Office of the Superintendent of Schools
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

April 30, 2012

MEMORANDUM

To: Members of the Board of Education

From: Joshua P. Starr, Superintendent of Schools

Subject: Work Session: 21st Century College and Career Readiness

In fewer than 100 years, the nation has shifted from an agricultural orientation to industrial to informational. A number of factors—automation, globalization, and corporate changes—are forcing yet another shift, reshaping current and future skill demands (Attachment A). Critical competencies for workers now include skills and knowledge acquired beyond a high school education, including content knowledge, literacy, and mathematic reasoning; and the ability to apply learning, think critically about information, solve novel problems, collaborate, create new products and processes, and adapt to change (Craig D. Jerald for the Center for Public Education, 2009). In *The Global Achievement Gap,* author Tony Wagner issues a strong call to action for educators to develop in their students the skills that matter most for work and learning, and to examine how this effort may be supported by a culture of innovation.

Vision for 21st Century Readiness

In Montgomery County Public Schools (MCPS), our vision for 21st century college and career readiness translates to increasing the number of options our students have upon graduation. We will realize our vision by offering equitable access to multiple pathways for success and by supporting students in their chosen pathways. Success upon high school graduation will be defined as—
- enrolling in credit-bearing college courses with no need for remediation,
- earning a living wage,
- entering the military,
- completing technical school,
- receiving industry training and certification,
- earning an associate's or bachelor's degree after graduation, and
- earning college credits or an associate's degree before graduation.

In an ideal state, pathways and support equip our students with relevant skills, knowledge, and credentials that provide many opportunities after high school. Pathways are designed to make

learning contextual, allowing for exploration and wide applicability. Support ranges from interventions and college and career counseling to early/middle college programs and creative pathways to postsecondary studies.

Background

A 2011 survey conducted by Achieve, Inc., revealed broad, deep, and bipartisan acceptance nationally that all students should graduate from high school ready for college and career. Respondents also agreed that all students need additional education and training beyond high school—university, community college, technical training, or vocational school—to make the transition to good entry-level jobs with clear pathways to advancement (Achieve, Inc., 2011).

In 1973, nearly three fourths of the nation's 91 million workers were high school dropouts or had not progressed beyond a high school diploma, which reflected the demands of the job market at the time. In 2007, 60 percent of the nation's 154 million workers had a high school education or less. By 2018, two thirds of the 47 million new jobs projected will require at least some postsecondary education or technical training to earn a living wage that will support a family and secure a middle class lifestyle (Pathways to Prosperity Project, 2011).

The lifetime earnings gap between high school and college graduates is estimated at $1.0 million, and the differential is widening. Earnings also are significantly more for workers in high demand, middle skill jobs such as electrician, construction manager, dental hygienist, paralegal, or police officer. In addition, 27 percent of workers with postsecondary licenses or industry certificates—credentials short of an associate's degree—currently earn as much as or more than the average college graduate (Craig D. Jerald for the Center for Public Education, 2009).

Nationally, as many as 40 percent of high school graduates require remediation in one or more courses after entering a four-year college, and as many as 63 percent require remediation after entering a two-year college. Nationally, 40 percent of graduates persist to their sophomore year, with fewer than 30 percent earning a bachelor's degree within six years (National Association of Secondary School Principals and The College Board, 2012).

George Mason University professor Stephen Fuller recently reported that the Montgomery County economy has not kept pace with the metropolitan area. His analysis indicates that an economic diversification requires a different occupational mix and supporting education or training than currently reflected in the jobs forecast. He notes a demand for future workers with varying education and skill and predicts 47 percent of new and 32 percent of replacement jobs in Montgomery County will require a bachelor's degree by 2021 (Fuller and Harper, 2012).

Current State of College and Career Readiness

In MCPS, students have a variety of options for learning college-level content and earning immediate or potential college credit in online or face-to-face courses at a local high school or on

a college campus (Attachment B). Students also have the opportunity to earn immediate or potential college credit and industry certifications through 43 Career and Technology Education (CTE) programs offered in a continuum of services at local high schools, regional hubs, or a center school, Thomas Edison High School of Technology (Attachments B and C). Programs and supports are available to students with disabilities or limited English proficiency to help them engage in college and career readiness experiences, including a joint effort with Montgomery College to provide transition planning for students and their parents.

Participation in college and career programs varies, with as many as two thirds of MCPS graduates taking an Advanced Placement (AP) or International Baccalaureate (IB) course by graduation and 10 percent of current students enrolled in online or face-to-face college credit-bearing courses (Attachment D). During the previous and current school years, total CTE enrollment has fluctuated widely by program of study or by individual school, regional hub, or at Thomas Edison High School of Technology. While as many as half of all high school students took a single course in a CTE program of study during the 2010–2011 school year, only a tenth of that number indicated intent to complete a CTE program by graduation, and just 684 students completed a CTE program by graduation (Attachment D).

In 2010, 802 or 23 percent of the 3,464 MCPS graduates who enrolled at Montgomery College needed remedial English, reading, and mathematics. The numbers are higher for students needing remediation in only one content area (Attachment D). A longitudinal study of the 2003 MCPS graduating class, published by the Office of Shared Accountability in April 2011, illustrates that students who enrolled in two- or four-year colleges continued to their sophomore year at rates far higher than nationally. The results are similar for students who graduated with an associate's or bachelor's degree within six years after earning a high school diploma (Attachment D).

These data raise questions about why more students do not enroll in college courses or career programs while in high school. Informal feedback from principals, staff members, parents, and students indicates a variety of factors that may affect college course enrollment and CTE enrollment. Because college courses are not included in district targets linked to the Seven Keys to College and Career Readiness, particularly Key 6, *Score of 3 on an AP exam or 4 on an IB exam*, principals and counselors report they are less likely to encourage students to take a college course in place of an AP or IB course.

Feedback indicates barriers to increased enrollment in CTE programs in local schools, regional hubs, and Thomas Edison High School of Technology—inconsistent marketing and recruitment, impact of travel time on students' ability to earn credit, and misconceptions that students must choose between college or career development. Recent focus groups suggest a continued perception that CTE programs carry a vocational stigma. Principals, parents, and staff members also raise concerns about state graduation requirements (Attachment E). For students who choose completion of a CTE program to graduate, the state's multi-credit requirement for a career program makes the choice less attractive, particularly if a student has lost credit in other courses required for graduation.

A multistakeholder project team was convened in July 2011 to coordinate implementation of March 28, 2011, Board of Education resolutions regarding program offerings at Thomas Edison High School of Technology and the adjacent Wheaton High School. An update of their progress is attached (Attachment F).

Next Steps

As MCPS moves toward realizing our vision, we will engage our community partners in government, higher education, and nonprofit and private sectors in the effort to help focus our students during their years with us and to help them make successful transitions to learning and working after high school. Central services and school staff members also will collaborate with partners to continue the following actions:

- Improve data collection and program evaluation strategies.
- Ensure consistent implementation of the CTE services continuum and college programs.
- Improve marketing and recruiting strategies.
- Identify strategies for students to develop career skills and meet graduation requirements.
- Investigate effective college and career readiness models locally and nationally.
- Expand students' opportunities for work-based or real-world experiences.
- Increase project-based teaching that engages students in authentic application of learning.

Guiding Questions

The following questions will guide our exploration of this issue as we advance the district toward our vision for college and career readiness in the 21st century:

- What are the challenges and opportunities to realizing our vision?
- What do we have in place in MCPS that we can build upon to realize our vision?
- How can we leverage business and community relationships to support our vision?
- How might we increase students' exploration of careers?
- How might we broaden the applicability of students' school experiences?
- What should MCPS add to the continuum of programs to maximize students' options?

At the table for tonight's discussion are Mr. Erick J. Lang, associate superintendent, Office of Curriculum and Instructional Programs; Dr. Debra K. Mugge, president, Montgomery County Association of Administrators and Principals; Ms. Betsy Brown, director, Department of Curriculum and Instruction; and Dr. Genevieve L. Floyd, supervisor, Career and Postsecondary Partnerships.

JPS:EJL:kam

Attachments

Bibliography

Closing the Expectations Gap: Sixth Annual 50-State Progress Report on the Alignment of High School Policies with the Demands of College and Careers. Achieve, Inc., 2011. http://www.achieve.org/ClosingtheExpectationsGap2011

Fuller, Stephen S. and Ellen Harpel. *Montgomery County's Future Workforce: Net New and Replacement Jobs and Educational Requirements*. February 2012.

Jerald, Craig D. *Defining a 21st Century Education.* The Center of Public Education. July 2009. http://www.centerforpubliceducation.org/Learn-About/21st-Century/Defining-a-21st Century-Education-Full-Report-PDF.pdf

Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century. Pathways to Prosperity Project. Harvard Graduate School of Education. February 2011. http://www.gse.harvard.edu/news_events/features/2011/Pathways_to_Prosperity_Feb2011.pdf

School Leaders and the Common Core: Preparing Students for College and Career Readiness. (Webinar) National Association of Secondary School Principals and The College Board. January 18, 2012.

Von Secker, Clare. *Closing the Gap: Seven Keys to College Readiness for Students of all Races/Ethnicities*. Office of Shared Accountability, Montgomery County Public Schools. February 2009.

Wagner, Tony. *The Global Achievement Gap*. New York, New York: Basic Books, 2008.

Zhao, Huafang and Shihching Liu. *College Readiness and Postsecondary Educational Outcomes for 2003 Graduates of Montgomery County Public Schools*. Office of Shared Accountability, Montgomery County Public Schools. April 2011.

Driving Forces Shaping Current and Future Skill Demands

Defining a 21st Century Education;
Center for Public Education, 2009

- Automation—jobs based on routine tasks that can be accomplished by computers are decreasing dramatically; the demand for skills computers can't mimic—such as unpredictable problem solving and complex communications—is increasing rapidly.

- Globalization—digital technology and telecommunications, political and economic trends, and a worldwide labor market create demand for individuals able to communicate and collaborate digitally or face-to-face with workers in other countries.

- Corporate change—"flatter" organizations give workers greater autonomy and personal responsibility and expect more of self-managed teams working on major projects that are less predictable and stable.

- Demographics—the workforce is older; people over 65 will double between 2008 and 2050, creating a high demand for individuals who can fill replacement jobs, ranging from blue collar and service to highly technical and professional.

- Risk and responsibility—individuals carry a greater burden for personal well-being, including job security, health care, and financial planning.

College and Career Programs in Montgomery County Public Schools

Students may enroll in college-level courses and earn either immediate or potential college credit while in high school. A variety of programs currently support students' efforts:

- Face-to-face or online college course enrollment, such as—

  ○ *College Institute*—credit-bearing college courses taught at school during the school day, and
  ○ *Gateway to College*—students earn high school and college credit toward a high school diploma and a college certificate or associate's degree.

- Enrollment in Advanced Placement (AP) and International Baccalaureate (IB) courses, earning potential college credit with qualifying AP and IB examination scores.

- Precollege support for potential first generation college students.

- Diagnostic services, interventions, and test preparation for the College Board ACCUPLACER test used by colleges to determine readiness and need for remediation in college.

Career and Technology Education programs of study fall into 11 career clusters defined by the Maryland State Department of Education, and they comply with Code of Maryland Regulations for career and technical education, and with federal requirements for implementing the Carl D. Perkins Career and Technical Education Act of 2006. Programs of study generally include the following components:

- At least a four-credit course sequence blending academic, technical, and workplace skills.

- A capstone experience, such as an internship or a college course.

- Attainment of industry or professional certification.

- Agreements with local colleges for earning immediate or potential college credit.

Students Engaged in Pathways to Achievement (SEPA), a career-based instructional program, serves high school Spanish-speaking English language learners (ELLs) who are at least 18 years of age and have experienced interrupted or limited formal education.

Transition Services are provided to special education students, age 14 or older, to facilitate a smooth transition from school to post-school activities, including postsecondary education, vocational education, integrated employment or supported employment, continuing and adult education, adult services, independent living, and/or community participation.

Montgomery County Public Schools — Department of Curriculum and Instruction

Programs of Study	CIP Number	Thomas Edison	Bethesda-Chevy Chase	Montgomery Blair	James Hubert Blake	Winston Churchill	Clarksburg	Damascus	Albert Einstein	Gaithersburg	Walter Johnson	John F. Kennedy	Col. Zadok Magruder	Richard Montgomery	Northwest	Northwood	Paint Branch	Poolesville	Quince Orchard	R.I.C.A.	Rockville	Seneca Valley	Sherwood	Springbrook	Needwood Academy	Watkins Mill	Wheaton	Walt Whitman	Thomas S. Wootton
Arts, Humanities, Media, and Communications																													
Broadcast Media [1]	10.0104.4				•				•			•	•	•		•	•				•	•	•						
Multimedia and Interactive Technologies	10.0105.0			•	•					•						•							•						
Print Technologies and Digital Graphics [1,3]	48.0201.4	•																											
Biosciences, Health Science, and Medicine																													
Academy of Health Professions and Biosciences [1]	51.1103.4								•							•						•	•						
BioMedical Sciences (PLTW) [1]	51.1150.0																											•	
Biotechnology [1,3]	26.1201.0													•															
Medical Careers [1,2,3]	51.9999.4	•							•								•						•			•			
Business Management and Finance																													
Academy of Finance (AOF)[1]	52.0850.4								•	•		•		•			•									•			
Accounting[1]	52.0305.4			•	•				•	•		•		•		•						•	•	•		•			
Business Administration[1]	52.0451.0			•	•	•	•	•	•	•	•	•	•	•	•	•	•		•		•	•	•	•		•	•	•	•
Marketing[1]	52.1451.0			•	•																								•
Construction and Development (Foundations)																													
Carpentry [1,3]	46.5200.0	•																											
Construction Electricity [1,3]	46.5300.0	•																											
Heating, Ventilation, and Air Conditioning [1,3]	47.5200.0	•																											
Masonry [1,3]	46.5100.0	•																											
Plumbing [1,3]	46.5500.0	•																											
Principles of Architecture and CAD Technology [1,3]	15.1303.0	•			•																								
Education, Training, and Child Studies																													
Academy for Teacher Education (Teachers Academy of Maryland) [1]	13.0150.4																•						•			•			
Early Child Development [1]	20.0201.4		•	•	•		•	•	•	•	•	•			•	•	•		•		•	•	•	•		•	•	•	•

Programs of Study	CIP Number	Thomas Edison	Bethesda-Chevy Chase	Montgomery Blair	James Hubert Blake	Winston Churchill	Clarksburg	Damascus	Albert Einstein	Gaithersburg	Walter Johnson	John F. Kennedy	Col. Zadok Magruder	Richard Montgomery	Northwest	Northwood	Paint Branch	Poolesville	Quince Orchard	R.I.C.A.	Rockville	Seneca Valley	Sherwood	Springbrook	Needwood Academy	Watkins Mill	Wheaton	Walt Whitman	Thomas S. Wootton
Engineering, Scientific Research, and Manufacturing Technologies																													
Advanced Engineering (Project Lead the Way) [1]	15.5000.0						•						•	•			•	•	•		•	•	•			•	•	•	•
Environmental, Agricultural, and Natural Resources																													
Certified Professional Horticulturalist	01.0650.0						•	•																•					
Human and Consumer Services, Hospitality, and Tourism																													
Academy of Hospitality and Tourism [1,3]	52.0950.4	•																						•					
Cosmetology [3]	12.0450.4	•								•																			
Hospitality Management [1,3]	52.0955.4						•			•	•		•		•		•		•		•	•	•			•			•
Manicuring/Nail Technology [3]	12.0499.4	•																											
Professional Restaurant Management Culinary Arts (ACF)	12.0550.0	•					•										•												
Information Technology																													
Academy of Information Technology (AOIT) Programming	11.0152.0						•			•												•		•			•		•
Academy of Information Technology (AOIT) Networking	11.0151.0						•			•												•		•			•		•
Academy of Information Technology (AOIT) Information Resource Design	11.0153.0						•			•												•		•			•		•
Cisco Networking Academy [1]	11.0950.0		•	•			•			•					•				•			•		•			•		•
Network Operations (Foundations program) [1,3]	11.0901.4	•					•																						
Law, Government, Public Safety, and Administration																													
Justice, Law, and Society [1]	22.0000.0			•											•							•		•					
Transportation, Distribution, and Logistics (Foundations)																													
Automotive Body Technology/Dealership Training [1,3]	47.0603.0	•								•																			
Automotive Technology/Dealership Training [1,3]	47.0645.0	•						•		•													•						
Foundations of Automotive Technology [1,3]	47.9999.0	•																											
Work-Based Learning																													
College/Career Research and Development (CCRD)	86.0000.0			•	•		•		•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

1—Programs articulate credit with Montgomery College and other post secondary institutions.

2—Medical Careers classes are held at designated schools and hospitals; available to all high school students.

3—Programs are available to all high school students; transportation is provided to the Thomas Edison High School of Technology.

**College and Career Participation and Readiness
in Montgomery County Public Schools**

The following provides information about student participation in college and career offerings in Montgomery County Public Schools (MCPS):

- In the current school year, 1,043 students are enrolled in college courses.

- In 2010–2011, approximately two thirds of graduates took at least one Advanced Placement or International Baccalaureate course.

- In 2010–2011—
  - 22,773 students enrolled in a Career and Technology Education (CTE) course,
  - 2,374 students indicated intent to complete a CTE program by graduation,
  - 1,553 students engaged in a work-based learning experience,
  - 684 students completed a CTE program by graduation, and
  - 395 CTE completers met University System of Maryland requirements.

The following provides additional information about graduate readiness for college and career:

- In 2010, of the 3,464 MCPS graduates who enrolled at Montgomery College—
  - 802 or 23 percent needed remedial English, reading, and mathematics;
  - 912 or 26 percent needed remedial reading;
  - 1,117 or 32 percent needed remedial English; and
  - 2,178 or 63 percent needed remedial mathematics.

- In 2011, 98 percent of work-based supervisors responding to a Maryland State Department of Education survey reported that students met or exceeded expectations in technical skills and workplace readiness.

A longitudinal study of 2003 MCPS graduates, published in April 2011, shows the following:

- 71.5 percent of graduates enrolled in college in the fall immediately after high school.

- 98.6 percent of graduates enrolled in four-year colleges continued to sophomore year and 91.6 percent of graduates enrolled in two-year colleges continued to sophomore year.

- 60.8 percent of the 7,396 MCPS graduates reported by the National Student Clearinghouse that enrolled in college at some time during the six years post graduation were awarded an associate's degree or higher within six years.

- 55.2 percent of the same group of 7,396 graduates earned a bachelor's degree or higher.

High School Graduation Requirements

Montgomery County Public Schools (MCPS) students earn a high school diploma based upon successful fulfillment of four requirements: Enrollment, Course Credit, High School Assessments, and Student Service Learning.

1. Enrollment—Students must satisfactorily complete four years of school beyond Grade 8. With the approval of the principal, early college admission or early admission to an approved vocational, technical, or other postsecondary school may meet this requirement.

2. Course Credit—A student must earn 22 credits to graduate. Each semester course is worth one half (0.5) credit.

Subject	Credits	Subject	Credits
English	4	**Science**	3
Fine Arts	1	*Biology, a physical science credit (e.g., Matter and Energy, Chemistry), and an additional credit*	
Selected course in art, dance, music, or drama/theater			
Health Education	0.5	**Social Studies**	3
Mathematics	4	*U.S. History; Modern World History; National, State, and Local Government*	
Algebra, Geometry, and two additional credits; the 4-credit requirement is waived for students who pass a full year of calculus		**Technology Education**	1
		Other Courses*	4.5
Physical Education	1		

*The "Other Courses" requirement may be filled by one of these three options:

2 credits in foreign language *or* 2 credits in American Sign Language and 2.5 credits in general electives	2 credits in advanced technology and 2.5 credits in general electives	4 credits in a state-approved career pathway program and 0.5 credit in 2 general electives

3. High School Assessments (HSAs)—Students who entered Grade 9 in the fall of 2005 or after, must pass the Maryland High School Assessments for English, algebra, and biology. For more information on the new HSA requirements, please review the other side of this card.

4. Student Service Learning (SSL)—Students must complete 75 hours of approved Student Service Learning activities. Visit www.mcpsssl.org, or see your school's Student Service Learning coordinator for more information.

For more information on graduation requirements or alternative certificates, please talk to your school counselor. Additional information is available at www.mcpscourses.org.

Maryland High School Assessments (HSAs)
Frequently Asked Questions
A Requirement for High School Graduation
(2011–2012)

What is the HSA graduation requirement?

Students must either earn the passing scores on all three HSAs (algebra, biology, and English) or a combined score of 1208 or higher, or 1602 or higher, for students who have a Government HSA score. Students who fail an HSA once and retake the exam a second time are eligible to participate in the Bridge Plan for Academic Validation (Bridge Plan). Students can work on more than one way, or path, at the same time to meet the MSDE HSA graduation requirement.

When do students take the HSAs?

Students take each test as they complete the course. For example, the HSA for Biology will be taken at the completion of the course. Students who take Algebra 1 in middle school will take that HSA in middle school when they complete the course.

Can students take the test again if they do not pass the first time?

Yes. Schools always offer assistance to students who need to take the test again. Students should speak to their school counselors about receiving extra help. Once students have received this help, they can retake the test. The tests are given five times a year—January, May, mid-summer, and October. There is a seniors-only test given in April. It takes approximately six weeks for students to get the results. Students should make sure they have met the HSA graduation requirement before Grade 12.

What scores are needed to pass the HSAs?

The passing scores are

	Passing Score
Algebra/Data Analysis	412
Biology	400
English	396
Government*	394

*No longer required or offered.

Another way for students to meet the HSA graduation requirement is to earn a combined score on all three tests of at least 1208. Students who have a Government HSA score also have the option of meeting the requirement through the combined score of 1602.

What happens if a student does not pass an HSA on the first attempt?

Students may continue to take the HSA as many times as is necessary to meet the combined score of 1208 or 1602. In 2008, MSDE developed the Bridge Plan as another way of meeting the HSA graduation requirement. Students qualifying for the Bridge Plan will complete one or more projects that demonstrate proficiency in the content and skills of each HSA they did not pass. The criteria for Bridge Plan participation are as follows:

- Earn combined HSA scores below 1208 and 1602
- Pass the related HSA course
- Fail an HSA once and retake the exam a second time
- Maintain an attendance rate of 80 percent or higher in the previous semester (MCPS guideline)
- Earn required course credits and make adequate progress toward graduation (MCPS guideline)

Substitute Scores for Advanced Studies

MSDE approved the following specific circumstances in which students may be assigned the lowest passing score on an HSA without taking the HSA exam:

- Earn a score of 3 or higher on designated Advanced Placement tests
- Earn a score of 5 or higher on designated International Baccalaureate tests

For more information on HSAs, visit the MCPS website at www.mcpshsa.org

Wheaton/Edison Project Team Update
April 30, 2012

The Wheaton/Edison project team guides implementation of the March 28, 2011, Montgomery County Board of Education resolutions regarding instructional programs at Thomas Edison High School of Technology and Wheaton High School. The project team includes principals, administrators, and teachers from Wheaton High School and Thomas Edison High School of Technology. To help coordinate planning and implementation, representatives are included from the Division of Long-Range Planning, Office of Curriculum and Instructional Programs, Office of School Support and Improvement, and the Office of Special Education and Student Services. The Wheaton/Edison Project Team is coordinating implementation of the following Board Resolutions:

- Review existing Career and Technology Education (CTE) programs within Montgomery County Public Schools (MCPS) and in comparable districts.
- Enhance programs at Wheaton to increase student interest, access, participation, and successful completion.
- Enhance programs at Edison to increase student interest, access, participation, and successful completion.
- Improve and expand programs requiring specialized facilities at Edison.
- Expand the Project Lead the Way (PLTW) Program at Wheaton into an application entrance program for students in the Downcounty Consortium (DCC), prior to the 2012–2013 school year.
- Explore options for students from outside the DCC who do not attend a school with the PLTW Program, to complete the PLTW Program at Wheaton, prior to the 2012–2013 school year.
- Define and coordinate the marketing and selection processes for Edison.

Wheaton High School

The project team supported implementation of a PLTW application program for DCC students at Wheaton. Eighty-one students applied for Grade 9 entrance in the 2012–2013 school year. At this time, 43 students have accepted invitations for 50 available seats in Grade 9. The program will add one grade level with each school year.

The project team provided feedback on school plans for developing PLTW Biomedical and Engineering programs, course sequences, and budget projections. Staff from the Division of Consortia Choice and Application Program Services (DCCAPS) assisted Wheaton staff with the marketing and selection process. The facilities team representative provided updates about the building design progress. Next, the project team will work with Wheaton to explore options for students from outside the DCC, who do not attend a school with a PLTW program, to complete the PLTW Program at Wheaton.

Thomas Edison High School of Technology

The project team coordinated several efforts with Edison, beginning with recruitment efforts for the 2012–2013 school year. DCCAPS helped expand marketing for Edison programs and helped coordinate the selections process for 2012–2013 applicants.

Program review began with a Edison staff-created White Paper outlining proposals for new programs, as well as plans to grow and promote existing programs. CTE supervisors and coordinators provided feedback on the feasibility of program proposals, Maryland State Department of Education (MSDE) requirements, recommended next steps, and assisted school staff in prioritizing these programs. The project team reviewed existing CTE programs within MCPS and in comparable districts, and the team was updated on the MSDE approval process for new CTE programs. The facilities team representative provided updates about the building design progress.

An outcome of the marketing and program planning discussion was a desire to gather additional student input from across MCPS. The Office of Shared Accountability helped project team members design a protocol for focus groups. Members of the project team held focus groups in 25 high schools to assess student interest in Edison programs. Schools invited students from a variety of demographic and academic backgrounds to participate. While analyses of student responses are not yet complete, a number of themes have begun to emerge.

Themes from Student Discussions in High School Focus Groups

1. Most students indicated they were not aware of the variety of programs currently offered at Edison and felt that they were not adequately informed of Edison programs.
2. Students suggested Edison should offer programs that are not offered in home schools and consider more options for rigorous career programs, especially in science and technology.
3. Students expressed concerns about the appearance of CTE courses on transcripts for college applications.
4. Programs most frequently ranked in the students' top five choices were homeland security, auto technology, interactive media, interior design, and cosmetology.
5. Students said it is often too hard to fit Edison into their class schedules and that flexible scheduling options should be offered to attract more students.

Next, the team will collect feedback from principals, counselors, and career interest groups to continue the prioritization for new program development at Edison. The team also will recommend new marketing and outreach strategies to greatly increase student awareness of Edison offerings. Edison and system staff members will implement the new outreach campaign in 2012–2013. As facility design continues for Edison and Wheaton, the project team will continue to provide input.