



Actualizing the Vision for Career and Technical Education in Maryland

Maryland Career and Technical Administrators Meeting

October 28, 2021

Tiara Booker-Dwyer, Assistant State Superintendent

The Division of Career and College Readiness & Office of Leadership Development and School Improvement



- ✓ Career and Technical Education
- ✓ Career and Technical Student Organizations
- ✓ Work-based Learning (apprenticeships, internships, etc.)
- ✓ STEM Education and Computer Science
- ✓ Career Development
- ✓ Financial Literacy
- ✓ Early College and Dual Enrollment
- ✓ Curriculum Vetting
- ✓ Leadership Development
- ✓ Teacher and Principal Evaluation
- ✓ School Improvement
- ✓ Equity and Civil Rights Compliance
- ✓ School Implementation Reviews (ESSER)

Meet the Team

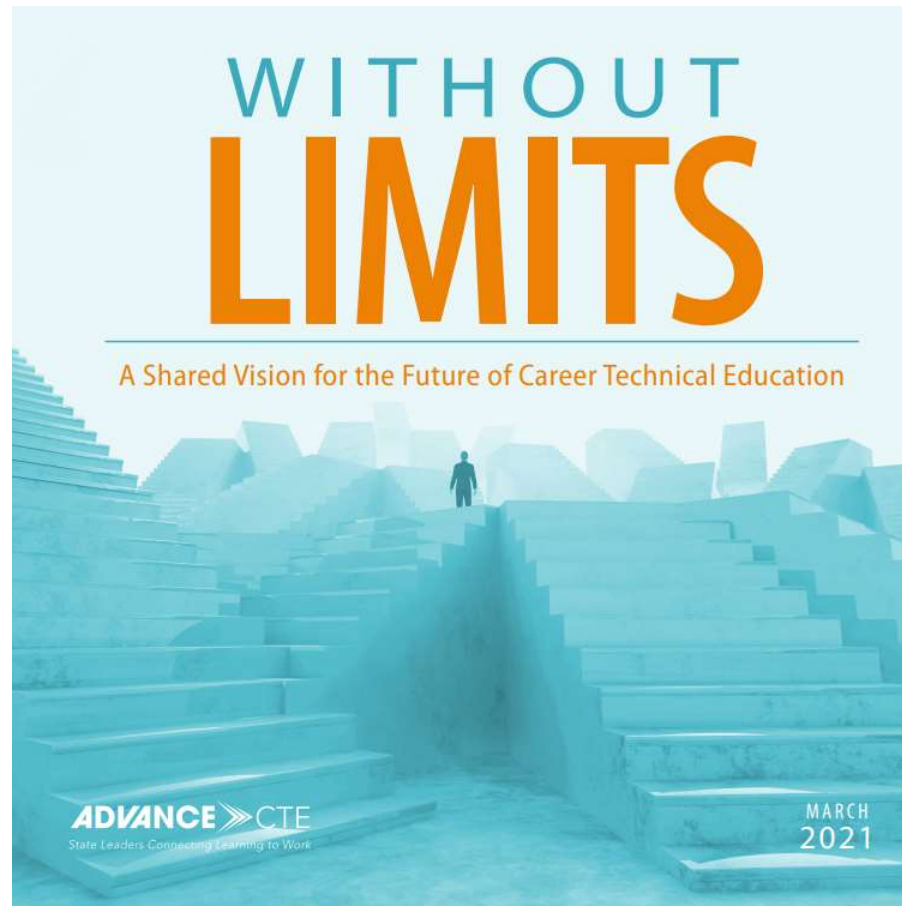


Session Outcomes

By the end of this session, participants will have:

- Discussed credential of value survey and regional analysis of CTE programs and workforce needs;
- Received an update on Early Childhood Education and Maryland Fire and Rescue Institute Programs;
- Provided input on CTE diploma criteria; and
- Reviewed the work-based learning continuum, CTE work-based learning dashboard, CTE works website, and professional learning experiences .

A Shared Vision for Career and Technical Education for All States



Vision for Career and Technical Education in Maryland

Each student has access and the opportunity to engage in career programs of study that:

- ✓ align to high-skill, high-wage, and/or in-demand careers;
- ✓ lead to earning industry-recognized and/or postsecondary credentials that will allow entrance and/or advancement in a specific career field; and
- ✓ provide career-based learning experiences that require the application of academic and technical knowledge and skills in a work setting.



**Vision without Execution
is Hallucination**

CTE Programs and the Labor Market



Vision Element 1: Each student has access and the opportunity to engage in career programs of study that align to high-skill, high-wage, and/or in-demand careers.



What is High-wage, High-skill, and In-demand?

- **High-wage occupations.** Occupations that lead to careers that exceed the state's average annual wage (\$58,770).
- **High-skill occupations.** Occupations that are in job zones 3, 4 or 5, as defined by the U.S. Department of Labor's O*Net system.

Maryland's definition of high-skill occupations was adjusted for the purposes of this study because the study is focused on secondary CTE programs. To the extent possible, the study excluded occupations that are not entry level. The analysis did not include occupations in job zone 5 and those that require a bachelor's degree or more or five or more years of experience.
- **In-demand occupations.** The 20 occupations in the region with the highest long-term projected employment openings (2018-28) as well as occupations that have a projected long-term growth rate that is greater than or equal to 7 percent.

Research Questions

1. In each workforce region of Maryland, do occupations that are high-wage, high-skill, and in-demand have an aligned CTE program of study offered?
2. In each workforce region of Maryland, do CTE programs of study offered align with occupations that are high-wage, high-skill, and/or in-demand?
3. For the unaligned CTE programs of study, do any of them align to high-wage, high-skill, and in-demand occupations in other workforce regions in Maryland?

There are 12 Workforce Regions that Encompass all 24 School Systems



Workforce Regions	School Systems
Anne Arundel	Anne Arundel County
Baltimore City	Baltimore City
Baltimore County	Baltimore County
Frederick	Frederick County
Lower Shore	Somerset County, Wicomico County, and Worcester County
Mid-Maryland	Carroll County and Howard County
Montgomery	Montgomery County
Prince George's	Prince George's County
Southern Maryland	Calvert County, Charles County, and St. Mary's County
Susquehanna	Cecil County and Harford County
Upper Shore	Caroline County, Dorchester County, Kent Count, Queen Anne's County, and Talbot County
Western Maryland	Allegany County, Garrett County, and Washington County

Source: Maryland Department of Labor <https://www.dllr.state.md.us/lmi/areas/>

Overall, Maryland CTE programs of study offered in each workforce region are align with occupations that are:

- ✓ **High-skilled**
- ✓ **High-waged and/or**
- ✓ **In-demand**

Workforce region	Percent of CTE programs aligned with any high-wage, high-skill, <u>or</u> in-demand occupations
Anne Arundel	98%
Baltimore City	95%
Baltimore County	98%
Frederick	100%
Lower Shore	97%
Mid-Maryland	98%
Montgomery	96%
Prince George's	94%
Southern Maryland	96%
Susquehanna	93%
Upper Shore	97%
Western Maryland	96%

Where Do People in Each Workforce Region Go to Work?

Workforce Region	Maryland (%)	District of Columbia (%)	Virginia (%)	Pennsylvania (%)	New York (%)	Delaware (%)	New Jersey (%)	West Virginia (%)
Anne Arundel	89.9	5.5	2.9	0.5	0.3	0.0	0.0	0.0
Baltimore City	95.9	1.6	0.8	0.5	0.4	0.0	0.0	0.0
Baltimore County	95.9	1.2	0.9	0.8	0.3	0.0	0.0	0.0
Frederick	87.7	2.7	5.8	1.7	1.2	0.0	0.0	0.0
Lower Shore	87.1	0.0	3	0.7	0.0	7.5	0.4	0.0
Mid-Maryland	91.5	3.8	2.3	1.2	0.3	0.0	0.0	0.0
Montgomery	69.5	19.7	9.1	0.4	0.4	0.0	0.0	0.0
Prince George	57.1	30.8	11	0.2	0.2	0.0	0.0	0.0
Southern Maryland	77	12.6	9.2	0.3	0.0	0.0	0.1	0.0
Susquehanna	86.4	0.7	0.8	2.9	0.0	7.9	0.0	0.0
Upper Shore	89.3	1.5	1.2	1.1	0.0	5.7	0.0	0.0
Western Maryland	85.7	0.7	2.4	4.8	0.0	0.0	0.0	5.4

CTE Programs and Credentials



Vision Element 2: Each student has access and the opportunity to engage in career programs of study that lead to earning industry-recognized and/or postsecondary credentials that will allow entrance and/or advancement in a specific career field



REGION 4

Delaware
District of Columbia

Maryland
New Jersey

Pennsylvania

Approach to Inform Improvements to Credential Protocols and Offerings



Research

- Analyze effective practices in other states

Focus Groups

- Assess perceptions and experiences with the current credential process

Survey

- Assess if current credentials are of value to employers

Focus Groups



- Purpose: Receive feedback on the current credential process to inform improvements.
- Comprehensive Center conducted focus groups with representatives from school systems, government agencies (Department of Labor, Chamber of Commerce, etc.), non-profits, and business (Program Advisory Committees, Local Advisory Councils, etc.).
- Questions focused on:
 - Process used to identify, select, and review industry credentials
 - Process of collecting, reporting, and reviewing student outcomes associated with industry credentials
 - Establishing future directions for credentials

Feedback from Focus Group



PAC Member: “We don’t have a lot of clarity on the process for how the industry-recognized credentials are identified, reviewed, and approved. We don’t have clarity on what is considered an acceptable industry-recognized credential. If we were to have that information, we would be in a better position.”

CTE instructor shared that he had to pursue his own connections to receive documents to administer credential exams: “I have put a lot of time into getting these guys the opportunity to take as many certifications as I can. I’m not saying the school system won’t do it, but to get it, I have go through hoops and bounds.”

One CTE director reflected that when he tried to request a different credential, “I fought pretty vehemently for it, and was continually told no without a valid reason why.”

CTE Director: “state needs to listen to local directors who are responsible for implementation in our areas, hear what we need and what our industry partners are saying are the needed certifications.” Without more flexibility, local CTE programs struggle to achieve “industry buy-in and support.”

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Growth Opportunities and Actions Taken



Growth Opportunities

- Improve Communication and Transparency
- Expand the Number of Credentials Available for Students to Earn
- Increase Options for Students to Earn Credentials
- Increase Funding Opportunities to Support Students Earning Credentials

Actions Taken

- Published a list of all industry credentials
- Added additional credentials to the approved list
- Analyzing credentialing in other states and countries to inform revisions to Maryland credential process

Perkins and CTE Innovative Grant funds can be used to support students earning credentials

Credential of Values Survey

- Purpose: To assess if credentials that students can currently earn in CTE programs are required or provide competitive advantage for employment.
- Survey sent to members of the Maryland Business Roundtable for Education, Maryland Chamber of Commerce, Governor's Workforce Development Board and other business representatives.
- 291 respondents representing companies across Maryland and all ten of Maryland's career clusters.



Survey Design



- For each industry credential associated with a career cluster, employers had to identify if the credential:
 1. Is required for employment in their company;
 2. Provides a competitive advantage for employment in their company; or
 3. Is not required for employment in their company.
- Employers could add comments and suggest additional credentials.

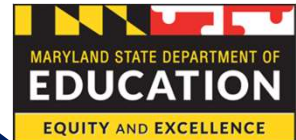
And the Survey Say.....

- 60% of industry credentials offered in Maryland's secondary programs were seen as providing a competitive advantage for employment.
- Few credentials were “required” for employment.
- Additional credentials were suggested.

Using Research, Data,
and Collaboration to
Continuously Improve
Career and Technical
Education in Maryland



Early Childhood Education and Maryland Fire Rescue Institute



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Early Childhood Education Work Group



First Meeting of the workgroup occurred September 13, 2021

*participated in the 9-13-2021 meeting

Name	Affiliation
Jennifer Nizer*	MSDE – Division of Early Childhood
Tresa Hanna*	MSDE – Division of Early Childhood
Kristine Pearl*	Frederick County Public Schools, Supervisor, Career and Technical Education
Rob Limpert*	Harford County Public Schools, Supervisor of Magnet and CTE Programs
Michael Grubbs	Baltimore County Public Schools, Coordinator, Career and Technical Education
Alicia Fales	Baltimore County Public Schools, Supervisor, School to Career Transition
Jennifer Dvorak*	Caroline County Public Schools, Teacher Academy of Maryland
Melissa Palmer*	Charles County Public Schools, Teacher Academy of Maryland and Early Childhood Education Training Program
Karen Eisenhuth*	Celebree School, Director
Traci Verzi*	MSDE – Division of Career and College Readiness
Nina Roa*	MSDE – Division of Career and College Readiness

Early Childhood Education Work Group



Purpose and Goals of the Workgroup: Identify and discuss the barriers local school systems face in the adoption of the Child Development Associate (CDA) and identify additional possible pathways to CDA or Associates in Early Childhood Education as workforce entry points

Barriers

- Transportation to internship sites
- Placement for Experiential Hours
- Costs associated with program
 - Required CDA workbooks – covered under Perkins Funding; Division of Early Childhood can also cover the cost of workbooks
 - Fingerprinting Costs – can utilize Perkins funding
 - CDA Assessment Fee – Covered by the Division of Early Childhood
- Student Schedules
- Navigating the CDA Process

Additional Pathways

- Apprenticeship Model
- Transcribed credit towards AAS/AAT for locally developed programs (College must review curriculum and a Memorandum of Understanding (MOU) must be developed)
- Dual-Enrollment Options
- Others

Trends in Early Care and Education



- Head Start Workforce Requirements
 - Assistant Teacher position requires Child Development Associate
 - Teacher position requires Bachelors Degree

- Pre-K Grant Expansion Grant Minimum Qualification Requirements
 - Teacher position requires Child Development Associate or Associates Degree in Early Childhood Education
 - Director position requires a Bachelor's Degree

- Early Care and Education on Military Installation Requirements
 - CDA required for entry level positions

Trends in Early Care and Education



- National Association for the Education of Young Children (NAEYC) – Power to the Profession
 - Power to the Profession is a national collaboration that defines the early childhood education profession. It has established a Unifying Framework of recommendations on educator roles and responsibilities, aligned preparation and pathways, profession compensation, and a supportive infrastructure with shared accountability.
- Recommendations from the Maryland State Early Childhood Education Workforce Workgroup to be published in 2021
 - Based on Berkeley Study, “Teaching the Teachers of Our Youngest Children: Maryland, 2021

Additional Considerations



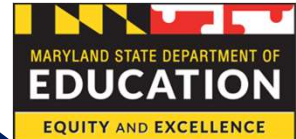
- The appropriate outcomes from the course, “Establishing a Purposeful Program for Preschoolers” may be merged into Course 2, “Learning Environments for Preschoolers” to meet the CDA content requirements to allow more time for completion of the required experiential hours.
- All students will participate in courses 1, 2 and 3 and teachers will attend the required professional development for these courses.
- The Dual Enrollment Course Option must provide credit towards the Associates in Early Childhood Education and must not be a duplicate course credit received as a result of obtaining articulated credit for the CDA.
- The Child Care CIP (#200201) is being phased out in accordance with the timeline reflected in the Blueprint.



Last year to enroll students in locally developed child care programs of study

Last year that students will be counted as CTE Completers in the Locally Developed Child Care Programs of Study

Proposed Program Modifications



Current State Program Pathway:

Pathway/Program:	Early Childhood – Preschool CDA		CIP Number	13.1209
	Grade 9	Grade 10	Grade 11	Grade 12
CTE Completer Program * concentrator course		1) Child Growth and Development – Birth through Adolescence (1 credit)	2) Learning Environments for Preschoolers (1 credit) *Establishing a Purposeful Program for Preschoolers (1 credit)	Child Development Associate (CDA) Portfolio and Internship - (1 credit)

Proposed Program Modifications:

Pathway/Program:	Early Childhood – Preschool CDA		CIP Number	13.1209
	Grade 9	Grade 10	Grade 11	Grade 12
CTE Completer Program * concentrator course		1) Child Growth and Development – Birth through Adolescence (1 credit)	2) Learning Environments for Preschoolers (1 credit) 3) *Portfolio and Internship 1 (1 credit)	4) Child Development Associate (CDA) Internship 2 - (2-3 credits) OR 4) Dual Enrollment (1 credit)

Support from Division of Early Childhood for School Systems and CDA



- MSDE to provide a list of high school sites offering the CDA program to the Office of Child Care to include in their bi-monthly publication “Tuesday Tidbits”
 - The goal is to make licensed child care centers in the vicinity of the high schools aware of schools offering this program so they can collaborate with them for experiential hours requirement.
 - ✓ This list was provided to the Office of Child Care on September 22, 2021
 - This list will also be used by the Division of Early Childhood to do a search of licensed programs in the vicinity of approved sites to assist with identifying programs within walking or short distance to approved high school sites
- Division of Early Childhood to provide funding for a position or grant to support the CDA process for participating school systems

Support from the Division of Early Childhood for School Systems and CDA



- DEC will look at how they can provide additional funding to the Resource and Referral Agencies located regionally throughout the state to assist with the CDA process and placements for experiential learning requirements
- Electronic “think tank” due from the ECE Workgroup by October 1, 2021
 - ✓ Division of Early Childhood Development/Office of Child Care verified that the 90-Hour certificate will be phased out (2-year timeline expected)
- Workgroup will reconvene to discuss in greater detail possible pathway options and program modifications

Survey Activity – Chart Walk



Based on what you know and the information that you received today, what is your preferred pathway option for students in your school system?

A) Revised CDA Program

B) Dual Enrollment Option

C) Apprenticeship Model

The current Early Childhood Education workforce does not recognize apprenticeship and pilots are currently being conducted at several community colleges statewide. This will require a systems change at the state level for recognition of the outcomes apprenticeship outcomes.

D) Other

Resources



Blueprint for Maryland's Future

<https://mgaleg.maryland.gov/2020RS/bills/hb/hb1300E.pdf>

Berkley Study

Teaching the Teachers of Our Youngest Children, The State of Early Childhood Higher Education in Maryland, 2021

<https://csce.berkeley.edu/wp-content/uploads/2021/04/MD-HEI-Narrative.pdf>

Division of Early Childhood Strategic Plan, Approved by Governor's Office

Refer to Goal 5, Strategy 1(c)

https://earlychildhood.marylandpublicschools.org/system/files/filedepot/3/for_release_maryland_ready_a_path_to_school_readiness_and_success_6.pdf

Head Start – 1302.91 Staff Qualifications and Competency Requirements

<https://eclkc.ohs.acf.hhs.gov/policy/45-cfr-chap-xiii/1302-91-staff-qualifications-competency-requirements>

Institute of Medicine and National Research Council

Transforming the Workforce for Children Birth through Age 8: A Unifying Foundation, 2015

<https://www.nap.edu/catalog/19401/transforming-the-workforce-for-children-birth-through-age-8-a>

Pre-K Expansion

"Assistant teachers must hold a CDA, AA in Early Childhood, or equivalent training (i.e. Level 4 in MSDE Credentialing Program), or enrolled in a program to obtain these credentials"

https://earlychildhood.marylandpublicschools.org/system/files/filedepot/4/fy_2022_prekindergarten_expansion_grant_notice_of_funding_availability_3-10-21.pdf

National Association for the Education of Young Children (NAEYC), Power to the Profession

<https://www.naeyc.org/our-work/initiatives/profession>

Toolkit for High School CDA – Council for Professional Recognition

<https://www.cdacouncil.org/en/high-school-pathways/>

Emergency Services Training/High School Cadet



- Emergency Medical Technician (EMT) course hours increased from a minimum of 165 hours of instruction and related work-based learning to 225 hours
- Low pass rate on National Registry – students need more time with EMT content
- To enter workforce, students need a minimum of EMT, Fire I and Hazmat per industry requirements
- Modifications can be initiated by school systems in SY2021/2022 or SY2022/2023 to allow students to complete current pathway
- This program is a 2-year program for students

Emergency Services Training/High School Cadet Programs in Maryland – SY2020/2021



- **22** of the **62** approved Maryland's high schools reported offering the Maryland program of study in SY2020/2021
- **193** students enrolled in Course I
- **128** students enrolled in Course II
- **93** students enrolled in Course III (this is the concentrator and completer course for this program)
- **44** students obtained Maryland Certification for Fire Fighter I
- **Fewer than 10** students obtained National Registry Certification

Old vs. Updated Program Sequence Matrix

Grade 11	Grade 12		Grade 11	Grade 12
<p>Fire Emergency Medical Training/High School Cadet Level I – <u>1-2 Credits</u></p> <ul style="list-style-type: none"> Emergency Medical Technician (165 hours) OR Emergency Medical Responder (72 hours) 	<p>*Fire Emergency Medical Training/High School Cadet Level III – <u>2 Credits</u></p> <ul style="list-style-type: none"> Firefighter II (60 hours) Rescue Technician - Site Operations (27 hours) Rescue Technician – Vehicle and Machinery Extrication (27 hours) 	→	<p>Emergency Services Training/High School Cadet Level I – <u>1-2 Credits</u></p> <ul style="list-style-type: none"> Emergency Medical Technician (EMT) – minimum of 225 hours <p>OR</p> <ul style="list-style-type: none"> Emergency Medical Responder (EMR) – minimum of 75 hours 	<p>Emergency Services Training/High School Cadet Level II – <u>1 Credit</u></p> <ul style="list-style-type: none"> Firefighter I – minimum of 135 hours <p>*Emergency Services Training/High School Cadet Level III – <u>1 Credit</u></p> <ul style="list-style-type: none"> Hazardous Material Operations – minimum of 36 hours Rescue Technician – Site Operations – minimum of 27 hours Rescue Technician – Vehicle and Machinery Extrication – minimum of 27 hours <p>OR</p> <p>Option #2</p> <ul style="list-style-type: none"> Hazardous Material Operations – minimum of 36 hours Firefighter II – minimum of 60 hours
<p>Fire Emergency Medical Training/High School Cadet Level II – <u>1-2 Credits</u></p> <ul style="list-style-type: none"> Firefighter I (108 hours) Truck Company Fire ground Operations (24 hours) Hazardous Material Operations (24 hours) 		→		

Role of the Maryland Fire and Rescue Institute



- Provide consistent instructors certified by the Maryland Instructor Certification Review Board (MICRB) to teach appropriate subjects;
- Provide the necessary fire, rescue, and EMS equipment required to teach appropriate subjects;
- Provide the necessary training structures and props that are used to train firefighters in practical evolutions;
- Provide the curriculum, student manuals, and instructor guides required for appropriate subjects/topics. All curricula will meet or exceed National Fire Protection Association (NFPA) Professional Qualification Standards or other relevant standards;

Role of the Maryland Fire and Rescue Institute



- Provide management oversight, coordination, and control of the learning environment while the high school cadets are at the various MFRI facilities;
- Communicate and work closely with the representatives of the local high school and the local fire department or fire association and;
- **NEW** - Provide Canvas access to local school administrators to enable them to follow student's progress.

Role of Participating Local School Systems



- Adopt the MSDE state-approved MFRI CTE program of Study in Emergency Services Training/High School Cadet and adhere to the requirements of this Maryland State Program of Study;
- Promote the high school cadet opportunities within the school system and direct students who are interested in this career field toward this opportunity;
- Ensure the students enrolling in the program meet the fitness for duty status as indicated by the physician's signature on the medical release form;
- Ensure that support is in place to assist students to become successful in the program and complete the Maryland Institute of Emergency Medical Services System and the National Registry of Emergency Medical Technicians examinations, both written and practical;

Role of Participating Local School Systems



- Work with MFRI Regional Coordinator to address performance or disciplinary issues and evaluate student performance, using high school grading criteria that has been shared with MFRI representatives;
- Communicate and work closely with the representatives of MFRI and the local fire department or fire association;
- Conduct on-site observations of students in the program when the students are in a work-based learning situation or receiving instruction at the fire house or other learning environment away from the school site and;
- **NEW** - Use Canvas access provided by MFRI to ensure students are on track to successfully complete the Emergency Services Training/High School Cadet Program. Provide supports to students as needed in collaboration with instructors as appropriate.

Role of the Local Fire Department/Association



- Provide a point of contact that is responsible for the management of the high school cadet program to work with MFRI and high school representatives;
- Promote the high school cadet program within the jurisdiction and have information available to prospective students;
- Assist MFRI by helping to provide the necessary fire, rescue, and EMS equipment required to teach appropriate subjects;
- Provide Personal Protective Equipment (PPE) to participating students;

Role of the Local Fire Department/Association



- Provide opportunities for the student to ride on EMS calls to obtain required Patient Assessments during Emergency Medical Technician training;
- Work with the MFRI Regional Coordinator and participating High Schools to address performance or disciplinary issues and;
- Ensure that the high school cadets remain a member in good standing of the local fire department and are covered by insurance. Notify both MFRI and the high school if a cadet fails to meet any of these requirements.

Role of the Maryland State Department of Education



- Promote the state CTE Program of Study in Emergency Services Training/High School Cadet;
- Support local school systems in the implementation of the program;
- Facilitate statewide articulation agreements for industry certification and early college credit, as necessary and;
- **NEW** - Collaborate with MFRI in updating the State Program and **provide supports or training opportunities for MFRI instructors in topic areas related to providing instruction to high school students as these opportunities become available.**

Student Expectations



- Student expectations should be relayed to students throughout a student's academic and career planning. Information on expectations should be provided to students during Open House events, counselor interactions, teacher/instructor and administrator interactions on an ongoing basis
- This program provides college-level content using college-level textbooks
- There is a homework requirement/expectation as part of this program. It is recommended that students spend a minimum of 1 hour for every hour of class instruction studying/completing homework to be successful in this program and may require additional time dependent on a student's reading comprehension and retention levels.

Student Expectations



- Students are required to obtain a minimum score of 70% on all chapter tests and homework assignments prior to sitting for the module exams.
- There are module exams required throughout the program. These exams are cumulative and progress in difficulty throughout the courses. Students are required to obtain a minimum score of 70% on all module exams to continue toward certification. If a student scores less than 70%, they will have one opportunity to retest. Students who fail a module will be unable to progress on the path to certification.
- School systems should utilize access to Canvas to ensure that students are on track and provide supports to students as needed in collaboration with instructors as appropriate.

Next Steps



- ✓ MFRI is creating new marketing materials that should be shared with counselors and school system administrators
- ✓ MSDE is hosting a Professional Development Institute to take place in December for MFRI Instructors. Content will inform how MFRI instructors interact with high school students.
 - Topics include:
 - An Introduction to Career and Technical Education;
 - Managing an Effective Classroom and;
 - Differentiating Instruction to Accommodate Student Needs.
- School systems planning to implement or already approved to offer the Fire Emergency Medical Training//High School Cadet program will need to complete an updated Program of Study Proposal Form
- The updated Program Proposal Form will be shared with currently approved school systems following today's meeting and will be available on Canvas for everyone as we transition to the new platform.

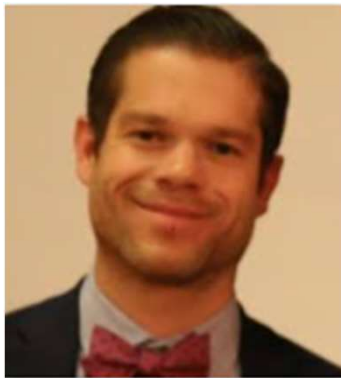
Current Approved School Systems/Sites



- ✓ Baltimore City; [Calvert County](#); Caroline County; [Cecil County](#); Charles County; [Dorchester County](#); Harford County; [Kent County](#); Montgomery County; [Prince George's County](#); Queen Anne's County; [St. Mary's County](#); Talbot County; [Washington County](#); Wicomico County and [Worcester County](#)

HSID	School Name	HSID	School Name	HSID	School Name	HSID	School Name
120270	Aberdeen High School	120176	Edgewood High School	080108	Maurice J. McDonough High School	150201	Richard Montgomery High School
150789	Albert Einstein High School	182701	Fairlead Academy II	150757	Montgomery Blair High School	150230	Rockville High School
120373	Bel Air High School	120382	Fallston High School	050703	North Caroline High School	150104	Seneca Valley High School
150406	Bethesda-Chevy Chase High School	300450	Frederick Douglass High School	090207	North Dorchester High School	150503	Sherwood High School
090713	Cambridge-South Dorchester High School	150551	Gaithersburg High School	120580	North Harford High School	150798	Springbrook High School
040214	Career and Technology Academy	180801	Great Mills High School	080623	North Point High School	080802	St. Charles High School
070511	Cecil County School of Technology	161103	Gwynn Park High School	150246	Northwest High School	200202	St. Michaels Middle/High School
161327	Charles Herbert Flowers High School	120304	Harford Technical High School	150796	Northwood High School	150234	Thomas S. Wootton High School
180303	Chopticon High School	120678	Havre de Grace High School	150315	Paint Branch High School	080605	Thomas Stone High School
150249	Clarksburg High School	081002	Henry E. Lackey High School	221309	Parkside High School	150427	Walt Whitman High School
150510	Col. Zadok Magruder High School	150321	James Hubert Blake High School	120187	Patterson Mill High School	150424	Walter Johnson High School
050801	Colonel Richardson High School	150815	John F. Kennedy High School	150152	Poolesville High School	210305	Washington County Technical High School
150701	Damascus High School	120181	Joppatowne High School	170301	Queen Anne's County High School	150545	Watkins Mill High School
200101	Easton High School	140301	Kent County High School	150125	Quince Orchard High School	080619	Westlake High School
		170405	Kent Island High School	150201	Richard Montgomery High School	150782	Wheaton High School
		080106	La Plata High School			150602	Winston Churchill High School
		180306	Leonardtown High School			230405	Worcester Technical High School

Career and Technical Education Diploma Endorsement



Scott Nichols

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Session Outcomes

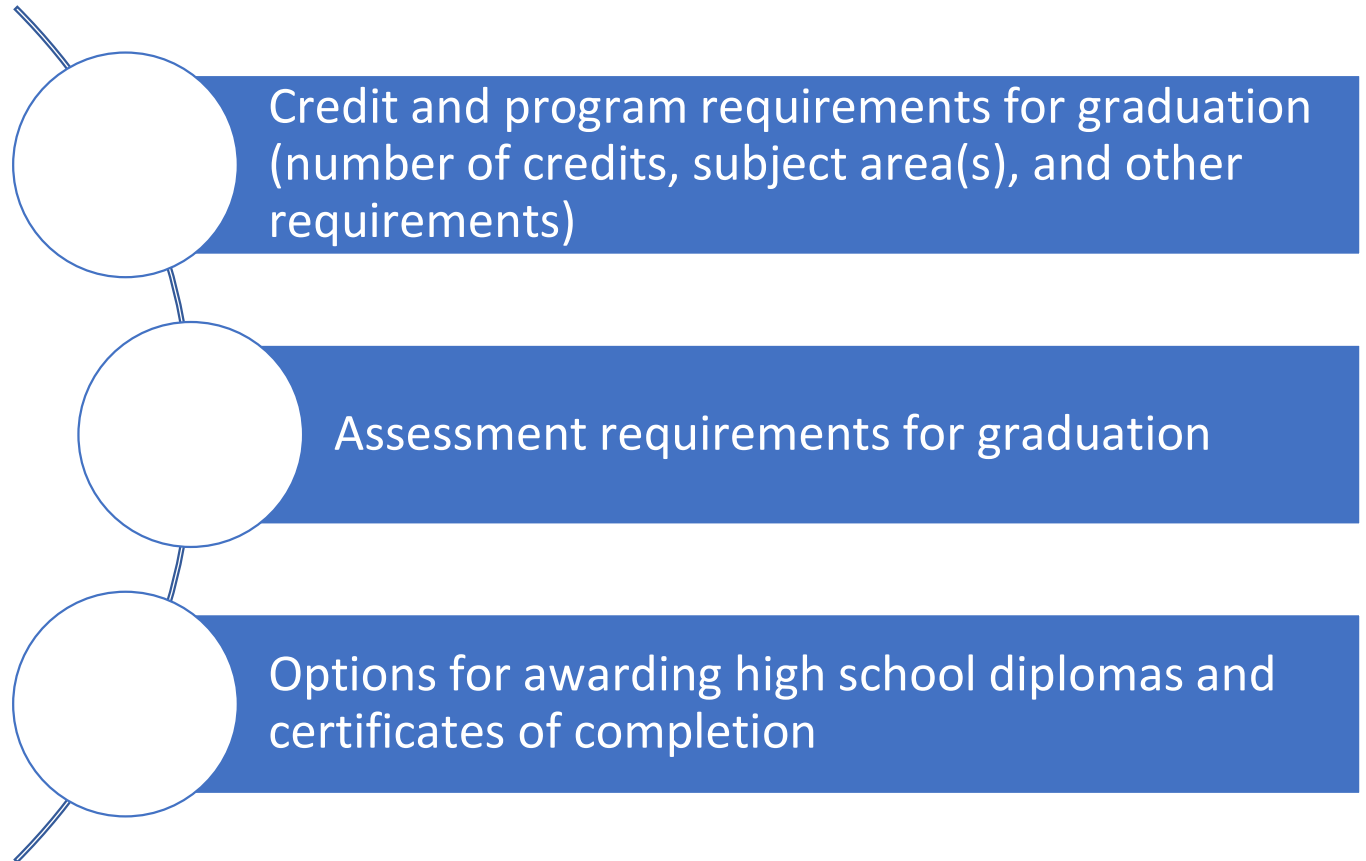
By the end of the session participants will have:

- Received an overview of the CTE Diploma Endorsement;
- Analyzed potential endorsement criteria;
- Provided feedback on endorsement criteria; and
- Discussed next steps.

High School Graduation Task Force



PURPOSE: To identify:



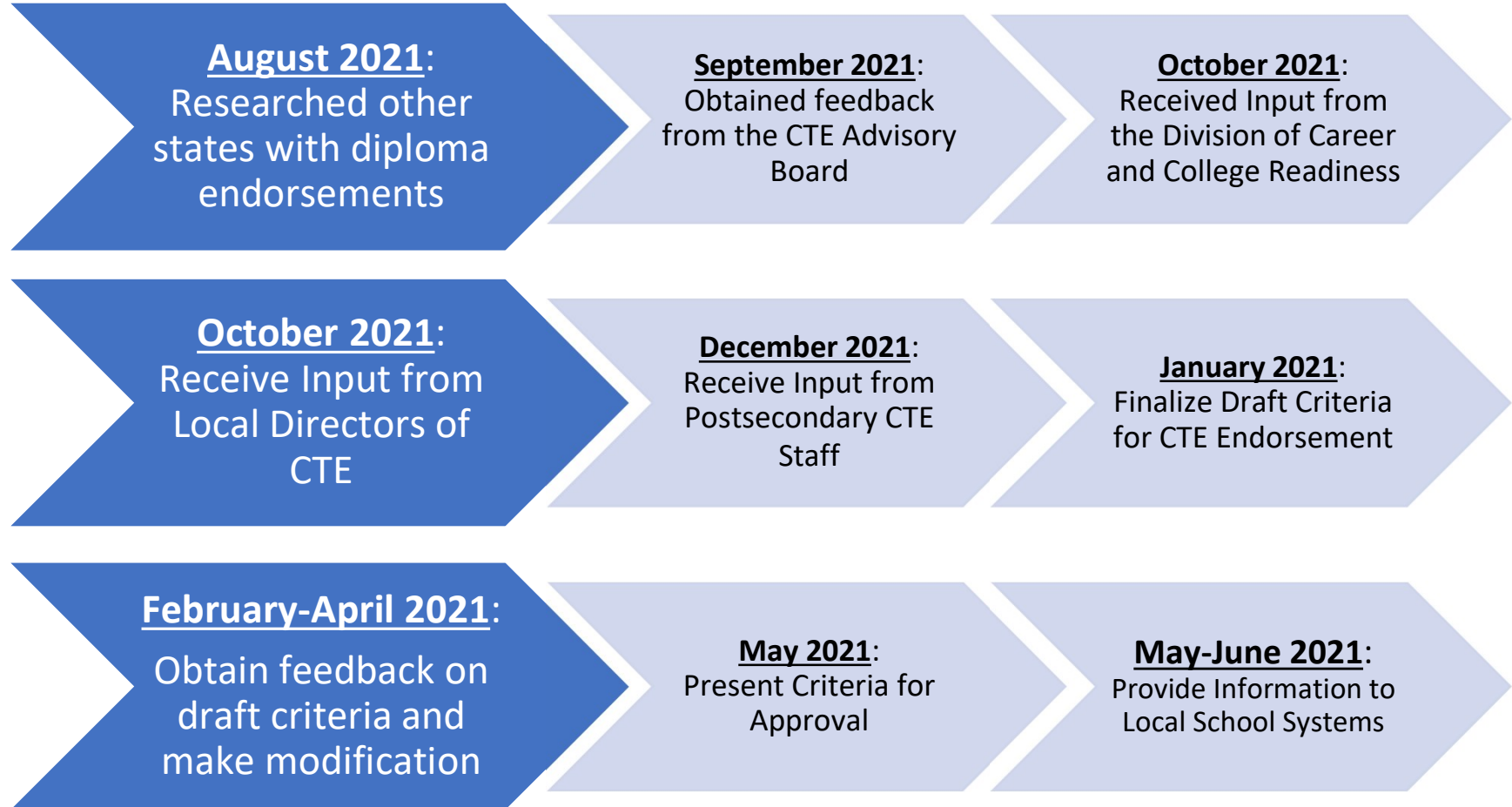
Code of Maryland Regulations (COMAR) 13A.03.02.09



Diploma Endorsement Options	Certificate Endorsement Options
College Ready State Endorsement	Postsecondary Education Endorsement
Career and Technical Education State Endorsement	Work Ready/Employment/Career Endorsement
Both	Community/Citizenship Endorsement

- Students can be awarded an endorsement beginning in the 2024-2025 school year.
- Current freshmen can begin working towards earning these endorsements.

Draft Timeline



A Value-Added Opportunity

A value to
employers

An endorsement
that sets the
student apart

Value should be
evident to students
and
parents/caretakers

Current Requirements to:

Complete a CTE Program of Study	Classify as a CTE Concentrator
Complete all Maryland requirements for graduation (mathematics, science, etc.)	Complete all Maryland requirements for graduation (mathematics, science, etc.)
Complete CTE Program of Study consisting of 3-6 credits with the option to earn an industry credential, postsecondary credit, and/or participate in work-based learning	Complete first two courses of a program and enroll in the third
Provide opportunity to participate in a Career and Technical Student Organization	

	GPA Range – 2.5 and up	CTE Program Completion	Earn Industry Credential	Participate in Work-Based Learning Experience	Earn Postsecondary Credit	Complete Advanced Coursework: Math/Science	State Specific Examinations (Professional Skills, etc.)
Colorado	X	X				X	
Hawaii		2 or more courses	X				
Indiana	X	2 or more courses	X		X		
Louisiana	X	X		X			X
Nevada	X					X	
New York							X
North Carolina		2 or more courses	X			X	
Ohio	X	X	X	X	X	X	X
Texas		2 or more courses				X	
Virginia		2 or more courses				X	X
Wisconsin		X					

What Criteria Should Be Used in Maryland?

To earn the CTE Diploma Endorsement, should students be required to:

1. Complete a CTE Program of Study
2. Earn an Industry Credential
3. Earn at least 6 Post-secondary Credits
4. Complete a Work-based Learning experience with a minimum of 100 hours of on the job training
5. Earn an overall GPA of at least 2.5
6. Other?

ACTIVITY



1. Each table has a poster paper with designated sections for each discussed criteria.
2. Record your “vote” on a Post-it note and attach to the corresponding section of the poster paper.
3. You can add specific feedback and recommendations, as well!

Next Steps



- Review Feedback
- Provide link for additional feedback
- Survey other stakeholder groups
- Begin developing draft criteria for diploma endorsement

Work-based Learning Continuum



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Background



- MSDE and the Comprehensive Center collaborated to develop the *Work-based Learning Continuum: Describing the Research and Common Practices*.
- The intent is to provide teachers, students, counselors, and other stakeholders with an evidence-based approach to work-based learning programs.

MARYLAND'S WORK-BASED LEARNING CONTINUUM: Describing the Research and Common Practices



July 30, 2020



Who can use this?



Teachers and Counselors



Administration



Industry Partners and Businesses

Progression of Work-based Learning Experiences











		Elementary School	Middle School	High School	Postsecondary												
Career Awareness	Interest surveys																
	Diverse classroom career activities																
	Diverse employer job talks																
	Personal financial literacy																
Career Exploration	Career fairs																
	Workplace tours																
	Job shadows																
	Structured career exploration lessons																
	Informational interviews																
Career Preparation	School-based enterprises																
	Counseling																
	Internships																
	Career and technical education																
	Apprenticeships																
	Career and technical student organizations																
	Simulated work-based learning																
	Job-seeking training																
Career Seeking and Advancement	Job applications																
	Job training																
	Career management training																
Audience (grade level)		preK-3	4	5	6	7	8	9	10	11	12	13	14	15	16		

The Work-Based Learning Continuum

Tools for Traveling the Work-Based Learning Continuum



As students learn about different careers, they discover their strengths, interests, and passions. Students draw on the tools they develop in the early stages of their academic career throughout their journey along the continuum.

 Career Awareness	 Career Exploration	 Career Preparation	 Career Seeking and Advancement
<p>Grades Pre-K–3</p> <ul style="list-style-type: none"> • Interest surveys • Diverse classroom career activities • Job talks from a variety of employers 	<p>Grade 4</p> <ul style="list-style-type: none"> • Career fairs • Workplace tours <p>Grade 5</p> <ul style="list-style-type: none"> • Structured career exploration lessons • Job shadows • Informational interviews <p>Grade 6</p> <ul style="list-style-type: none"> • School-based enterprises • Counseling <p>Grades 7–8</p> <ul style="list-style-type: none"> • Career and technical student organizations 	<p>Grade 9</p> <ul style="list-style-type: none"> • Simulated work-based learning • Career and technical education <p>Grade 10</p> <ul style="list-style-type: none"> • Job-seeking training 	<p>Grade 11</p> <ul style="list-style-type: none"> • Job applications • Apprenticeships • Internships <p>Grade 12</p> <ul style="list-style-type: none"> • Industry-mentored capstone projects • Job training <p>Postsecondary</p> <ul style="list-style-type: none"> • Job experience • Short-term career training programs • Two-year college job certificate programs • Four-year college degree programs • Military service and training
<p>I know the different careers that serve my community, and some of the careers interest me. I'm learning how school prepares me for work.</p>  <p>Lower elementary: Teachers provide most of the work-based learning instruction, including collaborating with counselors and employers to coordinate career learning experiences.</p>	<p>I get to explore different careers in different ways and can make educational plans for the ones that interest me the most.</p>  <p>Upper elementary: Teachers are still students' main point of contact for work-based learning experiences, but schools and counselors also work with employers to offer more in-depth opportunities to explore careers.</p> <p>Middle school: Students begin to have more autonomy over their choices and exposure to certain careers. Teachers and counselors facilitate, guide, and encourage students to explore a range of options.</p>	<p>I participate in programs to prepare for the career paths that interest me, and I gain experience in those career paths through work-based learning opportunities.</p>  <p>Early high school: Students choose from a menu of work-based learning options curated by teachers, counselors, and employers. Students begin to engage in work-based learning that is run entirely by employers.</p>	<p>I continue to fine-tune my career and postsecondary education plans. I know how to align my career plans to my financial and personal life goals. I am building a resume based on excellent job performance.</p>  <p>Mid-high school: Students select jobs that align with their career goals, often with advice from counselors, teachers, or employers.</p> <p>Late high school and postsecondary: Teachers offer courses aligned with employers' needs. Employers offer internships that prepare students for specific careers. Students participate in counseling.</p>

Where Can You Find This?



The screenshot shows the Maryland State Department of Education website. The header includes the state logo, the department name, and navigation links for Maryland.gov, State Directory, State Agencies, Online Services, and Translate. A search bar and social media icons are also present. The main navigation menu includes HOME, DIVISIONS/PROGRAMS, STATE BOARD, NEWSROOM, ABOUT US, and THE BLUEPRINT.

Divisions/Programs

Career and Technical Education

- > Division of Career and College Readiness
- > Career and Technical Education Programs of Study
- > Accountability & Improvement
- > Career Clusters and Programs
 - > Apprenticeship Maryland
 - > P-TECH
- > CTE Teacher Certification
- > Perkins V
- > Student Organizations
- > Work-based Learning

Work-based Learning Continuum

Career preparation is an integral part of a comprehensive education. Code of Maryland Regulation (COMAR) 13A.04.10 requires all school systems to have a program of instruction in career development in grades PreK-12. COMAR 13.04.02 requires all Career and Technical Education (CTE) programs of study to provide the opportunity for students to participate in work-based learning experiences. Maryland's Work-based Learning Continuum identifies a progression of work-based learning experiences from elementary school through postsecondary study. The continuum is grounded in research and identifies key outcomes, commitments, metrics, and evidence for each stage of the continuum. The continuum and supporting resources are designed to serve as a guide for the implementation of work-based learning experiences in Maryland.

PROGRESSION OF WORK-BASED LEARNING EXPERIENCES

		Elementary School	Middle School	High School	Postsecondary
Career Awareness	Interest surveys				
	Diverse classroom career activities				
	Diverse employer job talks				
Career Exploration	Career fairs				
	Workplace tours				
	Job shadows				
	Structured career exploration lessons				
	Informational interviews				
Career Preparation	School based enterprises				
	Counseling				
	Internships				
	Career and technical education				
	Apprenticeships				
	Career and technical student organizations				
	Simulated work-based learning				

https://marylandpublicschools.org/programs/Pages/CTE/Work-based_Learning.aspx

Work-Based Learning Dashboard, MDCTEWORKS.org Website, and CTE Professional Learning



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Session Outcomes

By the end of this session participants will:

- Review updates to the MDCTEDATA.org website;
- Receive an overview of the New Work-based Learning dashboard;
- Explore and use the New Work-based Learning dashboard;
- Discuss revisions and updates to the MDCTEWORKS.org website; and
- Receive update on upcoming professional learning focused on identifying and addressing CTE opportunities for growth.

MDCTEDATA.ORG CTE Website



The MDCTEDATA.ORG website provides dashboards on:

- Secondary and postsecondary student CTE enrollment and ;
- Secondary and postsecondary student CTE performance;
- Technical Skills Assessment and More Jobs for Marylanders data;
- Trend Analysis enrollment and performance for FY2018 – 2020;
- Labor Market Dashboard data for 2019, 2020, and 2021;
- Approved Programs Dashboard; and
- Work-based Learning Dashboard.

Work-based Learning Dashboard

CTE Maryland
Learning that works for Maryland

CTE Data

MARYLAND .gov
MARYLAND STATE DEPARTMENT OF EDUCATION
EQUITY AND EXCELLENCE

Home Enrollment Performance Technical Assessments MJFM 45% Goal Trend Analysis Labor Market **CTE Program Info**

Data Resources

- Approved CTE Programs in Maryland
- Non-Traditional Program List
- CTE Data Reporting Guidance Manuals and Webinars *NEW 2021 Secondary Data Manual now available
- CTE Data Dashboards Guidance and Webinars

CTE Resources

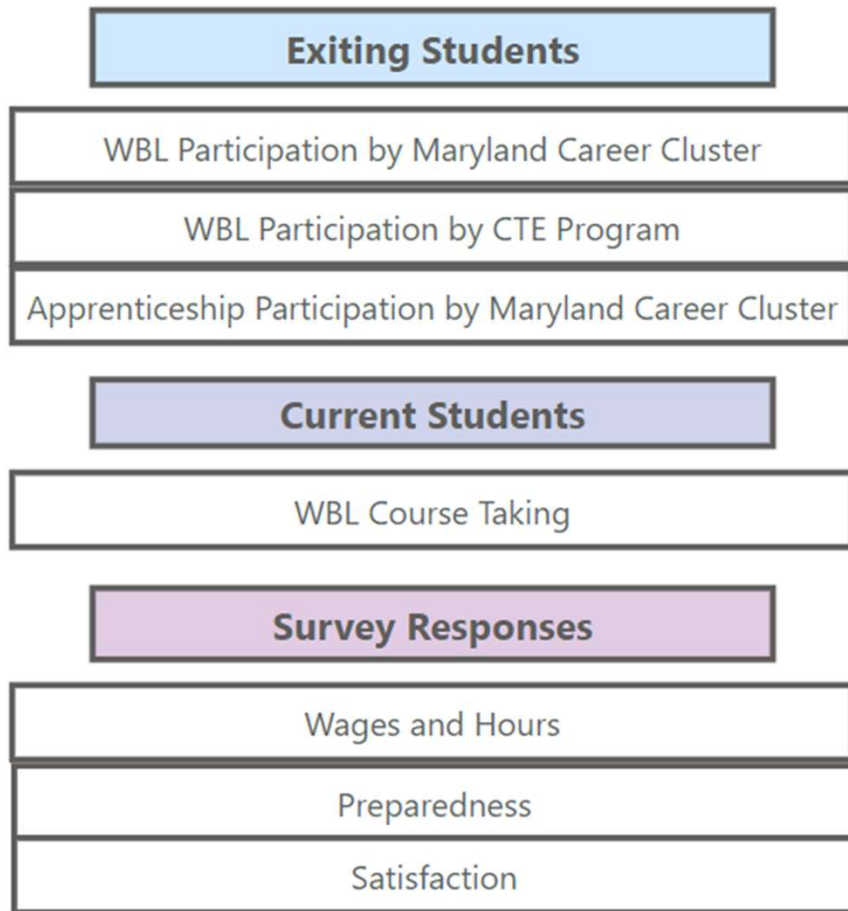
- Maryland CTE Programs of Study
- CTE Accountability and Improvement
- CTE Comprehensive Local Needs

Career and Technical Education (CTE) Reporting Data Resources

- CTE Data Reporting Guidance Manuals and Webinars
- Technical Skill Assessments Listing and Codes
- CTE Courses Listing and SCED Course Codes
- CTE Programs of Study Listing and CIP Codes
- Maryland CTE CIP to SOC Crosswalk
- Maryland Nontraditional Program Designations
- Maryland CTE Dashboards Guidance and Webinars
- Maryland Work-Based Learning Data**

Access to
Work-Based
Learning
Dashboard

Work-based Learning Dashboard



Provides data on:

- Cumulative Work-based learning for exiting students;
- Work-based course-taking for current students; and
- Work-based learning Survey Responses.

Work-based Learning Dashboard Definition

Work-Based Learning is defined as activities at the high school and college levels that involve actual work experience and connect classroom learning to work. This is an all-encompassing term that includes apprenticeships, cooperative education, and internships.

Types of Work-based Learning:

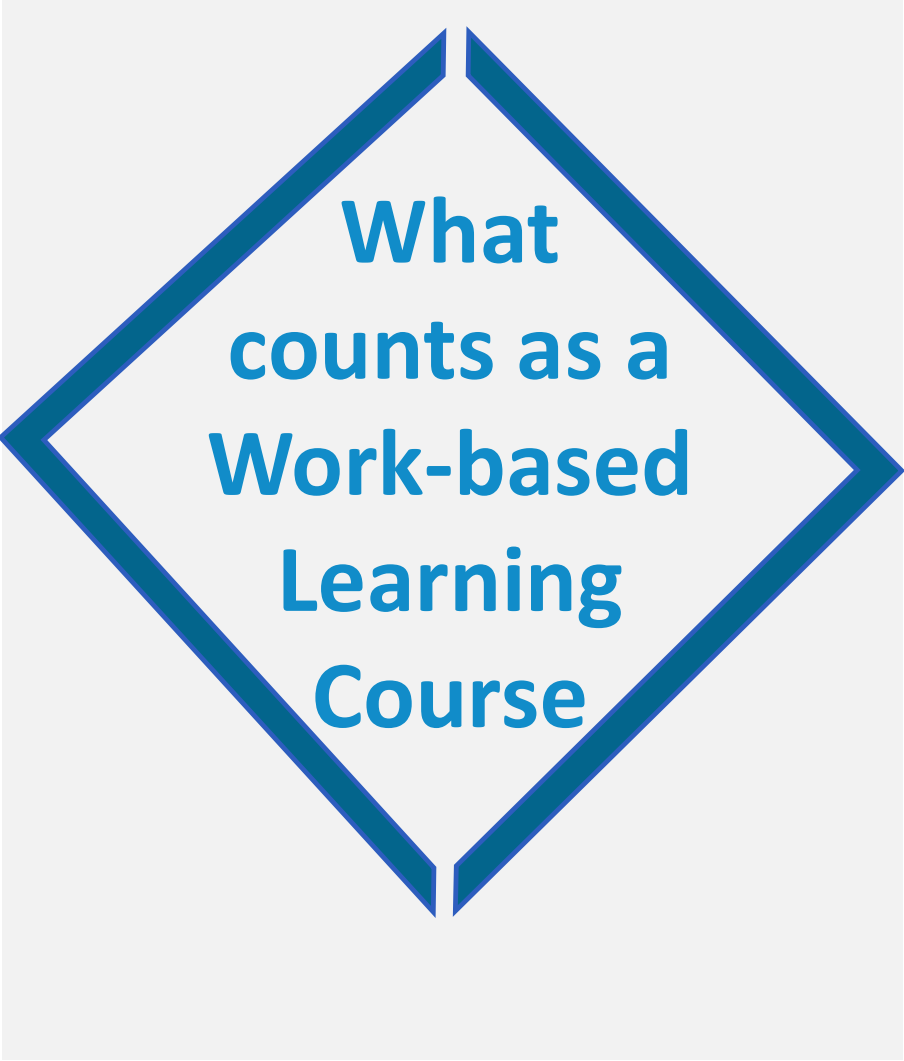
- Capstone WBL
- Career Research and Development
- Integrated WBL
- Internships
- School-Sponsored or School-Based Enterprise or In-School Clinic
- Apprenticeship



Identifying Work-based Learning Participation

The Data:

- Student-Course-Grade-Teacher (SCGT) files for school year 2018-2019 and 2019-2020.
- High School Data Collection (HSDC) file for school year 2019-2020.
- Work-based learning employer and student surveys 2019-2022.



**What
counts as a
Work-based
Learning
Course**

Identification:

1. Course SCEDs for CTE work-based learning, apprenticeship, or internship courses.
2. Key word search of school system course descriptions and course titles based on the Maryland definition of work-based learning.
3. Career Cluster Lead course list review.



**What
counts as an
Apprenticeship
Course**

Identification

1. Course SCEDs for CTE apprenticeship courses.
2. Key word search of school system course descriptions and course titles based on the Maryland definition of apprenticeship.
3. Career Cluster Lead review of course list.

Dashboard Questions and Error Reporting

Please access our [Work-Based Learning Dashboard Questions and Error Reports Google Form](#) to submit questions about the Work-based Learning data and dashboard and provide feedback on any detected errors.

1. Select the appropriate data area and enter your questions and comments about the data in question.
2. Reference to the specific paragraph, chart, or table for which you may have questions or concerns;
3. If an error has been detected, explain why you believe the data represented is in error; and
4. If possible, identify what you believe the correct data to be.

MDCTEWORKS.ORG Website



The MDCTEWORKS.ORG website facilitates exploration of:

- Careers,
- Maryland career clusters,
- CTSO information, and
- Program Enrollment and Performance.

Arts, Media, and Communication

Maryland offers great opportunities for [careers in the](#) Arts, Media, and Communication cluster. Students are able to combine their creative abilities with technical skills and knowledge that prepare them for careers in Arts, Media, and Communication such as Video Production, Graphic Communications, Web Design, Interactive Media, and Game Design. Maryland CTE programs focus on [Graphic Communications](#) and [Interactive Media Production](#). Business partners help to ensure our programs keep pace with the latest developments in industry. MSDE Arts, Media and Communication programs include options for students to earn industry certifications and college credit toward advanced study in the career field. Listen to why [Rita Wienand](#) and [Theo Jack-Monroe](#) chose to enroll in the [Graphic Communications Print Ed](#) and [Interactive Media Production](#) programs. Students have the opportunity to participate in various activities and competitions outside of the classroom through membership in the SkillsUSA student organization. See where [Arts, Media, and Communication programs](#) are offered in Maryland.



LEARN MORE ABOUT STUDENT ORGANIZATION

MDCTEWORKS.ORG Website Updates

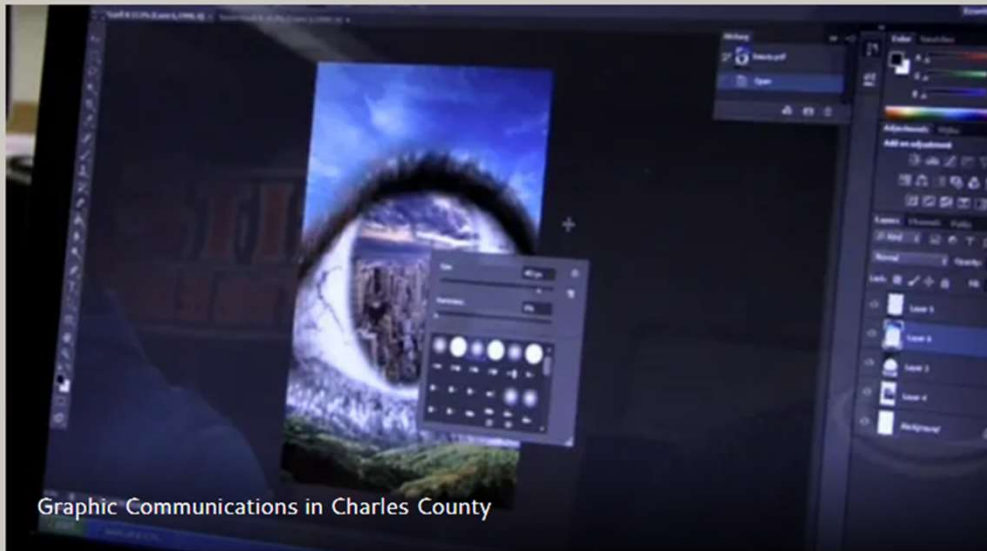
Graphic Communications Program of Study



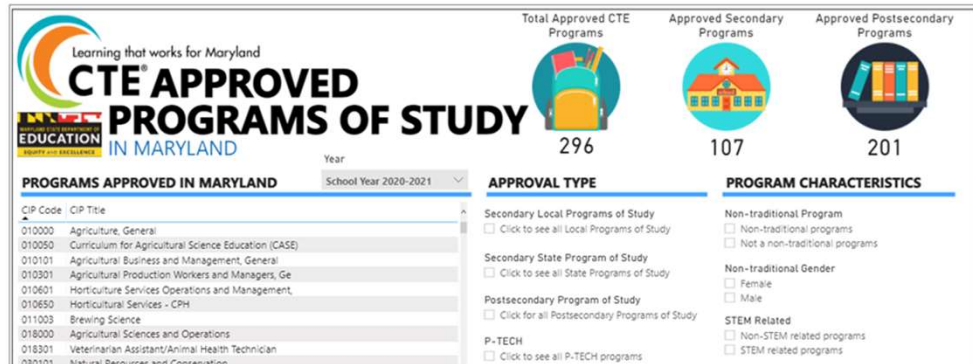
The Graphic Communications program is offered in partnership with the printing and Graphics Association MidAtlantic (PGAMA). This program of study is designed to give students an overall understanding of the industry and its major operations while teaching academic and technical skills required in the field. Students can gain industry certification through PrintED in several areas, including; Introduction to Graphic Communications, Advertising and design, digital File preparation, digital press

MDCTEWORKS.ORG Website Updates

Some of Maryland's Graphic Communications Programs

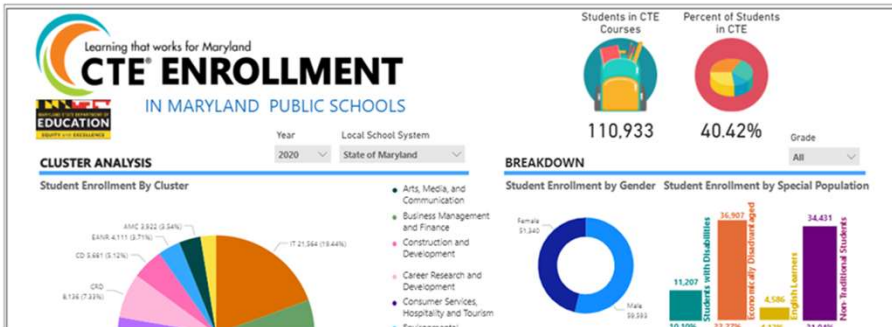


Approved Programs in Maryland

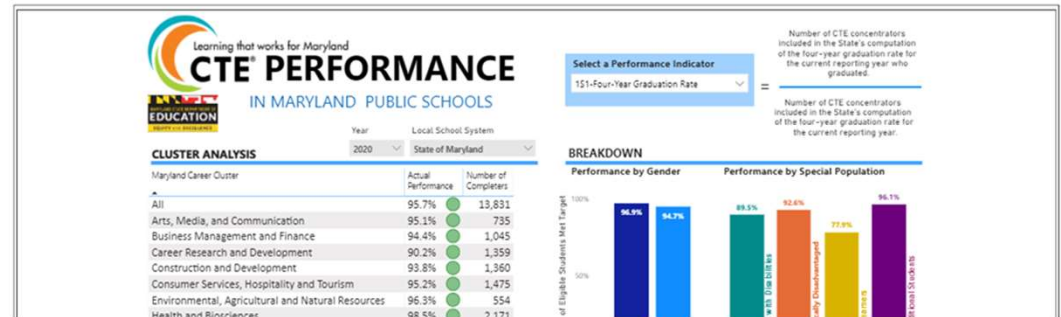


MDCTEWORKS.ORG Website Updates

CTE Enrollment in Maryland



CTE Outcomes in Maryland



Division of Career and College Readiness
 Office of Leadership Development and School Improvement

Career and Technical Student Organizations

FBLA



Developing strong, aggressive leadership in America's future business men and women is the primary objective of the Future Business Leaders of America. FBLA is the national career technology student organization for students who are interested in becoming the

FFA



The official name of the organization is the National FFA Organization. The letters "FFA" stand for Future Farmers of America, but the FFA is not just for students who want to be farmers. FFA welcomes members who want to be teachers, doctors, scientists, or

SkillsUSA



SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled work force. As a national nonprofit organization serving teachers, high school and college students, SkillsUSA provides the work force for

MDCTEWORKS.ORG Website Updates

MD CTSO Events

Stay up to date with FBLA, FFA, and SkillsUSA

Thu - Sun Sep 16th-19th	FFA Eastern Region CDE/LDE	All day
Fri 15th Oct	MD FFA Land Judging CDE	08:00 - 16:00

CAREER AND TECHNICAL EDUCATION GROWTH OPPORTUNITIES DATA ANALYSIS: Using Data To Identify And Address CTE Opportunities For Growth



CTE Growth Opportunities Data Analysis Training Dates



November 9, 2021 (9 am – 12pm)

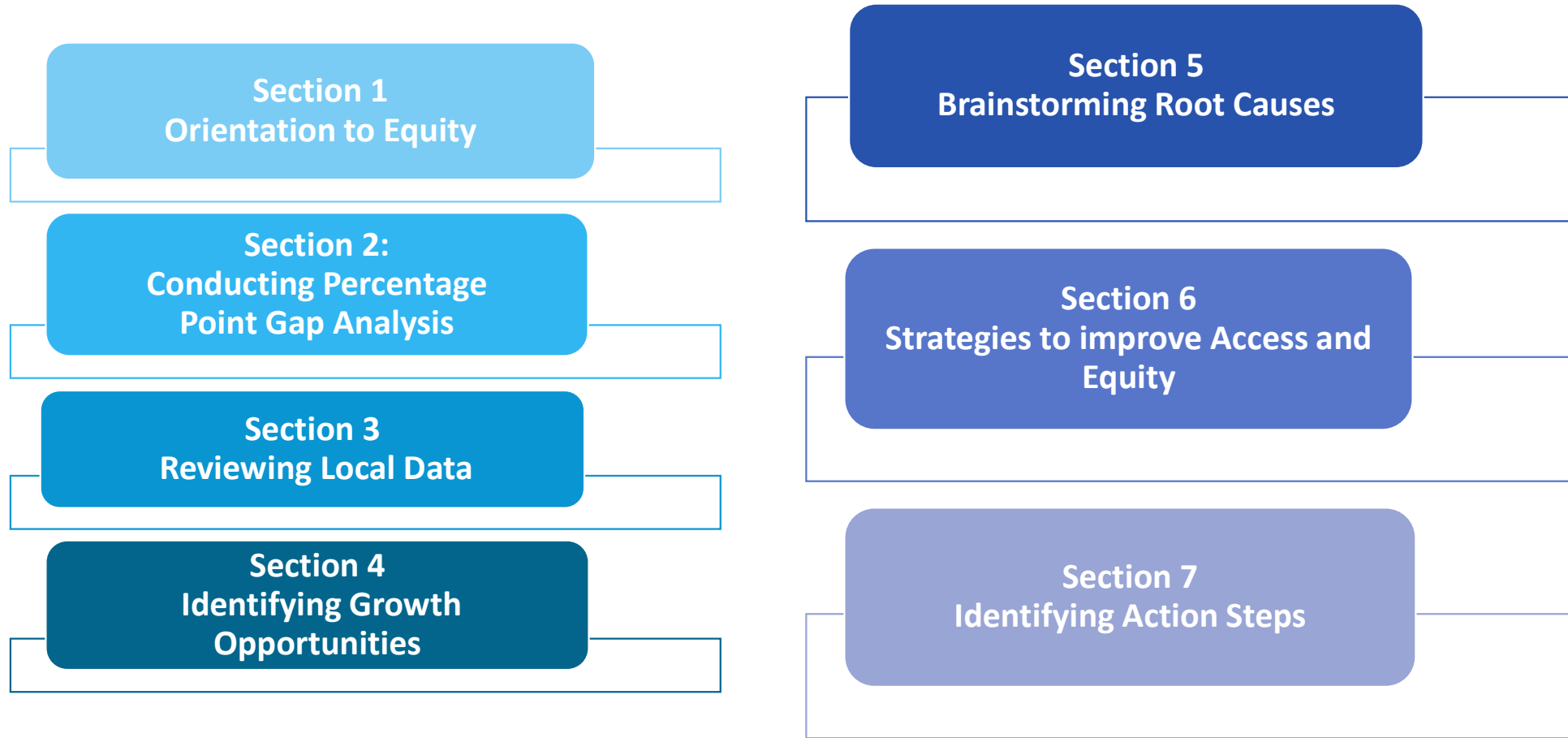


November 16, 2021 (1pm – 3pm)



December 9, 2021 (9 am – 3 pm)

CTE Growth Opportunities Data Analysis Training Overview



Vision for Career and Technical Education in Maryland

Each student has access and the opportunity to engage in career programs of study that:

- ✓ align to high-skill, high-wage, and/or in-demand careers;
- ✓ lead to earning industry-recognized and/or postsecondary credentials that will allow entrance and/or advancement in a specific career field; and
- ✓ provide career-based learning experiences that require the application of academic and technical knowledge and skills in a work setting.





Thank You