Maine School Counselor Perceptions:

Access to College and Career Readiness through Early College and CTE Programs

Amy F. Johnson

Jennifer Chace

Mella McCormick

Maine Education Policy Research Institute

Summer 2023

UNIVERSITY OF SOUTHERN MAINE

Center for Education Policy,
Applied Research, and Evaluation

Published by the Maine Education Policy Research Institute in the Center for Education Policy, Applied Research, and Evaluation (CEPARE) in the School of Education and Human Development, University of Southern Maine.

CEPARE provides assistance to school districts, agencies, organizations, and university faculty by conducting research, evaluation, and policy studies.

In addition, CEPARE co-directs the Maine Education Policy Research Institute (MEPRI), an institute jointly funded by the Maine State Legislature and the University of Maine System. This institute was established to conduct studies on Maine education policy and the Maine public education system for the Maine Legislature.

Statements and opinions by the authors do not necessarily reflect a position or policy of the Maine Education Policy Research Institute, nor any of its members, and no official endorsement by them should be inferred.

In complying with the letter and spirit of applicable laws and pursuing its own goals of diversity, the University of Maine System does not discriminate on the grounds of race, color, religion, sex, sexual orientation, transgender status, gender, gender identity or expression, ethnicity, national origin, citizenship status, familial status, ancestry, age, disability physical or mental, genetic information, veterans or military status in employment, education, and all other programs and activities. The University provides reasonable accommodations to qualified individuals with disabilities upon request. The following person has been designated to handle inquiries regarding non-discrimination policies: Director of Equal Opportunity, 101 Boudreau Hall, University of Maine, Orono, ME 04469-5754, phone 207-581-1226, TTY 711 (Maine Relay System).

This study was funded by the Maine State Legislature, and the University of Maine System.

A Center of the
School of Education and
Human Development

140 School Street, Gorham, ME 04038
(207) 780-5044; TTY (207) 780-5646
www.cepare.usm.maine.edu
A member of the University of Maine System

Table of Contents

Maine School Counselor Perceptions:
Supporting College and Career Readiness through Early College and CTE Programs

Introduction

This study was completed at the request of the Maine Legislature's Joint Standing Committee on Education and Cultural Affairs. The purpose of the study was to understand high school students' access to and use of early college and Career and Technical Education (CTE) programming to meet their college and career readiness goals.

The study collected survey data from school counselors; other than the students themselves, these are the individuals who are most familiar with students' decision making about course and program choices. The findings share information about the early college and CTE options students have, how those opportunities are shared with students, and student participation rates and perceived motivations. The survey also collected feedback about the school counselor's role in college and career readiness support, and their perceptions of adequacy of current staffing levels to meet student needs within the full range of tasks that school counselors perform. Appendix A offers a comprehensive list of Maine CTE legislation to date as well as some additional resources.

Background

An aging population, low birth rate, and fewer people in their 20s entering the workforce have created a perfect storm contributing to Maine's current workforce shortage. Making Maine Work, a 2022 report produced by the Maine State Chamber of Commerce, the Maine Development Foundation, and Educate Maine identified several key strategies for addressing the workforce shortage, including "attracting more young people to move to Maine, improving the skills of the existing Maine workforce, and removing barriers to work for certain populations" (p. 8). Ways in which the state could increase the existing populations' participation in the labor force include through "skilled trade programs in Career and Technical Education (CTE) Centers, apprenticeship programs with private employers ("earn and learn"), internships, and free community college for eligible young adults to gain valuable credentials and degrees at no cost" (O'Hara, 2022, p. 10).

Maine's Career and Technical Education (CTE) Background

From 2004 to 2020 the Maine legislature has passed 15 bills directly related to CTE. Highlights include the Educational Funding and Property Relief Act (2004) which defined the cost of CTE as an essential program and service; the High School and Postsecondary Integration Act (2008) which sought to consolidate and integrate secondary and postsecondary education through the creation of Career and Technical High Schools and Centers; the Enhancing Career and Technical Education Act (2012) designed to increase opportunities for CTE by ensuring greater coordination of school calendars, access, and earning high school credit for academic competencies gained through CTE programs; LD 1412 which in 2013 enabled CTE students to earn college credits while attending high school; An Act to Enable Earlier Introduction of CTE in Maine Schools (2017) designed to extend CTE programs to middle schools; and most recently LD 1283 Resolve, to Reestablish the Task Force to Study the Creation of a Comprehensive Career and Technical Education System. See Appendix A for a list of recent Maine CTE legislation.

According to a 2017 policy brief prepared by Educate Maine and the Maine State Chamber of Commerce, CTE students have a higher rate of graduating high school than non-CTE students. National data shows that "students who concentrated their CTE coursework (i.e., took their courses in a single program of study) were more likely to graduate high school by 21 percentage points compared to otherwise similar students" (Educate Maine, 2017, p. 4). Research further shows that CTE students are well prepared for postsecondary studies, are qualified to enter the workforce, and serve to reduce the economic opportunity gap between low-income students and their high-income peers (Educate Maine, 2017).

While Maine has made considerable strides to promote CTE in both its middle and high schools, there remains room for growth. In 2021-22, Maine's 551 public schools served 165,257 students. Of those, 8,772 were enrolled in CTE, representing 14% of Maine's 9th to 12th graders. To date, Maine has 27 CTE schools (19 centers and 8 regions) offering 83 programs (Maine DOE, n.d.), plus programs available to students in state care. A 2022 MEPRI report to the Maine Department of Education identified that in the 2019-20 school year, "A total of 85 programs at 19 CTE schools were reported as oversubscribed or had a waitlist . . . The number of students reported to be unable to enroll in a program due to being waitlisted was 605. This represents an average of 7.3 students per program being waitlisted" (Sloan et al. 2022, pp. 40-41). The report

further identified limited space, equipment, and staffing as possible barriers to accessing CTE programs.

Current obstacles for preparing Maine's youth for the workforce through CTE programs include availability limitations, accessibility constraints, and underutilization by targeted populations. Prior policy recommendations for addressing these problems include a public relations campaign dedicated to combating misperceptions about CTE, expanding CTE's partnerships with private employers and small businesses, continuing the development of articulation agreements with postsecondary institutions to offer transferable college credits for CTE students, and removing policy and regulatory barriers to CTE participation (Educate Maine, 2017). In addition, the recent addition of a separate funding model with the Essential Programs and Services formula has lowered a key barrier by allowing immediate funding for newly-approved programs based on estimated enrollments.

Maine's Early College Background

According to the Maine Early College Report, "in the 2020-21 school year, over 8,000 Maine high school students enrolled in college courses through early college programs offered by public higher education institutions" (Zinth, 2022, p. 1). Maine has witnessed significant growth in student participation in the early college program with the University of Maine System (UMS) reporting an increase of 76% from 2015-16 to 2019-20, and the Maine Community College System (MCCS) reporting an increase of 42% from fall 2016 to fall 2019 (Hubbard, et al, 2021). State statute and collaborative initiatives between UMS and MCCS are credited for making this growth possible (Zinth, 2022).

Maine's legislative history of supporting early college dates to 1997 when appropriations made it possible for public school students to take tuition-subsidized college and university courses. In 2013, this subsidy was expanded to include homeschool students. Statute 20-A MRSA § 4775 directs the Maine Department of Education (MDOE) to reimburse public colleges and universities according to the Aspirations early college tuition rates for up to 12 credit hours per academic year.

Illustrations of collaborative-based initiatives between UMS and MCCS that support and promote the early college program include a unified online application system that streamlines the process by providing students access to the state's 14 public institutions. This unified approach also gives high school and postsecondary staff the ability to efficiently and effectively

counsel students on the best course available in the state to meet their career and academic goals. Additional illustrations of collaborative support include joint fee waivers for all early college courses, as well as open access to courses that do not have specific prerequisites.

Despite the previously mentioned growth in the early college program, "the percentage of Maine students completing college courses in high school is below the national average" (Zinth, 2022, p. 3). Current challenges to ensuring equitable and sustainable access to early college courses include the lack of statutory language that explicitly states the goals of Maine's early college program, current policies that could potentially exacerbate the gap between advantaged and disadvantaged students, lack of communication with secondary schools regarding eligibility requirements, program growth that is exceeding the available funding, and the need to make early college an explicit component of Maine's postsecondary attainment goal (Zinth, 2022).

Career and College Readiness Landscape

In their study of 25 core workplace skills in the United States, Bughin, et. al, 2018, found the fastest growing skill demands between 2016-2030 include advanced IT skills and programming (91%), basic digital skills (69%), creativity (40%), entrepreneurship, initiative-taking (33%), and leadership/managing others (33%). The Pew Research Center's 2016 report, The State of American Jobs reveals that jobs requiring analytical or social skills have been increasing at four times the rate of jobs requiring physical skills. In their report on Digitalization and the American Workforce, Munro, et. al (2017) found that between 2002 and 2016 the share of U.S. jobs requiring mid- or high-level digital skills jumped from 45% to 71%.

These numbers reveal a shift in the types of skills future workers will need to enter the workforce. It also represents a need for high schools to shift their understanding of what it means for a student to be college- and career-ready. In their Youth Employment Series, U.S. Chamber of Commerce noted that the requirements of college- and career-readiness have converged, namely, that students who are not college-ready are not career-ready either (2016). In other words, the days of preparing students to be either college- or career-ready have passed, rather today's student needs to be both college- and career-ready. Unfortunately, this comes at a time when high school seniors report feeling less college- or career-ready than previous graduating classes. According to the 2022 YouthTruth national nonprofit student survey, "less than half of today's seniors - 43% - feel positively about their college and career readiness. Seniors in the class of 2022 are less likely to report receiving counseling about future career possibilities and

counseling about how to pay for college than did seniors in the class of 2019" (YouthTruth, 2022, p.13). The decrease in college- and career-readiness among graduating seniors is considered to be one of the many adverse side effects of the COVID-19 pandemic.

What does this mean for Maine? At a time when the state is bracing for the loss of 65,000 workers by 2029 as the baby boomer population declines, Maine will be hard pressed to find enough trained young workers to replace them (LaClaire, 2023). Furthermore, the state's efforts to encourage businesses to move to Maine or to grow within the state could be undermined by the lack of a prepared workforce. To compound the problem, these events are occurring while nearly half of Maine's high school graduates choose not to enroll in college (Educate Maine, 2023). According to the 2021 Education Indicators for Maine, "only about a third of Maine high school graduates ultimately make it to college graduation within 6 years of graduating high school" (Educate Maine, 2023, Postsecondary education). As of 2021, approximately 53% of Maine residents hold a degree or credential of value (MaineSpark, n.d.), leaving a significant gap between the knowledge and skills the state's jobs require and the level of prepared employees.

What's being done in Maine toward college and career readiness?

Maine's efforts toward college and career readiness in its high school age population are situated in the context of a larger national high school reform movement, much of which is tuned to hands-on, real world learning experiences based on student interest. This shift is being promoted by diverse institutions from The U.S. Department of Education to XQ Institute, a nonprofit organization central in the high school innovation landscape. The message is that high schools need to change to prepare students for the realities of 2023 and beyond by utilizing work-based learning, dual enrollment, personalized pathways to college and career, credit for "anywhere anytime learning," and mastery based learning. The National Association of State Boards of Education (NASBE), in 2023, urged states to prioritize high school redesign, citing Joshua Leinwand, the student representative of Maine's State Board of Education as saying that schools have simply not kept up with the changing world (NASBE, 2023, May 16). NASBE's May publication discusses high potential, well-researched innovations, among which are: credit for learning outside the classroom, rigorous academics embedded in project-based learning courses focused on careers, and early college high schools.

There are many examples of Maine schools and districts working to make a shift toward modes of teaching, learning, and credentialing that are in line with national trends. In their 2018

national report of High School & the Future of Work, the XQ Institute highlighted seven forward-thinking high schools from across the country that serve as exemplary schools, all focused on preparing all students for their future lives. Among them was Casco Bay High School (CBHS) in Portland, Maine. Noted for its use of "learning expeditions, interdisciplinary explorations of real world issues in which students work directly with community experts, often travel to other cities, and present their learning to authentic audiences" (Jerald & Martin, 2018, p.17), CBHS serves as an example of a learning environment where academic knowledge and habits of work are seamlessly interwoven to provide students both the intellectual and practical skills needed for the 21st century workplace.

Other high schools in Maine have been successfully transitioning to new models as well, rooting their programs in local culture and industry. Nokomis Regional High School, for example, has a "doing high school differently" philosophy. Through support from the Barr Foundation, Nokomis' teachers provide core credit classes where students learn non-traditional school topics, such as fly fishing, which improves student engagement and enthusiasm while building transferable and marketable skills. And the small coastal district of St. George, through a partnership with Mid-Coast School of Technology, will "provide a model for preparing students, from the day they enter kindergarten through high school graduation, to develop the technical, creative thinking, and social-emotional skills to thrive in an innovation economy and strengthen our local and regional economies by meeting existing labor force needs and creating new businesses and industries" through a new community K-12 CTE program. St. George is one of many Maine Department of Education's Rethinking Responsive Education Ventures competitive grant awardees to be supported in initiating programs to, among other things, build connections between local industry needs and curriculum opportunities and teach basic academics through community problem solving projects.

The Jobs for Maine's Graduates (JMG) program established by the Maine State Legislature provides an additional avenue for students as early as middle school to prepare for their future academic and professional careers. Through their symbiotic partnerships with Maine's public middle and high schools, community colleges, university system, private businesses, and community organizations, JMG programs provide youth the career preparation, college transition skills, leadership opportunities, critical thinking, financial literacy, and community service learning they need to thrive in today's career landscape (JMG, 2023). Since

2022, funding from Governor Mill's Maine Jobs and Recovery Plan Program has allowed JMG to give students $500 stipends to participate in JMG career exploration programming while they intern locally for 40+ hours to gain real world experience in career areas of interest to them (Maine Department of Education, 2022, October 10).

Maine also has a statewide program through a partnership between Maine Department of Education (MDOE) and JMG to support college and career readiness that focuses specifically on the trend of giving credit for learning done outside the classroom. Extended learning opportunities (ELOs) offer creative and personalized approaches for advancing career and college readiness for Maine's students. As Saenz, et al. note in their 2021 report on Extended Learning Opportunities in Maine Schools, "in recent years, extended learning opportunities (ELOs) have gained traction in Maine and nationally as a means for students to develop "college, career, and life" skills through out-of-classroom experiences" (p. 1). The report further notes that ELOs vary significantly in range, scope, and access because they are not structured or regulated by the State.

In line with Maine's Life and Career Ready Standards, which focus on self-knowledge and life skills, aspirations, and building pathways for the future, ELOs provide students ideal opportunities for career exploration and initiation, academic study, and the development of life skills not directly taught in the classroom. ELOs can serve individual student needs and interests in a variety of capacities including through semester-long internships, one-off job shadow experiences, service-learning projects, independent study coursework, and school-work partnership. While JMG serves as a support for Maine schools in offering extended learning opportunity programs, schools don't need to partner with JMG in order to promote learning through ELOs. Some schools, usually in larger districts and/or affluent areas, have dedicated extended learning opportunity coordinators to connect students with individuals, organizations, and businesses and support students in gaining high school credit for their efforts.

What is Being Done Around the Country

Observing how other states are utilizing CTE to serve both their student's and state's economic needs could provide potential models for Maine to learn from. While we did not conduct an extensive policy scan as that was not within the scope of this study, what follows are selected examples of states with policies that differ from Maine. They are provided for

illustration and discussion purposes only; these may or may not be appropriate for Maine's specific CTE landscape.

Maryland

In 2021, Maryland passed its Blueprint for Maryland's Future designed to revolutionize all aspects of the state's public education system from Pre-K to post-secondary. With a stated commitment to equity and eradicating achievement gaps, the Blueprint is composed of five pillars, one specifically focused on Career and College Readiness. This pillar institutes a new College and Career Readiness (CCR) standard designed to signify that a student is college and career ready. The Blueprint is committed to having all their students meet the CCR standard by the end of 10th grade, leaving the final two years of high school for apprenticeships and advanced coursework. The CCR will be based on empirical research as outlined in the Maryland State Department of Education's (MSDOE) 2022 Blueprint for College and Career Readiness.

> The Blueprint also directs MSDE to contract with an external research organization to conduct an empirical study of the skills, knowledge, and abilities needed to succeed in the first year of Maryland community college coursework. The research study should then determine whether the College and Career Readiness standard set by the State Board of Education aligns with and accurately identifies which students have gained the requisite knowledge to succeed in community college. It should be noted that career readiness includes the demonstration of requisite academic, technical, and employability skills (MSDOE, 2022).

In addition to the Blueprint, in December 2022 the MSDOE launched its Maryland Works, "a grant opportunity that will leverage American Rescue Plan Elementary and Secondary School Relief Funds (ESSER III) to make an unprecedented investment in establishing an industry-aligned youth apprenticeship infrastructure for Maryland schools and business sectors" (MSDOE, 2022).

Massachusetts

Massachusetts' Department of Elementary and Secondary Education's (DESE) My Career and Academic Plan (MyCAP) provides a student-driven approach to promoting college, career, and civic readiness for all its students. MyCAP is a

> ". . . student-centered, holistic, multi-year planning tool designed to provide students with ongoing opportunities to plan for their academic, personal/social and career success in high school and beyond" (MDOESE, 2022).

Beginning as early as 6th grade, MyCAP consists of a student-led process that entails A) Discovering the student's interest, skills, talents, passions, and strengths, B) Planning via course taking, career development activities, and postsecondary options, and C) Acting through AP, Early College, Contextual Learning experiences, Applications, financial aid, and postsecondary choice. The MyCAP process is accompanied by an electronic platform designed to organize and record the student's progress toward their plan. Through the support of school, family, and community, "students are empowered to seek out learning opportunities that align with their individual career interests and self-defined goals" (MDOESE, 2022).

In addition to this, Massachusetts funds a statewide intermediary structure called Connecting Activities that engages 16 local workforce investment boards to connect schools and businesses in public-private partnerships to provide students with skill-building, work-based learning (WBL) opportunities (Massachusetts Department of Elementary and Secondary Education, n.d.). Connecting Activities also collects and publishes data on students' WBL experiences to ensure alignment with good jobs in growing industries such as STEM.

Massachusetts provides its CTE programming in 27 regional vocational high schools. Vocational high schools provide a full academic and career/technical educational program to ninth through twelfth grade students. Students alternate every one to two weeks between academics and career and technical learning, many achieving certification before they graduate from high school. And issues such as transportation and social challenges in moving between school cultures that Maine students face are remedied in this model. Massachusetts funds the infrastructure for its vocational high schools, along with all of the other K-12 school buildings, with a dedicated portion of their sales tax revenue (Massachusetts School Building Authority, n.d.).

Ohio

Ohio has made a concerted effort to promote college-readiness for high school students through its College Credit Plus (CCP) program. Implemented in 2015, the program is instrumental in advancing Ohio's Department of Education (ODOE) efforts to "increase the

number of its citizens with in-demand postsecondary education credentials relevant in the workplace" (ODOE, n.d., p. 3). The program provides high school students the opportunity to earn college credits at any public institution of higher learning in the state. The program covers the cost of tuition, books, and fees for all public-school students who plan to attend a public Ohio college or university.

Since its implementation during the 2015-2016 school year, CCP has expanded from 54,053 to 71,485 participants in just two years, representing an increase of 32 percent (ODOE, 2019). The program is open to students in grades 7 through 12. As of 2018, nearly 2,400 associate degrees and almost 1,200 certificates were earned by students before graduating high school (ODOE, 2019).

Rhode Island

In 2016 Rhode Island launched PrepareRI, a "statewide initiative to prepare all Rhode Island youth with the skills they need for jobs that pay" (RIDE, 2023). The PrepareRI program is dedicated to improving youth career readiness through partnerships between the Rhode Island government, the public education system, universities, private industry leaders, and nonprofits across the state. Described as a restructuring of the entire talent pipeline from kindergarten to career, highlights of the PrepareRI program include the All Course Network (ACN) that expands coursework opportunities for elementary, middle, and high school students.

Divided into five categories of courses, the ACN includes Work-based Learning Courses that provide hands-on learning with industry professionals to earn high school credits, Career Credential Courses that result in an industry recognized certificate or credential that also fulfills high school credits, Dual Enrollment Courses offered by local colleges and universities that allow students to earn both high school and college credit, Advanced Placement Courses that entail college-level coursework that culminates in an AP exam for both high school and college credit, and Enrichment Courses that entail a wide variety of non-credit courses designed to enrich a student's learning (RIDE, 2023).

Additional features of the PrepareRI program include ensuring all students in grades 6-12 have Individual Learning Plans (ILPs) to strategically guide their academic studies toward postsecondary education or career, the Rhody Ready college and career chatbox texting tool to answer college- and career-readiness questions for high school juniors and seniors, and a robust

Career and Technical Education (CTE) program that consists of more than 10 CTE centers, 54 high schools, charter schools, and post-secondary institutions and adult programs (RIDE, 2023).

Rhode Island partnered with XQ Institute in 2020 to form The XQ+RI challenge, which brings students, community members, and higher education together to re-envision their school through planning grant money and structured support. It "supports community teams to redesign school environments so when students graduate, they are prepared and empowered to be inventors of their own learning paths, careers, and adult lives. School design teams from across the state engaged students, families, community, and higher education partners, as well as district educators, in their efforts."

Tennessee

Tennessee's Department of Education (TNDOE) rehauled its Work-based learning (WBL) initiative, "a proactive approach to bridging the gap between high school and high-demand, high-skill careers, providing students with the needed skills that are difficult to learn solely through classroom-based instruction" (TNDOE, 2017, p.2) by aligning all its CTE courses with secondary requirements, postsecondary standards, and current labor market data. WBL activities begin as early as elementary school through broad career exploration units and gradually narrow in focus through middle and high school where students "find careers of interest, learn what postsecondary education is necessary for success, and practice the technical, transferable 21st century skills, and social and personal skills to enter those careers later in life (TNDOE, 2017, p.2).

Student progress is monitored through a Personalized Learning Plan (PLP) that focuses on skills in the following categories: 1. Application of Academic Knowledge and Skills, 2. Application of Industry-Focused Knowledge and Technical Skills, 3. Career Knowledge and Navigation Skills, 4. 21st Century Learning and Innovation Skills, and 5.) Personal and Social Skills (TNDOE, 2017).

In the WBL Policy Guide, the TNDOE specifies the requirements for WBL experiences including,

- introduced in early grades and deepened over time rather than focused only in later grades;
- driven by standards-based student learning outcomes rather than completed activities;

- accessible to all students and designed to meet diverse needs rather than reserved for a few;
- focused on both postsecondary and career readiness rather than careers alone;
- integrated within curriculum and strong counseling resources, rather than existing as stand-alone experiences;
- supported by a school-based team including general education teachers, career and technical education (CTE) teachers, and counselors, rather than just one CTE teacher; and
- inclusive of school-based and technology-supported experiences rather than only existing in workplaces. (TNDOE, 2017, p. 3)

Lastly, the TNDOE recognizes that in order for these practices to be effective, multiple layers of support and collaboration with a range of stakeholders is necessary. Input from students, parents, secondary and postsecondary education, community organizations, workforce development agencies, and businesses is needed to identify regional community needs, design WBL experiences that align with viable career opportunities in the region and provide students the setting to learn employability skills in a real-world context.

Methods

The original intent of the current study was to obtain feedback and perceptions directly from Maine high school students about their awareness of, and interest in, CTE programs and early college course opportunities. In early stages of planning this research, two issues emerged. First, there were significant logistical constraints for accessing students through their high schools and obtaining parental consent to participate in a survey. Researchers were unsuccessful in recruiting a representative sample of schools that were willing to participate. Secondly, in planning conversations with practitioners, it became clear that student *perceptions* of their access to college and career development programs may not accurately capture their actual access to these opportunities. While it is worthwhile to know their perceptions, it is also important to be able to put them into context and be able to contrast their understandings to actual practices. Thus, it was decided to begin by surveying high school counselors to establish administrative practices, and seek to recruit schools with interest in conducting a follow-up student survey in a future study.

An online survey of high school counselors was then developed with input from current practitioners and administrators. It was conducted at the end of the 2022-23 academic year in

order to capture recent outcomes. School counselor contact information was obtained from the Maine Department of Education's current directory listings; email addresses were available for 213 individuals were identified as working in a public secondary school. In total, 78 responses were received (37% response rate). Note that not all respondents answered every question.

Findings

General Career Development Programming

The survey first asked about the career exploration opportunities that are available to the students attending the respondent's high school. Almost all of the respondents (98%) indicated that their high school offered one or more types of career planning activities. The table below describes the most common programming.

Q1. Which of these career exploration opportunities are available to some or all students at your high school? (Check ALL that apply)

Answer	%
Standardized career exploration tools (career interests, aspirations, self-perceptions, readiness assessments, etc.)	81%
Extended learning opportunity (e.g. internship) eligible for high school credit	75%
Career and Technical Ed (CTE) Exploratory programs (9th or 10th grade)	71%
Job shadowing (one-time or short-term activity)	70%
Work release or internship, NOT credit-bearing	45%
Career mentoring (ongoing, longer-term match to a mentor)	34%
Other (please describe)	5%

More than two-thirds of high schools offer at least some of their students access to: standardized career exploration tools; extended learning opportunities eligible for high school credit; CTE exploratory programs for 9th and 10th graders; and job shadowing opportunities. About half of the counselors said that at least some of their students have work release or internship opportunities that are not credit bearing, and only a third of counselors said at least some of their students have ongoing career mentoring. A handful of counselors identified other

career exploration opportunities not listed in the survey, including: middle school CTE exploration, credit-bearing work study release, and JMG programs.

Participation Levels

Next, high school counselors were asked to describe the extent to which their students participated in these specific opportunities that are available, at least in theory, to all Maine public high school students: dual enrollment/Early College courses, advanced placement courses (including online AP4ME), and/or CTE. In addition, they were asked about uptake in formal internship or extended learning opportunity programs facilitated through their school; not all Maine high schools provide such support. For comparison they were also asked about their school's dropout rate.

Q2. About what percentage of this year's graduating class participated in each of the following activities during their high school years? (Some students may qualify in more than one category, and the numbers are not expected to add up to 100%.)

	Median % (Average)	Minimum	Maximum
Participated in one or more Dual enrollment/ Early college courses	20% (27%)	3%	90%
Participated in Advanced Placement (AP) courses (including online AP4ME)	(20% 26%)	0%	80%
Enrolled in a CTE (career and technical ed) program	20% (23%)	5%	70%
Participated in a job internship or ELO program for high school credit	5% (8%)	0%	25%
Dropped out of high school along the way	2% (4%)	0%	15%

School counselors indicate that overall, dual enrollment/Early College and Advanced Placement courses are the most far-reaching programs, with an average of 27% and 26% of 2023 graduates respectively having participated in those courses. A similar proportion of 23% of graduating students had enrolled in a CTE program (some of which may also include Early College courses; these two categories are not mutually exclusive). On average, far fewer 2023 graduates had participated in a job internship or ELO program (8%). School counselors also

reported on average 4% of their 2023 graduates dropped out of high school at some point along the way, with a range from 0% up to 15% of the most recent graduating class of students.

Important to note is that Maine students have a very wide range of participation levels in these programs depending on their school, making averages potentially deceiving. The minimum percent of 2023 graduates having participated in dual enrollment/Early College, as reported by school counselors, was 3% and the maximum was 90%. Similarly, the minimum percent participation reported by school counselors for advanced placement and job internships, or ELO programs is 0% and the maximum is 80% (advanced placement) and 25% (job internships and ELO programs); the minimum reported percentage of 2023 graduates having participated in CTE programs is 5% and the maximum is 70%. This illustrates the vast difference between student experiences of standard college and career readiness across the state.

Early College and Advanced Placement

School counselors were then asked a series of questions about their perceptions of students' Early College and advanced placement options and experiences.

The first question specifically asks school counselors to describe the Early College course modalities available to their students. The table below shows that online college courses and courses at CTEs are extremely common.

Q1 - What kinds of Early College (EC) courses are available to students attending your high school? Check ALL that apply.

Answer	%
Online. Students enroll in online college courses along with college students.	98
CTE. Students in certain CTE programs complete college-level work and earn college credit (includes Bridge Academy and community college pathways programs).	97
Concurrent enrollment. Courses are taught at the high school by college-approved high school teachers.	87
On campus. Students enroll in onsite college courses along with college students.	68
Other (please describe)	3

98% of school counselors reported their students can take college courses online and a similar amount said their students can enroll in CTE programs that include college-level work

and college credit. Slightly fewer, 87%, report that concurrent enrollment courses, which are taught by college-approved high school teachers, are available at their high school while only 68% said that their students have access to college courses on a college campus.

The survey then asked the same question about Advanced Placement (AP) courses. The first question asks school counselors to describe the modalities of the AP courses available to their students. The table below shows the three main modalities and what percentage of school counselors said each was available to their students.

Q2 - What kinds of AP (Advanced Placement) courses are offered to students attending your high school? Check all that apply.

Answer	%
In person, taught by a teacher at our high school and available only to our students	92
AP4ME (online courses offered through the University of Maine System)	76
In person or hybrid, offered in collaboration with other high schools and taught by a teacher from any one of the partners	6
Other (Virtual High School)	8

Where advanced placement courses are taken by students, the most common mode of delivery is in-person instruction by a high school teacher to their own students. 76% of school counselor respondents said that their students can take online advanced placement courses through AP4ME, offered by the University of Maine system. A small number, 6%, reported that their students take in person or hybrid advanced placement courses through collaboration with another high school and are taught by a teacher from the collaborating school. Five school counselors (8%) indicated in the open-ended "other" selection that their students take advanced placement courses through a virtual high school.

The next question asks school counselors to describe the role Early College courses, but not Advanced Placement courses, play in augmenting their school's course offerings. The table below shows the multiplicity of roles that college courses play in supporting schools to offer a variety of course options to their students.

Q3 - To what extent does Early College (EC) expand the offerings that are available to your students? Check all statements that you feel are true for your school.

Answer	%
It expands the elective course offerings for our students	89
It provides advanced coursework in core subjects where we do not have an available teacher (due to staff shortages or qualifications)	76
It provides an alternative for students who can't take an offered AP class due to schedule conflicts	70
It fills gaps in core courses to help students meet graduation requirements in an area(s) where we have a teaching staff shortage	41
Other	11

Many Maine schools, 89% as reported by school counselors, rely on Early College courses to expand their elective course offerings. 76% said that the Early College courses allow their students access to advanced coursework in areas where their school lacks an available and qualified teacher. However, a similar number of schools, 70%, use Early College courses as an alternative for students whose schedules do not permit them to enroll in available advanced placement courses. Fewer school counselors, but still a considerable number, 41%, reported that Early College courses fill gaps in core graduation requirements in areas where the school has a teaching staff shortage. School counselors reported that Early College courses also allow students to pursue individual specialized interests, explore career fields, and access more challenging opportunities that are not available at their high school. There was a concern expressed by one school counselor that Early College concurrent enrollment courses lacked oversight in terms of quality and rigor.

In the next two questions, school counselors were asked what they perceive are their students' primary motivations TO enroll or NOT TO enroll in Early College courses. The table below shows that Early College courses are meaningful to students for a variety of reasons, from

the pragmatic to the intellectual, with reducing the number of credits to early a college degree being the most common.

Q4 - What are the primary motivations for the students at your school who enroll in Early College courses? Choose your top three.

Answer	%
Desire to reduce the number of credits (and the cost) to earn a college degree	83
Route to access courses not otherwise available at our school	63
Pursue a specific career / subject interest	54
To impress colleges and be a more competitive applicant	49
To solve a scheduling conflict	46
To "test the waters" and see if they are able to handle college-level work.	40
To explore a variety of subjects to help narrow down post-secondary interests	27
Parental expectations / pressure	16
Other or N/A (please describe)	2

School counselors indicated that while there are a variety of motivations for students to enroll in Early College courses, the desire to reduce the number of credits (and the cost) of a college degree is by far the most common, with 83% listing it as one of their top three. Having access to courses not available at their high school (63%) was the next most common motivator for students. The exploration of a variety of interests to narrow post-secondary interests (27%) was a somewhat common motivation, while a more powerful motivator was the ability to pursue a specific subject or career interest (54%). Nearly 50% of school counselors noted that increasing college competitiveness is a major motivator for students to enroll in Early College classes, while 40% reported students' primary motivations included testing their ability to handle college level coursework. Nearly half (46%) of school counselors said scheduling conflicts were a primary motivation for students to take Early College courses. Only 16% reported parents' expectations as a primary motivation.

The table below shows school counselors' perceptions of the primary motivators for students *not* to enroll in Early College courses. Workload concerns were perceived by school counselors to be the biggest student motivator *not* to enroll.

Q5 - What are the primary reasons your students do NOT enroll in Early College courses? Choose your top three factors.

Answer	%
Workload is too high / competing demands (job, sports, sibling care, etc)	70
Don't see the value of Early College for their future plans	37
Don't believe they would be successful (not academically ready)	35
Not interested in the available course options	30
Lack of information / awareness of their options	27
Ineligible due to prior grades	24
Confusion about enrollment processes	21
Mismatch in scheduling	19
Inability to afford textbooks or other costs	17
Travel time	3
Misconceptions about tuition costs	0
Other (open-ended)	21

When we examined school counselors' perceptions of students' primary motivations NOT to enroll in Early College courses, the competing demands of jobs, sports, sibling care commitments alongside the increased workload demand of the college courses was the most common, with 70% of school counselors indicating it as primary. Relatedly, 35% of school counselors listed students' belief that they would not be successful in the courses as a primary motivation NOT to enroll. About as many school counselors said a primary motivation for students NOT to enroll is a lack of perceived value of the courses for their future plans. Less common primary motivations for NOT enrolling are lack of interest in the course options (30%), lack of awareness of the options (27%), and confusion about the enrollment process (21%). Ineligibility due to prior grades (24%) and inability to afford textbooks or other costs (17%) were also indicated as primary motivations for NOT enrolling. A small number of school counselors reported practical barriers such scheduling problems (19%) or travel times (3%) as primary negative motivators. School counselors provided a large number of unique motivations as primary to their students' decision *not* to enroll in Early College, indicating that personal reasons may account for a large number of students choosing not to enroll in Early College courses.

Next the survey asked school counselors to think about equitable participation in Early College courses and share which groups at their school could have increased participation to receive the full benefit of Early College enrollment. Respondents could choose as many groups as they liked. The table below shows the groups they chose, with no group being chosen by more than 50% of school counselors.

Q6 - In your opinion, which of the following types of student subgroups at your school is participating in Early College course opportunities at an inequitably low rate (and you would like to see an INCREASE in their participation level to take full advantage)? Check ALL that apply.

Answer	%
First-generation college students	50
Students with IEPs	45
Low-income students	38
None. I think participation levels are about right for all students.	22
English Learners	20
Students of color	20
Males	14
Students enrolled in CTE programs	13
ALL types of students. I think participation levels are too low for everyone.	11
Females	2
Non-binary or LGBTQIA+ students	0
Other	9

When asked about which students they thought were enrolling in Early College courses at an inequitably low rate, very few school counselors listed male (14%), female (2%), CTE students (13%), LGBTQIA+ students (0%), or other types of students (9%). 20% reported English learners as inequitably represented in Early College courses, and the same number listed students of color in that category. A greater percentage of school counselors (45%) indicated that students with IEPs are inequitably represented in Early College courses. The greatest percentage

of school counselors (50%) reported first generation students as being inequitably represented in Early College courses while (38%) included low-income students in that category. 22% of school counselors reported that they think participation rates are about right for all students, and only 11% indicated that they perceived participation as too low across all student groups.

CTE

In this section, school counselors were asked similar questions to those asked above in reference to Early College; here the survey asks about CTE.

The first question asks school counselors to share all the ways that their students learn about their options for CTE programs. The table below lists the ways schools and CTEs inform students of those options, with 90% of respondents providing their students with information about CTE in individual advising appointments. Below the table, the 15 open-ended answers given by school counselors are listed.

Q1 - How are students in your high school exposed to information about the Career and Technical Education (CTE) programs that are available to them? (Check all that apply)

Answer	%
Individual advising meetings with school counselor	90
CTE site tours offered during the school day with transportation (for all or some students)	81
Emails / letters directly to all students	73
Classroom visits from CTE reps/students	71
Flyers/posters in school	66
Emails / letters to parents	61
Exploratory programs offered by the CTE	49
Information nights	46
Other (open-ended) continued on next page	15

Q1 -Cont.

Other:
Classroom presentations provided by the school counselor.
All students are given tours in 8th and 10th grades.
Recruiting efforts by CTE center.
Middle school camp
Individual program visits are offered to our students. Unfortunately, there are not always enough available spots.
We post to class websites and include information in school newsletters
Our 8th grade attends a Career Fair every May at [CTE]
Google Classroom posts
Our CTE program in our district, sends a director of programs and current student to talk to all 10th graders in our auditorium to encourage required visitations to meet faculty in programs of interest. After those visits, [the CTE] chooses which students can attend as [the CTE] has more interest than spots in their programs. Not all students who want to go necessarily get in.

School counselors reported a relatively consistent set of experiences available to Maine high school students that expose them to information about available CTE programs, the most common being individual advising meetings with a school counselor, with 90% of school counselors listing it as provided to their students. Only slightly less common are CTE site tours during the school day, with 81% of school counselors indicating this as a part of their students' experience. Direct communication through emails to students (73%), classroom visits from CTE reps (71%), and emails to parents (61%) are other common paths for educating students on CTE opportunities. However, school counselors indicated that information nights (46%) and exploratory CTE programs (49%) are used less often to promote programs. Additional routes to educating students were listed as school counselor classroom presentations; events at the CTE center for middle schoolers; recruiting efforts by the CTE centers; postings to class websites, newsletters, and google classrooms; and individual program visits as available.

Next, we asked school counselors to share their perceptions of why their students enroll in CTE programs. Nearly 100% said career exploration interest and/or a desire for hands-on, applied, or real-world learning was a primary motivator.

Q2 - What are the biggest reasons students at your school enroll in CTE programs? (Choose your top three.)

Answer	%
Desire for more hands-on, applied, or real-world learning	98
Interest in exploring a general trade/career area	97
Disengagement in traditional courses; escape to something different	76
Encouragement from school counselor	43
Encouragement from parents	36
Interest in earning a specific credential	34
Encouragement from peers/friends	31
Other (please describe)	0

Students enroll in CTE programs for a variety of reasons, according to the school counselor respondents. Nearly all (98%) reported a desire for hands-on, applied, or real-world learning as a primary motivation. Nearly the same percentage said the same of an interest in exploring a general trade or career area. More than three-quarters of the school counselors (76%) indicated that disengagement from traditional courses was a primary motivation for students to enroll in CTE courses. Fewer counselors chose encouragement from a school counselor (43%), encouragement from parents (36%), or encouragement from peers (31%) as primary motivators for enrolling in CTE programs. Interest in earning a specific credential does not appear to be a primary motivator for most students to enroll in CTE courses, with only 34% of school counselors noting it as such.

The survey then asked school counselors what they perceive to be the top three obstacles to students in enrolling in CTE. The table below indicates that the top three barriers, according to school counselors, are factors outside the student's control and related to availability and scheduling.

Q3 - What are the biggest barriers to CTE enrollment that students in your school face? Select up to three.

Answer	%
Limited seats available in preferred programs	79
CTE schedule conflicts with preferred academic courses	64
Quotas/limits on number of students who can attend from each sending high school	46
Negative perceptions about CTE	30
Ineligible due to prior grades or discipline	27
Lack of interest in the available programs	23
Parent pressure against choosing CTE	18
Travel time to the CTE	11
Lack of information/awareness	9
Peer pressure against choosing CTE	7
Other (please describe) - making sure to earn integrated credit for core grad requirements - graduation requirements and a rigid schedule at sending school	4

Nearly 80% of school counselors reported that limited seats in preferred programs was a primary barrier to students' enrolling in CTE programs, while 46% said the same of limits on the number of students from each sending high school, and 23% named lack of interest in available programs. 64% listed CTE schedule conflicts with preferred academic classes being a primary barrier. Significantly fewer school counselors reported negative perceptions of CTE (30%), parents pressure against CTE (18%), and peer pressure against choosing CTE (7%) as primary barriers. Few (9%) reported that lack of information or travel time to the CTE (11%) were primary barriers. However, 27% indicated that ineligibility due to prior grades or disciplinary issues was a primary barrier to students enrolling in CTE programs. Additionally, two school counselors shared rigid school schedules and graduation requirements as primary barriers.

Last, school counselors were asked which groups of students at their school they perceived to be participating in CTE at inequitably low levels. Similar to the same question asked about Early College, no one group was chosen by the majority of school counselors. The

table below shows that the highest percentage of school counselors, 30%, chose college-going students as participating at inequitably low rates.

Q4 - In your opinion, which of the following types of student subgroups at your school are participating in Career and Technical Education (CTE) opportunities at an inequitably low rate (and you would like to see an INCREASE in their participation level to take full advantage)? Check all that apply.

Answer	%
None. I think participation levels are about right for all students.	43
Students preparing for 2- or 4-year colleges	30
Females	25
ALL types of students. I think participation levels are too low for everyone.	18
English Learners	16
Students with IEPs	14
Students of color	13
Low-income students	9
Males	7
Non-binary or LGBTQIA+ students	0
Other	4

Other - Text
Students who do not perform academically as well or have poor attendance (which can also be attributed to low-income students if you look through the lens that many of these students do not have access to the same resources as their peers). MANY of our students do not get into a CTE program because of limited seats and a competitive application process.
Maybe IEP students, but there are more IEP students now than 5 or 10 years ago. I believe the largest barrier is not equity but limited program size and program type.

Fewer than half of the school counselor respondents (43%) believe that students are participating in CTE programs at equitable rates. A considerable number perceive students preparing for 2- or 4-year colleges (30%) and females (25%) to be underrepresented. Smaller percentages of school counselors listed the following groups as being inequitably participating in

CTE programs: English learners (16%), students with IEPs (14%), students of color (13%), low-income students (9%), and male students (7%). While 0% of school counselors reported LGBTQIA+ students as being underrepresented in CTE programs, 18% said participation rates are too low for all types of students. One school counselor noted that we should consider the barriers to participation for academically low-achieving students and those with poor attendance, especially given that these traits often overlap with a student being in the low-income category. This is especially true because of limited seats in preferred programs and the competitive selection process that can weed out these students.

Adequacy of School Counselor Staffing

This last section of the survey asked school counselors to consider their own roles in terms of what they spend their time doing and how well current staffing is meeting student needs at their school. This section is important because it puts school counselors' college and career readiness support role in the content of the other duties they perform.

The first question asked school counselors to describe the way they spend their work time. The table below shows the percentage of school counselors who perform the listed duties as a major component of their job expectations.

1. The American School Counselor Association (ASCA) lists the following potential duties as appropriate for a School Counselor. Which of these are a substantial and routine part of your job expectations? Check ALL that apply.

Answer	%
Collaboration with families, teachers, administrators, or community for student success	93
Individual student academic planning and goal setting	91
Advocacy for students at individual education plan (IEP) or other student-focused meetings	87
Short-term counseling to students	85
Referrals for long-term counseling support	79
Acting as a systems change agent to improve equity and access, achievement and opportunities for all students	79
Data analysis to identify student issues, needs and challenges	65
School counseling classroom lessons	45

School counselors have a variety of responsibilities, which can vary considerably from district to district and school to school. The most common role school counselors report filling, from those listed by the American School Counselor Association as potential duties appropriate for a school counselor, is collaboration with families, teachers, administrators, or community partners for student success at 93%. Nearly as common are individual student academic planning and goal setting (91%) and advocacy for students with IEPs or other student-focused meetings (87%). Many school counselors (85%) are providing short term counseling and (79%) referring students for long-term counseling support. A large number of school counselors (79%) act at a systems level to improve equity, access, achievement, and opportunities for all students. Still more than half (65%) work at the individual level, performing data analysis to identify student issues, needs, and challenges. Fewer (45%) spend time offering classroom lessons.

Second, we asked school counselors if they spent at least 80% of their work time on the duties listed above. Most, at 85%, said yes. When asked if they spend 80% or more of their time on those activities listed above, 85% said yes, while 15% said no.

2. Do you spend 80% or more of your position time on the above-listed activities (in total)?

Answer	%
Yes	85%
No	15%

Then we asked the school counselors who responded NO to the question above (they spend less than 80% of their time on ASCA-defined tasks) what other types of activities they are performing instead. The list below shows the duties those school counselors indicated occupy more than 20% of their work time.

3. If you spend less than 80% of your total time on ASCA-defined duties: What other types of duties or tasks (not included in the prior listed ASCA tasks) occupy more than 20% of your time in total?

schedule changes, scheduling process, 504 meetings
lunch duty, data entry, mailings and other administrative support tasks
Building the master schedule for the high school, balancing student schedule and course sections, planning senior scholarship night, PSAT/SAT school day testing, 504 coordinator and management of those 504 plans.
504 case management, testing, event planning, scheduling
504 case management and paperwork; Test Coordination; scheduling; administrator for IEP meetings; Recruitment activities for tuition students; Early College Planning/Troubleshooting
Testing preparation, organization, & proctoring; transcript analysis
504 Coordination, Scheduling, Testing
Testing coordinator, master scheduler, crisis work
Schedule changes, master schedule planning, credit checks, transcript printing and formatting

School counselors who said they spend more than 20% of their time on tasks and activities other than potential duties listed by the ASCA as appropriate indicated that their time is filled primarily with 504 meetings and case management. Scheduling for the school as a whole as well as addressing needs for changes to student schedules was the next most common activity shared by this group. Other activities and tasks listed were administrative tasks, including transcript processing; testing and testing-related activities; Early College planning/troubleshooting; and crisis work.

This last question asked school counselors to consider how well their school is staffed to meet student needs. The table below provides a list of student needs at the left and at the right the percentage of school counselors who perceive their school's staffing levels to meet each need as more than adequate, adequate, below adequate, and far below adequate. The table is ordered from those student needs that are least adequately met with current staffing levels to the student needs school counselors perceive are most adequately met by current staffing levels.

Q3 - How adequate are the staffing levels at your high school to meet each of these student needs? Ordered from least adequate to most adequate. (N = 57 Responses)

Question	Mean	More than adequate (1)	Adequate (2)	Below adequate (3)	Far below adequate (4)
Long-term counseling / mental health support	2.79	11%	23%	44%	23%
Behavior interventions for MTSS Tier III and IEP services	2.77	7%	30%	42%	21%
Behavioral services for MTSS Tier I (Classroom) and Tier II interventions	2.67	5%	35%	47%	12%
Social & Emotional Learning education	2.53	4%	46%	46%	5%
Extended Learning Opportunity / Internship / Co-Op coordination	2.49	12%	40%	33%	14%
Short-term mental health support	2.43	9%	48%	34%	9%
Career exploration	2.39	11%	51%	28%	11%
Crisis intervention	2.30	11%	55%	27%	7%
College preparation	1.96	26%	56%	12%	5%
Course scheduling and academic record management	1.96	23%	61%	13%	4%

We asked school counselors about their perceptions of their schools' staffing levels to meet specific student needs. Unsurprisingly, long-term mental health counseling and support was perceived by school counselors to be the most understaffed with 44% describing staffing as below adequate and 23% describing it as far below adequate. Interesting to note here is that while the fewest number of school counselors listed staffing for long-term mental health needs as "adequate," 11% described staffing as more than adequate. This indicates either a variety of opinion on what "adequate" means or a discrepancy between the level of need at different schools, or possibly both. Short-term mental health support is perceived by school counselors to

be more easily managed by current staffing levels: 48% reported current staffing to be adequate to meet student needs, while 35% perceive staffing to be inadequate and 9% indicate staff levels to be far below, or far above, adequate. Again, this data points to discrepancies in definitions of adequacy and/or levels of student need between different schools. Lastly, crisis intervention is perceived by school counselors as by and large met within current staffing levels: 66% report adequate or more than adequate staffing while 27% report less than adequate staffing to meet student needs and only 7% report far less than adequate staffing.

Behavior intervention for MTSS Tier III and IEP services were reported as the next most understaffed, with only 30% of school counselors perceiving their schools were adequately staffed to meet student needs and only 7% reporting their schools being more than adequately staffed. Behavioral services for MTSS Tiers I (classroom) and II were reported by 47% of school counselors as below adequately staffed while 35% felt their school was staffed adequately and 5% reported their school was more than adequately staffed in this area. A steady downward trend in "more than adequate staffing" ends with Social and Emotional Learning education: Only 4% of school counselors say that their school is more than adequately staffed to meet student needs in this area, while 46% report staffing to be adequate and 46% report staffing to be below adequate.

College and career preparation as well as course/record management appear to be well-handled within current staffing levels. Among those areas, career exploration has the greatest capacity for growth in meeting needs: Only 62% perceive staffing levels to be adequate or more than adequate, while 82% reported college preparation to be adequate or more than adequately staffed and 84% indicated the same level of adequacy of staffing levels to meet the needs of course scheduling and academic record management.

Conclusions

School counselors report substantial variation in what students are offered in terms of post-secondary preparation opportunities. This study was not able to include analysis of the data based on geography or socioeconomic status of the district due to small sample sizes; those details would likely provide additional insights. Each survey section (Early College, CTE, and school counselor staffing levels) is summarized separately below.

Early College & Advanced Placement (AP)

Access to Early College courses taken at the high school, including AP, is the most widely offered college and career readiness opportunity other than CTE programs (which are available to all students). Other options that connect students with the community outside their high school, such as mentoring by community members, access to extended learning opportunities, and taking college courses on a college campus, are less available.

Most students who take Early College classes do so online or through concurrent enrollment taught at the high school. While most students who take advanced placement courses take them in-person at their own high schools, a significant percentage (76%) of school counselors said that at least some of their students take their advanced placement courses online. The relative importance of the online format is congruent with the reasons school counselors gave for students taking Early College courses. While the highest number of school counselors cited expanding elective opportunities as role Early College courses fill in their school, a considerable number (76%) reported its role to be filling gaps in advanced levels of core subjects or even in required courses for graduation (41%), both due to staffing shortages. These perceptions are strengthened by the school counselors indicating that while students are primarily motivated to take Early College courses out of a desire to save time and money in college, the second most common motivation is to take courses not otherwise available at their high school. This reality of Early College classes playing such an important role in providing students with what is typically considered to be basic high school academic options is crucial to note.

Given the important role of Early College classes in Maine's high schools, the question of equitable access becomes key. The primary reason school counselors perceive students do not enroll in Early College courses is competing interests of jobs, sports, or home responsibilities, with two of the three most often being central factors in the lives of low socio-economic status students. Combined with the other reasons given for students not enrolling — lack of confidence in success, lack of information, lack of understanding, low academic achievement and behavior problems, and lack of interest (which can be a result of the previous three factors) — socio-economic status of the student may play a significant role in whether a student takes advantage of Early College courses. Connecting this back to the critical role Early College courses play in meeting course needs, according to school counselors, the question of equity of opportunity is raised. This tracks with school counselors' perceptions of inequitable access; they cited "first

generation students" as the group most underrepresented in Early College courses, with low-income students not far behind. We also know that most first-generation college students are also coming from low income families. In addition to considerations of accessibility to low-socioeconomic status students, it is important to note that 45% of school counselors perceive students with IEPs to be underrepresented in Early College courses.

CTE

Maine high schools overall, according to school counselors' perceptions, provide a variety of methods of education for students regarding their options for career and technical education. And while it does not appear that all students necessarily have access to consistent and effective messaging, based on school counselors' perceptions of the barriers to enrollment, which largely do not include lack of information, education on options seems to be at least adequate.

Students are enrolling in CTE programming primarily due to interest in hands-on, applied, or real-world learning and specific trades careers. This makes sense in the context of what school counselors perceive as the greatest barrier: lack of available seats in preferred programs due either to specific limits on enrollment from each high school or simply due to program capacity overall. It seems students have a clear idea of what they want to learn and when it is not available, they choose not to enroll. We might also note that students deciding not to enroll in a CTE program does not mean they continue to attend their high school. A large percentage of school counselors do report that students enroll in CTE programs because they feel disengaged from their regular high school program, which makes sense with the data mentioned above as most high schools do not provide hands-on or applied learning in regular academic courses. Students who are disengaged from their regular courses and are not able to enroll in CTE programs can easily develop attendance issues.

In terms of participation rates, school counselors perceive college-bound students as well as female students to be underrepresented in CTE programs. This does not appear to be from lack of information or access, although it may be due to a lack of preferred program opportunities. In MEPRI's research for our *2022 Summary Report: Essential Programs and*

Services Career and Technical Education Component Review,[1] we found "a total of 605 students are waitlisted across 83 program areas in 26 CTE centers." 2022 waitlists for courses that are most typically more heavily female, such as early childhood education (34) and CNA (27), should be considered in this context. As well, CTE programs that may appeal more to college-going students, such as information technology (10), engineering (13), education (13), business leadership (20), and digital media (42) are also experiencing high levels of unmet demand. Waitlists can also be obstacles to interest: students who know there is only a small chance they may be admitted to a preferred program may simply not consider it at all. This may even drive down waitlist numbers, artificially deflating how we measure interest — waitlists — in high demand areas.

Expanding CTE programming where waitlists are longest is likely to result in the greatest increase in CTE enrollment and also address major issues of representation, where they occur. When compared with Early College potential expansion through online courses, CTE programs do not necessarily enjoy that potential given students' desire for hands-on learning and a different approach to learning than is typical at their high school.

Adequacy of School Counselor Staffing

It is no surprise that school counselors perceive, on average, their schools to be less able to meet long-term student mental health needs. However, there is better news on their own perceived ability to meet students' needs in college and career preparation as well as academic record management. School counselors' reporting on inadequate staffing for MTSS Levels I, II, and III as well as behavioral intervention tracks with what is commonly understood to be the daily experience is schools: Increasing academic, behavioral, and mental health needs are not able to be met by current staffing levels, or perhaps by currently staffed positions with specific expertise related to these needs. Additional staffing for mental health and behavioral support needs could provide school counselors more focused time for communicating with students regarding career exploration, including connecting them to community resources such as mentoring, internships, and jobs, especially in schools without extended learning opportunity coordinators.

[1] https://digitalcommons.usm.maine.edu/cepare_funding/18

School counselors are expected to perform a wide range of activities, and at least 15% of Maine school counselors reported they are performing the additional duties of 504 case management and tasks associated with testing as a significant part of their working hours. Without geographic or socio-economic status data we don't have information about those factors' impact on school counselors' tasks, but we can reasonably ask if smaller schools with fewer staff need to rely on school counselors to perform a wider variety of tasks.

Potential Area for Further Study

As previously noted, this study did not collect the perceptions of high school students; instead, it relied on the perceptions of school counselors. The original intent of the study was to indeed understand how high school students understand the options available to them to support their college and career readiness goals, specifically in terms of Early College courses and CTE programs. Now that a baseline of course and program availability has been established, a second study could be conducted to put high school students' perceptions in this context. By doing so, we could better understand how the current messaging methods matter to students and how Early College courses and CTE programs are or are not perceived as supportive to goal attainment by high school students. This information could guide future plans for informing students about their options, assist with the creation of barrier reduction strategies, and help clarify if access is indeed inequitable and for whom.

References

Berkshire, J. & Schnieder, J. (Hosts). (2021, October 21). Schooling the Workforce (No.123) [Audio podcast episode]. In Have You Heard. https://podcasts.google.com/feed/aHR0cHM6Ly9mZWVkcy5zb3VuZGNsb3VkLmNvbS91c2Vycy9zb3VuZGNsb3VkOnVzZXJzOjIwMTMxNzcyMS9zb3VuZHMucnNz?sa=X&ved=2ahUKEwijnIaLgc38AhXHhIkEHVKjCxMQ9sEGegQIARAC

Bughin, J., Hazan, E., Lund, S., Dahlström, P., Wiesinger, A., Subramaniam, A. (2018). Skill shift: Automation and the future of the workforce. McKinsey Global Institute. https://www.mckinsey.com/~/media/mckinsey/industries/public%20and%20social%20sector/our%20insights/skill%20shift%20automation%20and%20the%20future%20of%20the%20workforce/mgi-skill-shift-automation-and-future-of-the-workforce-may-2018.pdf

Educate Maine. (2023). Education indicators for Maine 2021. Retrieved January 27, 2023, from https://educationindicators.me/#1635172591896-9bc70cc6-2ce4

Educate Maine. (2017). Career Technical Education (CTE): Increasing Student Success by 100% For Maine. https://www.educatemaine.org/docs/17-029_EDME_CTE-Policy-Brief-FNL.pdf

Education Commission of the States (ECS) State Policy Database. (n.d.). Maine State Legislation. Retrieved February 14, 2023. https://b5.caspio.com/dp.asp?AppKey=b7f930000fd577e95f8445db85ce&st=ME#

Felton, Michael (2021). *The St. George Maker Space Collaboration with Mid Coast School of Technology.* St. George Pilot Abstract: RREV. https://www.maine.gov/doe/sites/maine.gov.doe/files/inline-files/StGeorge-Pilot-Abstract.pdf

Hubbard, A., Young, J., Zuercher, B., & Omosun, H. (2021). 2020 Early college report. University of Maine System. https://www.maine.edu/early-college/early-college-report/

Jerald, C., & Martin, C. (2018). High school & the future of work: A guide for state policymakers. XQ Institute. https://xqsuperschool.org/reports/wp-content/uploads/sites/6/2021/08/XQ_High_School___The_Future_of_Work_Guide.pdf

JMG. (2023). About JMG. Retrieved January 17, 2023, from https://jmg.org/

Labaree, D.F. (2010). How Dewey lost: The victory of David Snedden and social efficiency in the reform of American education. In Trohler, D., Schlag, T., & Osterwalder, F. (Eds.), Pragmatism and Modernities (pp. 163-188). Sense Publishers.

LaClaire, H. (2023, January 15). Maine's first-time homebuyers can't get a foot in the door. Maine Sunday Telegram, A1, A4.

Maine Department of Education (2002, October 10). *Governor Mills announces $25 million Maine Jobs & Recovery Plan Program to offer paid work experiences to Maine students.* Maine Department of Education Newsroom. https://mainedoenews.net/2022/10/20/governor-mills-announces-25-million-maine-jobs-recovery-plan-program-to-offer-paid-work-experiences-to-maine-students/

Maine Department of Education. (n.d.). Career and Technical Schools. Retrieved February 19, 2023 from https://www.maine.gov/doe/learning/cte/cteschools

Maine Department of Education. (n.d.). School Year 2022 Quick Facts. Retrieved February 19, 2023 from https://www.maine.gov/doe/data-reporting/reporting/warehouse/quickfacts

Maine Legislature. (n.d.). Title 20-A, §4775: Payment, appropriations. Retrieved April 18, 2023 from https://legislature.maine.gov/statutes/20-A/title20-Asec4775.html

MaineSpark. (n.d.). Our goals. Retrieved January, 27, 2023, from https://mainespark.me/

Maryland State Department of Education (2023). Blueprint for Maryland's Future. https://blueprint.marylandpublicschools.org/about/

Maryland State Department of Education. (2022). Blueprint for Maryland's Future: College and Career Readiness. Version 2. https://marylandpublicschools.org/Blueprint/Documents/CCRReportSummer2022.pdf

Maryland State Department of Education. (2022). Maryland Works Press Release. https://news.maryland.gov/msde/maryland-state-department-of-education-msde-announces-innovative-new-grant-program-maryland-works-that-will-accelerate-industry-aligned-youth-apprenticeship-programs/

Massachusetts Department of Elementary and Secondary Education (n.d.). *Overview of Connecting Activitie*s. Massachusetts Connecting Activities. https://www.massconnecting.org/default.asp?entity_id=57

Massachusetts Department of Elementary and Secondary Education. (2022). My Career and Academic Plan (MyCAP). (https://www.doe.mass.edu/ccte/ccr/mycap/

Massachusetts School Building Authority (n.d.). *About Us.* Massachusetts School Building Authority. https://www.massschoolbuildings.org/about

Muro, M., Liu, S., Whiton, J., & Kulkarni, S. (2017). Digitalization and the American workforce. Brookings Institution. https://www.brookings.edu/research/digitalization-and-the-american-workforce/

Norman, Nora (2023, September 22) *Unconventional high school course has Newport-area students hooked.* Portland Press Herald. https://www.pressherald.com/2023/09/22/unconventional-high-school-course-has-newport-area-students-hooked/

O'Hara, F. (2022). Making Maine Work: Critical Investments for the Maine Economy. Maine State Chamber of Commerce. www.mainechamber.org/making-maine-work

Ohio Department of Education. (n.d.). College Credit Plus. https://education.ohio.gov/Topics/Ohio-Education-Options/College-Credit-Plus

Ohio Department of Education. (2019). College Credit Plus: Results and cost effectiveness. https://education.ohio.gov/getattachment/Topics/Ohio-Education-Options/College-Credit-Plus/CCP_Results_Cost-Effectiveness-1.pdf.aspx?lang=en-US

Pew Research Center. (2016). The state of American jobs. https://www.pewresearch.org/social-trends/2016/10/06/the-state-of-american-jobs/

Rhode Island Department of Education, (2023). All Course Network. https://www.ride.ri.gov/StudentsFamilies/EducationPrograms/AllCourseNetwork.aspx

Rhode Island Department of Education. (2023). Career & Technical Education. https://www.ride.ri.gov/StudentsFamilies/EducationPrograms/CareerTechnicalEducation.aspx

Rhode Island Department of Education. (2023). Prepare RI. https://www.ride.ri.gov/StudentsFamilies/EducationPrograms/PrepareRI.aspx

Rhode Island Department of Education. (2023). Rhody Ready https://www.ride.ri.gov/StudentsFamilies/EducationPrograms/RhodyReady.aspx

Saenz, L., Johnson, A., & Pines, M. (2021). Extended Learning Opportunity (ELO) Programs in Maine High Schools. A research report of the Maine Education Policy Research Institute (MEPRI). Published jointly by the University of Southern Maine (Gorham) and the University of Maine (Orono). https://bpb-us-w2.wpmucdn.com/wpsites.maine.edu/dist/e/97/files/2021/06/MEPRI_ELO_Report.final_June_2021.pdf

Sloan, J., Johnson, A., & Gerrish, S. (2022). Summary report: Essential programs and services career and technical education component review. Report to the Maine Department of Education. Maine Education Policy Research Institute. https://www.maine.gov/doe/sites/maine.gov.doe/files/inline-files/CTE_Combined_PartI_II.pdf

Tennessee Department of Education. (n.d.). Work-based learning. https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html

Tennessee Department of Education. (2017). Work-based learning policy guide. https://www.tn.gov/content/dam/tn/education/ccte/wbl/wbl_policy_guide.pdf

U.S. Chamber of Commerce. (2016). Career readiness: A business-led approach for supporting K-12 schools. https://www.uschamberfoundation.org/sites/default/files/CareerReadinessFINAL.pdf

Virginia General Assembly. (2016). Senate Bill 336 and House Bill 895. http://us.virginia.gov/cgi-bin/legp604.exe?161+ful+CHAP0720

YouthTruth. (2022). Learning from student voice class of 2022: Planning for the future in uncertain times. https://youthtruthsurvey.org/wp-content/uploads/2022/05/YouthTruth-Learning-From-Student-Voice-Class-Of-2022-Planning-For-The-Future-In-Uncertain-Times.pdf

Zinth, J. (2022). Maine early college report. Zinth Consulting. https://www.maine.edu/early-college/wp-content/uploads/sites/203/2022/06/Maine-Early-College-Report-2022.pdf

Appendix A

Maine CTE Legislation

https://drive.google.com/file/d/12-6yj3EmB9KsuZ2Z_vm6qd4KQDObH2rx/view?usp=share_link

Virginia CTE Legislation
https://lis.virginia.gov/cgi-bin/legp604.exe?161+sum+SB336

U.S. Chamber of Commerce Guide

U.S. Chamber of Commerce, "Career Readiness: A Business-Led Approach for Supporting K-12 Schools," 2016, https://www.uschamberfoundation.org/reports/career-readiness-business-led-approach-supporting-k-12-schools