Section II

Wisconsin's Approach to Career and Technical Education and Agriculture, Food and Natural Resources Education

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What is Contemporary Career and Technical Education?

There are multiple components to consider when developing contemporary Career and Technical Education (CTE) programs. The standards outlined in this document provide an important foundation to prepare individuals for a wide range of careers. Effective CTE programs are dynamic and require utilization of varied resources and involvement from multiple stakeholders. The discussion that follows highlights the multi-faceted nature of CTE and outlines the critical components that drive the development of effective CTE programs.

A National Vision for CTE

The National Association of State Directors of Career and Technical Education Consortium (NASDCTEc) has identified five guiding principles that should drive the development of quality CTE programs. Wisconsin supports these principles as spelled out in the NASDCTEc's *Reflect, Transform, Lead: A New Vision for Career and Technical Education*. These principles provide that Career and Technical Education is:

- critical to ensuring that the United States leads in global competitiveness;
- actively partnering with employers to design and provide high-quality, dynamic programs;
- preparing students to succeed in further education and careers;
- delivered through comprehensive programs of study aligned to The National Career Clusters framework; and
- a results-driven system that demonstrates a positive return on investment.

CTE in Wisconsin

Career and Technical Education is both a collection of educational programs or content areas as well as a system of preparing students to be career and college ready. Contemporary CTE programs are delivered primarily through six specific content areas; these include:

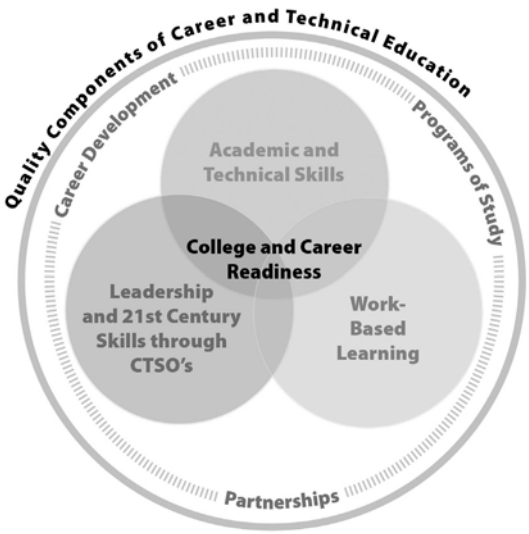
- Agriculture, Food and Natural Resources
- Business and Information Technology
- Family and Consumer Sciences
- Health Science
- Marketing, Management and Entrepreneurship
- Technology and Engineering

Not all Wisconsin school districts offer programs in all of these content areas, but all should be offering CTE through a systemic approach that prepares students to be college and career ready.

At the elementary level, CTE content and concepts should be integrated throughout the curriculum. Teachers can effectively use CTE concepts in instruction and activities to develop foundational skills and also create a connection to the world of work. At the middle and high school levels, all students should have access to CTE courses and programs while also participating in activities prescribed by the Wisconsin Comprehensive School Counseling Model. High quality CTE programs incorporate rigorous academic and technical standards, as well as critical workplace skills – such as problem solving, communication and teamwork – to ensure career and college success for students. The Program of Study components provide a framework for building and maintaining a high quality, contemporary CTE program, but one can also recognize such quality programs by the presence of three distinct and crucial elements – rigorous academics and technical skill attainment, work-based learning and Career and Technical Student Organizations (CTSOs). The diagram and description that follows on the next page illustrates the quality components of Career and Technical Education programs.

Rigorous Academics and Technical Skill Attainment

CTE programs prepare students for high-skill, family-sustaining jobs that typically require high levels of core academic skills as well as various technical skills. Consequently, CTE students must be held to high academic standards; often this includes course and performance expectations exceeding typical graduation requirements. CTE students benefit from a source of relevance for their academic instruction. They see the connection between their academic knowledge and skill instruction and their future occupational and career goals.



Of course, at the heart of CTE is the attainment of technical skills that are required for potential high-skill, high-wage jobs. Where circumstances and resources allow, CTE programs provide opportunities for high school students to attain the highest level of skills possible within their desired career pathway. This is done through courses taught by high school CTE teachers and/or through partnerships with neighboring districts, employers, technical colleges and postsecondary institutions or other organizations.

Some of the specific means of achieving rigorous academics and technical skill attainment include:

- *Partnerships/Advisory Committees* – These typically include representatives of area businesses within the given program's career area as well as representatives from related postsecondary training and education programs. They may also include parents, students and program alumni. They can provide recommendations on program changes and improvements, as well as serve as advocates for the program.
- *Transcripted or Dual Enrollment Options* – Opportunities such as these allow students to earn both high school and college credit concurrently. Various options are available for CTE students include advanced standing and transcripted coursework taught at the student's high school, as well as Youth Options and Advanced Placement (AP) courses.
- *Equivalency Credit Options* – These provide opportunities for students to earn credits required for high school graduation through CTE courses proven to have sufficient academic content.
- *Work-Based Learning* – See separate section below
- *Career and Technical Student Organizations* – See separate section below

Work-Based Learning

A vital part of comprehensive career and technical education programs is a structured work-based learning experience. One goal of education is preparing students to successfully enter the workforce. The best way to achieve this goal is for students to spend time in a work setting. Many factors will influence the work-based learning options that can be offered.

Work Place Visits, Employer/Employee Dialogues and Job Shadowing – At the very least, students should participate in work place visits and tours as well as hear presentations and have a dialogue with employers and employees to see how their school-based learning is relevant to the work place. Job shadowing – during which students spend several hours observing one or more employees at a work place – is an even better way to expose students to the work place.

Paid Work Experience – Ideally, students will have opportunities for paid work experience in a job related to their program of study and connected with one or more courses in which the student is currently enrolled. Such experiences should include a training agreement that spells out the expectations for everyone involved including the student, employer, teacher and parents. One of the critical elements of the training agreement is a list of the skills and knowledge the student is expected to develop through their paid work experience. Examples of structured, existing work experience programs in Wisconsin are the Employability Skills Certificate, State Certified Skills Coop programs and Youth Apprenticeship.

Leadership Certificate – An option for many students includes the Wisconsin Youth Leadership Certificate. This certificate is comprised of leadership skills and attitudes that are honed through community and school volunteer or service experiences, leadership positions and volunteer or unpaid workplace encounters.

The more time students spend in the workplace and the broader the experiences, the better prepared they will be. These students will also be better prepared to plan and make decisions about their futures. Work-based learning allows students to put into action the knowledge and skills learned at school.

Career and Technical Student Organizations

Career and Technical Student Organizations (CTSOs) are the third critical element found in the best contemporary CTE programs. Through CTSOs, students match their skill level against those of other students and established industry standards. In addition, CTSOs allow students to develop civic responsibility, leadership and 21st century skills.

Wisconsin has six state and nationally recognized CTSOs that are intra-curricular in that they are connected directly to the classroom through curriculum, activities and community resources. All CTSOs include leadership development elements and competitive events where students demonstrate technical and leadership skills. CTSOs prepare young people to become productive citizens and leaders in their communities and their careers. This is done through school activities as well as regional, state and national leadership conferences and competitions. Students grow and develop through these events and receive recognition for the work they have done and the skills they have developed. CTSOs provide an exceptional extension of CTE instruction. Wisconsin's recognized CTSOs include:

An Association of Marketing Students	An Association of Technology and Engineering Students	An Association of Business and Information Technology Students	An Association of Health Science Students	An Association of Family and Consumer Students	An Association of Agricultural Education Students

The Powerful Outcomes of Quality CTE

Beyond the technical knowledge and skills developed by CTE students, the overall outcomes of students who have enrolled in a CTE course – and in particular students who have taken a sequence of courses in a CTE program of study (called CTE concentrators) – are exceptionally positive. Approximately two-thirds of Wisconsin students have taken at least one CTE course. These students have a higher graduation rate (84.2%) than students who have not taken a CTE course (81.8%). CTE concentrators have an even higher graduation rate (95.7%). In addition, within a year after graduation, CTE concentrators report overwhelming positive outcomes with approximately 95% either working, attending postsecondary education or engaged in training programs.*

CTE and Programs of Study – Expanding Student Opportunities

Such positive outcomes as those noted above how CTE programs expand student opportunities. To support quality CTE programs, it is critical to foster partnerships, implement Programs of Study and promote career development through academic and career planning. CTE students develop a strong base of academic knowledge and skills that better prepare them to enter nearly any postsecondary program and pursue any career pathway compared to students who have not taken CTE courses. The relevance created by CTE and programs of study opens up additional opportunities and prepares students to pursue those opportunities when they graduate from high school. Students who select and pursue a program of study through CTE, based on identified career goals, will be in the best position for all job and career opportunities that arise in their future, including those they have never considered or those not yet in existence. ***Quality CTE programs are at the forefront of preparing college and career ready graduates.***

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*Statistics from 2011 Wisconsin Career and Technical Education Enrollment Report (CTEERS) data.

Delivering Career and Technical Education through Career Clusters and Pathways

Career Clusters Framework

One of the keys to improving student achievement is providing students with relevant contexts for studying and learning. Career Clusters do exactly this by linking school-based learning with the knowledge and skills required for success in the workplace. The National Career Clusters Framework was developed by the National Association of State Directors for Career and Technical Education Consortium (NASDCTEc). This framework is comprised of 16 Career Clusters and related 79 Career Pathways to help students of all ages explore different career options and better prepare for further education and career. Each Career Cluster represents a distinct grouping of occupations and industries based on the knowledge and skills they require. They provide an important organizing tool for schools to develop more effective programs of study (POS) and curriculum.

> **CTE is delivered through comprehensive programs of study aligned to the National Career Clusters framework**
> *"Programs of Study aligned to the National Career Clusters framework…should be the method of delivery of all CTE. A rigorous and comprehensive program of study delivered by qualified instructors is a structured sequence of academic and CTE courses that leads to a postsecondary credential. We must be willing to take bold steps necessary to jumpstart dramatic change in our nation's education and workforce preparation systems. The dichotomous silos of academics versus CTE must be eliminated and their supporting infrastructures must be re-imagined to meet the needs of the economy. As the lines of economies blur, so too must the lines that currently separate CTE and academic education."*
> ***~Reflect, Transform, Lead: A New Vision for Career and Technical Education, NASDCTEc***

In Wisconsin, the Career Clusters and Pathways have been embraced by CTE programs to provide a context for learning the skills specific to a career. Furthermore, the nationally recognized 10 components framework (see the Wisconsin Program of Study Implementation Guide for details) delineates promising practices necessary to fully implement programs of study. Programs of Study are designed to produce higher levels of achievement in a number of measurable arenas, including academic and technical attainment, high school completion, postsecondary transitions to career and education and attainment of a formal postsecondary credential. They also contribute to increased student proficiency in vital areas such as creativity and innovation, critical thinking and problem solving.

Delivering CTE through Career Clusters

Delivering CTE through Career Clusters and Pathways means acknowledging three sets of standards (nationally-developed **Common Career Technical Core, Wisconsin Common Career Technical Standards and the Wisconsin Standards for Career and Technical Education**), their relationship to each other and how they can be used collectively to deliver quality instruction. It means shifting the way we approach curriculum and instruction to allow for a strategic approach for implementing these standards in a school or district. This section will outline the relationship that exists between these standards.

In our ever-changing society, many CTE programs are transitioning from helping students prepare for an entry-level job to helping students prepare for a career. As part of that transition, national organizations, such as the NASDCTEc, individual states and even industry-based organizations, have created different sets of standards for student learning in CTE programs. The result is an assortment of standards that vary in quality and specificity from one state to the next. In response, Wisconsin has made a concerted effort to outline these standards and their use for educators as they develop curriculum and programs of study.

Educating students is about the preparation for postsecondary options along with transferable skills that balance current business and industry needs and future career trends. CTE brings students, educators and employers together to develop and strengthen the relationship between what is being taught in the classroom and its application in the workplace. Having a skilled workforce and a vibrant economy depends on CTE programs that can deliver high quality

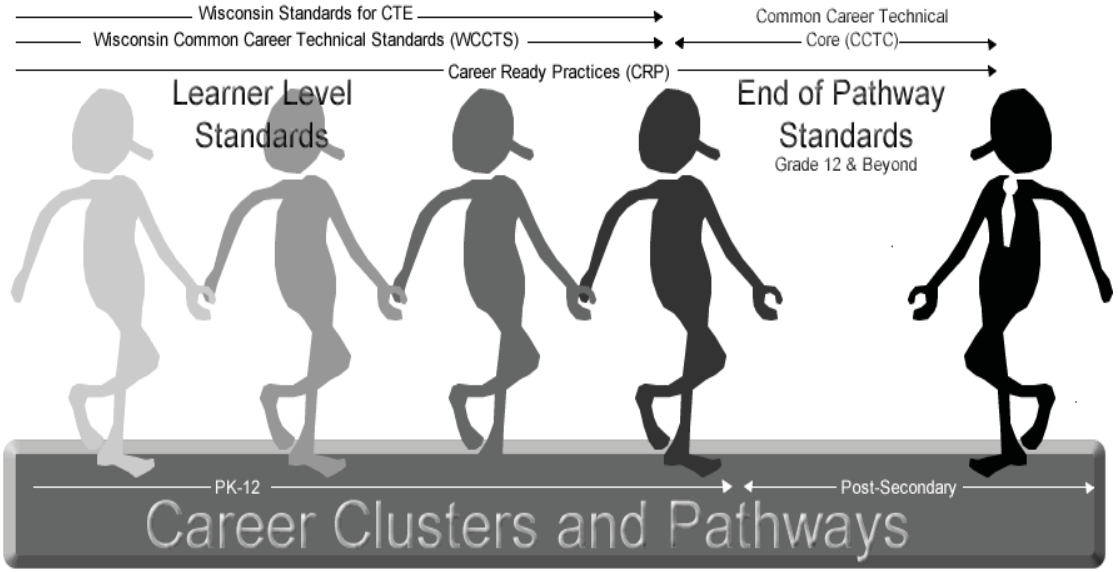
education and training. Because of this, understanding each of the following sets of standards and how they can impact classroom instruction is imperative and will need to be a priority for Wisconsin's CTE educators.

Common Career Technical Core

Recognizing the need for more consistency in today's global marketplace, in the spring of 2010, NASDCTEc united around a vision to develop a shared set of standards that meet a quality benchmark for students in CTE programs, regardless of where they live or which delivery system they use. The **Common Career Technical Core (CCTC)** has been developed to align with other college and career ready standards efforts, such as the Common Core State Standards in English Language Arts and Mathematics, while also articulating industry expectations for each of the 16 Career Clusters. The CCTC begins with a set of overarching **Career Ready Practices (CRP)** that apply to all programs of study. The **Career Ready Practices** include 12 statements that address the knowledge, skills and dispositions that are important to becoming career ready.

While the Common Core State Standards for English Language Arts and Mathematics define the academic knowledge and skills students need to succeed, there are additional standards that individuals must achieve if they are to be truly career ready. For example, employability skills such as team work and time management, as well as the career specific skills, have not been referenced in the Common Core State Standards. These are skills that individuals must possess in order to be successful in the workplace. These skills make up the **Career Ready Practices** outlined in the CCTC.

The nationally-developed **Common Career Technical Core** contains standards developed for each cluster and pathway. These standards are meant to showcase the knowledge and skills students should have at the **end of the pathway.** These standards provide a mechanism for districts and states to collaborate to provide seamless educational opportunities for students across a **program of study** beginning at the secondary level. Most programs of study will require postsecondary or industry-developed skills beyond what is provided at the secondary level.



*As depicted in this graphic, there is a continuum or progression that students travel in their PK-12 career. The path begins with learner-level standards such as the **Wisconsin Common Career Technical Standards** and the **Wisconsin Standards for CTE**. As students graduate from high school and move seamlessly into postsecondary options, the focus moves to the end-of-pathway standards such as the Common Career Technical Core (CCTC-national). The Career Ready Practices (CRP-national) act as overarching concepts that students need to know and be able to do throughout their educational experiences.*

Wisconsin Common Career Technical Standards

The development of the **Wisconsin Common Career Technical Standards (WCCTS)** occurred at the state level at the same time as the national **Common Career Technical Core (CCTC)**. The Wisconsin standards writing teams identified six areas that have been further developed into standards that should be addressed across all six CTE content areas. These standard areas are Career Development; Creativity, Critical Thinking, Communication and Collaboration; Environment, Health and Safety; Global and Cultural Awareness; Information, Media and Technology; and Leadership. The intended outcome of the WCCTS revolves around creating a set of standards that transcend CTE across the state and across all CTE content areas. To read more about the WCCTS, see Wisconsin's Approach to Common Career Technical Standards in Section III of this document. The WCCTS, along with the **Wisconsin Standards for CTE** form a strong foundation by which students move toward the completion of a program of study. The WCCTS and the Career Ready Practices in the CCTC correlate as shown below:

6 Wisconsin Common Career Technical Standards*					
Career Development Has a focus on personal and social, academic, career content and employability skills	**Creativity, Critical Thinking, Communication and Collaboration** Has a focus on creativity and innovative problem solving, critical thinking used to formulate and defend judgments, to communicate and collaborate to accomplish tasks and develop solutions	**Environment, Health & Safety** Has a focus on interrelationships of health, safety and environmental systems and the impacts of these systems on organizational performance for continuous improvement	**Global & Cultural Awareness** Has a focus on solutions and initiatives related to global issues and the benefits of working in diverse settings on diverse teams	**Information, Media and Technology** Has a focus on information and media literacy to improve productivity, solve problems and create opportunities	**Leadership** Has a focus on applying leadership skills in real-world, family, community and business and industry applications
12 Career Ready Practices**					
Attend to personal health and financial well-being	Apply appropriate academic and technical skills	Consider environmental, social and economic impacts of decisions	Work productively in teams while using cultural global competence	Employ valid and reliable research strategies	Act as a responsible and contributing citizen and employee
Plan education and career paths aligned to personal goals	Communicate clearly and effectively with reason			Use technology to enhance productivity	Model integrity, ethical leadership and effective management
	Demonstrate creativity and innovation				
	Utilize critical thinking to make sense of problems and preserve in solving them				

***See Section III**

****See** http://www.careertech.org/career-technical-education/cctc/

Wisconsin Standards for Career and Technical Education (CTE)

The **Wisconsin Standards for Career and Technical Education** are sets of standards in each of the six content areas of Agriculture, Food and Natural Resources; Business and Information Technology; Family and Consumer Sciences; Health Science; Marketing, Management and Entrepreneurship; and Technology and Engineering. The **Wisconsin Standards for CTE** are written at the **learner level** and provide instruction and assessment at the PK-12 level, that, when coupled with postsecondary education and training, leads to the mastery of end-of-pathway standards. Therefore, the **Wisconsin Standards for CTE** align to **Career Clusters and Pathways** and provide an excellent foundation for students **toward meeting the end-of-pathway** expectations.

In Summary

Career Clusters and Pathways provide an organizational structure for developing Programs of Study while building connections to current labor market information and future workforce demands. As noted previously, Programs of Study used within CTE help to create relevance for students in all subject areas. This relevance translates into improved student engagement in the learning process and more in-depth comprehension and skill development. Further, the **Wisconsin Common Career Technical Standards (WCCTS**) and the **Career Ready Practices** serve as the foundation for career readiness that ensures students have flexibility to change career paths as their interests, passions and circumstances change while considering with changes in the current and projected job market. In our dynamic and unpredictable world, Career Clusters and Pathways, along with **Wisconsin Standards for CTE** to include the WCCTS, provide a measure of stability and certainty on which to build a successful future.

The Importance of Career and Technical Education

By meeting the current needs and anticipating the future demands of the economy, CTE is critical to our nation's economic success.† Quality CTE programs have planned course sequences of high-quality academic core content and technical skills that provide students with skills necessary for successful transition to postsecondary education or work in addition to a desire for life-long learning in global society.

CTE has grown and evolved to become a focus in schools, workforce and government. The importance and need for career and technical education in our society should be at the forefront of career decision making for the following reasons:

- CTE organizes both academics and career education into a practical program for workforce preparation, elevating the level of rigorous, challenging and applicable coursework leading to more informed preparation.
- CTE in schools promotes the wide variety of postsecondary options to help individuals choose and recognize pathways that will provide the most successful level and type of training for their future goals in postsecondary education, military or work, while understanding the need for lifelong learning and career development.
- CTE provides opportunities to develop 21st century and employability skills, exposure to work and mentoring from employers and connections with postsecondary education.
- CTE creates a positive, thoughtful learning environment for self-discovery, innovation and leadership to more lifelong career satisfaction and success.
- CTE recognizes the diverse needs, behaviors, backgrounds, environments and preferences of students by creating an approach for individual guidance and preparation for goals, plans and dreams.
- CTE is dynamic, flexible and responsive to the changes and advances of technology, education, the workforce and the economy by incorporating methods, ideas and resources to keep CTE relevant and contemporary.

CTE has a positive impact on student achievement and transitions. Programs help students find their passion, boost their confidence and empower them to succeed. Because CTE demonstrates a positive return on investment, CTE is a trusted, long-standing partner with the employer community.†

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† "Reflect, Transform, Lead: A New Vision for Career Technical Education." National Association of State Directors of Career Technical Education Consortium (NASDCTEc), 2010.

The Importance of Agriculture, Food and Natural Resources in Wisconsin and our communities

For almost a century, Agricultural Education has existed in American high schools as an official subject. While agricultural education was initially needed to train students for the rapid technological advancements in production agriculture, today fewer than 2% of Americans have farming as a career. However, agricultural education is as appropriate today as it was in the early 1900s because…

AFNR is relevant and engaging

Many of today's major issues are agricultural, biotechnological or environmental in their nature and easily fit the content of an agricultural classroom. From sustainability to organic foods to biofuels to climate change to cloning and genomics, agricultural education is at the forefront of today's most pressing issues. Agricultural education is inherently a hands-on subject with strong emphasis in problem-based and inquiry-based techniques. With labs that include suturing, gardening, genetic testing, environmental testing and others, agricultural education enables students to use their knowledge rather than simply repeat it.

AFNR is important to the economy

According to the U.S. Secretary of Education Arne Duncan, students in the United States ranked 21st out of 30 in science literacy among students from developed countries and 25th out of 30 in mathematics literacy.£ By most measurable standards, the United States is falling behind other developed nations in preparing students for a rapidly developing world. A subject such as agricultural education can help to reverse this decline due to its interdisciplinary focus on science, technology, engineering and mathematics (STEM). American agriculture employs one fifth of the country, while it provides over $59 billion to the Wisconsin economy.€ Through close and long-lasting connections to businesses and organizations in this industry, agricultural education has not only increased the likelihood of gainful employment after high school and college, but also provides increased opportunities for students before graduation through sponsorships, scholarships, internships and other forms of industry support.

AFNR prepares for college and careers

As part of Career and Technical Education, postsecondary preparation is inherent in agricultural education. It is the mission of all agricultural educators to help students identify their own personal career ambitions and to determine which postsecondary institution will best meet the students' own needs for whatever career path they choose. The agricultural, food and renewable natural resources sectors of the U.S. economy will generate an estimated 54,400 annual openings for individuals with baccalaureate or higher degrees in food, renewable energy and environmental specialties between 2010 and 2015.^ Without agricultural education, students would lose a key opportunity to prepare themselves for the challenging world of academia that awaits them after high school.

AFNR goes beyond the classroom

Agricultural education is able to reach beyond the four walls of a classroom through its intra-curricular component, the National FFA Organization. Through involvement in the FFA, students are encouraged to take their classroom lessons into the real world through Supervised Agricultural Experiences – a high school equivalent to college internships. As much as any other subject, students in agricultural education have the opportunity to apply their knowledge to real-world scenarios in areas that are specific to their interests, abilities and future career paths. Through the National FFA Organization and as part of Career and Technical Education, agricultural education plays a very specific role in teaching students to conduct themselves as professionals in and out of the workplace. Agriculture education provides necessary training in the areas of resumes, cover letters, job interview, public speaking and parliamentary procedure for many professions—everything from forest managers and veterinarians to biotechnicians and agriculture journalists. This specific level of training creates the personal level of professionalism to become an effective employee and contributing member of society.

AFNR is interdisciplinary and collaborative

Agricultural education provides specific examples of connections between all content areas in high school. Though agricultural education lessons are saturated in science and math content, it also encompasses content in communication, social studies, art and technological literacy. Agricultural education led the development of an updated agriculture/science equivalent credit process. This process allows students to take an agriculture course and earn an equivalent science credit which counted for graduation and also credit requirement into the UW-System. By providing students with the opportunities to use agricultural proficiencies in other subject areas, agricultural education simultaneously strengthens students' performance in all other subjects.

As part of career preparation and through involvement in the National FFA Organization, students in agricultural education develop strong abilities to work with others through collaboration and leadership. For a student to succeed after high school, they must have the ability to use their knowledge and skills in collaboration with the knowledge and skills of others in an interdependent manner. Agricultural education consistently provides specific and regular opportunities for students to become more productive citizens and employees through regular collaboration.

AFNR creates students who care

Today, over 800,000 students participate in formal agricultural education instructional programs offered in grades seven to adult throughout the 50 states and three U.S. territories.ƒ Agricultural education has an inherent mission to not only prepare students to be successful in their careers but also to be active and caring members of the community and country. Through lessons and opportunities in community service, sustainability, animal welfare, education, leadership and more, agricultural education creates opportunities for students to develop into the kinds of citizens who lead by example and act on principle because of their training both in and out of the classroom.

In summary

Agricultural education is an interdisciplinary STEM subject that provides multifaceted opportunities for students to become prepared for their careers and for their postsecondary education through hands-on lessons in the classroom and industry-based opportunities outside of their schools. Agricultural education has an explicit mission to develop students into the leading members of society who have an interest and motivation to care for the welfare of their neighbors, communities, nation and environment. Agricultural education has the potential to elevate the performance of students in the United States while simultaneously ensuring a more sustainable future with more opportunities for all.

£ Educate to Innovate, http://www.whitehouse.gov/issues/education/k-12/educate-innovate
€ The Economic Impacts of Agriculture in Wisconsin Counties, Steven Dellar and David Williams, March 2011
^ Employment Opportunities for College Graduates in Food, renewable Energy and the Environment, www.csrees.usda.gov/nea/education/part/education_part_employment.html
ƒ The National Council for Agricultural Education. (2012) Overview of Agricultural Education, https://www.ffa.org/thecouncil/Pages/ageducation.html

Work-Based Learning in Agriculture, Food and Natural Resources Programs

One of the goals of agriculture, food and natural resources programs is to prepare all students to be college and career ready. Providing work-based learning opportunities is an important step to becoming career ready. Engaging work-based learning experiences allow students to apply knowledge and technical skills to real-world projects and problems alongside professionals. Agriculture, food and natural resource students who participate in programs such as the State Certified Cooperative program and Youth Apprenticeship Animal and Plant programs make a significant contribution to student's success in life.

Agriculture, food and natural resource students seek a clear connection between their future career(s) and their class work. The opportunity to explore and experience the world of work is beneficial to career decision-making. These experiences provide students with a firsthand look at what skills and knowledge are needed to be successful in their chosen industry. Work-based learning is a key to a successful economy.

Some work-based education programs provide an opportunity for students to earn postsecondary credits concurrently while earning high school credit. This may occur through local agreements between a high school and college (such as a technical college or university) or through a more comprehensive agreement at the state or national level.

Today, most career pathways require some form of postsecondary education, whether it is an entry-level job, a management position for a mid-career professional or perhaps even a shift from practicing a profession to teaching others. A particular job might require a certificate, a two-year degree, a four-year degree, a doctorate or even a handful of courses to hone in on a particular piece of knowledge or a skill.[†]

Wisconsin Association of FFA and Work-Based Learning

Recognized as integral to the success of work-based learning programs, the Wisconsin Association of FFA organization is an important part in the success of our agriculture, food and natural resource students. Through a proven system of developing leadership skills, positive attitudes and a sense of community pride, Wisconsin Association of FFA serves as a vehicle to transition students into careers. FFA prepares students for future careers by introducing them to the agriculture and business culture. FFA emphasizes respect for the dignity of work, high standards, ethics and high quality skills. It is an extremely effective instructional tool that connects our agriculture, food and natural resource classrooms with college and careers.

Work-Based Learning Options and Implementation in Agriculture, Food and Natural Resources

Job Shadowing

Job shadowing is a career exploration strategy. As such, it is most appropriate at the middle school level. Middle school is the time for students to explore the broad range of occupations so that later on they will be able to narrow their career interests. High school students who have not narrowed their career interests by tenth grade may also find job shadowing to be a useful activity.

Supervised Agricultural Experience

An agricultural education program is made up of three integrated parts: Classroom instruction, FFA and Supervised Agricultural Experience (SAE). Students with an SAE learn by doing. With help from their agricultural teachers, students develop an SAE project based on one or more SAE categories:

- *Entrepreneurship*: Own and operate an agricultural business (e.g. a lawn care service, a pay-to-fish operation, holiday poinsettia production and sales.)
- *Placement*: Get a job or internship on a farm or ranch, at an agriculture-based business or in a school or laboratory.

- *Research and Experimentation*: Plan and conduct a scientific experiment. (e.g. Determine whether the phases of the moon affect plant growth or test and determine the efficacy of different welding methods.)
- *Exploratory*: Explore careers in agriculture by attending an agriculture career fair or creating a report or documentary on the work of a veterinarian.

Service Learning
Service-learning is a teaching method that engages students in solving problems within their schools and communities as part of their academic studies. In Wisconsin, service-learning is defined as "a teaching and learning method which fosters civic responsibility and links classroom learning and applied learning in communities." The strongest service-learning experiences occur when the service is intentionally immersed in ongoing learning and is a natural part of the curriculum that extends into the community.

Local Cooperative Education Program
Local Co-op involves paid work for a local credential that adds value for programs. Students can earn a high school credit for their co-op experience and possible postsecondary credit. The number of required work hours is determined by the local school district and the program is administered by the local school district. Typically a local co-op is one year in length and can include all Career and Technical Education content areas.

School Based Enterprise
School-based enterprises (SBE) are effective educational tools in helping to prepare students for the transition from school to work or college. For many students, they provide the first work experience; for others, they provide an opportunity to build management, supervision and leadership skills. SBE activities help students increase their skills in management, problem solving, business operations, time management and working in teams.

Youth Leadership Skill Standards Program
The Youth Leadership Certificate is a set of competencies to recognize a student's mastery and exhibition of leadership skills valued by employers, communities and organizations. The certificate earned by the student will be issued by the State of Wisconsin and becomes a part of the student's portfolio and resume.

Employability Skills Certificate Program
The Employability Skills Certificate Program is a set of competencies developed for all students in order to recognize a student's mastery of employability skills valued by employers, to help students explore career interests and to provide a state credential of student mastery.

State Certified Cooperative Education Skill Standards Program
Wisconsin's Cooperative Education Skill Standards Certificate Program is designed in partnership with business, industry and labor representatives and educators around the integration of school-based and work-based learning and appropriate career development experiences. The program is designed to provide paid work experience for junior and senior high school students which contribute substantially to their educational and occupational development. Students learn technical tasks and employability skills validated by business and industry representatives in cooperation with high school, technical college and university instructors.

Wisconsin Youth Apprenticeship
Wisconsin's Youth Apprenticeship program is a part of a statewide School-to-Work initiative supported by the Wisconsin Department of Workforce Development (DWD). It is designed for high school students who want hands on learning in an occupational area at a worksite along with classroom instruction. The program is for high school juniors and seniors requiring a minimum of 900 hours (450 each year) of paid experience. In mentored on-the-job

training, the mentor serves as a guide and sponsor of the Youth Apprentice and encourages the student's progress in the workplace. The DWD issues a Certificate of Occupational Proficiency to students who successfully complete the program.

The Youth Apprenticeship area has several choices for Agriculture, Food and Natural Resource students to choose from including; Agriculture, Food and Natural Resource –Animal; and Agriculture, Food and Natural Resource –Plant and STEM.

In Closing

Career and Technical Education programs use contemporary concepts and strategies to prepare students who are college and career ready. Today's 21st century workplace requires people with the leadership, teamwork and communication skills to perform effectively. Work-based learning programs have proven successful in developing these skills in students of all ages and backgrounds.

† http://careerreadynow.org/docs/CRPC_4pagerB.pdf

Career and Technical Student Organizations in Agriculture, Food and Natural Resource Programs

Wisconsin Association of FFA has mentored students for over 85 years. College and career-focused students build skills through FFA competition, conferences and supervised agricultural experiences. FFA is affiliated at the local, state and national organization levels. It is an integral component of the middle and high school agricultural education program which also includes classroom instruction and work-based learning, including Supervised Agricultural Experience (SAE).

Wisconsin FFA Mission
FFA is dedicated to making a positive difference in the lives of young people by developing their potential for premier leadership, personal growth and career success through agricultural education.

FFA enhances the preparation for college and careers by providing intra-curricular programs that integrate into classroom instruction, applying learning in the context of agriculture and business, connecting to business and the community and promoting competition. FFA student members leverage their FFA experience to become academically-prepared, community-oriented, professionally-responsible, experienced leaders.

Attributes and Values
FFA develops competent and assertive agricultural leadership, increases awareness of the global and technological importance of agriculture and its contribution to our well-being, strengthens the confidence of agriculture students in themselves and their work, promotes the intelligent choice and establishment of an agricultural career, encourages achievement in supervised agricultural experience programs, encourages wise management of economic, environmental and human resources of the community, develops interpersonal skills in teamwork, communications, human relations and social interaction. Builds character and promotes citizenship, volunteerism and patriotism, promotes cooperation and cooperative attitudes among all people and promotes healthy lifestyles.

College and Career Ready
To be prepared for both college and careers, Wisconsin FFA members take advantage of the programs of study in agribusiness systems; animal systems; biotechnology systems; environmental services systems; food products and processing systems; natural resources systems; plant systems; and power, structural and technical systems.

FFA and the National Council for Agricultural Education have worked closely with the National Association of State Directors of Career and Technical Education Consortium's (NASDCTEc) Career Clusters Project with the development of National Curriculum Standards and Career Cluster Programs of Study. All FFA career development events align with these career clusters, enabling teachers to better incorporate FFA into their curriculum and courses.

Wisconsin FFA Career Development Events
Career opportunities abound within today's agriculture industry. Career Development Events (CDEs) help students develop the abilities to think critically, communicate clearly and perform effectively in a competitive job market. There are 24 industry recognized CDEs, covering job skills in everything from communications to mechanics. Some events allow students to compete as individuals, while others allow them to compete in teams. FFA's career development events directly contribute to every student being college and career ready when they graduate from high school.

Wisconsin FFA members have the opportunity to experience the career development events program at a variety of levels. Many local chapters conduct practice or mock competitions prior to attending the Regional Career Development Contest. Regional contests range from 400 – 1400 students and are located throughout Wisconsin. The next level of competition is the State Career Development Contest where over 1,800 FFA members have the opportunity to compete, network and broaden their professional interests. The highest level of competition is the National FFA Career Development Contest held in conjunction with the National FFA Convention where over 56,000 students, advisors, businesspersons and alumni gather for several days of competitions, leadership training, industry tours and a career exposition.

Leadership Opportunities

Wisconsin FFA members have a variety of different leadership opportunities at the local, state and international level. At the local level, students can demonstrate leadership through officer roles, events and more. Sectional leadership workshops, state officer positions and leadership conferences are excellent opportunities at the state level. At the national level, interactive leadership workshops, the Washington Leadership Conference and the Agriculture Career Network connect students to leadership roles.

Wisconsin FFA leadership conferences are targeted, highly-focused learning experiences for students and advisors. These conferences bring members into the larger FFA community while providing unique opportunities to extend classroom learning. Each of FFA's conferences connects with and is validated by corporate professionals to engage students in learning industry-related trends and content. These conferences focus on leadership development and college and career preparation through a variety of engaging workshops and speakers.

Community Service Opportunities

Wisconsin FFA members have a unique opportunity to engage their high school peers, family and community members to reach one common goal that makes a difference in the lives of others. FFA provides the foundation for students to champion community service projects with local businesses and charitable organizations. Successful "Day of Service" projects benefiting Second Harvest Food Bank and Madison City Parks, as examples, happen during the State FFA Convention in June.

Wisconsin FFA members can explore a variety of career fields earlier and attain specialized knowledge and skills as their interests grow. Members have more opportunities to experience FFA's benefits. They can begin competing and enhancing their skills earlier, making them more competitive in a global marketplace.

In Summary

Career and Technical Student Organizations, like FFA, provide valuable opportunities for students to develop leadership skills, presents chances to get involved in communities and give back and showcases students' skills and abilities through competition. These opportunities, along with related classroom instruction, support young men and women in preparing for their future endeavors.