



Career and Technical Education: Comprehensive Local Needs Assessment

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

MARYLAND STATE BOARD OF EDUCATION

Clarence C. Crawford

President, Maryland State Board of Education

Joshua L. Michael, Ph.D. (Vice President)

Shawn D. Bartley, Esq.

Chuen-Chin Bianca Chang, MSN, PNP, RN-BC

Susan J. Getty, Ed.D.

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)

Table of Contents

Document Control Information	3
Purpose	4
Instructions	5
Guiding Principles and Logic Model	6
Stakeholder Team Roster	12
Component A: Labor Market Alignment	15
Component B: Student Participation and Persistence	23
Component C: Program Performance	38
Component D: Recruiting, Developing, and Retraining CTE Educations	43
Next Steps	48

Document Control Information

Title:	Career and Technical Education: Comprehensive Local Needs Assessment
Security Level:	Public and Shareable
File Name:	CLNA Postsecondary.docx

DOCUMENT HISTORY

Document Version	Date	Summary of Change
1.0	February 2024	Initial Document

Purpose

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) created this document to help you conduct 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 1st 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

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

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
Tangible: 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
Tangible: 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
Tangible: 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
Intangible: 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
Intangible: 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
Intangible: 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"> • required courses to complete a POS and graduate • required assessments to earn a certification, license, credential, or degree • required academic assessments to graduate • timeline to take courses, assessments, and complete career-based learning experiences.
All students, regardless of race, color, national origin, sex, or disability, have equitable access to high-quality CTE programs as required by Code of Maryland Regulation 13A.04.02.04
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 Code of Maryland Regulations 13A.04.02.03
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 Code of Maryland Regulation 13A.07.09 within three years
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).
All students, including students in special populations, are offered the opportunity to: <ul style="list-style-type: none"> • Participate in at least one career-based learning experience (e.g., work-based learning, internship, apprenticeship, etc.) • Earn college credit and/or industry credentials • Participate in CTSOs
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	James Rzepkowski
Organization	Howard Community College
Title	Associate Vice President for Workforce Development
Email	JRzepkowski@howardcc.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)	Bill Barnes	Superintendent	Howard County Public Schools
Professional career or academic counselor	Natalie Belcher	Instructional Facilitator	Howard County Public Schools
	Daniel Rosewag	CTE Coordinator	Howard County Public Schools
	Stephanie Discepolo	administrator	Howard County Public Schools
	Jill Altshuler	Career counseling coordinator	Howard County Public Schools
Instructors	Laree Sadiqui	Education coordinator	Howard County Public Schools
Instructional Support and Paraprofessionals (Psychologists, Social Workers, etc.)			

POSTSECONDARY

Role	Name	Title	Affiliation
Administration (e.g., dean, division chair)	Sylvia Lee	Dean, Foundational Learning	Howard CC
	Jeremy Bomberg	Dean, Liberal Studies	Howard CC
	Christianne Aranguren	Dean, Health Sciences and Technology	Howard CC
	Melodie Gale	Academic Support	Howard CC
	Jarrell Anderson	Associate Vice President, Advising and Retention	Howard CC
	Jeff Richmond	Director of Apprenticeship & Workforce Innovation	Howard CC
	Bronwyn E. A. Bates	Workforce Programs Manager	Howard CC
Faculty	Archiena Beaver	Chair, Nursing	Howard CC
	Timothy Banks	Chair, Culinary	Howard CC
	Jeff Richmond	Director, Apprenticeships	Howard CC
	Cristina Fontanez Garrison	Chair, Physical Therapist Assistant	Howard CC

	Ghazanfer Bozai	Chair, Engineering & Technology	Howard CC
	Michelle Sotka	Chair, Accounting and Economics	Howard CC
	Ahnica Truong	Chair, Cyber Technology	Howard CC
	Keyara Stevenson	Director of Career Services	Howard CC
	Raminder Singh	DMS Program Director	Howard CC
	Susan Seibel	DHYG Program Director	
	Laurie Collins	Chair, Teacher Education	Howard CC
	Assefa Fassiha	Chair	Howard CC
	Linda Mercurio	Chair, Business	HCC

WORKFORCE

Role	Name	Title	Affiliation
Local Workforce Development board member	Francine Trout	Director, Office of Work force Development	Office of Workforce Development
	Rhea Simpson-Weber	Howard County One Stop Operator	Office of Workforce Development
	Tonia Ziegler	Counselor	Office of Workforce Development
*Regional Economic Development organization member			
Local business & industry representative	Kurt Wall		National Science Foundation
	David Sussels		BGE
	Ellen Giles		Community Partner
	Jordan Ramon		USDA

OTHER

Role	Name	Title	Affiliation
Parent or caretaker	Brooke Abercrombie	Associate Director	Howard Community College
Student	Jaysun Linares	Student	Howard community College
Representative of Special Populations	Derek Flake	Director of disability Support Services	Howard Community College
Out-of-School youth / unhoused youth / corrections			

* 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		
Example	HS	HW	ID	###	100%
Audiovisual Comm. Technology/Technician, Other			<input checked="" type="checkbox"/>	36	0.55%
Computer Systems Networking & Telecomm		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	16	0.25%
Restaurant, Culinary, and Catering Management		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	179	2.7%
Electrical, Electronic and Communications Engineering Technology/Technician		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	17	0.26%
Biomedical Engineering-Related Tech./Technician		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	35	0.54%
Manufacturing Engineering Technology (MSSC)		<input checked="" type="checkbox"/>		5	0.07%
Drafting and Design		<input checked="" type="checkbox"/>		40	0.61%
ChildCare & Support Services Management		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	76	1.17%
Cyber/Computer Forensics and Counterterrorism.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	0.06%
Construction and Building Finishers and Managers		<input checked="" type="checkbox"/>		49	0.75%
Dental Hygienist		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	247	3.8%

Physical Therapy Assistant			<input checked="" type="checkbox"/>	70	1.8%
Cardiovascular Tech./Technician		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	62	0.96%
Emergency Medical Tech./Technician			<input checked="" type="checkbox"/>	34	0.52%
Medical Radiologic Tech./Technician		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	130	2.1%
Diagnostic Medical Sonography		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	186	2.8%
Registered Nursing		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1420	21%
Licensed Practical Nursing			<input checked="" type="checkbox"/>	68	1.5%
Business, General		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	617	9.5%
Business Administration and Management		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	22	0.34%
Accounting Technician			<input checked="" type="checkbox"/>	172	2.6%
Administrative Assistant/Secretarial Science, Ge		<input checked="" type="checkbox"/>		11	0.17%
Enterprise Management and Operation, General		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	8	0.12%

Event Management			<input checked="" type="checkbox"/>	1	0.1%
Management Information Systems		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	466	7.2%

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
No Program changes	No current changes	There are no programs that have been recommended to be phased out or added at this time.

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	yes		<p>Workforce, Career and Community Education or WCCE (workforce) administrators follow industry trends and work with our internal credit partners, external workforce partners-Howard County Office of Workforce Development, Howard County Government, and local employers to make sure we are meeting the needs of our students and community. (BEAB)</p> <p>A component of the program review process required by the college's accrediting body and its program accreditors, requires that programs analyze their market viability and local workforce and industry need. A component of our program's key performance indicator metrics is that the program meets its expected outcomes and prepares students for viable transfer or viable career pathways.</p> <p>Many CTE programs, which include accounting technician, allied health programs and culinary (for credit) programs work with local industries to provide placement opportunities and a variety of apprenticeships.</p>
Processes are in place to identify and expand college level registered apprenticeship opportunities.	Yes		<p>WCCE's apprenticeship team works closely with industry leaders to ensure that our apprenticeships are vetted and formally registered with the MD Department of Labor. (BEAB)</p>
Processes are in place to update or phase out CTE POS that do not align with HS/HW/ID industries	Yes		<p><u>Academic Program of Study:</u> Academic programs of study are cyclically reviewed to meet accreditation and vitality standards. Labor market and industry demand are considered within these reviews.</p> <p><u>Workforce Certificates and Apprenticeship programs:</u> WCCE's administrators review programs and coursework annually to ensure we are staying with current workforce needs and trends. (BEAB)</p>
A majority of our students are concentrating in POS aligned to HS/HW/ID industries	Yes		<p>All programs at Howard Community College meet the criteria of high skill, high wage or in demand opportunities. No program falls outside of any of these categorical types.</p>

<p>Processes are in place to recruit business and industry stakeholders to participate on Program Advisory Committees</p>	<p>Yes</p>	<p>Processes are in place to recruit industry stakeholders to participate in advisory committees per accreditation standards for programs. This varies across programs as this is not required or allowed for some programs. The Howard County LAC serves as a primary means of business industry stakeholder input. There are business industry stakeholders that are also associated with workforce and certificate programs and internships. These committees serve in program advisory and enrollment support roles.</p>
---	------------	--

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)?

There are no programs offered at the college which fall outside the required specifications for a viable CTE program. All programs fall within one or more of the criteria of high skill, high wage or in demand. Via the state's rubric,

- **High Skill:** All but two CTE programs were listed as having not met the current standard for a high-skill employment opportunity, which are medical records technician and medical insurance coding, both of which HCC does not offer as a CTE program of study. This definition would essentially misalign most post-secondary institutions' CTE programs throughout the state Maryland. A closer examination of the requirements for a high skill position reveals that HCC's misaligned programs under this definition may be so due to not having met standards 1. and 3. Standard one requires that a program require previous work-related skills, knowledge, or experience of one or more years. Standard three requires state or federal licensing or industry-recognized certification, which some positions do not require either.
 - **High Wage:** Labor market forces have shifted, making audiovisual communications, technology/technician, Physical therapy assisting, EMT, LPN, accounting technician and event management work lower in wage due to market saturation, inflation of cost and increased use of lower skilled/wage earners to aid in spaces once served by these positions.
 - **In Demand:** Administrative assisting/secretarial science, manufacturing and engineering, drafting and design tech, construction and home building finishers are not as equally in demand due to a lack of desire in admin work within a region of high wage and growth opportunity, manufacturing and engineering programs suffer due to an increased number of these positions being outsourced to countries whose labor force and rate of pay bolsters profitability. Additionally, due to the housing affordability lull and the post covid landscape of telework, production of homes and business spaces have waned.
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?

While the college does not offer any programs which fall outside the CTE standard for alignment, the college does have considerable work to do regarding program retention and completion within most CTE program areas. The following strategies have been devised to support these two areas for overall improvement.

- **Program retention and completion support:** The college plans to offer additional advising assistance to CTE participants, who are on a pathway to completer status. CTE Advisors will be embedded into the divisions and help track and monitor progress through pre-requisite course work, aiding help fully transition into the various programs of study, particularly those who are selective admission based.
- **Assistive instructional technology support:** The college plans to add unique assistive technologies to the classroom which aid in providing equal access of learning for those who require additional accommodations, as well as to help bridge the gap between real-world practices and new technology use.
- **Supplemental course assistance:** The college will provide CTE concentrators with additional embedded tutoring support, which aids in the completion of required courses.

-
- Career education counseling: The college plans to provide CTE concentrators with an assigned career counselor who will provide access to career counseling, CTE career programming and workforce readiness counseling.
 - Outcomes assessment and monitoring: The college plans to hire a part-time program outcomes administrator and overall grant coordinator. This position will be responsible for ensuring the collection of outcome data including technical skills assessments, general data collection and concentrator program support.

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 Statewide				2023 Graduates in Your College			
**Data from MACC 2022 (most recent)								
	Number	Percent	Percent participating in CTE	Percent of participants who achieved concentrator status	Number	Percent	Percent participating in CTE	Percent of participants who achieved concentrator status
All 2023 Graduates	16,182	100	37	-	1,239	7.65	-	-
Gender								
Male	6,157	38	-	-	479	39		
Female	10,025	62	-	-	760	61		
Race-ethnicity								
American Indian	-	.38	-	-	-	.8		
Asian	-	7.29	-	-	-	15.82		
Black	-	25.37	-	-	-	23.89		
Hispanic	-	10.52	-	-	-	11.78		
Multi-race	-	3.88	-	-	-	5.97		
White	-	45.28	-	-	-	32.36		
Special Populations								
Economically disadvantaged	-	-	-	-	-	-		
English learners	-	-	-	-	-	-		
Individuals with disabilities	-	-	-	-	-	-		
Nontraditional fields	-	-	-	-	-	-		
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%.

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		Howard Community College actively recruits students from across the county and places special emphasis on recruiting students from Title 1 schools or those who have high populations of Free and reduced meal programs. This can be further noticed by our efforts to provide dual enrollment opportunities to these populations at a reduced rate. The college also actively recruits from the local workforce to provide apprenticeships and workforce training to those seeking to upskill and gain local industry recognized credentials through our workforce development area and what will be our new skilled trades center. Additionally, the colleges admissions and advising offices are required to counsel students based on their interests and academic priorities.
Our college has processes in place to recruit students traditionally underrepresented in CTE to improve diversity in CTE POS		x	<p>The college recognizes that it has inconsistencies in the number of underrepresented students it serves and is actively working to increase participation and diversity in CTE programs through the following means:</p> <p>College-wide, HCC has taken active steps to increase underrepresented student participation in CTE programs by providing students with front facing admission and advising targeted campaign support for allied health programs, business, culinary and STEM.</p> <p>The nursing and allied health admission process is lottery based. This process has been proven to provide equal opportunity to traditionally underrepresented students who might have lower GPA’s and qualifying placement scores. The Nurse Education Program also accepts students that have been unsuccessful in other nursing programs to provide access and opportunity to those traditionally underserved,</p>

			<p>under resourced and removed from the nursing pipeline due to uncontrollable circumstances. The program also has an initiative to increase the number of males in nursing. The program has created a chapter of the American Association for Men in Nursing, this chapter will have recruitment activities in the community to increase awareness of males within the profession.</p> <p>The accounting technician program has created an active chapter of the National Association of Black Accountants (NABA Inc.) on campus to provide exposure and awareness of accounting industry opportunities for underrepresented students.</p> <p>The Information Technology program accepts students interested in CyberDragons group to participate in the National Cyber League (NCL) capture the flag challenge as an opportunity to training and apply cybersecurity skills. The Women in Cybersecurity (WiCys) HCC chapter. Both the CyberDragons and WiCys provide underrepresented students opportunities cybersecurity training and networking.</p> <p>The Center for Hospitality and Culinary Studies directly markets to a diverse audience of minority studies through strategic marketing driven by Public Relations and Marketing Department. We have applied learning from Perkins Data by creating a focus group to review specific areas of concentration and targeted demographics of Howard County.</p> <p>The program’s current marketing vision addresses minority and underserved populations within our district. The program also provides information to its accreditors for publication on their respective websites. The American Culinary Federation Education Foundation Accreditation Commission (ACFEFAC) and the Accreditation Commission for Programs in Hospitality Administration (ACPHA) both represent the educational standards of programming recruitment through Howard Community College.</p>
--	--	--	---

			<p>The Business Department has marketed to a diverse audience by way of a Perkins funded strategic marketing plan. The program also promotes student participation in the newly formed chapter of the National Association of Black Accountants (NABA) Inc., which provides networking, career opportunities for all students. This effort was designed to increase the number of African American students in the accounting program at HCC through active supports and cohort networking and affiliation. NABA Inc. Also extends to all business professions as well.</p>
<p>Processes are in place to ensure that students traditionally underrepresented in CTE have options to <u>enroll</u> in CTE POS</p>	<p>x</p>		<p>Howard Community College is an open access, open enrollment college which provides equal access and opportunity to all. HCC does not discriminate against any protected status or classification outlined by federal law.</p> <p>Students entering the college are assigned to an admissions coach and an advisor who supports in program selection education and registration. Students are made aware of the co-requisite support offered in CTE programs and the value of an education which leads to a high skill/ high wage/or in-demand field of study.</p> <p>As a Blueprint for Maryland requirement, HCC also partners with the local K-12 system via dual enrollment programs to ensure that students are offered gateway courses which allow entry to CTE programs of study. Dual enrollment students are also encouraged to seek CTE opportunities and programming pathways through the office of dual enrollment.</p>
<p>Processes are in place to ensure that students traditionally underrepresented in CTE <u>persist</u> in CTE POS once enrolled</p>	<p>x</p>		<p>The college has a variety of support structures in place that are built into the college’s support infrastructure and maintained through college funds as well as those provided through the grant.</p> <p>Accessibility for all students is the college’s primary priority. CTE Programs have dedicated completion specialists such as those in</p>

			<p>accounting, nursing, allied health, STEM and business courses.</p> <p>The college’s disability support services office also provides accommodations for students who request it, who had accommodation provided by their sending institution or those who need short-term accommodations. Through the grant, the college supports the salary of one part-time counselor who provides CTE students with accommodations, resources and learning aides. The office also offers executive functioning training designed to support CTE participants and concentrators who seek assistance within the associated area.</p> <p>Additionally, the college also provides an early-alert monitoring and detection program which supports all students, however, CTE students are provided additional supports in the form of completion advisors who are embedded into the POS/Course. These completion advisors are responsible for ensuring successful course and program completion.</p> <p>The college’s workforce and community education area has also requested supports such as completion specialists in order to mirror efforts being made within credit programs.</p>
<p>Processes are in place to ensure that all eligible students have equitable access to career-based learning experiences</p>	<p>x</p>		<p>The college provides access to career education and counseling through its office of career services. Students are also provided access to premiere career education and job placement platforms such as Handshake, skills assessments, and interest inventories. Each student is assigned an advisor during their entry into the college. Advisors are trained to refer students directly to the office of career services to construct a formal career plan. With their career advisor.</p> <p>The colleges workforce career and community education division (workforce) also provides students with skilled apprenticeships which serve as a vital means of access to highly skilled training and earned income while learning.</p>

<p>Career guidance and advisement services are provided to student prior to enrolling in a CTE POS</p>	<p>x</p>		<p>The college provides access to career education and counseling through its office of career services. Students are referred to the career services office after their initial meeting with an advisor. During the initial intake meeting with their career advisor, students are provided access to premiere career education and job placement platforms such as Handshake, skills assessments, and interest inventories. Each student is assigned an advisor during their entry into the college.</p>
<p>All students have access to career planning and support services to help them successfully transition to advanced education and/or the workforce</p>	<p>x</p>		<p>The college provides access to career education and counseling through its office of career services. Students are also provided access to premiere career education and job placement platforms such as Handshake, skills assessments, and interest inventories. Each student is assigned an advisor during their entry into the college. Advisors are trained to refer students directly to the office of career services to construct a formal career plan. With their career advisor.</p> <p>The office of Career Services plans to develop a program partnership with the local secondary system which provides awareness and pathway support for students who are dually enrolled, CTE, underserved and CTE participants/concentrators.</p> <p>Local employer partnerships are also critical to the success of students. Students within apprenticeship programs are taught hands-on skills in trade, technical, and commercial sectors which help them upskill in place or learn while employed. This partnership allows the employer to invest in the employee and creates the opportunity for upward advancement.</p>

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 gaps in their CTE participation or persistence rates? If so, which groups are underperforming?
 - **Disability:** Disability Support Services: Students with disabilities at Howard Community College often face significant gaps in participation and persistence rates in Career and Technical Education (CTE) programs compared to their non-disabled peers. Specialized accommodations and executive functioning training lie at the heart of mitigating these challenges for this population of students
 - **Workforce Career and Community Education's** (workforce) completion rate is higher than average; however, Black/African American women are continuing to trail their peers in successful completion due to the lack of available embedded supports and matriculation advising. This leaves these students to navigate programs on their own, with limited built-in support.
 - **Student Parents:** Student Parents: While a large percentage of student parents at Howard Community College enroll in CTE programs (estimated 75%), they often face a myriad of socioeconomic barriers to entry into limited enrollment programs and completion of CTE programs. These barriers include housing instability, food insecurity, childcare, and transportation.
 - **Students of Color:** Students of Color: According to MSDE data, students of color are not participating at the rate of their peer group or persisting within their programs of study at a similar rate of their non-peer participants due to their being a significant gap in their persistence rates. One significant factor is due to the higher percentage of students of color, particularly Black/African American students, Hispanic students and other students for whom English is a second language placing into developmental level English and mathematics courses that do not meet degree requirements. As prerequisites to their enrollment in many college level courses in many CTE programs, this frequently delays program completion.

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.]*
 1. Utilize instructional and assistive technology, as well as professional training opportunities to increase underrepresented student performance and credential/degree attainment.
 - **Accounting Technician:** Support for individualized resources such as the free open/drop-in accounting lab for student assistance, funding for iPad loaners for students and faculty (iPad cart for 7-week and hybrid courses), support for professional development in technology related areas for faculty.
 - **Information Technology:** Provide students with support and resources outside of class through drop-in assistance in the cyber and hardware open labs, funding for laptop loaners specifically for the faculty and students with CyberDragons, WiCys, and Howard Codes support and training. Provide professional development in coding and cybertechnology for faculty.
 - **Culinary and hospitality:** State of the art culinary lab equipment aimed at providing a seamless experience for concentrators to become more equipment proficient and workforce ready.
 - **Entertainment Technology:** Instructional lab support, tutoring and equipment assistance which supports the development
 - **Dental Hygiene:** Professional training and lab equipment which attracts and supports the desired increase in men in dental hygiene. A further need is to ensure expert use of targeted students in dental hygiene which will enable a successful increase in completion.

- Health and Biosciences (Cardiovascular tech): Instructional and lab equipment aimed at ensuring the successful completion of traditionally underrepresented students and women.
 - Nursing: The nursing and allied health program attempts to attract and support the retention of more African American women and women of color. The program hosts many students who are student parents, caregivers and work part-full time. With these competing priorities and the program's rigor, students often face hardship in timely degree completion. Embedded program supports and training opportunities for instructional staff are needed to aid in the retention and completion of students. There is also a need to increase student NCLEX success rates by providing pre-testing opportunity.
 - Physical Therapist Assistant: Instructional supplies aimed at increasing the number of participants and completers who are underrepresented students of color. Instructional support. Additional instructional delivery support is also necessary to ensure that faculty are aware of current and emerging trends.
 - Nursing (RN, LPN): Support needed for student NCLEX exam material due to wealth disparities that persist within the majority demographic of the college's concentrators. Additional support needed for required accrediting training for instructional staff.
 - Diagnostic Medical Sonography: support needed to increase recruitment and support efforts for women and underrepresented students of color in DMS. Additional accrediting training support is needed for instructional staff to stay abreast of emerging trends, technology and scholars.
 - Medical Radiological Technician: Certifying exam training material is needed to support the recruitment and persistence of underrepresented women, especially women of color. Additional accrediting training support is needed for instructional staff to stay abreast of emerging trends, technology and scholar support.
 - Emergency Medical Technician: Additional accrediting training support is needed for instructional staff to stay abreast of emerging trends, technology and scholars. Foundational supports were needed for the restructure of instructional direction, which aimed to increase performance from 21%-66.5%
 - Teacher Education: Provide support for embedded tutoring and completion services to increase the success of all students, with an emphasis on meeting the unique needs of linguistically diverse/multilingual learners. Funding for targeted outreach and recruitment designed to diversify the early childhood educator pipeline. Support for faculty tasked with developing an alternative certification pathway in early childhood, program alignment with the CDA, and modeling culturally responsive and sustaining instructional practices.
2. Increase embedded CTE program support services, which promote equal access and persistence of underrepresented students, including women of color and men in health sciences, in attaining an industry recognized credential.
- Advising: Resources to fund embedded CTE advising and recruitment for allied health and nursing programs. While these programs are overly represented by women, the persistence and completion rate of women trails that of men in the program. Target recruitment and advising support is critical to alleviate the gap between concentrators and completion. shows to be
 - Completion: Due to low persistence and completion rates, the college will need to provide concentrators with embedded course supports which aim to complement advising and recruitment support by creating embedded pipeline supports for participants and concentrators alike.
 - Tutoring: Funding is needed to support tutoring services for participants and concentrators enrolled in courses with lower success rates. These services will complement Advising and Completion to provide wrap around support that facilitates completion.
 - Disability Support Services: Due to students with disabilities having limited access to supports outside accommodations, executive functioning training is needed to teach students skills which prepare them for academic and workforce success
 - Career Services: Career education and advising support is needed to help concentrators and participants bridge the gap between certification/completion and job placement. Assistance is needed with career advising to ensure long-term outcomes.

- Business Administration & Management: Support for embedded tutoring and completion services, funding for business department labs and career professional development programming.
- WCCE (workforce): Increase amount of student support specialists to promote student success and completion. (BEAB)
- Parent Scholars Program: Instructional support for student parents is needed to bridge the gap for those who offer dependent care. CTE programs are a critical access point for this population into high wage positions for dependent families.
- WCCE: embedded Support services and advising is critical to supporting the goals of students in apprenticeships and certificate programs. Program matriculation support offered through advising and embedded tutoring support is highly impactful when supporting students in the skilled trades and labor sector. Most students within this area of study are working adults and those who have dependent families. Additional supports aid in the goal of retention and program completion.

3. Leverage funding to support CTE Program assessment, data coordination and progress monitoring: The management of Perkins grant activities, data coordination and outcomes management will require an administrator whose sole responsibility is to ensure that the grant's objectives and outcomes are achieved. This responsibility has historically been granted to a senior administrator at the college whose primary responsibilities have often taken precedent over the grant's management. This oversight in management has been attributed to performance gaps which stem from a lack of faculty and staff knowledge of the grants' purpose and outcomes. It is for this reason that the grant will require the administrative support of a Perkins grant advisor/coordinator. This position will ensure CTE faculty and staff are trained in ethical use of grant funds, outcome and data collection, technical support and fiscal management. This position will also support the colleges CTE program quality, scope and size assessment.

4. Occupational Training and skill development: Howard Community College is a leader in CTE education for Howard County and the greater Baltimore-Washington region. As the only community college in Howard County that offers training for CTE fields, the college understands that it must invest in the training and development of its instructional staff. It is also imperative that the college meet the local and state demands of the legislation such as the Blueprint for Maryland. To assist our local K-12 partners with providing 45% of its diploma recipient-college bound population, the college recognizes the need to invest in professional development, curriculum training and instructional liaison support.

5. CTE Program recruitment support: As Howard County's only public institution for higher education, Howard community College (HCC) prides itself in offering a quality, affordable education which will provide you with the resources and supports necessary to attain a degree, certification, or apprenticeship opportunity in a timely manner. HCC's CTE programs are industry recognized, academically accredited and vital to the economic and skilled labor market growth of the region. It is for these reasons that the college would like to invest in enlarging the scope and quality of its CTE programs by investing in recruitment initiatives that which attract women and students of color who are underrepresented in STEM fields.

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 Cluster Name: Manufacturing, Engineering, and Technology

PROGRAMS OF STUDY WITHIN CLUSTER:

Name	Number Program Graduates 2023
<u>Electronic and communications engineering technology/technician</u>	<u>12</u>
<u>Manufacturing engineering technology</u>	<u>1</u>
<u>Drafting and design</u>	<u>8</u>

Career Cluster Name: Information Technology

PROGRAMS OF STUDY WITHIN CLUSTER:

Name	Number Program Graduates 2023
<u>Computer systems networking and telecommuications</u>	<u>0</u>

Career Cluster Name: Human Resource Services

PROGRAMS OF STUDY WITHIN CLUSTER:

Name	Number Program Graduates 2023
<u>Childcare and support services management</u>	<u>4</u>
<u>Cyber/computer forensics and counterterrorism</u>	<u>0</u>
<u>Emergency medical tech/technician</u>	<u>None reported</u>

Career Cluster Name: Health and Biosciences

PROGRAMS OF STUDY WITHIN CLUSTER:

Name	Number Program Graduates 2023
<u>Biomedical engineering-related tech/technician</u>	<u>13</u>
<u>Dental hygenist</u>	<u>25</u>
<u>Physical therapy assitant</u>	
<u>Cardiovascular tech/technician</u>	
<u>Medical radiological tech/technician</u>	
<u>Diagnostic medical sonography</u>	
<u>Registered nursing</u>	

<u>Licensed practical nursing</u>	<u>8</u>
-----------------------------------	----------

Career Cluster Name: Consumer Services, Hospitality and Tourism

PROGRAMS OF STUDY WITHIN CLUSTER:

Name	Number Program Graduates 2023
<u>Event management</u>	<u>0</u>
<u>Restaurant , culinary and catering mangement</u>	<u>63</u>

Career Cluster Name: Construction and Development

PROGRAMS OF STUDY WITHIN CLUSTER:

Name	Number Program Graduates 2023
<u>Construction and building finishers and managers</u>	<u>15</u>

Career Cluster Name: Business Management and Finance

PROGRAMS OF STUDY WITHIN CLUSTER:

Name	Number Program Graduates 2023
<u>Business, general</u>	<u>291</u>
<u>Business administration and management</u>	<u>7</u>
<u>Accounting technician</u>	
<u>Administrative assistant/secretarial science</u>	
<u>Enterprise management and operation</u>	
<u>Management information systems</u>	<u>151</u>

Career Cluster Name: Arts, Media and Communication

PROGRAMS OF STUDY WITHIN CLUSTER:

Name	Number Program Graduates 2023
<u>Audiovisual communication technology/technician, other</u>	<u>7</u>

CLUSTER-LEVEL DATA

Student Group	Participation Rate			Persistence Rate
	2023 College Graduates (A)	2023 College graduates participating in this cluster (B)	Percentage difference (A-B)	
*2023 Institutional data				2023 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	1124	446	39%	446
Gender				
Male	132			
Female	314			
Race-ethnicity				

American Indian	8			
Asian	86			
Black	182			
Hispanic	62			
Multi-race	27			
White	168			
Special Populations				
Economically disadvantaged	167			
English learners	60			
Individuals with disabilities	41			
Nontraditional fields				
Single parents	83			
Out of workforce	7			
Unhoused Individuals				
Youth in foster care				
Youth with parent in military				
Migrant students				

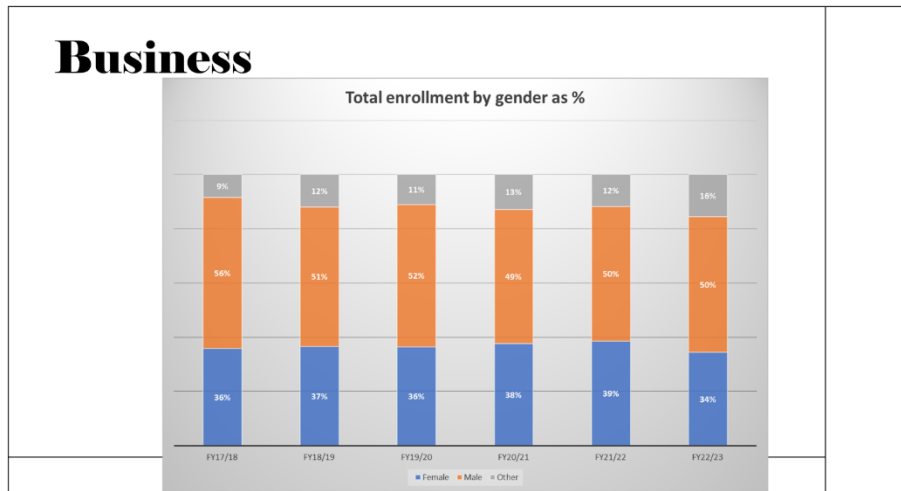
Based on your responses in this component of the needs assessment guide, consider the following questions:

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? It appears that students are not participating at rates equivalent to their overall college-wide demographics. There are a variety of factors which may influence this which include a lack of direct recruitment, knowledge of CTE programming, diminished supports for instructional success and a lack of overall resource geared toward persistence.
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 who are involved in this cluster are not persisting at equal rates. Students of color, students who have traditionally been serviced with accommodations and women of color in specific programs of study such as accounting, allied health and STEM are not persisting at equal rates than their peers. Students of color and first-generation students alike face income and time disparities which make it challenging to progress within their programs of study. These vulnerable student populations also experience many competing priorities which make it difficult to succeed. Howard Community College also hosts a significant student parent/ care giving population. The presence of dependent children and adults can also make it difficult for students to persist. Students with disabilities also face a range of challenges such as those previously mentioned, as well as neurological and physical disabilities which require accommodation. Accommodation support through the disability support services office requires that students seek accommodation, rather than have it as a service requirement. Students with differing abilities may not always proactively seek these supports, which at times creates inconsistency in the number of successful completers. There are also students who are degree holders, who also identify as adult learners. Many of these students have competing priorities due to work and family obligations. Financial constraints may also be a factor as students balance how many courses they can take within a given semester. These populations of students often require supplemental assistance in the form of; embedded supports, tutoring, supplemental advising, technology enhanced instruction material, supplemental lab hours and specialized programming such as CyberDragons, WiCys, and Howard Codes are current support and resources to close the gap. Certain programs also have gender based performance inequalities as well, such as the college's business programs where males are significantly underperforming compared to their counterparts at a rate of 46.67% comparative to women at 53.33%.

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?
 - The DMS program is a highly sought after health career due to its promising job opportunities which align with student career goals. This directly impacts the students' participation and persistence in our specific program of study. However, ultrasound is largely a female dominated career and male students are often underrepresented in our cohorts. Having a cohort with only 1 or 2 male students may impact the male students' participation and persistence in either a positive or negative manner. Enhancing our lab with modern equipment and simulators could alleviate some of the negatives that may under these circumstances.
 - The nursing profession offers graduates the opportunity to work in many settings and affords them the ability to provide for their family. The students in the program become certified nursing assistants after completing the first nursing course in the program, this opportunity for students to work after successfully completing NURS 142. There are a greater number of females in the nursing program, to increase interest in males becoming nurses, activities to increase awareness may address the current workforce shortage and will showcase males in the profession who are excelling.
 - The physical therapist assistant is a career that is primarily female. Our program statistics show that our female students are over performing in the cluster by 6.67%. The national average of male physical therapist assistants is 32% vs 68% female, according to DataUSA.

- Business Administration & Management: It appears that HCC is enrolling more males than females in Business (50% male; 34% female; 16% other) per HCC enrollment data but females are outperforming males as noted above.



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.]*
 - a. *Intentional recruitment for CTE concentrators, which include targeted marketing campaigns, partnership with organizations that promote the persistence and development of students in CTE programs.*
 - b. *Intentionally assigned advising support for CTE concentrators, particularly those in the allied health fields.*
 - c. *Increase academic and completion support for men in STEM, particularly those participating in the Howard PRIDE program.*
 - d. *Increase awareness and pipeline/pathway support to CTE programming for students who participate in dual enrollment programs.*
 - e. *Increase embedded support for CTE concentrators within academic and technical courses.*

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 (2022 data)								
	1P1	2P1	3P1						
State Performance Target	79.4%	66.5%	21.2						
College Performance	78.5%	20.4	24.6						
Gender									
Males	79.5	20.0	27.1						
Females	74.6	20.4	23.4						
Race-ethnicity									
American Indian	NA	NA	25.0						
Asian	68.5	29	30.5						
Black	81.5	19.6	21.4						
Hispanic	64	15.5	n/a						
Multi-race	93.3	15.2	n/a						
White	81.3	23.9	22.8						

SPECIAL POPULATIONS

	Federal Accountability Indicator 2023 Graduates								
	1P1	2P1	3P1						
State Performance Target	79.4	66.5%	21.2						
College Performance	78.5%	20.4	24.6						
Economically disadvantaged	81.2	21.5	23.2						
English learners	78.1	21.2	29.8						
Individuals with disabilities	76.9	22.0	20.9						
Nontraditional fields	79.5	14.9	100						
Single parents	N/A	N/A	N/A						
Out of workforce	N/A	N/A	N/A						
Homeless individuals	N/A	N/A	N/A						
Youth in foster care	N/A	N/A	N/A						
Youth with a parent in active military	N/A	N/A	N/A						
Migrant students	N/A	N/A	N/A						

* 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: Credential, Certificate, Degree
Looking at <i>overall performance</i> , on which indicators are you <u>substantially exceeding</u> the college performance target?	3P1: Nontraditional concentrator enrollment

* 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

1. 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. The data provided reflects the performance of all students within your college. Remember that aggregate data can hide considerable variation. As you think about strategies to improve

2P1: Credential, Certificate, Degree attainment

Howard Community College serves as Howard County’s only public institution for higher education and workforce/skilled trades readiness credentialing. The college offers a variety of programs that are accessible and more readily affordable to the diverse resident population of the county. Students at the college range from traditional, non-traditional, from underserved communities, students with disabilities and english language learners. The college hosts a significant CTE participant and concentrator population who face their own unique set of challenges with successful program completion and credential attainment. As the college attempts to meet the needs of our diverse CTE concentrator population, we recognize that their success is contingent on addressing their unique set of circumstances which include; academic program design flaws, access to case management, CTE advising, consistency in staff training, direct career and completion support for underserved communities and students with disabilities, lack of instructional aids and modernized equipment, and lack of embedded supports. Addressing these issues is imperative for improving student outcomes and fulfilling our institutional CTE mission of meeting and far exceeding each state performance standard, which will only be achieved through proper resource and program alignment and wrap-around, embedded support services.

Detailed here, you will find a program improvement plan which addresses how HCC plans to meet these critical challenges through adequate support and resource alignment.

Direct Access to Case Management Advising: The college lacks adequate advising services, resulting in students not receiving timely and personalized academic and career guidance. This often leads to poor course selection, unawareness of graduation requirements, and diminished motivation.

- a. Improved Student Outcomes: Comprehensive advising helps students set realistic goals, stay on track with their academic plans, and access support services, which is critical for their success.
- b. Retention and Completion: Consistent and quality advising can significantly improve retention and completion rates by identifying at-risk students early and providing necessary interventions.
- c. Career Alignment: Effective advising ensures students align their academic pursuits with their career aspirations, making their education more meaningful and motivating.

Lack of Adequate Staff Training: Howard Community College is working toward a sustainable staff training model that supports the goals of CTE completion and the requirements of our accrediting bodies. Staff training is currently inadequate, which affects the quality of instruction and student support. Without ongoing professional development, staff may struggle to meet the diverse needs of students and adapt to new educational technologies and methodologies.

- a. **Enhanced Teaching Quality:** Regular training and professional development ensure that staff are equipped with the latest instructional strategies and technological tools, improving the quality of education.
- b. **Adaptability:** Training helps staff stay current with educational trends and best practices, enabling them to better support students and enhance their learning experiences.
- c. **Job Satisfaction and Retention:** Providing professional development opportunities can increase job satisfaction and retention among staff, creating a more stable and effective educational environment.

Lack of Supports for Underserved Communities: There is a significant gap in support services for students from underserved communities, including financial aid guidance, mentorship programs, and cultural competency resources.

- a. **Equity and Inclusion:** Providing targeted support for underserved communities promotes equity and inclusion, helping all students have an equal opportunity to succeed.
- b. **Improved Retention:** Support services tailored to the specific needs of underserved communities can improve retention and graduation rates by addressing barriers these students often face.
- c. **Community Engagement:** Strengthening support for underserved communities enhances the college's role as a community anchor, fostering trust and engagement with local populations.

Clarify Program Pathways: Establishing clear, structured pathways ensures that students can navigate their educational journey more effectively, reducing confusion and course redundancy.

- a. **Flexibility and Relevance:** The college is and will continue to update curricula to be more flexible and aligned with current job market demands which helps students acquire relevant skills, enhancing their employability and motivation to complete their programs.
- b. **Student-Centered Design:** Designing programs with the student experience in mind, including offering accelerated courses with shorter completion periods, part-time opportunities, evening courses, and online classes, to accommodate the needs of HCC's diverse CTE student population.

Lack of Supports for Students with Disabilities: The college's CTE performance indicators directly speak to the need for more support for students with accommodations and special needs. Students with disabilities often lack adequate support, including accessible learning materials, assistive technologies, and tailored instructional methods.

- a. **Accessibility:** Ensuring that students with disabilities have access to necessary resources and accommodations is fundamental to providing an equitable educational experience.
- b. **Compliance:** Enhancing support for students with disabilities ensures compliance with legal requirements, reducing the risk of litigation and improving the college's reputation.
- c. **Student Success:** Providing comprehensive support enables students with disabilities to fully participate in their education, improving their chances of success and graduation.

Lack of Instructional Aids and Industry Relevant Equipment: Outdated instructional aids and equipment hinder the ability of faculty to provide effective, modern education and limit students' hands-on learning experiences.

- a. **Modern Education:** Up-to-date instructional aids and equipment ensure that teaching methods and student learning experiences are current and relevant.
- b. **Skill Development:** Access to modern equipment allows students to develop skills directly applicable to today's job market, enhancing their employability.

- c. Enhanced Engagement: Modern instructional aids can increase student engagement and interest, leading to better educational outcomes.

Lack of Embedded Supports: Embedded supports, such as tutoring, mentoring, mental health services, and academic workshops, are either lacking or not effectively integrated into the student experience.

- a. Holistic Support: Embedding supports within the academic and social framework of the college ensures that students receive help when and where they need it, fostering a more supportive campus culture.
- b. Proactive Interventions: Providing embedded supports allows for proactive interventions, identifying and addressing issues before they become barriers to completion.
- c. Student Success: Comprehensive embedded supports can significantly enhance student success, retention, and graduation rates by addressing a wide range of student needs.

8. Proposed Actions:

- a. Enhance embedded support services which include advising, completion. Tutoring services: Increase the number of advisors, provide ongoing training, and implement technology solutions like early alert systems to better support student advising.
- b. Invest in Instructional Technology and Staff Training: Develop and fund a comprehensive professional development program to ensure staff are well-equipped to meet the needs of all students. Upgrade Instructional Aids and Equipment: Invest in modern instructional aids and equipment to enhance teaching quality and student learning experiences.
- c. Strengthen Supports for Underserved Communities: Develop targeted support programs, including financial aid guidance, mentorship, and cultural competency resources.
- d. Redesign Academic Programs: Conduct a thorough review of academic programs, involve industry stakeholders, and streamline curricula to create clear, flexible pathways.
- e. Enhance Supports for Students with Disabilities: Improve accessibility, provide assistive technologies, and ensure tailored instructional methods are available.
- f. Integrate Embedded Supports: Develop and implement comprehensive support programs that are seamlessly integrated into the student experience, including academic tutoring, career services, mental health resources, and peer mentoring programs.

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.

Due to college-wide restructuring of academic divisions, and staffing, this data may be limited

NAME OF CAREER CLUSTER OR CTE POS: College-wide					
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
Gender			-3%	0%	
Male	36%		3%	0%	5%
Female	64%		-6%	0%	-3%
Race-ethnicity					
American Indian	-		-	-	-
Asian	10%		-10%	-12%	6%
Black	16%		-3%	9%	17%
Hispanic	9%		29%	5%	25%
Multi-race	2%		200%	-20%	43%
White	68%		-5%	0%	-14%
Credential					
Properly Licensed	100%				
Granted Temporary Waiver	0%				

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 Improvement	Explanation
Faculty/staff acquire content-specific professional development required to maintain licensure.	This is required for accreditation purposes	Consistent funding source for ongoing PD	The college is currently reviewing ways to strengthen the budget provided to departments for accreditation required professional development opportunities. CTE programs at the college currently receive funds for needed professional development opportunities. This is an area to strengthen for the college in the future.
Faculty/staff are aware of the requirements to maintain endorsement.	Yes		All faculty within the various program areas are aware of and maintain up-to-date records of requirements for endorsements. No faculty member is hired or retained without such endorsements as this is linked to accreditation requirements.
Faculty/staff have equal access to content-specific professional development opportunities across industries.	Yes (however this is not consistent for all programs)	Area of improvement for programs who are not aware of the opportunities for PD	More college funding is needed to expand opportunities across programming areas. Division deans and chairs are responsible for advocating for these opportunities at the programming level.
Data is collected on the effectiveness of professional development to ensure it meets the needs of educators.	No	Area for improvement college-wide	No institutional metric or process for data collection or dissemination.

ACTIVITY D.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?

Collective faculty demographics keep pace with student representation. White student and faculty are the collective majority, followed by African American students and faculty, Asian faculty outpace the Asian student population. The two most recognizable faculty demographics that are outpaced by the percentage of their corresponding student populations is Latinx and Asian-Pacific Island populations. The population of Latinx students outpaces their faculty representation by nearly 8%. Native Asian-Pacific Island identified faculty have no identified representation at the college.

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

As a requirement for accreditation, all programs have faculty who must maintain adequate licensing and credentials, especially for the programs offered at the college which fall under CTE eligibility.

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?

The college does not offer content specific professional development due to the broad range and scope of programs. It would be nearly impossible for the college to offer development opportunities to such a degree for such a broad array of areas of study. The college also does not offer much funding for accreditation contingent professional development opportunities. The college depends on Perkins grant funding to support these initiatives, which supports CTE students by equipping them with instructors who have the most up-to-date information on advancements within their fields of study.

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

Funding is the primary barrier to all content specific professional development. The college has a limited availability of resources to support these initiatives and relies on funding through the grant to support them.

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?
 - a. National job/placement portal access: investing in access to placement databases and portals will allow for an opportunity to recruit highly qualified individuals.
 - b. Local conference attendance is critically important for sustained learning opportunities and growth. Access to these opportunities allows for the fair exchange of information, research, best practice and network partnerships which lead to graduate career success.
 - c. Enhanced instructional technology will greatly benefit instructors and may attract a critical mass of instructional staff needed for CTE programs. This technology will allow for the most up to date teaching experience, combined with the opportunity to gather student information and learning data more easily
 - d. Embedded completion and advising support is necessary to ensure program matriculation and completion. Embedded support advisors will offer general academic advising, completion advising and career/life skill advising.
 - e. A retention data manager will greatly eliminate the workload levied on instructional staff and may serve as a great retention tool. Many faculty report feeling exhausted by the sheer amount of administrative work they must perform to maintain programs.

Next Steps

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.