Maryland
GOVERNOR'S WORKFORCE DEVELOPMENT BOARD

(CONFIDENTIAL DRAFT - Deliberative Process Documents)

CTE Committee

Expert Review Team

Deployment Plan

School Year 2024-2025

CTE Committee, Governor's Workforce Development Board

July 1, 2024

GOVERNOR'S WORKFORCE DEVELOPMENT BOARD CTE COMMITTEE

Myra Norton, CTE Committee Chair, Senior Director, Johns Hopkins Technology Ventures

Secretary Kevin Anderson, Maryland Department of Commerce

Dr. Donald Boyd, Supervisor of Strategic Initiatives, Dorchester County Public Schools

Brian Cavey, International Vice President, International Assoc. of Heat and Frost & Allied Workers

Matthew Holloway, Owner & Operator, Quantico Creek Sod Farms, Baywater Farms, Baywater Seafood

Secretary Dr. Sanjay Rai, Maryland Higher Education Commission

Michael Thomas, Vice President, Workforce Development and Continuing Education, Baltimore City Community College

Superintendent Dr. Carey Wright, Maryland State Department of Education

Secretary Portia Wu, Maryland Department of Labor

Charnetia Young, Director, Diversity Workforce Initiatives, CVS Health

CONTRIBUTORS

Rachael Stephens Parker
Executive Director
Governor's Workforce Development Board

Molly Mesnard
Deputy Director, CTE Committee
Governor's Workforce Development Board

John Strickland
Expert Review Team Manager, CTE Committee
Governor's Workforce Development Board

Jackie Kraemer
Director, Policy Analysis and Support
National Center for Education and the Economy (NCEE)

Charlotte Notaras
Policy and Research Analyst
National Center for Education and the Economy (NCEE)

The Governor's Workforce Development Board CTE Committee is grateful to those who participated in and pilot CTE Expert Review Team visits this year to test and provide feedback on the program design, especially Queen Anne's County Public Schools and Anne Arundel County Public Schools for hosting the pilot visits.

Purpose

The *Blueprint for Maryland's Future* ("the *Blueprint*") requires the Governor's Workforce Development Board (GWDB) CTE Committee to "establish, administer and supervise" a CTE Expert Review Team (ERT) program for schools in Maryland. The CTE ERT program is required to visit every CTE school in the state by July 1, 2031, with at least 10 percent of CTE schools visited each year. The *Blueprint* directs the CTE Committee to prioritize schools where students are not making adequate progress towards the completion of a CTE pathway, which the CTE Committee will define (see School Selection for more details). The ERT model is based on practices of systems with strong student performance across academic and career pathways where experts regularly visit schools to deeply understand their programs, their challenges, and their successes. The CTE ERTs are separate from the Maryland State Department of Education (MSDE)'s Expert Review Team program.

The goal of the *Blueprint* CTE ERT program is to determine whether schools are implementing CTE programs aligned to the *Blueprint* vision (as detailed in the CTE Committee's forthcoming CTE Framework) and monitor progress toward reaching the statewide goal that by the 2030-31 school year, 45% of public high school graduates shall complete the high school level of a Registered Apprenticeship or another industry-recognized occupational credential. In addition to monitoring progress, the CTE ERT program is also expected to:[1]

- Identify issues that schools and LEAs are facing as they expand and strengthen CTE programming and ensure equity of access for all;
- Identify promising practices in schools and LEAs to highlight and share across the state;
- Monitor ongoing progress in implementing high-quality CTE pathways and reaching the *Blueprint's* 45% goal;
- Develop recommendations to address challenges faced by schools, LEAs, and the state in implementing the *Blueprint*'s CTE goals
- Submit reports to the school LEA and the CTE Committee after each visit summarizing progress and making recommendations to address identified issues; and
- Create annual reports for the CTE Committee and the Accountability and Implementation Board (AIB) to update them on the status of CTE implementation and identify policy and technical assistance needs.

The CTE ERT program is a key component of the CTE Committee's long-term role in *Blueprint* implementation and governance of the CTE system as it will allow GWDB CTE Committee staff and members to deeply understand programming across the state, gather continuous feedback on state strategies and policies, gauge progress, exchange information with district leaders, and build best practices and innovation across the state.

[1] This list comes from the Blueprint law and the AIB's Blueprint Comprehensive Plan

Pilot Year (FY24)

Since the CTE ERT program was not funded in the first two years of the *Blueprint* implementation, the focus for School Year 2023-2024 shifted from immediate implementation of a full CTE ERT program to planning and piloting the design of the CTE ERT program. This also shifted the timeline for implementation of the full CTE ERT program to begin in School Year 2024-2025. Key questions explored during the design and pilot phase include:

- How should the CTE Committee design a robust and useful program given a more limited timeline and budget than envisioned by the legislation?
- What would be the best way to organize the school visits to gain a deep understanding of CTE in each LEA?
- How would we think about monitoring "progress" with a strategy of one-time visits to all schools?
- How could we encourage a collaborative and constructive partnership with the LEAs and make the work most useful for them?
- What kind of staffing would the CTE Committee need to manage this work?
- What kind of tools, protocols, and templates would we need to develop for the visits?
- How would we organize and ensure the required range of perspectives on the teams?
- How would we define the "purpose" of the visits, as this would inform the approach, structure, and post-visit action items?

Overview of Pilot Activities

In **Summer 2023**, the CTE Committee designed a proposed plan for the School Year 2024-2025 work. The plan was presented to, and voted on by the CTE Committee at the meeting that took place on August 23, 2023. This plan was based on the goal of visiting about 32 schools in year one, which is the number of schools required to meet the legislative goal of visiting all schools in seven, rather than ten, years. The initial proposed budget was based on a regional staffing structure, with leads in three regions, a permanent CTE instructor expert to join visits, and a policy and data analyst to help organize and monitor data collected on the schools and LEAs. The plan was based on one day visits during the year, which was the only efficient way to reach the visit goal for the year given the level of funding requested.

In **Fall 2023**, CTE Committee staff, along with the partnerships with subject matter experts at NCEE, developed a draft set of tools and protocols for a visiting CTE ERT program including (see Appendix A to review the tools listed below):

- LEA background template to organize key information about each LEA and the schools the team will visit
- Visit agenda template
- Interview and focus group questions for LEA CTE staff, school/CTE center leaders, teachers, students, school counselors, career coaches, work-based learning staff, and any other appropriate LEA staff
- Classroom visit protocol
- Notes organizer
- Debrief protocol and tools

- Post-visit report template for LEAs

In **Winter 2023**, CTE Committee staff planned pilot visits to take place during spring 2024. At this point, it was decided to plan the visits with a LEA-level approach, rather than a focus on individual schools, with a goal of visiting several schools within a LEA to give the CTE Committee an understanding of the LEA strategy as well as that of the individual schools. For more information on this approach, see the Overall Proposed CTE ERT Plan section of this plan. The CTE Committee decided to visit one smaller and one larger LEA for the pilot. A key question the team wanted to answer with this approach was whether the design of visits would need to vary depending on LEA size.

In **Spring 2024**, the CTE Committee organized and carried out two pilot visits: One to Queen Anne's County and one to Anne Arundel County. Queen Anne's County has one of the smallest student populations in Maryland and has CTE programs only in its two comprehensive high schools. The CTE ERT visited both schools, so the visit "covered" the whole county. Anne Arundel County is one of the larger LEAs in the state and has a different structure for CTE, with programs delivered in two regional CTE centers and seven comprehensive high schools. We decided to visit one CTE center and one comprehensive high school, with the goal of seeing a representative set of CTE schools in the LEA. The visit team agreed that this was a good approach to getting a snapshot of the LEA in LEAs with a mixed delivery system. The team did acknowledge the need to spend more time on understanding the LEA .

For both visits, teams were assembled that included CTE Committee staff, the LEA CTE Director, a CTE Committee member, MSDE staff, CTE Directors from neighboring LEAs, Blueprint Coordinators, and Local Workforce Development Board members and/or staff. An AIB staff member was also invited to participate in both visits. This team brought perspectives from policy, the classroom, and industry. Before each visit, an orientation session was held to review the site visit agenda and other ERT tools. The LEA CTE Director and key LEA CTE staff were also invited to the orientation to provide an overview of the LEA's CTE system as well as strengths and challenges. At each school, the team visited classrooms and held focus groups with teachers, school leaders, students, school counselors, career coaches, and work-based learning staff to better understand the system from their perspectives (see agendas in Appendix A).

Proposed CTE ERT Plan Overview: SYs 2024 - 2031

The CTE Committee is proposing two key organizing principles for the overall CTE ERT plan:

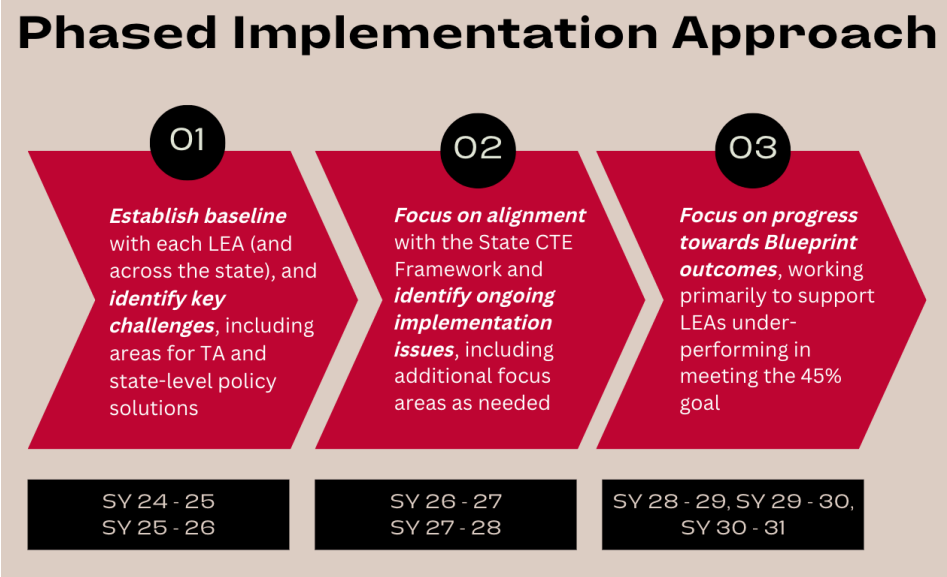
- A LEA (rather than school) focus to guide the work, as CTE is organized at a LEA level across the state
- A phased approach to completing and organizing visits over time.

The rationale for a **LEA focus** is that CTE—including programming priorities, budgeting, transportation, and staffing—is typically organized at the LEA level. This focus will allow the

CTE Committee to understand the LEA strategy, as well as individual school strategies, and to consider how schools across an LEA are serving students LEA-wide. It would also allow the CTE Committee to report not only progress by LEA and schools, but use this to inform the CTE Committee's view of CTE at the state level. This LEA focus will guide the selection of schools to visit by identifying which schools would be representative samples in each LEA for each visit and sequencing visits on a LEA-based cycle, to the extent possible. Additionally, an LEA focus allows the CTE Committee to conduct multiple visits to each LEA to see their implementation progress over time and impact how CTE is led from the LEA level whereas visiting all CTE schools in the state would take the full seven years, leaving no time to revisit schools or work with LEA leadership.

The CTE Committee is also proposing a **phased approach** to organizing visits. These phases would reflect the ongoing phases of implementation of a new CTE system in the state. The initial proposal is to use the following three phases to guide the CTE ERT work over the seven remaining years of initial *Blueprint* implementation:

- **Phase 1 (School Year 2024-2025 & School Year 2025-2026):** Establish statewide baselines as well as baselines with each LEA, and identify key challenges and areas for technical assistance and state-level policy solutions as well as strengths across the system to build on. Continue refining the CTE ERT visit model.
- **Phase 2 (School Year 2026-2027 & School Year 2027-2028):** Focus on alignment with the statewide CTE Framework (being developed by the CTE Committee as of this writing) and identifying ongoing implementation issues. During this phase, there may be additional targeted areas or topics deemed critical for each year based on information gathered during CTE ERT visits, such as work-based learning and particularly expansion of Registered Apprenticeships, or CTE programming in specific sectors or occupations.
- **Phase 3 (School Year 2029, 2030 & 2031):** Focus on progress toward *Blueprint* outcomes, working primarily to support LEAs struggling to make forward progress toward the statewide 45% goal.



The goal of Phase 1 would be to visit all 24 LEAs in Maryland so as to construct a statewide baseline and analysis of the range of challenges, strengths, and status of CTE implementation and administration. The pacing of Phases 2 and 3 will be adjusted to reflect the CTE Committee's budget and staffing levels and the program timeline. If the CTE Committee is to meet the goal of visiting all 230 CTE schools in the state by 2031, CTE ERTs would need to visit 36 schools each year after SY 2025-26. No matter the number of schools to be visited, the CTE ERT tools and approach will need to be adapted in each phase to reflect the progression of the work and emerging priorities.

In addition to using these organizing principles for the CTE ERT program, the CTE Committee also plans to focus the site visit on a broad discussion of key issues and challenges, with as much background information shared and discussed in advance to optimize the in-person time and to make the visits valuable to the school and LEA participants. CTE ERT visits will be structured as a learning process for the LEAs and the schools participating and an opportunity for them to reflect as well as a time to inform the CTE Committee and elevate recurring themes. CTE Committee staff will plan the visits closely with the LEAs and the schools, and strive to make the visiting process as helpful as possible for them, not a compliance activity.

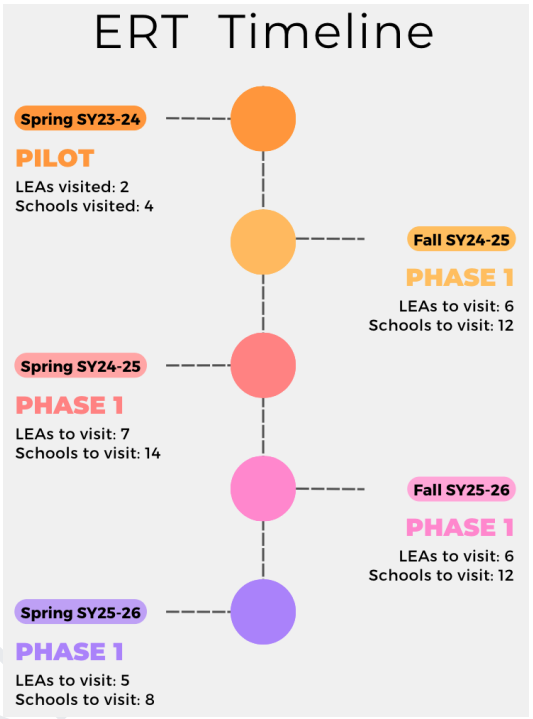
School Year 2024-2025 Proposed CTE ERT Plan

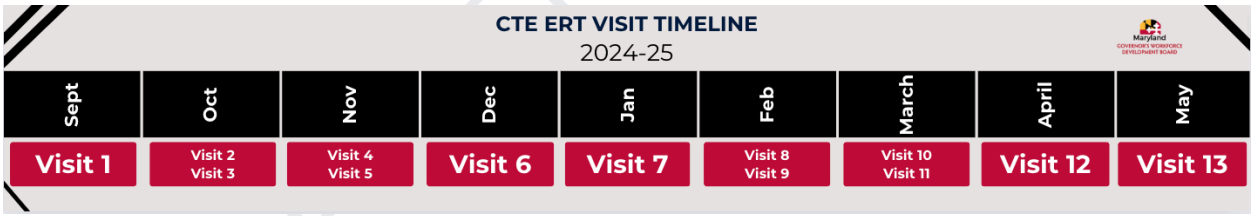
The sections below explain how the CTE Committee plans to organize activities for School Year 2024-2025 CTE ERT visits.

Timeline

As explained above, the CTE Committee plans to visit all LEAs in Phase 1 of the CTE ERT visit program. This would mean visiting schools in 13 LEAs in School Year 2024-2025 and the

remaining 9 LEAs in School Year 2025-2026. The proposed timeline means conducting six visits in the fall semester and seven visits in the spring semester of School Year 2024-25, targeting a mix of small and large LEAs. Each visit will span one day and will encompass at least two schools (or one school and one CTE center). This will mean visiting at least 26 schools in School Year 2024-2025 which meets the legislative requirement to visit 10 percent of CTE programs (23 schools) per year. In each LEA, the CTE Committee will choose a representative set of schools to visit, taking into account many factors including school type (CTE center vs. comprehensive high school), geography, size, and range of programming. We will also consider schools or programs with lower enrollment or completion rates (see Appendix A for a draft timeline). CTE ERTs will prioritize visiting the 22 LEAs that were not part of the pilot year. If time and resources allow, CTE ERTs will revisit the pilot LEAs which would mean visiting 11 LEAs in School Year 2025-26. The CTE Committee will also spend time in spring of 2026 revising tools for Phase 2 visits. The timeline takes into account LEA calendar constraints; CTE Committee staff will work with the LEAs to organize the agenda to cause the least disruption as possible to the school day.





School Selection

In Phase 1 of the work, the CTE Committee will continue the strategy employed in the pilot visits of visiting two schools in each LEA chosen to be representative of schools in the LEA. In LEAs with both CTE centers and CTE offered in comprehensive high schools, CTE ERTs will visit one of each. In LEAs where CTE is offered only in comprehensive high schools, CTE ERTs will likely visit two high schools. In addition to structure, the CTE Committee will also consider geography, academic performance, and the level of CTE enrollment and completion as criteria for selecting representative schools.

The statute also requires that the CTE ERTs prioritize visits to schools "in which sufficient numbers of students or groups of demographically distinct students are not making

adequate progress towards the completion of the CTE pathway.[2]" Since there is no current definition of CTE pathway completion and or adequate progress, the CTE Committee will define these terms and establish a methodology to identify schools based on these definitions during Phase 1. The key issues to address in establishing a definition and aligned metrics are:

- Do we define a statewide bar for progress or consider progress within each LEA?
- How is completion defined once the CTE Committee framework, the IRC and high school level of a Registered Apprenticeship guidance is finalized and how will this differ from the current Perkins-based definition of CTE completers?
- If progress is measured by the ratio of CTE participants/CTE completers, how do we set a bar for sufficient progress?
- In setting a bar for sufficient progress, how do we account for students who switch CTE programs or change to a different post-CCR path?
- Per the definition, is data available to provide a school-level baseline of sufficient progress?

This task will necessitate the CTE ERT team to expand its data collection from what was collected during the pilot phase. During the pilot visits, CTE ERTs collected data on CTE enrollment and CTE concentrators as well as the percentage of students who have completed CTE programs, earned an industry-recognized credential (IRC), per the prior MSDE definition, or completed a youth apprenticeship. This gave the CTE ERTs a high-level understanding of participation in current CTE programming in the LEA but not a way to gauge the school-level completion of CTE pathways. Therefore, the pilot visit materials have been updated to collect additional LEA- and school-level data that will help the CTE Committee understand each LEAs current CTE programs and progress towards the 45% goal.

CTE ERT Visit Team

The *Blueprint* legislation envisions the CTE ERT to have a mix of educator and workforce perspectives, requiring teams to include:[3]

- Highly regarded CTE teachers who are represented by teachers' organizations that, for the purposes of collective bargaining, represent a majority of teachers in the State or in a local school system
- School leaders
- Employers
- Trade unions
- Apprenticeship and internship sponsors

In addition to these perspectives, we will need to include core CTE Committee staff and LEA leaders. Given the layers of partnership that the *Blueprint* envisions, it seemed prudent to develop a team that also includes representatives from postsecondary, Local Workforce

[2] https://mgaleg.maryland.gov/mgawebsite/Laws/StatuteText?article=ged&section=21-209&enactments=False&archived=False
[3] https://mgaleg.maryland.gov/mgawebsite/Laws/StatuteText?article=ged&section=21-209&enactments=False&archived=False

Development Boards, MSDE, and the AIB when possible. Organizing the right set of team members is a challenge for several reasons:

- Given the limited budget for this work, the CTE Committee is unlikely to be able to pay stipends for the participation of CTE instructors and will likely need to limit the number of visits any particular teacher or school leader participates in for this reason, especially since participation will be voluntary and involves a lot of time, including taking part in the orientation, full-day visit, and debrief. The CTE Committee is looking into the possibility of visit participation counting as a professional learning activity for teachers.
- There is a desire to balance a set of consistent team members who can compare across LEA visits with new team members to offer new perspectives to conversations on each visit. Additionally, having a core set of consistent members on most visits ensures that CTE ERTs have continuous analysis of adjustments that need to be made to the structure and tools. However, this is a significant time commitment for a core group of CTE ERT members to attend all visits.
- Many employers cannot spare a full day of time for visits, or for multiple visits. Because apprenticeship is the preferred pathway, the CTE Committee will prioritize including apprenticeship sponsors over internship sponsors on CTE ERTs.

Given these limitations, the CTE Committee proposes that the core team members include:

- 1-3 CTE Committee staff
- 1 CTE teacher represented by a teachers' organization that, for the purposes of collective bargaining, represents a majority of teachers in the State or in a local school system
- 1 School leader (i.e., Principal, Assistant Principal, CTE Department Chair)
- 1 Employer, trade union representative, and/or apprenticeship sponsor

Optional team members will include:

- CTE Committee member or their designee
- CTE director or LEA staff from a neighboring LEA
- Local Workforce Development Board representative (staff or board member)
- Local community college representative
- MSDE representative
- AIB representative

The CTE ERT will consist of about 10-12 individuals for each LEA visit. This number is based on our pilot visits where the team was split into two groups. The team learned that 5-6 individuals is a reasonable number to visit classrooms and conduct focus groups without being overwhelming for the students, teachers, and staff. It is likely that some individuals will "fill" more than one category of team membership. For example, an apprenticeship sponsor from the CTE Committee joined one of the pilot visits. It is also likely that some CTE teachers, school leaders, and LEA CTE directors may be able to join multiple visits, and some may only be able to join a single visit. These and other factors suggest that the makeup of teams will

likely vary by visit. The goal is that over multiple visits, CTE ERTs are able to bring in a full range of perspectives to contribute to our overall understanding of the state of CTE across Maryland. The CTE Committee also sees Fall of 2024 as a trial period for determining the most efficient and effective way to organize teams as we work out questions like:

- How many members should consistently join visits and who should rotate?
- How many people is a workable number to spend the day in a school?
- Whether to over-enroll the team to accommodate potential attrition.

Required responsibilities of CTE ERT members will include:

- Participating in an orientation training session
- Reviewing background documents about the LEA and the schools in advance of the meeting
- Participating in a full-day visit and fulfilling assigned roles (i.e., notetaker, facilitator, timekeeper)
- Participating in a debrief of the visit and submitting written feedback on the visit
- Reviewing visit reports

In addition, each member will be expected to contribute to the conversation and debrief from their own perspectives (employer, teacher, etc.).

Visit Structure

The CTE Committee plans for the School Year 2024-2025 visits to be structured in much the same way as the pilot visits in the spring of 2024. The major elements of those visits include:

- A full-day visit with one school in the morning and one in the afternoon
- An extended (~75 min) meeting with school leaders to understand the structure of the CTE programs at the school
- Focus group sessions (45-60 min each) with:
    - Students
    - CTE teachers
    - Career coaches/advisors/counselors, and possibly school counselors or work-based learning coordinators if applicable/appropriate, depending on the LEA's structure
- Short visits (~5 min each) to a range of CTE classrooms during instruction time to observe CTE instructors and student participation

The CTE Committee does plan to make some adjustments to the agendas used for the pilot visits, including extending the focus group sessions with school leaders and teachers to allow for a fuller conversation and modifying the number of CTE classrooms visited to maximize engagement among CTE ERT members, students, and teachers. For the pilots, CTE ERTs were split into two groups to cover the range of conversations and classroom visits planned at each school. The CTE Committee has considered a number of scheduling questions like whether the two groups should specialize (all focus groups vs. all class visits) or if each group

should do a mix of activities, and how best to assign roles (notetaker, facilitator, timekeeper). The CTE Committee will continue to experiment and adapt as CTE ERT visits continue this fall.

In addition to the visit itself, the CTE Committee staff will organize an orientation and a debrief session for each LEA visit. For the pilot visits, the CTE ERT conducted the orientation and debrief virtually and will plan to continue this approach in order to get as many CTE ERT team members as possible to participate.

Visit Planning and Tools

For each visit, there is extensive planning involved to create an agenda and background materials for CTE ERT members. In addition, a set of tools and protocols have been developed to use on the visits to guide the CTE ERTs work and conversations.

Once an LEA is chosen for a visit, the CTE Committee staff will plan the visits closely with the LEA CTE director, relying on them for recommendations of initial schools to visit with a goal of understanding the LEA-wide system. In addition, the staff will have an initial conversation with the LEA CTE director/lead staff to understand their sense of the LEA's strengths, challenges, and current implementation plans. Once the schools are selected, CTE Committee staff will reach out to the schools to explain the goals of the visit and ask how best to make the visit useful for the school while minimizing disruptions. For example, school leaders will be asked if there are particular issues they want to get feedback on so that their needs can be added to the team's questions/conversations. CTE ERTs rely on the help from school leaders to create the visit agenda, especially given the different schedules across schools/LEAs, with specifications from the CTE Committee about what we would like to see.

Once the set of LEAs to be visited in School Year 2024-2025 is determined, the CTE Committee staff will:

Compile Background Materials

- Collect and organize information about:
  - The structure of CTE in the LEA;
  - The range of programs offered by schools across the LEA;
  - LEA or school strategic plans;
  - Enrollment, performance, and completion data and trends; and
  - Information about higher education institutions, leading employers and industries, and employment rates in the LEA.

Organize ERT Visits & Orientations

- Organize orientation for the team, with each LEA director prepared to provide an overview of the system, key strengths, and key challenges and a review of the visit schedule and protocols.
- Develop an agenda with background information about who we are interviewing and the programs we will be visiting.

Debrief & Create Post-Visit Reports

- Schedule a debrief with ERT members to review what we saw and identify key strengths and opportunities at the school, county, and state level
- Develop a report on each visit (reviewed by the team) and time to discuss the visit and the report with schools and LEA leadership.

CTE Committee staff have developed a set of templates, tools and protocols to help structure and organize the visit work (these can be viewed in Appendix A). To inform our visit reports and school/LEA recommendations, the following data will be collected before or during the visits:

- Enrollment and completion rates in CTE, IRC attainment, and high school Registered Apprenticeship programs at the district and school level
- Enrollment (including over and under enrollment) in programs at school and LEA levels[4]
- New programs planned, including Registered Apprenticeships
- Post high school paths of current students, to the degree possible
- IRCs offered by each program

Reporting and Follow Up

After debriefing each visit, CTE Committee staff will develop a LEA report that focuses on:

- System overview (how the system is structured)
- Summary of the visit, including specifics from each school visited
- Strengths of the system (looking specifically for practices that might be shared across the network of counties)
- Challenges of that LEA
- Looking ahead (ideas about strategies the LEA might consider as it moves ahead to reach *Blueprint* goals)

Draft reports will be reviewed by team members, as well as CTE Committee members and staff. The reports will also be shared with LEA and school leaders, and when possible, debrief sessions to discuss the findings of the reports will be arranged. The goal is to produce LEA reports within six weeks of the visit.

In addition to each LEA report, the CTE Committee staff will include information on the visits in an annual report that is due December 1, starting in 2024. The CTE ERT section will compile findings across LEAs and focus on:

- Key progress being made in strengthening LEA programs and meeting outcome goals around completion of CTE programs, the high school level of a Registered Apprenticeship and awarding of IRCs that meet the new standards;
- Challenges LEAs are confronting that call for consideration of state initiatives or policy changes; and,
- Proposed changes, if any, in legislation either in the timeline of CTE system implementation or in the substance of required changes.

[4] This is inclusive of CTE programs that are "oversubscribed." Oversubscribed generally refers to CTE programs of study where there are more students applying than there are seats/instructors/space available, and therefore some students are put on a waitlist. LEAs have varying degrees for deciding which students are chosen from the waitlist, but typically this includes a portion that are chosen via randomized lottery. For example, 100 students may apply for the welding program in the upcoming SY, but due to safety and space allocation for the welding work space required, only 20 students can be in the class for that year.

The first such report is due in December 2024 and will draw on insights and findings from the two spring 2024 pilot visits and some of the fall 2024 visits.

Under the *Blueprint*, the AIB may withhold a portion of the increase in the State share of major education aid. According to the law, the criteria for releasing LEA funds shall be based on LEA implementation plan approval by the AIB, in addition to recommendations made by MSDE, the CTE Committee, and/or sufficient evidence of progress in implementing the *Blueprint* in the AIB's judgment.[5] Starting in FY26, the CTE Committee can leverage the information gathered via the CTE ERT program to recommend the AIB exercise this authority if an LEA is not making a good faith effort to reach the 45% goal and is not demonstrating sufficient progress over time. It is highly unlikely the CTE Committee will make a funding recommendation until the CTE ERTs are able to visit the LEA at least twice to assess implementation progress over time, recognizing that laying the groundwork for achieving these ambitious goals will take several school years. Additionally, before recommending the AIB withhold funds, the CTE ERT will first provide the LEA with targeted technical assistance to address their identified challenges, with adequate time to implement changes and demonstrate progress.

Staffing

The proposed Fiscal Year 2025 CTE ERT supplemental budget submitted in the fall of 2023 included funding for a regional staffing structure, with coordinators for three areas of the state. It also saw the potential of building the capacity of the CTE Committee to deliver needed technical assistance identified during school visits. The level of School Year 2024-2025 funding secured is not, however, at the original vision, so we have adapted the scope of the work of the program, reducing the number of potential school visits from 35+ to 22-26 and setting aside the technical assistance capacity of the CTE Committee itself.

The CTE ERT approach has shifted to a strategy focused on LEAs rather than schools and will focus on how to advise LEAs and the state to better support and provide assistance to LEAs. The CTE Committee, however, will continue to focus on inviting outstanding teachers, leaders, and directors in each system to join other visits, both as a way to build the professional knowledge of those individuals and bring new perspectives and also to build networks of CTE teachers and leaders across the state.

The CTE Committee is still considering the best overall staffing structure for the CTE ERT program given increasing but still-limited budget and staffing, including what positions will focus exclusively on CTE ERT work and which ones will have responsibilities across CTE ERT and other aspects of CTE Committee work. At a minimum, the CTE ERT program work tasks and functions we will need to staff include:

- Logistics of planning and overseeing visits;
- Liaison to LEAs;
- Preparation and dissemination of background materials;

[5] AIB's Updated Comprehensive Implementation Plan, August 2023, https://drive.google.com/file/d/1PsYQGhld5Qwk7PgK2cEubr68SSKrG5dH/view?usp=sharing.

- Organization and analysis of data from LEAs and visits;
- Preparation of LEA reports and debrief with LEA and schools;
- Analysis of data and visit reports across the state to develop state level recurring themes and challenges, recommendations for ways to address challenges and subsequent required followup resulting from the recommendations, and drafting these elements within the annual report;
- Ongoing data collection and monitoring of LEA progress toward *Blueprint* goals; and
- Analysis of technical assistance needs of CTE schools.

In addition to this set of functions required for the School Year 2024-2025 visits, staff will also need to start planning School Year 2025-2026 visits, including creating a new budget and revising tools based on the visit experience of School Year 2024-2025 as well as the status of the work. In addition, building a monitoring capacity and system will be a key task, as will building on the relationships and conversations started through the visit process to create ongoing networks and opportunities for peer-to-peer conversations across the state to problem-solve together and share innovative solutions and policies.

Budget

More info to be added as finalizing staffing allocation with DBM…

Key staff

- CTE ERT Manager
- Policy Analyst
- Data Analyst
- Supervision: % of time of Committee director
- Other support

Other categories of costs

- Travel
- Lunches (for visits)
- Supplies

Appendix A: CTE ERT Tools

1. LEA Brief (example from Anne Arundel County Public Schools)
2. School Visit Agenda (example from Anne Arundel County Public Schools)
3. Addendum to Agenda (example from Anne Arundel County Public Schools)
4. Focus Group / Interview Questions
5. Classroom Visit Protocol
6. Debrief Tools
    a. Debrief Notes Organizer

    b. Jamboard (example from Anne Arundel County Public Schools)
7. Post-Visit Summary (example structure from Queen Anne's County Public Schools)
8. CTE ERT Visit Look Fors
9. Timeline for School Year 2024-2025 Visits

LEA Brief

CTE LEA Leads		
Name	**Role(s)**	**Contact Info**
Ryan Sackett	Coordinator of CTE	
Kelly Stutzman	Manager of Work Based Learning	
Demetria Keller	Program Specialist	
Amy Baer	Teacher Specialist	
Jack Heinz	Teacher Specialist	

Comprehensive High Schools with CTE	
Annapolis HS	North County HS
Arundel HS	Northeast HS
Broadneck HS	Old Mill HS
Chesapeake HS	*Severn Run HS* (new 2024-25 SY)
Crofton HS	Severna Park HS
Glen Burnie HS	South River HS
Meade HS	Southern HS

LEA CTE Centers	
Center of Applied Technology-North	Center of Applied Technology-South

ERT Visit	
Thursday, May 2, 2024	Center of Applied Technology North
	Old Mill HS

LEA CTE Enrollment, Participation, and Completion Rates

	Anne Arundel County
Programs & Enrollment, 2021-22	
# of High Schools with CTE Programs	13 High Schools (1 more under construction and will open 24-25 SY), 2 Centers of Applied Technology, 1 Educational Options site
# of CTE Centers	2
# of CTE Programs	51
Total High School Enrollment (2023)	25,581
CTE Enrollment (2022)	11,372
CTE Enrollment (%)	44.6
Participation & Completion Rates, 2022-2023	
CTE Concentrators	934
CTE Concentrators (%)	17.6%
CTE Completers (#)	895
CTE Completers (% of graduates)	(895/5300)= 16.9%
WBL Participation (#)	~850- Internships 129 Youth Apprenticeship
# of Apprenticeship Participants	131
# of Apprenticeship Completers	129
IRC Completion Rate	(695 “Passed”/1254 “Attempted))=55%
Dual Enrollment Participation Rate	(687/895)= 77.9%
Progress Towards 45% Goal	((695+129)/5300)= 15.5%

LEA CTE Offerings

Overview

Anne Arundel County Public Schools in Maryland host a diverse range of Career and Technical Education (CTE) programs across all comprehensive high schools and two Centers of Applied Technology magnet schools. These programs are designed to meet the needs of varying student interests and the demands of the local job market. The county boasts an impressive enrollment in CTE programs, aligning with or exceeding state averages for participation and completion rates. Collectively, Anne Arundel County Public Schools offer a comprehensive suite of more than 50 CTE programs, spanning from information technology and health sciences to engineering and culinary arts, ensuring a broad and inclusive approach to vocational education and career readiness.

Career Exploration

- Middle School courses aligned with FACS, Tech & Eng, and Comp Sci
- Career Exploration program at CAT North and South where students can sample 4 programs in one semester in their 9th grade year

Enrollment Practices

- How do students enroll in programs?
    - All programs at comprehensive high schools are open enrollment
    - Programs at CAT North and South are application based, typically at the mid point of their 9th grade year, but open to apply to all grade levels except seniors
- Are all CTE programs offered to all students?
    - Mostly- all programs outside of our Signature CTE/Dual Enrollment programs are open to all students
    - Signature programs are school specific and only available to students who attend that high school
- Can a student participate in a CTE program at another school?
    - JROTC- Yes
    - Programs offered at CAT North and South are magnet- but based on geographic location of comprehensive high school

Program Design

- The programs, like all in Maryland, follow a program design that is approved by MSDE and meets Perkins requirements for secondary CTE. Most programs consist of 3-4 courses, taken in 10th to 12th grades.
- A CTE participant is one who is enrolled in one course; a completer has completed the sequence of 3-4 courses in his or her program area.
- For more information about each program, see the county descriptions.

LEA Support for Schools

- Financial support provided by local and grant funds
- CTE Office is responsible for program management and curricular support
- Strong Work Based Learning team that secures internships/apprenticeships and supports student enrollment and success in these programs

Visited Schools Overview

Center for Applied Technology-North

School Leadership:
Joseph Rose, Principal
Sheila Coffman, Assistant Principal
Caroline Hathaway, Assistant Principal
School Website
The Center for Applied Technology North, with a student population of approximately 800, is known for its emphasis on traditional skilled trends and STEM-oriented programs including Automotive Technology, Cosmetology, Academy of Health, IT Networking, Graphic Design, and Environmental Science. The school also participates in the Apprenticeship Maryland Program, providing students with pathways into high-demand fields such as advanced manufacturing and technology sectors. This commitment to applied sciences and practical career preparation distinguishes the Center for Applied Sciences North as a leader in integrating academic rigor with real-world relevance

Old Mill Senior High School

School Leadership:
Mrs. Alison Mikeska, Principal
Mrs. Farissa Elvis, Assistant Principal
Mrs. Tracy Stakem, Assistant Principal
Mr. Timothy Redman, Assistant Principal
Mrs. Holly Holman, Assistant Principal
Mr. Bernie Edwards, Assistant Principal
Mrs. Lyndsey Huerbin, Assistant Principal
School Website
Old Mill Senior High School, home to over 2,400 students, offers a comprehensive range of Career and Technical Education (CTE) programs including Hospitality and Tourism, Business Management, and Computer Science. The school is also active in the Apprenticeship Maryland Program, connecting students with apprenticeship opportunities in sectors such as construction and healthcare. Old Mill's commitment

to a diverse and practical educational environment makes it a pivotal institution for career-oriented education in Anne Arundel County.

List of Anne Arundel County CTE Programs to be Visited

Schools with CTE Programs	CTE Program	Student Enrollment (Concentrators)
Center of Applied Technology-North Total student population: >1700 including students enrolled in Career Exploration and CTE Programs	Academy of Health Professions	Level 1/Level 2 45/34
	Automotive Collision Repair & Refinishing	32/16
	Automotive Technology	32/18
	Baking & Pastry	40/20
	Barbering	14/10
	Building/ Industrial Maintenance	29/9
	Carpentry	30/12
	CASE: Natural Resources	17/16
	Cosmetology	22/17/17
	Culinary Arts	31/15
	Drafting and Design Technology	39/13
	Electricity	33/18
	Graphic Design	31/7
	Heating, Ventilation and Air Condition (HVAC)	29/15
	IT Networking Academy (Cisco)	17/27
	Manufacturing Technology	26/8
	Masonry	32/4
	Medium/Heavy Truck and Equipment Technology	16/10
	Plumbing	32/16
	Print Media Technology	23/10

	Welding	31/16
Old Mill Senior High School Total student population: 2,445	Accounting and Finance- Dual Enrollment	27 (0)
	Administrative Service Management	10 (0)
	Apprenticeship Maryland	28
	Business Management	24 (24)
	Career Transitions	16 (1)
	Child Development Associate-CDA	27 (10)
	Computer & Information Sciences	17 (0)
	Engineering Systems	15
	Food and Beverage Management (ProStart)	8 (0)

*According to the 2022 Youth Apprenticeship Advisory Committee Annual Report developed by the Maryland Department of Labor, the following employers are approved to offer youth apprenticeships for Anne Arundel County students:

LEA Student Demographics

	Maryland	AACPS
LEA Student Demographics (2023)	889,971	84,774
% Asian	6	<1
% American Indian / Alaska Native	<1	<1
% African-American	33	22
% Hispanic	22	20
% Native Hawaiian / Other Pacific Islander	<1	<1
% Two or More Races	5	6
% White	33	47
% Students with Disabilities (2021-22)	12	11
# of English Learners	12	10
% Low-Income (FARMS)	52	43
Child Poverty Rate % (2022)	12	
Unemployment Rate % (2022)	3	
Educational Attainment Rate (bachelor's or higher) (2022)	42	

*This is the most recent data provided by the USWIB:The unemployment rates for the state and the five counties were presented. The state is below 2% in the state. In particular, youth unemployment is 4 - 5 times higher than average. The unemployment rate for July 2023 in Caroline County was 1.6 %, Dorchester was 1.8%, Kent County was 1.8%, Queen Anne's was 1.5%, and Talbot County was 1.7%. Maryland gained 12,400 jobs in August.

Community Context

Nearby Universities & Community Colleges

- Chesapeake College, 2 year
- Anne Arundel Community College, 2 year
- University of Maryland, College Park, 4 year

Economic Profile (per AAWDC)

Anne Arundel County is located in a region that consists of Baltimore, Anne Arundel, Howard, Carroll, Hartford, and Cecil Counties and Baltimore City. However, being adjacent to Montgomery and Prince George's counties, Anne Arundel County is also considered to be a part of the larger Washington metropolitan area. Both regions are heavily represented by government organizations, their contractors, as well as healthcare and professional/scientific services. The county has a diverse $51.5 billion economy, the third largest in Maryland.

The government industry is the largest employer in the County. Fort George G. Meade has 119 tenant organizations, including the National Security Agency (NSA), which employ an estimated 62,680 employees. Other economic drivers and employment hubs in the local area include the North County Industrial Zone, BWI Airport area, Arundel Mills, and two regional hospitals.

Even through the median household income in Anne Arundel County is relatively high ($108k) and poverty rate is low (6% for AA County versus 10% for the state as a whole), there are population segments that have substantial barriers that prevent a sustainable income. The United Way did a study on the working poor, of the Asset Limited, Income Constrained, Employed (ALICE) population. They found that 24% of household in Anne Arundel County fall into the ALICE, meaning these household earn less than the minimum household survival budget needed to cover the cost of housing, child care, food, transportation, and health, leaving no room for savings and thus no cushion for unexpected expenses.

Data (per AAWDC)

Overview

- Population: 599,616 (2023)
- Total Regional Employment: 332,848
- Median Household Income: $108.0k (2021)
- Total Number of Households: 255,064
    - Number of ALICE* Households: 24%
    - Households in Poverty: 6%

* ALICE: ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. – United Way

Labor Force Breakdown (Jan 2024)

- 16+ Civilian Non-Institutionalized Population – 466,421
    - Not in Labor Force (16+) – 154,764
    - Labor Force – 311,657
        - Employed – 304,504
        - Unemployed – 7,153
- Under 16, Military, and institutionalized Population – 138,777

Educational Attainment

- Less than 9th Grade – 2.1%
- 9th Grade to 12th Grade – 4.0%
- High School Diploma – 21.7%
- Some College – 20.3%
- Associate's Degree – 7.6%
- Bachelor's Degree – 25.1%
- Graduate Degree and Higher – 19.2%

Business Size

- 1-4 employees – 30.5%
- 5-9 employees – 29.5%
- 10-19 employees – 23.3%
- 20-49 employees – 12.2%
- 50-99 employees – 3.0%
- 100-249 employees – 1.2%
- 250-499 employees – 0.2%
- 500+ employees – 0.1%

Largest Industries – Jobs

1. Government
2. Healthcare and Social Assistance
3. Retail Trade
4. Professional, Scientific, and Technical Services
5. Accommodation and Food Services

Largest Industries – Job Growth

1. Manufacturing
2. Transportation and Warehousing
3. Construction
4. Administrative and Support and Waste Management and Remediation Services
5. Health Care and Social Assistance

Note: Northrup Grumman is categorized as Manufacturing

Largest Occupations – Jobs

1. Office and Administrative Support
2. Business and Finance Operations
3. Transportation and Material Moving
4. Sales and Related
5. Management

Largest Occupations – Job Growth

1. Management
2. Business and Financial Operations
3. Computer and Mathematical
4. Transportation and Material Moving
5. Military-only

In-Demand Skills

1. Nursing
2. Computer Science
3. Project Management
4. Merchandising
5. Auditing

Leading Business Groups (per AAWDC)

Employer	Estimated Employees	Description	Industry
Fort George G. Meade	62,680	U.S. Dept of Defense installation; 119 tenant organizations	Government
Anne Arundel County Public Schools	14,852	County public education k-12	Education
State of Maryland	12,256	State government services	Government
BWI Thurgood Marshall Aiport	9,717	Regional airport	Government/Transportation, Warehousing & Distribution/Hospitality - Accommodation, Retail, and Food Service
Northrop Grumman	9,500	CHDQT Electronic Systems Sector & marine division	Manufacturing

Anne Arundel County Government	6,348	Local government services	Government
Anne Arundel Health System	5,100	Hospital	Healthcare
Southwest Airlines	4,857	Airline	Transportation, Warehousing & Distribution
University of MD Baltimore Washington Medical Center	3,328	Hospital	Healthcare
U.S. Naval Academy/Naval Support Activity	3,000	Federal naval education facility and support facilities	Government
Live! Casino and Hotel	3,000	Casino	Hospitality - Accommodation, Retail, and Food Service
Amazon	2,210	Warehouse & Distribution	Transportation, Warehousing & Distribution
Booz Allend Hamilton	2,100	Information assurance & signals Intelligence solutions	Information Technology & Professional Services
Anne Arundel Community College	1,555	Public two-year college	Education
Allegis Group	1,500	HDQT, IT & engineering placement	Information Technology & Professional Services

CTE Committee Expert Review Team
LEA Pilot Visit
Anne Arundel County Public Schools

Visit Date: Thursday, May 2, 2024 Times: 8:00am-3:30pm	*Location AM:* **Center of Applied Technology-North** 800 Stevenson Rd Severn, MD 21144	*Location PM:* **Old Mill Senior HS** 600 Patriot Ln Millersville, MD 21108	Arrival Time: 8:00am Morning Meet & Greet: 8:00am-8:30am **WiFi is public and has no password**

Center of Applied Technology-North

Team 1: Rachael S Parker, Jackie Kraemer, Charnetia Young, Lateefah Durant, Bekki Leonard (Ryan Sackett/Other Staff)		Team 2: John Strickland, Bill Forrester, Molly Mesnard, (AACPS/School Staff)	
Time	Activity	Time	Activity
8:00am-8:30am (30)	Meet and Greet Sheila Coffman, Caroline Hathaway, Joe Rose, Ryan Sackett	8:00am-8:30am (30)	Meet and Greet Sheila Coffman, Caroline Hathaway, Joe Rose, Ryan Sackett
8:30am-9:20am (50)	School Counselor & Career Coach Mtg[1] Location: School Counseling Office	8:30am-9:20am (50)	Teacher Focus Group[2] Location: Media Center
9:25am-10:10am (45)	Classroom Visits Class: Manufacturing Technology Teacher: Earl Anthony Class: Electricity Teacher: Robert Palmer Class: Academy of Health Teacher: Gail Eitel Class: Graphic Design Teacher: Megan Snyder	9:25am-10:10am (45)	CTE Student Focus Group[3] Location: Media Center
10:10am-10:20am (10)	Break	10:10am-10:20am (10)	Break
10:20am-11:00am (40)	Classroom Visits Class: Plumbing Teacher: Brian McCarthy Class: Barbering Teacher: David Gross Class: IT Networking Teacher: Beverly Crest Class: Auto Refinishing Teacher: Ed Welch	10:20am-11:00am (40)	Classroom Visits Class: Pharmacy Tech Teacher: Charli Finn Class: Auto Technology Teacher: Don Kerr Class: CASE Teacher: Sarah Skinner Class: Welding Teacher: Jimi Hale
11:00am-12:15pm (45) (30)	CTE Staff/Admin Mtg[4] & Lunch (at CAT North)	11:00am-12:15am (45) (30)	CTE Staff/Admin Mtg[4] & Lunch (at CAT North)
12:15am-12:45pm (30)	Travel Time	12:15am-12:45pm (30)	Travel Time

Maryland
GOVERNOR'S WORKFORCE DEVELOPMENT BOARD

Old Mill Senior High School

Team 1: Rachael S Parker, Charnetia Young, Lateefah Durant, Bekki Leonard (Ryan Sackett/CTE Staff)		Team 2: Bill Forrester, Jackie Kraemer, John Strickland, Molly Mesnard (CTE Staff/School Staff/AACPS Staff)	
Time	Activity	Time	Activity
12:45pm-1:00pm (15)	Arrival and Check In: Counseling Conference Room	12:45pm-1:00pm (15)	Arrival and Check In: Counseling Conference Room
1:00pm-1:50pm (50)	Classroom Visits Class: H Business Mgt (Direnzo) Room: A228 Class: Found of Comp Sci (Davis) Room: A263 Class: Mobile Apps (Brown) Room: D116 Class: Architecture & Design/Dev 2 (Marlowe) Room: D129 Class: H Nutrition A (Choudhary) Room: C111	1:00pm-1:50pm (50)	CTE Student Focus Group[5] Location: Media Conference Room
1:50pm-2:00pm (10)	Break	1:50pm-2:00pm (10)	Break
2:00pm-2:50pm (50)	School Counselor, WBL Facilitator & Career Coach Mtg[6] Location: Counseling Conference Room	2:00pm-2:50pm (50)	CTE Teacher Focus Group[7] Location: Media Conference Room
2:50 pm-3:30 pm (40)	End of Day Debrief & Gathering Counseling Conference Room	2:50pm-3:30pm (40)	End of Day Debrief & Gathering Counseling Conference Room

Old Mill HS Bell Schedule

CAT-North Focus Group Participants			
School Counselors & Career Coach(es)[1]	**Teachers in Focus Group[2]**	**Students in Focus Group[3]**	**CTE Staff/Administrator Meeting[4]**
Lauren Smith *School Counselor, Department Chair*	Michael Born *Printing Technology*	Macy W. *Academy of Health Professions*	Ryan Sackett *CTE Coordinator*
Amy Canterbury *School Counselor*	David Gross *Barbering*	Luis B. *Barbering*	Joe Rose *Principal- CAT North*
Tom Dickinson *Work-Based Learning Facilitator*	Deana Jones *Automotive Collision*	TaShawna B. *Barbering*	Sheila Coffman *Assistant Principal*
TBD *Middle School Career Coach*	Don Kerr *Automotive Technology* *DC Transportation*	Serenity C. *Drafting &* *Design Technology*	Caroline Hathaway *Assistant Principal*
	Michelle McCarty *Drafting & Design Technology*	*Amir T.* *CASE*	Hope Turner *AVID Site Coordinator*
	Sarah Skinner *CASE*	Riley H. *Cosmetology*	Anna James *Business Support Technician*
	Doug Wetzel *Culinary Arts*	*Nathan M.* *Electricity*	*Alison Mikeska* *Principal- Old Mill HS*
	Charles Whitaker *HVAC, DC Construction*	Nina C. *Transportation*	

CAT-North Team Member Roles			
AM Roles (Team 1)		**AM Roles (Team 2)**	
Facilitator	Rachael S Parker	**Facilitator**	John Strickland
Facilitator	Charnetia Young	**Facilitator**	Bill Forrester
Notes/Recorder	Lateefah Durant	**Notes/Recorder**	Molly Mesnard
Time	Lateefah Durant	**Time**	Bill Forrester

CTE Staff /Administrator Meeting	
Facilitator	Bill Forrester
Facilitator	Lateefah Durant
Notes/Recorder	Jackie Kraemer
Time	Molly Mesnard

Old Mill HS Focus Group Participants

Students in Focus Group[5]	**School Counselors WBL Facilitator & Career Coaches Focus Group[6]**	**Teachers in Focus Group[6]**
J Autrey *H Culinary/Hospitality 1*	Carla Matthews *Internship/Work Study*	Matt Marlowe *CTE DC*
C Riner *H Culinary/Hospitality 1*	Tom Dickinson *WBL Facilitator*	Meenu Choudhary *FACS DC*
A Gleeson *Technological Design*	JoAnne Brack *WBL Facilitator*	Aleiha Direnzo *Business Teacher*
S Dailey *Princ Business Mgt & Ent, Career Conn*	Katelyn Falls *Counseling DC*	Beni Davis *Computer Sci Teacher*
Z Chaudhry *H Culinary/Hospitality 2, H Business Mgt*	Ali Mikeska *Principal*	Jake Kindschy *Technology Teacher/SkillsUSA*
W Stull *Marine Tech, Career Conn, SkillsUSA*		Liana Johnson-Suarez *Computer Science Teacher*
D Watts *H Culinary/Hospitality 1*		

Old Mill HS Team Member Roles

PM Roles (Team 1)		**PM Roles (Team 2)**	
Facilitator	Lateefah Durant	Facilitator	John Strickland
Facilitator	Lateefah Durant	Facilitator	Molly Mesnard
Notes/Recorder	Rachael S Parker	Notes/Recorder	Jackie Kraemer
Time	Bekki Leonard	Time	Bill Forrester

Purpose: This addendum supplements our main agenda by offering detailed background information on the individuals we will be meeting and the Career and Technical Education (CTE) programs we will be exploring during our visits.

Section 1: Overview of Meeting Participants

1.1 CTE Staff, School Administrators & Staff

Name	Role	Location
Ryan Sackett	CTE Coordinator	AACPS
Amy Baer	Program Specialist	AACPS
Joseph Rose	Principal	CAT-North
Allison Mikeska	Principal	Old Mill High School

1.2 Teachers and Faculty

CAT-North			
Name	Program	Years in Position	Classes
Earl Anthony	Manufacturing Technology	32	Manufacturing Technology
Robert Palmer	Electricity	6, 16 overall	Electrical
Gail Eitel	Academy of Health	8	Academy of Health Professions
Megan Snyder	Graphic Design	24	Graphic Design
Brian McCarthy	Plumbing	3	Plumbing
David Gross	Barbering	3	Barbering
Beverly Crest	IT Networking	8	IT Networking
Ed Welch	Auto Refinishing	1, 23 overall	Auto Refinishing
Charli Finn	Pharm Tech	1	Academy of Health Professions
Don Kerr	Auto Technology	10	Automotive Technology
Sarah Skinner	CASE: Natural Resources	8	Environmental & Natural Resources
Jimi Hale	Welding	2	Welding

OLD MILL High School			
Name	Program	Years in Position	Classes
Aleiha Direnzo	Accounting and Finance, Business Management, CRD	3	Principles of Accounting and Finance, H Business Management, H Entrepreneurship, Career Connections
Beni Davis	Computer and Information Sciences, Administrative Management, CRD	2	Foundations of Computer Science, Intro to Microsoft, Career Connections
Timothy Brown	Engineering Systems	5	Practical Programming, Mobile Apps, Design & Prototyping, Energy/Power/Transportation, Engineering Design, Technological Design 1

Matthew Marlowe	Architecture, various Tech & Eng courses	5 OM, 16 overall	Architectural Design and Development 1 & 2, Marine Tech, DIY Electrical, DIY Carpentry, Foundations of Computer Science
Meenu Choudhary	ProStart		H Nutrition A, H Nutrition B, H Culinary 1, H Culinary 2

Section 2: Overview of CTE Clusters and Programs

2.1 Arts, Media and Communication

The Arts, Media and Communication industries offer great opportunities for innovative careers. Students interested in this cluster combine creative abilities with technical skills and knowledge that prepare them for careers in: Video Production, Graphic Communications, Web Design, Interactive Media and Game Design. The Arts, Media and Communication programs focus on mass communication, graphic communications, and multimedia production. Partnering with business professionals helps ensure our programs keep pace with the industry. These programs include options for students to earn industry certifications and college credit toward advanced study in their chosen career field.

2.2 Business Management & Finance

Careers in leadership, management, and support roles are needed by all types of organizations to operate successfully. The Business Management and Finance cluster focuses on financial services, accounting and finance, marketing, business management, and business administrative support. Students learn topics that relate to planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. These programs include options for students to earn industry certifications and college credit in a business-related career field. Business Management and Finance programs prepare students to continue their education at a postsecondary institution or begin employment immediately after high school.

2.3 Career Research & Development

The Career Research and Development (CRD) cluster includes CTE programs that prepare students with the academic, technical and workplace skills necessary to seek further education and employment in a career field of their interest upon graduating from high school. The overarching goals of the CRD cluster are to help students to:

-Become aware of personal characteristics, interests, aptitudes and skills;
-Develop an awareness of and respect for the diversity of the world of work;
-Understand the relationship between school performance and future employment choices;
-Develop a positive attitude toward work; and
-Formulate a process for evaluating employability skill development and future education/training options.

2.4 Construction & Development

Advances in science and technology will continue to drive innovation in the design, construction, and maintenance of all kinds of structures, including homes, manufacturing plants, office buildings, streets and highways and more. These advances will also impact infrastructure systems, including new design concepts, construction materials and methods, and the application of information technology. The programs included in the Construction and Design cluster allow students to advance their knowledge in specific construction trades, design or construction management.

2.5 Consumer Services, Hospitality & Tourism

Programs in the Human and Consumer Services, Hospitality, and Tourism cluster offer opportunities for students to pursue interests in careers related to the largest, fastest growing industry in the United States. Programs include options for students to earn industry certifications and/or college credit. Students interested in Culinary Arts, Restaurant Management, Barbering or Cosmetology engage in real-world experiences through internships and mentoring opportunities. This experience allows students to apply their classroom instruction in meaningful ways to give them (through licensure or certification) a head start in their profession.

- Ensure that all high school graduates are career and college ready
- Prepare students to earn industry certifications
- Promote the transferable skills of problem-solving, decision-making, and effective communication
- Provide value-added options for all career pathways
- Prepare students for occupations in the 21st century workforce

2.6 Environmental, Agriculture & Natural Resources

The Environmental, Agriculture, and Natural Resources cluster encompasses a wide range of careers. The agricultural sector is a highly competitive industry, creating new challenges in identifying global and domestic markets; improving business planning, financing, risk management, and productivity; and reducing costs. Advances in science and technology, in particular biotechnology and agribusiness, will continue to drive innovation and growth in this career cluster. Growing public concerns over natural resources, environmental quality, and public health will continue to expand the role and scope of the natural resource management and environmental services sectors. Programs in this cluster concentrate on the fundamental elements of life: food, water, land, and air and often entail working with plants, animals, and the environment.

2.7 Health & Biosciences

The Health and Biosciences Cluster encompasses a broad range of professions and industries that focus on the study, maintenance, improvement, and understanding of human health, biology, and related sciences. This cluster combines the fields of healthcare, medicine, biotechnology, pharmaceuticals, and more. An aging population and the increase in health care needs results in these careers being among the fastest growing and most in demand in the country. Students will gain in-depth knowledge of the human body, disease, major biological themes, and other concepts related to medicine and healthcare. Programs in the Health and Biosciences Cluster focus on preparing students for careers and post-secondary education in direct patient care settings, research and laboratory facilities, as well as for opportunities in business and management related to healthcare.

2.8 Human Resource Services

The Human Services career cluster focuses on careers in education and public service. Programs within the Human Services cluster are designed to prepare students for entry-level employment and post-secondary education in areas related to planning, managing, providing, and supporting human services, such as early childhood education and care, teaching professions, and homeland security and emergency preparedness. Human services professionals work to improve the quality of life and promote safe, healthy communities. Students in these programs have the opportunity to earn industry recognized certifications and early college credit as well as participate in internships and apprenticeships.

2.9 Information Technology

The Information Technology (IT) career cluster encompasses a wide range of careers related to computer systems, software development, data management, cybersecurity, and more. IT professionals play a crucial role in today's digital age by designing, developing, managing, and securing technology solutions that drive businesses, organizations, and society as a whole. The Information Technology career cluster is at the forefront of innovation and plays a pivotal role in shaping the way we live and work. IT professionals are essential for businesses and organizations to leverage technology effectively, improve efficiency, enhance customer experiences, and address complex challenges in various industries. This cluster offers diverse opportunities for students interested in technology, problem-solving, and staying at the cutting edge of digital advancement to earn industry certifications, early college credit, and participate in internships and apprenticeships.

2.10 Manufacturing, Engineering & Technology

The Manufacturing, Engineering, and Technology Career Cluster encompasses a broad range of professions and roles related to designing, creating, producing, and maintaining products and systems across various industries. This cluster plays a vital role in the development and advancement of technology, infrastructure, and products that shape modern society. Programs in the Manufacturing, Engineering and Technology Cluster prepare students for a variety of career areas, including opportunities to become engineers, engineering technologists or manufacturing technicians. Students engage in challenging, real-world projects that teach them how to design, plan, manage and process materials into final products. It offers a variety of industry certification opportunities, early college credit, and internship and apprenticeship opportunities.

2.11 Transportation Technology

The Transportation Technologies cluster prepares students for a range of careers that involve the diagnosis, maintenance, repair, and servicing of vehicles to ensure they operate safely and efficiently. The transportation industry has experienced significant growth and transformation over the past few decades, driven by advancements in technology, changing consumer preferences, and global market dynamics. As one of the world's largest economic sectors, it presents a wealth of opportunities for individuals interested in pursuing a career within this diverse and dynamic field. Transportation Technology programs provide students with the essential skills required to secure an entry-level position and/ or the foundational knowledge necessary to transition into a post-secondary program. Students gain hands-on experience by working with professional equipment and diagnostic tools, learning about

industry standard safety rules, service information, career strategies and the importance of job performance. Industry and business partnerships provide excellent work-based learning opportunities.

Section 3: Resources

AACPS CTE Website
CAT-North & Old Mill High School CTE Offerings
Anne Arundel Public Schools Program of Study for SY23-24
AACPS College Credit/Certification Opportunities

Maryland
GOVERNOR'S WORKFORCE DEVELOPMENT BOARD

CTE ERT Visit
Interview & Focus Group Questions

CTE Committee Expert Review Team

CTE Committee, Governor's Workforce Development Board
SY 2024-2025
Phase 1

Editable Copy Here

Table of Contents

Focus Group Reminders

To be used by team facilitator for focus group participants before starting

- We're here on behalf of the CTE Committee, committed to improving CTE programs in line with Maryland's goals outlined in the Blueprint.
- Our team represents a variety of different perspectives. Our members here today are teachers, administrators, school leaders, researchers, employers, local workforce board members, and CTE Committee staff and board members.
- Our purpose in this visit is to try to understand what is in place now in your LEA, including plans for expanding or strengthening existing programs and current challenges. We also want to identify any strong practices in place that we might be able to highlight statewide. These visits will also inform the CTE Committee's development of the statewide CTE framework.
- We are not here to "assess" or grade CTE programming or CTE teachers in schools or LEAs.
- After the visit, CTE Committee staff will draft a LEA report summarizing what we saw and heard, including our understanding of the LEA's CTE strategy, current strengths and challenges, and suggestions to help the LEA reach its goals.
- We look forward to hearing about your experiences and your thoughts on what's working and where we can support CTE here in your LEA.
- We would like to record this session (except student groups) to capture your thoughts accurately—does that work for you all? To be clear, this recording is only for note-taking purposes; we ensure confidentiality meaning no names will be cited in our reports.
- Your contributions today will help us improve CTE programs both here and statewide. Any questions before we start?

Questions for School Leadership

Priority Questions:

1. How long have you been in your role? What is your background in CTE?
2. Can you give us an overview of the structure of CTE programs in your school / LEA? *If not addressed, ask about: Dual enrollment, WBL, Range of programs, Application process, Transportation*
3. What are the school's current priorities for CTE in your school/LEA? *If not addressed, ask about: Eliminate/add programs, Apprenticeship, Increasing enrollment, Working with industry*
4. In your opinion, how well does the programming at your school align with key *(high-growth, high-wage)* industries in your community and statewide?
5. Is there capacity for all interested students to participate in CTE programs? Are there any barriers to enrollment?
6. From your perspective, what are the strengths of your LEA/school's CTE program, and what have you made the most progress on recently?
7. What do you see as the key challenges facing your LEA/school now?
8. Where would you like the LEA to be in five years?

Additional Questions:

- How do you collaborate with local business and industry and community colleges?
- Do you have sufficient teachers for current programs? If not, what are the issues in recruiting them?
- What's your process for reviewing the IRCs currently offered to students as part of their CTE program?
- What measures are in place to assess the long-term impact of CTE programs on students' career trajectories and contributions to the local economy?
- Do certain programs have higher completion rates than others?
- Are there clear pathways from current CTE programs to community college certificate and degree programs?
- What strategies are employed to raise awareness and improve perceptions of CTE programs among students, parents, and the broader community?

Questions for CTE Teachers

Instructions for focus group lead: Please start by asking everyone to introduce themselves with the first question. Since there are a lot of questions to get through, ask for a few people, not everyone, to answer each of the following questions, asking for different perspectives as needed.

Priority Questions:

1. What program do you teach in? How long have you been in your role? What is your background in this area?
2. Can you give us an overview of your CTE program? *If not addressed, ask about: Dual enrollment, WBL, IRCs, completion rates, post-grad options*
3. Do you have contact with employers in your industry? If so, what partnerships have been most beneficial for students?
4. What support do you and/or the school provide to help CTE students develop post-graduation plans? *Are your students getting time with a Career Coach as part of that support?*
5. If you could redesign your subject's program of study, what would you change?
6. What professional learning opportunities are available for you?
7. From your perspective, what are the strengths of your school's CTE program?
8. What do you see as the key CTE challenges facing your school now?

Additional Questions:

- How do you collaborate with your colleagues (CTE and academic teachers)?
- Do any of your programs have school-based businesses that serve the school community and/or local clients?
- Do you think the certification requirements for CTE teachers are well-aligned to what was needed to teach in the area you teach in?
- Can you share a success story of a former student who has benefited from your program?
- How do you measure the effectiveness of your CTE program, and what data or feedback informs changes or improvements?

Questions for CTE Students

Priority Questions:

1. What year are you, what program are you enrolled in, and why did you choose the program you're in?
2. How did you learn about the program you are enrolled in now? What was the process of enrolling?
3. How has your experience in the classroom been for your CTE classes? Is it different from your other classes?
4. Have you had any work experience as part of your program?
5. If you have a different home school, how do you get to your CTE program and / or to your job (if applicable)?
6. Will you graduate with any certifications/credentials or college credits?
7. What is your plan post-graduation, and how did you develop it?
8. How much do you know about careers in your industry (salary, training paths)?
9. What would you say is the best thing about your program?
10. If you could change anything in your program, what would it be?

Additional Questions:

- Are there any CTE programs you think the school/LEA should offer that it does not now?
- Have you participated in any competitions or extracurricular activities related to your CTE program? If so, what was your experience like?
- How well do you feel your CTE program is preparing you for the workforce or further education in your chosen field?
- How do your family and friends perceive your enrollment in a CTE program, and has their perception changed since you started?
- How does your school promote CTE programs to students, and what improvements would you suggest to increase awareness and interest?
- Looking back on when you first enrolled in your CTE program, what advice would you give to students who are currently considering CTE as an option?

Questions for School Counselors/Career Coaches & Staff

Instructions for focus group lead: Please start by asking everyone to introduce themselves with the first question. Since there are a lot of questions to get through, ask for a few people, not everyone, to answer each of the following questions, asking for different perspectives as needed.

Priority Questions:

1. How long have you been in your role? What is your background in this role?
2. How is school counseling and career counseling organized at your school? Do the counselors work together?
3. Is there a work-based learning coordinator and if so what is their scope of work and how do they interact with counselors?
4. How does the school counseling staff and career counseling staff stay up-to-date with CTE programming and workforce trends in the LEA and the state?
5. How are students introduced to CTE programs? Do students have opportunities for career exploration/education?
6. How are CTE students supported in making post-graduation plans?
7. How are parents and families introduced to programs? Are there other efforts to publicize CTE in the community?
8. What do you see as the strengths of CTE in this school?
9. What do you see as the key challenges facing your LEA/school's CTE programs?

Additional Questions:

- Do you track post-graduation outcomes, such as enrolling in further education / training or entering the workforce?
- In what ways does the school involve parents and the community in the CTE program?
- How are students who change their mind about a career path supported?
- How do you think the CTE guidance could be improved? Is feedback on guidance and support collected from students?

- Are there issues with students being able to access CTE programs? If so, what are the reasons and what are current strategies to address access issues from a counseling perspective?

District CTE Strengths	District CTE Challenges

Make a copy here

Suggestions for the District	Takeaways for the State

Visit Logistics Feedback	**Shareables** *(quotes and/or highlights from students and/or staff)*
Did the agenda design work to help team members get an overall sense of CTE programming across the district? ***Were there any perspectives we missed and should integrate into our visit design in the fall?*** ***What might be potential ways to engage employer and industry perspectives in visits next fall?*** ***Other notes:***	

Strengths

Knowledge & passion of the CTE staff

Some programs seem to be updated; auto tech was shifting to electric vehicles

Dedicated CTE faculty/staff for their programs...this goes in to a challenge for how design makes a very big difference in terms of attention of programs.

State-of-the-art facilities and equipment

Exploration program for 9th grade students/summer camp for middle schooler to intro them to program areas

Kids are excited about CTE programs; seem to like their teachers;

Additional school counselors at centers

The school offers financial literacy for all programs

Periods are 80 minutes which allows more robust learning for CTE classes

Evening program (but not enough funding?)

Committed leadership support for CTE Programs

Baking program catered for us. Sounds like they do catering/school based business.

Wide array of CTE offerings

Programs spend significant time on job skills/resume/applications

Induction/orientation/ coaching for new CTE teachers

Strong delivery of CTE Programs

Worked with all students to make comprehensive post-grad plans (able to do this bc smaller cohort)

Challenges

Process for updating technology takes a long time, even for quick / necessary updates (i.e., security patches)

Issues with HS grad requirements: CTE did not count as tech credit. CTE students did not have tme for band or other electives.

Many students found out about the CTE courses only through course selection not through planning

Lottery enrollment means that mixed group of students start in year one and only some continue in year 2. Overenrolled in year one/under in year 2.

Not sure there was a plan to expand apprenticeships by industry?

Lack of space/capacity

Apprenticeships offered to students who don't get into CAT programs -- is this the right approach considering capacity?

CTE Programs of Study course sequencing seems less defined in comprehensive high schools

Marketing to students to get them onto CTE path in comprehensive high schools. Classes often cancelled bc lack of enrollment / filled by students taking it as elective

Technology sometimes prevents students from sitting for IRCs

Fairness? - demand exceeds the Seats. Lottery becomes a choice that most public settings take. And adding aspects like (moving applicant list non school vendor) 'randomizing'

Challenge of having students participating in CTE completion hours participate/count toward apprenticeship (e.g., barbering, cosmetology, pharma

Long waiting lists

Suggestions for the District

Takeaways for the State

Did the agenda design work to help team members get an overall sense of CTE programming across the district?

Were there any perspectives we missed and should integrate into our visit design in the fall?

What might be potential ways to engage employer and industry perspectives in visits next fall?

Shareables

"Knowing my classmates matters for success". CAT-N

"My Teachers make this program great being there for us and supporting us for gaining knowledge and success". CAT-N"

Maryland
GOVERNOR'S WORKFORCE DEVELOPMENT BOARD

Pilot Visit Summary

CTE Committee Expert Review Team

LEA Name Here

CTE Committee, Governor's Workforce Development Board
Date here

Table of Contents

Overview of the CTE Committee Expert Review Team Visit

PURPOSE OF THE CTE EXPERT REVIEW TEAM (ERT)

The *Blueprint for Maryland's Future ("the Blueprint"),* Md. Ann. Code, Ed. Art. §21-209[1], established the Career and Technical (CTE) Committee as a unit within the Governor's Workforce Development Board (GWDB). The GWDB serves as the Governor's chief strategic and policy-making body for workforce development in the State of Maryland.[2] The GWDB is composed of key business, labor, education, community, and State and local government leaders appointed by the Governor to collaborate on business-led workforce approaches that advance Maryland's economic competitiveness and build pathways to work, wages and wealth for all Marylanders. The CTE Committee was established in 2022 and is composed of 11 members of the GWDB, as required in statute. The purpose of the CTE Committee is to build an integrated, globally competitive framework for providing CTE to Maryland students in public schools, institutions of postsecondary education, and the workforce.

Key to the design of this new system is alignment of CTE to the state's economic and workforce development strategy; the expansion of work-based learning (WBL) across the system, particularly of Registered Apprenticeships that begin during a student's high school years; a focus on awarding industry-recognized credentials that are valued by employers and help qualify students for family-sustaining jobs and careers; and a rigorous program of study to ensure that all students are well-prepared for their future career pathways. The *Blueprint* requires the CTE Committee to establish, administer and supervise CTE Expert Review Teams (CTE ERTs) to visit schools with CTE pathways, with the goal of reviewing how LEAs are implementing CTE aligned to this *Blueprint* vision and the CTE Committee's forthcoming CTE framework and policies on Registered Apprenticeships and industry-recognized credentials. The CTE Committee is also designing these visits to provide support and identify technical assistance needs for LEAs as they build new systems, and to report back on the state of Maryland's CTE programming, existing strengths, and areas for further enhancements to the CTE Committee.

PURPOSE OF CRT ERT PILOT VISITS

Queen Anne's County Public Schools (QACPS) hosted the first pilot visit for the CTE Committee in March 2024. There were several goals of this pilot visit, including:

1. Test and modify CTE ERT tools and templates for visits, including questions, note taking, debriefing and follow-up reporting.

[1] https://aib.maryland.gov/Pages/blueprint-law.aspx

[2] https://governor.maryland.gov/Lists/ExecutiveOrders/Attachments/29/EO%2001.01.2023.22%20Governor's%20Workforce%20Development%20Board_Accessible.pdf

2. Design visit models for different LEA types, to inform the CTE Committee's planning for ERT deployment for the 2024-2025 school year and beyond.
3. Understand the structure and effectiveness of current CTE offerings in the LEA, identify successful strategies already in place, pinpoint potential areas for growth, and identify challenges needing attention by the LEA and by the state.

ABOUT QUEEN ANNE'S COUNTY PUBLIC SCHOOLS

QACPS offers 22 CTE programs in the county's two comprehensive high schools: Kent Island High School (KIHS) and Queen Anne's County High School (QACHS). Each high school serves as a hub for delivering specialized training and education designed to prepare students for a diverse range of careers. Queen Anne's County High School houses the trades programs for the LEA, which are open to students from either high school. The remaining programs are offered at both high schools, although program focuses vary between them. Over half (63%) of Queen Anne's County students are enrolled in a CTE program, compared to the state average of 47%. See the LEA brief linked in the appendix for more information on the county's CTE programs.

The oversight of CTE initiatives and programming is the responsibility of the LEA-level CTE Director. At each high school, the Principal and Academic Dean are tasked with overseeing the day-to-day management of CTE programs. Per the *Blueprint*, career coaches have been hired and introduced in both high schools, focusing on career planning and facilitating work-based learning. They work in partnership with the pre-existing school counseling staff who provide educational and social counseling services to students. Additionally, a CTE Liaison, hired by Queen Anne's County Economic and Tourism Development, acts as a conduit between the schools and the local business community, aiming to create connections and opportunities for students. All other information about Queen Anne's County Public Schools can be located on the Maryland Report Card website.

SUMMARY OF THE VISIT

This ERT visit included a team of 11 led by the CTE Committee staff. The team included CTE Committee staff, a CTE Committee member, a neighboring LEA CTE Director, a neighboring LEA Blueprint Coordinator, a MSDE representative, Local Workforce Development Board representative and our partners at the National Center for Education and the Economy. The team's expertise spanned student learning, workforce development and CTE. Before the visit, the team participated in a virtual orientation to gather information about the visit, review the agenda , visit materials and tools, and have a discussion with the CTE county director who shared

background information about the county and the school and key questions for the county, and answered questions from team members.

During our visit to QACPS, the Expert Review Team spent the morning at Queen Anne's County High School and the afternoon at Kent Island High School. At each high school, the team visited classrooms and met with groups of CTE instructors, students enrolled in various CTE programs, school counselors, career coaches, and school administrators, aiming to capture a wide range of perspectives on the implementation and impact of CTE within the LEA.

Before visiting the LEA, the team engaged in a discussion with the LEA's CTE Director, to understand the broader context of the LEA's CTE initiatives, goals, and challenges and to provide a summary of all things CTE within Queen Anne's County Public Schools.

STRENGTHS

CHALLENGES

CTE ERT RECOMMENDATIONS

ERT Visit Look Fors

CTE Programming

Things to look for:

- District CTE programming intentionally aligned with industries that offer good jobs, both locally and statewide
- District programming organized into pathways that clarify post-secondary pathways and credentials and degrees of value in that industry
- Students in all schools offered a full range of good choices of programming
- Planning for expansion of CTE programming that responds to demand from students as well as employers, and might include rethinking programming that has low enrollment or is less likely to give students good career opportunities
- Attention paid to recruitment and support of highly qualified CTE teachers, including professional learning with peers and with academic teachers
  Evidence of close partnerships with local employers to help inform the district about changing needs in the workplace as well as provision of opportunities for career exploration and work-based learning

Student Support & Career Counseling

Things to look for:

- Well-designed and targeted math and literacy supports to help students succeed in CTE/apprenticeship programs are aligned to CCR standards, and includes different models of support for different needs
- District monitors student progress through CTE/apprenticeship programs, and is clear why and when students do not complete (and earn IRCs)
- Equitable opportunities to access CTE programs or work experience/ apprenticeship, including transportation
- Career exploration opportunities for students in 9th and 10th grades (and middle school) that help students understand options for high school (and the future) and allow them to make informed decisions about courses in 11th and 12th grades
- Individualized counseling for students to help them make choices of post-CCR pathways that best meet their interests and goals
- Students leave with clear plans for post high school education or training

Program Design

Things to look for:

- Work-based learning opportunities, with plans to expand, as possible
- Programs with opportunities to earn college credits towards certification/degrees in industry area, if it is a valued credential
- Programs that result in credentials or are stackable towards credentials that make students employable in this industry area
- Course sequences that make sense for students and result in students completing the high school programs with a useful set of skills and knowledge that enables them to move on to employment or post-secondary degrees or certifications of value

ERT Visit Look Fors

Other Guiding Questions

- What stands out in this area in this school/district?
- What seems missing in this school/district?
- What could help improve CTE in this school/district?
- What questions do I still have?