





Handout D3

2022 Adequacy Study
CAREER AND TECHNICAL EDUCATION





2022 CTE Report

- Adequacy definition states that the standards included in state’s curriculum and career and technical frameworks, which define what Arkansas students are to be taught, including specific grade level curriculum and a mandatory thirty-eight (38) Carnegie units defined by the Arkansas Standards of Accreditation to be taught at the high school level, are part of the basis for identifying what resources are required to achieve adequate funding for K-12 schools.
- Career and Technical Education is one of the required content areas that must be included in the 38 units.



Arkansas CTE Policy Background

Arkansas Code §6-5-1002(b) requires that a “rigorous career and technical education program of study that links secondary education and postsecondary education and combines academic and technical education in a structured sequence of courses that progresses from broad foundation skills to occupationally specific courses shall be made available” and permits the awarding of “postsecondary credits for career and technical education program of study courses that lead to a postsecondary credential[s], certificate[s], or degree[s].”



Arkansas CTE Policy Background

A CTE program of study means a planned program of courses and learning experiences that:

- (1) Begins with the exploration of career options;
- (2) Supports basic academic and life skills; and
- (3) Enables achievement of:
 - High academic standards;
 - Leadership;
 - High-skill, high-wage employment preparation; and
 - Advanced continuing education



Top 10 Occupations by Education Level Typically Required
Based on State of Arkansas' 2020-2022 Short-term Occupational Projections Net Growth

	High School or Less	Associate Degree/Vocational Training	Bachelor's Degree or Higher
1	Insurance Sales Agents	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Clergy
2	Electricians	Medical Assistants	Medical and Health Services Mgr.
3	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	Firefighters	Nurse Practitioners
4	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	Dental Assistants	Financial Managers
5	Landscaping and Grounds keeping Workers	Paralegals and Legal Assistants	General and Operations Managers
6	Industrial Machinery Mechanics	Licensed Practical and Licensed Vocational Nurses	Software Developers and Software Quality Assurance
7	Police and Sheriff's Patrol Officers	Computer User Support Specialists	Analysts and Testers
8	Plumbers, Pipefitters, and Steamfitters	Respiratory Therapists	Project Management Specialists and Business Operations
9	Customer Service Representatives	Emergency Medical Technicians and Paramedics	Specialists, All Other
10	Stockers and Order Fillers	Dental Hygienists	Registered Nurses



CTE Oversight



CTE Oversight

General control and supervision of all programs of vocational, technical, and occupational education in secondary institutions is the authority and responsibility of the State Board of Education and the Division of Career and Technical Education (DCTE).

Ark. Code Ann. §25-30-107.



Division of Career and Technical Education

- Adopting rules governing CTE programs.
- Prescribing academic standards for CTE programs and teachers.
- Approving the Programs of Study and courses districts can offer based on federal requirements.
- Ensuring CTE instructors are appropriately licensed and permitted.
- Receiving and distributing federal and state funds intended to support CTE in secondary schools.



K-12 CTE Requirements

Grades 5 – 8 , CTE instruction through the courses of Keyboarding or KeyCode and Career Development. Additionally, each student is required to have a **Student Success Plan** on file upon completing the eighth grade.

Grades 9-12, nine of the 38 units are to be “sequenced career and technical education courses representing three (3) occupational areas.” To comply with state standards, schools must offer one program of study from three of the following occupational areas:

- Agricultural Science and Technology
- Business and Marketing Technology
- Family and Consumer Sciences
- Science, Technology, Engineering and Mathematics (STEM)
- Trade and Industry



CTE Funding



CTE Funding Sources

The matrix does not provide a dollar amount specifically for career and technical education; however, districts can and do use state foundation funding to provide CTE instruction.

Additional funding sources include:

- Carl D. Perkins Federal Sub-grants
- State Start-up Grants
- Secondary Technical Center State Funding
- Other State Grants for Special Programming



Perkins V Federal Funding

- Only CTE Programs of Study or CTE Modified Programs approved by DCTE are eligible for Perkins funding and graduation credit.
- Used to improve DCTE programs and services for students enrolled in a Perkins V, including support and Career Preparation courses.
- 85% of funds are distributed to local recipients, with a further split between secondary (75%) and post-secondary (25%).
- Formula used for distribution.

Fund Source	2021 Funding
Carl D. Perkins	\$12,404,169



State Start-Up Grants

Fund Source	2021 Funding
Vocational Start-Up Grant Aid	\$2,445,000

Factors used for determining both approval and the amount of the grant awards are contingent on:

- funds available;
- state priority;
- labor market data; and
- evaluation and review of application and rubric.



Start-Up Grants

Program of Study
Human & Social Services
Criminal Justice
STEM
Unmanned Aerial Systems
Marketing Business Enterprise
CASE Animal Science
AV/Tech & Film
Construction



Secondary Technical Centers

Fund Source	2021 Funding
Vocational Center Aid	\$19,240,092

- Typically sponsored by high schools or two-year colleges.
- Established where services are needed to support economic, industrial, and employment development efforts, and provide equity and substantially equal access to quality vocational programs.



Programs of Study



New CTE Programs of Study

Reviewed and evaluated using the following factors:

- inclusion of state academic standards (including literacy, math, and science);
- local industry needs and support for the program (evidence must be provided that a pathway is connected to an industry need);
- district capacity to house and maintain the program;
- district support for the program; and
- postsecondary programs available in the area for concurrent credit and/or further education.



CTE Programs of Study

Programs of study are reviewed annually

- Meet the federal Perkins V definition of a Program of Study;
- Follow all policies and procedures;
- Remove all critical elements identified in tiered support review(s); and
- Follow all required CTE guidelines.



Occupational Areas

Agricultural Science and Technology
 Business and Marketing Technology
 Family and Consumer Sciences
 STEM
 Trade and Industry

Career Clusters

16 Total

Programs of Study

60 Total

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Career Clusters

Agricultural Science & Technology	Business & Marketing	Family & Consumer Sciences Education	STEM	Trade & Industry
<ul style="list-style-type: none"> • Agriculture, Food, & Natural Resources (6) 	<ul style="list-style-type: none"> • Business Management & Administration (4) • Finance (3) • Hospitality & Tourism (1) • Marketing (2) • Transportation, Distribution, & Logistics (1) 	<ul style="list-style-type: none"> • Education & Training (1) • Hospitality & Tourism (3) • Human Services (5) 	<ul style="list-style-type: none"> • Architecture & Construction (1) • Health Sciences (1) • STEM (4) • Information Technology (7) 	<ul style="list-style-type: none"> • Architecture & Construction (2) • Arts, A/V Tech, HVAC (5) • Government & Public Administration (1) • Health Sciences (3) • Law, Public Safety, & Corrections (1) • Manufacturing (4) • Transportation, Distribution, & Logistics (5)

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Career Cluster	Program of Study
Agriculture, Food & Natural Resources	Agribusiness Systems
	Agricultural Power, Structural & Technical Systems
	Animal Systems
	Natural Resources/Environmental Service Systems
Architecture & Construction	Food Products and Processing
	Plant Systems
Arts, Audio/Video Technology & Communications	Construction Technology
	Heating, Ventilation, Air Conditioning and Refrigeration (HVACR)
	Advertising and Graphic Design
	Audio/Video Technology & Film
Business, Management and Administration	Graphic Communication
	Photography
	Radio Broadcasting
	Television Production
Education & Training	Management
	Office Administration
	Medical Office Administration
Finance	Education & Training
	Accounting
	Banking
Government & Public Administration	Insurance & Risk Management
	Securities and Investments
	Health Science
Hospitality & Tourism	(JROTC: Air Force, Army, Marines, Navy)
	Sports Medicine
	Medical Professions
Human Services	Culinary Arts
	Food Production, Management, & Services
	Hospitality and Tourism
	Child Care Guidance, Management & Services
	Consumer Services
	Contemporary
	Family & Consumer Sciences Education

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CTE Delivery and Personnel

- Schools who do not offer required programs of study on campus may utilize public schools, secondary technical centers, or postsecondary institutions to meet requirements upon a written request from the high school for approval by DCTE.
- CTE teachers' licensures are submitted through the Office of Educator Licensure.
- CTE instructors teaching at a Secondary Technical Center (STC) must have a minimum of an associate's degree within the area of instruction, completed all necessary background checks, and have met all college accrediting standards for instructors.



CTE Courses



CTE Requirements

- *While districts are required to offer three CTE programs, which include 9 units of sequenced courses, students are not required to take career and technical education courses.
- *Graduation requirements call for six hours of "career focus" or additional content credits, but these credits can be fulfilled by courses that are not considered CTE.
- *In 2021, 250 of the state's 258 public school districts and open-enrollment charter school systems taught one or more CTE courses.



Concurrent Credit

- Concurrent credit enrollment opportunities are available in the third course of the sequence in many programs of study.
- Act 456 of 2019 funded concurrent credit expenses for eligible students.



Weighted Credit

- Weighted credit is available for certain courses, meaning that students earn the same number of credits as they do for Advanced Placement courses.
- Under Act 632 (2019), DESE, in collaboration with DCTE, may approve a course for “weighted credit” if the course exceeds the curriculum standards for a non-weighted course and leads to an approved industry recognized credential.
- CASE Agriculture – approved in January 2020 – was the first weighted credit course approved under Act 632.



Work-Based Learning (WBL)

- Nationally recognized umbrella term that all WBL opportunities fall under.
- Includes industry-focused experiences that provide an opportunity for students to explore and engage in the learning and skills necessary to prepare them for the future workforce.
- The Perkins V federal definition of WBL is “sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, first-hand engagement with the tasks required in a given career field, that are aligned to curriculum and instruction.”



Work-Based Learning Courses

WBL courses that meet federal requirements:

- Career Practicum
- Internship (paid or unpaid)
- Pre-Apprenticeship



Course Offerings and Enrollment

Course Type	Courses	Enrollment	Districts/ Charters
CTE	6,372	157,567	251
CTE Concurrent	1,972	10,626	189
CTE Work-Based Learning	123	3,216	100
CTE Weighted	74	1,569	62



CTE Students

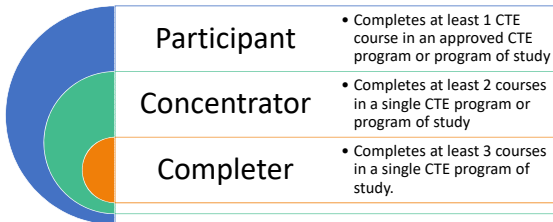


Student Goals

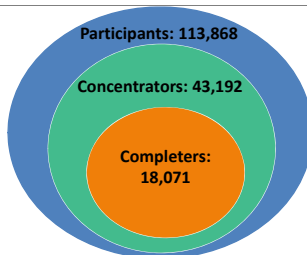
- Each CTE student will complete their CTE program with the most competitive academic, technical and employability skills for future success.
- Each CTE student will establish an individual career plan and successfully accomplish the goals in that plan.
- Each CTE student will develop and apply personal competencies and soft skills that promote learning and success in college, career, and life.
- One year after graduation, each CTE student will be actively engaged in college, further career preparation, military service, and/or competitive employment.



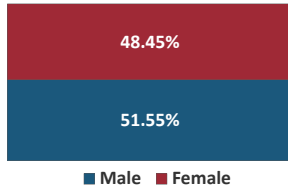
Definitions



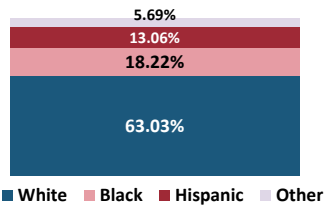
2020-21 Participants, Concentrators, and Completers



2020-21 CTE Participants by Gender



2020-21 CTE Participants by Race/Ethnicity



CTE Participants by Special Designation

	2020-21
English Learner	6.2%
Students with Disabilities	11.4%
Economically Disadvantaged	59.0%



CLUSTER	2020-21 Concentrators
Agriculture, Food, and Natural Resources	23,466
Business Management and Administration	22,104
Hospitality and Tourism	14,178
Information Technology	12,142
Human Services	12,108
Transportation, Distribution and Logistics	8,394
Finance	7,184
Marketing	5,701
Health Sciences	4,221
STEM (Science, Technology, Engineering, & Mathematics)	2,090
Government and Public Administration	1,563
Arts, Audio/Video Technology and Communications	1,390
Architecture and Construction	1,209
Education and Training	1,075
Law, Public Safety, Corrections and Security	747
Manufacturing	700

CTE Performance Measures

PERKINS V PLAN

Perkins V Performance Measures

Measures	Target	2021 Performance
Graduation Rate (4-YR Adjusted Cohort)	87.1%	96.2%
Academic Performance	ELA: 48.4	ELA: 65.7
	MATH: 42.2	MATH: 59.9
	SCIENCE: 48.4	SCIENCE: 67.8
Post-Secondary Placement	75.8%	81.9%
Non-Traditional Enrollment	13.3%	32.0%
Post-Secondary Credentials	32.3%	14.5%

CTE Expenditures



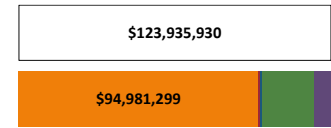
CTE Expenditures by Fund Source

Total Spending

\$123,935,930

Fund Source

\$94,981,299



\$0 \$50,000,000 \$100,000,000 \$150,000,000

Foundation Categorical Supplemental Other State or Local Federal



Expenditure Category	Total Expenditures
Teachers Grades 1-12	\$104,184,477
Non-Athletic Instructional Materials	\$6,650,341
Technology	\$5,237,066
Instructional Supplies and Objects	\$4,418,379
Other Classified Instructional Support	\$1,700,423
Instructional Aides	\$1,011,119
Substitute Teachers	\$604,705
Miscellaneous Reconciling Items	\$129,419



Function	Definition	Total Expenditures
Business/Office Occupations (Includes Information Tech, Fundamentals, MADD and EAST Initiatives)	Learning experiences that allow students to gain an overall understanding of business principles and practices and prepare them for employment in office occupations.	\$41,225,881
Agriculture	Learning experiences that provide opportunities for students to prepare for or improve their competency in agricultural occupations.	\$23,755,825
Home Economics/Culinary Arts	Learning experiences that prepare students with requisite knowledge, understanding, and skills for entry into home economic/culinary arts occupations.	\$22,512,739
Trade and Industrial (Including Industrial Arts)	Learning experiences that allow students to acquire an overall understanding of industry and technology or prepare students for entry into skilled or semi-skilled occupations in trade and industry.	\$12,969,168
Career Orientation	Learning experiences which provide students with sufficient knowledge and understanding of the workplace and occupational tracks to enable them to make intelligent career decisions.	\$7,508,693

Function	Definition	Total Expenditures
Health Careers/Occupations	Learning experiences that prepare students with the knowledge, skills, and abilities required in health professions.	\$4,639,498
Special Needs	Includes Tech Prep, Workplace Readiness, Regional Technical Coordination, and Other Career Projects.	\$4,834,233
General Cooperative	Learning and working experiences which provide students with knowledge and skills in occupational programs and the opportunity to acquire on-the-job training experience.	\$2,091,162
Marketing and Distributive Education	Learning experiences that prepare students to enter or improve their competency level in distributive occupations.	\$1,734,032
Keystone	Designed to help 9th graders successfully navigate high school through instruction on study skills, time management, and goal setting strategies. Includes career exploration.	\$623,739

APA Recommendation

APA CTE Recommendation

The state should adopt a career readiness definition that includes:

1. Core academic knowledge and skills,
2. capabilities,
3. behavior skills and dispositions, and
4. postsecondary preparation and planning.

The study team recommends that the definition be focused on career readiness for all students, as college is just one of several pathways to a career.



Questions