



Career and Technical Education: Comprehensive Local Needs Assessment

A Systemic Review Guidebook for Postsecondary Schools

Office of College and Career Pathways

2024 - 2026

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1.0	February 2024	Initial Document
2.0	April 2024	Modified data tables in Activity B.1

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

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

The Comprehensive Local Needs Assessment and the Local Application will be reviewed and approved on a rolling basis, and must be fully completed by the Community College, negotiated (CC and MSDE), and approved by the State Director of Career and Technical Education or their designee prior to July 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).
<p>All students, including students in special populations, are offered the opportunity to:</p> <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	Kimberly Manley
Organization	Frederick Community College
Title	Perkins Coordinator, Admin. Assistant to the Dean of Health, Business, Technology, and Science
Email	kmanley@frederick.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)	Dr. Kristine Pearl	CTE Supervisor	Frederick County Public Schools
	Michael Concepcion	Career & Technology Center Principal	Frederick County Public Schools
Professional career or academic counselor	Erica Stull	Career & Technology School Counselor	Frederick County Public Schools
	Kristen Daly	Career & Technology School Counselor	Frederick County Public Schools
	Laura Brown	Career Coach Coordinator	Frederick County Public Schools
	Anne Scholl-Fiedler	Assistant Director of Career & Academic Planning Services	Frederick Community College
Instructors	Dr. Valerie Cousins	Science Teacher, Frederick High School	Frederick County Public Schools
	Jacqueline Pieterse	Academy of Health Professions, Career and Technology Center Instructor	Frederick County Public Schools
Instructional Support and Paraprofessionals (Psychologists, Social Workers, etc.)	Diana Sung	Dual Enrollment Coordinator	Frederick County Public Schools
	Dr. Matthew Paushter	Director for Dual Enrollment and High School Partnerships	Frederick Community College

POSTSECONDARY

Role	Name	Title	Affiliation
Administration (e.g., dean, division chair)	Dr. Sandy McCombe Waller	AVP, Dean of Health, Business, Technology, and Science	Frederick Community College
	Dr. Brian Stipelman	AVP, Dean of Liberal Arts	Frederick Community College
	Elizabeth DeRose	Institute Manager, Hospitality, Culinary, & Tourism Institute	Frederick Community College
	Carla Milan	Internship & Apprenticeship Coordinator	Frederick Community College
Faculty	Dr. Savita Prabhakar	Program Manager, Biotechnology	Frederick Community College

	Dr. Amelia Iams	Director of Physical Therapist Assistant Education	Frederick Community College
	Dr. Susan McMaster	Program Manager, Business	Frederick Community College
	Didi Culp	Program Manager, Mid-Atlantic Center for Emergency Management & Public Safety	Frederick Community College

WORKFORCE

Role	Name	Title	Affiliation
Local Workforce Development board member	Michelle Day	Director, Frederick County Workforce Services	Frederick County Government
	Rick Weldon	Frederick County Chamber of Commerce	
*Regional Economic Development organization member	Rebecca Tucker	Frederick County Office of Economic Development	Frederick County Government
	Katie Stevens	Frederick County Office of Economic Development	Frederick County Government
Local business & industry representative	Jose Bueso	Chief Operating Officer	Dynamic Automotive
	Dr. Walter Hubert	Scientific Program Director	National Cancer Institute
	Dr. Phillip Brown	President and CEO	Phoenix Mecano, Inc.
	Danielle Adams	Executive Officer	Frederick County Building Industry Association
	Courtney Cline	Workforce Development Specialist	Frederick Health

OTHER

Role	Name	Title	Affiliation
Parent or caretaker	Dr. Molly Carlson	AVP, Dean of Continuing Education and Workforce Development	Frederick Community College
Student	Christina Sherwood	Physical Therapist Assistant Student	Frederick Community College
Representative of Special Populations	Megan Henry	Director, Disability Access Services	Frederick Community College
Out-of-School youth / unhoused youth / corrections	Melissa Muntz	Executive Director	Student Homelessness Initiative Partnership

* 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
Example	HS	HW	ID	###	100%
American Sign Language Studies	HS	HW	ID	15	0.5%
Sign Language Interpretation and Translation	HS	HW	ID	18	0.6%
Computer Graphics	HS	HW	ID	106	3.6%
Graphic Design	HS	HW	ID	57	2%
Film & Video Production	HS	HW	ID	6	0.2%
Emergency Management	HS	HW	ID	38	1.3%
Healthcare Practice Management	HS	X	ID	89	3%
Business Management	HS	HW	ID	516	18%
Project Management	HS	HW	ID	0	0
Retail Management	HS	HW	ID	0	0
Accounting	HS	HW	ID	10	0.3%
Accounting Technology/Technician	HS	HW	ID	226	8%
Entrepreneurship & Small Business Startup	HS	HW	ID	4	0.1%
Management Information Systems	HS	HW	ID	213	7.3%
Social Media Management	HS	HW	ID	0	0
Architectural Computer Aided Design (CAD)	HS	HW	X	5	0.2%
Construction Management & Supervision	HS	HW	ID	29	1%
Building Trades Technology	HS	HW	ID	39	1.3%
Baking and Pastry Arts	HS	X	ID	19	0.7%

Culinary Skills	HS	X	ID	8	0.3%
Hospitality Management	HS	HW	ID	63	2%
Fitness/Personal Trainer	HS	X	ID	224	8%
Certified Nursing Assistant/Geriatric Nursing Assistant	HS	X	ID	47	1.6%
Dental Assisting and Oral Radiography	HS	X	ID	36	1.2%
Medical Assistant	HS	X	ID	31	1%
Physical Therapist Assistant	HS	HW	ID	14	0.5%
Respiratory Care	HS	HW	ID	27	0.9%
Surgical Technology	HS	HW	ID	32	1%
Registered Nursing	HS	HW	ID	204	7%
Practical Nursing	HS	X	ID	0	0
Early Childhood Education	HS	HW	ID	27	0.9%
Child Care and Support Services	HS	HW	ID	93	3%
Paralegal	HS	HW	ID	29	1%
Police Science	HS	HW	ID	198	7%
Fire Service Administration	HS	HW	ID	6	0.2%
Addictions Counseling	HS	X	ID	34	1.1%
Computer Science Studies	HS	HW	ID	3	0.1%
Game Programming	HS	HW	ID	0	0
Cloud Computing	HS	HW	ID	1	0%
Cybersecurity	HS	HW	ID	54	2%

Personal Computer Support Specialist	HS	HW	X	1	0
Computer Studies	HS	HW	ID	29	1%
Audio Production	HS	HW	ID	117	4%
Manufacturing Technology Level 1	HS	HW	X		
Computer Aided Design Operator	HS	HW	X	16	0.5%
Bioprocessing Technology	HS	X	ID	40	1.3%
Science Technology/Technicians	HS	HW	ID	222	7.6%
Certified Logistics Technician	HS	HW	ID	15	.5%

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
Practical Nursing/ 513901	Deleting	This program is being discontinued pending approval from Maryland Higher Education Commission (MHEC)
Retail Management/ 520212	Deleting	This program is being discontinued pending approval from Maryland Higher Education Commission (MHEC)
Social Media Management/ 521404	Deleting	This program is being discontinued pending approval from Maryland Higher Education Commission (MHEC)
Phlebotomist/ 511009	Adding	This new lower division certificate within the A.A.S. Medical Assistant program has been approved by MHEC for implementation in Fall 2024
Medical Administrative Specialist/ 510716	Adding	This new lower division certificate within the A.A.S. Medical Assistant program has been approved by MHEC for implementation in Fall 2024

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	✓		
Processes are in place to identify and expand college level registered apprenticeship opportunities.		✓	FCC is always looking to expand registered apprenticeship opportunities and identify ways to facilitate student access to work-based learning. During the 2024-25 academic year, a workgroup of FCC administrators and faculty along with workforce partners will be planning the transition of our current "find your own" internship/apprenticeship model to placing students in these work-based learning experiences, similar to how students are placed in clinical rotations within the Health Sciences programs.
Processes are in place to update or phase out CTE POS that do not align with HS/HW/ID industries	✓		
A majority of our students are concentrating in POS aligned to HS/HW/ID industries	✓		
Processes are in place to recruit business and industry stakeholders to participate on Program Advisory Committees		✓	Recruiting business and industry stakeholders is regularly discussed in our Local Advisory Council sessions, but we have not yet established a process for increasing participation in our Program Advisory Committees. Most participants are known to the Program Manager, but we would like to develop more methodical outreach to build partnerships outside the scope of personal connections.

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)?

We have several programs that are not considered high wage careers; however, these programs fall into 1 of 3 categories: very high demand in the region surrounding FCC, entry level positions that lead to higher wages with additional training, or wages that are narrowly lower than the high wage threshold. Baking and Pastry, Culinary Skills, Dental Assisting, and Addictions Counseling all have a growth rate of over 15% in our region. Students completing Certified Nursing Assistant and Medical Assistant programs are being hired by the local healthcare industry which then pays for them to continue their education and upskill into higher level positions. Wages in Fitness/Personal Trainer and Bioprocessing Technology are very near the high wage threshold. We continue to enhance these programs with additional credentials to help our students maximize their earning potential.

There are only a few programs that do not align with the in-demand criteria. Personal Computer Support Specialist and Computer Aided Design are lower division certificates that enable students to enter the workforce quickly to gain financial support while continuing their education to attain a degree.

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?

Priority 1: Increase participation in HS/HW/ID CTE programming, especially those programs that are in very high demand in the Frederick region.

Healthcare continues to experience a shortage of qualified personnel to fill the many vacancies in our area. We want to promote our Health and Biosciences programs, particularly Surgical Technology, Respiratory Care, Physical Therapist Assistant, and Biotechnology to produce the healthcare workforce that Frederick County needs. Our strategies include promoting these programs to students who are already enrolled at FCC as well as continuing to create pathways for Frederick County Public School students to get started in these programs via Dual Enrollment offerings.

Priority 2: Expand CTE Programming by exploring Occupational Therapist Assistant program and Engineering Technologist programs.

Lightcast lists Occupational Therapist Assistants in the top 20 fastest growing occupations in the Washington D.C. region. These careers are also considered to be high wage and high skill. During the 2024-25 academic year, FCC will conduct a feasibility study to explore options for adding this program to our curriculum.

Lightcast also lists numerous Engineering Technologist occupations in the fastest growing occupations in the Washington D.C. region (Industrial, Mechanical, Aerospace, Electrical). These careers are also considered to be high wage and high skill. During the 2024-25 academic year, FCC will explore options for modifying the Computer Aided Design program or expanding our Engineering transfer program to include some of these career program options.

Priority 3: Review size, scope for underenrolled programs (including data validation), especially for programs that do not meet HS/HW/ID criteria.

Practical Nursing, Social Media Management, and Retail Management programs which had no participants in 2022-23 will be removed from the FCC course offerings and our list of Perkins approved programs. Other programs with low participation will

be reviewed for possible removal; however, in completing this Comprehensive Local Needs Assessment, our program managers have identified data anomalies where the heatmaps did not agree with their personal experience with their programs. We will be validating our data collection and reporting methods to ensure that our count of participants and concentrators in CTE programs is accurate prior to the removal of any additional programs.

Priority 4: Examine programs that do not meet “in demand” criteria for possible modification or elimination.

Four programs on our approved list do not meet the “in demand” criteria. These are Personal Computer Support Specialist, Manufacturing Technology Level 1, Architectural CAD and Computer Aided Design Operator. The Personal Computer Support Specialist program is also underenrolled and should be re-considered. The curriculum for this program overlaps substantially with other IT program offerings which would be of greater benefit to students. While our workforce partners are very vocal about the benefits of CAD education, we will examine whether this curriculum could be included in other programs instead of as separate programming. These courses could also be part of a new Engineering Technologist program which will be explored in the 2024-25 academic year.

Priority 5: Examine programs that do not meet “high wage” criteria for possible modification or elimination.

There are nine programs on our approved list that do not meet the “high wage” criteria. While these programs are in high demand in our region, we will also look to include additional credentials that would lead to higher pay. We will be adding two new certifications to our approved list for Phlebotomist and Medical Administrative Specialist. These certifications build on our existing Medical Assistant program to offer credentials that will boost pay, but also provide graduated levels of certification that students can earn separately over time.

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 data 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			
	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	20,213	100			862	100	100	
Gender								
Male	6157	30.46			356	41.3	48	42
Female	14056	69.54			506	58.7	52	58
American Indian	77	0.38			<35	0.1	0	0
Asian	1,502	7.43			39	4.5	5	4
Black	5,129	25.37			114	13.2	15	16
Hispanic	2,127	10.52			136	15.8	17	16
Multi-race	785	3.88			49	5.7	6	6
White	9,153	45.28			504	58.5	57	58
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%.

**Note: 7.14% of students are not included. The race-ethnicity associated with these students is Foreign/Non-Resident Alien or Unknown/Not Reported.

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		✓	Data is not currently collected or reported for most special populations (economically disadvantaged, single parent, out of workforce, homeless, migrant, and foster). Processes for collecting and reporting this information are currently being explored.
Our college has processes in place to recruit students traditionally underrepresented in CTE to improve diversity in CTE POS		✓	The college has processes for recruiting underrepresented populations to FCC, but not specifically to CTE programs of study. Many CTE programs participate in outreach to increase enrollment in their programs, but not targeted to specific populations. More work is needed to intertwine these efforts to create specialized recruitment to improve diversity in CTE programs of study.
Processes are in place to ensure that students traditionally underrepresented in CTE have options to <u>enroll</u> in CTE POS	✓		
Processes are in place to ensure that students traditionally underrepresented in CTE <u>persist</u> in CTE POS once enrolled	✓		
Processes are in place to ensure that all eligible students have equitable access to career-based learning experiences		✓	During the 2024-25 academic year, a workgroup of FCC administrators and faculty along with workforce partners will be planning the transition of our current “find your own” internship/apprenticeship model to placing students in these work-based learning experiences, similar to how students are placed in clinical rotations within the Health Sciences programs.
Career guidance and advisement services are provided to student prior to enrolling in a CTE POS		✓	Career guidance and advisement services are offered, but many students do not make use of these opportunities. FCC will continue to explore ways to encourage student participation in advising and career counseling.
All students have access to career planning and support services to help them successfully transition to advanced education and/or the workforce		✓	Students studying in programs at the Monroe Center often lack the same access as colleagues on the main campus. Job opportunities are shared with students and industry firms are

			invited to Career Fairs held at the Monroe Center twice a semester, but we will continue to explore opportunities to provide more robust advising and counseling opportunities for these students.
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ACTIVITY B.3: REFLECTION

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

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

Female students are participating in CTE programs at a lower percentage than their representation in the college population as a whole. The percent of females participating in CTE POS is 52% while the percent of females in the FCC student population is 58.7%.

Male students are persisting at a lower rate. While male participation in CTE is higher compared to the FCC population (48% CTE vs. 41.3% FCC), the percentage of male concentrators is only 42%.

Most racial and ethnicity groups are participating and concentrating in the overall CTE program at rates higher than their representation in the FCC student population. Asian students have a slightly lower rate as concentrators compared to the percentage of Asian students in the 2023 graduating class (4 % vs. 4.5%). There are individual clusters or programs of study where racial and ethnicity groups may be underenrolled or not persisting. These will be discussed below in the Cluster analysis.

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.]*

Priority 1: Provide support for male students to persist.

Male persistence is a college-wide issue, not just within CTE programs. College wide enrollment is 56% female, 44% male, but college graduates for 2023 were 59% female, 41% male. Within the CTE programming, male participation is 48% but males achieving concentrator status is only 42% (6% drop). We will look at CTE programs of study and other areas of the college where male students are more persistent to identify strategies that can be expanded to all programs within CTE.

Priority 2: Improving data collection and reporting to identify special populations for targeted marketing/intervention.

Data is not currently collected or reported for most special populations (economically disadvantaged, single parent, out of workforce, homeless, migrant, and foster). Processes for collecting and reporting this information are currently being explored. By taking steps to better identify our special populations, we will be able to uncover participation and persistence gaps and develop more targeted marketing campaigns and intervention measures.

Priority 3: Increase female participation in CTE.

Female students are participating in CTE programs at a lower percentage than their representation in the college population as a whole. Some clusters have significant underenrollment of females. We will continue to collaborate with FCPS in the “Women in Trades” campaign to increase female enrollment in Construction and Development and also look to develop targeted _____

marketing campaigns for the Information Technology cluster. However, six of nine clusters show a lower percentage of females than the FCC student population suggesting broader campaigns aimed at attracting female students to CTE POS should be explored.

Priority 4: Increase Hispanic participation in programs with no Hispanic participants.

The Participation heatmaps identified seven CTE programs of study with no Hispanic participants (Sign Language Interpretation, Accounting, Culinary Arts, Fire Services Administration, Entrepreneurship, Computer Studies, and Computer Aided Design). An additional eleven programs were underenrolled in Hispanic students relative to the FCC student population. We will focus our recruitment efforts in Culinary Arts, Accounting, and Computer Studies, with possible expansion to other programs in the future.

Priority 5: Review data collection and reporting of how concentrators are identified.

In completing this Comprehensive Local Needs Assessment, our program managers have identified data anomalies where the heatmaps did not agree with their personal experience with their programs. We identified multiple programs where the number of concentrators shown in the heatmaps was lower than the number of degrees awarded in that program. We will be validating our data collection and reporting methods to ensure that our count of participants and concentrators in CTE programs is accurate.

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: Arts, Media, and Communication**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
American Sign Language (ASL)	6
Sign Language Interpretation & Translation	3
Graphic Design, Commercial Art and Illustration	0
Graphic Design	7
Film-Video Making/Cinematography and Production	7
Audio Engineering Technology/Technician	3

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 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
Gender				
Male	41.3	48	-6.7	10
Female	58.7	52	6.7	90
Race-ethnicity				
American Indian	0.1	0	0.1	0
Asian	4.5	4	0.5	5

Black	13.2	15	-1.8	0
Hispanic	15.8	17	-1.2	5
Multi-race	5.7	8	-2.3	-
White	58.5	57	1.5	75
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	-	-	-	-

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 male students are participating in this CTE cluster at rates higher than their representation in the FCC population. Black, Hispanic, and Multi-race students are participating at a slightly higher rate, while white students are participating at a slightly lower rate than the FCC student population.

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?

Males are persisting at a much lower rate; however, smaller program size may impact interpretation of data. In addition, Film and Video production was one of the programs where data anomalies were identified that require further investigation. The heat maps show 4 participants and 2 concentrators, but other data sources such as course enrollment reports and graduate reports show significantly higher numbers of participants, concentrators, and graduates.

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?

American Sign Language and Sign Language Interpretation & Translation are predominately female, with only 1 male participant and no male concentrators out of 33 participants and 17 concentrators (total for the two programs combined). Students in these programs are also predominately white.

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.]*

Priority 1: Validate data collection and reporting for the Film and Video Production program.

The heat maps show 4 participants and 2 concentrators, but other data sources such as course enrollment reports and graduate reports show significantly higher numbers of participants, concentrators, and graduates. In the 2022-23 academic year, enrollment reports show 226 students enrolled in Film 101, the first course in the program sequence, and 20 students in FILM 254, the fourth course in the sequence.

Priority 2: Increase program concentrators and completers in this cluster.

Programs in this cluster attract large numbers of participants because their first program courses satisfy general education requirements for students. However, the number of graduates in these programs remains relatively low while 16% of FCC graduates in the 2022-23 academic year received a degree in General Studies. Advising, career counseling, and marketing options should be reviewed. Addition of work-based learning experiences could also be explored.

Priority 3: Recruit males and students of color for ASL Interpreting.

Sign Language Interpretation & Translation (Interpreter preparation program) had no participants or concentrators that were male, black or Hispanic. American Sign Language had some black and Hispanic participants, but there is no data on concentrators. This is a certificate program that can be completed online and could serve as a pipeline for students into the interpreter program.

Priority 4: Review CIP codes in student database relative to List A approved CTE programs.

Graphic Design, Commercial Art and Illustration shows 106 participants, but there is no data on concentrators or completers. This CIP code refers to a certificate of Computer Graphics. Graphic Design (degree program) shows 57 participants with one concentrator, but seven students completed a degree in Graphic Design in the 2022-23 academic year. Further investigation is needed to determine the source of these data errors, but students may be improperly coded in the student database.

Priority 5: Improve data collection for special populations.

Data is not currently collected or reported for most special populations (economically disadvantaged, single parent, out of workforce, homeless, migrant, and foster). Processes for collecting and reporting this information are currently being explored.



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

Name	Number Program Graduates 2023
Public Administration (Emergency Management)	7
Medical Administrator (Healthcare Practice Management)	6
Business Administration and Management	15
Accounting (CPA Exam)	1
Accounting Technician	10
Enterprise Management (Entrepreneurship & Startup)	2
Management Information Systems	3

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 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
Gender				
Male	41.3	55	-13.7	52
Female	58.7	45	13.7	48
Race-ethnicity				
American Indian	0.1	0	0.1	0
Asian	4.5	8	-3.5	6
Black	13.2	11	2.2	9
Hispanic	15.8	16	-0.2	18
Multi-race	5.7	6	-0.3	3
White	58.5	59	-0.5	64
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	-	-	-	-

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?

Women are underrepresented in this cluster. The percentage of female participants is 45%, compared to 58.7% in the FCC student population.

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?

Males are not persisting, dropping from 55% participants to 52% concentrators. There is also a decline in black students from participant to concentrator (11% to 9%)

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?

Two programs in this cluster have substantial underrepresentation of females that impacts the data for the cluster. Public Administration (Emergency Management degree/certificate) has 26% female participants and 25% female concentrators. Management Information Systems (Information Technology degree) has only 20% female participation and no female concentrators. The other programs in this cluster do not have issues with female enrollment.

The decrease in Black students from participant to concentrator is difficult to assess. The programs in this cluster with no black concentrators all have fewer than 10 concentrators. In the Business Administration and Management and Accounting Technician programs which have higher enrollment, the black student population is consistent from participant to concentrator status.

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.]*

Priority 1: Enroll more female students in Public Administration and Management Information Systems

Public Administration is the Emergency Management program located within the Mid-Atlantic center for Emergency Management and Public Safety. Other programs in this division, such as Police Science and Fire Administration, are also underenrolled in female students. Targeted outreach will be explored for all of these programs.

Management Information Systems is the FCC program for a degree in Information Technology. Although classified as Business Management and Finance, the courses in this program are aligned with the Information Technology cluster which has very low

female enrollment. A campaign to increase female participation and concentration in the IT cluster will be part of FCC's strategy to improve on the 3P1 Non-traditional program enrollment federal indicator.

Priority 2: Review curricular pathways to clarify career/transfer programs and concentrator courses.

Additional review is needed of the programs and pathways in this cluster as well as validation of data in the student database. At FCC, there are programs for Business Administration (transfer degree) as well as Business Management (career program degree). Students need to be aware of which program should be declared as their major based on their intent to transfer to a 4-year institution or enter the workforce upon graduation. The overlap in Business students taking Accounting courses also makes it difficult to identify participants and concentrators specific to each program.

Priority 3: Increase Hispanic participation in Accounting.

The heatmaps show no Hispanic participants in the Accounting program. This certificate program provides all Accounting courses needed to sit for the CPA exam and is intended for students who already have degrees in non-Accounting fields. Additional marketing strategies are needed to increase awareness of this program, especially targeting the Hispanic population.

Priority 4: Increase female persistence in Business Administration and Management

Top priorities in the Business Management AAs program during the coming year are to revise the order of the courses, redesign the Principles of Management course, and adjust the assessments in the Introduction to Business course. The intent of the revisions in the program and the adjustment to the assessments is to address the persistence of students in the program, in particular female students, by ensuring that the assessments better align with the experience levels of the students when they complete the course.

Priority 5: Provide support for male students to persist.

Male participation in this cluster is 55%, but only 52% of concentrators are male. We will look at CTE programs of study and other areas of the college where male students are more persistent to identify strategies that can be expanded to programs in the Business Management and Finance cluster.

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

Name	Number Program Graduates 2023
Architectural Drafting & Architectural CAD	2
Construction Management & Supervision	0
Building Trades Technology	13

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 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
Gender				
Male	41.3	83	-41.7	80
Female	58.7	17	41.7	20
Race-ethnicity				
American Indian	0.1	0	0.1	0
Asian	4.5	3	1.5	0
Black	13.2	10	3.2	8
Hispanic	15.8	22	-6.2	20
Multi-race	5.7	4	1.7	0
White	58.5	61	-2.5	72
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	-	-	-	-

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?

Women are underrepresented in this cluster. The percentage of female participants is 17%, compared to 58.7% in the FCC student population.

Asian and Black students participate in this cluster at rates lower than their representation in the population. Asian representation is 3% in Construction and Development vs. 4.5% in the FCC student population, while Black representation is 10% in this cluster vs. 13.2% in the population.

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?

Males and students of color have lower rates as concentrators than as participants, while women and white students have higher rates as concentrators than as participants.

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?

All programs in this cluster are low in female and black student participation, although the gap is greatest in Building Trades Technology.

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.]*

Priority 1: Look for more opportunities to collaborate with FCPS/FCBIA (Women in Trades)

Lack of female participation has been an ongoing issue in this cluster. FCC will continue to work with FCPS and the Frederick County Building Industry Association through the “Women in Trades” campaign to attract female students to Construction and Development.

Priority 2: More career planning, advising, and tutoring for Monroe Center

Students studying in programs at the Monroe Center often lack the same access as colleagues on the main campus. Job opportunities are shared with students and industry firms are invited to Career Fairs held at the Monroe Center twice a semester, but we will continue to explore opportunities to provide more robust advising and counseling opportunities for these students.

Priority 3: Additional priorities will be identified by new program leadership in the coming year.

FCC’s Construction and Applied Technologies Institute was without a director for most of the 2023-24 academic year. A new Institute Manager was onboarded in May 2024 and will work with the Program Advisory Committee to identify priorities for the next year.

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

Name	Number Program Graduates 2023
Baking and Pastry Arts/Baker/Pastry Chef	8
Culinary Arts/Chef Training	8
Hotel/Motel Administration Management	0

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 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
Gender				
Male	41.3	47	-5.7	50
Female	58.7	53	5.7	50
Race-ethnicity				
American Indian	0.1	0	0.1	0
Asian	4.5	3	1.5	2
Black	13.2	24	-10.8	21
Hispanic	15.8	12	3.8	14
Multi-race	5.7	2	3.7	3
White	58.5	58	0.5	61
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	-	-	-	-

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?

Hispanic students are underrepresented in this cluster. The percentage of Hispanic participants is 12%, compared to 17% in the FCC student population. Multi-race students are also participating at lower rates than their representation in the population.

Black students participate in this cluster at a higher rate with a 24% participation rate in Consumer Services, Hospitality, and Tourism vs. 13.2% of FCC graduates.

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?

As a cluster, it appears that student participants are persisting at equivalent rates; however, program level data shows that there are variations in persistence for both race and gender (see next question).

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?

In Baking and Pastry, females are participating and achieving concentrator status at rates higher than their representation in the student population. In Culinary Arts, males are participating and achieving concentrator status at rates higher than their representation in the student population. In both programs, the gap is larger for participants than concentrators.

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

Priority 1: Increase Hispanic participation.

A concentrated effort will be made with the ESL program to work with and inform Hispanic students about these programs and test prep that allows them to attain the necessary exam scores to start taking classes in the program. Production of bilingual marketing materials will be explored.

Priority 2: Increase persistence for males with more early intervention and connection to resources.

Faculty in the Hospitality and Culinary Institute report that male students are less likely than female students to do the “out of classroom/lab” work required (readings, turning in homework assignments, completing online quizzes/exams). The Institute Manager will be working with faculty to identify male students early on who are starting to not attend class, not turn in assignments and advise them, find out what’s going on and connect them with academic advisor who can recommend resources and counsel them.

Priority 3: Increase enrollment in Hospitality Management.

Presentations about HCTI programs have been made to the FCPS Career Coaches to educate them about our programs and career opportunities in our industry. A new Hospitality Apprenticeship program has just been approved with 2 employers signed on, providing students the opportunity to work and earn wages while pursuing an Associate’s Degree paid 100% by the employer. FCC will continue looking for ways to grow the pipeline of students for the Hospitality Management program.

Priority 4: Review data collection and reporting processes.

Data may not reflect students in the program since students will complete course requirements for a Certificate or Degree but have a different major declared in the student database. This is an issue across multiple clusters that will be addressed for all CTE programs in the 2024-25 academic year.

Priority 5: More career planning, advising, and tutoring for Monroe Center

Students studying in programs at the Monroe Center often lack the same access as colleagues on the main campus. Job opportunities are shared with students and industry firms are invited to Career Fairs held at the Monroe Center twice a semester, but we will continue to explore opportunities to provide more robust advising and counseling opportunities for these students.

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

Name	Number Program Graduates 2023
Physical Fitness Technician	1
Certified Nursing Assistant	47
Dental Assistant	35
Medical Assistant	9
Physical Therapist Assistant	0
Respiratory Therapy	6
Surgical Technology/Technologist	17
Registered Nursing	88
Alcohol/Drug Abuse Counseling	8

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 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
Gender				
Male	41.3	28	13.3	13
Female	58.7	72	-13.3	87
Race-ethnicity				
American Indian	0.1	0	0.1	0
Asian	4.5	4	0.5	3
Black	13.2	21	-7.8	19
Hispanic	15.8	18	-2.2	16
Multi-race	5.7	6	-0.3	8
White	58.5	51	7.5	53
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	-	-	-	-

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?

Males are underrepresented in this cluster. The percentage of male participants is 28%, compared to 41.3% in the FCC student population.

Black and Hispanic students participate in this cluster at rates higher than their representation in the population. Black representation is 21% in Health and Biosciences vs. 13.2% in the FCC student population, while Hispanic representation is 18% in this cluster vs. 15.8% in the population.

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?

Male students are less likely to persist as evidenced by their concentrator rate at 13%, down from 28% participation rate.

Percentages of Black and Hispanic concentrators are higher than their representation in the FCC student population; however, both groups show a slight decline from their participation rates which could indicate a lower rate of persistence.

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?

Physical Fitness Technician is the only program in this cluster where males are participating at a rate higher than their representation in the population.

Alcohol/Drug Abuse Counseling is the only program in this cluster where Hispanic students are significantly underrepresented.

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.]*

Priority 1: Increase male participation in Health and Biosciences

Participation rates for males in Health and Biosciences do not align with rates of participation for overall CTE programming or FCC enrollment. Additional marketing, recruitment, and advising is needed to overcome cultural stereotypes and to make students aware of the range of options available through the programs in this cluster.

Priority 2: Increase male persistence in Health and Biosciences

Male persistence is a college-wide issue, and we need to ensure that male students who enter programs in Health and Biosciences are successful. We will look across CTE programs of study and other areas of the college where male students are more persistent to identify strategies that can be used in these programs. Collaboration with the Office of Student Success as well as content specific tutoring support will also be investigated.

Priority 3: Recruit more students to Resp/ST/PTA

These programs are in high demand in the Frederick Region and have capacity to enroll larger numbers. Recruitment efforts will be targeted at developing a pipeline of students through Dual Enrollment of FCPS students as well as promoting the career opportunities to current FCC students to direct them to these HS/HW/ID CTE programs.

Priority 4: Create scaffolding opportunities.

We will begin offering two new certificates within the Medical Assisting program that will enable students to enter the workforce quickly to gain financial support while continuing their education to attain a degree. With feedback from our regional workforce partners, we will look for other opportunities to scaffold training in ways that can meet immediate needs of the workforce while offering students flexibility in balancing financial constraints with educational goals.

Priority 5: Update marketing materials to reflect new programming.

With previous Perkins funding, the curriculum of the Fitness/Personal Trainer certificate was updated to align with current industry standards and guidelines. We are also adding new certificate options in Medical Assisting. Updated marketing materials are needed to create awareness of these new opportunities.

Career Cluster Name: Human Resource Services**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
Early Childhood Education	15
Child Care & Support Services Management	11
Legal Assistant/Paralegal	9
Law Enforcement/Police Science	46
Fire Services Administration	1

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 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
Gender				
Male	41.3	28	13.1	28
Female	58.7	72	-13.4	72
Race-ethnicity				
American Indian	0.1	0	0.1	0
Asian	4.5	5	-0.5	5
Black	13.2	13	0.2	14
Hispanic	15.8	17	-1.2	15
Multi-race	5.7	5	0.7	2
White	58.5	61	-2.5	64
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	-	-	-	-

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?

Males are underrepresented in this cluster. The percentage of male participants is 28%, compared to 41.3% in the FCC student population.

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?

Hispanic and Multi-race populations show a slight decline in the rate of concentrators vs. participants. All other race-ethnicity and both genders are persisting at equivalent rates.

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?

Female students are underrepresented in Law Enforcement/Police Science and Fire Services Administration. When considering the cluster as a whole, this gap is obscured by the significant lack of males in Early Childhood Education, Child Care & Support Services Management, and Paralegal programs.

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.]*

Priority 1: Increase male participation.

Participation rates for males in Human Resource Services do not align with rates of participation for overall CTE programming or FCC enrollment. Additional marketing, recruitment, and advising is needed to overcome cultural stereotypes and to make students aware of the range of options available through the programs in this cluster.

Priority 2: Increase Hispanic participation and persistence in Early Childhood Education.

Participation for Hispanic students in Early Childhood Education was 11% which is below the 17% representation of Hispanic students in the FCC student population. In addition, the heat maps show no Hispanic concentrators. Collaboration with the ESL program to market Early Childhood Education to the Hispanic population, production of bilingual marketing materials, and additional educational supports for this population will be investigated.

Priority 3: Increase participation in Legal Assistant/Paralegal.

Enrollment in the Paralegal degree program has been declining. Several options will be explored to increase participation including targeted advising and aligning with programs in Criminal Justice that share similar populations of students. The Legal

Studies program manager will also collaborate with the Marketing team to develop a strategic plan to recruit students. The Program Advisory Committee and the American Association for Paralegal Education will serve as resources. The recruitment plan must set recruitment of males as a top priority.

Priority 4: Increase female persistence in Law Enforcement/Police Science.

According to the heat maps, females accounted for slightly more than half of the participants in Law Enforcement/Police Science, but only 4% of the concentrators. While further review of data collection and reporting will be conducted to verify this data, a report of graduates for the 2022-23 academic year shows only 3 female graduates. Causes for the disparity between female participants and concentrators will be investigated.

Priority 5: Validate data collection and reporting for the Human Resource Services cluster.

There are discrepancies between the heat maps and other data sources such as course enrollment reports and graduate reports. The Early Childhood program shows 6 concentrators on the heat maps, but the program director reported 15 graduates in the 2022-23 academic year. Similarly, the heat maps show 23 concentrators in Law Enforcement/Police Science, but that program reported 46 graduates. We will be validating our data collection and reporting methods to ensure that our count of participants and concentrators in CTE programs is accurate.

Career Cluster Name: Information Technology**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
Computer Science Studies	3
Game Programming	3
Cloud Computing	0
Cybersecurity	54
Personal Computer Support Specialist	1
Computer Studies	29

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 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
Gender				
Male	41.3	81	-39.7	80
Female	58.7	19	39.7	20
Race-ethnicity				
American Indian	0.1	0	0.1	0
Asian	4.5	6	-1.5	5
Black	13.2	13	0.2	0
Hispanic	15.8	13	2.8	5
Multi-race	5.7	13	-7.3	15
White	58.5	56	2.5	75
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	-	-	-	-

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?

Women are significantly underrepresented in this cluster. The percentage of female participants is 19%, compared to 58.7% in the FCC student population.

Hispanic students participate in this cluster at rates lower than their representation in the population. Hispanic representation is 13% in Information Technology vs. 15.8% in the FCC Student population.

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?

Data reporting issues make it difficult to assess persistence of student groups. According to the heatmaps, the rates for Black and Hispanic students are lower as concentrators than as participants, so these students are not persisting at equivalent rates. The rate of Hispanic concentrators is 5% vs. 13% as participants, and the heatmaps show no black students as concentrators while the rate of participation is 13%. However, reports of 2022-23 graduates show 13 black students as receiving a degree or certificate in an Information Technology program of study.

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?

Data reporting issues make it difficult to assess participation and persistence by program of study. The heatmaps show 3 students in the Computer Studies certificate program, with 2 black females and 1 black male. However, there were 29 students who earned this certificate in the 2022-23 academic year. Data collection and reporting needs to be reviewed and validated for this cluster.

All other programs in this cluster are lacking females and students of color as participants and concentrators.

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

Priority 1: Recruit female students

The significant gap in female enrollment impacts FCC's 3P1 federal indicator for non-traditional program enrollment. We will be looking to increase female participation in Information Technology via targeted marketing strategies and exploring connections with outside organizations such as Girls Who Code or the Association for Women in Computing.

Priority 2: Increase persistence for students of color.

By collaborating with the FCC Student Success Program as well as the Men of Excellence and Women of Excellence programs, the faculty of the Information Technology cluster will identify students of color for additional support and resources to improve persistence. Content specific tutoring opportunities may also be investigated.

Priority 3: Validate data reporting for programs in the IT cluster.

In completing this Comprehensive Local Needs Assessment, our IT program manager identified data anomalies where the heatmaps did not agree with his personal experience with their programs. We identified multiple programs in the Information Technology cluster where the number of concentrators shown in the heatmaps was lower than the number of degrees awarded in that program. We will be validating our data collection and reporting methods to ensure that our count of participants and concentrators in CTE programs is accurate.

Priority 4: Increase participation in Information Technology program offerings

According to the heat maps, several of the programs in this cluster have fewer than 10 participants. While further review of data collection and reporting will be conducted to verify this data, recruiting of student participants will continue to expand to include high school outreach and Cyber Day events held on campus in both Fall and Spring semesters.

Priority 5: Expand programming and curriculum in Cybersecurity

FCC will continue to pursue the designation of a Center of Academic Excellence and will explore the addition of physical security to the current Cybersecurity curriculum.

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

Name	Number Program Graduates 2023
Manufacturing Technology Level 1	0
Computer Aided Design Operator	2
Bioprocessing Technology	6
Science Technology/Technicians	1

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 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
Gender				
Male	41.3	66	-24.7	79
Female	58.7	34	24.7	21
Race-ethnicity				
American Indian	0.1	0	0.1	0
Asian	4.5	4	0.5	5
Black	13.2	16	-2.8	22
Hispanic	15.8	17	-1.2	18
Multi-race	5.7	6	-0.3	5
White	58.5	57	1.5	49
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	-	-	-	-

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?

Women are underrepresented in this cluster. The percentage of female participants is 34%, compared to 58.7% in the FCC student population.

Black and Hispanic students participate in this cluster at rates higher than their representation in the population. Black representation is 16% in Manufacturing, Engineering, and Technology vs. 13.2% in the FCC student population, while Hispanic representation is 17% in this cluster vs. 15.8% in the population.

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?

Female students are less likely to persist as evidenced by their concentrator rate at 21%, down from 34% participation rate. White students are also persisting at lower rates, with 57% white student participants vs. 49% white student concentrators.

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?

Further data validation is needed to confirm the number of participants and concentrators in this cluster. FCC has an umbrella A.A.S. degree in STEM technology that has multiple Areas of Concentration within it. During our completion of the Comprehensive Local Needs Assessment, we discovered that some of these areas of concentration are being reported to the 419999 Science Technologies/Technicians code in error. For example, students earning an A.A.S. degree with a Cybersecurity area of concentration were reported under 419999 (STEM), instead of 111003 (Cybersecurity). This has complicated the data analysis, and correcting this issue is a priority for the next academic year.

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.]*

Priority 1: Validate data reporting for CIP codes relative to A.A.S. Stem Technology umbrella degree

Further data validation is needed to confirm the number of participants and concentrators in this cluster. FCC has an umbrella A.A.S. degree in STEM technology that has multiple Areas of Concentration within it. During our completion of the Comprehensive Local Needs Assessment, we discovered that some of these areas of concentration are being reported to the 419999 Science Technologies/Technicians code in error. In addition, the Audio Production program is categorized as Arts, Media, and Communication on our List A but appears in the Manufacturing, Engineering, and Technology cluster on the heatmaps. Ensuring accuracy of our List A and program reporting to MSDE is a top priority in the 2024-25 academic year.

Priority 2: Provide support to participants to achieve more concentrators in Biotechnology.

Most students can persist in the program once they pass the pre-requisite classes. Math, English and Chemistry are sometimes a problem for students due to lack of them seeking the support. Once the students start the biotech classes they persist as they are more supported. Earlier intervention strategies to include advising and STEM tutoring for students in pre-requisite classes will be investigated.

Priority 3: Increase female participation and persistence.

More investigation is needed to determine the root cause of underenrollment and persistence of female students in this cluster. The Science Technologist/Technician program shows high enrollment with an underrepresentation of women. This has an outsized impact on the data for the cluster. By completing Priority 1 listed above, we can better determine if female participation and persistence is an issue for this cluster. If it is found to be an issue, we will increase targeted marketing and support to female students for these programs.

Priority 4: Review/revise data reporting processes for non-credit programming

Manufacturing Technology I is a non-credit course sequence taught through FCC's Continuing Education and Workforce Development division. Non-credit course enrollments are managed through a different system, and the course sequences are shorter which makes concentrator status difficult to gauge. Additional review is needed to determine if students in this program are accurately counted as participants, concentrators, and completers.

Priority 5: More career planning, advising, and tutoring for Monroe Center

Students studying in programs at the Monroe Center often lack the same access as colleagues on the main campus. Job opportunities are shared with students and industry firms are invited to Career Fairs held at the Monroe Center twice a semester, but we will continue to explore opportunities to provide more robust advising and counseling opportunities for these students.

Career Cluster Name: Transportation Technologies**PROGRAMS OF STUDY WITHIN CLUSTER:**

Name	Number Program Graduates 2023
Logistics and Materials Management	15

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 College graduates who participated in this cluster and achieved CTE concentrator status
All 2023 Graduates	100%	100%		
Gender				
Male	41.3	67	-25.7	-
Female	58.7	33	25.7	-
Race-ethnicity				
American Indian	0.1	0	.1	-
Asian	4.5	0	4.5	-
Black	13.2	20	-6.8	-
Hispanic	15.8	27	-11.2	-
Multi-race	5.7	0	5.7	-
White	58.5	47	11.5	-
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	-	-	-	-

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?

Women are underrepresented in this cluster. The percentage of female participants is 33%, compared to 58.7% in the FCC student population.

Black and Hispanic students participate in this cluster at rates higher than their representation in the population. Black representation is 20% in Transportation Technologies vs. 13.2% in the FCC student population, while Hispanic representation is 27% in this cluster vs. 15.8% in the population.

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?

This program began in the 2022-23 academic year. All 15 of the students who participated in the program completed the capstone course (2nd course in the sequence).

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?

This program began in the 2022-23 academic year. All 15 of the students who participated in the program completed the capstone course (2nd course in the sequence).

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.]*

Priority 1: Explore opportunities for other programs to be added to this cluster.

Adding additional programs in Transportation Technologies would provide students with expanded opportunities and alternative pathways.

Priority 2: Review/revise data reporting processes for non-credit programming

Logistics and Materials Management is a non-credit course sequence taught through FCC's Continuing Education and Workforce Development division. Non-credit course enrollments are managed through a different system, and the course sequences are shorter which makes concentrator status difficult to gauge. Additional review is needed to determine if students in this program are accurately counted as participants, concentrators, and completers.

Priority 3: More career planning, advising, and tutoring for Monroe Center

Students studying in programs at the Monroe Center often lack the same access as colleagues on the main campus. Job opportunities are shared with students and industry firms are invited to Career Fairs held at the Monroe Center twice a semester, but we will continue to explore opportunities to provide more robust advising and counseling opportunities for these students.

Priority 4: Additional priorities will be identified by new program leadership in the coming year.

FCC's Logistics and Production program was without a director for the second half of the 2023-24 academic year. A new program manager will be in place before Fall 2024 and will work with the Program Advisory Committee to identify priorities for the next year.

Component C: Program Performance

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

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

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

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

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

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

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

COLLEGE PERFORMANCE BY STUDENT GROUP

	Federal Accountability Indicator 2023 Graduates		
	1P1	2P1	3P1
State Performance Target	71.33%	44.4%	24.85%
College Performance	81	64	21
Gender			
Males	80	52	31
Females	82	72	16
Race-ethnicity			
American Indian	0	0	0
Asian	0	65	21
Black	83	63	20
Hispanic	95	61	18
Multi-race	0	55	13
White	79	67	23

SPECIAL POPULATIONS

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

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

ACTIVITY C.1: ASSESSING PROGRAM PERFORMANCE

	List
Looking at <i>overall performance</i> , on which indicators are you <u>substantially underperforming</u> * the college performance target?	3P1
Looking at <i>overall performance</i> , on which indicators are you <u>substantially exceeding</u> the college performance target?	1P1, 2P1

* 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 only indicator where FCC is underperforming the performance target is 3P1, non-traditional program concentration. Non-traditional concentrator enrollment is skewed by clusters with large gender gaps. While this indicator focuses on concentrators, there is also a gap in participants of non-traditional genders in these clusters. Women are significantly underrepresented in Construction and Development and Information Technology. Men are significantly underrepresented in Health and Biosciences and Human Resource Services. While cultural stereotypes may be a factor, we need to counteract these attitudes with targeted marketing and recruiting campaigns.

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

Registered Nursing has the highest number of concentrators in the Health and Biosciences cluster and the largest gap in non-traditional students. Only 9% of the concentrators in Registered Nursing are male.

Alcohol/Drug Abuse Counseling has 32% male enrollment (-16%) and therefore does not show a critical difference on the heat map.

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

The most efficient approach for making change is to look for ways to incorporate gender-specific components into existing recruitment efforts. For example, when FCC hosts a Cyber Day event, marketing materials should promote opportunities for females in Information Technology, including other organizations that focus on women in this career field. In addition, communication and training with other areas of the college such as Career and Academic Planning Services and the Office of Student Success will raise awareness of the gender gaps in CTE programs on campus.

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

Priority 1: Increase female enrollment in IT

We will be looking to increase female participation in Information Technology via targeted marketing strategies and exploring connections with outside organizations such as Girls Who Code or the Association for Women in Computing

Priority 2: Increase male enrollment in Health and Biosciences

Participation rates for males in Health and Biosciences do not align with rates of participation for overall CTE programming or FCC enrollment. Additional marketing, recruitment, and advising is needed to overcome cultural stereotypes and to make students aware of the range of options available through the programs in this cluster.

Priority 3: Increase degree attainment in Business Management and Finance cluster

The Business Management and Finance cluster does not meet the target for the 2P1-Degree, Certificate, or Credential performance indicator. The rationale for low degree attainment rate is that students are transferring to 4-year institutions prior to completing a degree. Data collection and reporting processes need to be reviewed to ensure that students who intend to transfer are assigned to the transfer academic plan and not the career plan. In addition, the curriculum of the Business Management program will be revised to better align assessments with course learning outcomes.

Priority 4: Increase male enrollment in Legal Assistant/Paralegal

Enrollment in the Paralegal degree program has been declining. Several options will be explored to increase participation including targeted advising and aligning with programs in Criminal Justice that share similar populations of students. The Legal Studies program manager will also collaborate with the Marketing team to develop a strategic plan to recruit students. The Program Advisory Committee and the American Association for Paralegal Education will serve as resources. The recruitment plan must set recruitment of males as a top priority.

Priority 5: Look for more opportunities to collaborate with FCPS/FCBIA (Women in Trades)

Lack of female participation has been an ongoing issue in the Construction and Development cluster. FCC will continue to work with FCPS and the Frederick County Building Industry Association through the “Women in Trades” campaign to attract female students to Construction and Development. We will also look for ways to extend pieces of this campaign to other areas with underenrollment of females.

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.

NAME OF CAREER CLUSTER OR CTE POS: Arts, Media, and Communication					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
Gender					
Male	50	48			
Female	50	52			
Race-ethnicity					
American Indian	0	0			
Asian	10	4			
Black	10	15			
Hispanic	0	17			
Multi-race	0	8			
White	80	57			
Credential					
Properly Licensed	100				
Granted Temporary Waiver					

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

	Percentage of 2022-23 faculty / staff	participating in CTE programming 2022- 23	Full-time Faculty	Part-time Faculty	Counselors / Support Staff
Gender					
Male	75	55			
Female	25	45			
Race-ethnicity					
American Indian	0	0			
Asian	8	8			
Black	0	11			
Hispanic	0	16			
Multi-race	0	6			
White	92	59			
Credential					
Properly Licensed	100				
Granted Temporary Waiver	0				

NAME OF CAREER CLUSTER OR CTE POS: Construction and Development					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
Gender					
Male	80	83			
Female	20	17			
Race-ethnicity					
American Indian	0	0			
Asian	0	3			
Black	10	10			
Hispanic	0	22			
Multi-race	0	4			
White	90	61			
Credential					
Properly Licensed					
Granted Temporary Waiver					

NAME OF CAREER CLUSTER OR CTE POS: Consumer Services, Hospitality, and Tourism					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
Gender					
Male	50	47			
Female	50	53			
Race-ethnicity					
American Indian	0	0			
Asian	7	3			
Black	7	24			
Hispanic	7	12			
Multi-race	7	2			
White	71	58			
Credential					
Properly Licensed	100				
Granted Temporary Waiver	0				

NAME OF CAREER CLUSTER OR CTE POS: Health and Biosciences					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
Gender					
Male	14.8	28			
Female	85.2	72			
Race-ethnicity					
American Indian	0	0			
Asian	3.1	4			
Black	7	21			
Hispanic	6.3	18			
Multi-race	2.3	6			
White	81.3	51			
Credential					
Properly Licensed	100				
Granted Temporary Waiver	0				

NAME OF CAREER CLUSTER OR CTE POS: Human Resource Services					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
Gender					
Male	41	28			
Female	59	72			
Race-ethnicity					
American Indian	0	0			
Asian	0	5			
Black	12.5	13			
Hispanic	0	17			
Multi-race	12.5	5			
White	75	61			
Credential					
Properly Licensed	100				
Granted Temporary Waiver	0				

NAME OF CAREER CLUSTER OR CTE POS: Information Technology					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
Gender					
Male	71	81			
Female	29	19			
Race-ethnicity					
American Indian	0	0			
Asian	0	6			
Black	0	13			
Hispanic	5	13			
Multi-race	24	13			
White	71	56			
Credential					
Properly Licensed	100				
Granted Temporary Waiver	0				

NAME OF CAREER CLUSTER OR CTE POS: Manufacturing, Engineering, and Technology					
Faculty / Staff demographic	Percentage of 2022-23 faculty / staff	Percentage of students participating in CTE programming 2022-23	5-year faculty / staff turnover rate (Percentage of faculty / staff who did not return for years 2018-19 thru 2022-23)		
			Full-time Faculty	Part-time Faculty	Counselors / Support Staff
Gender					
Male	50	66			
Female	50	34			
Race-ethnicity					
American Indian	0	0			
Asian	16	4			
Black	16	16			
Hispanic	16	17			
Multi-race	0	6			
White	50	57			
Credential					
Properly Licensed	84				
Granted Temporary Waiver	16				

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.	✓		
Faculty/staff are aware of the requirements to maintain endorsement.	✓		
Faculty/staff have equal access to content-specific professional development opportunities across industries.		✓	More communication is needed to raise awareness that funding for external professional development opportunities is available to staff and part-time instructors as well as full-time faculty. Guidelines are currently in development to provide clarity

			around eligibility and processes for securing professional development funding.
Data is collected on the effectiveness of professional development to ensure it meets the needs of educators.		✓	Professional development offered by the college is focused on educational pedagogy and not content specific to any program of study. Assessment of the effectiveness of these programs is conducted via surveys to participants. Data on professional development offered by external organizations is not currently collected or reported.

ACTIVITY 4.3: REFLECTION

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

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

The faculty/staff of FCC is predominately white. This is not reflective of the CTE student population, although racial diversity of instructors in the Manufacturing, Engineering, and Technology cluster is more closely aligned with the student population in those programs. Business Management and Finance and Human Resource Services have a higher percentage of males as instructors than in the student population. Health and Biosciences, Information Technology, and Manufacturing, Engineering, and Technology have a higher percentage of female instructors vs. students.

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?

One instructor in the Biotechnology program was granted a waiver; otherwise, all full-time and part-time instructors are adequately credentialed.

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?

FCC does not routinely offer content-specific professional development opportunities. Faculty and staff access these trainings via professional organizations and external conferences. All faculty and staff are eligible to receive funding from the college to cover the cost of attending professional development events.

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

Potential barriers to participating in content-specific professional development include awareness of external opportunities, time away from the classroom, and possible lack of funding for conference travel. Lack of funding is not generally an issue, but it is possible that funding could be exhausted if requests from faculty/staff exceed the budgeted amount for that fiscal year.

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?

Priority 1: Expand partnerships with local workforce.

Building connections with local workforce could lead to more PAC participation and improvements to our program offerings. Local businesses may offer opportunities for professional development as well as expanded apprenticeship or internship opportunities for students. By seeking partnerships with woman-owned or minority-owned businesses, FCC could connect students with more diverse professionals in their field of study.

Priority 2: Expand partnerships with other higher education institutions in our region.

Closer relationships with 4-year colleges and universities in our region would offer professional development opportunities for faculty and staff and could expand recruitment pipelines for attracting recent graduates to faculty positions. All full-time faculty and staff receive educational benefits, but more work is needed to promote awareness of these benefits can be used and to assist faculty and staff in finding appropriate professional development opportunities.

Priority 3: Enhance data collection and reporting on staff demographics/retention by program

FCC data on faculty and staff demographics and retention rates are reported college wide with no ability to disaggregate data by program of study. Faculty retention for 2022-23 academic year was 93%. By clarifying specific areas where retention may be an issue, we would be able to target support for employee retention and marketing strategies for recruitment.

Priority 4: Create processes for tracking/reporting content specific professional development

Information on content specific professional development opportunities that are pursued by faculty and staff via external organizations is not currently collected outside of funding requests for professional development. In addition, specific licensure and certification information is not collected or reported by program of study other than in accredited 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.