skills than non-members.
- Students who are CTSO members display better teamwork skills than non-members.
- Students who are CTSO members have a better attitude about attending school than non-members.

**MICHAEL LEE MEREDITH**, who was elected at 25 years of age to represent District 19 in Kentucky's State House of Representatives, credits FBLA with much of the success he achieved in life. He was re-elected to represent Edmonson, Hart and Larue Counties in 2012. In addition to his service in the Kentucky General Assembly, the 2010 Western Kentucky University graduate is a marketing officer at the Bank of Edmonson County in Brownsville.

At Edmonson County High School, Meredith was FBLA president, and he also was FBLA Region 2 president and a member of the FBLA State Executive Council his senior year. During that last year, he claimed first place honors at both the state and national competitions in Business Procedures. He said he developed his leadership skills, learned about



***'CTSO members display higher level problem-solving skills'***

**‘members are more career focused, higher achieving, and are more likely to attend college’**

campaigning, and gained practical business knowledge from his FBLA experience; knowledge that he continues to use today.

“Serving in the Kentucky General Assembly and as a regional and state FBLA officer have been the two greatest experiences of my life,” Meredith said. “FBLA is a great organization for young people, and it’s organizations like it and other Career and Technical Student Organizations that are making a positive difference in education across the Commonwealth.”

**I**N 2011, DECA reported 86 percent of its members had an “A” or a “B” average and 68 percent plan to attend college immediately after graduating high school. Both of these national statistics are higher than the high school population as a whole. Additionally, 53 percent of DECA members are obtaining employment experience prior to graduation. The data show DECA members are more career focused, higher achieving, and are more likely to attend college. (*Techniques Magazine*, April 2011, pp. 32-36)



“Since DECA’s beginning, one critical component is that it’s an integral part of classroom instruction,” DECA Executive Director Ed Davis was quoted. “It’s not something extra that our advisers and students do outside of class. Our new message and the enhanced development of our programs reinforce this concept and continue to communicate the value of DECA to administrators, counselors and other key decision makers.”

**THE VALUE OF CTSO** participation gained national attention in January 2011 when U.S. Representative Gabriela Gifford was shot, six others killed, and more wounded by a gunman in Tucson, Ariz. Daniel Hernandez, an intern to Rep. Gifford, was credited with actions that saved her life. He applied first aid techniques he learned as a HOSA member until emergency medical attention arrived.

According to Arizona HOSA State Director Milton Ericksen, “His selfless act further illustrates the importance and relevance of the leadership that millions of Career and Technical Education Student Organization members, in this case HOSA, learn and then demonstrate in their communities every day throughout the country.”

**T**HE ASSOCIATION FOR CAREER and Technical Education (ACTE) issued a paper in June 2011, “*Expanding Career Readiness Through Career and Technical Student Organizations.*” The paper illustrated how students participating in CTSOs strengthen their career

readiness through co-curricular programming in such areas as leadership development, academic and career development, professional development, community service, and citizenship. ACTE cited research showing:

- Students who participate in CTSOs demonstrate higher levels of academic engagement and motivation, civic engagement, career self-sufficiency, and employability skills than other students, and the more students participate in CTSO activities, the better the results.
- In a study of student performance measures, FBLA high school seniors significantly outperformed their non-FBLA counterparts on four performance measures: ACT scores, SAT scores, grade point average, and graduation rate.
- According to the National Research Center for Career and Technical Education, participating in leadership and professional development activities in a CTSO raises students' educational aspirations.
- Students who participate in school organization in 10th grade have a higher high school grade point average and are more likely to be enrolled in college at age 21 than other students.

***“I LIVED FOR GETTING OFF THE SCHOOL BUS,”*** Willie Hawkins, retail business representative of Syngenta, formerly Novartis, recalled. He represents the company in Kentucky and Tennessee with Southern States, Crop Protection Services, and Tennessee Farmers' Co-op. His success is linked to his FFA experience.

By eighth grade, Hawkins was resigned he would not go to college. He preferred fishing and hunting to school. He was headed back to the farm in Bath County. But a presentation on FFA to eighth grade students sparked an interest. He found success in parliamentary procedure, soil and livestock judging, welding, proficiency contests, and impromptu speaking. Suddenly, he found he was succeeding in school.

He credits FFA advisers with guiding him to college and initially toward a career as an agriculture teacher at Pendleton County and Greenwood High Schools. From there, he made the switch to business. He is confident the FFA participation led to his public speaking confidence and attention to professionalism his current position demands.

Hawkins' benefits from FFA go beyond professionalism. At FFA camp he met Elizabeth Bates from Warren County. They served on the camp council together and began a relationship that ended in marriage. All because of FFA.



***‘Students who participate in CTSOs demonstrate higher levels of academic engagement and motivation’***



**‘CTE can play a role in keeping youth in school by exposing them to skills that are directly applicable to the real world’**

**“The dropout rate in American high schools is around 30 percent on average, and as high as 45 percent in certain minority groups;** however, research has shown that extracurricular activities can be especially beneficial for students at risk of dropping out,” The National Research Center for Career and Technical Education (NRCCTE), which is based at the University of Louisville, wrote in a *Research Snapshot*, *“Looking Inside the Black Box: The Value Added by Career and Technical Student Organizations to Students’ High School Experience.”*

“Recent research has also found that Career and Technical Education (CTE) can play a role in keeping youth in school by exposing them to skills that are directly applicable in the real world,” NRCCTE added. Developing the relationship of student success to CTSOs, the Research Snapshot continued, “Facilitated by a teacher-advisor, CTSO activities include leadership development, competitive events, professional development and community service.”

Additional NRCCTE findings were:

- The more students participated in CTSO activities, the higher the academic motivation, academic engagement, grades, career self-efficacy, college aspirations, and employability skills.
- The CTSO students in the study started out and ended up with higher levels of academic engagement, civic engagement, career self-efficacy, and employability skills than CTE-only students.

**IN 1996, NEILA-SUSAN THOMPSON (LAWSON)** was a happy-go-lucky 16-year-old when she saw an opportunity to become involved in FHA (Future Homemakers of America, the forerunner of today’s FCCLA). She remembers she could not cook or sew, but she was willing to learn. And she was good at talking! Her advisers encouraged her to new adventures, and she accepted the challenge of running for FFA leadership offices. She competed for local, regional, state and national offices, achieving Vice President of Individual Programs.

“FHA taught me many things: leadership, communication, perseverance, attitude and a strong work ethic,” Thompson recalled. “It was not easy to juggle school classes, grades, community meetings, sports and family, but through the organization and the amazing advisers I accomplished a lot at a young age. Those accomplishments have made me the successful adult I am today. I have achieved every goal I ever made for myself. Had it not been for the time I spent with FHA, I would not be able to say that. It was, is and always will be a superior organization for young people.”



**I**n a 2004 “*Final Report for National FFA Organization,*” researchers at Purdue University compared agriculture education students to the “typical high school student” as quantified in the Horatio Alger Association study, “*The State of Our Nation’s Youth.*” They concluded, “FFA members had a higher participation rate in any activity, a greater percentage that held a job last year, and a greater percentage taking more difficult and challenging courses than either the general youth population or non-members.”

“The implication is that FFA members are more engaged than non-members in almost all aspects of school life and career preparation, and are more engaged than the overall youth population in many aspects of school life and career preparation,” the Final Report presented. It continued, “FFA members more than non-members believe that their agriculture classes are preparing them for the future, are challenging, interesting, exciting, and allow for open discussion.’

**FITTINGLY, DWIGHT ARMSTRONG, Ph.D.,** the current CEO of National FFA, credits his foundation in the organization as a student with his academic, business and professional success. Dr. Armstrong “fell in love” with FFA as a student at Lyon County High School. He participated in many events, was a state winner, and captured silver medal honors at a national event. It led to receiving a BS in agriculture from Murray State University and his masters and doctorate in animal nutrition from Purdue University.

He taught at North Carolina State University before joining Akey Company in Ohio, which focused on animal nutrition, feed and premixes. He became CEO of Akey as well as CEO of North American Nutrition Company. Along the way, he was Director of the Americas and Global Vice President, which afforded him the opportunity to reside in The Netherlands for almost two years. In 2008, he started his own consulting firm, and in 2009 began service with National FFA.

Dr. Armstrong credits his high school advisers and mentors in helping him reach his goals, particularly Ray Fowler. “He knew how to get the most out of me and would encourage, challenge and expect the best from me both in and out of school,” he remembered. Dr. Armstrong credits FFA with providing him with career-ready skills such as servant leadership, confidence, critical thinking, and citizenship that he is convinced students still are receiving today.



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**R***REAL RETURN ON INVESTMENT* is a research-based white paper supported by alumni testimonials produced for the Career and Technical Education Student Organization State Advisers by the Kentucky Association for Career and Technical Education (KACTE). KACTE is a professional association of individual members who are employed in all program areas and at all educational levels in Kentucky’s Career and Technical Education system. KACTE’s mission is to develop and provide leadership and advocacy to advance Career and Technical Education. Michael R. Stone is KACTE Executive Director and author and editor of *Real Return on Investment*.

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