Career & Technical Education Expert Review Team

Post-Visit Report

BALTIMORE COUNTY PUBLIC SCHOOLS

Governor's Workforce Development Board
Career and Technical Education Committee

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GOVERNOR'S WORKFORCE DEVELOPMENT BOARD CTE COMMITTEE

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The Governor's Workforce Development Board is grateful to the CTE Expert Review Team members that participated in the exploration of this District's CTE programs, as well as central office and school leadership, staff, and students that contributed valuable insights regarding CTE programs in their Local Education Agency (LEA).

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Executive Summary

The *Blueprint for Maryland's Future* ("the *Blueprint*") established the Career and Technical Education (CTE) Committee within the Governor's Workforce Development Board (GWDB) to develop an integrated, globally competitive framework for providing CTE to Maryland students in public schools, postsecondary institutions, and the workforce. As part of this effort, the *Blueprint* calls on the CTE Committee to establish, administer, and supervise Expert Review Teams (ERT) to visit schools offering CTE pathways. CTE ERTs are a key tool through which the state observes and tracks the progress of local education agencies (LEAs) in implementing CTE programs that align with the *Blueprint*'s vision and the CTE Committee's framework and policies. In addition to reviewing progress, the visits are intended to provide support and identify technical assistance needs as LEAs build their CTE systems.

This CTE ERT visited Baltimore County Public Schools (BCPS), located in Central Maryland, on November 7, 2024. This was the third CTE ERT visit for the 2024-2025 school year (SY). BCPS offers CTE programs at 21 comprehensive high schools and four CTE Centers. The CTE ERT visited Eastern Technical High School (Eastern Tech), one of BCPS's CTE Centers in Essex, Maryland, and Kenwood High School, one of BCPS's Comprehensive High Schools, located in Baltimore, Maryland. Eastern Tech is a popular option for BCPS students, receiving approximately 3,100 applications annually, but there are only 340 spots available, meaning they have an acceptance rate of approximately 10.9%.

One CTE Committee member, two Baltimore County Department of Economy and Workforce Development staff members, one Accountability and Implementation Board (AIB) staff member, one apprenticeship sponsors, one Maryland State Department of Education (MSDE) staff member, two community college representatives, five neighboring LEA representatives, and two CTE Committee staff members participated as members of this CTE ERT.[1] This report summarizes observations and initial recommendations that the CTE ERT developed by reviewing the LEA's self-reported data with district leaders and by conducting interviews, focus groups, school tours, and classroom visits during the CTE ERT visit.

BCPS's progress toward the *Blueprint's* goal that by the 2030-2031 SY, 45% of high school graduates shall complete the high school level of a Registered Apprenticeship or another industry-recognized credential *(*"45% goal") is at 9.4% for 2024 graduates. BCPS counted high school graduates having earned an industry-recognized credential (IRC), according to the MSDE guidelines in place during the 2024-2025 SY, or an Apprenticeship Maryland Program (AMP) non-registered youth apprenticeship towards progress to the 45% goal.[2] Most of these students obtained IRCs, rather than completing youth apprenticeships.

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[1] See Appendix A

[2] For the purposes of providing data to the CTE ERT on CTE participation, Registered Apprenticeship participation, and IRC attainment, Baltimore County Public Schools provided 2023-2024 school year data (the most recent data available) and measured IRC attainment using the MSDE IRC guidelines that were currently in effect at the time of this visit. The CTE

BCPS Internal Strengths

- Teacher Expertise, Dedication, and Supportive Relationships Lead to Engaged, Informed CTE Students
- Student Exit Interviews to Provide Feedback on CTE Programs and Classes
- Career Counseling Staff Support Students' Career Exploration and Preparation
- Creative Scheduling Approaches Create Opportunities for Students

BCPS Internal Challenges

- Equitable Enrollment Practices for Students With Disabilities and Multilingual Learners
- Equitable Enrollment Practices for Students in Race-based Minority Groups
- Extending Career Exposure and Preparation to Middle School
- Commitment to a Pathway at Eastern Technical High School

BCPS External Factors

- Strength: Extracurriculars, Co-Curriculars, and Career and Technical Student Organization (CTSO) Engagement
- Strength: Industry Partnerships and Knowledge
- Challenge: Collaboration with Department of Economic and Workforce Development (DEWD)
- Challenge: Equipment and Technology to Support CTE Programs

BCPS Potential Next Steps

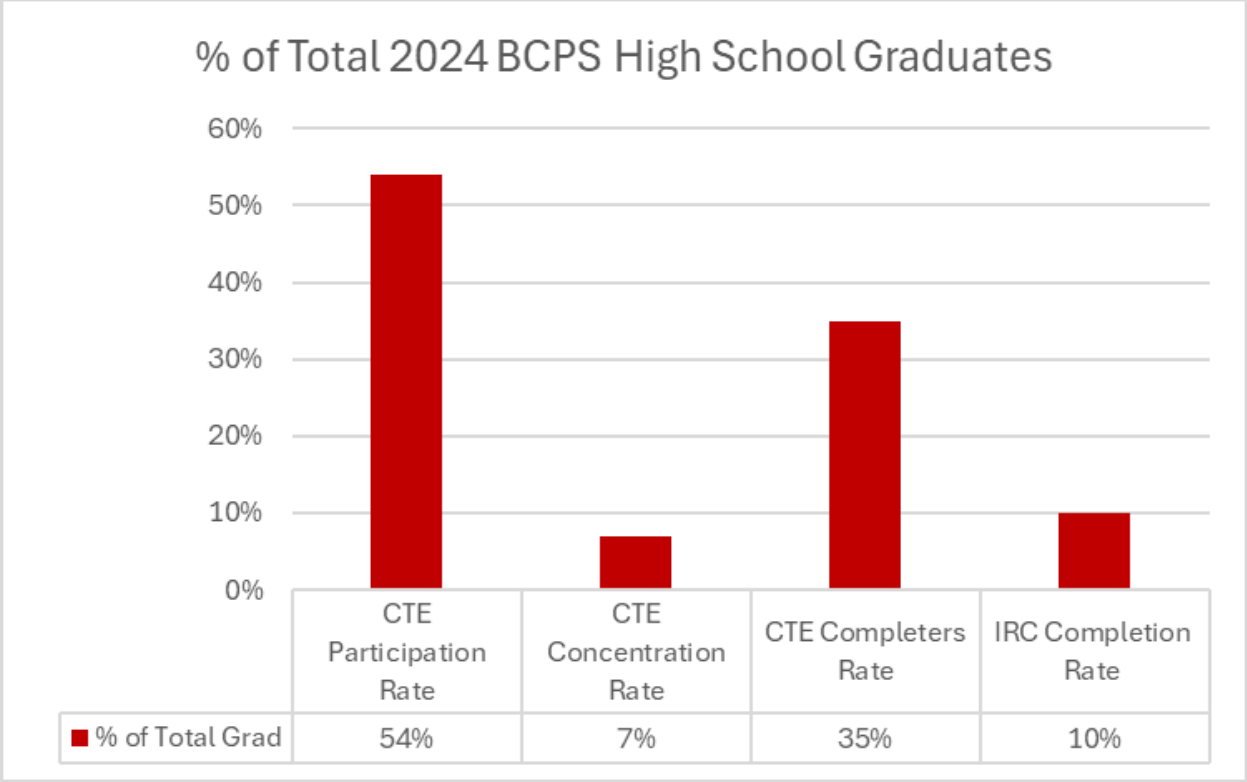
- Explore Technical Assistance with MSDE to Increase Equitable Access and Success for All Students
- Collaborate with CTE Teachers and/or Establish a Fast-Track Approval Process for CTE Technology and Equipment
- Develop Early Career Pathway and CTE Program Exploration Opportunities
- Brainstorm Collaborations with Regional Institutions and Employers on Instructional Space and Equipment
- Explore Technical Assistance with MSDE and MD Labor to make progress on the *Blueprint*'s 45% Goal

The CTE Committee staff and CTE ERT members collaborated on this report to present observations and preliminary analyses. In this document, readers will find the purpose of the CTE ERT Program, a brief explanation of BCPS, a summary of the CTE ERT visit, Strengths, Challenges, and External (SCE) analysis, and potential next steps for the LEA to consider.

Please feel free to reach out to the CTE Committee or CTE Committee staff to answer any questions, comments, or concerns at GWDB.CTE@maryland.gov.

Committee IRC Policy, published in December 2024, updates the list of approved IRCs but does not go into effect until the 2025-2026 school year.

Figure 1: BCPS CTE and IRC completion rates for the 2023-2024 SY.[3 4 5 6]



[3] CTE Participants are students completing not less than one credit in a MSDE-approved CTE program of study.
[4] CTE Concentrators are students who have completed at least two courses and are enrolled in a third course in a single MSDE-approved CTE program of study.
[5] CTE Completers are students who meet all requirements in a state-approved CTE program of study, typically three or four courses.
[6] Defined as the percentage of all graduating students who have earned an IRC (as defined by MSDE)

Purpose of the CTE ERT

The *Blueprint for Maryland's Future* ("the *Blueprint*"), Md. Ann. Code, Ed. Art. §21-209, established the Career and Technical (CTE) Committee as a unit within the Governor's Workforce Development Board (GWDB).[7] The GWDB serves as the Governor's chief strategic and policy-making body for workforce development in the State of Maryland.[8] 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. The CTE Committee aims to fundamentally reimagine and redesign career-connected learning and career pathways to ensure all of Maryland's students have real access to fulfilling and family-sustaining careers.

The *Blueprint* requires the CTE Committee to establish, administer, and supervise CTE ERTs to visit schools with CTE pathways.[9] The goals of these visits are to: 1) review alignment of district programs and practices with *Blueprint* vision and policies, 2) assure an LEA's CTE programs and practices are consistent with the e Maryland CTE Framework and policies on the high school level of a Registered Apprenticeship (RA) and industry-recognized credentials (IRCs), and 3) support technical assistance needs for LEAs as they create new systems, programs and practices in order to support *Blueprint* goals and expand career-connected learning, especially Registered Apprenticeship and other IRC attainment, for their students. Ultimately, the CTE ERTs report back to the CTE Committee on district progress toward *Blueprint* goals, common challenges, and opportunities for policy change, technical assistance, or other support to meet those goals. The CTE Committee staff will publish a summary of findings from CTE ERT visits within the CTE Committee's annual report.[10]

The CTE ERT Program has three phases that transition from Phase 1: Discovery, to Phase 2: Analyze and Assist, and Phase 3: Evaluate. The primary goal in Phase 1 is to visit all 24 LEAs and build a baseline set of observations to understand the state of CTE in Maryland, along with common challenges LEAs face in creating a robust CTE system. The common challenges will inform what technical assistance sessions will be offered in Phase 2, which will focus on alignment, systemic data collection, and assistance. Phase 2 is set to begin in the 2026-2027 SY, so the specifics for Phase 2 will be planned in Spring 2026. Phase 3 will begin in the 2028-2029 SY and will focus on evaluating progress towards *Blueprint* goals, but will be more specifically planned during Phase 2.

The CTE Expert Review Team visit to BCPS consisted of members from various backgrounds and brought expertise in areas such as student learning, workforce development, and CTE, ensuring a comprehensive review of the LEA's CTE programs (see Appendix A).

[7] Md. Ann. Code, Ed. Art. §21-209, https://bit.ly/3W0JoeU
[8] Executive Order No. 01.01.2023.22. (2023). https://tinyurl.com/execorder01012023
[9] Md. Ann. Code, Ed. Art. §5-412 https://tinyurl.com/5cb36cvy
[10] Md. Ann. Code, Ed. Art. §21-209, https://bit.ly/3W0JoeU

About Baltimore County Public School System

Baltimore County Public Schools (BCPS), located in Central Maryland, enrolls more than 34,000 high school students in 21 schools. It is the third largest school district in Maryland and the 22nd largest in the country. The district offers 28 CTE programs across a diverse number of professional subject matter areas; from agricultural science to teaching. At BCPS, 54% of graduating students participate in CTE offerings. Of the over 7,500 graduating students in BCPS, 35% are CTE completers, meaning they meet the requirements in a state-approved CTE program of study, which is typically three or four courses. BCPS CTE programs are in alignment with the State's priority occupations, like Cybersecurity, Information Technology (IT), and Healthcare and Life Sciences, with over 2,500 students enrolled in IT-related classes and over 700 in Biomedical Sciences; however, the two largest programs at BCPS are Business Education and Career Research & Development with over 4,100 students in each. CTE programs aligned with priority occupations demonstrate BCPS's focus on developing a robust workforce targeting key sectors identified in Maryland's 2024-2028 State Workforce Development Plan (WIOA Plan).[11]

Students enrolled in these programs have the opportunity to earn industry-recognized credentials. BCPS also offers (non-registered) Apprenticeship Maryland Program youth apprenticeships, and other work-based learning opportunities, including a dual enrollment program. Overall, 9.4% of graduating students earn IRCs; however, this rate comes from the previously approved MSDE IRC list. The CTE IRC Policy published in December 2024 may impact BCPS' IRC attainment rate for 2025 and beyond, since the establishment of quality and industry-alignment criteria by the CTE Committee shortened the list of eligible IRCs.[12] Even though youth apprenticeship does not count unless the students also earns an IRC, BCPS has greatly increased the number of students participating in youth apprenticeships, tripling participants since the year before. BCPS has a School to Career Supervisor who oversees a team of WBL teachers and Career Navigators, who have together greatly improved their local business network to provide WBL opportunities to students. As of the CTE ERT visit, the BCPS CTE Coordinator is confident BCPS will be able to achieve the 45% goal within the next five years.

BCPS has 4 CTE Centers and 21 comprehensive high schools with CTE, which are public high schools that offer a traditional academic curriculum and a variety of CTE Programs. The CTE ERT visited Eastern Technical High School (Eastern Tech), one of BCPS's CTE Centers in Essex,

[11] Maryland Governor's Workforce Development Board. (2024). *Maryland Statewide Workforce Development Plan*. (pg 93-97). gwdb.maryland.gov/pub/pdf/2024-2028stateworkforceplan-wioacombined.pdf

[12] Maryland GWDB CTE Committee. (December 2024). *Career and Technical Education: Industry-Recognized Credentials*. https://www.gwdb.maryland.gov/policy/gwdbcte2024commindustrycredentialpolicy.pdf

Maryland, and Kenwood High School, one of BCPS's Comprehensive High Schools, located a five-minute drive away. Eastern Tech has 14 CTE teachers with a combined 220 years of teaching experience, averaging over 15 years per teacher. Kenwood High School has 13 CTE teachers with a combined 68 years of teaching experience, averaging over 5 years per teacher.

In BCPS, students can participate in CTE programs not offered at their home school via special permission, which is managed by BCPS and each individual home school. That said, if a program is at a magnet school, students will need to apply through the magnet office process and qualified students enter a lottery. Most high school programs in BCPS's magnet schools require an on-site assessment as part of their application.[13] This assessment includes a 20-question Math test, a 20-question English and Literary Arts (ELA) test, and a 30-question Critical Thinking test. This assessment contributes 75% of the student's evaluation score. The remaining 25% is based on the student's report card grades from four quarters of the prior year and the first quarter of the current year.

The CTE ERT observed a clear difference in students' attitudes towards CTE programming between Eastern Tech and Kenwood High School. At Eastern Tech, there was complete buy-in on the value of CTE, where students developed a CTE identity and sense of pride in their skills and accomplishments within CTE. At Kenwood High School, the general sentiment was that CTE programs were of some value, but that those truly interested in CTE should attend Eastern Tech. There was a sense of superiority and belonging at Eastern Tech that was not present at Kenwood, with Eastern Tech teachers reporting "students want to go to Eastern Tech no matter what." The CTE ERT Program has noticed a similar trend across school districts in its first year of visits - that the culture of pride and value in CTE was strong at CTE Centers but not at comprehensive high schools. The difference in culture and belonging between comprehensive high schools and CTE Centers will be further investigated in Phase 2 of the CTE ERT Program.

[13] Baltimore County Public Schools. (2025). *Frequently Asked Questions*. https://tinyurl.com/3asyy2wh

Summary of Visit

Prior to the visit, the team attended a virtual orientation to review the visit agenda, materials, and tools. During this session, BCPS's Coordinator of College, Career, and Technical Education provided an overview of the LEA's CTE system, highlighting key strengths and challenges. The Lead CTE administrator presented data on the CTE Programs that have the highest and lowest IRC attainment rates, along with demographic data for apprenticeships, but they did not differentiate between Youth Apprenticeships and Registered Apprenticeships. This pre-visit preparation helped the team understand the specific context and priorities of Baltimore County's CTE programs, setting the stage for focused observations and discussions during the visit.

During the visit, the CTE ERT visited two campuses offering CTE programs: Kenwood High School, a comprehensive school offering eight CTE programs, and Eastern Technical High School, a magnet school with nine CTE programs. The team visited Eastern Tech in the morning and Kenwood High School in the afternoon, conducting classroom visits to observe programs in action and holding focus group conversations with students, teachers, administrators, and school and career counselors.

At each site, the team engaged in discussions with stakeholders to gain insights into the strengths and challenges of the CTE programs. These conversations revealed valuable information about how CTE supports students' postsecondary pathways and career goals, as well as areas where the LEA could enhance program access and resources.

The CTE Expert Review Team visit to BCPS consisted of members from various backgrounds, and brought expertise in areas such as student learning, workforce development, and CTE, ensuring a comprehensive review of the LEA's CTE programs (see Appendix A). Throughout the day, the team engaged in observations, interviews, and focus groups with stakeholders to gain insights into the strengths and challenges of the CTE programs. The CTE Committee staff created a set of questions for each focus group: leadership, teachers, students, career counselors/coaches and school counselors (see Appendix D). These questions aimed to uncover the experience these parties have in CTE by asking questions about professional development opportunities, their opinions on their experience in CTE classes, their perspective on hurdles, *etc.* (see Appendix D).

After the visit, the CTE ERT compiled their individual notes and shared it with CTE Committee staff. A week after the visit, the CTE ERT gathered together for a debrief, where the team members collaborated, reviewed, and discussed their compiled observations. These conversations revealed valuable information about how CTE in BCPS supports students' postsecondary pathways and career goals, as well as areas where the LEA could enhance program access and resources. Together, these data, observations, focus groups, interviews, and debrief help inform the following SCE analysis and Potential Next Steps.

OBSERVATIONS FROM THE EXPERT REVIEW TEAM VISIT

About the SCE Analysis

A SCE Analysis is meant to organize the CTE ERT's observations and notes into internal factors - Strengths and Challenges - and External factors. This method of analysis is based on the SWOT analysis method, which also differentiates between internal and external factors. This SCE analysis will help readers differentiate among internal Strengths, internal Challenges, and External factors, which are conventionally Opportunities and Threats. The CTE ERT did not have the opportunity to observe and coordinate with external stakeholders, but external factors came up in interviews, focus groups, debrief, and orientation that must be communicated. With a SCE Analysis, readers may use this section to target changes and best practices internally.

Indicators of Strength and Challenges

Strength: Teacher Expertise, Dedication, and Supportive Relationships Lead to Engaged, Informed CTE Students

Students in focus groups at both Kenwood and Eastern Tech praised their teachers' dedication, experience, and industry knowledge. Students at Kenwood talked about the deep knowledge that teachers had in their area of specialty, and that they held students to high, rigorous standards. "This program is awesome," remarked one student. Students at Eastern Tech commented on the culture of rigor and working hard in their magnet program. Students at both schools commented on the supportiveness of teachers and administrators in the CTE program and thought CTE helped build their leadership skills and career readiness.

The students the CTE ERT met with at both Eastern Tech and at Kenwood were engaged and enthusiastic about their programs. Eastern Tech, as a magnet school with an application process, saw strong motivation and engagement from students. Students at Kenwood said CTE courses have practical value and applicability in a way that other courses do not. Students at both campuses were able to name the IRCs they have gained and why each of these is important. This engagement and connection to the "whys" behind the specifics of their program demonstrates programmatic strength; students who understand their own path will better be able to take purposeful steps in the future as they move into college and careers after high school.

Strength: Student Exit Interviews

At Eastern Tech, teachers and staff conduct exit interviews of graduating students during which students provide feedback on their program and classes. While there was not an opportunity to further investigate the students' exit interviews, teachers reported graduating students had positive feedback about their CTE experience and that students appreciated the opportunity to have their feedback heard. Not only did teachers receive useful feedback on curriculum and pedagogy, but it also gave teachers and staff the opportunity to keep track of what direction students go in after graduation. The graduating student exit interviews are a unique strength at Eastern Tech and something that can be shared as a

community of practice with the rest of the State. Students go through so much on the path to graduation that teachers and staff do not always see, so these exit interviews are a useful opportunity for students to express their opinion on their experience in a non-judgmental and non-evaluative environment. The CTE Committee staff will continue to investigate the impact of these student exit interviews and how these exit interviews impact decision-making.

Strength: Strong Career Counseling and Staffing

BCPS has a School to Career Supervisor who oversees a team of WBL teachers and Career Navigators, who have together greatly improved their local business network to provide Registered Apprenticeship (RA) opportunities to students. BCPS used its *Blueprint* career counseling funding to create 25 Career Navigator positions to service each one of its high schools. These positions are dedicated to helping students with career exploration and preparation, and to expanding work-based learning opportunities, internships, and apprenticeships. Career Navigators in BCPS have developed career centers in the high schools in order to provide access for all students. These new, full-time employees meet monthly as a group, and also coordinate with BCPS' partners.

While the Career Navigator positions only serve high school students, a partnership with Junior Achievement helps BCPS reach every 4th and 7th-grade student for early career exposure. The new Community School Facilitators at the elementary and middle school level also develop community relationships. Preliminary results have been positive as BCPS has tripled its apprenticeship numbers since the 2023-2024 SY.

Strength: Creative Scheduling Approaches Create Opportunities

Eastern Tech used several different innovative strategies to create space in the master schedule for students to gain access to Career Navigators and school counselors, work-based learning opportunities, and other interests. First, "Maverick Time" or "Mav Time" is a one-hour block (two periods of 30 minutes) for students to have dedicated time to go to tutoring, visit a school counselor or Career Navigator, have a study period, or engage in an extracurricular activity or club. The school engaged with a developer to build an app that takes attendance and helps the school monitor which activities are more and less popular.

In addition to "Mav Time", Eastern Tech scheduled students in their first few years of high school in such a way that their senior year has daily flexibility for students to access an internship or apprenticeship for half a day. While this approach may not be possible at larger, comprehensive high schools, creative approaches to scheduling mean students at Eastern Tech can gain opportunities for career readiness and get outside of the classroom to work with employers during regular business hours.

Challenge: Equitable Access to CTE Programs at Magnet Schools

Focus groups of teachers and administrators at Eastern Tech revealed their percentage of students with disabilities and multilingual learners is unusually low at less than 1% of students, which is not reflective of the LEA's self-reported data stating 12% of BCPS students are students with disabilities and 9% are multilingual learners. Focus group participants

thought the application process to enter the lottery for the school may contribute to the high engagement of students at Eastern Tech, but also that the process may be discouraging students with different learning needs from reaching the lottery pool in the first place. Two student focus group participants did not speak or understand English and there was no translator in the room, so these two students could not contribute to the discussion. When the CTE ERT asked teachers about resources to help multilingual learners, they said they do not have translators and that teachers must provide written-only directions for these students to follow the curriculum. Not only is the student falling behind because they must overcome a language barrier, but the teachers shared during focus groups that they must put in extra effort to accommodate and support these students without the proper resources to do so.

Equitable access to CTE programs is central to the goals of the *Blueprint* and Maryland's needs for a college and career-ready workforce. The CTE ERT observed that there are barriers for students with disabilities and multilingual learners at Eastern Tech. It is unclear to the CTE ERT whether the root cause is the application process, the lottery, both, or something entirely different, but students with disabilities and multilingual learners face barriers leading to inequitable enrollment for Special Populations. The CTE ERT will continue to observe BCPS's CTE Centers for equitable access moving into Phase 2, and also analyze the different methods LEAs use for students applying and accessing CTE programs.

Challenge: Equitable Student Representation at Magnet Schools

The CTE ERT observed how enrollment demographics at Eastern Tech are very different from the rest of BCPS. According to the MSDE Report Card, Eastern Tech has 46% White students and 28% Asian students, but BCPS's student demographics are 30% and 7% respectively. Meanwhile, Eastern Tech has 18% African American students and 5% Hispanic/Latino students, but BCPS has 43% African American students and 15% Hispanic/Latino students. Being a magnet school with a required application process leading to a lottery and following COMAR, it is a challenge for Eastern Tech to have different demographics represented than the rest of BCPS.

In focus groups with teachers and administrators, Eastern Tech revealed they receive 3,100 applications annually, but there are only 340 spots available. This means Eastern Technical High School has an acceptance rate of 10.9%. The CTE ERT would be interested in further investigating the evaluation process in Phase 2 across all LEAs. The CTE ERT Program will need to further investigate what factors have led to inequitable results as African American student representation is less than half of what it is for BCPS and Hispanic/Latino population is a third of what it is for BCPS, while representation for White students at Eastern Tech are 50% higher than the county percentage and representation for Asian students is four times BCPS's percentage. Race-based discrepancies in student demographics are an important challenge for Eastern Tech and something the CTE ERT will continue to investigate in Phase 2.

Challenge: Expanding CTE Offerings in CTE Center

According to teacher and administrator focus groups, Eastern Technical High School accepts 340 students annually among 3,100 applicants. This means Eastern Tech has an acceptance

rate of 10.9%. BCPS has neither the space, budget, instructional staff, nor the infrastructure to expand offerings at Eastern Tech. A State goal is to expand CTE offerings across Maryland, but when Eastern Tech is already at or beyond capacity, it is a challenge for BCPS to accomplish CTE expansion within its dedicated CTE Center. The CTE Committee staff will continue to investigate the nature and impact of this trend wherein LEAs have CTE Centers with extensive waitlists.

Challenge: Extending Career Exposure and Prep to Middle School

Each BCPS high school has a Career Navigator position that guides and supports students once they reach 9th grade. According to focus groups, these resources do not extend into the middle grades in BCPS as of November 2024. Students in focus groups reported learning about CTE programs once they reached high school, and named an opportunity to reach students earlier with more information about the CTE programs available. This was mentioned by students at Kenwood High School; students at Eastern Tech had to apply to the program, and therefore, were more aware of the school's offerings.

While there is an opportunity for more career exposure and exploration at the middle school level, BCPS has the Junior Achievement partnership, which reaches every 4th and 7th grade student. This program helps develop skills in work readiness, financial literacy, and entrepreneurship, helping students develop the soft skills necessary for success in all career pathways. BCPS does intend to hire additional staff to support career counseling in middle schools starting in the 2025-2026 SY. More intentional, targeted career exposure and exploration, especially with CTE offerings in mind, could help students identify specific interests within CTE and create a consistent pipeline of CTE students who want to stay in their Program and complete it.

Challenge: Commitment to a Pathway at Eastern Technical High School

In both teacher and student focus groups, there was concern about students feeling stuck in a particular CTE pathway with no opportunity to change their program while staying at Eastern Tech. When students apply to Eastern Tech, many of whom apply to a program in 8th grade, they must fully commit to that CTE program until it is completed in order to stay at Eastern Tech. There is no opportunity for students to pivot and enroll in a different program without having to go back to their homeschool. If a student feels stuck in a program they are not interested in, then it will not only lead to challenges for the individual student, but it can become an even greater challenge for the CTE teacher and classroom environment. This is a sentiment that has been brought up by students and teachers in other LEA focus groups as well, and therefore something the CTE Committee intends to analyze further.

Teacher focus groups revealed there is a common belief among students about the superiority of Eastern Tech with sentiments like, "I want to go to Eastern no matter what." When there are 3,100 applicants to Eastern Tech annually, but only 340 spots available, many students don't end up enrolling in programs they want; however, they still enroll in Eastern Tech because they believe it is superior to their homeschool. Because of this, many students commit to programs they are not as interested in for various reasons, like a sibling or parent may encourage them, or a school counselor told them this was the only way they could enroll

at Eastern Tech. When students enroll in a CTE program they are not interested in, then are stuck in that program, it can become a challenge for both students and teachers.

Indicators of External Factors and Influences

A SCE Analysis is meant to organize the CTE ERT's observations and notes into internal factors - Strengths and Challenges - and External factors. This method of analysis is based on the SWOT analysis method, which also differentiates between internal and external factors. With a SCE Analysis, readers may use this section to advocate for change with external partners.

External Strength: Extracurriculars, Co-Curriculars, and Career and Technical Student Organization (CTSO) Engagement

BCPS has had great success with CTSOs. Teachers in focus groups talked about how students look forward to participating in both extra- and co-curricular activities like the Architecture, Construction, and Engineering (ACE) Mentorship Program, SkillsUSA, and Educators Rising. Eastern Tech has a great deal of participation in the ACE Mentorship Program, which is an after-school program for high school students interested in learning about career opportunities associated with architecture, construction, and engineering. This mentorship program has been a factor for why Eastern Tech has a cabinet full of trophies from various competitions, especially from engineering students. Eastern Tech's connection with the Johns Hopkins Applied Physics Lab (APL) and the Maryland Math, Engineering, Science Achievement (MESA) program is also an important factor for recruiting students to Eastern Tech and their full trophy cabinet. MESA is an after-school program where students witness the real-world applications of what they learn in school and explore career options. On the other hand, teachers at Kenwood raved about two students who won first place in their national SkillsUSA competitions and qualified for world competitions: one in Moscow, Russia and the other in Abu Dhabi, UAE. This engagement with external organizations prepares students with the knowledge and skills they need to succeed; as one teacher framed it, "once employers see what students can do, they're impressed," which will certainly lead to more WBL opportunities for students.

External Strength: Industry Partnerships and Knowledge

Focus groups revealed that both Eastern Tech and Kenwood have a strong grasp of industry needs and partnerships. One teacher boasted that any student leaving his class will be job ready, "when you want a plumber, you come to Kenwood." Another teacher raised the bar: he tells his students if they pass the class, he will help line up a job for all of them because the average age of that industry is 67 and they are looking for young people who know what they're doing. This connection with external partners is something the CTE ERT saw as a strength as students were confident they could find gainful employment after graduation.

The teachers' skills and industry knowledge was previously mentioned as an internal strength, but their ability to coordinate with industry partnerships keeps them up to date on important industry knowledge as standards change. Teachers complained that the CTE curriculum cannot keep up with the pace in which industry knowledge and standards change. To try to keep up, the CTE teachers must figure out how to balance the CTE curriculum they are required to teach with their modern industry knowledge. Maintaining industry partnerships and keeping up with industry knowledge is an external strength for

teachers at BCPS; however, when teachers have to take on multiple roles in a world where industry knowledge and standards change at a more rapid pace than ever before, then it can be an external challenge for teachers as well.

External Challenge: Delayed Implementation of Career Counseling

Baltimore County's Department of Economic and Workforce Development (DEWD) works to improve education and economic opportunities for Baltimore County residents. The DEWD took on educating businesses and building business connections to help BCPS reach towards the pivotal 45% goal from the *Blueprint*. Both admin and teacher focus groups revealed frustration with the DEWD's ability to communicate and connect with businesses given that the business engagement coordinators had not yet been hired, which created an external challenge for BCPS administrators, staff, teachers, and students. That said, more recent interactions with the DEWD and BCPS representatives demonstrated improvement in this area.

According to focus group participants, the limitations on allowable uses for *Blueprint* career counseling funds has further complicated the partnership roles. Per AIB guidance, those funds have strict limitations on what the partners can spend those funds on.

External Challenge: Equipment and Technology to Support CTE Programs

In teacher focus groups, a specific need was raised around a different approach to technology and equipment acquisition for CTE programs than other types of courses. It is important to note, teachers understand there was a cyberattack that impacted BCPS, leading to these hurdles. Per one focus group participant, approvals for new computers alone can take over a year, meaning those computers are already out of date for the curriculum by the time the technology is acquired – a "disconnect" that impacts CTE programs with cutting-edge technology needs more than other subject areas. Computers break down frequently, leading one teacher to state she "feels like [I] need to be a computer expert as well, in addition to an engineering teacher." The equipment the culinary program used was outdated and the kitchen did not have enough air circulation, leading to hot temperatures in the kitchen.

Teachers further expressed a desire to provide more input about technology and equipment, and more communication and connection with the CTE decision-makers at the LEA and state level. Teachers are in daily communication with students and families and know their interests, and also understand the demands on the industry side for professional and technical skills and competencies. While the Central Office is responsible for disseminating Perkins funding, perhaps targeted coordination with teachers can help the Central Office prioritize specific purchases.

Potential Next Steps for BCPS

Although the CTE ERT has presented its observations in this report, these observations and potential next steps are preliminary. The purposes of Phase 1 of the CTE ERT are to establish a baseline for progress towards *Blueprint* goals across Maryland and identify key challenges. While the following Potential Next Steps are preliminary, they are areas BCPS may look for improvement in and something the CTE ERT will look at more closely as the CTE Committee transitions into Phase 2 in the 2026-2027 SY. In other words, these potential next steps are not a directive, but opportunities of improvement to explore. These Potential Next Steps are meant to be the beginning of a conversation with BCPS that will continue into Phase 2, and for this reason, these Potential Next Steps do not comprehensively address the challenges the CTE ERT notes in this report. In Phase 2, the CTE ERT will target specific areas to gain a more comprehensive understanding of the state of CTE.[14] While Phase 2 is focused on analysis and assistance, it is also when the CTE ERT can make recommendations to the AIB to withhold funding if there is resistance complying with the *Blueprint*.[15]

Explore Technical Assistance with MSDE to Increase Equitable Access and Success for All Students

The CTE ERT encourages that BCPS works with Maryland State Department of Education to develop a plan to address enrollment at magnet schools, specifically Eastern Tech, but should encompass countywide enrollment practices, as well. BCPS should keep a particular eye on enrollment rates for African American and Hispanic/Latino populations to more accurately represent the county with an eye on barriers for students with disabilities and multilingual learners enrolling in magnet schools like Eastern Tech.

In addition to enrollment, BCPS should evaluate its pathways so students do not feel "stuck" in a particular pathway. The nature of this problem comes back to how Eastern Tech has a positive reputation for CTE offerings and a 10.9% acceptance rate, so students want to stay at Eastern Tech despite being disinterested in the program they are enrolled in. Allowing students to transition from one program to another without leaving Eastern Tech or a full commitment to completing the program may allow students to enroll in a program they desire and therefore increase CTE completion rates. This is also not an uncommon sentiment from other LEA focus groups, so the CTE Committee intends to analyze this further and partner with MSDE on any best practices or potential solutions.

Collaborate With CTE Teachers and/or Establish a Fast-Track Approval Process for CTE Technology and Equipment

Because they are designed to prepare students for careers in cutting-edge fields, it is particularly important that CTE teachers have access to the most up-to-date technology and equipment available in a given sector. CTE teachers expressed frustration at the perceived

[14] GWDB CTE Committee. (July 1, 2024). CTE Committee Expert Review Team Deployment Plan School Year 2024-2025. https://gwdb.maryland.gov/ctecomm/ctecomm-ctedeploymentplan_draftsy24-25_62624.pdf

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

lag in gaining access to new computers, software, and other equipment. The CTE ERT recommends developing a fast-track approval process for these types of critical CTE resources, so they get into the hands of teachers and students as quickly as possible. Moreover, CTE teachers are an important source of expertise about the types of technology and equipment needed now and in the future. The CTE ERT recognizes BCPS had a major cyber attack recently, which has substantially slowed down the process for technology and equipment approvals with IT and BCPS administrators. One consideration is to develop a formal checkpoint with CTE teachers or an advisory group structure for CTE materials, technology and equipment so that teachers can directly inform budgeting and purchasing priorities.

Develop Early Career Pathway and CTE Program Exploration Opportunities

BCPS has a fantastic opportunity to build more exposure opportunities for students in earlier grades – particularly middle school, but into upper elementary, as well. Piloting introductory CTE courses or other types of career exploration electives in middle schools would help to expose students to available pathways and build excitement, skills, and knowledge of CTE. Middle and high school staff could work together to co-design age-appropriate lessons that align with high school pathways. Perhaps BCPS can collaborate with other LEAs who have 5th and 8th graders tour CTE Centers while informing students about offerings at their comprehensive high school. Another option are summer camps that expose middle school students to CTE programs. Clear and repetitive marketing to students at this early stage may also help improve the reputation of CTE offerings at the comprehensive high school.

Partnerships between Career Navigators and middle school counselors could further ensure a seamless transition into CTE pathways. BCPS already has the infrastructure to do this with Community School Facilitators at the elementary and middle schools. More importantly, BCPS has the industry connections to leverage so students can more practically explore career opportunities from active professionals in the industry. More exposure and knowledge of CTE pathways may lessen the feedback that students feel stuck in a CTE pathway that does not fit their interests, since they will have more time to explore and try on types of CTE programs in earlier grades, before applying to a high school pathway. More informed students may lead to higher enrollment in CTE offerings at students' homeschool and demystify the reputation of superiority Eastern Tech has.

Brainstorm Collaborations with Regional Institutions and Employers on Instructional Space and Equipment

One of BCPS's biggest hurdles in expanding their CTE offerings is finding the available space, equipment, and instructional staff. As a potential next step, BCPS should consider expanding their postsecondary institutions collaborations to expand CTE offerings. BCPS already has connections with postsecondary institutions in the area for career exploration opportunities, so BCPS can leverage those connections to come up with creative solutions to offer more CTE seats, classes, and possibly add new CTE programs of study.

BCPS could also explore collaborating with employers on instructional space, equipment, *etc.* BCPS has developed a strong relationship with industry experts and could leverage that relationship as a way to find creative solutions to expanding CTE offerings. Collaborating with

industry experts to overcome the space, equipment, and instructional staff challenges BCPS faces may lead to positive results while also strengthening BCPS's industry connections. BCPS should also consider working with the Department of Economic and Workforce Development (DEWD) to strategize how to expand CTE offerings. BCPS has faced challenges collaborating with the DEWD in the past and this may be an opportunity for the relationship to grow while finding practical solutions to the space, equipment, and staff challenges BCPS faces in meaningfully expanding CTE.

Explore Technical Assistance with MSDE and the Maryland Department of Labor (MD Labor) in meeting the Blueprint's 45% Goal

In order to achieve the *Blueprint*'s 45% goal, establishing and expanding RAs should be one of BCPS's priorities. BCPS should explore closer collaboration with MD Labor's Apprenticeship Navigators on what opportunities are available for high school students in Baltimore County. At the time of the visit, BCPS' true IRC attainment rate was difficult to quantify given it is based on a prior approved IRC list, but nevertheless, BCPS can seek technical assistance from MSDE and similar LEAs in strategies to increase IRC attainment. The CTE Committee will also be developing more targeted technical assistance around this topic, and facilitating a community of practice utilizing findings from CTE ERT visits. The CTE Committee recognizes that policies defining the 45% goal were not issued until December 2024, and this CTE ERT visit took place in November 2024, so all of those implementing this work and the partnerships required are still in the early stages of development. Exploring technical assistance with MSDE, MD Labor, and the CTE Committee will prove to be a useful addition to BCPS meeting the 45% goal.

APPENDIX GUIDE

A. Visit Participants
B. LEA Brief
C. Visit Agenda
D. Interview & Focus Group Questions
E. BCPS Feedback: GWDB CTE Expert Review Team Post-Visit Report

Appendix A | Visit Participants

Name	Role
John Strickland	Expert Review Team Manager, CTE Committee
Ryan Sackett	Secondary School Support Coordinator, MSDE
Dede Keller	CTE Coordinator, Anne Arundel County Public Schools
Geoff Bernstein	CTE Teacher, Anne Arundel County Public Schools
Mariel Fedde	Blueprint Program Manager, Baltimore County Department of Economic & Workforce Development
Genevieve Floyd	CTE Director, Montgomery County Public Schools
Rob Limpert	Director of Workforce Development, Harford Community College (CTE Committee member)
Erika Bailey	Associate Manager of Workforce Initiatives, CVS Health
Tracy Tyler	Chief of Workforce Development, Baltimore County Department of Economic & Workforce Development
Brian Hammond	Dean of Enrollment Services, Community College of Baltimore County
Nicola Richards-Wright	CTE Coordinator, Montgomery County Public Schools
Gretchen Cheney	Policy Analyst, AIB
Joe Rose	Director of Workforce Development, Anne Arundel County Public Schools

Appendix B | LEA Brief

LEA CTE Information

CTE Lead Staff

Name	Role(s)
MiVida Parham	Coordinator, College, Career and Technical Education
Ruth Akers	Supervisor, Technical Programs
Robin Bowden	Supervisor, Engineering, Manufacturing and Technology Programs
Alicia Fales	Supervisor, School to Career and Apprenticeship Maryland Programs
Dr. Kara Lynch	Supervisor, Business, Computer Science and Homeland Security and JROTC
Renee Stout	Supervisor, Culinary, Graphic, Media, and Teacher Academy Programs
Leeann Schubert	Director, Educational Opportunities and Services

Comprehensive High Schools with CTE

- Catonsville High School
- Chesapeake High School
- Dulaney High School
- Dundalk High School
- Franklin High School
- Hereford High School
- Kenwood High School
- Lansdowne High School
- Loch Raven High School
- Milford Mill Academy
- New Town High School
- Overlea High School
- Owings Mills High School
- Parkville High School
- Patapsco High School
- Perry Hall High School
- Pikesville High School
- Randallstown High School
- Sparrows Point High School
- Towson High School
- Woodlawn High School

LEA CTE Centers

- GW Carver Center for the Arts
- Eastern Technical High School
- Sollers Point Technical High School
- Western Technical High School

CTE ERT Visit

Date: November 7, 2024
Schools: Eastern Technical High School and Kenwood High School

LEA CTE ENROLLMENT, PARTICIPATION and COMPLETION RATES

	Baltimore Co	Eastern Tech	Kenwood
Total Enrollment (2024) (# of all HS students)	34437	1273	1900
Total Enrollment (2024) (# of all graduating students)	7633	275	376
CTE Participation Rate[16] (% of all graduating students)	4102 (54%)	33	199
CTE Concentration Rate (% of all graduating students)	515 (7%)	50	19
CTE Completers Rate (% of all graduating students)	2345 (35%)	192	129
IRC Completion Rate (% of all graduating students)[17]	719 (10%)		
Work-Based Learning Participants[18] [19] (# of all graduating students)	148	0	16
Dual Enrollment Participants[20] (# of all graduating students)	1378	132	23
Dual Enrollment Completers[21] (# of all graduating students)	1244	124	20
Apprenticeship Participants (# of all HS students)	222	18	11
Apprenticeship Participants (# of all graduating students)	139	15	6
Apprenticeship Completers (# of graduating students)	45	0	0
Progress Towards 45% Goal[22]	10%		

[16] CTE Participants are students completing not less than one credit in a MSDE-approved CTE program of study. CTE Concentrators are students who have completed at least two courses and are enrolled in a third course in a single MSDE-approved CTE program of study. CTE Completers are students who meet all requirements in a state-approved CTE program of study, typically three or four courses.
[17] Defined as the percentage of all graduating students who have earned an IRC (as defined by the CTE Committee)

LEA CTE OFFERINGS

CTE Program Enrollment

Program Name	Total Enrollment	Overenrolled or Underenrolled?	Number of Students on Waitlist
Agricultural Science	175		
Automotive Diesel	88		
Automotive Service Tech	208		
Aviation Technology	110		
Baking and Pastry	66		
Building and Construction Technology	337		
Business Education	4187		
Career Research & Development	4235		
Carpentry Careers	441		
Child Care Services	446		
Construction Design	374		

[18] Participation is defined as the number of all high school students or all graduating students who have participated in the high school portion of a registered apprenticeship (RA) or an AMP youth apprenticeship (YA). Completion is defined as the number of all graduating students who have completed the high school level of a Registered Apprenticeship (RA) or have completed both an AMP youth apprenticeship (YA) and an IRC (YA completers who don't earn an IRC will not count towards 45% goal).
[19] Work-based learning includes internships, job shadowing, and other job-based experiences.
[20] Participation is defined as the number of all graduating students participating in dual enrollment (does not count towards the 45% goal unless they earn an IRC).
[21] Dual enrollment completers is defined as the number of all graduating students who earned college credit through dual enrollment.
[22] This metric is calculated by adding together the Apprenticeship Completion Rate (RA completers plus YA completers who also earn an IRC) and the IRC Completion Rate (based on draft guidance from the CTE Committee), divided by the total number of graduating students.

& Management			
Cosmetology	478		
Culinary Arts	387		
Electrical Careers	104		
Environmental Tech	107		
Graphics & Printing	245		
Health Professions	1225		
Homeland Security	476		
HVAC	144		
Interactive Media Programs	869		
IT CISCO	597		
IT Computer Science	2234		
JROTC	660		
Mech Construction/Plumbing	201		
PLTW Biomed	734		
PLTW Engineering	2176		
ProStart	2150		
Teacher Academy of Maryland	492		

Progress Towards the 45% Goal:

LEA Short Answer Questions

What are you projecting, for next school year, in growth towards the 45% goal for your district?

- Next 3 years? Our apprenticeship numbers have tripled last year. We had nearly 100 students that would qualify as apprenticeship completers during the summer. Our certification numbers are also increasing and students will be faring better on the assessments.. The current numbers do not indicate the number of students who have taken the exams which is over 1400. Also, we are working with MSDE to accept more

of the required certifications for internships/apprenticeships are industry recognized credentials, ie OSHA-10.

- Next 5 years? The projection is that we reach 45% in the next 5 years based on having over students currently enrolled in AMP who are on track to graduate which will double if not triple the amount of graduates in addition to the number of students taking and passing an IRC. If our graduation rate stays the same, we will need 3,435 students to meet the 45% goal.
- By SY 2030-2031? We will meet the goal by 2031.

What are your plans for expanding Registered Apprenticeships in your LEA?

- Our team of WBL teachers and career navigators, led by our School to Career Supervisor, are consistently networking with local businesses to provide opportunities for our students which includes requesting business to become registered apprenticeship providers in order to receive and provide this experience to our students.

Program Plans for Future

Are there any new programs you plan on adding to your current programming within the next 2 school years?

- We are not adding any new programs in the next 2 years.

Why are you adding/not adding the program(s)?

- Our focus is on current programs and increasing IRC success and apprenticeship opportunities in order to meet the 45% goal by 2031.

Are there any current programs you plan on expanding upon within the next 2 school years?

- Our graphic print program will expand in an effort to balance the number of programs offered in comprehensive and magnet schools.

Why are you expanding upon the program(s)?

- Currently we have identical programs in both comprehensive and magnet schools but entrance into the program varies due to the location of the program.

Are there any programs you are taking away within the next 2 school years?

- No, we will be changing access to programs but not taking away any offerings.

Enrollment Practices

How do students enroll in programs?

- If a program is at a magnet school, the student will need to apply via the magnet office process. If the program is offered in a comprehensive school, students enroll via normal scheduling.

Are all CTE programs offered to all students?

- Yes, all students have the opportunity to participate in all CTE programs.

Can a student participate in a CTE program at another school?

- Students can participate in CTE programs not offered at their home school via special permission which is managed by BCPS and each school.

Program Design

What are some best practices from CTE in your LEA that you think are worth sharing with other CTE programs across the state?

- Our CTE team is cross trained and aware of the needs of our community in order to share opportunities with our students and parents. All members of the team are vested and spread the news of the activities of our schools, students and organizations via social media.
- The CTE marketing campaign is strong with digital tools and a presence in our community.

LEA Support for Schools

How is CTE financial support structured within the LEA?

- CTE receives local operating funding to support consumable expenditures and certification in addition to federal Perkins funding to support sustaining programs. Blueprint funding is also provided to support Pillar 3 activities.

How is CTE staffing structured within the LEA?

- CTE staffing is centralized and funded via the LEA with additional staffing support as provided in Blueprint legislation and Perkins funding to provide instructional support.

Career Exploration

What career exploration is available to students in your LEA?

- BCPS has 25 Career Navigators provided by Blueprint funding as well as career counselors via school counseling. Our system also has a community school facilitator at the elementary and middle level to develop community relationships including the staff in the feeder pattern.

How do the students access their career coach(es)?

- Career navigators in BCPS have developed career centers in the building in order to provide access for all students. Career Navigators are also working with school counseling and provide “push in” visits to all classes.

How does/do the career coach(es) serve students in your LEA?

- Career coaches are in each high school, our career navigator program provides students with resources and opportunities to explore careers throughout Baltimore County.

INFORMATION FOR VISITING SCHOOLS

Eastern Technical High School

School Leadership: C. Michelle Anderson
School Contact: Daniel Murphy, Career Navigator
School Website https://easterntechhs.bcps.org/

Kenwood High School

School Leadership: Catherine Smith
School Contact: Kalyn Alleman, Career Navigator
School Website https://kenwoodhs.bcps.org/

Overview of Meeting Participants

CTE Lead, School Administrators & Staff

Name	Role	Location
MiVida M. Parham	Coordinator, College, Career and Technical Education	Jefferson Building
Alicia Fales	Supervisor, School to Career and Apprenticeship Maryland Program	Jefferson Building
Leeann Schubert	Director, Educational Opportunities and Services	Jefferson Building
C. Michelle Anderson	Principal	Eastern Technical High School
Daniel Murphy	Career Navigator	Eastern Technical High School
Lawrence Duval	Assistant Principal	Eastern Technical High School
Catherine Smith	Principal	Kenwood High School
Kalyn Alleman	Career Navigator	Kenwood High School
Rochelle Harley	Assistant Principal	Kenwood High School

CTE PROGRAMS AND ENROLLMENT AT VISITING SCHOOLS

Eastern Technical High School

CTE Program	**Enrollment Number**
Allied Health	298
BCT	103
Culinary Arts	95
Engineering Careers	252
Environmental Technology	30

CTE Program	Enrollment Number
Interactive Media Production	178
IT/Cybersecurity	126
Law Public Policy	135
Teaching Academy of Maryland	26

Kenwood High School

CTE Program	Enrollment Number
CRD	370
Graphics & Print	47
Carpentry	23
Plumbing	39
Aviation	44
Foods	136
TAM	76
JROTC	106

Overview of CTE Programs

A complete list of CTE programs and full descriptions of each course can be found here on the Baltimore County CTE page.

LEA STUDENT DEMOGRAPHICS

	Maryland	Baltimore Co
District Student Demographics (2023)	276495	34643
% Asian	7%	7%
% American Indian / Alaska Native	<1%	<1%
% African American	33%	43%
% Hispanic	21%	15%
% Native Hawaiian / Other Pacific Islander	<1%	<1%
% Two or More Races	4%	4%
% White	34%	30%
% Students with Disabilities	11%	12%
# of Multi-Lingual Learners	9%	9%
% Free and Reduced Meals (FARMS)	47%	53%
Child Poverty Rate % (2022)	12%	14%[23]
Unemployment Rate % (2024)	3%	2%[24]

COMMUNITY CONTEXT

Nearby Universities & Community Colleges

- The Community College of Baltimore County
- Howard Community College
- Baltimore City Community College
- Carroll Community College
- Anne Arundel Community College
- Harford Community College
- Towson University

[23] According to DataUSA; https://datausa.io/profile/geo/baltimore-county-md#:~:text=Children%20in%20Poverty,poverty%20in%20Baltimore%20County%2C%20MD.
[24] According to Maryland State Archives; https://msa.maryland.gov/msa/mdmanual/01glance/economy/html/unemployrates.html

- Goucher College
- University of Maryland, Baltimore County (UMBC)
- Johns Hopkins University
- Morgan State University
- Loyola University Maryland
- Coppin State University
- Notre Dame of Maryland University

Economic Profile[25]

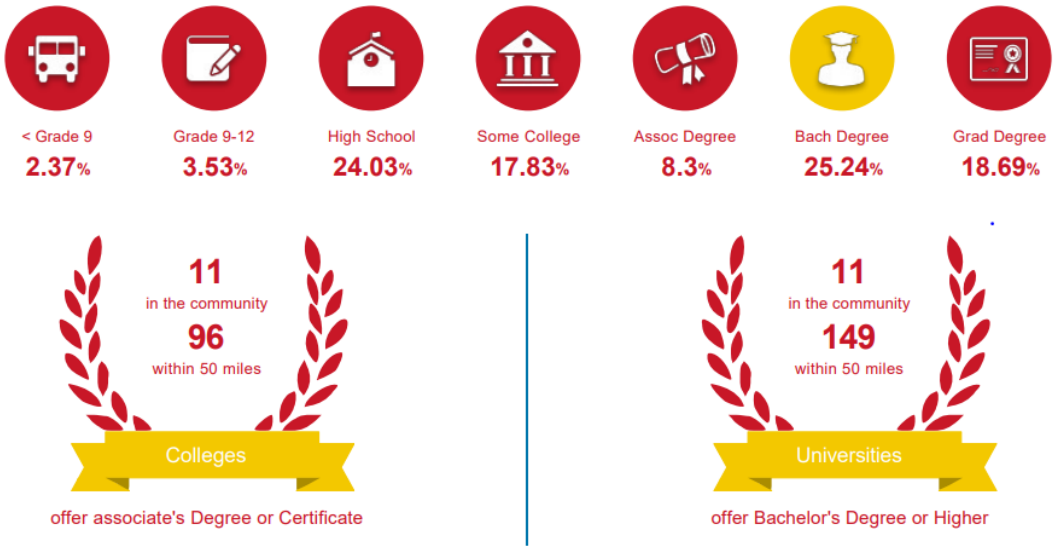
Baltimore County, the second largest job center in Maryland, enjoys a diverse economy, highly educated workforce, and attractive standard of living. The county's private sector industries generate $56.0 billion in economic output. The business community is balanced across sectors with corporate or divisional headquarters for McCormick & Co.; Stanley Black & Decker Global Tools & Storage, Tessco Technologies and Textron Systems. Major operation hubs include Amazon; Bank of America; BD Life Sciences - Diagnostics; Middle River Aerostructure Systems, and T. Rowe Price. The county is home to the Social Security Administration Headquarters and Centers for Medicare and Medicaid Services. Business environments include a research and technology park and heavy industrial properties with rail, interstate and deepwater port access. Main campuses for Towson University, UMBC, and Goucher College are located throughout the county. The emerging offshore wind industry is supported at Tradepoint Atlantic, the primary local site for component manufacturing, fabrication and assembly. Rocket Lab, a global leader in spacecraft programs, started development on a highly automated carbon composite facility in the Chesapeake Enterprise Zone. Investments of over $2B throughout the County include Metro Centre, Mill Station and Foundry Row; along with projects such as Circle East and Towson Row in the county seat.

Educational Attainment[26]

[25] https://commerce.maryland.gov/documents/researchdocument/baltcountybef.pdf
[26] Maryland Department of Commerce https://media.zoomprospector.com/common/helpers/PDFGenerator.ashx?type=PDF&ID=2d864e34-4257-4785-aad1-27c412a691e9&map=true&reporttype=COMMUNITIES&sst=maryland

Educational Attainment

52.23% of the population in Baltimore County have an associate's degree or higher. 43.93% have a Bachelor's degree or higher.



LEADING BUSINESS GROUPS

Preview of Baltimore County's leading Business Groups.[27]

Name	Industry	Size Category
Beth Tfiloh Dahan Cmnty Sch	Accommodation and Food Services	100-249
BGE HOME	Construction	100-249
Bge Home Products & Svc LLC	Other Services (except Public Administration)	100-249
Big Lots	Retail Trade	100-249

[27] The full list of leading business groups can be found Maryland Department of Labor, Division of Workforce Development and Adult Learning https://www.labor.maryland.gov/lmi/emplists/baltocounty.shtml

Name	Industry	Size Category
Bill Kidd's Timonium Toyota	Other Services (except Public Administration)	100-249
BJ'S Restaurant & Brewhouse	Accommodation and Food Services	100-249
BJ'S Wholesale Club	Retail Trade	259-499
Blakehurst	Health Care and Social Assistance	100-249
Blind Industries & Svc of MD	Other Services (except Public Administration)	100-249
Bluestone Restaurant	Accommodation and Food Services	100-249
Board of Education	Educational Services	100-249
Bob Bell Nissan	Retail Trade	100-249
Bob Evans	Accommodation and Food Services	100-249
Bon Appetit Management Co	Accommodation and Food Services	100-249
Bonefish Grill	Accommodation and Food Services	100-249
Boscov's	Retail Trade	100-249

Name	Industry	Size Category
Boulevard Diner	Accommodation and Food Services	🔵 **100-249**
Boulevard Holding LLC	Construction	🔵 **100-249**
Bowleys Quarters Banquet Hall	Arts, Entertainment, and Recreation	🔵 **100-249**
BP LUBRICANTS USA INC	Wholesale Trade	🟠 **259-499**
Brawner Builders Inc	Construction	🔵 **100-249**
Brick Bodies of Padonia	Arts, Entertainment, and Recreation	🔴 **500-749**
Brightstar Care Baltimore City	Health Care and Social Assistance	🔵 **100-249**
Brightview Catonsville-Senior	Health Care and Social Assistance	🔵 **100-249**
Brightview Landscape Svc	Administrative and Support and Waste Manag..	🔵 **100-249**
Brightview Mays Chapel Ridge	Health Care and Social Assistance	🔵 **100-249**
Brightview Perry Hall	Health Care and Social Assistance	🔵 **100-249**
Brightview Rolling Hls	Health Care and Social Assistance	🔵 **100-249**

Name	Industry	Size Category
Brightview Towson	Health Care and Social Assistance	🔵 **100-249**
Brightview White Marsh	Health Care and Social Assistance	🔵 **100-249**
Brightwood Center	Health Care and Social Assistance	🔵 **100-249**
Broadmead Medical Svc Inc	Health Care and Social Assistance	🟠 **259-499**
Buffalo Wild Wings	Accommodation and Food Services	🔵 **100-249**

Size Category Legend:

- 🔵 **100-249**
- 🟠 **259-499**
- 🔴 **500-749**
- 🟢 **1000+**

Appendix C | Visit Agenda

Visit Date: November 7, 2024
Time: 8:00am-3:30pm

Arrival Time: 8:00am-8:15am

Location AM:
Eastern Technical High School
1100 Mace Avenue
Essex, MD 21221

Location PM:
Kenwood High School
501 Stemmers Run Rd
Baltimore, MD 21221

AM Session: Eastern Technical High School

Team 1:

John Strickland, Dede Keller, Mariel Fedde, Gretchen Cheney, Tracy Tyler, Brian Hammond, Nicola Richards-Wright

Team 2:

Ryan Sackett, Geoff Bernstein, Genevieve Floyd, Erika Bailey, Lateefah Durant, Joe Rose, Rob Limpert

Time	Activity	Time	Activity
8:00am-8:15am	Meet and Greet	8:00am-8:15am	Meet and Greet
8:20am-8:50am	Classroom Visits	8:20am-9:00am	CTE Student Focus Group
8:50am-8:55am	Break	9:00am-9:30am	Classroom Visits
9:00am-9:30am	Classroom Visits	9:30am-9:35am	Break
9:35am-10:05am	School Counselor & Career Coach Focus Group	9:35am-10:05am	CTE Teacher Focus Group
10:05am-10:35:am	CTE Staff/School Admin Mtg.	10:05am-10:35am	CTE Staff/School Admin Mtg.
10:35am-11:00am	Travel	10:35am-11:00am	Travel

PM Session: Kenwood High School

Team 1:

John Strickland, Dede Keller, Mariel Fedde, Gretchen Cheney, Tracy Tyler, Brian Hammond, Nicola Richards-Wright

Team 2:

Ryan Sackett, Geoff Bernstein, Genevieve Floyd, Erika Bailey, Lateefah Durant, Joe Rose, Rob Limpert

Time	Activity	Time	Activity
11:00am-11:10am	Arrival and Check In	11:00pm-11:10am	Arrival and Check In
11:10am-12:10pm	Classroom Visits	11:10am-12:10pm	Classroom Visits
12:10pm-12:50pm	Break/Lunch	12:10pm-12:50pm	Break/Lunch
12:50pm-1:35pm	CTE Student Focus Group	12:50pm-1:35pm	School Admin Meeting
1:45pm-2:30pm	CTE Teacher Focus Group	1:45pm-2:30pm	School Counselor & Career Coach Focus Group
2:30pm-3:00pm	End of Day Gathering	2:30pm-3:00pm	End of Day Gathering

Appendix D | Interview & Focus Group Questions

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. For those students who are not able to enroll and stay on a waitlist, what's the process for those students? What happens if they don't get off the waitlist?
7. How does the LEA/district update CTE programs? What are some current plans you have for adding new programs, expanding existing programs or eliminate current programs?
8. From your perspective, what are the strengths of your LEA/school's CTE program, and what have you made the most progress on recently?
9. What do you see as the key challenges facing your LEA/school now?
10. Where would you like the LEA to be in five years in regards to CTE?

Additional Questions:

- Are any CTE teachers earning National Board Certification? If so, have they been able to move into differentiated roles?
- 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. Where do students from your program go after graduating (i.e., further training, work, college, etc.)?
5. 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?*
6. If you could redesign your subject's program of study, what would you change?
7. What professional learning opportunities are available for you?
8. From your perspective, what are the strengths of your school's CTE programs?
9. What do you need as a CTE teacher that you feel you may not be getting?
10. 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?

- Do most students who enroll in your program intend on completing the program?
- 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 getting in to the program?
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?

Appendix E | BCPS Feedback: GWDB CTE Expert Review Team Post-Visit Report

BCPS Feedback: GWDB CTE Expert Review Team Post-Visit Report

Thank you GWDB for the opportunity to share our programs during the ERT visit on November 7, 2024. Based on the feedback received on October 17, 2025; the following information is the progress BCPS has made on the "Potential Next Steps" of career exploration in middle school as well as the answer to the question of student selection into the magnet program at Eastern Technical High School.

Implementation of the BCPS Middle School Career Coaches Program

In support of Blueprint Career Counseling requirements, Baltimore County Government has hired 14 Middle School Career Coaches. These are temporary, non-merit employees working 35 hours per week (Monday to Friday), contracted with and reporting to the Baltimore County Department of Economic and Workforce Development (DEWD) Blueprint for Maryland's Future Program Manager. Each Career Coach is assigned to two middle schools and collaborates closely with High School Career Navigators assigned to those schools.

On September 29, Middle School Career Coaches began a two-week onboarding process that included mandatory trainings, professional development, and school shadow visits. They reported to their middle school placements during the week of October 13.

Career Coaches are responsible for:

- Providing individualized and group career coaching activities to students in grades 6-8.
- Helping students explore workforce pathways through coaching and exploration activities.
- Building a foundation for high school transition and post-secondary success.
- Collaborating with school staff, community partners, and High School Career Navigators.
- Planning engaging career exploration opportunities.
- Participating in meetings with school-based staff, BCPS CTE staff, business partners, and Baltimore County Government agencies.

Eastern Tech Magnet Program Application Process

Students apply to Eastern Tech's magnet program for Grade 9 in the fall of their 8th grade year. They may select up to three programs for application. As part of the application process, students schedule an assessment appointment, which is administered in December and January. Students only need to complete the assessment once, and the results are used for all selected programs.

The assessment includes a 20-question Math test, a 20-question English/Literary Arts (ELA) test, and a 30-question Critical Thinking test. This assessment contributes 75% of the student's evaluation score. The remaining 25% is based on the student's report card grades from four quarters of the prior year and the first quarter of the current year.

Admissions are determined through a random lottery selection process that considers the student's evaluation score. If the number of applicants exceeds available seats, priority placements are filled first. Then, a lottery of applicants with scores of 80% or higher is conducted to fill seats and generate a waitlist. Subsequently, a lottery is conducted in descending order of scores (79%, 78%, etc.) to fill remaining seats and generate a waitlist.

Priority placements include:

1. Child of an Employee – If a BCPS employee's primary work site is a school with a magnet program and their child applies to that program and earns a score of 80% or higher, the child receives priority placement.
2. High School Assessment Priority Placement – Up to 20% of available seats are filled by applicants scoring 80% or higher who earn the highest scores on the magnet assessments.

If there are fewer applicants than available seats, all eligible applicants are offered placement.

Respectfully submitted by
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BCPS College, Career and Technical Education
October 24, 2025

Maryland

GWDB CTE COMMITTEE

Governor's Workforce Development Board
Career and Technical Education Committee

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