MONTGOMERY COUNTY PUBLIC SCHOOLS, ROCKVILLE, MARYLAND

Montgomery County Public Schools
Pathway to College, Career, and Community Readiness

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Developed to support the expectations in The Blueprint for Maryland's Future and the Maryland State Department of Education, the Montgomery County Public Schools (MCPS) Pathway to College, Career, and Community Success enables monitoring by families and educators of students' progress. It provides information that can be used to identify strengths and weaknesses of students in various subjects, allowing for targeted support and interventions. Additionally, it helps the district ensure we support students in developing a strong foundation and address any learning gaps before they transition to college or enter the workforce.

The Pathway to College, Career, and Community Readiness is comprised of two domains:
- Academic Milestones
- Career Competencies

Academic Milestones

Indicators under the Academic Milestones are predictive of future educational outcomes, career outcomes, or both.

Early Literacy Skills

Early literacy skills lay the foundation for future academic success. Research shows that children who develop strong literacy skills in the early years perform better academically throughout their schooling years (Whitehurst & Lonigan, 1998; NICHD Early Child Care Research Network, 2005). Development of early literacy skills plays a crucial role in reducing achievement gaps. Children from disadvantaged backgrounds who receive early literacy interventions demonstrate significant gains in literacy development, narrowing the gap between them and their peers (Lonigan et al., 2010; Halle et al., 2014). The development of early literacy skills also stimulates cognitive development. Reading and language-rich experiences promote critical thinking, problem-solving abilities, and memory retention (Sénéchal & LeFevre, 2002; Bus et al., 1995).

In MCPS, early literacy foundation is examined in kindergarten to ensure students are developing essential early literacy skills. To examine this, MCPS determines the percentage of kindergarten students who, at the end of the school year, have a DIBELS (Dynamic Indicators of Basic Early Literacy Skills) composite score of 420 or higher or a score of 389 on Lectura. DIBELS is a set of procedures and measures used to assess students' acquisition of literacy skills in English, whereas Lectura is designed with consideration of how Spanish literacy skills are acquired and developed. MCPS students in Two-Way Immersion programs (Spanish/English) take the Lectura assessment.

Reading by Grade 3

Reading proficiently by the end of Grade 3 is an essential educational benchmark in development for students. Up until the end of Grade 3, most students are learning to read. Reading proficiency by the end of Grade 3 is a crucial milestone that serves as a foundation for future academic success. It is during this period that children transition from learning to read to reading to learn. Proficient readers at this stage are better equipped to comprehend complex texts across various subjects, enabling them to excel in their studies.

Reading by the end of Grade 3 helps children develop essential literacy skills, including decoding, fluency, vocabulary, and comprehension. These skills are fundamental for further learning and are necessary for success in all academic disciplines. Reading by the end of Grade 3 also plays a significant role in narrowing the achievement gap. Students who struggle to read by this stage are more likely to fall behind their peers, face challenges across subjects, and experience long-term academic difficulties. Early intervention and support are crucial to ensure all students have an equal opportunity to succeed.

In MCPS, the NWEA Growth Reading Assessment, specifically Lexile score, is used to determine Grade 3 students' reading proficiency levels. The Lexile oral reading measure is an oral reading score computed by combining the following factors: 1) the student's oral reading rate; 2) the student's oral reading accuracy; and 3) the text's oral readability (NWEA, 2022). Reading by Grade 3 is measured by examining the percentage of Grade 3 students at the end of the school year who have a Lexile score between 600L to 730L or higher.

Meet or Exceed Grade-Level or Course Standards in Mathematics and English/Language Arts (Grades 4 through 8)

Common Core State Standards (CCSS) are informed by research and evidence-based practices. They reflect the collective knowledge of educators, researchers, and experts in the field, providing a research-based foundation for instructional decision-making and professional development (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010).

In an increasingly interconnected world, CCSS align educational expectations with international benchmarks, ensuring that U.S. students are prepared to compete globally (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010). This alignment helps students develop the skills needed to thrive in a global economy and adapt to an ever-changing workforce. Beginning in Grade 4, students are reading to learn and applying their skills gained in other content areas like mathematics to think critically and solve problems. In middle school, students are continuing to extend their skills gained at the elementary level. The focus is examining their breadth and depth of knowledge in literacy and mathematics.

CCSS provide clear, consistent, and rigorous expectations for what students should know and be able to do at each grade level, ensuring a common baseline across states (Common Core State Standards Initiative, n.d.). This consistency helps to create equitable learning opportunities for all

students, regardless of their geographic location. Employing the grade-level or course expectations outlined in CCSS, MCPS will examine the meeting or exceeding grade-level or course standards measure by determining the percentage of Grades 4–8 students proficient in both English/Language Arts and mathematics as measured by the Maryland Comprehensive Assessment Program (MCAP) test. Additionally, using Dynamic Learning Maps (DLM) assessments, which are designed "for students with the most significant cognitive disabilities for whom general state assessments are not appropriate," allows the opportunity to understand what these students know and are able to do in these content areas.

On Track for Graduation

Helping students successfully transition to high school, especially monitoring in the first semester of freshman year, is important. Students on-track by obtaining requisite credits in Grade 9 courses are three and one-half times more likely to graduate from high school. This association between being on track to graduate in Grade 9 and graduation allows the percentage of students on-track in Grade 9 to be a foreshadow of the likely graduation rate for that same cohort of students (Crofton & Neild, 2018).

Monitoring Grade 9 students allows for early identification of students who may be at risk of not graduating. Employing a comprehensive early warning system has been shown to lower the percentage of students who are chronically absent or who fail one or more courses, which are two key indicators in Grades 9 and 10 for being off-track to graduate (Faria et al. 2017). Once students are identified as off-track, early intervention and targeted support can then be provided to address academic, social, or emotional challenges and help students get back on track (Allensworth & Easton, 2007; Neild & Balfanz, 2006). Monitoring Grade 9 students also helps ensure equity and reduce opportunity gaps. By closely tracking student progress, educators can identify and address disparities among different student groups, providing equitable access to resources, support, and opportunities for success (Balfanz & Byrnes, 2012; Neild & Balfanz, 2006).

In MCPS, on track for graduation is measured by examining the percentage of Grade 9 students at the end of the school year who earned credits in required courses for promotion to the next grade level.

College and Career Readiness

The Blueprint for Maryland's Future has a central goal of ensuring that all Maryland public school students are College and Career Ready before graduation. The intent of Maryland's College and Career Readiness (CCR) standard is to prepare graduates for postsecondary success by "ensuring they have the knowledge and skills to complete entry-level credit-bearing college courses and work in high-wage and high-demand industries." Meeting or exceeding the standard for being college and career ready is based on English and Mathematics metrics with performance benchmarks for English 10, and Algebra I, Algebra II, or Geometry assessments.

The Blueprint's expectation is that once students meet or exceed the standard for being college and career ready, they select a post-CCR pathway to pursue. The goals of the post-CCR pathways are for students to develop in-depth subject-area knowledge, earn postsecondary credits or industry

credentials, or participate in competitive entry college preparation programs. The three distinct post-CCR pathways are: 1) Advanced Placement (AP) or International Baccalaureate (IB) programs; 2) dual enrollment or early college programs; and 3) Career and Technical Education (CTE) programs. The Maryland State Department of Education aims to provide equitable access to post-CCR pathways and offer pathways that expose students to enriched electives and academic opportunities.

In MCPS, the CCR measurement aligns with the Maryland State Department of Education (MSDE) expectation. It is measured by examining the percentage of Grade 10 students who meet the college and career readiness metrics in the Blueprint for Maryland's Future.

Complete and Pass Algebra II

Algebra II has been recognized as a "gatekeeper" course for college readiness and success in that it is a college admissions requirement for most states, and the belief that the algebraic thinking skills acquired at that level will prepare students for college-level mathematics courses (Kim et al. 2015). Concepts and skills obtained in Algebra II provide the foundation for more advanced mathematics. In line with viewing Algebra II as a foundation for higher level courses, Algebra II is also included in the University System of Maryland admissions requirements, which were designed "to keep students' mathematics skills ready for college-level requirements" (University System of Maryland, 2011, para. 2).

Research has demonstrated the positive association between Algebra II completion and higher education outcomes, such as college enrollment (Kim et al., 2015; Long et al., 2011) and degree attainment (Gaertner at al., 2014). Algebra II completion is also highlighted in research investigating academic rigor of students' high school coursework as a predictor of college success, with a particular focus on early completion of the course (e.g., Wiley et al., 2010; Wyatt et al., 2011). In the development of an academic rigor index, Algebra II completion is attributed to students as rigorous coursework if the course is taken in Grades 9 or 10 (e.g., Wiley et al., 2010; Wyatt et al., 2011). Further, in testing the association between Algebra II completion and college success, Grade 9 or 10 participation in Algebra II has been shown to be associated with a higher GPA during students' first year of college (Wyatt et al., 2011). In MCPS, meeting the Algebra II measure is determined by the percentage of students who pass Algebra II by the end of Grade 11 with a C or higher.

Graduation

For the graduation measure, the goal is for students to graduate with a competitive grade-point average (GPA), a certificate of completion for students with disabilities, or a skill in a career area of interest. One component of the measure is the percentage of students who graduate with a weighted GPA of 3.0 or higher. Although the University System of Maryland requires a high school GPA equivalent to a C or better for admissions, competitive freshman applicants for the University of Maryland, for example, earn a A-/B+ or better average in their high school coursework while enrolled in honors, Advanced Placement, or International Baccalaureate courses. In addition to obtaining a competitive GPA, the graduation measure is also determined by the percentage of students with disabilities who earn a certificate of completion. The Maryland

High School Certificate of Program Completion is awarded only to students with disabilities who cannot meet the diploma requirements but meet the State of Maryland and MCPS graduation requirements.

The final component of the graduation measure is the percentage of students who earn an industry-recognized credential. MCPS provides opportunities for students to earn an industry certification in eleven career clusters, including Business Management and Finance, Arts, Media and Communications, and Information Technology and Computer Science. The district also provides plans with a focused program of study to assist students with selecting courses that better align with their future goals.

Career Competencies

Students not only need to be ready for college academically, but they also need to attain the career competencies for employment. Definitions of college and career readiness are criticized for fusing college readiness and career readiness into a single entity or ignoring the notion of career readiness and focusing entirely on college readiness (e.g., Mokher et al., 2018; Stone & Lewis 2012). College and career readiness are often categorized into three broad categories, which include academic indicators, as well as soft skills, or employability skills, and social and life experience indicators (Welch et al., 2017). Stone and Lewis (2012) define college and career readiness as equipping students with foundational core academic knowledge and assisting with their development of employability and technical skills.

From a review of the literature, Welch et al. (2017) found that soft or employability skills can be grouped into three categories: agency, identity, and competency. The competency category includes soft skills related to critical thinking, problem solving, and knowledge transferring abilities. Career readiness indicators that pertain to the competency category of soft skills include participation in career-readiness activities, such as resume writing, job shadowing, and internships (Fletcher & Tan, 2022). The social and life experience indicators of career readiness, such as part-time employment, are also evident in the literature (Welch et al., 2017). Other predictors of career readiness include students' leadership behaviors (Villarreal et al., 2018), and measures of career maturity, vocational identity, and difficulties in making career decisions (Chen et al., 2021). The National Association of Colleges and Employers (NACE) identifies eight core skills to prepare students for the workforce (National Association of Colleges and Employers, 2022). These skills include career and self-development, communication, critical thinking, equity and inclusion, leadership, professionalism, teamwork, technology.

Monitoring students' progress helps identify areas where they need to develop these essential soft skills. These skills are crucial for success in higher education and the professional world, and monitoring allows educators to design targeted interventions to enhance these skills. This support helps students make informed decisions regarding course selection, extracurricular activities, internships, and other opportunities that align with their career goals.

Monitoring students' interests and aptitudes helps identify potential career pathways. By providing experiences for students in their classrooms and Career and Technical Education opportunities, they are able to explore different career options, and connect with industry professionals.

Additionally, educators can help students make informed decisions about their future careers, increasing the likelihood of finding fulfilling and successful career paths.

Summary

The presented measures of the Pathway to College, Career, and Community Readiness are organized to focus on the early development of foundational skills, the breadth and depth of learning and knowledge acquisition in the middle grades, and high school preparation characterized by early indicators of being on-track for graduation, meeting CCR standards outlined in the Blueprint for Maryland's Future, satisfying advanced mathematics requirements, and graduation rates. Monitoring students' readiness for college and career sets them up for long-term success and personal fulfillment. By providing the necessary support, guidance, and resources, educators can help students develop the confidence, knowledge, and skills needed to pursue their passions, achieve their goals, and thrive in their chosen paths.

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