FY 2022 Comprehensive Local Needs Assessment

Perkins V requires that fund recipients complete a new Comprehensive Local Needs Assessment *every other year*. FY 2021 was the first year that the needs assessment was required; therefore, for FY 2022, an *updated* FY 2021 needs assessment is due that includes new needs or gaps that have been identified since the FY 2021 needs assessment was completed. Remember that any need or gap identified in a Plan of Action must also be identified in the Comprehensive Local Needs Assessment. These instructions for completing the Comprehensive Local Needs Assessment are still applicable for updating the FY 2021 assessment for FY 2022.

Stakeholders

Stakeholders Required to Participate in the Development of the Career and Technical Education (CTE) Comprehensive Local Needs Assessment and Application

The CTE comprehensive local needs assessment and application are designed to be completed by a team and informed by data. Perkins V requires the following stakeholder groups to participate in the development of the needs assessment and application.

- Representatives from CTE programs of study at the secondary and postsecondary levels. This includes principals, administrators, faculty, teachers, professional career and academic counselors, instructional support personnel, and paraprofessionals.
- Representatives from state or local workforce development boards.
- Representatives from local businesses and industries that align with CTE programs of study.
- Representatives from parent and student groups.
- Representatives from agencies serving at-risk, homeless, and out-of-school youth.
- Representatives of special populations[1].

The stakeholder team will:
1. Analyze all data and information pre-populated by the state and gathered locally to identity areas of promise and opportunities for growth within CTE programs of study.

2. Prioritize needs based on data to inform the use of Perkins V funds.

3. Support the development of the local application to address prioritized needs.

4. Engage in on-going consultation to inform improvements to CTE programs of study.
   Evidence of on-going consultation will be collected during monitoring visits.

In addition to the core stakeholder team, local school systems and community colleges are required to assess regional needs for CTE. Each individual school system and community college will complete steps one-

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[1]According to Perkins V, special population means:
   a. individuals with disabilities;
   b. individuals from economically-disadvantaged families, including low-income youths and adults;
   c. individuals preparing for non-traditional fields;
   d. single parents, including single pregnant women;
   e. out-of-workforce individuals;
   f. English learners;
   g. homeless individuals as described in the McKinney Vento Act;
   h. youth who are in, or have aged out of, the foster cares system; and
   i. youth with a parent who
      i. is a member of the armed forces; and
      ii. is on active duty.

through-six of their CTE local comprehensive needs assessment with their stakeholder teams. Each region will then bring their needs assessment findings to the Regional Joint Assessment of Needs Team to analyze the collective needs of the region based on the outcomes of each individual school system and community college needs assessment. Assignment of regions is found in the Regional Joint Assessment of Needs Team Assignments table.

Regional Joint Assessment of Needs Team Assignments Table

School System	Community College
Allegany Public Schools	Allegany College
Anne Arundel Public Schools	Anne Arundel Community College
Baltimore City Public Schools	Baltimore City Community College
Baltimore County Public School	Community College of Baltimore County
Calvert County Public Schools Charles County Public Schools St. Mary's County Public School	College of Southern Maryland
Carroll County Public Schools	Carroll Community College
Cecil County Public Schools	Cecil College
Frederick County Public Schools	Frederick Community College
Garret County Public Schools	Garret Community College
Harford County Public Schools	Harford Community College
Howard County Public Schools	Howard Community College
Montgomery County Public Schools	Montgomery College
Prince George's County Public Schools	Prince George's Community College
Dorchester County Public School Kent County Public Schools Queen Anne's Public Schools Caroline County Public Schools Talbot County Public Schools	Chesapeake College

School System	Community College
Worcester County Public Schools Somerset County Public Schools Wicomico County Public Schools	Wor-Wic Community College
Washington County Public Schools	Hagerstown Community College

Purpose of the CTE Comprehensive Local Needs Assessment

The needs assessment is designed to support local school systems and community colleges in identifying areas of promise and opportunities for growth within CTE programs of study. It is highly recommended that the needs assessment is done with a root cause analysis to address underlying performance problems. The ultimate goal is to engage in a continuous improvement cycle that will support student success in postsecondary study and careers.

The needs assessment is required as part of the Strengthening Career and Technical Education for the 21st Century Act (Perkins V). Local school systems and community colleges are required to submit a new needs assessment every two years as well as annual updates during off-years.

Steps to Assess and Evaluate the CTE Comprehensive Local Needs Assessment

There are eight steps to the process for assessing and evaluating the CTE Comprehensive Local Needs Assessment. Pages 9 through 15 provide examples and explanations of the data found on the data trend dashboards.

1. Review and evaluate MSDE-provided CTE dashboard trend data on access and equity; identify areas of promise and areas needing improvement.
2. Review and evaluate MSDE-provided CTE dashboard trend data on student/program performance; identify areas of promise and areas needing improvement.
3. Evaluate each CTE program of study against the size criteria; identify programs not meeting criteria and the specific criterion in the program not being met.
4. Evaluate each CTE program of study against the scope criteria; identify programs not meeting criteria and the specific criterion in the program not being met.
5. Evaluate each CTE program of study against the quality criteria; identify programs not meeting criteria and the specific criterion in the program not being met.
6. Review MSDE-provided high-skill, high-wage, and/or in-demand occupation-to-program alignments; identify programs not meeting at least one criterion.
7. Identify cooperative actions that emerged from the Joint Assessment of Needs Team.
8. From steps one-through-seven, compile and prioritize a list of needs/gaps based on items identified in each step as areas of promise and areas needing improvement. Use this prioritized list for developing Plans of Action for Perkins funding.

Points of Contact for the CTE Comprehensive Local Needs Assessment

Questions about the needs assessment may be directed to:

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MSDE provides CTE yearly enrollment and enrollment trend analysis dashboards that report student and course enrollment by cluster and by gender, race, and special population student groups. MSDE also makes available to the public CTE yearly performance and performance trend analysis dashboards of students who participated in CTE programs of study by cluster and by gender, race, and special population student groups. These performance dashboards report student outcomes on core performance indicators and identify disparities between student groups and clusters as defined in Perkins V and the Every Student Succeeds Act (ESSA). It is recommended that Equity and Excellence, A Guide to Educational Equity in Maryland be used as a guide to inform access and equity priorities. Required student groups are identified by gender, race, and ethnicity, and special populations[2].

Secondary Core Performance Indicators:
- 1S1: Four-Year Graduation Rate
- 2S1: Academic Proficiency in Reading/Language Arts
- 2S2: Academic Proficiency in Mathematics
- 2S3: Academic Proficiency in Science
- 3S1: Postsecondary Placement
- 4S1: Non-traditional Concentrator Enrollment
- 5S1: Recognized Postsecondary Credential Attainment
- 5S4: Technical Skill Attainment
- 6S1: Dual Completion (State Performance Indicator) (The percentage of CTE completers who also met USM requirements)
- 7S1: More Jobs for Marylanders Act Attainment (State Performance Indicator) (The percentage of high school graduates that complete a CTE program, attain an industry credential as a concentrator, or complete a youth or other registered apprenticeship.)

Concentrators at the secondary level are defined as students who have completed at least two courses and enrolled in the third sequential course in a single CTE program of study.

Postsecondary Core Performance Indicators:
- 1P1: Postsecondary Retention and Placement
- 2P1: Credential, Certificate or Degree
- 3P1: Non-traditional Concentrator Enrollment
- 4P1: Industry-Recognized Credential Attainment (State Performance Indicator) (The percentage of CTE concentrators who exited postsecondary education in the current reporting year who attained an industry-recognized credential.)
- 5P1: Certificate or Degree Completion (State Performance Indicator) (The percentage of CTE concentrators who exited postsecondary education in the current reporting year who attained a lower division certificate or associate degree.)

Noncredit CTE programs are required to provide data for the reporting of all performance indicators with the exception of 5P1.

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[2] Due to limited data at this time, some special population student group data are not available for use with the FY 2022 Perkins Application. These groups include single parents, out-of-workforce individuals, homeless individuals, foster care individuals, and youth with an active-duty parent.

Concentrators at the postsecondary level are defined as students who have earned at least 12 credits in a CTE program of study or have completed a CTE program consisting of at least two noncredit courses leading to a certification, industry-recognized credential, or license.

Public Dashboards:
The Division of Career and College Readiness has provided public dashboards showing the following data sets:

CTE Enrollment Dashboard
1. Annual Student Enrollment by Cluster and by Gender and Race/Ethnicity student groups
2. Annual Course/Program Enrollment by Cluster and by Gender and Race/Ethnicity student groups

CTE Performance Dashboard
1. Annual Student Performance by Cluster and by Gender and Race/Ethnicity student groups
2. Annual School/Program Performance by Cluster and by Gender and Race/Ethnicity student groups

CTE Technical Skills Assessments and Attainment Dashboard
1. Annual Student Attainment of Technical Skills Assessments (TSAs) by Cluster and by Gender and Race/Ethnicity student groups
2. Annual School/Program Attainment of TSAs by Cluster and by Gender and Race/Ethnicity student groups

CTE Trend Analysis Dashboard
1. CTE Enrollment by Race for the last three years
2. CTE Enrollment by Gender for the last three years
3. CTE Enrollment by Special Population for the last three years
4. CTE Access and Equity Trends by Special Population for the last three years
5. CTE Performance by Race for the last three years
6. CTE Performance by Gender and Special Population for the last three years

CTE Program Alignment to Labor Market Dashboard
1. Labor Market data using Maryland 2018 occupational wage estimates and Maryland short term (2018-2020) and long term (2016-2026) occupational and industry projections
2. Labor Market data using Maryland 2019 occupational wage estimates and Maryland short term (2019-2021) and long term (2018-2028) occupational and industry projections

CTE Trend Analysis Dashboard

The CTE Trend Analysis Dashboard is the primary MSDE tool[3] used by local school systems, community colleges, and stakeholders to analyze three-year trend data so that areas of promise and opportunities for growth within CTE programs of study can be identified. Once areas are identified, they will be instrumental in developing Perkins V funding requests to improve or replicate areas of promise, and close access, equity and performance gaps identified in opportunities for growth. The Enrollment, Performance, Technical Skills Assessment/Attainment, and Labor Market dashboards provide single-year supplemental data tools to help drill down and interpret data displayed on the three-year Trend Analysis Dashboard.

CTE Enrollment by Race

An example of CTE participant enrollment by race, disaggregated by student group and career cluster and shown by percentage only, is provided in Table 1. Using percentages rather than numbers allows this data to be publically displayed. Local school systems and community colleges provide the Division of Career and College Readiness with the raw numbers for this data; each school system and college can refer to its own enrollment reports if more detailed data on specific schools, programs, or numbers are needed.

In Table 1, the first column for each fiscal year displays the percentage of the student group in the identified cluster only (the individual cluster's student group enrollment divided by total individual cluster's enrollment). The second column for each fiscal year displays the percentage of the student group enrollment across all CTE clusters (the total student group in all clusters divided by total CTE enrollment). The third column for each fiscal year calculates the difference between the first two columns (student group race enrollment solely within the cluster compared to student group race enrollment across all CTE clusters). The third column provides the statistical disparity between an individual cluster versus all clusters to show how each cluster compares to all CTE enrollment in the local school system or community college. Blank fields indicate that no data was provided.

Table 1: CTE Enrollment by Race *Example*

Cluster/Student Group	2018 % Cluster	2018 % CTE	2018 % Equity	2019 % Cluster	2019 % CTE	2019 % Equity	2020 % Cluster	2020 % CTE	2020 % Equity
Construction & Development									
American Indian	0.2	0.3	0.2	0.1	0.3	0.2	0.4	0.4	0.0
Asian	3.5	7.4	3.9	3.7	8.0	4.2	3.0	7.3	4.3
Black	36.5	43.4	6.9	35.9	41.7	5.8	34.9	42.4	7.4
Hispanic	10.9	6.8	4.0	14.1	8.8	5.3	11.2	10.2	1.0
Multi Race	2.6	3.2	0.6	3.7	3.8	0.0	4.0	3.9	0.1
White	46.4	38.7	7.7	42.4	37.3	5.1	46.5	35.8	10.7

Table 1A provides a graphic representation[4] of equity disparities (gaps). Green indicates that the disparity is less than 5%, yellow indicates that the disparity is from 5%-to-10%, and purple indicates that the disparity is more than 10%.

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[3] Additional reliable and valid data may be compiled by local school systems and community colleges either internally or from third parties.

[4] Graphic representations are only intended as statistical indicators of <u>possible</u> equity disparities. Local school systems and community colleges should research the "purple" (and possibly "yellow") disparities using other MSDE dashboards, PQI and local data to determine whether the identified data-driven "gaps" are high priorities that could be addressed in at least one Plan of Action using Perkins V funds.

Table 1A: Access and Equity Trends for Students of Different Races *Example*

CTE Enrollment by Gender

An example of CTE participant enrollment by gender, also disaggregated by student group and career cluster and shown by percentage only, is provided in Table 2. Similar to Table 1, the first column for each fiscal year exhibits the percentage of the student group only in the identified cluster. The second column for each fiscal year exhibits the percentage of the student group across all CTE clusters. The third column for each fiscal year calculates the difference between the first two columns to obtain an indicator of statistical disparity. These data are solely based on gender enrollment comparisons and should not be confused with data on nontraditional students that only takes into account programs in nontraditional occupations. Enrollment by Gender provides data for all programs in all clusters regardless of nontraditional status.

Table 2: CTE Enrollment by Gender *Example*

Cluster/Student Group	2018 % Cluster	2018 % CTE	2018 % Equity	2019 % Cluster	2019 % CTE	2019 % Equity	2020 % Cluster	2020 % CTE	2020 % Equity
Information Technology (IT)									
F (female)	8.33	48.0	39.6	15.0	55.4	21.2	50.0	49.1	0.9
M (male)	91.67	52.0	39.6	85.0	44.6	21.2	50.0	50.9	0.9

Table 2A provides a graphic representation of equity disparities (gaps). Green indicates that the disparity is less than 10%, yellow indicates that the disparity is from 10% - 20%, and purple indicates that the disparity is more than 20%.

Table 2A: CTE Access and Equity Trends for Students of Different Genders *Example*

CTE Enrollment by Special Population

Secondary and Postsecondary Enrollment by Special Population has three student groups: Economically Disadvantaged, English Learners, and Students with Disabilities. *Due to limited data at this time, some special population student group data are still not available for use with the FY 2022 Perkins Application.* Three-year trend data is displayed in a similar manner as previous data.

Table 3: Economically Disadvantaged (ED) Students *Example*

Cluster	2018 % Cluster	2018 % CTE	2018 % Equity	2019 % Cluster	2019 % CTE	2019 % Equity	2020 % Cluster	2020 % CTE	2020 % Equity
Consumer Services Hospitality &Tourism	36.0	22.0	14.0	36.9	22.6	14.3	24.5	24.2	0.3
Environmental Agriculture & Natural Resources	25.4	22.0	3.5	24.1	22.6	1.5	23.7	24.2	0.4
Health & Bioscience	27.7	22.0	5.8	24.9	22.6	2.3	27.3	24.2	3.2

Table 4: English Learners (EL) Students *Example*

Cluster	2018 % Cluster	2018 % CTE	2018 % Equity	2019 % Cluster	2019 % CTE	2019 % Equity	2020 % Cluster	2020 % CTE	2020 % Equity
Construction & Development	0.2	1.3	1.2	1.1	3.3	2.3	1.8	3.8	2.0
Consumer Services Hospitality &Tourism	3.2	1.3	1.8	7.5	3.3	4.1	2.0	3.8	1.8
Environmental Agriculture & Natural Resources	1.6	1.3	0.3	1.5	3.3	1.8	1.1	3.8	2.8

Table 5: Students with Disabilities (SWD) *Example*

Cluster	2018 % Cluster	2018 % CTE	2018 % Equity	2019 % Cluster	2019 % CTE	2019 % Equity	2019 % Cluster	2019 % CTE	2019 % Equity
Construction & Development	20.4	12.0	8.4	21.7	11.6	10.1	17.1	12.0	5.1
Consumer Services Hospitality &Tourism	12.2	12.0	0.1	14.4	11.6	2.8	11.2	12.0	0.8
Environmental Agriculture & Natural Resources	21.6	12.0	9.5	20.0	11.6	8.4	16.0	12.0	4.0

Table 3A provides graphic representations of equity disparities (gaps) for Economically Disadvantaged students. Green indicates that the disparity is less than 5%, yellow indicates that the disparity is from 5% - 10%, and purple indicates that the disparity is more than 10%.

Table 3A CTE Access and Equity Trends for Economically Disadvantaged Students *Example*

ClusterName	2018	2019	2020
⊞ Consumer Services, Hospitality and Tourism	🟣	🟣	🟢
⊞ Environmental, Agricultural and Natural Resources	🟢	🟢	🟢
⊞ Health and Biosciences	🟡	🟢	🟢

Tables 4A and 5A provide graphic representations of equity disparities (gaps) for English Learner and Students with Disabilities. Green indicates that the disparity is less than 2.5%, yellow indicates that the disparity is from 2.5% - 5%, and purple indicates that the disparity is more than 5%.

Table 4A CTE Access and Equity Trends for English Learner Students *Example*

ClusterName	2018	2019	2020
⊞ Construction and Development	🟢	🟢	🟢
⊞ Consumer Services, Hospitality and Tourism	🟢	🟡	🟢
⊞ Environmental, Agricultural and Natural Resources	🟢	🟢	🟡

Table 5A CTE Access and Equity Trends for Students with Disabilities *Example*

ClusterName	2018	2019	2020
⊞ Construction and Development	🟣	🟣	🟣
⊞ Consumer Services, Hospitality and Tourism	🟢	🟡	🟢
⊞ Environmental, Agricultural and Natural Resources	🟣	🟣	🟡

CTE Performance by Race

Performance by Race provides three-year trend Performance Quality Index (PQI) data by cluster, disaggregated by race, and compares each cluster to the local school system's or community college's locally agreed upon target performance percentage for each indicator for each year. Percentages that are below 90% of the year's target are displayed in red. Table 6 shows the data for Performance Indicator 5S4 (Technical Skill Attainment) for nine clusters. *Only two trend years are displayed in this example because of space limitations.*

Table 6: CTE Secondary Performance by Race *Example*

Year	2018									2019								
Cluster	Amer Ind	Asian	Black	Hispanic	Pacific Is	White	Multi-racial	LSS Average	Target	Amer Ind	Asian	Black	Hispanic	Pacific Is	White	Multi-racial	LSS Average	Target
AMC		58.33	39.29			77.08		64.52	82.19		73.33	74.07			82.61		78.99	83.08
BMF								85.71	82.19						76.92		77.78	83.08
CD		72.73				82.35		78.57	82.19						86.67		88.00	83.08
CRD																	100.00	83.08
CSHT		89.29				92.86		88.64	82.19			84.78			96.00		88.46	83.08
EANR						100.00		100.00	82.19									
HB		100.00						100.00	82.19		96.43	95.74			90.00		93.55	83.08
HRS								100.00	82.19						100.00		100.00	83.08
IT		0.00						7.69	82.19								25.00	83.08

Table 6A provides a graphic representation of trend disparities (gaps). A green flag indicates that the student group met the target percentage all three years. A yellow flag indicates that the student group met the target percentage two of the three years. A red flag indicates that the student group met the target percentage one or none of the three years. Blank cells indicate numbers for students were less than 10.

Table 6A: Target Trend Performance for Secondary by Race *Example*

CTE Performance by Gender and Special Population

Performance by Gender and Special Population is displayed in the same manner as Performance by Race. The table provides three-year trend Performance Quality Index (PQI) data by cluster, disaggregated by gender and special population, and compares each cluster to the local school system's target performance percentage for each indicator for each year. Percentages that are below 90% of the year's target are displayed in red. Table 7 shows the data for Performance Indicator 2P1 (Credential, Certificate, or Degree) for nine clusters. *Only two trend years are displayed in this example because of space limitations.*

Table 7: CTE Performance by Gender and Special Population *Example*

| Report Year | 2018 | | | | | | | 2019 | | | | | | |
Cluster	Male	Female	ED	SWD	EL	CC Avg	Target	Male	Female	ED	SWD	EL	CC Avg	Target
AMC	36.67	42.22	42.55			40.00	64.71	44.12	33.33	42.00	40.00		38.81	64.71
BMF	37.44	50.74	46.73	63.64	53.85	45.74	64.71	42.18	53.80	50.38	63.64	60.00	49.15	64.71
CD	36.67	53.85	40.54			44.64	64.71	54.55	30.00	38.64			42.86	64.71
CSHT	77.78	91.89	88.10			87.27	64.71	57.69	71.43	63.64			66.67	64.71
EANR						80.00	64.71		84.62	83.33			80.95	64.71
HB	68.85	84.52	80.37	60.87		81.33	64.71	52.11	60.85	60.67	62.07		59.09	64.71
HRS	50.00	46.96	46.75			48.28	64.71	44.16	53.76	53.12	50.00		49.41	64.71
IT	53.59	56.98	55.39	56.25		54.68	64.71	68.79	62.30	70.07			66.83	64.71

Table 7A provides a graphic representation of trend disparities (gaps). A green flag indicates that the student group met the target percentage all three years; yellow indicates that the student group met the target percentage two of the three years; and red indicates that the student group met the target percentage one or none of the three years. Blank cells indicate numbers for students were less than 10.

Table 7A: Target Trend Performance for by Gender and Special Population *Example*

Cluster	Male	Female	ED	SWD	EL	CC Avg
AMC	🚩red	🚩red	🚩red	🚩red		🚩red
BMF	🚩red	🚩red	🚩red	🚩yellow	🚩red	🚩red
CD	🚩red	🚩red	🚩red			🚩red
CSHT	🚩yellow	🚩green	🚩green			🚩green
EANR		🚩yellow	🚩yellow			🚩green
HB	🚩yellow	🚩green	🚩green	🚩green		🚩green
HRS	🚩red	🚩red	🚩red	🚩red		🚩red
IT	🚩yellow	🚩yellow	🚩yellow	🚩red		🚩yellow

CTE Career and Technical Education Program Alignment to Labor Market

CTE programs of study must meet the Perkins V criteria of being high-skill, high-wage, and/or in-demand pertaining to the occupations for which they prepare students. See Component 3 of the Comprehensive Local Needs Assessment for the specific definitions and criteria. The Division of Career and College Readiness has evaluated all secondary and postsecondary State and Local approved programs of study against High-Skill, High-Wage, and In-Demand occupation criteria. The result is displayed within the dashboard for CTE Career and Technical Education Program Alignment to Labor Market. Table 8 displays an example of some of the secondary dashboard.

The graphic representation in the final column displays a green check if the program meets any of the three criteria. A red "x" occurs when none of the three criteria are met. Since CTE programs of study must meet at least one of the Perkins V high-skill, high-wage, and/or in-demand criteria, any program identified with a red "x" must be locally reviewed by the local school system or community college to determine whether local data supports continued use of Perkins funds. This information is recorded in the Comprehensive Local Needs Assessment.

Table 8: Career and Technical Education Program Alignment to Labor Market *Example*

Maryland Approved Secondary CTE Programs	High Skill	High Wage	In Demand	CTE Program Alignment to Labor Market
110952 - IT Networking Academy (CISCO) - CCNA Security	X	X	X	✓
110953 - IT Networking Academy (CISCO) - CCNA Cybercesurity Operations	X	X	X	✓
110960 - P-TECH: Cybersecurity	X	X	X	✓
110970 - P-TECH: Pathways in Network and Information Technology	X	X	X	✓
110980 - P-TECH: Cybersecurity Assurance and Cimputer Information Systems	X	X	X	✓
120402 - Barbering	X			✓
120410 - Nail Specialist and Manicurist			X	✓
120450 - Careers in Cosmetology	X		X	✓
120504 - Restaurant, Culinary, and Catering Management	X	X	X	✓
120550 - Culinary Arts (ACF)	X		X	✓
120555 - Baking and Pastry Arts (ACF)	X		X	✓
130150 - Teacher Academy of Maryland	X	X	X	✓
131209 - Early Childhood Education Child Development Associate - Preschool	X	X	X	✓
131210 - Early Childhood Education Child Development Associate - Infants/Toddlers	X	X	X	✓
150000 - Engineering Technology	X	X		✓
150060 - P-TECH: Engineering Technology	X	X		✓
150613 - Manufacturing Engineering Technology (MSSC)	X	X		✓
150650 - Manufacturing Engineering Technology (NIMS) - Machining Operations	X	X		✓
150651 - Manufacturing Engineering Technology (NIMS) - CNC Programming and Operations	X	X		✓
150652 - Manufacturing Engineering Technology (NIMS) - Machining/CNC Programming and Operations	X	X		✓
151350 - Construction Design and Management	X	X	X	✓
151390 - Drafting and Design Technology	X	X		✓
155000 - Pre-Engineering (PTLW)	X	X		✓
200201 - Early Childhood Education/Child Care				✗
200301 - Textile and Fashion Design, Merchandising and Management				✗
261201 - Biotechnolgy	X	X	X	✓
430190 - Criminal Justice, Law and Society	X	X	X	✓
430250 - Fire Emergency Medical Training/ High School Cadet (MFRI)	X		X	✓

Step 1: Access and Equity: Review, Evaluate, and Identify

Under Perkins V, local school systems and community colleges are required to provide support for special populations. Resources or supports must be directed toward the removal of barriers to student success. *Note that the FY 2022 Comprehensive Local Needs Assessment contains a new column to link the identified Area of Promise or Opportunity with the Plan of Action that contains a funding request, if there is one.*

1. Review and evaluate the three-year access and equity **enrollment** *trend data* to identify areas of promise and opportunities for growth, and then list them in the FY 2022 Needs Assessment Collection Excel Workbook, Access & Equity tabs. For areas of promise, look for student groups and special populations that are doing well (green indicators that show an equitable alignment between enrollment in the cluster versus enrollment across all CTE clusters). For opportunities for growth, look for those that should receive attention (purple indicators that show an inequitable alignment between enrollment in the cluster versus enrollment across all CTE clusters). Use this list to help determine Perkins V funding needs for Plans of Action. *Plans of Action objectives, needs/gaps, and supporting data must be contained in the Comprehensive Local Needs Assessment.* The examples that follow identify areas of promise as well as opportunities for growth.

Access and Equity Example 1

Prioritized Need (Gap) Areas of Promise (Areas achieving Access/Equity proportionality)	Data Evidence	If requesting funds to support this area of promise, identify the Plan of Action tab.
In the Health & Bioscience cluster, Hispanic student enrollment has increased and the cluster percentage is close to reflecting the same enrollment percentage in all CTE clusters.	H&B Cluster Hispanic enrollment increased from 2.7% in 2016, to 5.6% in 2018; overall enrollment in CTE for this population is 5.9% (2018).	No funds are being requested.

Access and Equity Example 2

Prioritized Need (Gap) Opportunities for Growth (Areas that show needs/gaps in Access/Equity proportionality)	Data Evidence	If requesting funds this year to address the opportunity for growth, identify the Plan of Action tab. If NOT requesting funds this year to address the identified gap, describe how the LSS/CC will address it in other ways.
Nontraditional enrollment in the Construction & Development cluster has decreased over the past three years.	The three year trend data for female students in the Construction cluster has steadily decreased from 8.2% in 2016, to 3.1% in 2018.	Funds to address this are contained in Plan of Action 12.
	OR	
Nontraditional enrollment in the Construction & Development cluster has decreased over the past three years.	The three year trend data for female students in the Construction cluster has steadily decreased from 8.2% in 2016, to 3.1% in 2018.	The college considers this an institutional issue rather than limited to CTE Construction Cluster programs. Operating funds will be devoted to develop a campus-wide marketing and promotional initiative to address all programs perceived to have gender bias.

Step 2: Program Performance: Review, Evaluate, and Identify

Under Perkins V, local school systems and community colleges are required to provide support for special populations. Resources or supports must be directed toward the reduction of performance gaps that may impact student success. *Note that the FY 2022 Comprehensive Local Needs Assessment contains a new column to link the identified Area of Promise or Opportunity with the Plan of Action that contains a funding request, if there is one.*

1. Review and evaluate the three-year access and equity *performance* trend data to identify areas of promise and opportunities for growth, and then list them in the FY 2022 Needs Assessment Collection Excel Workbook, Program Performance tabs. Look for student groups and special populations that are doing well (green indicators that show an equitable alignment between enrollment in the cluster versus enrollment across all CTE clusters), and those that should receive attention (purple indicators that show an inequitable alignment between enrollment in the cluster versus enrollment across all CTE clusters). Use this list to help determine Perkins V funding needs for Plans of Action. *Plans of Action objectives, needs/gaps, and supporting data must be contained in the Comprehensive Local Needs Assessment.* The examples that follow identify areas of promise as well as opportunities for growth.

Program Performance Example 1

Prioritized Need (Gap) Areas of Promise (Areas achieving Program Performance proportionality)	Data Evidence	If requesting funds to support this area of promise, identify the Plan of Action tab.
Black and white student graduation rates have increased (1S1 – Four-year Graduation Rate)	Black and white student groups surpassed local growth target for graduation rate over the last three years by 12%.	Funds are being requested in Plan of Action 9 to support this area in an attempt to equalize the growth rate between white students and all other minority students.
	OR	
Black and white student graduation rates have increased (1S1 – Four-year Graduation Rate)	Black and white student groups surpassed local growth target for graduation rate over the last three years by 12%.	No funds are being requested.

Program Performance Example 2

Prioritized Need (Gap) Opportunities for Growth (Areas that show needs/gaps in Program Performance proportionality)	Data Evidence	If requesting funds this year to address the opportunity for growth, identify the Plan of Action tab. If NOT requesting funds this year to address the identified gap, describe how the LSS/CC will address it in other ways.
American Indian student groups did not meet 2P1 Credential, Certificate, or Degree rate targets over the last three years.	On average, only 24% of American Indian students are receiving a credential, certificate, or degree by the end of their postsecondary program.	Funds are being requested by the college in Plan of Action 21 to hire a CTE program and career navigator specifically for the American Indian special population.
	OR	
American Indian student groups did not meet 2P1 Credential, Certificate, or Degree rate targets over the last three years.	On average, only 24% of American Indian students are receiving a credential, certificate, or degree by the end of their postsecondary program.	The college is not requesting Perkins funds at this time because American Indian enrollment in CTE programs is zero.

Step 3: Program Size: Evaluate and Identify

All CTE programs of study must be sufficient in size, scope, and quality to meet the needs of all students served by local school systems and community colleges. Programs of study that do not meet size, scope and quality criteria may not be eligible for Perkins V funding. *Note that the FY 2022 Comprehensive Local Needs Assessment contains a new column to link the identified criteria that does not meet program size requirements with the Plan of Action that contains a funding request, if there is one.*

The following size criteria table shows the required data collection that local school systems and community colleges will be providing in the FY 2022 Needs Assessment Collection Excel Workbook, Size tab.

Evaluate whether all CTE programs of study meet the required size criteria below. List any program that does not meet all of the criteria, and then identify what will be done to meet the identified criteria and whether Perkins V funds will be requested. If so, identify the Plan of Action number. The Plan of Action would address the manner in which the program will be revised to meet the identified criteria. In the local application, local school systems and community colleges must address programs that do not meet size criteria.

Size Criteria	Evaluation Result (dropdown Yes/No)	Programs Not Meeting Requirement	If requesting funds this year to address the program that does NOT meet the Size criteria, identify the Plan of Action tab. If NOT requesting funds this year to address the program that does not meet the Size criteria, describe how the
The local school system or community college offer at least two state-approved CTE programs of study in recognized career clusters.	Yes	The Division of Career and College Readiness will pre-populate this box to determine if the local school system or community college meets this requirement.	
All approved programs of study align with the definition of a CTE program of study as a coordinated, non-duplicative sequence of academic and technical content that: • are at least three credits (secondary); • are at least 12 credits (postsecondary for-credit); or be comprised of at least two CTE noncredit courses and lead to a certification or industry-recognized credential that is acknowledged by the MSDE, Division of Career and College Readiness (postsecondary noncredit)			
Each CTE concentrator course in approved CTE programs of study must have a minimum enrollment of ten concentrators over a four year period. If this requirement is not met, the local school system or community college will provide evidence of continued progress toward increased class size to meet the minimum requirement.			
The local school system or community college have the required number of staff, availability of equipment, and access to facilities to meet requirements detailed by each program of study.			

Step 4: Program Scope: Evaluate and Identify

All CTE programs of study must be sufficient in size, scope, and quality to meet the needs of all students served by local school systems and community colleges. Programs of study that do not meet size, scope and quality criteria may not be eligible for Perkins V funding. *Note that the FY 2022 Comprehensive Local Needs Assessment contains a new column to link the identified criteria that does not meet program size requirements with the Plan of Action that contains a funding request, if there is one.*

The following scope criteria table shows the required data collection that local school systems and community colleges will be providing in the FY 2022 Needs Assessment Collection Excel Workbook, Scope tab.

Evaluate whether all CTE programs of study meet the required scope criteria below. List any program that does not meet all of the criteria, and then identify what will be done to meet the identified criteria and whether Perkins V funds will be requested. If so, identify the Plan of Action number. The Plan of Action would address the manner in which the program will be revised to meet the identified criteria. In the local application, local school systems and community colleges must address programs that do not meet scope criteria.

Scope Criteria	Evaluation Result (dropdown Yes/No)	Programs Not Meeting Requirement	If requesting funds this year to address the program that does NOT meet the Scope criteria, identify the Plan of Action tab. If NOT requesting funds this year to address the program that does not meet the Scope criteria, describe how the LSS/CC will address it in other ways.
Curricula for each program of study is aligned to state-approved industry standards that lead to students earning recognized credentials, certifications, licenses, college credit, or degrees.			
Curricula for each program of study reflect a progression from secondary to postsecondary and community college to bachelor degree programs.			
Curricula for each program of study allow students to learn and demonstrate academic, technical, and employability skills.			
Curricula for each program of study demonstrate a continuum of learning that allows students to progress in a career field.			
Curricula for each program of study include differentiated supports and modifications to meet the needs of			

Scope Criteria	Evaluation Result (dropdown Yes/No)	Programs Not Meeting Requirement	If requesting funds this year to address the program that does NOT meet the Scope criteria, identify the Plan of Action tab. If NOT requesting funds this year to address the program that does not meet the Scope criteria, describe how the
Each CTE student in each program of study has a written career and academic plan in place that includes: • the required courses to complete their CTE program of study; • the required courses to graduate; • the required assessments to earn a certification, license, credential, or degree in the CTE program; • the required academic assessments to graduate; and • the timeline to take courses, assessments, and complete work-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 programs of study are guided by Local Advisory Councils and Program Advisory Committees according to the Career and Technical Education (CTE) Local Advisory Council (LAC) and Program Advisory Committee (PAC) Policies and Procedures COMAR EA Title			
Local School System Only All CTE secondary programs of study adhere to CTE Development Standards which are required by Code of Maryland Regulations 13A.04.02.01			

Step 5: Program Quality: Evaluate and Identify

All CTE programs of study must be sufficient in size, scope, and quality to meet the needs of all students served by local school systems and community colleges. Programs of study that do not meet size, scope and quality criteria may not be eligible for Perkins V funding. *Note that the FY 2022 Comprehensive Local Needs Assessment contains a new column to link the identified criteria that does not meet program size requirements with the Plan of Action that contains a funding request, if there is one.*

The following quality criteria table shows the required data collection that local school systems and community colleges will be providing in the FY 2022 Needs Assessment Collection Excel Workbook, Quality tab.

Evaluate whether all CTE programs of study meet the required quality criteria below. List any program that does not meet all of the criteria, and then identify what will be done to meet the identified criteria and whether Perkins V funds will be requested. If so, identify the Plan of Action number. The Plan of Action would address the manner in which the program will be revised to meet the identified criteria. In the local application, local school systems and community colleges must address programs that do not meet quality criteria.

Quality Criteria	Evaluation Result (dropdown Yes/No)	Programs Not Meeting Requirement	If requesting funds this year to address the program that does NOT meet the Quality criteria, identify the Plan of Action tab. If NOT requesting funds this year to address the program that does not meet the Quality criteria, describe how the LSS/CC will address it in other ways.
The local school system or community college achieves or consistently makes progress towards local targets established for state and federal core indicators of performance.			
Local School System Only CTE programs of study are delivered by teachers who meet state requirements to teach their content at the secondary level.			
Local School System Only CTE programs of study are delivered by teachers who earned a minimum of effective on their teacher evaluation as defined by Code of Maryland Regulation 13A.07.09 within three years.			
Community College Only CTE programs of study are delivered by faculty who meet the requirements of the institution's or programmatic accrediting body (if applicable), and the college accrediting body.			

Quality Criteria	Evaluation Result (dropdown Yes/No)	Programs Not Meeting Requirement	If requesting funds this year to address the program that does NOT meet the Quality criteria, identify the Plan of Action tab. If NOT requesting funds this year to address the program that does not meet the Quality criteria, describe how the LSS/CC will address it in other
Each CTE program of study 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.			
Local School System Only For each CTE program of study, the local school system provides all students, including students in special populations, the opportunity to: • Participate in at least one work-based learning experience (internship, apprenticeship, etc.); • Earn college credit and/or industry credentials; and • Participate in Career and Technical Student Organizations.			
Community College Only For each CTE program of study, the community college provides all students, including special populations, the opportunity to: • Participate in work-based learning experiences (internship, apprenticeship, etc.); and • Earn college credit and/or industry credentials.			
Professional learning opportunities, informed by data, are provided for administrators, teachers, faculty, counselors and support personnel to improve student learning outcomes. All secondary professional learning must be guided by the Maryland-endorsed National Learning			
The local school system or community college meets local and state annual data-reporting requirements and conducts reviews of all annual Program Quality Index reports to inform program improvement.			
Human resources is 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, to understand the top three contributing factors to CTE teacher and faculty member turnover.			

Additionally, in the Local Application *systemic narrative* section, local school systems and community colleges will identify strategies to address and expand upon some of the size, scope and quality criteria.

> Systemic Size, Scope, and Quality questions to consider:
> 1. How will teachers and faculty be trained to meet the needs of diverse learners?
> 2. How will teachers and faculty be trained on standards and program curricula?
> 3. What supports will be provided to professional counselors to advise students and families on CTE programs of study?

The Division of Career and College Readiness will conduct an audit of all CTE programs of study at the secondary and postsecondary levels during Methods of Administration Consolidated Monitoring visits to collect evidence demonstrating that all requirements for size, scope and quality are being met.

Step 6: Local Workforce Needs and CTE Programs: Align

CTE programs of study must lead to careers that are high-skill, high-wage, and/or in-demand. CTE programs of study that do not lead to high-skill, high-wage, and/or in-demand careers are, according to the Perkins V Act, ineligible for funding.

Definition of High-Skill Careers
CTE programs of study that demonstrate high-skill lead to 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.

Definition of High-Wage Careers
CTE programs of study that demonstrate high-wage are those that lead to careers that exceed the state average annual wage. The 2018 average annual wage in Maryland was $58,770.

Definition of In-Demand Careers
CTE programs of study that demonstrate in-demand are those that lead to 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 Office of Accountability has evaluated all List A programs of study according to the High-Skill, High-Wage, or In-Demand labor market occupation criteria. Access the Labor Market Data dashboard through the MDCTEData.org website. Confirm that all List A programs of study approved to be offered by the local school system or community college meet at least one of the three Perkins V occupational criteria.

Table 4 provides a snapshot of some of the data that is provided in the Labor Market Data dashboard. For the FY 2022 Local Application, two years of Labor Market data are provided for analysis: Labor Market data using Maryland 2018 occupational wage estimates and Maryland short term (2018-2020) and long term (2016-2026) occupational and industry projections, and Labor Market data using Maryland 2019 occupational wage estimates and Maryland short term (2019-2021) and long term (2018-2028) occupational and industry projections.

Sample Labor Market Analysis Tool

Maryland Approved Postsecondary CTE Programs	High Skill	High Wage	High Demand	CTE Program Alignment to Labor Market
460412 - Construction and Building Finishers and Managers	X	X	X	✅
470104 - Computer Installer and Repairer	X	X	X	✅
470105 - Industrial Electronics Installer and Repairer	X	X		✅
470201 - Local Construction Maintenance- HVAC		X	X	✅
470604 - Auto/Automotive Mechanic/Technician	X	X		✅
480501 - Machinist/Machine Technologist	X			✅
480599 - Computer Numerically Controlled (CNC) Machinist Technology				❌
490101 - Aeronautics, Aviation, Aerospace Science and Technology		X	X	✅
490102 - Aircraft Pilot and Navigator (Professional)	X	X	X	✅
490104 - Aviation Management		X	X	✅
490105 - Air Traffic Controller	X	X		✅
490205 - Truck, Bus and Other Commercial Vehicle Operator	X		X	✅
500102 - Digital Arts	X	X	X	✅
500402 - Graphic Design, Commercial Art and Illustration	X	X	X	✅
500406 - Commercial Photography	X	X	X	✅

This Maryland statewide data will be used to verify that List A programs of study meet one or more of the high-skill, high-wage, or in-demand occupation criteria *in either year*. If state data does not support that a local school system or community college's program of study meets any of the workforce needs occupational criteria, then the program will be reviewed for removal from List A.

For any CTE program of study that does not have state data to support the High-Skill, High-Wage, or In-Demand occupation criteria, and the local school system or community college believes otherwise, then the local school system or community college has the opportunity to provide evidence in the FY 2022 Needs Assessment Collection Excel Workbook that the program of study leads to a high-skill, high-wage, or in-demand career using verifiable locally sourced or independent third-party data. Evidence only needs to be provided for one category to be in compliance with Perkins V.

Here is the information that is required to be reported for programs of study that do not meet any of the high-skill, high-wage, or in-demand occupations criteria. The information is reported within the FY 2022 Needs Assessment Collection Excel Workbook Tab HS-HW-ID (for High-Skill, High-Wage, or In-Demand).

Program of Study	Career(s) Connected to the POS	HS Evidence	HW Evidence	In-Demand Evidence

Step 7: Joint Assessments: Collaborate and Compile

Local school systems and community colleges must collaborate on their Joint Assessment of Needs to analyze and address collective CTE needs of the region. Review the "systemic questions to consider" within each of the previous sections as they relate to the region.

In the FY 2022 Needs Assessment Collection Excel Workbook, Tab Joint Assessment, identify and prioritize (list) areas and opportunities that emerged from the Joint Assessment of Needs Team meeting(s) that might be jointly considered for Perkins V funding within Plans of Action. The Plans of Action may address opportunities for growth or improve upon areas of promise.

Joint Needs Assessment Priority List