



# Career and Technical Education: Comprehensive Local Needs Assessment

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A Systemic Review Guidebook for Postsecondary Schools

Office of College and Career Pathways

2024 - 2026

**MARYLAND STATE DEPARTMENT OF EDUCATION****Carey M. Wright, Ed.D.**

Interim State Superintendent of Schools

**Deann Collins, Ed.D.**

Deputy State Superintendent

Office of Teaching and Learning

**Richard W. Kincaid**

Senior Executive Director

Office of College and Career Pathways

**Wes Moore**

Governor

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Dr. Monica Goldson

Nick Greer

Dr. Irma E. Johnson

Dr. Joan Mele-McCarthy, D.A., CCC-SLP

Rachel L. McCusker

Samir Paul, Esq.

Holly C. Wilcox, Ph.D.

Abisola Ayoola (Student Member)

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## Document Control Information

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### DOCUMENT HISTORY

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## Purpose

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**The federal Strengthening Career and Technical Education for the 21st Century Act (Perkins V), provides funding to support educators in developing the technical and employability skills and academic knowledge of secondary and postsecondary education students enrolling in career and technical education (CTE) programming.**

Perkins V requires that grant recipients complete a Comprehensive Local Needs Assessment (CLNA) every other year to identify needs or gaps that should be addressed to strengthen the delivery of high-quality CTE programming.

The Maryland State Department of Education (MSDE) has created this document to assist you in conducting your CLNA. Information contained within it also will help you to align your improvement efforts with the College and Career Readiness Pillar contained in the Blueprint for Maryland's Future. Key action steps include assessing the alignment of CTE programs of study (POS) to labor market needs; reviewing student participation and performance in CTE coursework; evaluating site progress in making CTE offerings accessible to students; and considering efforts to recruit, train, and retain CTE instructors.

Results from this CLNA should be incorporated into your Perkins V Local Application, which details how you plan to use federal funds to improve CTE instruction and expand equitable student access to quality programs.

The Comprehensive Local Needs Assessment and the Local Application will be reviewed and approved on a rolling basis, and must be fully completed by the Community College, negotiated (CC and MSDE), and approved by the State Director of Career and Technical Education or their designee prior to July 1<sup>st</sup> of each year.

If you have questions about how to use this guide, please contact your designated Postsecondary Program Coordinator in the Office of College and Career Pathways.

## Instructions

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Conducting this needs assessment will take several months to complete and must precede the creation of your 2024-25 Perkins V Local Application.

This guide provides a framework to help you investigate the status of your CTE programming and identify areas for improvement. It is organized into six sections:

- Guiding Principles
- Assembling a Stakeholder Team
- Component A: Labor Market Alignment
- Component B: Student Participation and Persistence
- Component C: Program Performance
- Component D: Professional Development

While you may choose to cover topics in any order, you should begin by assembling a stakeholder team to inform your effort. This group must include representatives from the stakeholder groups that are identified in the Perkins V legislation.

You may complete this document online or electronically by typing directly into the provided fillable fields. Alternatively, you may print out a copy of this form and enter information by hand. Do not alter or remove sections. Those choosing to complete the document offline should upload a completed copy using SharePoint.

## Guiding Principles and Logic Model

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### OVERVIEW

MSDE has identified a set of guiding principles to inform the creation of CTE programming. It includes the expectation that all learners should have access to high-quality CTE coursework that:

- aligns to high-skill, high-wage, in-demand careers,
- leads to industry-recognized and/or postsecondary credentials that supports entrance or advancement in a specific career cluster, and
- offers career-based learning experiences (e.g., work-based learning, apprenticeship) that require the application of academic and technical knowledge and skills in a work setting.

### LOGIC MODEL

Despite the growing emphasis on CTE as a pivotal pathway for students in Maryland, there is a significant gap in the systematic evaluation of current CTE programs. Maryland's dedication to aligning educational experiences with the demands of the real-world labor market faces challenges:

1. Lack of Comprehensive Oversight: There isn't a unified method to holistically assess the state's CTE programming capacity. This absence has led to disparities among various student groups across CTE clusters, hindering equitable access to quality education.
2. Inefficient Funding Application Process: Potential CTE grantees in Maryland lack a structured Local Application process for Perkins V grant funds, affecting their ability to optimally leverage these resources for student outcomes.

The combined effect of these challenges puts Maryland's CTE programs at risk of not fully aligning with the Perkins V requirements and, more importantly, not meeting the evolving needs of students and the labor market. Consequently, there is an urgent need for a systematic approach to bridge these gaps, ensuring the delivery of equitable, high-quality career and technical training that truly mirrors labor market demands.

Resources	Strategies	Outputs	Short-Term Outcomes	Long-Term Outcomes	Impacts
<b>Tangible:</b> Funding from Perkins V	Develop a CLNA	Comprehensive report detailing current state of CTE programs	Identification of gaps and disparities in CTE programs	Enhanced quality and inclusivity of CTE programs	A workforce better prepared for Maryland's labor market demands
<b>Tangible:</b> Labor Market Information (LMI) Data	Analyze LMI to align CTE programs with labor market demands	List of high-demand sectors and occupations in Maryland	CTE curriculum adjustments based on labor market needs	Improved alignment of CTE tracks with workforce demands	Higher employment rates for CTE program graduates
<b>Tangible:</b> Interview and Focus Group	Conduct interviews and focus groups with stakeholders	Collection of feedback and insights from stakeholder groups	Immediate feedback loop established with stakeholders	Strengthened collaboration and partnerships	Enhanced stakeholder trust and investment in CTE programs
<b>Intangible:</b> Expertise in CTE Programming	Design a structured Local Application process for Perkins V funding	Guideline document for potential CTE grantees	Streamlined application process for Perkins V funding	Increased number of high-quality grant applications, earlier in the process	Optimal leverage of grant funds for improved student outcomes
<b>Intangible:</b> Stakeholder Relationships	Engage regularly with stakeholders for continuous feedback	Periodic stakeholder engagement sessions	Fostered sense of community ownership and involvement	Stronger community ties and support for CTE programs	CTE programs that resonate more deeply with community needs
<b>Intangible:</b> Knowledge of federal and state education guidelines	Ensure CTE programs align with Perkins V, the Blueprint for Maryland's Future, and other relevant guidelines	Regular compliance checks and reports	Immediate course correction when misalignments are found	Consistent alignment with state and federal guidelines	Sustained funding and support for CTE programs due to compliance



## INTERPRETATION

1. **IF** we intentionally and strategically allocate Perkins funding in the planning process, **THEN** we can develop a CLNA leading to a comprehensive report that identifies gaps in the CTE programs, ultimately enhancing the quality and inclusivity of CTE programs and preparing the workforce better for Maryland's labor market demands.
2. **IF** we utilize LMI data, **THEN** we can better align CTE programs with current labor market demands, leading to adjustments in the CTE curriculum, improving the alignment of CTE tracks with workforce demands, and resulting in higher employment rates for CTE program graduates.
3. **IF** we employ interview and focus groups effectively, **THEN** we can gather valuable feedback from stakeholders, establishing an immediate feedback loop, strengthening collaboration, and enhancing stakeholder trust and investment in CTE programs.
4. **IF** we leverage our expertise in CTE programming, **THEN** we can design a structured Local Application process for Perkins V funding, streamlining the application process, increasing the number of successful grant applications, and optimizing the use of grant funds for improved student outcomes.
5. **IF** we nurture and maintain stakeholder relationships, **THEN** we can engage more deeply and regularly for feedback, fostering a sense of community ownership, strengthening community ties, and creating CTE programs that resonate more deeply with community needs.
6. **IF** we stay updated on federal and state education guidelines, **THEN** we can ensure consistent alignment of CTE programs with these guidelines, leading to immediate course corrections when needed, sustained alignment, and thereby securing sustained funding and support for CTE programs

## PROGRAM DESIGN

All CTE programming in Maryland must be delivered through Programs of Study (POS) developed by the state or a local school system. To be considered "state approved," each program of study must meet these criteria:

- Strengthens the academic, career, and technical skills of students to prepare them for careers and further education.
- Incorporates input from diverse stakeholder groups, including industry and postsecondary partners
- Fits within one of 10 state-recognized career clusters that help students learn about their work options so that they may make informed career decisions.
- Includes opportunities for students to earn industry or postsecondary credentials and participate in career-based learning experiences.
- Prepares students for both college and careers through the completion of a planned sequence of coursework that blends academic, technical, and workplace skills.
- Incorporates a coherent set of academic, employability, and technical skills based on national and state standards that offer students a competitive advantage in the workplace.
- Offers multiple options to prepare students for entry into careers and further education through articulation agreements, supervised career-based learning experiences (e.g., work-based learning, internship, apprenticeship, etc.), and/or industry-mentored or capstone projects.
- Is based on enrollment and outcome data to inform program improvement and increase student performance.

Refer to these criteria as you conduct your CLNA to ensure your programming is rigorous and of uniformly high quality.

## STUDENT ENGAGEMENT

A CTE POS includes a course sequence from grades nine through 12 and two or more years of postsecondary education courses. A student may meet the following thresholds of engagement:

**Participant** — Student completing not less than one credit in a MSDE approved CTE POS.

**Concentrator** — Students who have earned at least 12 credits in a CTE POS or completed such a program if the program encompasses fewer than 12 credits or the equivalent in total in a MSDE approved CTE POS.

**Completer** — Student who meets all requirements in a state approved CTE POS.

## PROGRAM DELIVERY

Local school systems must meet **Size, Scope, and Quality** criteria to qualify for federal funding. Detailed information on these and additional expectations relating to CTE programming can be found in Maryland's [Policies & Procedures for the Development & Continuous Improvement of Career and Technical Education Programs of Study](#).

Any program that fails to meet all the following criteria will need to be brought into compliance or removed from your program approval request, invalidating it for Perkins V funding. While you are not expected to develop plans to address deficiencies as part of the CLNA process, you are encouraged to assess each CTE POS against these criteria to help prepare for developing your local application.

SIZE
At least two state-approved CTE POSs are offered in recognized clusters.
Each POS consists of a coordinated, non-duplicative sequence of academic and technical coursework comprising at least 3 credits.
Each CTE concentrator-level course (typically the 3rd in a program) has a minimum of 10 concentrators over a 4-year period. If not, evidence must be offered of continued progress toward meeting this requirement.
Each POS has the required number of staff, availability of equipment, and student access to facilities.

SCOPE
Curricula are aligned to state-approved industry standards that allow students to earn recognized credentials, certifications, licenses, college credit, or degrees
Curricula offer a progression from secondary to postsecondary education and/or employment (including attainment of an industry-recognized credential or apprenticeship), and from community college to bachelor's degree programs
Curricula allow students to learn and demonstrate academic, technical, and employability skills
Curricula include differentiated supports and modifications to meet the needs of diverse learners
Each CTE student has a written career and academic plan in place that includes the: <ul style="list-style-type: none"> <li>• required courses to complete a POS and graduate</li> <li>• required assessments to earn a certification, license, credential, or degree</li> <li>• required academic assessments to graduate</li> <li>• timeline to take courses, assessments, and complete career-based learning experiences.</li> </ul>
All students, regardless of race, color, national origin, sex, or disability, have equitable access to high-quality CTE programs as required by <a href="#">Code of Maryland Regulation 13A.04.02.04</a>
Approved POSs are guided by Local Advisory Councils and Program Advisory Committees according to the CTE Local Advisory Council and Program Advisory Committee Policies and Procedures (COMAR EA Title 21. Sec.101)
All CTE POS adhere to CTE Development Standards, which are required by <a href="#">Code of Maryland Regulations 13A.04.02.03</a>
All programs meet the definitions for high-skill, high-wage, in-demand occupations

QUALITY
The site achieves or consistently makes progress towards local targets established for state and federal core indicators of performance
POS are delivered by instructors who meet state requirements to teach content at the secondary level
CTE POS are delivered by instructors who earned a minimum of effective on their teacher evaluation as defined by <a href="#">Code of Maryland Regulation 13A.07.09</a>
Each CTE POS meets all the requirements of the MSDE evaluation criteria found in the Policies and Procedures for the Development and Continuous Improvement of CTE Programs of Study (page 45).
<p>All students, including students in special populations, are offered the opportunity to:</p> <ul style="list-style-type: none"> <li>• Participate in at least one career-based learning experience (e.g., work-based learning, internship, apprenticeship, etc.)</li> <li>• Earn college credit and/or industry credentials</li> <li>• Participate in CTSOs</li> </ul>
Professional learning opportunities, informed by data, are provided for administrators, instructors, faculty, counselors and support personnel to improve student learning outcomes. All secondary professional learning must be guided by the Maryland-endorsed National Learning Standards
Local and state annual data-reporting requirements are met, and reviews conducted of all annual Program Quality Index reports to inform improvement
Human resources are included in the recruitment process to ensure a diverse CTE teacher and faculty member candidate pool
Metrics are used to ensure that CTE teacher and faculty member recruitment strategies are successful
Teacher retention rates are reviewed annually, for the most recent 3 years, with data used to identify the top three contributing factors to CTE teacher and faculty member turnover

## Assembling a Stakeholder Team

Assemble a diverse stakeholder team to assist you in conducting your CLNA. Representation in the listed categories is required by federal statute, except where indicated. While Perkins V requires more than one representative for each group (with an exception for CTE coordinators and data analysts), it is permissible for one person to fulfill up to two roles.

### STAKEHOLDER TEAM COORDINATOR

[This is the individual responsible for planning and holding stakeholder meetings and completing CLNA]

Name	Dr. Richard Cerkovnik
Organization	Montgomery College
Title	Director, iSTEM Network
Email	Richard.Cerkovnik@montgomerycollege.edu

### STAKEHOLDER TEAM MEMBERS

When Selecting Stakeholders, consider:

- Recruit individuals who are knowledgeable about CTE at your site and influential in the field.
- Ensure that members understand the time commitment and can attend all scheduled meetings.
- Perkins V requires *more than one representative for each group* (with an exception for the coordinators and data analyst). Members may not represent more than two stakeholder groups.
- If you are unable to recruit a member to fulfil a required role you should keep a record of your outreach efforts to demonstrate you acted in good faith.

### Stakeholder Team Responsibilities

- Review Maryland Department of Labor employment and projections data, college student participation and performance data, and educator support efforts to identify priority areas for improvement.
- Ensure that program offerings are aligned to local, regional, and/or state employment priorities.
- Help to communicate the importance of delivering high-quality CTE POS in your site and champion local efforts to achieve improvement goals.
- Meet on a quarterly basis to track your progress in improving CTE programming and make annual updates to this needs assessment.

Note that stakeholder team meetings may be held in person, virtually, or using a hybrid approach. If scheduling conflicts make holding a full team meeting impractical, stakeholders may meet in subgroups to review data and consider strategies to strengthen programming. Ultimately, all stakeholders should contribute to identifying challenges and formulating solutions, and publicly support your findings.

## Stakeholder Team Roster

### SECONDARY FEEDER SCHOOLS

Role	Name	Title	Affiliation
Administration (e.g., principal, assistant principal)	Dana Shelton	AP	Gaithersburg HS, MCPS
	Joseph Bostic	AP	Northwood HS, MCPS
	Heather Carias	Supervisor	Thomas Edison HS
Professional career or academic counselor	Karen Crews	Director, Student Well-Being and Achievement	MCPS
	George Awkard	Counselor	Thomas Edison HS
Instructors	Nadine Hecht	BMF Teacher & Internship Coordinator	Northwood HS, MCPS
	Jennifer Fischer	CS Teacher & CTE RT	Northwest HS, MCPS
	Melissa Nelson	Internship Coordinator	Gaithersburg HS, MCPS
	Raul Ortiz	Automotive Tech Teacher	Damascus HS
Instructional Support and Paraprofessionals (Psychologists, Social Workers, etc.)	Fran Livingston	Paraeducator	Thomas Edison HS
	Valerie Becton	Paraeducator	Gaithersburg HS, MCPS

### POSTSECONDARY

Role	Name	Title	Affiliation
Administration (e.g., dean, division chair)	Elena Saenz	Associate Senior VP of Academic Affairs	Montgomery College
	Alton Henley	Dean, BEACAHMPS (Business, Economics, Accounting, Computer Applications, Hospitality Management, and Paralegal Studies)	Montgomery College
	Sarah Campbell	Acting Collegewide Dean of Humanities	Montgomery College
	Glenda Hernandez Tittle	Senior Program Director, Alternative Teachers Certification Program	Montgomery College
	Tim Fuss	Department Chair, Health Sciences	Montgomery College
	Ginger Robinson	Department Chair, Sociology, Anthropology, and Criminal Justice	Montgomery College
	Alla Webb	Department Chair, Science, Engineering and Technology	Montgomery College

Faculty	Ed Riggs	Professor, Media Arts and Technologies	Montgomery College
	Pierre Harges	Professor, Health Sciences	Montgomery College
	Margaret Tseng	Assistant Professor, Science, Engineering, and Technology	Montgomery College
	Steve Dubik	Professor, Environmental Horticulture	Montgomery College

**WORKFORCE**

Role	Name	Title	Affiliation
Local Workforce Development board member	Anthony Featherstone	Executive Director	WorkSource Montgomery
	Jessica Issoufou	Deputy Director, Workforce Services	WorkSource Montgomery
*Regional Economic Development organization member			
Local business & industry representative	Mary Kraft	Americas Director of Customer Services and Support - Commercial and Federal	HP
	Neal London	Deputy Chief Architect, Digital Transformation	Lockheed Martin (retired)
	Sam Visner	Technical Fellow	The Aerospace Corporation

**OTHER**

Role	Name	Title	Affiliation
Parent or caretaker			
Student	Michelle Valesquez	Student, Diagnostic Medical Sonography	Montgomery College
	Mary McGlockin	Student, Diagnostic Medical Sonography	Montgomery College
	Julie Reagan	Student, Diagnostic Medical Sonography	Montgomery College
Representative of Special Populations	Margaret Parrott	Instructional Specialist	Transition Services Unit
	Donna Kinerney	Dean of Adult ESOL & Literacy Grant Program (AELG)	Workforce Development and Continuing Education
Out-of-School youth / unhoused youth / corrections	Donna Kinerney	Dean of Adult ESOL & Literacy Grant Program (AELG)	Workforce Development and Continuing Education

\* Not required under Perkins V but recommended to include.

## Component A: Labor Market Alignment

### OVERVIEW

Career programming in Maryland must address the economic and workforce development needs of the state and align to high-skill, high-wage, and/or in-demand (HS/HW/ID) careers. These are defined as:

**High-Skill** — Careers that: (1) require previous work-related skills, knowledge, or experience of one or more years; (2) have a Specific Vocational Preparation (SVP) rating of at least six as defined by [O\\*Net](#); (3) require state or federal licensing or industry-recognized certification; or (4). require a recognized postsecondary credential or degree.

**High-Wage** — Careers that exceed the state average annual wage of \$69,750 in 2022.

**In-Demand** — Careers with a growth rate over ten years of at least 7% or a two-year occupational projected growth of 2.5%.

The Division of Career and College Readiness has evaluated all secondary and postsecondary State and Local approved POS against these HS/HW/ID criteria. Ideally, your CTE POS will meet all three of the criteria, or at least one to qualify for funding. You may access additional information on these programs at the [Maryland CTE Data website](#). The Maryland Department of Labor has also developed [Long Term Occupational Projections](#) thru 2030, which can help you to identify high demand careers and the education and job training necessary to secure them.

### ACTIVITY A.1 : TAKING STOCK

The following table details the CTE POS offered at your college in the 2022-23 school year, their alignment with high-skill, high-wage, and in-demand careers, and the relative proportion of students concentrating in each area. Although it is not *required* that each POS meet the criteria for high-skill, high-wage, *and* in-demand, it should be the goal of each POS to do so.

**Note:** Prior to sharing this table with your stakeholder team, you will need to suppress numbers and percentages in cell that do not include the minimum number of students required to protect student confidentiality. Maryland state policy is to suppress data for cells or percentages that are based on fewer than 35 students. Please consult your college policies to determine which data cells should be suppressed and how this information should be communicated (e.g., by entering 'LOW N' or '<35 students' in effected cells).

Program	Alignment to current statewide industries (enter ✓)			Number of CTE participants 2022-23	Percent of all CTE Participants 2022-23
	HS	HW	ID		
Horticulture Services Operations and Management	X	X	X	10	0.20%
Media Production Technology	X		X	6	0.10%
Audiovisual Comm. Technology/Technician, Other	X		X	31	0.70%
Communications Techno/Technic & Support Service	X		X	30	0.70%
Computer Programming	X	X	X	135	3.00%
Data Processing Tech./Technician		X	X	25	0.60%
Data Entry/Microcomputer Applications, General				13	0.30%
Web Page Digital/Multimedia Info Research Design	X	X	X	15	0.30%
Computer & Information Systems Security	X	X	X	782	17.50%
Computer Technology/Computer Sys Technology	X	X	X	6	0.10%
Architectural Drafting & Architectural CAD/CADD	X	X		373	8.30%
Sign Language Interpretation & Translation	X	X	X	27	0.60%
Child Care Provider/Assistant			X	197	4.40%
Legal Assistant/Paralegal	X	X	X	110	2.50%
Professional, Technical, Business, and Sci. Writing	X	X	X	6	0.10%
Parks, Recreation and Leisure Facilities Management	X	X	X	5	0.10%
Health and Physical Education/Fitness, Other	X	X	X	11	0.20%
Biological Tech./Technician	X		X	167	3.70%
Law Enforcement/Police Science	X	X	X	259	5.80%
Fire Protection and Safety Tech./Technician	X	X	X	31	0.70%
Crisis/Emergency/Disaster Management	X	X	X	20	0.40%
Geography	X	X	X	22	0.50%
Geography, Other	X	X	X	12	0.30%
Local Construction Trades- Electrical	X	X	X	9	0.20%
Construction and Building Finishers and Managers	X	X	X	112	2.50%
Local Construction Maintenance- HVAC	X	X	X	26	0.60%
Auto/Automotive Mechanic/Technician	X	X	X	171	3.80%
Graphic Design, Commercial Art and Illustration	X	X	X	215	4.80%
Commercial Photography	X	X	X	72	1.60%
Interior Design	X	X	X	109	2.40%
Computer Gaming and Simulation	X	X	X	164	3.70%
Medical Records Tech./Technician	X	X	X	105	2.30%
Physical Therapy Assistant	X		X	30	0.70%
Medical Radiologic Tech./Technician	X	X	X	53	1.20%



Surgical/Operating Room Technician	X	X	X	37	0.80%
Diagnostic Medical Sonography	X	X	X	72	1.60%
Public Health, Other	X	X	X	232	5.20%
Registered Nursing	X	X	X	510	11.40%
Health Professions and Related Sciences, Other	X		X	1	0.00%
Accounting Technician	X		X	155	3.50%
Hotel/Motel Administration Management	X	X	X	97	2.20%
Business Information and Data Processing Service	X	X	X	6	0.10%

Are you planning on adding any new or phasing out any existing POS in the upcoming year? If so, which CTE POS(s) are you considering and why?

Program/CIP Code	Adding or deleting	Rational for change
307001 Data Science, General	Adding	New program
110601 Data Entry/ Microcomputer Applications, General	Deleting	Not aligned with labor market

**ACTIVITY A.2: ASSESSING PROGRAM ALIGNMENT TO LABOR MARKET AND INDUSTRY NEEDS**

Based on a review of the CTE POS data for high-skill, high-demand, and in-demand standards, rate each statement as a strength or area for improvement. Provide an explanation for any answer with which you identify as an 'area for improvement.'

	Meets	Area for Improvement	Explanation
Our CTE stakeholders review workforce and economic data to assess current and anticipate future local employment needs in HS/HW/ID industries	X		
Processes are in place to identify and expand college level registered apprenticeship opportunities.		X	While MC has begun to explore opportunities to identify and expand college level apprenticeships, more focus is needed in this area.
Processes are in place to update or phase out CTE POS that do not align with HS/HW/ID industries	X		
A majority of our students are concentrating in POS aligned to HS/HW/ID industries	X		
Processes are in place to recruit business and industry stakeholders to participate on Program Advisory Committees	X		

**ACTIVITY A.3: REFLECTION**

Based on your responses in this component of the needs assessment guide, consider the following questions:

1. What is your rationale for offering programming that is not fully aligned with HS/HW/ID criteria you rated in Activity 1.1)?

The only program that needs to be removed due to misalignment is 110601 Data Entry/Microcomputer Applications, General.

2. What are the top five priorities you will address in the coming year to update or phase out misaligned CTE programs and/or expand student participation in CTE programming aligned with HW/HS/ID careers?

- Montgomery College will remove 110601 Data Entry/Microcomputer Applications, General from List A because it is misaligned with labor market and industry needs.
- Add 307001 Data Science, General to List A, because it leads to HW/HS/ID careers ([Data Scientists : Occupational Outlook Handbook: : U.S. Bureau of Labor Statistics \(bls.gov\)](#))
- College and Career Navigators will be hired to help recruit and advise students. This will expand student participation in CTE programming aligned with HW/HS/ID careers.
- Marketing and recruitment plans will be reviewed to ensure focus on CTE programs leading to HW/HS/ID careers and to increase awareness of all CTE career opportunities, including nontraditional occupations for students of different genders.
- Montgomery College will identify and explore college level registered apprenticeship opportunities.

## Component B: Student Participation and Persistence

### OVERVIEW

To ensure that all students have equitable access to CTE programming, MSDE encourages colleges to assess rates of student participation and persistence in CTE overall, as well as within each POS offered for the state approved Career Clusters. Enrollments also should be tracked using the disaggregates for student gender, race-ethnicity, and special population status detailed in Perkins V.

### ACTIVITY B.1: TAKING STOCK

The following table asks you to enter the number and percentage of 2023 graduates statewide and in your college who participated in CTE coursework and persisted to achieve concentrator status in CTE programming, disaggregated by selected student demographics.

Please use the disaggregated 2023 statewide graduate data and postsecondary heat maps, provided by MSDE, to fill in the requested information. You may contact staff at MSDE if you have questions about the data to be entered.

Once you have entered the data, review the information to determine whether there are any concerning gaps in student participation and/or persistence. Note that small numbers of students may have large impacts on your participation and concentrator status rates; consequently, use care in interpreting data with cell sizes less than 10 students.

**Note:** Prior to sharing this table with your stakeholder team, you will need to suppress numbers and percentages in cell that do not include the minimum number of students required to protect student confidentiality. Maryland state policy is to suppress data for cells or percentages that are based on fewer than 35 students. Please consult your college policies to determine which data cells should be suppressed and how this information should be communicated (e.g., by entering 'LOW N' or '<35 students' in effected cells).

Student Group	2023 Graduates <sup>1</sup> Statewide <sup>2</sup>				2023 Graduates in Your College			
	Number	Percent	Percent participating in CTE	Percent of participants <sup>3</sup> who achieved concentrator status	Number	Percent	Percent participating in CTE	Percent of participants who achieved
All 2023 Graduates	102,662	100%	48.9% (45,507)	58.8% (26,739)	17,137	100%	26.1 % (4,469)	70.4% (3,144)
<b>Gender</b>								
Male	37,211	39.2%	44.6% (16,582)		7,932	46%	27.4% (2,177)	65.7% (1,430)
Female	57,623	60.8%	50.2% (28,925)		9,205	54%	24.9% (2,292)	74.8% (1,714)
<b>Race-ethnicity</b>								
American Indian			141		33	0%	30.3% (10)	90% (9)
Asian	6,121	6.4%	49.9% (3,056)		2,112	12%	26.6% (561)	70.2% (394)
Black	27,787	29%	61.3% (17,040)		4,323	25%	28.6% (1,237)	69.4% (859)
Hispanic	12,932	13.5%	39.2% (5,071)		4,804	28%	25.7% (1,235)	70.7% (873)
Multi-race	4,476	4.7%	39.9% (1,785)		659	4%	0% (0)	0%
White	36,368	38%	45.6% (16,583)		3,377	20%	25.4% (859)	70.1% (602)
Unknown	2,743	2.9%	64.2% (1,761)		1,799	10%	31.1% (560)	71.8% (402)
Hawaiian/ Pacific Islander			70		30	0%	23.3% (7)	71.4% (5)
<b>Special Populations</b>								

<sup>1</sup> Used data on participants, not graduates because the focus of this section is on participants and concentrators.

<sup>2</sup> Latest data on MD CTE DATA website is 2022. Referenced 2022 data from the Maryland Association of Community Colleges.

<sup>3</sup> Data on gender and race/ethnicity are missing on the Maryland CTE Data website. They report the number of concentrators as the same as the total number of participants.

Economically disadvantaged								
English learners								
Individuals <sup>4</sup> with disabilities			4.2% (1,941)	10.3% (199)			N=292	81.8% (239)
Nontraditional fields			21.6% (9,818)	21.8% (2,143)			N=819	64.8% (531)
Single parents								
Out of workforce								
Unhoused Individuals								
Youth in foster care								
Youth with parent in military								
Migrant students								

Note that since special population status is not mutually exclusive (i.e., a student may belong to more than one category), these data may not sum to 100%.

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<sup>4</sup> MSDE Growth Opportunities Analysis was missing data on special populations.

**ACTIVITY B.2: ASSESSING YOUR PROGRAM**

Based on a review of the overall CTE program data—relative to the state and across student groups—rate each statement as a strength or area for improvement. Provide an explanation for any answer with which you identify as an ‘area for improvement.’

	Meets	Area for Improvement	Explanation
Our college ensures all students—irrespective of gender, race, or special population status—are provided unbiased, inclusive, and non-discriminatory information about CTE courses and POS	x		
Our college has processes in place to recruit students traditionally underrepresented in CTE to improve diversity in CTE POS	x		
Processes are in place to ensure that students traditionally underrepresented in CTE have options to <u>enroll</u> in CTE POS	x		
Processes are in place to ensure that students traditionally underrepresented in CTE <u>persist</u> in CTE POS once enrolled	x		
Processes are in place to ensure that all eligible students have equitable access to career-based learning experiences	x		
Career guidance and advisement services are provided to student prior to enrolling in a CTE POS	x		
All students have access to career planning and support services to help them successfully transition to advanced education and/or the workforce	x		

**ACTIVITY B.3: REFLECTION**

Based on your review of your data and responses in Activity B.2, consider the following questions:

1. Are there any student groups in your college that have concerning gaps in their CTE participation or persistence rates? If so, which groups are underperforming?

The overall participation rate in CTE programs is 26.1 %. All groups are represented within +/- 5% of the 26.1% total.

The overall concentrator rate in CTE programs is 70.4%. All groups, except students in nontraditional fields, are represented within +/- 5% of the 70.4% total. At 64.8%, students in nontraditional fields are underrepresented as concentrators.

Students with disabilities are underrepresented in 1P1: Postsecondary placement.

State Target: 71.33%; College: 71%; Students with disabilities: 62%

Students with disabilities are underrepresented in 3P1: Non-traditional program concentration.

State Target: 24.85%; College: 24%; Students with disabilities: 16%

2. What are the top five priorities you will address in the coming year to expand student participation in CTE programming and reduce participation and/or persistence gaps among students? *[Note: At least one priority area you identify should address the needs of gender, race-ethnicity, or special population groups.]*
  - To support student placement and persistence, College and Career Navigators will advise students, including students in nontraditional fields and students with disabilities, about CTE programs/course sequences.
  - College and Career Navigators will refer CTE students, including students in nontraditional fields and students with disabilities, to college and community resources.
  - College and Career Navigators will recruit and advise prospective students thereby equitably increasing participation in CTE programs.
  - Marketing and recruitment plans will be reviewed to develop strategies for equitably increasing participation in CTE programs.
  - CTE faculty will be encouraged to participate in professional development related to diversity, equity, and inclusion and increasing student engagement and persistence.



**ACTIVITY B.4: CAREER CLUSTER PARTICIPATION AND PERSISTENCE**

Student participation and persistence rates may differ across Career Clusters. The following table asks you to enter the number and percentage of 2023 college graduates in your college who participated in CTE coursework and persisted to achieve concentrator status a given Career Cluster, disaggregated by selected student demographics. Create a separate table for each CTE Career Cluster offered.

Work with your college data team to find the requested information. You may contact staff at MSDE if you have questions about the data to be entered.

**Note:** Prior to sharing this table with your stakeholder team, you will need to suppress numbers and percentages in cell that do not include the minimum number of students required to protect student confidentiality. Maryland state policy is to suppress data for cells or percentages that are based on fewer than 35 students. Please consult your college policies to determine which data cells should be suppressed and how this information should be communicated (e.g., by entering 'LOW N' or '<35 students' in effected cells).

**CAREER CLUSTERS:**

Name	Number Program Graduates <sup>5</sup> 2023
Arts, Media, and Communication	675
Business Management and Finance	260
Construction and Development	520
Consumer Services, Hospitality, and Tourism	113
Environmental, Agricultural, and Natural Resources	10
Health and Biosciences	935
Human Resource Services	617
Information Technology	967
Manufacturing, Engineering, and Technology	201
Transportation Technologies	171

**Career Cluster Name:** Arts, Media, and Communication

**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
Media Production Technology	6
Audiovisual Comm. Technology/Technician, Other	31
Communications Techno/Technic & Support Services	30
Web Page Digital/Multimedia & Info Research Design	15
Sign Language Interpretation & Translation	27
Professional, Technical, Business, and Scientific Writing	6
Graphic Design, Commercial Art and Illustration	215

<sup>5</sup> Cited number of participants, not graduates, throughout.

Commercial Photography	72
Interior Design	109
Computer Gaming and Simulation	164

**Career Cluster Name: Business Management and Finance**
**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
Medical Records Tech./Technician	105
Accounting Technician	155

**Career Cluster Name: Construction and Development**
**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
Architectural Drafting & Architectural CAD/CADD	373
Local Construction Trades- Electrical	9
Construction and Building Finishers and Managers	112
Local Construction Maintenance- HVAC	26

**Career Cluster Name: Consumer Services, Hospitality, and Tourism**
**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
Parks, Recreation and Leisure Facilities Management	5
Health and Physical Education/Fitness, Other	11
Hotel/Motel Administration Management	97

**Career Cluster Name: Environmental, Agricultural, and Natural Resources**
**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
Horticulture Services Operations and Management	10

**Career Cluster Name: Health and Biosciences**
**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
Physical Therapy Assistant	30
Medical Radiologic Tech./Technician	53
Surgical/Operating Room Technician	37

Diagnostic Medical Sonography	72
Public Health, Other	232
Registered Nursing	510

**Career Cluster Name:** Human Resource Services

**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
Child Care Provider/Assistant	197
Legal Assistant/Paralegal	110
Law Enforcement/Police Science	259
Fire Protection and Safety Tech./Technician	31
Crisis/Emergency/Disaster Management	20

**Career Cluster Name:** Information Technology

**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
Computer Programming	135
Data Processing Tech./Technician	25
Data Entry/Microcomputer Applications, General	13
Computer & Information Systems Security	782
Computer Technology/Computer Sys Technology	6
Business Information and Data Processing Service	6

**Career Cluster Name:** Manufacturing, Engineering, and Technology**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
Biological Tech./Technician	167
Geography	22
Geography, Other	12

**Career Cluster Name:** Manufacturing, Engineering, and Technology**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
Auto/Automotive Mechanic/Technician	171

**CLUSTER-LEVEL DATA: ARTS, MEDIA, AND COMMUNICATION**

Student Group	Participation Rate			Persistence Rate
	2023 College Graduates (A)	2023 College graduates participating in this cluster (B)	Percentage difference (A-B)	2023 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
<b>Gender</b>				
Male	49%	53%	-4%	50%
Female	51%	47%	4%	50%
<b>Race-ethnicity</b>				
American Indian	0%	0%	0%	0%
Asian	13%	9%	4%	9%
Black	28%	25%	3%	23%
Hispanic	28%	26%	2%	29%
Multi-race	0%	0%	0%	0%
White	19%	26%	-7%	26%
Unknown	13%	13%	0%	12%
<b>Special Populations</b>				
Economically disadvantaged				
English learners				
Individuals with disabilities	7%	8%	-1%	9%
Nontraditional fields	18%	2%	16%	2%
Single parents				
Out of workforce				
Unhoused Individuals				
Youth in foster care				
Youth with parent in military				
Migrant students				

Based on your responses in this component of the needs assessment guide, consider the following questions:

- Does it appear that students in your college are participating at rates equivalent to their representation in the population for this CTE cluster? If not, what factors might be affecting their decisions?
  - Students in nontraditional fields are underrepresented.
- Does it appear that all students participating in this cluster are persisting at equivalent rates? If not, what factors might be affecting their decisions?

Students are persisting at equivalent rates.

- How might student participation and persistence in this cluster differ by program of study? Might there be some programs of study that are under- or over-performing the cluster average?

Highest number of participants and concentrators:

- Graphic Design, Commercial Art and Illustration
- Computer Gaming and Simulation

Lowest number of participants and concentrators:

- Media Production Technology
- Professional, Technical, Business, and Scientific Writing

- What are the top five priorities you will address in the coming year to expand student participation in CTE programming and reduce participation and/or persistence gaps among students? *[Note: At least one priority area you identify should address the needs of gender, race-ethnicity, or special population groups.]*
  - College and Career Navigators will be hired to assist with navigating academic and career pathways and connecting students to college and community resources to help CTE students persist and graduate.
  - Students will receive academic support and exam vouchers to attain industry-recognized certifications in Information Technology programs.
  - Provide Spanish language support.
  - Purchase equipment and supplies to ensure that students to enhance student learning through the use of state-of-the-art technology and materials.
  - Provide professional development for faculty on CTE content and strategies for enhancing student learning.

#### CLUSTER-LEVEL DATA: BUSINESS MANAGEMENT AND FINANCE

Student Group	Participation Rate	Persistence Rate
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	2023 College Graduates (A)	2023 College graduates participating in this cluster (B)	Percentage difference (A-B)	2023 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
<b>Gender</b>				
Male	49%	30%	19%	23%
Female	51%	70%	-19%	77%
<b>Race-ethnicity</b>				
American Indian	0%	0%	0%	0%
Asian	13%	20%	-7%	20%
Black	28%	23%	5%	27%
Hispanic	28%	21%	7%	20%
Multi-race	0%	0%	0%	0%
White	19%	26%	-7%	24%
Unknown	13%	10%	3%	10%
<b>Special Populations</b>				
Economically disadvantaged				
English learners				
Individuals with disabilities	7%	5%	2%	7%
Nontraditional fields	18%	30%	-12%	23%
Single parents				
Out of workforce				
Unhoused Individuals				
Youth in foster care				
Youth with parent in military				
Migrant students				

Based on your responses in this component of the needs assessment guide, consider the following questions:

1. Does it appear that students in your college are participating at rates equivalent to their representation in the population for this CTE cluster? If not, what factors might be affecting their decisions?

- Men are underrepresented
- Women are overrepresented
- Students in nontraditional fields are overrepresented

2. Does it appear that all students participating in this cluster are persisting at equivalent rates? If not, what factors might be affecting their decisions?

Students are persisting at rates equivalent to the percentage of enrollment.

3. How might student participation and persistence in this cluster differ by program of study? Might there be some programs of study that are under- or over-performing the cluster average?

There are only two programs. Both have sufficient numbers of participants and concentrators.

- Medical Records Tech./Technician
- Accounting Technician

4. What are the top five priorities you will address in the coming year to expand student participation in CTE programming and reduce participation and/or persistence gaps among students? *[Note: At least one priority area you identify should address the needs of gender, race-ethnicity, or special population groups.]*

- College and Career Navigators will be hired to assist with navigating academic and career pathways and connecting students to college and community resources to help CTE students persist and graduate.
- Students will receive academic support and exam vouchers to attain industry-recognized certifications in Information Technology programs.
- Provide Spanish language support.
- Purchase equipment and supplies to ensure that students to enhance student learning through the use of state-of-the-art technology and materials.
- Provide professional development for faculty on CTE content and strategies for enhancing student learning.



**CLUSTER-LEVEL DATA: CONSTRUCTION AND DEVELOPMENT**

Student Group	Participation Rate			Persistence Rate
	2023 College Graduates (A)	2023 College graduates participating in this cluster (B)	Percentage difference (A-B)	2023 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
<b>Gender</b>				
Male	49%	72%	-23%	72%
Female	51%	28%	23%	28%
<b>Race-ethnicity</b>				
American Indian	0%	0%	0%	0%
Asian	13%	6%	7%	7%
Black	28%	19%	9%	16%
Hispanic	28%	46%	-18%	45%
Multi-race	0%	0%	0%	0%
White	19%	15%	4%	17%
Unknown	13%	14%	-1%	15%
<b>Special Populations</b>				
Economically disadvantaged				
English learners				
Individuals with disabilities	7%	3%	4%	3%
Nontraditional fields	18%	28%	-10%	28%
Single parents				
Out of workforce				
Unhoused Individuals				
Youth in foster care				
Youth with parent in military				
Migrant students				

Based on your responses in this component of the needs assessment guide, consider the following questions:

1. Does it appear that students in your college are participating at rates equivalent to their representation in the population for this CTE cluster? If not, what factors might be affecting their decisions?
  - Men are overrepresented
  - Women are underrepresented
  - Hispanic students are overrepresented
  - Students in nontraditional fields are overrepresented
2. Does it appear that all students participating in this cluster are persisting at equivalent rates? If not, what factors might be affecting their decisions?

Students are persisting at rates equivalent to the percentage of enrollment.

3. How might student participation and persistence in this cluster differ by program of study? Might there be some programs of study that are under- or over-performing the cluster average?

Highest number of participants and concentrators:

- Architectural Drafting & Architectural CAD/CADD
- Construction and Building Finishers and Managers

Highest number of participants and concentrators:

- Local Construction Trades- Electrical
- Local Construction Maintenance

4. What are the top five priorities you will address in the coming year to expand student participation in CTE programming and reduce participation and/or persistence gaps among students? *[Note: At least one priority area you identify should address the needs of gender, race-ethnicity, or special population groups.]*

- College and Career Navigators will be hired to assist with navigating academic and career pathways and connecting students to college and community resources to help CTE students persist and graduate.
- Students will receive academic support and exam vouchers to attain industry-recognized certifications in Information Technology programs.
- Provide Spanish language support.
- Purchase equipment and supplies to ensure that students to enhance student learning through the use of state-of-the-art technology and materials.
- Provide professional development for faculty on CTE content and strategies for enhancing student learning.

**CLUSTER-LEVEL DATA: CONSUMER SERVICES, HOSPITALITY, AND TOURISM**

Student Group	Participation Rate			Persistence Rate
	2023 College Graduates (A)	2023 College graduates participating in this cluster (B)	Percentage difference (A-B)	2023 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
<b>Gender</b>				
Male	49%	51%	-2%	53%
Female	51%	49%	2%	47%
<b>Race-ethnicity</b>				
American Indian	0%	0%	0%	0%
Asian	13%	11%	2%	9%
Black	28%	25%	3%	27%
Hispanic	28%	27%	1%	29%
Multi-race	0%	0%	0%	0%
White	19%	19%	0%	15%
Unknown	13%	18%	-5%	20%
<b>Special Populations</b>				
Economically disadvantaged				
English learners				
Individuals with disabilities	7%	8%	-1%	7%
Nontraditional fields	18%	0%	18%	0%
Single parents				
Out of workforce				
Unhoused Individuals				
Youth in foster care				
Youth with parent in military				
Migrant students				

Based on your responses in this component of the needs assessment guide, consider the following questions:

1. Does it appear that students in your college are participating at rates equivalent to their representation in the population for this CTE cluster? If not, what factors might be affecting their decisions?

- Students in nontraditional fields are underrepresented.

2. Does it appear that students in your college are participating at rates equivalent to their representation in the population for this CTE cluster? If not, what factors might be affecting their decisions?

Students are persisting at rates equivalent to the percentage of enrollment.

3. How might student participation and persistence in this cluster differ by program of study? Might there be some programs of study that are under- or over-performing the cluster average?

Highest number of participants and concentrators:

- Hotel/Motel Administration Management

Low number of participants and concentrators:

- Parks, Recreation and Leisure Facilities Management
- Health and Physical Education/Fitness, Other

4. What are the top five priorities you will address in the coming year to expand student participation in CTE programming and reduce participation and/or persistence gaps among students? *[Note: At least one priority area you identify should address the needs of gender, race-ethnicity, or special population groups.]*

- College and Career Navigators will be hired to assist with navigating academic and career pathways and connecting students to college and community resources to help CTE students persist and graduate.
- Students will receive academic support and exam vouchers to attain industry-recognized certifications in Information Technology programs.
- Provide Spanish language support.
- Purchase equipment and supplies to ensure that students to enhance student learning through the use of state-of-the-art technology and materials.
- Provide professional development for faculty on CTE content and strategies for enhancing student learning.

**CLUSTER-LEVEL DATA: ENVIRONMENTAL, AGRICULTURAL, AND NATURAL RESOURCES**

Student Group	Participation Rate			Persistence Rate
	2023 College Graduates (A)	2023 College graduates participating in this cluster (B)	Percentage difference (A-B)	2023 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
<b>Gender</b>				
Male	49%	20%	29%	17%
Female	51%	80%	-29%	83%
<b>Race-ethnicity</b>				
American Indian	0%	0%	0%	0%
Asian	13%	10%	3%	17%
Black	28%	0%	28%	0%
Hispanic	28%	20%	8%	17%
Multi-race	0%	0%	0%	0%
White	19%	60%	-41%	50%
Unknown	13%	10%	3%	17%
<b>Special Populations</b>				
Economically disadvantaged				
English learners				
Individuals with disabilities	7%	0%	7%	0%
Nontraditional fields	18%	80%	-62%	83%
Single parents				
Out of workforce				
Unhoused Individuals				
Youth in foster care				
Youth with parent in military				
Migrant students				

Based on your responses in this component of the needs assessment guide, consider the following questions:

1. Does it appear that students in your college are participating at rates equivalent to their representation in the population for this CTE cluster? If not, what factors might be affecting their decisions?

- Men are underrepresented
- Women are overrepresented
- Black students are underrepresented
- White students are overrepresented
- Students in nontraditional fields are overrepresented

2. Does it appear that all students participating in this cluster are persisting at equivalent rates? If not, what factors might be affecting their decisions?

White students are persisting at a lower rate than their percentage of participation.

3. How might student participation and persistence in this cluster differ by program of study? Might there be some programs of study that are under- or over-performing the cluster average?

Horticulture Services Operations and Management has a low number of participants and concentrators.

4. What are the top five priorities you will address in the coming year to expand student participation in CTE programming and reduce participation and/or persistence gaps among students? *[Note: At least one priority area you identify should address the needs of gender, race-ethnicity, or special population groups.]*

- College and Career Navigators will be hired to assist with navigating academic and career pathways and connecting students to college and community resources to help CTE students persist and graduate.
- Students will receive academic support and exam vouchers to attain industry-recognized certifications in Information Technology programs.
- Provide Spanish language support.
- Purchase equipment and supplies to ensure that students to enhance student learning through the use of state-of-the-art technology and materials.
- Provide professional development for faculty on CTE content and strategies for enhancing student learning.
-

**CLUSTER-LEVEL DATA: HEALTH AND BIOSCIENCES**

Student Group	Participation Rate			Persistence Rate
	2023 College Graduates (A)	2023 College graduates participating in this cluster (B)	Percentage difference (A-B)	2023 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
<b>Gender</b>				
Male	49%	20%	29%	20%
Female	51%	80%	-29%	80%
<b>Race-ethnicity</b>				
American Indian	0%	0%	0%	0%
Asian	13%	13%	0%	13%
Black	28%	35%	-7%	35%
Hispanic	28%	21%	7%	21%
Multi-race	0%	0%	0%	0%
White	19%	17%	2%	16%
Unknown	13%	15%	-2%	15%
<b>Special Populations</b>				
Economically disadvantaged				
English learners				
Individuals with disabilities	7%	12%	-5%	13%
Nontraditional fields	18%	10%	8%	12%
Single parents				
Out of workforce				
Unhoused Individuals				
Youth in foster care				
Youth with parent in military				
Migrant students				

Based on your responses in this component of the needs assessment guide, consider the following questions:

1. Does it appear that students in your college are participating at rates equivalent to their representation in the population for this CTE cluster? If not, what factors might be affecting their decisions?
  - Men are underrepresented
  - Women are overrepresented
2. Does it appear that all students participating in this cluster are persisting at equivalent rates? If not, what factors might be affecting their decisions?

Students are persisting at rates equivalent to the percentage of enrollment.

3. How might student participation and persistence in this cluster differ by program of study? Might there be some programs of study that are under- or over-performing the cluster average?

Highest number of participants and concentrators:

- Registered Nursing
- Public Health, Other

Lowest number of participants and concentrators:

- Physical Therapy Assistant
- Surgical Operating Room Technician

4. What are the top five priorities you will address in the coming year to expand student participation in CTE programming and reduce participation and/or persistence gaps among students? *[Note: At least one priority area you identify should address the needs of gender, race-ethnicity, or special population groups.]*
  - College and Career Navigators will be hired to assist with navigating academic and career pathways and connecting students to college and community resources to help CTE students persist and graduate.
  - Students will receive academic support and exam vouchers to attain industry-recognized certifications in Information Technology programs.
  - Provide Spanish language support.
  - Purchase equipment and supplies to ensure that students to enhance student learning through the use of state-of-the-art technology and materials.
  - Provide professional development for faculty on CTE content and strategies for enhancing student learning.



**CLUSTER-LEVEL DATA: HUMAN RESOURCE SERVICES**

Student Group	Participation Rate			Persistence Rate
	2023 College Graduates (A)	2023 College graduates participating in this cluster (B)	Percentage difference (A-B)	2023 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
<b>Gender</b>				
Male	49%	27%	22%	26%
Female	51%	73%	-22%	74%
<b>Race-ethnicity</b>				
American Indian	0%	0%	0%	1%
Asian	13%	8%	5%	8%
Black	28%	23%	5%	25%
Hispanic	28%	38%	-10%	38%
Multi-race	0%	0%	0%	0%
White	19%	20%	-1%	20%
Unknown	13%	10%	3%	9%
<b>Special Populations</b>				
Economically disadvantaged				
English learners				
Individuals with disabilities	7%	6%	1%	6%
Nontraditional fields	18%	31%	-13%	26%
Single parents				
Out of workforce				
Unhoused Individuals				
Youth in foster care				
Youth with parent in military				
Migrant students				

Based on your responses in this component of the needs assessment guide, consider the following questions:

- Does it appear that students in your college are participating at rates equivalent to their representation in the population for this CTE cluster? If not, what factors might be affecting their decisions?

- Men are underrepresented
- Women are overrepresented
- Hispanic students are overrepresented
- Students in nontraditional fields are overrepresented

2. Does it appear that all students participating in this cluster are persisting at equivalent rates? If not, what factors might be affecting their decisions?

Students are persisting at rates equivalent to the percentage of enrollment.

3. How might student participation and persistence in this cluster differ by program of study? Might there be some programs of study that are under- or over-performing the cluster average?

Highest number of participants and concentrators:

- Child Care Provider/Assistant
- Law Enforcement/Police Science

Lowest number of participants and concentrators:

- Crisis/Emergency/Disaster Management
- Fire Protection and Safety Tech./Technician

4. What are the top five priorities you will address in the coming year to expand student participation in CTE programming and reduce participation and/or persistence gaps among students? *[Note: At least one priority area you identify should address the needs of gender, race-ethnicity, or special population groups.]*

- College and Career Navigators will be hired to assist with navigating academic and career pathways and connecting students to college and community resources to help CTE students persist and graduate.
- Students will receive academic support and exam vouchers to attain industry-recognized certifications in Information Technology programs.
- Provide Spanish language support.
- Purchase equipment and supplies to ensure that students to enhance student learning through the use of state-of-the-art technology and materials.
- Provide professional development for faculty on CTE content and strategies for enhancing student learning.

#### CLUSTER-LEVEL DATA: INFORMATION TECHNOLOGY

Student Group	Participation Rate			Persistence Rate
	2023 College	2023 College graduates participating in this cluster (B)	Percentage difference (A-B)	2023 College graduates who participated in this cluster and achieved CTE concentrator status

All 2023 Graduates	100%	100%		
<b>Gender</b>				
Male	49%	73%	-24%	72%
Female	51%	27%	24%	28%
<b>Race-ethnicity</b>				
American Indian	0%	0%	0%	0%
Asian	13%	18%	-5%	19%
Black	28%	36%	-8%	33%
Hispanic	28%	18%	10%	20%
Multi-race	0%	0%	0%	0%
White	19%	16%	3%	17%
Unknown	13%	11%	2%	11%
<b>Special Populations</b>				
Economically disadvantaged				
English learners				
Individuals with disabilities	7%	3%	4%	4%
Nontraditional fields	18%	26%	-8%	28%
Single parents				
Out of workforce				
Unhoused Individuals				
Youth in foster care				
Youth with parent in military				
Migrant students				

Based on your responses in this component of the needs assessment guide, consider the following questions:

- Does it appear that students in your college are participating at rates equivalent to their representation in the population for this CTE cluster? If not, what factors might be affecting their decisions?
  - Men are overrepresented
  - Women are underrepresented
  - Hispanic students are underrepresented
  - Students in nontraditional fields are overrepresented

2. Does it appear that all students participating in this cluster are persisting at equivalent rates? If not, what factors might be affecting their decisions?

Students are persisting at rates equivalent to the percentage of enrollment.

3. How might student participation and persistence in this cluster differ by program of study? Might there be some programs of study that are under- or over-performing the cluster average?

Highest number of participants and concentrators:

- Computer and Information Systems Security
- Computer Programming

Lowest Number of participants and concentrators:

- Computer Technology/Computer Sys Technology
- Business Information and Data Processing Service

4. What are the top five priorities you will address in the coming year to expand student participation in CTE programming and reduce participation and/or persistence gaps among students? *[Note: At least one priority area you identify should address the needs of gender, race-ethnicity, or special population groups.]*

- College and Career Navigators will be hired to assist with navigating academic and career pathways and connecting students to college and community resources to help CTE students persist and graduate.
- Students will receive academic support and exam vouchers to attain industry-recognized certifications in Information Technology programs.
- Provide Spanish language support.
- Purchase equipment and supplies to ensure that students to enhance student learning through the use of state-of-the-art technology and materials.
- Provide professional development for faculty on CTE content and strategies for enhancing student learning.

#### CLUSTER-LEVEL DATA: MANUFACTURING, ENGINEERING, AND TECHNOLOGY

Student Group	Participation Rate			Persistence Rate
	2023 College	2023 College graduates participating in this cluster (B)	Percentage difference (A-B)	2023 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
<b>Gender</b>				
Male	49%	44%	5%	43%
Female	51%	56%	-5%	57%
<b>Race-ethnicity</b>				
American Indian	0%	0%	0%	0%
Asian	13%	19%	-6%	17%

Black	28%	20%	8%	20%
Hispanic	28%	23%	5%	24%
Multi-race	0%	0%	0%	0%
Hawaiian/Pacific Islander	0%	0%	0%	1%
White	19%	26%	-7%	28%
Unknown	13%	10%	3%	11%
<b>Special Populations</b>				
Economically disadvantaged				
English learners				
Individuals with disabilities	7%	4%	3%	6%
Nontraditional fields	18%	4%	14%	4%
Single parents				
Out of workforce				
Unhoused Individuals				
Youth in foster care				
Youth with parent in military				
Migrant students				

Based on your responses in this component of the needs assessment guide, consider the following questions:

- Does it appear that students in your college are participating at rates equivalent to their representation in the population for this CTE cluster? If not, what factors might be affecting their decisions?
  - Students in nontraditional fields are underrepresented
- Does it appear that all students participating in this cluster are persisting at equivalent rates? If not, what factors might be affecting their decisions?

Students are persisting at rates equivalent to the percentage of enrollment.

- How might student participation and persistence in this cluster differ by program of study? Might there be some programs of study that are under- or over-performing the cluster average?

Program with the highest number of participants and concentrators:

- Biological Tech./Technician

Program with the lowest number of participants and concentrators:

- Geography
  - Geography, Other
4. What are the top five priorities you will address in the coming year to expand student participation in CTE programming and reduce participation and/or persistence gaps among students? *[Note: At least one priority area you identify should address the needs of gender, race-ethnicity, or special population groups.]*
- College and Career Navigators will be hired to assist with navigating academic and career pathways and connecting students to college and community resources to help CTE students persist and graduate.
  - Students will receive academic support and exam vouchers to attain industry-recognized certifications in Information Technology programs.
  - Provide Spanish language support.
  - Purchase equipment and supplies to ensure that students to enhance student learning through the use of state-of-the-art technology and materials.
  - Provide professional development for faculty on CTE content and strategies for enhancing student learning.

**CLUSTER-LEVEL DATA: TRANSPORTATION TECHNOLOGIES**

Student Group	Participation Rate			Persistence Rate
	2023 College Graduates (A)	2023 College graduates participating in this cluster (B)	Percentage difference (A-B)	2023 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
<b>Gender</b>				
Male	49%	92%	-43%	94%
Female	51%	8%	43%	6%
<b>Race-ethnicity</b>				
American Indian	0%	1%	-1%	1%
Asian	13%	8%	5%	9%
Black	28%	13%	15%	11%
Hispanic	28%	46%	-18%	47%
Multi-race	0%	0%	0%	0%
Hawaiian/Pacific Islander	0%	1%	-1%	1%
White	19%	19%	0%	16%
Unknown	13%	12%	1%	15%
<b>Special Populations</b>				
Economically disadvantaged				

English learners				
Individuals with disabilities	7%	6%	1%	6%
Nontraditional fields	18%	8%	10%	6%
Single parents				
Out of workforce				
Unhoused Individuals				
Youth in foster care				
Youth with parent in military				
Migrant students				

Based on your responses in this component of the needs assessment guide, consider the following questions:

- Does it appear that students in your college are participating at rates equivalent to their representation in the population for this CTE cluster? If not, what factors might be affecting their decisions?
  - Men are overrepresented
  - Women are underrepresented
  - Black students are underrepresented
  - Hispanic students are overrepresented
- Does it appear that all students participating in this cluster are persisting at equivalent rates? If not, what factors might be affecting their decisions?

Students are persisting at rates equivalent to the percentage of enrollment.

- How might student participation and persistence in this cluster differ by program of study? Might there be some programs of study that are under- or over-performing the cluster average?

This is a high number of participants and concentrators in the Auto/Automotive Mechanic/Technician program.

- What are the top five priorities you will address in the coming year to expand student participation in CTE programming and reduce participation and/or persistence gaps among students? *[Note: At least one priority area you identify should address the needs of gender, race-ethnicity, or special population groups.]*
  - College and Career Navigators will be hired to assist with navigating academic and career pathways and connecting students to college and community resources to help CTE students persist and graduate.
  - Students will receive academic support and exam vouchers to attain industry-recognized certifications in Information Technology programs.
  - Provide Spanish language support.

- Purchase equipment and supplies to ensure that students to enhance student learning through the use of state-of-the-art technology and materials.
- Provide professional development for faculty on CTE content and strategies for enhancing student learning.



## Component C: Program Performance

Federal law requires that you collect data on the performance of CTE concentrators. The accountability indicators cover a range of outcomes to help you assess whether students are making educational progress, earning recognized postsecondary credentials, concentrating in programs that prepare individuals for non-traditional occupations. These include:

**1P1: Postsecondary placement:** The percentage of CTE concentrators who, during the second quarter after program completion, remain enrolled in postsecondary education, are in advanced training, military service, or a service program that receives assistance under title I of the National and Community Service Act of 1990 (42 U.S.C. 12511 et seq.), are volunteers as described in section 5(a) of the Peace Corps Act (22 U.S.C. 2504(a)), or are placed or retained in employment.

**2P1: Earned recognized postsecondary credential:** The percentage of CTE concentrators who receive a recognized postsecondary credential during participation in or within 1 year of program completion.

**3P1: Non-traditional program concentration:** The percentage of CTE concentrators in career and technical education programs and programs of study that lead to non-traditional fields.

To establish performance expectations, MSDE has set performance targets for each indicator based on an analysis of statewide data. All providers are expected to achieve the performance targets established for each indicator. Moreover, to ensure that all students make progress, you are expected to monitor performance on an annual basis.

In the following table, use your heatmap to fill in your college's performance on the federal measures. On the heatmap, cells highlighted in green indicate your college met or exceeded the statewide performance level; yellow indicates your college performance did not meet the performance level but was within 90% of the target; and red indicates that your college did not meet the performance level and was less than 90% of the target.

Colleges failing to achieve the state performance level are expected to develop a program improvement plan to bring them into compliance.

**COLLEGE PERFORMANCE BY STUDENT GROUP**

	Federal Accountability Indicator 2023 Graduates		
	1P1	2P1	3P1
State Performance Target	71.33%	44.4%	24.85%
College Performance	71%	37%	24%
Gender			
Males	75%	31%	14%
Females	69%	43%	33%
Race-ethnicity			
American Indian	0%	0%	14%
Asian	76%	46%	23%
Black	73%	41%	24%
Hispanic	76%	30%	25%
Multi-race	67%	67%	24%
White	64%	36%	23%

**SPECIAL POPULATIONS**

	Federal Accountability Indicator 2023 Graduates		
	1P1	2P1	3P1
State Performance Target	71.33%	44.4%	24.85%
College Performance	71%	37%	24%
Economically disadvantaged			
English learners			
Individuals with disabilities	62%	64%	16%
Nontraditional fields	70%	31%	100%
Single parents			
Out of workforce			
Homeless individuals			
Youth in foster care			
Youth with a parent in active military			
Migrant students			

\* Data for the 3S1 indicator reflect outcomes for 2022 graduates 6-months following their graduation.

**ACTIVITY C.1: ASSESSING PROGRAM PERFORMANCE**

	List
Looking at <i>overall performance</i> , on which indicators are you <u>substantially underperforming</u> * the college performance target?	2P1- Degree, Certificate, or Credential
Looking at <i>overall performance</i> , on which indicators are you <u>substantially exceeding</u> the college performance target?	N/A

\* Substantially underperforming is defined as achieving an outcome that is less than 90% of the college performance target, and substantially over-performing is achieving an outcome that is more than 110% of the college performance target.

**ACTIVITY C.2: DETERMINING ROOT CAUSES**

- For each indicator for which you are substantially underperforming the college performance target, identify the key factors that might affect student performance, including any disparities or gaps in performance by program. Ideally, these factors should be the primary drivers of the results that you see.

There is significant underperformance in 2P1- Degree, Certificate, or Credential in the following clusters:

Arts, Media, and Communication	29%
Business Management and Finance	33%
Construction and Development	31%
Consumer Services, Hospitality, and Tourism	55%
Environmental, Agricultural, and Natural Resources	0%
Health and Biosciences	56%
Human Resource Services	31%
Information Technology	32%
Manufacturing, Engineering, and Technology	37%
Transportation Technologies	0%

The following student groups are underperforming on 2P1: males, Hispanic students, and students in nontraditional fields. Students are significantly underperforming in the following clusters: Arts, Media, and Communication, Business Management and Finance, Construction and Development, Environmental, Agricultural, and Natural Resources, Human Resource Services, Information Technology, Manufacturing, Engineering, and Technology, and Transportation Technologies.

Possible reasons for gaps in completion of degrees or credentials include:

- Personal reasons such as financial barriers, childcare, transportation, and health.
- Goal was for attaining skills, transferring, career exploration, or something other than earning a credential.
- Lack of information about completion requirements.
- Lack of information about college and community resources to support students.
- Lack of access to resources to prepare for and complete technical skills assessments.
- Students were academically underprepared.
- English language learners experienced language barriers.
- Instruction did not adequately address learning needs.
- Support services did not adequately address student needs.

2. The data provided reflect the performance of all students within your college. Remember that aggregate data can hide considerable variation. As you think about strategies to improve performance, consider how program performance might differ within programs of study. Might some programs be performing above or below the site average?

It is difficult to answer this question because the heatmap did not include credential attainment broken down by program. Credential attainment did not meet the target for all of CTE. To this end, we recommend focusing efforts on high enrollment programs. The programs with the highest enrollments are listed below.

Program	Cluster	Participants
Computer & Information Systems Security	Information Technology	782
Registered Nursing	Health and Biosciences	510
Architectural Drafting & Architectural CAD/CADD	Construction and Development	373
Law Enforcement/Police Science	Human Resource Services	259
Public Health, Other	Health and Biosciences	232
Graphic Design, Commercial Art and Illustration	Arts, Media, and Communication	215
Child Care Provider/Assistant	Human Resource Services	197
Auto/Automotive Mechanic/Technician	Transportation Technologies	171
Biological Tech./Technician	Manufacturing, Engineering, and Technology	167
Computer Gaming and Simulation	Arts, Media, and Communication	164
Accounting Technician	Business Management and Finance	155
Computer Programming	Information Technology	135
Construction and Building Finishers and Managers	Construction and Development	112
Legal Assistant/Paralegal	Human Resource Services	110
Interior Design	Arts, Media, and Communication	109
Medical Records Tech./Technician	Business Management and Finance	105

3. Resource constraints may affect the activities you might undertake. What might be the most efficient and effective approach to making change (e.g., taking into consideration the relative size of your program enrollments)?

Implement comprehensive CTE advising program, using college and career navigators, to help students develop a clear understanding of academic and career pathways and connect with support services at college and in the community. This strategy will contribute to student persistence and completion of credentials. Navigators can assist students with all CTE programs, but may conduct more outreach to those with higher enrollments.

Provide cultural competency training for college and career navigators to ensure they are equipped to support a diverse student body, including Hispanic students. Training should focus on understanding the challenges faced by different student groups, including Hispanic students, and developing strategies to engage and support all students effectively.

Increase persistence of students by providing engaging CTE learning opportunities and instruction preparing students for exams leading to industry-recognized certifications.

Increase student persistence and credential attainment by providing engaging CTE courses supported with state-of-the-art technology and instructional supplies and materials, and taught by well-qualified instructors who participate in professional development.

4. What are the top five priorities you will address in the coming year to improve student performance outcomes on indicators on which you are substantially underperforming? *[Note: At least one priority area you identify should address the needs of gender, race-ethnicity, or special population groups.]*

The following student groups are significantly underperforming on 2P1: males, Hispanic students, and students in nontraditional fields.

- College and Career Navigators will be hired to assist with navigating academic and career pathways and connecting students to college and community resources to help CTE students persist and graduate.
- Students will receive academic support and exam vouchers to attain industry-recognized certifications in Information Technology programs.
- Provide Spanish language support.
- Purchase equipment and supplies to ensure that students to enhance student learning through the use of state-of-the-art technology and materials.
- Provide professional development for faculty on CTE content and strategies for enhancing student learning.

## Component D: Recruiting, Developing, and Retraining CTE Educations

The quality of your CTE programming depends upon the skills of your workforce. This extends to all members of your educational team, including full-time faculty, part-time faculty, additional support staff available, and more. Ideally, faculty and staff should also be representative of the populations served and retained over time to promote program sustainability.

### ACTIVITY D.1: REVIEW DATA ON CURRENT STAFF

Reviewing current staff demographics is critical to understanding where there are opportunities to strengthen staff skills and diversify your workforce.

ALL CTE					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
<b>Gender</b>					
Male	33%	49%			
Female	67%	51%			
<b>Race-ethnicity</b>					
American Indian	2%	0%			
Asian	16%	13%			
Black	28%	28%			
Hispanic	2%	28%			
Multi-race	2%	0%			
White	50%	19%			
Unknown	0%	13%			
<b>Credential</b>					
Properly Licensed	N/A				
Granted Temporary Waiver	N/A				

NAME OF CAREER CLUSTER OR CTE POS: Arts, Media, and Communication					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
<b>Gender</b>					
Male	56%	53%			
Female	44%	47%			
<b>Race-ethnicity</b>					
American Indian	0%	0%			
Asian	11%	9%			
Black	11%	25%			
Hispanic	0%	26%			
Multi-race	6%	0%			
White	72%	26%			
Unknown	0%	13%			
<b>Credential</b>					
Properly Licensed	N/A				
Granted Temporary Waiver	N/A				

NAME OF CAREER CLUSTER OR CTE POS: Business Management and Finance					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
<b>Gender</b>					
Male	63%	30%			
Female	38%	70%			
<b>Race-ethnicity</b>					
American Indian	0%	0%			
Asian	13%	20%			
Black	13%	23%			
Hispanic	0%	21%			
Multi-race	0%	0%			
White	75%	26%			
Unknown	0%	10%			



Credential					
Properly Licensed	N/A				
Granted Temporary Waiver	N/A				

NAME OF CAREER CLUSTER OR CTE POS: Construction and Development					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
<b>Gender</b>					
Male	83%	72%			
Female	17%	28%			
<b>Race-ethnicity</b>					
American Indian	0%	0%			
Asian	17%	6%			
Black	0%	19%			
Hispanic	0%	46%			
Multi-race	0%	0%			
White	83%	15%			
Unknown	0%	14%			
<b>Credential</b>					
Properly Licensed	N/A				
Granted Temporary Waiver	N/A				

NAME OF CAREER CLUSTER OR CTE POS: Consumer Services, Hospitality, and Tourism					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
<b>Gender</b>					

Male	0%	51%			
Female	100%	49%			
<b>Race-ethnicity</b>					
American Indian	0%	0%			
Asian	0%	11%			
Black	29%	25%			
Hispanic	0%	27%			
Multi-race	0%	0%			
White	71%	19%			
Unknown	0%	18%			
<b>Credential</b>					
Properly Licensed	N/A				
Granted Temporary Waiver	N/A				

NAME OF CAREER CLUSTER OR CTE POS: Environmental, Agricultural, and Natural Resources					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
<b>Gender</b>					
Male	100%	20%			
Female	0%	80%			
<b>Race-ethnicity</b>					
American Indian	0%	0%			
Asian	0%	10%			
Black	0%	0%			
Hispanic	0%	20%			
Multi-race	0%	0%			
White	100%	60%			
Unknown	0%	10%			
<b>Credential</b>					
Properly Licensed	N/A				
Granted Temporary Waiver	N/A				

NAME OF CAREER CLUSTER OR CTE POS: Health and Biosciences					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
<b>Gender</b>					
Male	10%	20%			
Female	90%	80%			
<b>Race-ethnicity</b>					
American Indian	0%	0%			
Asian	14%	13%			
Black	47%	35%			
Hispanic	2%	21%			
Multi-race	2%	0%			
White	35%	17%			
Unknown	0%	15%			
<b>Credential</b>					
Properly Licensed	N/A				
Granted Temporary Waiver	N/A				

NAME OF CAREER CLUSTER OR CTE POS: Human Resource Services					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
<b>Gender</b>					
Male	29%	27%			
Female	71%	73%			
<b>Race-ethnicity</b>					
American Indian	0%	0%			
Asian	14%	8%			

Black	29%	23%			
Hispanic	14%	38%			
Multi-race	0%	0%			
White	43%	20%			
Unknown	0%	10%			
<b>Credential</b>					
Properly Licensed	N/A				
Granted Temporary Waiver	N/A				

NAME OF CAREER CLUSTER OR CTE POS: Information Technology					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
<b>Gender</b>					
Male	50%	73%			
Female	50%	27%			
<b>Race-ethnicity</b>					
American Indian	6%	0%			
Asian	44%	18%			
Black	19%	36%			
Hispanic	6%	18%			
Multi-race	0%	0%			
White	25%	16%			
Unknown	0%	11%			
<b>Credential</b>					
Properly Licensed	N/A				
Granted Temporary Waiver	N/A				

NAME OF CAREER CLUSTER OR CTE POS: Manufacturing, Engineering, and Technology			
Faculty / Staff demographic		Percentage of students	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)

	Percentage of 2022-23 faculty / staff	participating in CTE programming 2022- 23	Full-time Faculty	Part-time Faculty	Counselors / Support Staff
<b>Gender</b>					
Male	33%	44%			
Female	67%	56%			
<b>Race-ethnicity</b>					
American Indian	33%	0%			
Asian	0%	19%			
Black	0%	20%			
Hispanic	0%	23%			
Multi-race	0%	0%			
White	67%	26%			
Unknown	0%	10%			
<b>Credential</b>					
Properly Licensed	N/A				
Granted Temporary Waiver	N/A				

NAME OF CAREER CLUSTER OR CTE POS: Transportation Technologies					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022- 23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
<b>Gender</b>					
Male	75%	92%			
Female	25%	8%			
<b>Race-ethnicity</b>					
American Indian	0%	1%			
Asian	0%	8%			
Black	0%	13%			
Hispanic	0%	46%			
Multi-race	0%	0%			
Hawaiian/Pacific Islander	0%	1%			

White	100%	19%			
Unknown	0%	12%			
<b>Credential</b>					
Properly Licensed	N/A				
Granted Temporary Waiver	N/A				

## ACTIVITY D.2: ASSESS EDUCATOR SUPPORT OPPORTUNITIES

It's critical to create consistent opportunities that allow your faculty/staff to maintain licensure and grow within this field. Professional development is a key strategy for retention and ensuring a high-quality workforce.

Based on your knowledge of professional licensure requirements and the availability of content-specific professional development opportunities across clusters, rate the extent to which you strongly agree or disagree with each statement. Where applicable, please add an explanation for your assessment with examples.

	Strength	Area for	Explanation
Faculty/staff acquire content-required to maintain licensure. specific professional development	X		
Faculty/staff are aware of the requirements to maintain endorsement.	X		
Faculty/staff have equal access to content-specific professional development opportunities across industries.	X		
Data is collected on the effectiveness of professional development to ensure it meets the needs of educators.	X		

**ACTIVITY 4.3: REFLECTION**

Based on your responses in this section of the needs assessment guide, consider the following questions:

1. Does your faculty/staff demographic characteristics reflect the students they serve across programs of study?

Across all career clusters, the percentage of Hispanic faculty is lower than the percentage of Hispanic students.

There are lower percentages of faculty to students in the following career clusters:

- Black faculty in Arts Media and Communications; Business Management and Finance; Construction and Development; Information Technology; Environmental, Agricultural, and Natural Resources; Transportation Technologies; and Manufacturing, Engineering, and Technology
- Female faculty in Construction and Development; Environmental, Agricultural, and Natural Resources; and Transportation Technologies
- Male faculty in Health and Biosciences and Consumer Services, Hospitality, and Tourism
- Asian faculty in Manufacturing, Engineering, and Technology; Environmental, Agricultural, and Natural Resources; and Transportation Technologies

2. Are instructors adequately credentialed, including licenses, certifications, or endorsements for the courses they're teaching? If not, what mechanisms can be put in place to get them endorsed, or what recruitment efforts are necessary to attract properly credentialed instructors?

Yes.

3. To what extent does your institution offer regular, substantive content-specific professional development opportunities? Do all faculty/staff members have equal awareness of, and opportunities to participate in content-specific professional development opportunities, necessary to maintain their industry credentials and endorsements?

All college employees are encouraged to engage in continuous learning and professional development. To support this, the college offers a variety of programs and services, including financial assistance, for professional development activities and related travel. In addition, the department of E-Learning, Innovation, and Teaching Excellence (ELITE) is committed to providing programs, classes and services that support employees and work teams, and impacts student success. Faculty and staff learn about these opportunities during onboarding and through campus communications and newsletters.

4. What barriers exist to offering and participating in content-specific professional development?

Many faculty are part-time and may not have access to time or funding to participate in content-specific professional development.

5. What are the top five priorities you might wish to address in the coming year to recruit, develop, and retain CTE instructors and improve their professional skills?

- Increase recruitment of Hispanic and nontraditional gender candidates for CTE faculty.
- Encourage faculty to participate in professional development related to CTE specific content.
- Encourage faculty to participate in professional development related to pedagogy.

- 
- Support CTE Encourage faculty to participate in professional development related to diversity, equity, and inclusion.
  - faculty with maintaining or updating industry-recognized credentials.



## Next Steps

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With the completion of the CLNA), you are now poised to embark on the crucial next phase of securing Perkins V funding. This stage involves translating the insights and findings from the CLNA into actionable and strategic plans.

### UTILIZING CLNA ANALYSIS FOR LOCAL PERKINS APPLICATION S.M.A.R.T.I.E. GOAL SETTING

The first step for postsecondary schools is to use their CLNA analysis to formulate S.M.A.R.T.I.E. goals. These goals should be Specific, Measurable, Achievable, Relevant, Time-bound, Inclusive, and Equitable. The essence of this process is to ensure that the goals set for CTE programs are not only aligned with the identified needs and opportunities but are also focused on inclusivity and equity.

Postsecondary schools should look at areas highlighted in the CLNA, such as skill gaps, program areas needing enhancement, and disparities in student participation and success rates. From here, specific goals can be set. For example, if the CLNA indicated a gap in technology-related skills among students, a S.M.A.R.T.I.E. goal could be to increase enrollment in technology-focused CTE programs by 15% within the next two years while ensuring equitable access for all student groups.

### CONNECTING GOALS TO AN ANNUAL BUDGET FOR PERKINS FUNDING

Once S.M.A.R.T.I.E. goals are established, postsecondary schools must then align these objectives with an annual budget for Perkins funding. This budgeting should be a reflective exercise, considering not just the cost of program enhancements but also the broader resources required to meet these goals. This includes faculty development, curriculum updates, equipment purchases, and any necessary infrastructure improvements.

For instance, if one of the goals is to enhance a manufacturing CTE program, the budget may include expenses for new machinery, professional development for educators to teach advanced manufacturing techniques, and outreach initiatives to increase program enrollment.

### ENSURING ALIGNMENT WITH PERKINS REQUIREMENTS

Throughout this process, postsecondary schools need to ensure that their plans align with the requirements of the Perkins V Act. This means that the goals, strategies, and budgeted activities should contribute to developing more effective and equitable CTE programs, as stipulated by Perkins V.