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March 8, 2016

Montgomery County Public Schools: Study of Choice and Special Academic Programs

Report of Findings and Recommendations

SUBMITTED TO:
Montgomery County Board of Education

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We would like to express our sincere appreciation to the Montgomery County Board of Education; Mr. Larry Bowers, interim superintendent; and the district staff of Montgomery County Public Schools (MCPS) for providing valuable guidance and feedback on the design, implementation, and context for the study. Metis has a strong commitment to participatory evaluation, which is driven by a highly collaborative approach that involves active stakeholder involvement. The ongoing feedback and collaboration by the members of the MCPS implementation team on the study methodology, instrument development, and key findings and recommendations helped to inform the report.

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A team of Metis staff worked on various aspects of the study. In addition to the report's primary authors—Claire Aulicino—they include Marilyn Zlotnik, Donna Tapper, Allison Fields, Sarah Griffin, Alyssa Byrne, Otoniel Lopez, Ryan Clarke, and members of Metis's project support team. Special thanks are owed to Artis Bergman, who conducted all of the student data analyses; and Michael Scuello, for his guidance and support in developing the student data files and analysis plans.

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Executive Summary and District-Level Findings

Introduction

Montgomery County Public Schools (MCPS) is the nation's 17th largest school system, serving more than 156,000 students in 202 schools, including 37 National Blue Ribbon schools. MCPS is one of the most diverse school systems in the country with students from 157 different countries and native speakers of 138 languages. Six MCPS high schools ranked in the top 200 of the *Washington Post*'s 2015 High School Challenge; and all 25 MCPS high schools have appeared on the list, which includes only the top 11% of all high schools in the nation. In 2010, MCPS was the recipient of the Malcolm Baldrige National Quality Award, the highest presidential honor given to American organizations for performance excellence.

MCPS has a long history of offering a variety of choice and other special academic programs designed to provide students with opportunities to receive specialized instruction in schools outside of their local attendance boundaries. These programs include full and partial language immersion programs at the elementary and middle school levels; elementary centers for highly gifted students; magnet and other application programs with selective admissions criteria at the middle and high school levels; and two high school regional consortia and one middle school consortium with lottery-based admission processes that offer a choice of thematic instructional options. In 2013–14, MCPS offered 43 choice and special academic programs in 36 schools that collectively served approximately 22,700 students, which accounted for about 14.5% of the district's student population. In addition, approximately 8,000 other students (5.2% of MCPS students) attended a school outside of the attendance boundary assigned based on their residence through a change of school assignment (COSA) or for other administrative reasons.

Montgomery County has a population of more than one million residents and is growing both in terms of population and diversity. District-level enrollment indicates that the system has experienced significant increases in the number and diversity of students over the past 20 years. Certain areas in the district including those in the southeastern portion of the county and along the Metro's Red Line have experienced higher growth than others. According to the student enrollment trend data provided by the MCPS Division of Long-range Planning, the enrollment of Black/African American, Hispanic/Latino, and low-income students has increased dramatically—by as much as 20 percentage points over the past decade—within schools that have been historically high-poverty schools. As a result, MCPS is currently facing increasing levels of concentration of students by socioeconomic and racial/ethnic groups at specific schools within the county.

In January 2015, the Montgomery County Board of Education (Board) awarded a contract to Metis Associates to conduct a comprehensive study of the wide variety of choice and other

special academic programs that MCPS offers. The study is designed to address four main objectives:

- understanding the unique history and current state of each of MCPS's choice and other special academic programs;
- identifying the original purposes of each of these programs and assessing whether they are fulfilling those purposes;
- assessing whether all students have equitable access to these programs, especially in light of the continuing growth of MCPS student enrollment and the changing demographics of the region, both countywide and at the neighborhood level; and
- ensuring that these programs, both individually and collectively, are well-positioned to effectively advance the mission; core purpose; core values, including equity; and core competencies set forth in the MCPS Strategic Planning Framework (SPF), *Building Our Future Together: Students, Staff, and Community*.

The research is being conducted in three phases. This report provides findings from Phase I, which included gathering and analyzing data and information on the unique history and current state of MCPS choice and other special academic programs, and Phase II, which included benchmarking innovative, high-quality programs in other districts and reviewing academic research on access to educational options outside students' home schools. Phase III, which will be conducted in March through May 2016 following the presentation of this report, will entail developing a collaborative action plan for MCPS choice and special academic programs with engagement and feedback from community stakeholders.

Study Methodology

The study of MCPS's choice and special academic programs utilized a mixed-methods approach to collect qualitative and quantitative data from multiple sources and stakeholder groups. The data collection and analyses methods included the following activities:

- **Documentation review** of historical newspapers, policies, reports, and other documentation on MCPS's choice and special academic programs.

- **Benchmarking and research** to gather best practices and effective strategies implemented in other school districts of comparable size and demographics to MCPS and key findings from academic research.

- **District and community input** through individual and small group interviews with 15 current and former Board members, 36 other current or former central office staff, 10 MCPS Parent Community Coordinators; and 32 community leaders and external stakeholders with extensive historical knowledge of MCPS choice and special academic programs.

- **Site visits** conducted at a sample of 20 of the 36 schools that offer choice or special academic programs to hold individual interviews with school leaders; focus groups with 125 teachers, 354 middle and high school students, and 303 parents; and class and school walkthroughs.

- **Online community surveys** conducted in English and Spanish during the period from September 28 through October 26, 2015, which yielded a total of 5,318 respondents, representing a robust response rate for a voluntary online survey. In addition, a total of 976 comments were received in an online comment box from May through December 2015.

- **Student data analyses.** A comprehensive analysis of student-level data was conducted to examine the following areas: **student applications** to choice and special academic programs; **student enrollment** in programs and districtwide; **consortium** enrollments and lottery results; **academic achievement** milestones (outcomes); and **change of school assignment** requests and approvals.

- **Expert panel review.** Researchers worked with MCPS to identify and convene a panel of experts in the fields of educational equity and choice, gifted education, language instruction, and magnet programs to review key findings and data that emanated from the research. Members of the expert panel reviewed a summary of materials from the study and convened in December 2015 to provide feedback and input on key issues for consideration and recommendations for the study. Feedback from the expert panel is integrated into the final report.

Summary of Findings and Recommendations

The data and results presented throughout the report on MCPS's choice and special academic programs point to eight overarching findings for MCPS to consider in assessing alignment of these programs with the district's SPF. Each finding is supported by one or more recommendations that will help MCPS better achieve equity of access and excellence through choice and special programs.

Key Finding 1: MCPS provides a wide variety of choice and special academic programs that have been developed at key junctures in MCPS's history and layered upon each other to create a complex system of programs that are not fully aligned with the district's core values, including equity. Over the past 40 years, MCPS has developed a variety of programs to support its voluntary integration efforts and meet unique academic needs of students—within the context of a geographically expansive and increasingly diverse school district that is currently growing rapidly and creating significant challenges in terms of school capacity and budgets. Magnet programs were first developed in the 1970s as part of the implementation of Board of

Education Policy ACD, *Quality Integrated Education*, to maintain diversity and avoid racial isolation.

The original magnets have evolved into three types of programs—language immersion programs at the elementary and middle school levels that tap into families' interests in second language acquisition for their children, elementary centers for highly gifted students, and magnet and application programs at the middle and high school levels that are designed to suit the unique academic needs of highly gifted students, and regional consortia. Language immersion programs are lottery-based, while elementary centers, as well as the magnet and application programs at the middle and high school levels, are academically competitive programs with specific selection criteria.

The three regional consortia were developed between 1998 and 2005, in response to growing enrollments across the district and concerns about the potential impact of opening new schools on increasing racial isolation within schools. The Northeast Consortium (NEC) and Downcounty Consortium (DCC) at the high school level and the Middle School Magnet Consortium (MSMC) attract students through distinct thematic programs and utilize random lottery processes that take into consideration student preferences, socioeconomic status, and other demographic factors.

The varied group of programs, as currently configured, does not share a well-articulated mission that is aligned with the SPF. The lack of common language about the programs makes it difficult for some parents or community members to understand what programs are available and the possible—and differential—benefits of the programs for their child. In focus groups and interviews, MCPS parents, students, and staff agreed that special academic programs are valuable resources for the community in providing high quality and unique instructional programs for students. They added that the level of academic rigor offered in special programs is important to meeting the needs of students in the programs. However, they stated that all MCPS students should have the same access to rigorous instruction, regardless of whether they participate in choice and special academic programs. They added that all schools should provide effective and rigorous options, including differentiation and acceleration for all students. Lastly, they added that quality of education should not differ based on the geographic location of a student's home across the district. These last sentiments were echoed by Interim Superintendent Larry Bowers in his presentation of the Fiscal Year 2017 budget recommendations, in which he stated, "We have created structural and systemic barriers that have prevented some of our students from full participation in an instructional program that meets their needs and pushes them to excel. We must address these barriers and the unintended consequences of the impact these program decisions have had on our achievement gap."

- **Recommendation 1:** Revise Policy ACD, *Quality Integrated Education*, to clarify a defined mission for choice and special academic programs with input from community and staff stakeholders to clearly outline the goals and purposes for the programs, as well as their

alignment with MCPS' core values and stakeholders' strong belief that MCPS should pursue equity on a broad level by raising expectations and opportunities for rigorous instruction across all schools.

Key Finding 2: Information and communications about MCPS's wide variety of choice and special academic programs are not filtering to all segments of the community equally, which is impacting equity of access to the programs. MCPS has developed and implemented a wide variety of communication tools to share information about the programs with parents and community members. These include printed materials that are mailed to MCPS households in seven languages; information on the district's website and PTA listservs and webpages; informational meetings at local schools in English and Spanish; program-level Open Houses; and outreach through school-based counselors, staff, and principals.

Despite these efforts, data on program applications and from focus groups indicate that information about these programs is not reaching some segments of the community, namely Hispanic/Latino, Black/African American, non-English-speaking, and low-income families as well as they are to other groups. Furthermore, in focus groups with staff and parents, some respondents indicated that the district's communications are confusing to understand and require parents to conduct independent research. They added that the district does not conduct enough outreach and recruitment within the community to engage with parents face-to-face and does not offer enough information in languages other than English. As a result, families who prefer or require these types of communications and outreach do not have equitable access to information as do other families.

- **Recommendation 2:** Develop and implement new strategies for communicating, outreach, recruitment, and sharing information with underrepresented or hard-to-reach families within MCPS. These strategies should include, but not be limited to:
  - Streamlined communications in easily-understood language;
  - Revision of existing communication tools for cultural validity;
  - Outreach to families at community events or locations;
  - More opportunities for one-on-one or in-person communications with and recruitment of families; and
  - Additional materials and events held in languages other than English.

Key Finding 3: There are significant racial and socioeconomic disparities in the enrollment and acceptance rates to academically selective programs, which suggest a need to revise the criteria and process used to select students for these programs to eliminate barriers to access for highly able students of all backgrounds. Data on applications and acceptances to elementary centers and secondary magnet and application programs show that Hispanic/Latino, Black/African American, Limited English Proficient (LEP), special education, and low-income students are less likely than White, Asian, and higher income students to be selected and enroll in these programs. As a result, Hispanic/Latino, Black/African American, LEP, special education,

and low-income students are underrepresented in academically selective programs when compared with districtwide enrollment data.

These data are found despite direct efforts by MCPS to increase representation of all groups in the elementary centers and the secondary magnet and application programs. The district utilizes multiple indicators in the selection process that include, in addition to cognitive assessments, teacher recommendations and other school-based input, report card grades, unique student profiles, demographic data such as eligibility for free and reduced-price meals (FARMS), and the lack of an intellectual peer group at the home school. Yet, the lack of diversity and underrepresentation of some student subgroups in these programs suggests that the process may rely too heavily on one or more indicators or may need to consider additional measures of student ability. These indicators may include broadening the definition of gifted to include non-cognitive measures such as motivation and persistence, using group-specific norms that benchmark student performance against school peers with comparable backgrounds, offering automatic admissions for students in the top 5-10% of sending elementary or middle schools in the district, or using other methods that are outlined in the report and utilized in other districts across the country. Furthermore, these data also suggest that the district should use additional programs or tools, such as expanding the existing MCPS's Young Scholars Program to identify students from underrepresented groups in early grade levels for academically selective programs. These programs would serve to increase the applicant pool of underrepresented students and encourage greater levels of participation.

- **Recommendation 3a:** Implement modifications to the selection process used for academically competitive programs in MCPS, comprising elementary centers for highly gifted students and secondary magnet programs, to focus these programs on selecting equitably from among those applicants that demonstrate a capacity to thrive in the program, that include use of non-cognitive criteria, group-specific norms that benchmark student performance against school peers with comparable backgrounds, and/or a process that offers automatic admissions to the programs for students in the top 5-10% of sending elementary or middle schools in the district.

- **Recommendation 3b:** Invest resources to expand and enhance early talent development programs for students of underrepresented groups in order to bolster participation of a broader segment of the MCPS student population in academically selective programs.

Key Finding 4: The district's implementation of some provisions in the current Board Policy JEE, *Student Transfers*, does not fully align with MCPS's goal to provide equitable access to choice and special academic programs. Specifically, the Board's current Policy includes two provisions that have been implemented in ways that do not fully support equitable access: 1) currently students are automatically admitted to an elementary language immersion program if they have an older sibling who currently attends the program; and 2) students who attend a

particular middle school may continue in that school's feeder pattern high school, without regard to programmatic reasons.

First, data on implementation of the sibling link in elementary language immersion programs show that almost a third of students (29.8%) who were admitted to the programs through the lottery in 2013–14 were siblings. The proportion was as high as 45.8% for some programs. This sibling link hinders equity of access for non-siblings because it reduces the total number of seats that are available.

Secondly, the provision in Policy JEE for the automatic articulation of students from middle to high school encumbers equitable access because it impacts school capacity which may limit seats for students who seek transfers due to programmatic reasons, such as to attend a career pathway of interest or to continue study in a thematic focus outside of a feeder pattern.

It must be noted that the following recommendations should be considered within the context that changes to Policy JEE, *Student Transfers*, may produce heightened levels of socioeconomic isolation within schools if socioeconomic status is not explicitly defined as a factor in the review and approval process for student transfer requests (COSAs).

- **Recommendation 4a:** Consider revisions to Policy JEE, *Student Transfers*, to clarify that the sibling link for immersion and other choice programs is not automatic; while siblings of applicants should be able to attend the same school where the special academic program is located provided that there are available seats, those siblings should be required to participate in the application process, such as the lottery for immersion programs to earn a seat in the program.

- **Recommendation 4b:** To the extent that the district considers revisions to Policy JEE, *Student Transfers*, to alter the automatic articulation from middle school to high school within the cluster feeder pattern *or* consider approvals for programmatic requests, MCPS should analyze the impact on both school capacity and its efforts to promote diversity and avoid racial isolation.

Key Finding 5: The placement of special academic programs within local schools has increased the diversity of those schools' student populations; but, in the absence of targeted mechanisms to integrate the program participants and non-participants, it has created conditions of within-school separation. Consistent with the original goal of locating programs in schools to increase the diversity of the overall student populations in those schools, enrollment data show that the demographics of students who participate in the programs are substantially different from the student populations of the schools that house the programs. More specifically, language immersion, elementary centers, and secondary magnet and application programs with selective admissions criteria enroll higher proportions of White, Asian, and higher income students, and lower proportions of Hispanic/Latino, Black/African

American, LEP, and low-income students than the schools that house the programs. Furthermore, the programs are designed to enroll students in separate classes for at least part of the day by virtue of providing unique curricula and instructional themes. This combination of the vastly different student populations and the isolation of students within special classes has produced perceptions among students, parents, and staff in schools that house special programs of within-school separation.

- **Recommendation 5:** Facilitate a process to devise strategies for fuller integration of special programs into the schools that house the programs to ensure that program participants and local or home school students have meaningful social and academic interactions, such as expanded use of specials or electives, common lunch or recess periods, and extracurricular programs; and that recruitment efforts are tailored to encourage home school populations to apply for the programs.

Key Finding 6: The MSMC has been more successful than the high school consortia (the DCC and the NEC) in promoting racial, ethnic, and socioeconomic diversity due in large part to shifting demographics as well as three programmatic elements: the MSMC, unlike the DCC and the NEC, does not utilize base areas, admits out-of-boundary students, and has developed and implemented distinct, whole-school themes. Enrollment data for the three consortia indicate that the MSMC has been more successful in attracting diverse populations of students, in terms of race, ethnicity, and socioeconomic status, than the two high school consortia. Data also show that the admissions of out-of-consortium students is a key component in the success of the MSMC, and that out-of-consortium students are largely attracted to the schools because of the magnet themes and programs.

Data for the high school consortia show that a large majority of students receive their first choice school through the choice process (89% in the NEC and 75% in the DCC), and most are generally satisfied with the choice process. Data also show that approximately half of the students in the NEC (50%) and DCC (42%) select their base area school, which has limited the impact of the choice process on increasing diversity. Base areas are not attendance zones; rather, they are non-contiguous geographic areas near or around each school, established to allow students to choose to attend a school near their home while also promoting, at least when they were originally developed, racial integration.

In focus groups, some students and parents expressed concerns that the high school consortia themes are not distinct enough to attract large numbers of students from outside the base area. Furthermore, the student populations across all three consortia have become less diverse due to the shifting demographics across the areas of the county served by the consortia. As a result, since the high school consortia do not accept out-of-boundary students and there is variability in the strength of their signature themes, they have been less successful in promoting diversity across participating schools.

Furthermore, MCPS's high school consortia have relied on the effectiveness of smaller learning communities (SLC) in attracting students. However, academic research has shown that school districts across the country have experienced challenges with implementing the SLC model. In its place, some districts, including for example Jefferson County Public Schools, are moving toward career pathways as a more effective model of high school choice that provides options of students using rigorous college and career-focused pathways and promotes diversity.

- **Recommendation 6a:** Conduct a comprehensive review of the signature and academy themes offered in each DCC and NEC school to ensure they provide options that are consistent with the district's SPF and provide access to programs that would not otherwise be available in home schools, such as career education pathways.

- **Recommendation 6b:** Assess the feasibility and impact of revising the high school consortium model to reconsider the use of base areas and to allocate a number of seats for out-of-consortium students to enroll in signature programs and themes.

Key Finding 7: The overall demand for choice and special academic programs in MCPS exceeds the supply of seats in the programs. In 2013–14, 14.5% of MCPS students enrolled in choice and special academic programs. However, many students are not able to access the programs due to the limited supply of seats. For elementary language immersion, approximately half of all applicants are placed on a waitlist each year. Additionally, only 18% of applicants to elementary centers for highly gifted students, 26% of applicants to middle school magnets, and 37% of applicants to high school magnets and application programs are invited to enroll.

The limited supply of seats has been intensified by growing enrollment across the district. District enrollment trend data show that the number of students enrolled in MCPS has increased by an average of more than 2,000 students a year since 2008. And yet, the last increase in the number of seats came approximately fifteen years ago, with the creation of the Chinese Immersion program at College Gardens ES, an elementary center at Chevy Chase ES, and magnet programs at Roberto Clemente MS and Poolesville HS.

Qualitative data collected through focus groups and on the community survey also pointed to a large demand for special programs and a shared request from parents, staff, and students for more opportunities for choice and special academic programs in MCPS. Nevertheless, stakeholders also expressed concern that any expansion needs to be paired with efforts to address equitable access to these programs and the other challenges identified above, as well as stakeholders' strong belief that MCPS should pursue equity on a broad level by raising expectations and opportunities for rigorous instruction across all schools.

Data from the analyses of staffing and transportation costs suggest that an expansion of seats would not necessitate substantial increases in program budgets; however, it would pose challenges for staffing (recruiting and hiring qualified staff for the programs), as well as school

capacity. Furthermore, expanding transportation to accommodate an increased number of students to attend choice and special academic programs would require additional investments from the district.

Research and benchmarking highlights a number of choice and special academic program models that build upon program models that are currently being implemented in MCPS but may provide greater alignment with the district's SPF. For example, in the area of language immersion, academic research has shown positive benefits of dual language immersion models—programs that serve both native English speakers and native speakers of other languages—increasing both equity of access and student academic outcomes. Furthermore, research on magnet programs highlights the benefits of whole-school models, as well as the use of both academically-selective and non-selective programs in providing options for a broad segment of students.

- **Recommendation 7:** To the extent that MCPS invests in expanding seat capacity in choice and special programs to catch up with growth in district enrollment and demand, it should ensure that these efforts are aligned with the district's core values, including equity, and consider a wider variety of models, such as dual language and whole-school, theme-based magnet programs that use lottery admissions processes that rely primarily on student interest.

Key Finding 8: MCPS does not systematically track participation in or attrition from its choice and special academic programs. While the district's data systems include the capacity to set up program flags to determine a student's enrollment in these programs, as well as their trajectory across programs over the course of their MCPS career, the lack of systemic and consistent use of program flags hinders the district's ability to examine the characteristics and performance of students who enroll in choice and special academic programs and to track program completion or attrition. Furthermore, the district is not able to conduct ongoing or systematic assessments of the extent to which the programs, individually or collectively, are meeting the intended goals.

- **Recommendation 8:** Consistently utilize variables within the district's student data system to identify students who enroll in choice and special academic programs to assess participation, attrition, and academic and other outcomes of students in the programs to monitor implementation and impact of the programs.

Introduction

The nation's 17th largest school system, Montgomery County Public Schools (MCPS) currently serves more than 156,000 students in 202 schools, including 37 National Blue Ribbon schools. MCPS is one of the most diverse school systems in the country, serving students from 157 different countries and native speakers of 138 languages. Its students live in geographically diverse areas in urban, suburban, and rural communities across the county's approximately 500 square miles. Six MCPS high schools ranked in the top 200 of the *Washington Post*'s 2015 High School Challenge; and all 25 MCPS high schools have appeared on the list, which includes only the top 11% of all high schools in the nation. In 2010, MCPS was the recipient of the Malcolm Baldrige National Quality Award, the highest presidential honor given to American organizations for performance excellence.

MCPS has a long history of offering a variety of choice and other special academic programs designed to provide students with opportunities to receive specialized instruction in schools outside of their local attendance boundaries. These programs include full and partial language immersion programs at the elementary and middle school levels; elementary centers for highly gifted students; magnet and other application programs with selective admissions criteria at the middle and high school levels; and two high school regional consortia and one middle school consortium that offer a choice of thematic instructional options and admit students through lottery based processes that may consider student preferences, socioeconomic status, and other demographic factors. In 2013–14, MCPS offered 43 choice and special academic programs in 36 schools that collectively served approximately 22,700 students, which accounted for about 14.5% of the district's student population.[1]

In June 2013, the Montgomery County Board of Education (Board) approved a new Strategic Planning Framework (SPF), *Building Our Future Together: Students, Staff, and Community,* which outlines the

MCPS Strategic Planning Framework:

Vision: *To inspire learning by providing the greatest public education to each and every student.*

Mission: *Every student will have the academic, creative problem solving, and social emotional skills to be successful in college and career.*

Core values:

- *Learning*
- *Respect*
- *Relationships*
- *Excellence*
- *Equity*

[1] The student enrollment data reported throughout the report are based on program-level data provided by the MCPS Office of Shared Accountability (OSA) and the Division of Consortia Choice and Application Programs (DCCAPS), as well as data provided by specific schools for several of the programs, including middle school language immersion programs, and the magnet and other application programs.

mission, core purpose, core values, and core competency areas that guide the work of MCPS to prepare all students with skills and knowledge to thrive in the 21st century. Embedded within the SPF is a commitment to the core value of equity by "*educating each and every student so that academic success is not predictable by race, ethnicity, or socioeconomic status.*"

The Board developed the SPF with broad input from community stakeholders. To guide implementation of the SPF, MCPS developed a District Implementation Plan in 2014 that includes action steps and benchmarks. One of these steps is to "*initiate a comprehensive study of the wide variety of choice and other special academic programs that MCPS offers to ensure that these programs, both individually and collectively, are well-positioned to effectively advance the mission, core purpose, core values, and core competencies set forth in the MCPS Strategic Planning Framework.*" This action step was included in response to the Board's authorization of this study in its Fiscal Year 2015 Operating Budget.

In October 2014, MCPS issued a request for proposals (RFP) to solicit and engage a professional firm or collaboration of firms to conduct a review to assess the effectiveness of the choice and other special academic programs in supporting the vision, mission, and core values of the SPF. The study was designed to address four main objectives using data and feedback from multiple sources, stakeholder groups, and experts in the fields of equity and choice:

- Understanding the unique history and current state of each of MCPS's choice and other special academic programs;
- Identifying the original purposes of each of these programs and assessing whether they are fulfilling those purposes;
- Assessing whether all students have equitable access to these programs, especially in light of the continuing growth of MCPS student enrollment and the changing demographics of the region, both countywide and at the neighborhood level; and
- Ensuring that these programs, both individually and collectively, are well-positioned to effectively advance the mission; core purpose; core values, including equity; and core competencies set forth in with the MCPS SPF.

The study also was designed to review the intersection between these choice and special programs and other related MCPS policies and practices, including the change of school assignment (COSA) process, which provides another mechanism by which students may attend schools other than their home schools.

In January 2015, the Board awarded a contract to Metis Associates to conduct the study. Metis is a research and evaluation firm that is nationally known for its commitment to *participatory* evaluation. Participatory evaluation is driven by a highly collaborative approach that involves active stakeholder involvement and includes multiple methods, measures, and respondents with multiple perspectives in order to ensure that findings "speak to" a variety of audiences and stakeholders.

The research is being conducted in three phases. As outlined in the RFP, Phase I included gathering and analyzing data and information on the unique history and current state of MCPS choice and other special academic programs. Phase II included benchmarking innovative, high-quality programs in other districts and reviewing academic research on access to educational options outside students' home schools. The RFP planned for separate reports for the two phases; however, Metis researchers and MCPS staff made the decision to integrate the findings into this one report. Phase III, which will be conducted in March through May 2016 following the presentation of this report to the Board, will entail engaging with community stakeholders to develop a collaborative action plan for MCPS choice and special academic programs.

Organization of the report. This report is organized as follows. After the introduction is the study methodology, which describes the data collection and analysis methods that were used, and the history and context for choice and special academic programs in MCPS. The study findings are then presented in six sections with program-level findings for each program—language immersion programs at the elementary and middle school levels, the elementary center program for highly gifted students, secondary magnets and other application programs with selective admissions criteria, high school regional consortia, middle school consortium; and the change of student assignment (COSA) process.

Each of these sections is organized into three parts: 1) overview with descriptions of programs, the application and lottery process and outreach; 2) program-level findings, which include data on program applicants and enrolled students, academic outcomes, perceptions from stakeholders, impact on schools in which the programs are located and on sending schools, and staffing and transportation costs; and 3) research and benchmarking of relevant issues in the field. The sections conclude with program-level recommendations. The program-level findings are synthesized into an overarching district-level recommendations section for MCPS to consider as it engages in decision and policy making for the future development of the choice and special academic programs.

Study Methodology

The study of MCPS's choice and special academic programs utilized a mixed-methods approach to collect qualitative and quantitative data from multiple sources and stakeholder groups. The study was designed to address the following topic areas, as outlined in the RFP:

- Survey of the range of choice and other special programs in MCPS;
- Identification of the distinctive goals that led to the creation of the programs and continuing relevance of the goals today;
- Assessment of the effectiveness of the programs in advancing the mission, core purpose, core values, and core competencies set forth in the MCPS SPF;
- Analysis of the demographic profiles of applicants and enrolled students as compared with the profiles of the district and the schools in which the programs are located;
- Review of the recruitment and marketing for programs;
- Review of the selection process used for each program;
- Assessment of the demand and interest for the programs and whether MCPS has kept up with demand;
- Analysis of the costs in terms of transportation and staffing;
- Review of the geographic locations of programs; and
- Assessment of the impact of the programs on student, staff, family, and community engagement; the schools in which they are located; the schools to which students were originally assigned; and the broader community.

Data Collection and Analysis Methods

Multiple sources of data and methods were used for the study. These included a review of documentation on choice and special academic programs in MCPS; benchmarking MCPS practices with comparable districts and research on best practices; interviews and focus groups with MCPS district leadership and staff; community input, including focus groups and surveys; and analyses of student and school-level data. Each of these is described below.

Documentation review. Researchers conducted a comprehensive review of documentation provided by MCPS. This included current and historical Board policies, including policies on quality integrated education, long-range educational facilities, gifted and talented education, and student transfers; relevant legal decisions from courts, the Maryland State Board of Education and the Montgomery County Board of Education; internal and external research reports; historical news articles; Superintendent memoranda to the Board of Education; Board minutes and resolutions; and other documentation such as marketing and outreach materials.

Benchmarking and research. Researchers conducted a targeted review of published literature and research on key topics that emanated from the study. The review focused on best practices that are being implemented nationally with specific attention paid to a set of identified benchmarking districts, selected in collaboration with MCPS staff. The districts, which are listed below, comprise student populations that are comparable in size and demographics to MCPS and have innovative choice programs. Data on the benchmark districts are presented in Appendix A.

- Baltimore County Public Schools (BCPS), Maryland
- Houston Independent School District (HISD), Texas
- Wake County Public School System (WCPSS), North Carolina
- Hillsborough County School District (HCSD), Florida
- Jefferson County Public Schools (JCPS), Kentucky
- Fairfax County Public Schools (FCPS), Virginia
- Clark County School District (CCSD), Nevada

Unless otherwise noted, benchmarking data was compiled from other school districts' websites and publicly available materials and, to the extent possible, confirmed, with assistance from MCPS, through follow-up contact with staff in those districts.

MCPS district leadership and staff input. At the onset of the study, Metis researchers participated in a planning retreat with 21 current and retired MCPS district leaders and staff, school principals and staff, and representatives from the Montgomery County Council of PTAs (MCCPTA). The planning retreat was designed to solicit input on the research design and provide information and data on MCPS choice and special academic programs. Following the planning retreat, researchers conducted individual and small group interviews with 15 current and former Board members and 36 other current or former central office staff, representing the following district offices, divisions, and departments: Superintendent, Chief Academic Officer, Chief Operating Officer, Office of School Support and Improvement, Curriculum and Instructional Programs, Office of Shared Accountability, Office of the Chief Technology Officer, Career Readiness and Innovative Programs, Division of Consortia Choice and Application Programs, Accelerated and Enriched Instruction, Department of Transportation, Appeals and Transfers Unit, Pupil Personnel Services, Human Resources and Development, Special Education and Student Services, Equity Initiatives, and World Languages.

In addition, a focus group was conducted with 10 Parent Community Coordinators, district staff who provide support and services to parents of MCPS students. The interviews were guided by semi-structured protocols designed to collect qualitative data on the history and purposes of choice and special academic programs, current implementation of programs, factors that interact with student access to programs, learning experiences of students in and not in programs, and the impacts of programs on students and schools. Finally, Metis researchers collaborated with and sought feedback on an ongoing basis from a MCPS implementation team comprised of

representatives of key district offices and convened by the Chief Academic Officer and General Counsel.

School visits to 20 MCPS schools with choice and special academic programs. From September 28 through October 7, 2015, Metis researchers conducted half-day visits to a sample of 20 of the 36 schools with choice and special academic programs. A list of the schools that were visited is presented in Exhibit 1. The following data collection activities were conducted during each school visit:

- Individual interview with the school leader;
- Focus groups with teachers (program teachers and non-program teachers);
- Focus groups with parents (parents of students in the program and parents of students not in the program);
- Focus groups with middle and high school students (students in the program and students not in the program) who were selected to participate by school principals and staff; and
- Classroom and school walkthroughs to observe the facility and learning environment.

The focus groups were guided by semi-structured protocols to collect feedback about the goals and purposes of choice and special academic programs; marketing and outreach to families; reasons why students and families choose to apply or not to apply to programs; factors that have bearing on student access to programs; levels of parent, student, and staff engagement in school; and student learning experiences. Data on the number of focus groups and participants are presented in Exhibit 2. All focus group participants were required to sign a consent form, and students needed parent consent to attend the group.

Outreach for staff and parent participation was coordinated by MCPS staff with input from the Metis research team in order to recruit a broad diversity of focus group participants and stakeholders. The Chief Academic Officer, Deputy Superintendent, and General Counsel distributed a memorandum to all participating school principals with a detailed description of the purpose, goals, and expectations for the school visits; data collection activities; process for selecting and recruiting participants for the focus groups; and the required participant consent forms. MCPS staff worked with principals to use a variety of methods to share information with parents, staff, and students about the focus groups and the sign-up process. These methods included written letters in English, Spanish, Chinese, French, Korean, Vietnamese, and Amharic; newsletters; ConnectEd phone messages; outreach through the MCPS website and Spanish Facebook pages; and collaboration with Identity, Montgomery County Latino Advocacy Coalition (MCLAC), PTAs, NAACP Parents' Council, and other community partners.

MCPS developed an online process for parents and staff to sign up to participate in the focus groups that included a place for parents to indicate that they needed child care and/or translation services in order to participate. In addition, the district worked directly with principals and PTAs to recruit parents through face-to-face or telephone communication to broaden the

diversity of participants in the focus groups. A random selection process was used to select participants when more than 18 to 20 parents or staff signed up for a focus group. To accommodate participants who needed translation services, MCPS provided Spanish translators at two focus groups. Researchers also organized four parent focus groups facilitated in Spanish at Montgomery Blair HS, Gaithersburg HS, and Northwood HS. Two additional student focus groups were held at Bethesda-Chevy Chase HS and Northwood HS targeting participants in their student-led Minority Scholars Programs. Finally, all high school principals whose schools do not have a choice or other special program were invited to attend a focus group to share their perspectives on these programs and the impact on their schools.

Exhibit 1: School Visit Sites

	Elementary centers and secondary programs with selective admissions criteria	Language immersion programs	Consortia schools
Elementary schools	Dr. Charles R. Drew ES Fox Chapel ES	Maryvale ES Rock Creek Forest ES	
Middle schools	Takoma Park MS Roberto Clemente MS	Silver Spring International MS Westland MS	Middle School Magnet Consortium (MSMC) - Argyle, Loiederman, Parkland MS
High schools	Poolesville HS Montgomery Blair HS* Visual Arts Center (VAC) at Einstein HS		Northeast Consortium (NEC) - James Hubert Blake, Paint Branch, Springbrook HS Downcounty Consortium (DCC) - Montgomery Blair*, Einstein*, Kennedy, Northwood, and Wheaton HS

*At Montgomery Blair and Einstein HS, site visits included both the consortia and magnet programs.

Exhibit 2: Focus Groups/Interviews and Participants, by Respondent Group

Respondent group	Number	Number of participants
Interviews with school leaders	20 interviews	20 participants
Focus group with high school principals whose schools do not have choice or other special programs	1 focus group	9 participants
Focus groups with teachers and school staff	17 focus groups	125 participants
Focus groups with middle and high school students	23 focus groups	337 participants
Focus groups with Minority Scholars Program students	2 focus groups	17 participants
Focus groups with parents[1]	33 focus groups	303 participants

[1] Four parent focus groups were facilitated in Spanish.

Community stakeholder interviews. Individual and small group interviews were conducted with 32 community leaders and external stakeholders with extensive historical knowledge of MCPS choice and special academic programs. The interviews were conducted using semi-structured protocols that were similar to the focus group protocols. Among the community organizations represented were the 1977-II Action Group, African American Student Achievement Action Group, Gap Busters Inc., Gifted and Talented Association of Montgomery County, Latino Student Achievement Action Group, Montgomery County Association of Administrators and Principals, MCCPTA, Montgomery County Education Association, Montgomery County Equity Forum, Montgomery Housing Partnership, NAACP Parents' Council, MCLAC, and One Montgomery.

Online community surveys and comment box. An online survey was conducted in English and Spanish during the period from September 28 through October 26, 2015. The survey was designed to gather community, parent, staff, and student feedback on levels of familiarity with various aspects of choice and special academic programs; alignment of programs with the SPF; equity of access to programs; and the number of programs that are offered. The district conducted outreach for the survey through ConnectEd email and telephone messages, communications through principals and school staff, and through the district's website. A total of 5,318 respondents completed the survey, representing a robust response rate for a voluntary online survey. The online survey did not accept multiple responses from a single IP address to discourage participants from responding to the survey multiple times. Respondents were given the option of reporting demographic data; a summary of these data, as well as complete survey responses, are presented in the report Appendix.

In addition, an online comment box was open in English, Spanish, Chinese, French, Korean, Vietnamese, and Amharic for community members to write comments about choice and special academic programs. A total of 976 comments were received from May through December 2015.

Review of transportation and staffing data. MCPS provided a summary of the budget data for transportation and staffing for choice and special academic programs for the 2015–16 school year. These data (2015–16) were used instead of data from 2013–14 which would match the student data analyses because they were more readily available to district staff than data from prior school years. The data included the total costs of operating additional bus routes for choice and special academic programs and the additional staffing that was allocated to schools with choice and special academic programs. These data were used to calculate approximations for the incremental costs associated with the district's operation of choice and special academic programs but required some estimation since MCPS staffing allocations and budgeting use different methodologies.

Student data analysis. A comprehensive analysis of student-level data was conducted to examine the following areas:

- **Student applications** to choice and special academic programs;
- **Student enrollment** in programs and districtwide;
- **Consortium** enrollments and lottery results;
- **Academic achievement** milestones (outcomes); and
- **Change of school assignment** requests and approvals.

To obtain the necessary datasets, researchers worked closely with the MCPS Office of Shared Accountability (OSA), the Division of Consortia Choice and Application Program Services (DCCAPS), and the Office of the Chief Technology Officer (OCTO) to create a data sharing agreement to provide researchers with access to de-identified student-level data for the entire district for the following school years: 2011−12, 2012−13, and 2013−14. To preserve student confidentiality, each of the data files was stripped of identifying information by MCPS in advance of submission. To allow for cross-file analyses, MCPS then inserted a project-specific student identifier that was consistently applied to each submitted file.[2]

Analyses were conducted following initial research questions as well as in response to MCPS queries and requests throughout the duration of the choice study. In addition, a nested approach was taken wherein noteworthy findings were explored in more detail as they emerged from the top-level descriptive summaries and from the concurrent qualitative data collection being conducted. Within each thematic analysis, findings were disaggregated by student subgroups by race/ethnicity, gender, LEP, current eligibility for FARMS (current FARMS), and special education status. In addition, at the request of MCPS, data were also disaggregated using historical free and reduced-price meals qualification ("ever FARMS"). Throughout the report, data are presented using the "current FARMS" codes. Data for "ever FARMS" are only presented when they produce findings that are different from the analyses of "current FARMS" data. Within each thematic analysis, researchers used indicators of each student's local or home school (based on geographic criteria) to address questions of zoning and feeder patterns. Analyses were conducted using a combination of IBM's SPSS Statistics and Microsoft Excel. Data for subgroups are not presented when N<10.

Program applications: Student application data were provided by MCPS for 2009−10 through 2013−14 for programs that required students to apply. For each of these programs, the submitted files usually included variables that indicated students who applied, students who were invited to enroll, students who were placed in the waitpool, and students who accepted the invitation and enrolled. Core analyses within this thematic area included an assessment of applicants' demographic characteristics, an assessment of application outcomes by student

[2] Metis created a secure FTP server for this study, through which all student files were submitted.

subgroups, and an assessment of home schools and feeder patterns between elementary and middle, and middle and high school programs.

Consortium lottery and enrollment: Consortium lottery results were submitted for the three regional consortia. Core analyses within this thematic area included an examination of student preferences and the enrollment distribution of students by subgroup.

Student enrollment: As a result of the decentralized method of data collection and storage within the district, Metis was required to construct program enrollment flags for the middle school and high school choice programs (enrollment data for the elementary language immersion schools and the elementary center program for highly gifted students were flagged by the district) based on students' application results. For example, a student who applied and was accepted to a high school magnet program and was also found to be enrolled in that particular school was considered to be a student enrolled within that particular magnet program. This approach required the adoption of certain assumptions around student attrition. Specifically, it was assumed, for the purposes of these analyses, that students do not leave choice programs and enter the non-choice portion of the schools housing the programs. Attrition was only recognized if a student left the school itself. Since student enrollment files were informed by the application files, these analyses were limited to the 2013−14 academic year. This limitation is discussed more in the following section.

Academic achievement milestones: Researchers were provided with student data on the following academic milestones for the 2011–12, 2012–13 and 2013–14 school years: Grade 3 reading, Grade 3 math, Grade 5 reading, Grade 5 math, Algebra I by Grade 8, Algebra 2 by Grade 11, Grade 9 eligibility, Grade 9 English, Grade 9 math, SAT and ACT results, AP and IB course results, and on-time graduation.[3]

Academic achievement analyses were layered on top of the student application and enrollment analyses, with core analyses of this thematic area including a comparison of academic outcomes between students enrolled in choice and special academic programs and the students enrolled in each school at-large and a comparison of students enrolled in choice and special academic programs compared to districtwide results. Academic analyses were limited to the 2013−14 academic year. After a rigorous review of data quality and in consultation with MCPS, researchers determined that Grade 3 and 5 math data were not complete due to transitioning in the assessments used to measure these milestones to align with Common Core State Standards; therefore analyses of these outcomes should be interpreted with caution.

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[3] MCPS milestones have changed over the past several years to align with implementation of MCPS's Curriculum 2.0 and consistent with the Common Core State Standards, and shifts in assessments at the state level. Changes in the milestones limited the ability to conduct longitudinal analyses of the academic careers of students now in high school programs.

Overall, data quality differed depending on the thematic area of analysis and the particular school or program. In certain instances, fewer years of data were available. In other instances, certain variables within each submission had intermittent gaps and or were missing entirely. The data inconsistencies were generally due to gaps in submission of data or data variables by individual schools. Researchers kept the MCPS Office of Shared Accountability apprised of data quality concerns throughout the duration of the study and accommodated to the quality of the data through revision and limitation of certain analyses.

Change of school assignment (COSA) data: COSA records were submitted to researchers in late July 2015 and provided a point-in-time snapshot of the 2013−14 requests for changes in school assignment. The submitted files included students' requests, the reasons for the requests, and the current disposition of the requests as of the data submission (according to MCPS policy, appeals filed prior to July 1 are decided prior to the start of the school year). Core analyses within this thematic area included a review of the reasons students requested a COSA, the rates of approval for requested COSAs, as well as the impact of requests granted on school enrollments.

Expert panel review. Researchers worked with MCPS to identify and convene a panel of experts in the fields of educational equity and choice, gifted education, language instruction, and magnet programs to review key findings and data that emanated from the research. Members of the expert panel reviewed a summary of materials from the study and convened in December 2015 to provide feedback and input on key issues for consideration and recommendations for the study. Feedback from the expert panel is integrated into this report.

Limitations of the Data

MCPS does not consistently utilize program flags or other variables in the student data system to indicate under what conditions a student is attending a school other than their home school. As stated earlier, this was a limitation in the data that should be considered in the interpretation of study findings. MCPS does not consistently or systematically maintain variables in the district's student data system to indicate student enrollment or participation in choice or special academic programs, either at any particular point in time or over the course of a student's K-12 education; or to explain other reasons why students attend a school other than their home school, such as having received a COSA, administrator transfers, or enrollment in special education programs through students' Individualized Education Programs (IEPs). The district uses data collected at the school level to maintain lists of students who participate in choice and special academic programs; however, it does not analyze or track data separately for students in these programs.

Due to the lack of consistent or systematic use of program flags in the MCPS data file, researchers were only able to conduct analyses of program enrollment and academic outcomes for students in choice and special academic programs for one year, 2013–14, the most recent

year for which student data were provided. Researchers were unable to develop program flags for previous school years, because doing so would require having access to more than the four years of application data that MCPS was able to provide: 2010–11 through 2013–14.

Furthermore, data on program enrollment should be interpreted with the understanding that the analyses may not account for changes in program enrollment due to attrition if students did not return to their home school or remained at the school but not in the program—although district staff report that there are typically a very small number of students in this category. Furthermore, program enrollment may not account for students who entered the program through application waitpools if entry to the program was not indicated in the application data files.

Participation in the focus groups and community survey was voluntary and presents perspectives from a sample of the MCPS community. MCPS and researchers worked collaboratively on all aspects of the study to recruit a diverse and broad group of stakeholders to provide input through focus groups, interviews, community surveys, and the comment box. Altogether these methods yielded input from more than 7,000 MCPS community members. Due to the confidentiality of responses, demographic data were not collected from all respondents. The district worked with researchers to identify gaps in data collection or participation by respondent group and conducted additional outreach efforts with targeted groups, such as non-native English speakers, as needed to address gaps.

Because the qualitative data collected through focus groups and interviews present a sample of responses, exact numbers or percentages are not reported. Rather, general terms are used to report magnitude of perspectives. For example, the term "*most*" is used to indicate a majority of responses or at least more than half. The term "*some*" is associated with responses from generally a quarter to half of the participants, while "*a few*" or terms of the like indicate a minority of participants such as less than a quarter. It should be noted, however, that given that more than 800 members of the MCPS community participated in focus groups, even a quarter of respondents represents an ample number. The findings presented in the report only represent viewpoints that were expressed by multiple stakeholders across multiple focus groups. Individual quotes and comments used in the report were evocative of a theme that was reported by multiple respondents and groups.

History and Context

Overview

Located in the Washington, D.C. metropolitan region, MCPS is one of the largest and most diverse school districts in the nation, both in terms of enrollment and geographic expanse. During the 2013–14 school year, the primary year of focus in the study, MCPS enrolled almost 152,000 students across 202 schools.[4,5]

MCPS Student Demographics (2013–14)

Students by race/ethnicity:

- 32.0% White, non-Hispanic
- 27.4% Hispanic or Latino
- 21.4% Black or African American
- 14.4% Asian
- 4.6% Two or more races (multi-ethnic)

Students by services received:

- 14.6% participated in English for Speakers of Other Languages (ESOL) services
- 34.3% received free and reduced price meals (current FARMS)
- 10.8% received special education services

MCPS's approximately 500 square miles include urban, suburban, and rural communities. Each day, MCPS operates approximately 1,200 school buses to transport more than 96,000 students in a region that ranks among the worst in the nation for traffic congestion.[6] Transportation options offered by MCPS vary among the district's choice and other special academic programs. These options include neighborhood stops, centralized stops at local schools or community locations, or no transportation provided.

Montgomery County has a population of more than one million residents and is growing both in terms of population and diversity. According to U.S. Census, the county experienced a 6% growth in overall resident population over the past five years, and in 2010, became "majority-minority," with more than half of the county's population identified as a race or ethnicity other than White.[7] District-level enrollment followed a similar trend with significant increases in the number and diversity of students enrolled across MCPS. For example, within MCPS, the

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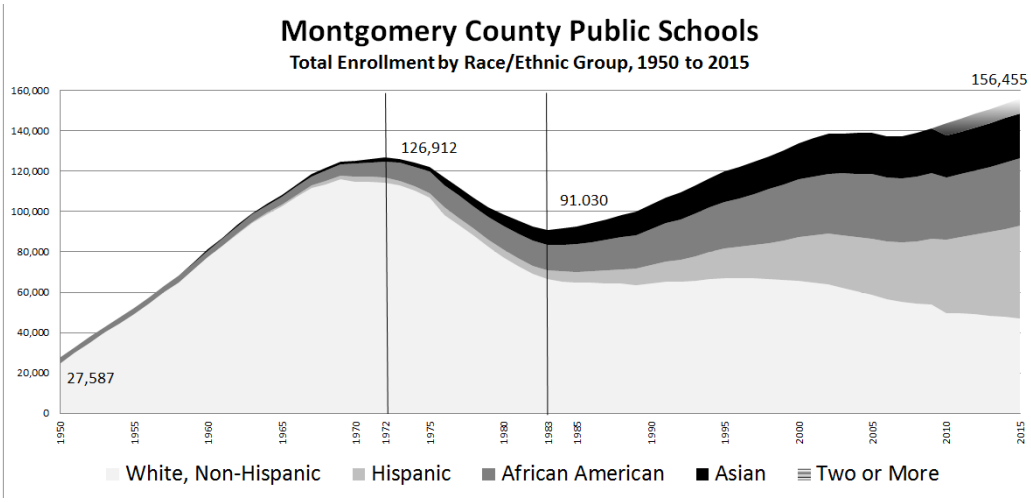
[4] Data throughout the report focus on the 2013–14 school year. At the time of analysis, this was the most recent school year for which complete and final student data were available.

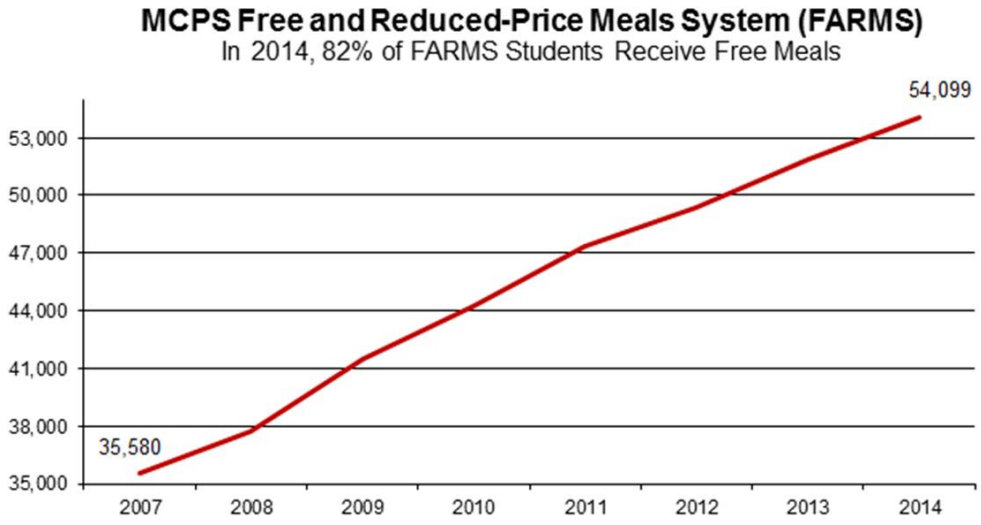
[5] Source of data in text box: Montgomery County Public Schools 2013–14 Schools at a Glance, accessed at http://www.montgomeryschoolsmd.org/departments/regulatoryaccountability/glance/fy2014/SAAG2014.pdf

[6] Uliano, Dick. (2015, August 26). D.C. tops the list of nation's worst traffic gridlock. *WTOP* Retrieved from http://wtop.com/dc/2015/08/d-c-tops-list-nations-worst-traffic-gridlock/.

[7] Morello, Carol & Keating, Dan. (2011, February 10). Minorities are majority population in Montgomery County. *The Washington Post.*

proportions of Black/African American and Hispanic/Latino students in comparison with White students have increased over the past 20 years. Furthermore, the number of students receiving FARMS has also increased by more than 50% in just the last seven years. These data are illustrated in the following charts provided by the MCPS Division of Long-range Planning.





Certain areas in the district including those in the southeastern portion of the county and along the Metro's Red Line have experienced higher growth of Black/African American and Hispanic/Latino students, as well as low-income students, than others. According to the student enrollment trend data provided by the MCPS Division of Long-range Planning, the enrollment of Black/African American, Hispanic/Latino, and low-income students has increased dramatically—by as much as 20 percentage points over the past decade—within schools that

have been historically high-poverty schools. These schools, as shown in additional charts in Appendix D, have been targeted by MCPS to receive additional funding to reduce class sizes as a means to help increase student achievement.

The District Implementation Plan for the SPF reaffirms the district's long-standing commitment to differentiated funding to schools with high needs. In recent decades, the proportion of low-income students in class size reduction (CSR) schools has continued to increase, as has the proportion of students who receive English for Speakers of Other Languages (ESOL) services. As a result, MCPS is currently facing increasing levels of concentration of students by socioeconomic and racial/ethnic groups at specific schools within the county.

History of Choice and Special Academic Programs

This section of the report provides a brief history of MCPS's choice and special academic programs. It presents an overview of the key programmatic and legal events that have occurred over the past 40 years, which have set the stage and provide the context for this study.

Choice and special academic programs emerged in MCPS in the 1970s as a central tool in the district's voluntary efforts to maintain racially integrated schools. Unlike other districts across the country, MCPS has never been under a court order to desegregate its schools. Shortly after the Supreme Court's 1954 decision in *Brown v. Board of Education*, MCPS voluntarily desegregated its schools. Two decades later in 1975, MCPS affirmed a strong commitment to integrated education and began developing programs to achieve this goal, with the Board's adoption of Policy ACD, *Quality Integrated Education*. As outlined in the Policy, "*The Board of Education's primary responsibility is to provide the opportunity for each student to obtain a high quality education and to encourage each student to work toward that objective to the maximum of his or her abilities.*" At the same time, the Policy acknowledged that "*quality education for children cannot be dependent on either racial or ethnic backgrounds or on family, or on socioeconomic status.*" In response to this acknowledgment, the Policy recognized that "*if a school contains a substantial number*

Policy ACD: *Quality Integrated Education*

Purpose (excerpt):

- *The Board of Education's primary responsibility is to provide the opportunity for each student to obtain a high quality education and to encourage each student to work toward that objective to the maximum of his or her abilities.*
- *The Board of Education is committed to the proposition that education is most effective in a diverse, integrated setting, and that therefore a major purpose of the policy is to provide a framework for actions designed to promote diversity so that the isolation of racial, ethnic, and socioeconomic groups is avoided and the full benefits of integration are achieved. Another important goal of the Board is to ensure that all students and staff have experiences and develop greater skills and increased sensitivity in working with others of diverse backgrounds so that they may function well as members of this pluralistic society.*

of students with educational needs as reflected in the recognized measures of student achievement, intensive support including the allocation of additional resources when needed, must be given to ensure that all students have the opportunity to reach their potential."

Stimulus for MCPS's development of a policy for integrated education came in response to demographic shifts as well as pressures from community advocates. During the 1970s, while most students in MCPS were White, enrollment of Black/African American students increased substantially, especially in the southeastern portions of the county closest to the District of Columbia. Data showed that "minority" student enrollment nearly doubled in the late 1970s, from 11.3% in 1974–75 to 21.7% 1980–81.[8] In some schools in the Takoma Park and Silver Spring areas, Black/African American student enrollment reached more than 70%, a rate that greatly exceeded the district average.[9]

One of the schools that had experienced a sizeable increase in Black/African American student enrollment in the early 1970s was Rosemary Hills ES in the Silver Spring area. In 1974, the executive board of the Rosemary Hills ES PTA filed a complaint against MCPS with the Office for Civil Rights (OCR), then a part of the U.S. Department of Health, Education, and Welfare (HEW), over increasing segregation.[10] OCR's investigation lasted through 1981, when the federal agency ultimately concluded that MCPS was operating in compliance with federal civil rights law, in part due to policy changes enacted in the interim, including the Board's implementation of Policy ACD, as well as the district's review of student transfers, as discussed below.[11]

Magnet programs were among the first integration efforts to develop in the 1970s, in response to changing demographics in the district and concerns about growing racial isolation. Magnet schools were one of an array of strategies that MCPS utilized beginning in the 1970s to implement Policy ACD and to avoid increasing segregation, especially in the southeastern portion of the county. They complemented other efforts to target additional resources to schools with higher concentrations of lower socioeconomic students and changes in student attendance boundaries.[12] These efforts also included elementary school pairings, which were first implemented in 1976 as a strategy to integrate students from a school with higher

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[8] Board, Minutes, July 14, 1981. All meeting minutes cited in the report were accessed from MCPS website.

[9] Larson, John C. (January 1980). *Takoma Park Magnet School Evaluation 1977-1979: Part I A Desegregation Study.* Rockville, MD: Montgomery County Public Schools.

[10] Eaton, Susan & Crutcher, Elizabeth. (1994). *Slipping Towards Segregation: Local Control and Eroding Desegregation in Montgomery County.* Cambridge: Harvard University.

[11] Letter to Dr. Edward Andrews, Superintendent from Office for Civil Rights. (August 26, 1981).

[12] Krucoff, Carol. (1978, September 7). Montgomery School Integration: Finding Advantages in Diversity. *The Washington Post.* MD1.

White student enrollment with students from another school with a higher Black/African American student enrollment. Each pair of schools was reorganized so that one school served all students in grades K-2 from across both school boundaries and the other school served all students in the remaining elementary grades from across the two school boundaries.

At the same time as the elementary school pairings, MCPS established the first elementary magnet programs in the southeastern portion of the county. These programs were designed to offer innovative instruction, stabilize enrollment, and decrease segregation by attracting and retaining White students to schools in the southeastern portion of the county, where the Black/African-American population was increasing significantly. Any MCPS student was eligible transfer into these programs, pursuant to Board Policy JEE, *Student Transfers*, discussed further below, as long the transfer did not increase racial isolation. If seats exceeded eligible applicants, the district conducted a lottery to determine admission. In 1974, the first language immersion magnet program opened at Four Corners ES with support from a federal grant and modeled on effective strategies for language immersion that were being used in Canada.

Two years later, the Board approved a plan to create high-interest, academically focused magnet programs in 12 elementary schools in the Takoma Park and Silver Spring areas.[13] These schools offered thematic programs in areas such as all-day kindergarten, structured emphasis which focused on high academic excellence, continuous progress which offered small-group instructional settings, science, Spanish-bicultural, and gifted and talented education.

The implementation of the new magnet programs and elementary school pairings, however, came at a time of a change in Board leadership. The Board election in 1978 produced a conservative majority that reconsidered some of MCPS's integration strategies. Furthermore, the district was experiencing a decline in enrollment throughout the late 1970s, which prompted the Board to adopt a proposal to close schools, end elementary school pairing, and redraw attendance zones—actions that threatened to undo the district's efforts to integrate schools and cause increased segregation.[14] On appeal, the Maryland State Board of Education rejected the school reorganization plan.[15] The proposed reorganization plan had no direct impact on the newly developed magnets; however, with the election of a new Board in 1982, the district returned attention to expanding and improving its magnet programs.[16]

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[13] Department of Research and Evaluation, MCPS (February, 1978). *Summary of Research on the 1976–77 Desegregation Program in the Montgomery County Public Schools.* Rockville, MD: Montgomery County Public Schools.

[14] Muscatine, Alison. (1981, October 3). Parents Fight Split of Paired Schools. *The Washington Pos*t. A1

[15] *Abbott v. Montgomery County Board of Education*, Opinion of the Maryland State Board of Education, No. 82-28 (June 30, 1982).

[16] Eaton, Susan & Crutcher, Elizabeth. (1994). *Slipping Towards Segregation: Local Control and Eroding Desegregation in Montgomery County*. Cambridge: Harvard University.

The elementary magnet programs were implemented in tandem with the district's student transfer policy to support its voluntary desegregation efforts, as well as its long-range planning policy for school facilities. The elementary magnet programs were developed as a voluntary desegregation strategy and implemented in conjunction with Board Policy JEE, *Student Transfers*, which was adopted in 1972 to establish specific guidelines for student transfers across the county's schools, and supported efforts that were initiated as part of Policy ACD, *Quality Integrated Education*. When developed, Policy JEE included the following provisions: "*1) the school from which the student is transferring would not be unduly affected, 2) the school to which the student is transferring is not unduly burdened by overcrowding, understaffing, or lack of adequate instructional resources,* and *3) the racial/social/economic balance in both schools is not unduly affected.*"[17] These provisions, which no longer apply for reasons discussed further below, allowed the district to take into account whether requests for student transfers would lead to increased racial isolation within either the sending or receiving school.

Throughout the 1970s and 1980s, despite the magnet programs and the operation of the student transfer policy, racial isolation continued to increase in certain areas of MCPS; and research indicated that most of the elementary magnet programs were having little or no impact on fostering integration overall, although in some schools they contributed to stabilize communities where demographic changes were occurring.[18]

One magnet program that showed positive impacts on desegregation and student achievement was the math and science gifted and talented program at Piney Branch ES. The program, while designed for gifted and talented students, did not use the selection criteria that are currently used for elementary centers and secondary magnet programs. Because of the positive impacts of the Piney Branch program, MCPS expanded the program model to three additional elementary schools, Rosemary Hills ES, Chevy Chase ES, and North Chevy Chase ES in 1983.[19] This action was the first expansion of gifted and talented magnet programs in MCPS.

Also in 1983, in response to growing racial isolation and shifting demographics across the county, the Board amended Policy ACD, *Quality Integrated Education*, to outline specific standards for addressing racial and ethnic isolation in schools. The amended Policy stated: "*To achieve the additional goal of integrated education, the staff shall provide the Board annually with an analysis of all schools in which the student population differs by 20 percentage point or more from the countywide majority/minority*

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[17] Memorandum to the Board of Education from Superintendent of Schools. (December 12, 1972).

[18] Larson, John C. (January 1980). *Takoma Park Magnet School Evaluation 1977-1979: Part I A Desegregation Study*. Rockville, MD: Montgomery County Public Schools.

[19] Walsh, Elsa L. (1982, March 4). Montgomery's Magnet Schools: A Desegregation Experiment That Failed. *The Washington Post.* MD1.

average. This analysis shall be used by the Board to make a determination as whether action should be taken, and if so what action to meet the goals and objectives of this policy."[20] Magnet schools remained a key component used by the district to achieve the goals outlined in the amended Policy ACD, as well as planning options pursuant to Policy FAA, *Long Range Educational Facilities Planning*, adopted in 1986. By 1986, MCPS was operating 14 elementary magnets, all in the southeastern area of the county along the border with Washington, D.C.[21] Yet, additional resource supports for these elementary magnets were phased out in the following decades, for reasons indicated below, and none are still operating as options for students to attend programs outside their home school, with the exception of elementary immersion programs, which have expanded over time.

Magnet programs at the secondary level were initially developed to support voluntary desegregation efforts, although their selective admissions criteria distinguished them from the early elementary magnets. In the mid-1980s, the same demographic changes that prompted the creation of the elementary magnets spurred efforts to develop programs at the secondary level to maintain racial diversity in the southeastern areas of the district, consistent with Policy ACD, *Quality Integrated Education*, and avoid concerns about "White flight."[22] In response, the Board approved the opening of a Math, Science, and Computer Science magnet program at Montgomery Blair HS in 1982, and created middle (then called intermediate) school magnet programs at Takoma Park MS in 1984 and Eastern MS in 1986. Unlike their counterparts at the elementary level, these programs utilized selective admissions criteria to identify students to participate in the rigorous instruction programs offered—in math, science, and computer science at Montgomery Blair HS and Takoma Park MS and in humanities and communications at Eastern MS.[23]

In 1987, MCPS again expanded secondary magnet programs with the development of its first International Baccalaureate (IB) magnet program at Richard Montgomery HS. At the time, the school was experiencing a decline in enrollment and was in jeopardy of closing. The IB program was established as a countywide magnet program to attract students from all over MCPS and bolster enrollment. Since its development, Richard Montgomery HS has expanded the program to include both the IB Middle Years Programme (MYP) for students in Grades 9 and 10, and the Diploma Programme (DP) for students in Grades 11 and 12. In 2007, MCPS established a K-12

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[20] Memorandum to the Board of Education from Paul L. Vance, Superintendent of Schools re: Assessment of Current and Future Needs for Magnet Schools and Update in QIE policy (January 14, 1992).

[21] Larson, John C. & Allen, Brenda A. (1988). *A Microscope on Magnet Schools, 1983 to 1986. Volume 2: Pupil and Parent Outcomes*. Rockville, MD: Montgomery County Public Schools.

[22] Editorial. (1981, December 12). A Future for Montgomery Blair. *The Washington Post*; Walsh, Elsa L. (1982, December 2). Transfer of Courses, College-Level Courses Urged for Blair High. *The Washington Post*.

[23] Larson, John, Witte, James C., Staib, Susan, & Powell, Marilyn I. (1990). *A Microscope on Magnet Schools: Secondary School Magnet Programs*. Rockville, MD: Montgomery County Public Schools.

continuum of IB instruction within the Richard Montgomery cluster with the authorization of the Primary Years Programme (PYP) at College Gardens ES and the 2003 authorization of the MYP at Julius West MS.[24] MCPS has also expanded local IB programs, available only to students within the school population in seven high schools, including Springbrook HS for students within the Northeast Consortium and Kennedy HS and Einstein HS for students in the Downcounty Consortium (see below for description). MYP is also offered as a local program in eight additional middle schools.

The same year that the IB magnet program opened at Richard Montgomery HS, the Board established a second selective program at Montgomery Blair HS in part to provide an articulation pathway for students in the Eastern MS magnet program.[25] Although the Communication Arts Program (CAP) at Montgomery Blair HS started out as a local program, it has since been expanded to serve students, through a selective application process, who are zoned to attend schools with the Downcounty Consortium and/or attended middle school within the Downcounty Consortium (see below for description).

While CAP is included in this study because it is open to students across the DCC, it was beyond the scope of this study to conduct an in-depth review of the signature programs and academies in most high schools and many middle schools that MCPS has developed to provide opportunities for students within local high schools and compete with magnet programs for high achieving students.

Around the same time, MCPS opened centers at the elementary level for highly gifted students in response to local pressure for gifted programming. In the 1980s, MCPS launched a new approach to choice programs at the elementary level with the development of the elementary center program for highly gifted students. Whereas the earlier elementary magnets had developed as voluntary integration efforts pursuant to Policy ACD, *Quality Integrated Education*, the impetus for the centers was Policy IOA, *Gifted and Talented Education*, which was first adopted in 1978. The admissions processes also differed. As explained above, any MCPS student was eligible to transfer into the elementary magnet programs, pursuant to Board Policy JEE, *Student Transfers*, as long as the transfer did not increase racial isolation and space was available; by contrast, the center program utilized selective admissions criteria like the secondary magnets. By 1995, there were four elementary centers in operation across the district.

The elementary centers were the product of the district's efforts to enhance gifted and talented programming exemplified by a 1988 Board-commissioned study, which highlighted "extreme

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[24] The PYP at College Gardens ES and MYP at Julius West MS serve only students within the home school populations to create a vertical pathway into IB within the Richard Montgomery cluster.

[25] Board, minutes (December 8, 1987).

variations as to the existence and quality" of such programming and prompted efforts to providing equitable levels of gifted and talented instruction.[26] Again in 1994, a committee commissioned by the Board issued a report identifying similar concerns with gifted and talented education, which, this time, led to revisions of Policy IOA, *Gifted and Talented Education*, to outline a broad-scale identification process for gifted and talented students "*to ensure that differentiated education programs and/or services are systematically provided for gifted and talented students in all Grades K-12 and to assure that gifted and talented students are offered an appropriate level and pace of instruction in each of our schools.*"[27]

In the 1990s, MCPS faced new challenges in providing quality integrated education. In 1990, MCPS engaged Gordon and Gordon Associates in Human Development, led by Yale University Psychology Professor Edmund Gordon, to conduct a study of the district's Minority Student Achievement Plan. The study was designed to evaluate the design, implementation, and impact of the Plan toward achieving the goal of improving minority student outcomes, and was in direct response to growing concerns that high overall achievement levels in MCPS masked low achievement among ethnic minority students. Results of the study found that the Plan contained the necessary elements to achieve its goal, but that the elements were "*insufficiently comprehensive, insufficiently distributed, and inconsistently implemented*," as well as "*unenthusiastically implemented and insufficiently communicated.*" Furthermore, the researchers found that MCPS's organizational structure needed to support the plan was "*not in place and functional.*" In response to the findings, the study presented a variety of recommendations, including among others, "*that the minority student achievement program be redesigned and a management system be created that can provide strong conceptual leadership, moral direction, and support.*" With respect to magnet programs, the researchers concluded: "*Although such schools were created to serve the purpose of reducing racial isolation in schools, we feel that they can also be brought to serve the academic development interests of minority students more effectively.*" While the researchers recommended that "*the magnet school program be continued*," they also urged that it should be "*made more accessible and serviceable to minority students.*"[28]

The district launched a comprehensive review of its magnet programs,[29] and one year later, in 1991, Superintendent Paul Vance provided the Board with a Five-Year Magnet Program Plan, which included self-studies of each of the 16 elementary magnet programs, as well as the middle and high school magnets, then operating in the Bethesda-Chevy Chase and Montgomery Blair

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[26] Memorandum to the Board of Education from Paul L. Vance, Superintendent of Schools re: Review of Gifted and Talented Education, K-12. (February 15, 1995).

[27] Analysis of Policy IOA: Policy on Gifted and Talented Students (February 1995).

[28] Gordon, Edmund (1990). A Study of Minority Student Achievement in Montgomery County Public Schools. Pomona. NY: Gordon and Gordon Associates in Human Development.

[29] Goldstein, Amy. (1990, January 23). Montgomery Eyes Change in Magnet Schools. *The Washington Post.* B1.

clusters. During discussions of the Plan, Board members praised existing magnet programs as "laboratories of innovation" and for improving or maintaining diversity in the schools where they were located, but Board members also raised issues regarding a possible need to amend Policy ACD, *Quality Integrated Education* (also sometimes called the QIE Policy), in light of changing demographics in the county. Board members also queried whether funding utilized to support quality integrated education across all schools, including magnet programs, was being appropriately allocated to schools with the greatest need, given the district's current fiscal constraints. [30] In a memorandum to the Board in January 1992, then Superintendent Paul L. Vance recommended that "*MCPS continue to support magnet programs to achieve the two goals of the QIE Policy*" while stating the district "*can maintain the current program, while shifting some resources to higher need schools.*" As a result, he recommended a review of the resources provided under Policy ACD to determine if they could be redirected to better support to goals of the district.[31]

These statements ultimately led to a complete review of Policy ACD and the Board's decision to amend the Policy in May 1993. The amended Policy eliminated the desegregation standard, adopted ten years earlier, that had been used to determine whether the Board should consider taking action to address racial segregation in schools, when the minority composition of a school differed by more than 20 percentage points from the minority composition of the district as a whole. Instead, the Board created a new formula to calculate a diversity profile for each school that included two factors: 1) the degree to which the proportions of each racial/ethnic student population in the school varied from the district averages for each group, and 2) the rate of change in the composition over a four year period. Using the diversity profiles and such factors, the district prioritized schools' needs for administrative attention. Furthermore, the amended Policy outlined key steps that the district would take in order to address the needs of and strengthen schools.

Among these steps were monitoring and regulating interschool transfer requests under Policy JEE utilizing these same diversity profiles; incorporating diversity profiles in planning changes in facilities or service areas under Policy FAA; considering acquisition of new school sites; pairing, clustering, and creating consortia of schools; and implementing magnet and special programs.[32] Additionally, the amended policy outlined specific steps for differentiating varied levels of need of support to improve academic achievement and for allocating supplemental resources to support quality education. One key factor in determining need was "educational load" based on rates of eligibility of FARMS, overage students, internal and external mobility, LEP students, and

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[30] Board, Minutes (August 28, 1991).

[31] Memorandum to the Board of Education from Paul L. Vance, Superintendent of Schools re: Assessment of Current and Future Needs for Magnet Schools and Update in QIE policy (January 14, 1992).

[32] Policy ACD, *Quality Integrated Education*, 1993.

other factors that impact achievement within schools. Based on the policy, schools with highest educational loads received additional resources to support in the goals of quality integrated education.

In 1994, a year after the amendment to Policy ACD, the Harvard Project on School Desegregation, led by Professor Gary Orfield, released a report on integrated education in MCPS entitled, "Slipping Towards Segregation: Local Control and Eroding Desegregation in Montgomery County Maryland." In the report, researchers argued that the magnet programs located in the Takoma Park and Silver Spring area had not been successful in creating integration in schools, largely because of MCPS's "*eroding commitment to desegregation*," which was based on self-regulating policies that "*have not been strong or effective enough to offset the demographic change that contributes to school segregation.*" As a result, they argued that MCPS's efforts, including its magnet programs, had created within-school segregation. Additionally, researchers raised serious concerns about equity of access to the programs; and they criticized MCPS's student transfer policy for its complex language which they argued "*greatly advantages higher educated people over others*" and its lack of elements "*designed to encourage transfers that would integrate the growing concentration of whites in schools with very few minority students.*" These findings served to support the researchers' overall conclusion that, "*while the voluntary 'local control' approach may be the most politically palatable one, Montgomery County's policies and administrative actions have not systematically broken up pockets of segregation and concentrated poverty. Equally significant is that local officials have failed to take action that would prevent segregation and concentrated poverty from increasing.*"[33,34]

Challenges to the student transfer policy in the 1990s changed the landscape of voluntary integration in MCPS. Whereas the Harvard report criticized Policy JEE, *Student Transfers*, for not doing enough to promote integration, a number of parents made appeals to the Board during the 1990s challenging any consideration of students' race as a factor for approving or denying transfers. While the federal government had reviewed Policy JEE and determined that it complied with federal civil rights law,[35] families continued to challenge the race-conscious aspect of the district's approach to student transfers.

For example, in 1992, the families of two Asian American students from Takoma Park ES threatened to sue the school district for denying their requests to have their children transferred to the language immersion program at Maryvale ES. The district had denied the request because,

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[33] Eaton, Susan & Crutcher, Elizabeth. (1994). *Slipping Towards Segregation: Local Control and Eroding Desegregation in Montgomery County*. Cambridge: Harvard University.

[34] Superintendent Paul L. Vance issued a rebuttal to the findings from the Harvard Study, in which he pointed out that the Study focused primarily on Black/African American and White students and largely ignored all racial and ethnic groups. See Spayd, Liz (1994, July 12). Montgomery School Chief Attacks Racial Balance Study. *The Washington Post*. A1

[35] See Arocha, Zita (1986, October 30). U.S. Probes Montgomery Magnet Plan. *The Washington Post.*

due to low enrollments of Asian students at Takoma Park ES, the transfers of the named students would create greater isolation of other subgroups at that school in violation of Policy JEE. The parents argued that their children should be allowed to transfer because no comparable language programs were offered at their home school and because requests for transfers from students of other races had been approved. The Board ultimately voted to approve the transfers; this opened the door for a series of additional appeals and set the stage for *Eisenberg v Montgomery County Public Schools,* a lawsuit filed in 1998, which eventually led to modification of the student transfer policy.[36]

The *Eisenberg* case was similar to past appeals from families about the student transfer policy. Jacob Eisenberg was a White student whose parents applied for a transfer from Glen Haven ES, his home school, to attend the math and science magnet program at Rosemary Hills ES for Grade 1 during the 1998–99 school year. His transfer request was denied under Policy JEE because it would have adversely impacted the diversity profile of Glen Haven ES, which, at that time, had a student body that was 24.1% White compared to the county-wide White enrollment of 53.4%, and the White enrollment of that school had declined from 38.9% in 1994–95 to 24.1% in 1997–98.[37] The case was appealed up to the U.S. Court of Appeals for the Fourth Circuit, which held that MCPS's denial of the school transfer was unconstitutional because it constituted "racial balancing," and the district's interests in "promoting a diverse student population" and "avoiding the creation of segregative enrollment by racial isolation" were not sufficiently compelling to justify a race-conscious student assignment policy as part of a voluntary rather than a court-ordered, integration plan.[38] The district's effort to seek review by the U.S. Supreme Court proved unsuccessful[39], and the Board voted in 1999 to suspend the student transfer policy.[40]

In response to these challenges to the transfer policy, MCPS commissioned William Taylor, a noted civil rights advocate, to conduct a study of policy options for improving educational performance within the context of the changing legal context for using race and ethnicity in school assignment. The final report, released in 2000, included a detailed analysis of the socioeconomic and racial composition of schools and highlighted areas of isolation and its potential impact on educational outcomes. The report proposed alternative provisions for the

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[36] See, e.g., Beyers, Dan. (1996, August 24). Schools' Racial Policy Challenged. *The Washington Post.* A1; Beyers, Dan. (1995, October 1). Montgomery's School Transfer Rule Prompts Backlash. *The Washington Post*. B1; Beyers, Dan. (1995, September 14). Montgomery Reverses Itself, Lets Asian Girls Switch Schools. *The Washington Post*. A1

[37] *Eisenberg v. Montgomery County Public Schools*, 197 F.3d 123 (4th Cir. 1999).

[38] Ibid.

[39] *Montgomery County Public Schools v. Eisenberg*, 120 S.Ct. 1420 (2000).

[40] Board, minutes (April 11, 2000).

transfer policy, including the use of socioeconomic factors as well as achievement.[41] However, in 2002, the Board adopted a new version of the policy, which eliminated the provision requiring transfers should only be approved if "*the racial/social/economic balance in both [sending and receiving] schools is not unduly affected.*" The new policy did not include alternative provisions to restrict transfers based on achievement and/or socioeconomic factors, rather it restricted transfers almost exclusively to circumstances involving unique hardship needs.[42]

While the *Eisenberg* case was pending, the district was again sued, this time by the Rosenfeld family who claimed that the admissions processes for the elementary centers for highly gifted students and the secondary magnets discriminated against their children, who were White, because those selection processes afforded preferences to students of other racial groups who had lower test scores.[43] The lawsuit was argued up the U.S. Court of Appeals for the Fourth Circuit, which ruled in favor of the school district on procedural grounds and therefore did not reach the merits of the family's racial discrimination claims. Nor did the court address the district's response that, contrary to the family's arguments, the selection process utilized at the time for elementary centers and secondary magnets did not take account of students' race/ethnicity.[44] However, this marked another significant challenge to the district's integration strategies.

Beginning in the 1990s, increasing district enrollment prompted MCPS to replicate existing programs for secondary magnets and immersion programs. The debate and ultimate revision of the student transfer policy occurred during a time of increasing enrollment across MCPS, which challenged the district to consider expanding and replicating existing strategies while maintaining the commitment to quality integrated education and in the absence of provisions against racial isolation in the student transfer policy.[45]

During this period, MCPS expanded its language immersion programs to meet demand across the district. In 1982, MCPS closed Four Corners ES and moved the French language immersion program to Oak View ES to promote diversity; it stayed until 1992 when it moved to its current location at Maryvale ES for similar reasons. A second French immersion program opened seven

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[41] Taylor, William L. (2000). *Toward Diversity: Policy Options to Improve Educational Performance in MCPS. A report to the Superintendent of Montgomery County Public Schools.*

[42] Memorandum to the Board of Education from Sharon Cox, Board Policy Committee Chairman re: Final Action on Policy JEE, *Student Transfers.* (March 12, 2002).

[43] *Rosenfeld v. Montgomery County Public Schools*, 41 F.Supp.2d 581 (D. Md. 1999).

[44] Appellees' Brief of Montgomery County Public Schools, in Rosenfeld v. Montgomery County Public Schools, 2001 WL 34384392, 25 Fed. Appx. 123 (4th Cir. 2001).

[45] Taylor, William L. (2000). *Toward Diversity: Policy Options to Improve Educational Performance in MCPS. A report to the Superintendent of Montgomery County Public Schools.*

years later at Sligo Creek ES, to meet continued community interest in the Montgomery Blair HS cluster, which had strenuously objected to the program's moving out of Oak View ES. In 1993, a dual language program in Spanish opened at Burnt Mills ES (later converted into an immersion program), followed in 1996 by a partial immersion program in Chinese, the district's first, at Potomac ES. Both of these programs were originally designed to serve the local student populations. A few years later, the district released a comprehensive study of the impact of language immersion on student outcomes which highlighted the positive academic benefits of these programs. The study used a longitudinal analysis of student achievement data on the Maryland State Performance Assessments and foreign language assessments to show that students in language immersion programs demonstrated high levels of achievement in the target language and performed comparable to non-immersion students in English language assessments.[46] The study results fueled demand for the programs.

In response, the Board decided in 2004 to open seats in the Chinese immersion program at Potomac ES for students outside of the attendance boundary. Parents at Potomac ES expressed opposition, claiming that this move would attract even more students to the already overcrowded school. The Maryland State Board of Education rejected two appeals challenging the district's decision as violating its policy on involving community members in the decision-making process and on other grounds.[47] A year later, in 2005, MCPS opened a second Chinese immersion program at College Gardens ES, which serves students countywide.

In the 2000s, MCPS also increased the number of elementary centers for highly gifted students and responded to growing demand for secondary magnets due to enrollment growth and interest from parents of students who had to travel long distances to participate in magnet programs in the Montgomery Blair and Richard Montgomery clusters. In the 2000s, the Board approved the replication of the existing magnet programs at Poolesville HS and Roberto Clemente MS to meet demand in the upper part of county, but not specifically to support integration efforts. These programs marked the most recent addition of seats to magnet programs at the middle and high school levels.

During the 1990s–2000s period, MCPS also added new high school application programs with selective admission criteria—the Leadership Training Institute at John. F. Kennedy HS (piloted with its first student cohort in the 1993–94 school year), and Bioscience and Engineering at

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[46] Larson, John C., Met, Myriam, & Gross, Susan (1999). *English and Foreign Language Performance of Current Immersion Students and Immersion Program Graduates.* Rockville, MD: Montgomery County Public Schools.

[47] Perlstein, Linda. (2004, May 13). Lottery Plan Cleared for Chinese Immersion: Potomac Parents Fight Effort to Open Program. *The Washington Post.* B01; Cheung v. Montgomery County Board of Education, Opinion of the Maryland State Board of Education, No. 04-28 (Feb. 22, 2004); Janice Zink Sartucci v. Montgomery County Board of Education, Opinion of the Maryland State Board of Education, No. 03-31 (Aug. 27, 2003).

Wheaton (launched in 2006). These programs were also developed to meet the academic needs of students with specific interests and talents in the schools' program themes and increase the attractiveness of the schools, but they were not specifically aligned to the original desegregation purposes of magnet programs. Similar to the CAP program offered at Montgomery Blair HS, these programs currently are only open to students in the DCC, which is discussed below.

In the mid-1990s, increasing district enrollment also promoted MCPS to develop new strategies for establishing programs to support its voluntary desegregation efforts, including the first regional high school consortia. The first of these consortia was developed in the mid-1990s. Due to continuing growth in enrollment, MCPS needed to open a new high school to alleviate overcrowding in the northeastern area of the county that was served by three existing high schools, Paint Branch, Springbrook, and Sherwood HS. Consistent with Policy FAA, the district factored demographic considerations into its analysis of this school siting issue. The first two schools had relatively high enrollments of Black/African American students and increasing enrollments of Hispanic/Latino students compared with the district population, while Sherwood HS served a largely White student population. The district was faced with the challenge of creating boundary lines for a new high school that would require changing the existing boundaries for the other three schools. At the same time, the district had concerns that the new school would produce higher levels of racial isolation at Paint Branch and Springbrook HS by drawing White students who attended those schools into a new attendance boundary.

To avoid this scenario, MCPS created a consortium of schools that would enable the district to avoid drawing new boundary lines and to serve students from the combined geographic areas. Two key decisions in the planning process, however, had major impacts on the development of the consortium. First was the Board's decision, in November 1996, to exclude Sherwood HS from the consortium based on major objections from the Sherwood community. Members of the community stated that they wanted to maintain a neighborhood school and did not want their children traveling to other areas of the county to attend high school. The Board conceded and went forward with the proposal to create a consortium with Paint Branch, Springbrook, and the new James Hubert Blake HS. The second decision in the planning process was a concession by the Board to community demands to replace the proposed "controlled choice" process, in which there would be no base or home areas for the schools, with a "preferred choice" model that created base areas for each school and allowed students to be automatically placed in their home school if preferred.[48] The base areas were not aligned with the previous home boundaries,

[48] Reid, Scott. (1995). *Controlled Choice School Systems and Their Costs: A Case Study Analysis for Montgomery County's Controlled Choice Task Force.* College Park: University of Maryland College Park School of Public Affairs; Memorandum from Paul Vance, Superintendent, to Members of the Board of Education regarding Northeast Area High School Solutions, November 25, 1996; Board of Education, meeting minutes (November 25, 1996).

but there was enough of an overlap to gain community support and provide a more integrated base level of enrollment at each of the schools.

For NEC students who did not choose their base area school, a lottery process was utilized, which originally took racial/ethnic diversity into account, but this factor was eliminated after *Eisenberg*; and in 2005, the Board added socioeconomic status, as identified by FARMS participation, as a factor that may be considered, to align the NEC with the approach subsequently adopted by the two other consortia.[49]

In 1998–99, the Northeast Consortium (NEC) began operating. With support from a Magnet Schools Assistance Program (MSAP) grant from the U.S. Department of Education, each of the three participating schools developed a signature theme, designed courses around the theme, and infused the theme into existing courses. Community partnerships were strengthened, and teachers participated in professional development around the theme, use of technology, and instructional strategies. The grant outlined the following objectives for the consortium: 1) to eliminate, reduce, or prevent the incidence and/or degree of minority student isolation in targeted schools; 2) to promote national, state, and local systemic reforms that are aligned with challenging state content standards and student performance standards; 3) to feature innovative educational methods and practices that meet needs and interests of identified students; and 4) to strengthen students' knowledge of academic subjects and skills needed for successful careers in the future. For MCPS, the goal of the grant was to allow the district to provide enhanced educational opportunities and develop unique instructional programs of interest to attract students from all groups and educate them in an integrated setting.[50] Two of the NEC schools, Paint Branch HS and Blake HS, received additional funding in 2010 through a federal Smaller Learning Communities (SLC) grant to address new student needs caused by increasing student enrollments in the two schools. The SLC grant supported the development of Grade 9 academies for all students and the development of career academies for students in Grades 10 through 12 to help prepare them for college and careers.

The high school consortium model was replicated several years later in the southeastern portion of the county where voluntary integration efforts had historically concentrated. In 2000, the Board approved the development of a choice process for a second high school consortium to address another situation similar to the circumstances that had led to the creation of the NEC. In the southeastern portion of the county, which had previously been a focus of voluntary integration measures, increasing enrollments led to the need to re-open Northwood HS, which had closed during the 1980s. Once again, MCPS opted for a consortium model to

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[49] Memorandum from Jerry Weast, Superintendent of Schools, to Members of the Board of Education, regarding Northeast Consortium Criteria Amendment, September 13, 2005.

[50] Montgomery County Public Schools (2000). *Year Two Report The Preferred Choice Process.*

avoid redrawing school boundaries to accommodate the new school and create the risk that such redrawn boundaries would increase racial and socioeconomic isolation in other high schools in the area. To support this work, MCPS applied for a federal SLC grant. The SLC grant supported the creation of a consortium of schools with theme-based academies that offered student opportunities to learn within small programs in a large school building and promote school choice to increase diversity across the participating schools.[51]

From the outset, the consortium included Montgomery Blair, John F. Kennedy, Albert Einstein, and the re-opened Northwood HS. The Board considered adding a fifth school in the consortium. At first, Bethesda-Chevy Chase (B-CC) HS was proposed, but in the end the Board decided to include Wheaton HS in response to community advocacy. In contrast to Wheaton HS, which had similar student demographics to other DCC schools, B-CC HS would have provided better opportunities for achieving greater diversity across the consortium because it had a student population with higher proportions of White and higher income students. Following the NEC model, the Board adopted base areas for the DCC, as well as providing for consideration of socioeconomic status based on FARMS data in the lottery selection process.[52]

In the 2004–05 school year, the Downcounty Consortium (DCC) opened. The SLC grant outlined the following goals for the DCC: 1) provide students with the opportunity to choose an academic or career program that is based on their identified post-secondary aptitudes and interests by creating a system of themed academics within the high schools of this region; 2) address the unique needs of entering freshmen, cause them to persist in their studies, and improve their post-secondary attainment levels by creating a system of programs, supports, and pathways within the freshman programs in each of these high schools; and 3) support increased levels of student performance by creating and sustaining professional learning communities within and across the faculties of DCC high schools.[53]

MCPS adapted the consortia model to incorporate lessons learned from the NEC and DCC, when it developed the Middle School Magnet Consortium (MSMC), which opened in 2005. As MCPS was developing the DCC at the high school level, it also contemplated re-opening a

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[51] Board, meeting minutes (March 22, 2000); Memorandum from Jerry Weast, Superintendent of Schools, to Members of the Board of Education, regarding Update on the Downcounty Consortium. (October 27, 2003); Memorandum from Jerry Weast, Superintendent of Schools, to Members of the Board of Education, regarding Update on the Downcounty Consortium. (October 25, 2004).

[52] Board, meeting minutes (June 23, 2003); Memorandum from Jerry Weast, Superintendent of Schools, to Members of the Board of Education, regarding Downcounty Consortium High School Base Areas and School Assignment Process, (May 27, 2003); Memorandum from Jerry Weast, Superintendent of Schools, to Members of the Board of Education, regarding Base Area Recommendations for Downcounty Consortium High Schools, (June 23, 2003).

[53] Montgomery County Public Schools (2000). *DCC Smaller Learning Communities Grant.*

school (formerly Belt Jr. HS, which was renamed A. Mario Loiederman MS), due to increasing enrollment among middle schools in the DCC area. Again, the Board opted against re-drawing school boundaries and instead created a consortium of three middle schools: Argyle, Parkland, and the newly reopened A. Mario Loiederman MS. At the time, Argyle and Parkland MS were among the lowest achieving and most racially and economically isolated schools in the district. In order to promote greater impacts on student achievement and diversity, the Board voted to implement a slightly different model for the MSMC that did not outline base areas for student assignments and included an option for up to 100 students who reside outside of the consortium to enroll in each school every year through a random lottery. To attract students, MCPS used funding from the MSAP grant to develop whole school magnet programs in the areas of the Digital Design and Development (Argyle), Aerospace Technology (Parkland), and Creative and Performing Arts (Loiederman). In addition, MCPS initially provided transportation for out-of-consortium students from the Bethesda-Chevy Chase, Rockville, and Walter Johnson clusters in order to attract a more diverse population of students that would help achieve the goals of reducing racial and economic isolation. MCPS later discontinued transportation for out-of-consortium MSMC students due to budget cuts.

In the 2005–06 school year, the MSMC opened.[54] The goals, as outlined in the MSAP grant, were to improve student performance and reduce socioeconomic group isolation through a model of: 1) highly effective instructional programs; 2) accelerated core curriculum; 3) unique courses and extended learning opportunities; and 4) collaborative partnerships among schools, parents, and the community. Each school in the MSMC was aligned to a specific magnet theme and offered specialized courses while remaining aligned to the MCPS core curriculum.[55]

In the 2000s, MCPS continued to grapple with challenges of equitable access to its academically selective programs. The opening of the MSMC, which did not utilize selective admissions criteria, occurred in the context of a series of challenges to equitable access to secondary magnets and gifted identification more generally.[56] In March 2005, a community group called the African American Parents of Magnet School Applicants released the results of a three-year analysis of application data to middle school magnet programs and questioned the

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[54] Memorandum from Jerry Weast, Superintendent of Schools, to Members of the Board of Education, regarding Update on the Middle School Magnet Consortium, (October 10, 2006); Memorandum from Jerry Weast, Superintendent of Schools, to Members of the Board of Education, regarding Update on the Middle School Magnet Consortium, (July 6, 2005).

[55] Raber, Suzanne M. (2008). *Middle School Magnet Consortium Magnet Schools Assistance Program 2006−2007 Grant Performance Report.* Rockville: Montgomery County Public Schools Department of Shared Accountability.

[56] Aratani Lori. (2006, February 22) "Gifted" Label Takes a Vacation in Diversity Quest. *The Washington Post.* B1.

lack of racial and ethnic diversity in the programs.[57] Although the Board did not endorse the group's request to suspend the magnet application process, it recognized the need to increase the number of non-White students applying to the programs. Strategies were implemented to reach a more diverse group of families through parent workshops, offering students practice tests for the magnet entrance exams, and by providing transportation on the day of the magnet entrance exams.[58]

Issues of equitable access were also highlighted by the Deputy Superintendent's Advisory Committee (DSAC) on Gifted and Talented Education in a 2006 report based on a review of policies associated with gifted and talented education, as well as the expansion of elementary centers and replication of secondary magnet programs that had occurring during prior years, as discussed above. The DSAC report noted that, "*all children, regardless of background, can achieve at high levels if given both opportunity and support*" and questioned the equity of access to gifted and talented services in schools with high proportions of Black/African American, Hispanic/Latino, and low-income children. In response to findings from the committee's report, MCPS developed a number of talent development and outreach programs and expanded the Program of Assessment, Diagnosis and Instruction (PADI), which was intended to recognize and nurture intellectual potential among students most frequently overlooked because of socioeconomic, cultural, and/or linguistic differences.[59]

Other research in recent decades has highlighted the challenges that continuing demographic changes, as well as county housing patterns, present for voluntary integration efforts in MCPS. In 2008, the Office of Legislative Oversight (OLO) for Montgomery County released a report on the cost and performance of MCPS's high school consortia, which recommended that MCPS consider the value of operating the consortia in relation to their limited impact on promoting diversity and the associated costs of the programs.[60] The same office also released a report in 2013 on the efficacy of the district's strategies for eliminating achievement gaps between students by racial and ethnic groups within the high school consortia. The report found, that since 2008, MCPS had made progress in reducing achievement gaps, but

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[57] Trejos, Nancy. (2005, March 8). Parents Protest Magnet Makeup: Montgomery Group Contends Program is Unfair to Blacks. *The Washington Post*. B1. This group subsequently expanded its efforts to challenge gifted identification more broadly. See Aratani, Lori. (2005, August 25). Group Seeks to End Gifted Designation; Label Unfair to Kids, Members Say. *The Washington Post.* ME21; Aratami, Lori. (2005, May 24). Parents Rally for Black Students; Montgomery Group Accuses System of Inequality in Teaching. *The Washington Post*. B5.

[58] Bonner-Tompkins, Elaine & Latham, Kristen. (2008). *Cost and Performance of Montgomery County Public Schools' High School Consortia.* Rockville: Office of Legislative Oversight.

[59] http://www.montgomeryschoolsmd.org/curriculum/enriched/programs/padi.aspx

[60] Bonner-Tompkins, Elaine & Latham, Kristen. (2008). *Cost and Performance of Montgomery County Public Schools' High School Consortia.* Rockville: Office of Legislative Oversight.

that significant gaps still existed. Furthermore, gaps in some key indicator areas had actually increased.[61] These reports highlight the challenges that MCPS has faced in maintaining a long-standing commitment to providing quality integrated education over a 40-year period that has produced significant shifts in the racial, ethnic, and socioeconomic composition of the county—a theme that the district emphasized in its response to the OLO reports.

Another significant research report during this period was the Century Foundation's review of the intersection of education and housing policies. Through a statistical analysis of student demographic and achievement data, the study concluded that low-income children, who had comparable academic data upon entering school but who attended low- or moderate-poverty schools, had a lower academic trajectory over the course of their elementary schooling than their higher-income peers. The study also found that the academic outcomes of low-income students rose significantly when the students attended a school with higher-income students where less than 20% of the students qualified with FARMS.[62] While the Century Foundation's study identified benefits of the county's inclusive zoning policy, the continuing struggle to create sufficient affordable housing across all regions of the county has been a persistent challenge to efforts to promote school integration in MCPS.

Recent changes in the legal context have restricted the ability of MCPS and other school districts to achieve integration through voluntary means. In 2007, the national context for school choice programs shifted as a result of a key ruling by the U.S. Supreme Court. In *Parents Involved in Community Schools v. Seattle School District 1*, the Supreme Court majority outlined limitations for how school districts could use student race and ethnicity in school assignment or student selection plans.[63]

A majority of the Supreme Court Justices recognized that seeking diversity and avoiding racial isolation are compelling interests for school districts—and in this respect, the decision was, in effect, more supportive of voluntary integration efforts than the Fourth Circuit's prior decision in *Eisenberg*. However, by a 5-4 vote, the Court struck down plans utilized by the Seattle, Washington and Jefferson County (Louisville), Kentucky school districts. Yet, the ruling was split, and Justice Anthony Kennedy issued a key concurring opinion in which he emphasized that race-conscious school district plans could pass constitutional muster in certain circumstances, including: generalized race-based approaches that use race as an express criterion but do not treat individual students differently because of their race, such as choosing sites for

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[61] Bonner-Tompkins, Elaine, Richards, Sue, & Scruggs, Carl. (2013). *The Achievement Gap in Montgomery County—An FY 2013 Update.* Rockville: Office of Legislative Oversight.

[62] Schwartz, Heather (2010). *Housing Policy is School Policy: Economically Integrative Housing Promotes Academic Success in Montgomery County, Maryland.* Washington DC: The Century Foundation.

[63] *Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1*, 551 U.S. 701, 782 (2007).

new schools; allocating resources for special programs; drawing attendance zones based on neighborhood demographics; recruiting students and faculty in a targeted manner; and tracking enrollments, performance, and other statistics by race. Furthermore, Justice Kennedy declined to rule out approaches that in appropriate circumstances take account of the race of individual students in school assignment.

In December 2011, the U.S. Department of Education and the U.S. Department of Justice elaborated on the Supreme Court's opinion in *Parents Involved* with jointly issued "Guidance on the Voluntary Use of Race to Achieve Diversity and Avoid Racial Isolation in Elementary and Secondary Schools."[64] This 2011 Guidance reaffirmed the "*compelling interests that K-12 schools have in obtaining the benefits that flow from achieving a diverse student body and avoiding racial isolation*," and provided districts with suggested approaches to achieve diversity or avoid racial isolation along with key steps for implementing programs with these goals, including numerous examples and scenarios.

Within the context of the shifts in county demographics, program models, the legal landscape, and local purposes for choice and special academic programs, MCPS has continued to adhere to the original goal of these programs to support quality integrated education. Although it has been amended over the decades, Board Policy ACD continues to recognize the value of quality integrated education. As stated in the current Policy, "*Integrated schooling has inherent educational value from the standpoint of education's role in a democratic society. The survival and vigor of democracy depends upon an educated citizenry with shared concerns about the welfare of society, its members, and the democratic principles that govern it. Diversity brings different viewpoints and experiences to classroom discussions and thereby enhances the educational process. It also fosters racial and cultural understanding which is particularly important in a racially and culturally diverse society such as ours. . . . Diversity is thus a valuable resource for teaching students to become citizens in a multi-racial/multi-ethnic world.*"

However, today, the county is more diverse and larger than ever, and yet has stricter limitations on how it can achieve quality integrated education than it did when *Brown v. the Board of Education* was first adopted. In addition, the district now faces greater challenges in meeting the learning needs of an increasingly diverse and low-income population of students amidst persistent budget challenges in the wake of the Great Recession. Moreover, as the foregoing discussion makes clear, this goal of quality integrated education is but one of a number of overlapping and not always fully aligned interests and objectives that have propelled the development and expansion of choice programs in MCPS, as well as elsewhere. As a result, MCPS currently offers a wide variety of choice and special academic programs that were developed at key junctures

[64] http://www2.ed.gov/about/offices/list/ocr/docs/guidance-ese-201111.pdf.

throughout the district's history and layered upon each other to create a complex system of programs.[65]

[65] Despite the variety and complexity of such programs in MCPS, however, it should be noted that there are other models for school choice that the district is not currently operating, such as charter schools, vouchers, and other market-based competitive approaches that have become popular elsewhere, albeit with mixed success. For an index that weighs such market-based approaches heavily in its assessment of districts' choice policies, see Brown Center on Education Policy, The 2015 Education Choice and Competition Index, available at http://www.brookings.edu/research/interactives/2016/~/media/Multimedia/Interactives/2015/ecci/images/pdf.png.

Language Immersion Programs

Overview

MCPS offers Spanish, French, and Chinese language immersion programs in seven elementary and four middle schools.[66] These programs are lottery-based and have no academic criteria for admissions at the primary entry points in kindergarten and Grade 1. As discussed in the history and context section, the elementary immersion programs had their origins in the implementation of Board Policy ACD to promote voluntary student transfers to support racial and ethnic diversity in target schools; and they, along with the middle school programs, subsequently evolved as part of MCPS's broader world languages program.

Timeline of elementary language immersion programs in MCPS:

- *1974: MCPS's first immersion program in French opens at Four Corners ES*
- *1977: Spanish immersion program opens at Rock Creek Forest ES*
- *1982: French Immersion program moves from Four Corners ES to Oak View ES*
- *1983: Spanish immersion program opens at Oak View ES*
- *1985: Spanish immersion program moves from Oak View ES to Rolling Terrace ES*
- *1992: French Immersion program moves from Oak View ES to Maryvale ES*
- *1993: Dual language program in Spanish opens at Burnt Mills ES*
- *1996: The first Mandarin Chinese Immersion program opens at Potomac ES, initially for local students only*
- *1999: French Immersion program opens at Sligo Creek ES*
- *2005: MCPS's second Chinese Immersion program opens at College Gardens ES*
- *2006: Dual language program at Burnt Mills ES Spanish immersion program starts (previously operated as a dual language program)*

The language immersion programs follow MCPS curricula and are designed to address the same standards and pacing as other MCPS schools and classes. The primary differences are the language of curriculum delivery and exposure to different cultures through enrichment, guest speakers, clubs or special field trips.

Elementary programs include total (or full) immersion programs in Spanish at Rock Creek Forest ES and in French at Maryvale ES and Sligo Creek ES. In these programs, students learn

[66] Information in the text box from: Memorandum to the Board of Education from Jerry Weast, Superintendent of Schools re: Dialogue on Foreign Language Offerings (October 27, 2008).

all core subject areas—reading, writing, mathematics, social studies, and science—in the target language. Partial immersion programs are offered in Spanish at Burnt Mills ES and Rolling Terrace ES and in Chinese at College Gardens ES and Potomac ES. These programs include instruction of *a portion* of the curriculum in the target language, with the remaining portion taught in English. Since 2007, MCPS also has offered a dual language program in Spanish at Kemp Mill ES which only serves the home student population, and therefore was not included in the study.

A random lottery process is conducted to select students to fill the available kindergarten seats per school per year (as presented in Exhibit 3), as well as any Grade 1 seats that may become available. Students who want to enter a program starting in Grades 2 through 5 must pass a test to ensure that they have the required language proficiency to enter the program in those grades.

MCPS offers a sibling link for applicants with an older sibling currently attending the program in Grades K-4, which provides automatic admission to the program. In addition, the programs at Burnt Mills ES, Potomac ES, and Rolling Terrace ES give preference to students in the home school population and accept other students when there are available seats. Transportation is provided for elementary language immersion students through centralized bus stops, with the exception of Burnt Mills ES for which no transportation is provided outside the attendance area.

Exhibit 3: Number of Seats and Geographic Areas Served by Elementary Language Immersion Program

Program	Number of seats available	Geographic area(s) served
Rock Creek Forest ES: Spanish (total)	52 /grade	Countywide
Rolling Terrace ES: Spanish (partial)	52 /grade	Local then countywide†
Burnt Mills ES: Spanish (partial)	26 /grade	Local then countywide †
Maryvale ES: French (total)	52 /grade	Regional^
Sligo Creek ES: French (total)	52 /grade	Regional ^^
College Gardens ES: Chinese (partial)	26 /grade	Countywide
Potomac ES: Chinese (partial)	26 /grade	Local then countywide †
Total	**286/grade**	

† Open to other students based on space availability.

^ Open to students in following high school clusters: Blake, Paint Branch, and Springbrook (based on address); Churchill; Damascus; Gaithersburg; Magruder; Richard Montgomery; Northwest; Poolesville; Quince Orchard; Rockville; Seneca Valley; Sherwood; Watkins Mills; Wheaton; and Wootton.

^^Open to students in following high school clusters: Blake, Paint Branch, and Springbrook (based on address); Blair, Bethesda-Chevy Chase, Einstein, Walter Johnson, Kennedy; Northwood; and Whitman.

The lottery for elementary language immersion programs is conducted in the spring of each year for rising kindergarten students and for any Grade 1 slots that become available. Prospective families must complete an interest form which is available on the district's website and at all elementary schools. Open houses and information meetings are hosted by schools that house

language immersion programs from October through April of each year. Information about the programs is also included in the district's *Options* booklet and is posted on the district website.

Middle school programs. Students who attend elementary school language immersion programs are permitted to articulate into programs at designated middle schools if they submit a request for continuation.[67] In 2013–14, middle school language immersion programs were offered in Spanish at Westland MS and Silver Spring International (SSI) MS; in French at Gaithersburg MS and SSI MS; and in Chinese at Herbert Hoover MS. These programs are designed to offer a vertical articulation pattern for elementary immersion students. Additionally, a limited number of slots are available for students who have not attended an elementary school immersion program to test into the middle school programs. Middle schools programs provide partial immersion in which students in Grades 6 and 7 enroll in two periods of language instruction in the target language, which is taught similarly to a middle school English class, and in a World Studies course taught in the target language. In Grade 8, students take one language class in the target language. Transportation is not provided for middle school immersion students who live outside of the school's boundary. MCPS does not currently offer language immersion programs at the high school level, although immersion students can continue in higher level world language courses in certain high schools.

Timeline of middle school language immersion programs in MCPS:

- *1978: French immersion program opens at Eastern MS*
- *1983: Spanish immersion program opens at Westland MS*
- *1988: Spanish immersion program begins at Eastern MS*
- *1999: French and Spanish immersion programs move from Eastern MS to Silver Spring International MS*
- *2001: Chinese immersion program opens at Herbert Hoover MS*
- *2001: French immersion program opens at Gaithersburg MS*

Program-Level Findings

1. Number of seats and applicants

Applications to elementary language immersion programs outpace the supply of seats. For the 2013–14 school year, 619 rising kindergarten students applied for admission to elementary language immersion programs. Approximately 60% of applicants (N=369) were selected through the lottery to attend a program. Students who were not selected were placed on waitlists. The

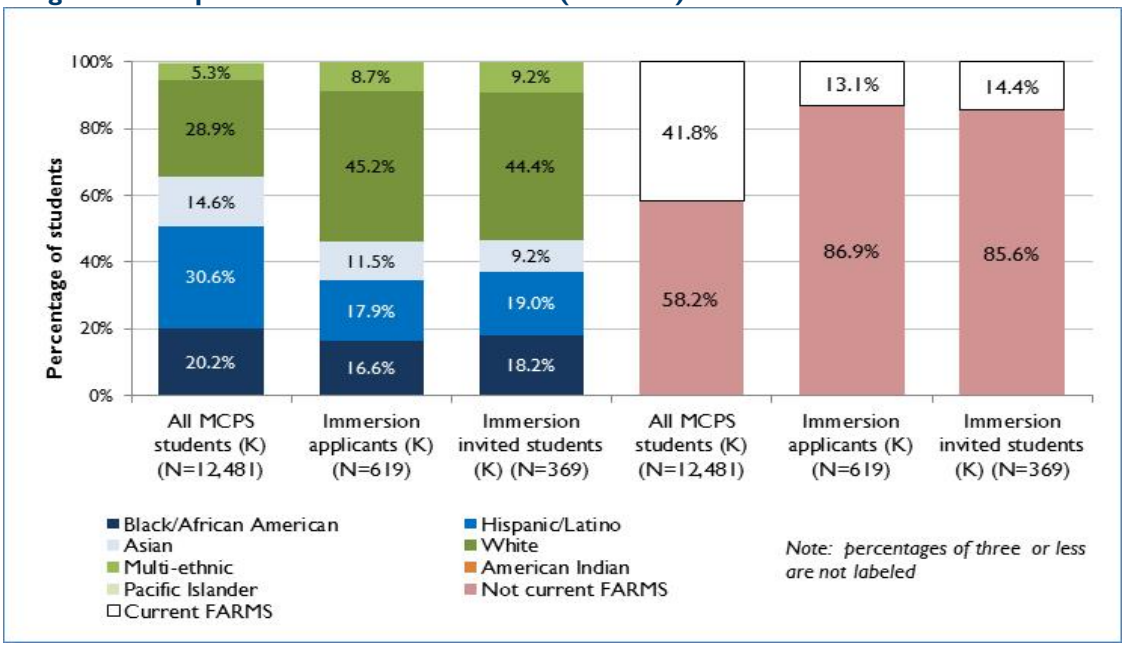
[67] Information in the text box from: Memorandum to the Board of Education from Jerry Weast, Superintendent of Schools re: Dialogue on Foreign Language Offerings (October 27, 2008).

high demand for the programs is also demonstrated in the proportion of applicants (49.3%) who applied to multiple programs. Most of these students (N=108) applied to two programs; 82 students applied to three programs; 43 applied to four programs; 43 applied to five or six; and 29 students applied to all seven programs.

Applicants to elementary language immersion programs were most likely to be White and not to be identified as eligible for FARMS during their kindergarten year. As shown in Exhibit 4, the proportion of White students (45.2%) in the elementary immersion applicant pool in 2013–14 exceeded the districtwide proportion of White students (28.9%) by 15.3 percentage points. Conversely, the proportion of Hispanic/Latino students who applied (17.9%) was 12.7 percentage points lower than the districtwide proportion of Hispanic/Latino students. The proportions of Black/African American students (16.5%) and Asian students (11.5%) were slightly lower than districtwide proportions (by 3.6 and 3.1 percentage points, respectively). Additionally, the proportion of FARMS students who applied to elementary language immersion programs was 28.7 percentage points lower, and the proportion of LEP applicants was 20.6 percentage points lower than the districtwide proportions for those subgroups.

Acceptance rates to elementary language immersions by student subgroup are not presented in the report because MCPS uses a random lottery to select students for the programs. Analyses showed that there were only minor disparities in the acceptance rates by race/ethnicity or socioeconomic status, which were primarily due to differences in the local school populations for programs that provided preference to local students.

Exhibit 4: Profile of Applicants and Invited Students to Elementary Language Immersion Programs Compared to District Enrollment (2013–14)



Siblings accounted for almost one in every five applications. For the 2013–14 school year, a total of 110 rising kindergarten applicants to elementary language immersion programs were siblings of students who were already enrolled in a program. These 110 students received admission to the programs with the sibling link—representing 29.8% of all students who were invited to enroll in a language immersion program. The proportion of siblings in the applicant pool varied by school. As shown in the textbox, applicants with sibling link ranged from a high of 45.8% at Rock Creek Forest ES to a low of 12.0% at Rolling Terrace ES.

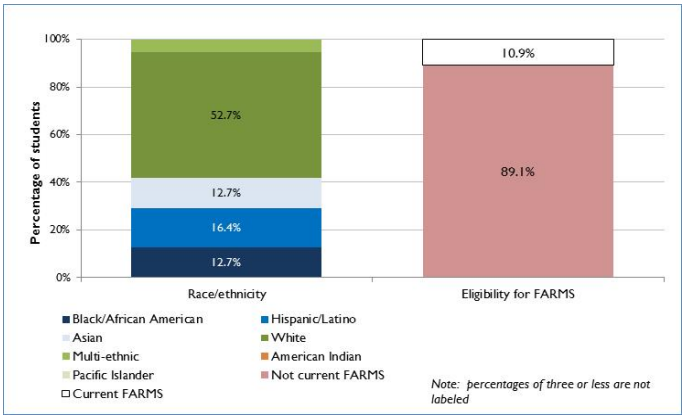
Applicants with sibling link by program:

- Rock Creek Forest ES — 45.8%
- Sligo Creek ES— 41.0%
- Potomac ES— 40.0%
- College Gardens ES — 32.3%
- Maryvale ES — 26.8%
- Burnt Mill ES — 16.7%
- Rolling Terrace ES — 12.0%

The demographic characteristics of applicants with a sibling link in the lottery were very different from the districtwide population. As shown in Exhibit 5, 52.7% of applicants with a sibling link were White, 16.4% were Hispanic/Latino, and 12.7% were each Black/African American and Asian. Furthermore, only 10.9% were eligible for FARMS. The number of LEP students was less than 10, and therefore data are not reported for this subgroup.

Invitations to language immersion programs through the sibling link impact equitable access because they reduce the number of spots available for new families. The sibling link, however, is important for families with more than one child and parents who cannot transport their children to more than one school because of work schedules or after-school commitments. Additionally, the sibling link provides opportunities to reinforce learning in homes where parents or guardians do not speak the language of instruction.

Exhibit 5: Profile of Elementary Language Immersion Applicants with Sibling Link (2013–14)



It should be noted that in June 2013, the Board proposed changes to the sibling exemption in Policy JEE, *Student Transfers*, to address inequities due to sibling links.[68] However, the Board encountered signification opposition to the changes from parents and community

[68] Memorandum to the Board of Education from Patricia O'Neill, Chair Board Policy Management Committee re: Rescission of Tentative Action for Policy JEE, *Student Transfers*. (November 12, 2013).

members; and as a result, acted in October 2013 to rescind the proposed policy changes pending further review.[69]

Six in 10 elementary language immersion students articulated to a middle school program in 2013–14. Among the 215 students who completed an elementary language immersion program, 60.9% entered Grade 6 in a language immersion program in middle school in 2013–14. The articulation rate was lower among students who were eligible for FARMS (51.7%) than for non-FARMS students (62.4%). Additionally, there were slight differences in articulation rates by subgroups by race/ethnicity: the rates were slightly higher for Asian (65.0%) and White students (64.4%) than for Hispanic/Latino students (59.0%), multi-ethnic (55.0%) or Black/African American (54.3%) students. The number of LEP students who completed an elementary language immersion program was less than 10, and therefore data are not reported for this subgroup.

There were also differences in articulation rates into middle school immersion programs by elementary school. Sligo Creek ES, Rock Creek Forest ES, and Potomac ES had the highest rates of students articulating to a middle school language immersion program (77.8%, 76.8%, and 79.2% respectively). The proportions from other schools were lower: 50% at College Gardens ES, 45.7% at Maryvale, 42.9% at Rolling Terrace, and less than a quarter (23.1%) at Burnt Mills ES.

2. Profile of language immersion students

The demographic profile of language immersion students does not reflect the district's student population. In 2013–14, 1,539 MCPS students were enrolled in elementary language immersion programs, representing 2.1% of all elementary students in MCPS. Among language immersion students, there was a higher proportion of White students and lower proportions of Hispanic/Latino students, students who are eligible for FARMS and special education students than are found across the district population. The number of LEP students in elementary language immersion programs was less than 10, and therefore data are not reported for this subgroup. As shown in Exhibit 6, the proportion of White students in language immersion programs was 16.1 percentage points higher than in the districtwide population, while the proportion of Hispanic/Latino was 11.4 percentage points lower. The proportions of FARMS was more than 28 percentage points lower than the proportions districtwide; and the proportion of special education students was 6.8 percentage points lower than districtwide.

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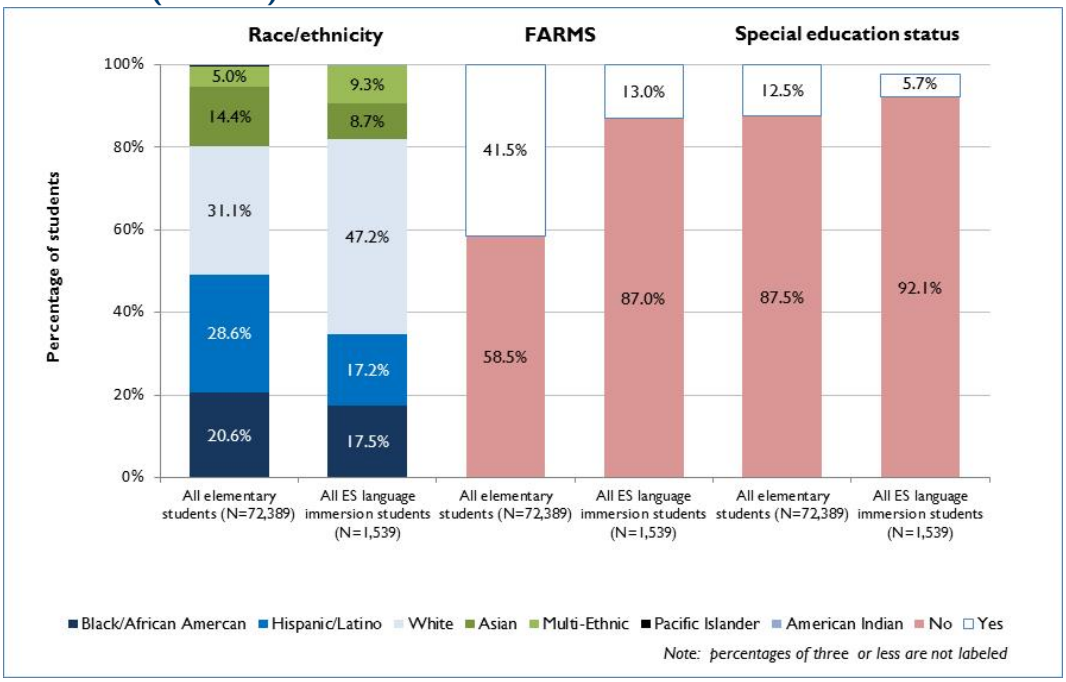
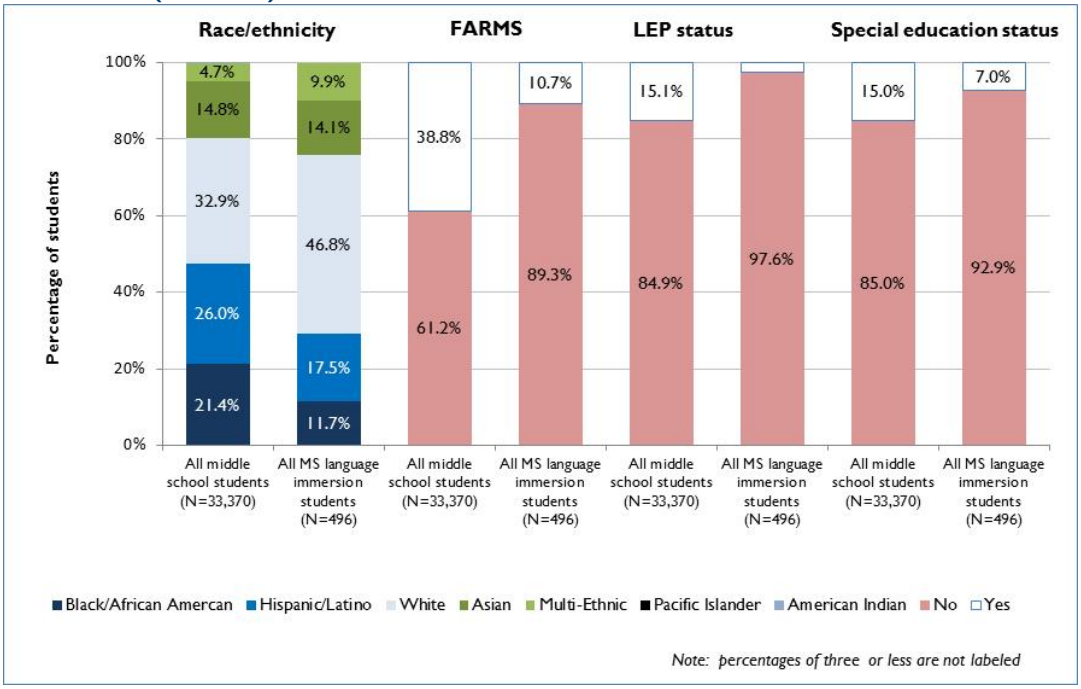
[69] Memorandum to the Board of Education from Patricia O'Neill, Chair Board Policy Management Committee re: Update Regarding Policy JEE, *Student Transfers*. (April 29, 2014).

Exhibit 6: Profile of Elementary Language Immersion Students Compared to Districtwide Enrollment (2013–14)



In 2013–14, the middle school language immersion programs served 496 middle school students, or 1.5% of all middle school students in MCPS. Findings about the demographics of the student population served in middle school program were similar to those of elementary programs: the language immersion student population included lower proportions of Hispanic/Latino students, Black/African American students, students who were eligible for FARMS, LEP students, and special education students than the middle school student population districtwide. These data are presented in Exhibit 7.

Exhibit 7: Profile of Middle School Language Immersion Students Compared to Districtwide Enrollment (2013–14)



Focus group participants attributed lower enrollments of Hispanic/Latino, low-income, and LEP students in language immersion programs to limitations in parental awareness of the program options for their children. Across focus groups with school and district staff, parents, and principals, respondents reported that applying to elementary language immersion programs requires substantial independent research on the part of parents and a high level of parent "savvy" and resources. They noted that, although MCPS conducts outreach activities to share information about the language immersion programs, parents must know to look for the information, adding that independent research may be challenging for parents who work multiple jobs or who do not speak English as a first language. Additionally, parents who have not had prior experiences enrolling a child in MCPS may be disadvantaged because they must submit applications for kindergarten seats in elementary language immersion programs before students are enrolled. Almost all of the parents in the focus groups reported that they had learned about the language immersion programs through social networks or at their child's preschool. Again, this may disadvantage parents who do not have equal access to social networks or preschool programs. Some comments on this topic included:

> "*There is pressure from parents to have language immersion programs. For Latinos…[our] students have the least access to it. Lottery parents who know how to play the game and work the lottery system do. The Latino community is not the parents that realize the benefit of knowing two languages.*" – *Community leader*

"Language and culture in the Latino population is different. Many parents respond better to people to people contact than email or paper."– Community leader

3. Academic outcomes of language immersion students

Academic levels of language immersion students are high and exceeded levels of non-language immersion students in the same schools. At the elementary level, language immersion students demonstrated high levels of achievement on the district's reading and math academic milestones. In 2013–14, 91.6% of elementary language immersion students met the Grade 3 reading milestone, 100% met the Grade 5 reading milestone, and 99.0% met the Grade 5 math milestone. These proportions were significantly higher than among non-language immersion students in the schools that house the programs and were higher than district averages. Across all elementary schools with immersions programs, the proportion of immersion students who met the Grade 3 reading milestone in 2013–14 exceeded that of non-language immersion students in the same schools by 17.4 percentage points. The difference between the two groups on the Grade 5 reading milestone was 13.9 points, and on the Grade 5 math milestone was 19.8 points. The differences on each milestone were statistically significant.[70]

Among language immersion students, there were achievement gaps between racial and ethnic groups on the reading milestone in Grade 3; but these gaps were not observed in Grade 5. The analysis of 2013–14 milestone data showed that on the Grade 3 reading milestone, there were statistically significant achievement gaps among language immersion students across all programs by race/ethnicity. The proportions of Black/African American (79.1%) and Hispanic/Latino (86.7%) language immersion students who met the Grade 3 reading milestone were lower than of White (96.1%) and Asian (100%) language immersion students. The differences were statistically significant.[71] On the Grade 5 reading and Grade 5 math milestones, these gaps were smaller and not statistically significant.

A similar finding was found when the data were disaggregated by eligibility for FARMS: 93.4% of students who were not FARMS-eligible met the Grade 3 reading milestone compared with 78.8% of students who were eligible for FARMS, and the difference was statistically significant.[72]

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[70] Grade 3 Reading: Language immersion students to home school population ($p<.05$, Pearson's Chi-Square=31.974); Grade 5 Reading: Language immersion students to home school population ($p<.05$, Pearson's Chi-Square=34.363); Grade 5 Math: Language immersion students to home school population ($p<.05$, Cramer's V =.275).

[71] Grade 3 Reading: Black/African American students to White students ($p<.05$, Pearson's Chi-Square=12.275); Grade 3 Reading Black/African American students to Asian students ($p=.016$, Cramer's V =.294); Grade 3 Reading Hispanic/Latino students to White students ($p = .027$, Pearson's Chi-Square=4.901); Grade 3 Reading Hispanic/Latino students to Asian students (Not significant).

[72] Grade 3 Reading: FARMS students to non-FARMS students ($p = .005$, Pearson's Chi-Square=8.061); Grade 5 Math: FARMS students to non-FARMS students ($p<.05$, Cramer's V =.254).

These gaps were not observed on the Grade 5 reading milestone and were smaller on the Grade 5 math milestone.

Exhibit 8: MCPS Grade 3 Reading Data—Percentage of Students by Race/Ethnicity and FARMS Eligibility Meeting the Milestone (2013–14)

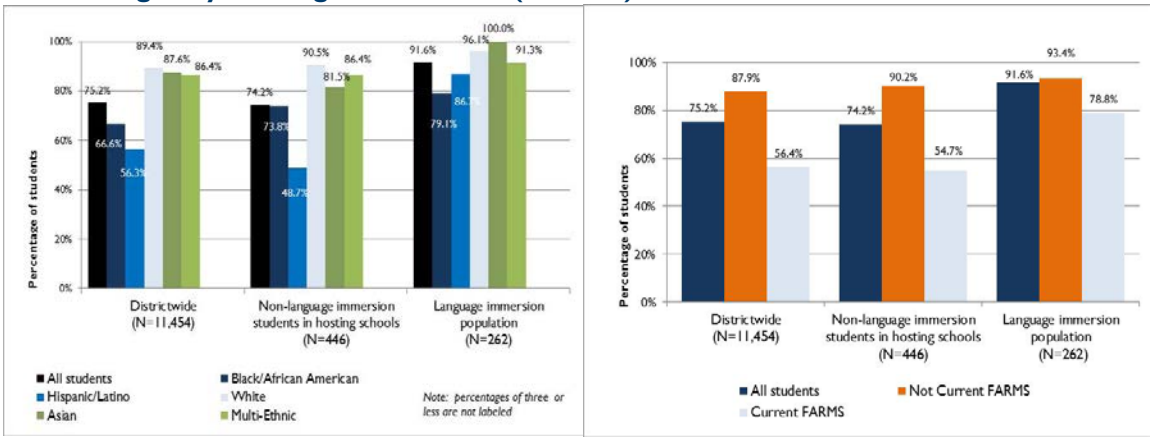


Exhibit 9: MCPS Grade 5 Reading Data—Percentage of Students by Race/Ethnicity Meeting the Milestone (2013–14)

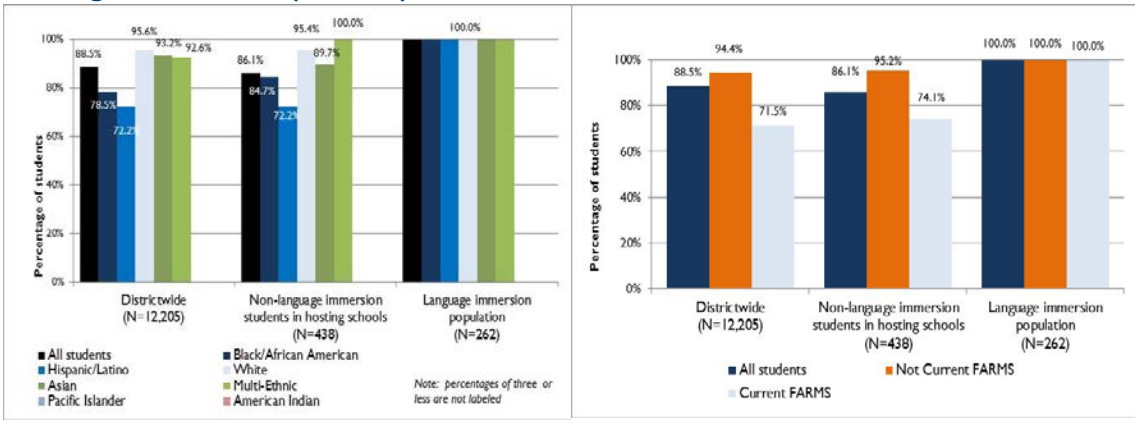
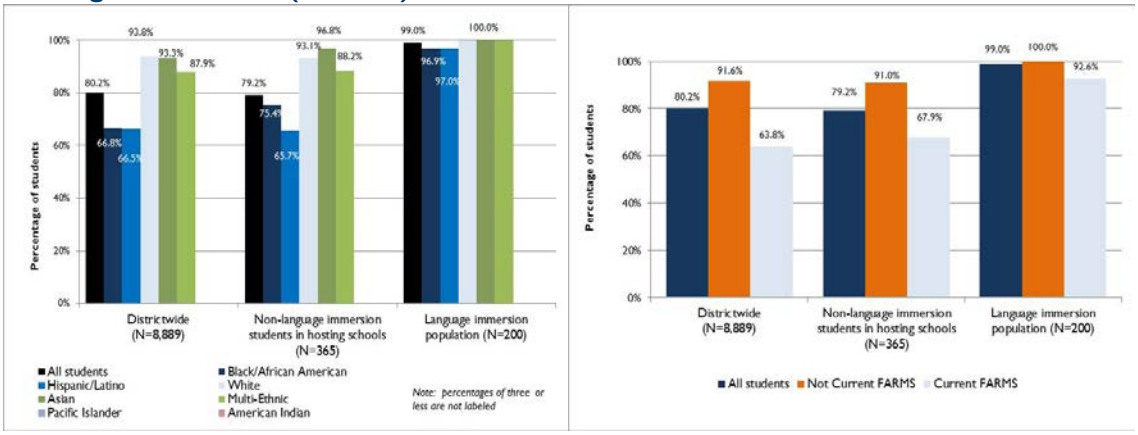


Exhibit 10: MCPS Grade 5 Math Data—Percentage of Students by Race/Ethnicity Meeting the Milestone (2013–14)



Middle school language immersion students also demonstrated high levels of achievement on MCPS milestones and exceeded those of non-language immersion students in the schools that house the programs, as well as districtwide average achievement levels. All (100%) of middle school language immersion students across programs met the Grade 8 reading milestone in 2013–14, compared with 84.6% of non-language immersion students in the same schools, and the differences was statistically significant.[73] In Algebra I, 85.6% of all language immersion students met the milestone, which exceeded non-language immersion students in the same schools by 23.2 percentage points and students districtwide by 29.6 points. The differences were statistically significant.[74]

Achievement gaps on the Algebra I milestone were seen among language immersion students by race/ethnicity and income level. Overall, 85.6% of all middle school language immersion students met the Algebra I milestone by Grade 8 in 2013–14. By race/ethnicity, the data show achievement gaps that were statistically significant between Black/African American students (60.0%) and White students (93.1%), and between Hispanic/Latino students (71.4%) and White students (93.1%).[75] All Asian students met the milestone. A similar finding was noted when the data were disaggregated by FARMS eligibility: 57.9% of students who were eligible for

[73] Grade 8 reading: Language immersion students to home student population ($p<.05$; Cramer's V=.152).

[74] Algebra I: Language immersion students to home school population ($p<.05$, Pearson's Chi-Square = 37.240); Algebra I: Language immersion students to district population ($p<.05$, Pearson's Chi-Square = 64.724).

[75] Algebra I: Black/African American students to White students ($p<.05$; Cramer's V =.400); Algebra I: Hispanic/Latino students to White students ($p<.05$, Cramer's V =.292).

FARMS met the milestone compared to 88.8% of students who were not eligible for FARMS (Exhibit 12).[76] There were no observed achievement gaps on the Grade 8 reading milestone.

Exhibit 11: MCPS Grade 8 Reading Data—Percentage of Students by Race/Ethnicity and FARMS Eligibility Meeting the Milestone (2013–14)

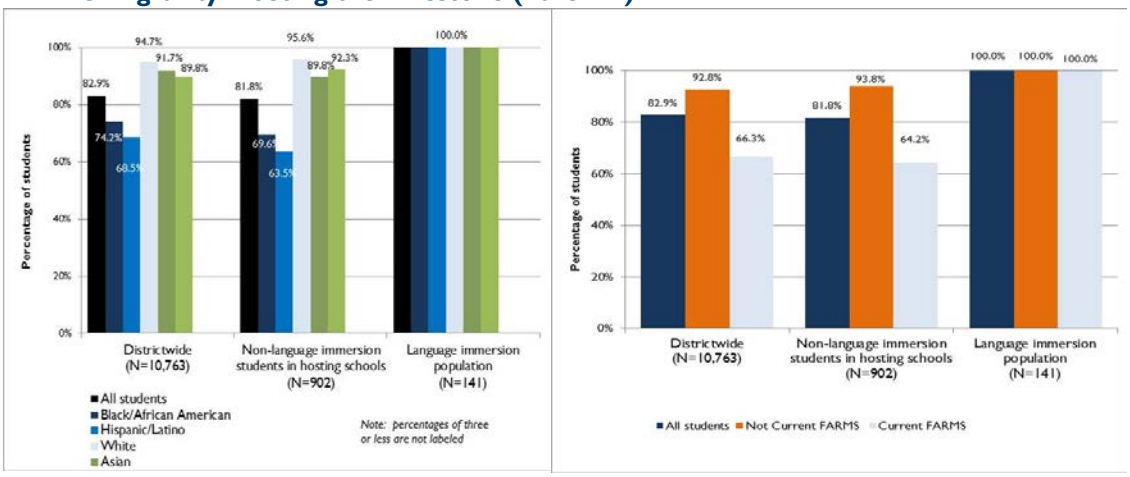
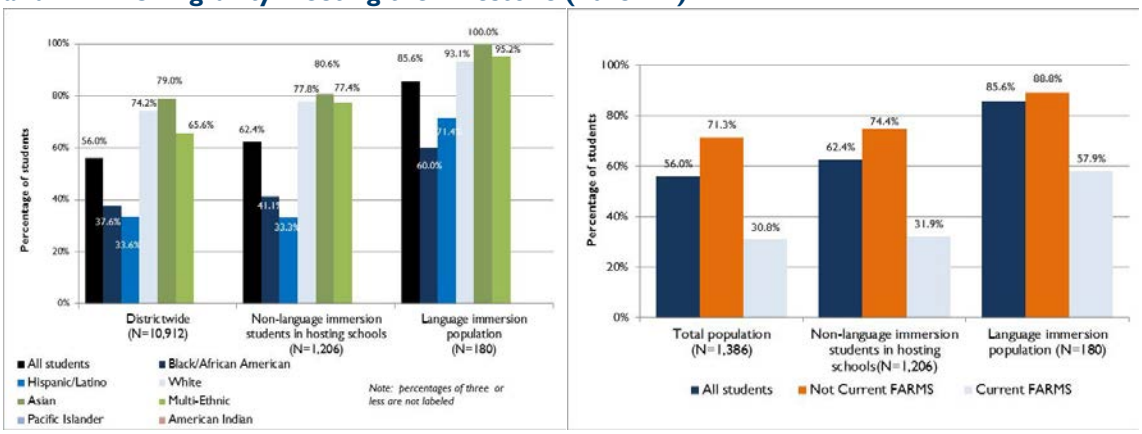


Exhibit 12: MCPS Algebra I by Grade 8 Data—Percentage of Students by Race/Ethnicity and FARMS Eligibility Meeting the Milestone (2013–14)



4. Perceptions of parents, students, and staff of language immersion programs

Parents and students in language immersion programs place a high value on the cognitive and academic benefits of learning a second language. Parents in the focus groups

[76] Algebra I: FARMS students to non-FARMS students ($p<.05$; Pearson's Chi-Square = 13.152).

overwhelmingly agreed that they chose the language immersion programs for their children because of the documented cognitive and developmental benefits of these types of programs. Students agreed; as an example, one middle school language immersion student stated:

> "*I think that taking Spanish as a whole kind of opens you up to different cultures and allows you to communicate with a whole different variety of people. I think that's a little more interesting than people who don't open themselves up to different languages because they don't have the experience of knowing what it's like to communicate in that kind of way.*"

Other reasons why parents enrolled their children in the programs were so they could learn the native language of their family to communicate with extended family members or because they felt that the language immersion programs would provide more rigorous academic experiences than were available in their home school.

The lack of vertical articulation and language immersion programs at the high school level, however, is a major concern for language immersion families. Parents, staff, and students in language immersion programs expressed serious concerns about MCPS's lack of vertical planning for language immersion especially at the high school level. As one parent articulated, "*The immersion programs lack purpose and a goal in the long term. When a kid starts in kindergarten, what is the vision when they graduate from high school? What do you want them to give back to this county? What do you want them to give back to the U.S.?*" Furthermore, parents and students expressed concerns that students may not be able to become fully bilingual or bi-literate unless the language immersion programs are planned as a K-12 continuous pathway. As a student stated, "*I think that they should keep it going and have more Spanish immersion programs especially in high school because it gives us so many more opportunities, especially with jobs. There are a lot more job opportunities and it will really help you in life.*" This viewpoint was also clearly articulated by a community leader in Montgomery County who stated:

> "*There is no well-articulated policy on language. There is no strong message that MCPS wants to reward, praise, and provide opportunities for language education. There used to be a diversity of languages in more schools and in more languages. If programs were seen as valuable, we would have many more than we do now.*"

Other concerns raised during focus groups included insufficient funding for language immerison programs and limited preparation of elementary language immersion students for middle school courses in English. During focus groups, parents and staff expressed concerns that schools that house elementary language immersion programs do not receive enough additional funding or resources to purchase instructional materials for the target language of the program. They added that the limited funding for the programs could take resources away from students in the local school population as well as the language immersion students. Furthermore, staff and parents reported that teachers often need to translate materials because they cannot find resources that align with the MCPS curricula. This can be especially

challenging when teachers need to access language immersion resources to use with students who have IEPs. The limited supply of language immersion resources for students with IEPs, they felt, can impact equity of access for students with disabilities.

Some middle school language immersion students also reported during focus groups that because they received limited instruction in English in elementary school, they felt under-prepared for English instruction in middle school. This concern is articulated in the following student comments:

> "*We didn't have any English classes in elementary school. I did really poorly here at the beginning in all subjects because all were in English. I had all been taught in Spanish and didn't know a lot of things in English, how to say things.*"

> "*Especially math was really hard. I know this word in Spanish, but I don't know how to say it in English. English is also really hard. I had to read all these books. Mom taught me how to read. But at [elementary school], they had no English classes for us. There should at least have one class in English or something from the beginning.*"

> "*We had writing in 5th grade but still didn't teach us grammar or spelling.*"

Regardless of these concerns, many parents and students agreed that MCPS should expand language immersion programs. On the community survey, for example, 62% of the respondents reported that MCPS offers *too few* language immersion programs, compared with 29.3% who said there is the *right amount* and 8.7% who said there are *too many*. This sentiment was also expressed during focus groups, as articulated in the following focus group participant quotes:

> "*I think it's a little unfair because just the number of people on the waiting list really shows you that these people want to learn these languages.*" – *MCPS student*

> "*There's so much demand. It's the most amazing program and our whole family has really benefitted from it, and why it can't be expanded.*" – *MCPS parent*

> "*If you are going to have these full immersion programs, make it to available to everyone or put it in the whole school somehow, but honestly it is mind-numbing to me that we are in this place that is one of the most internationally and linguistically diverse in the entire country and yet we have not grown the program.*" – *MCPS parent*

> "*If they are really concerned about excellence and preparing kids for the 21st century like they talk about, this should not be a tiny program, this should be something that is main-stream. It should not be an add-on.*" – *MCPS parent*

5. Impact on sending schools

Elementary language immersion programs attracted students who were zoned to attend 72 different elementary schools across MCPS in 2013–14; but the movement of students from home schools to elementary language immersion programs had very little effect on the academic outcomes in the sending schools. In 2013–14, kindergarten students who were zoned to attend 72 different elementary schools across MCPS did not to attend their home school but rather enrolled in an elementary language immersion program. Only eight schools had more than five kindergarten students within its attendance zone who enrolled in an elementary language immersion program. These schools were: Takoma Park ES (15 students); Woodlin ES (13 students); Flora M. Singer ES (9 students); Highland View ES, Bel Pre ES, and Roscoe R. Nix ES (each with 8 students); and Montgomery Knolls ES and Twinbrook ES (each with 7 students). An analysis of MCPS elementary milestone data indicated that the movement of students to elementary language immersion programs had minimal impact on school-level academic outcomes of the 72 schools that language immersion students were originally zoned to attend based on their home address.

6. Impact on schools in which the programs are located

Although language immersion programs were initially developed to promote diversity and reduce racial isolation in schools, they have created perceptions of within-school separation among immersion and local student populations. Elementary language immersion programs in MCPS, as designed, have produced increased racial and ethnic diversity within the schools where they are located by attracting out of boundary students to attend the school. However, differences in the demographic characteristics of the out of boundary language immersion students and the non-immersion local student populations, as well as the isolation of students in the classes based on language of instruction, have produced perceptions of within-school separation for language immersion programs. These concerns were expressed during parent and staff focus groups. In fact, it was mentioned in several of the focus groups that the programs function as two separate schools within one building. Focus groups respondents provided the following quotes on this point:

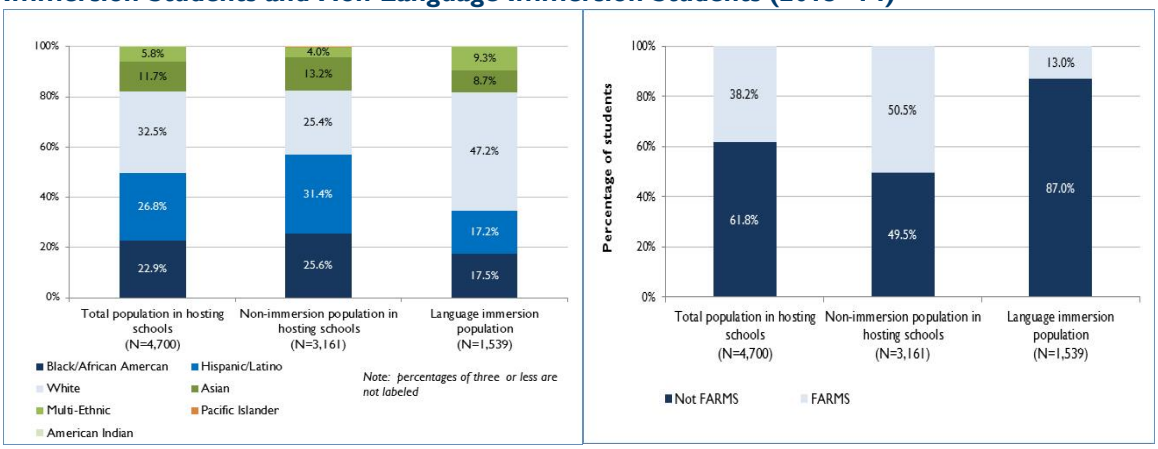
> "*The school is predominantly brown and immersion classes are White. It looks like they are busing in White classes. There are separate schools. It is hard to integrate when students live in different areas and take long bus rides.*" — *MCPS parent*

> "*The students do not mix classes so they don't get to know each other. When a neighborhood school has to name their program the English Academy and the Spanish Immersion program, that creates a divide. Why do we have to name a program where our children go to school?*" — *MCPS parent*

"I don't think there are opportunities for more [interactions] because when you have a program that relies on instruction in a target language, when you mix the kids with students who are not in the programs, you can't speak the target language." — MCPS staff

The perceptions of within-school separation are aggravated by the differences in the demographic characteristics of the language immersion and non-language immersion student populations. These data are shown in Exhibit 13. These differences were observed in each of the elementary language immersion schools to varying degrees, with the exception of Potomac ES.

Exhibit 13: Enrollment by Race/Ethnicity and Eligibility for FARMS—Elementary Language Immersion Students and Non-Language Immersion Students (2013–14)



Focus group respondents did not report any impact on the middle school language immersion programs on the hosting schools. In fact, parents, staff, and students reported that language immersion students are fully integrated into the schools and are only separated for the language classes.

The addition of language immersion students from higher socioeconomic groups to lower-income home school populations can impact a school's Title I status. During focus groups, staff and parents in schools that house language immersion programs raised the concern that adding language immersion students who are generally not eligible for FARMS to the larger school population can contribute to a decrease in the school's overall proportion of FARMS-eligible students, thus jeopardizing the school's eligibility to receive Title I funding. Although MCPS also provides differentiated funding for focus schools that have significant FARMS populations but do not qualify for Title I status, the loss of Title I funding impacts the availability of extra supports students receive in order to reduce achievement gaps and help overcome obstacles associated with low-income levels. As two staff members remarked:

"Our community is a very challenged community. Socioeconomically, we would be a Title I school if we didn't have an immersion program. Looking at the local children, [you] see the achievement gap

kids; but the resources they are entitled to, they do not get and [that] impacts their learning greatly." – MCPS staff

"*The programs were designed to look on good paper. Parents look on [the] school website and it's great because the numbers appear so diverse. But they walk into the school and see the immersion class is White and the community classes are the African American students." – MCPS staff*

7. Staffing and transportation costs for language immersion programs

According to data provided by MCPS, the additional incremental costs for staffing and transportation associated with the elementary and middle school language immersion programs for the current school year (2015–16) total approximately $1,860,804. This total includes $135,804 for district-level staff and program resources, including portions of the salaries of a program director, supervisor, instructional specialists, a data management coordinator, and site-based administrative staff to support program enrollment and temporary part-time personnel. Additional costs are spent for local travel to support program implementation, as well as costs to translate and create materials for these programs. In addition, each elementary language immersion program receives incremental staffing of a 1.0 full time equivalent (FTE) staff for a full immersion program or 0.5 FTE for a partial immersion program, which totals approximately $575,000 across the seven programs. Middle school programs do not receive addition staffing at the school level beyond their local allocation.

MCPS operates an additional 20.66 bus routes for elementary language immersion students for a total cost of $1.15 million. The amount represents the incremental cost for transportation, above the costs that MCPS would normally incur for transporting the same students to home schools. Middle school immersion students do not receive transportation.

8. Research and benchmarking

Specialized language programs have expanded across the U.S. due to the cognitive and social benefits attributed to bilingualism. Traditional, or one-way, language immersion programs, such as those currently offered in MCPS, were first introduced in the U.S. in 1971 to provide native English speakers with unique opportunities to learn a second language. Over the past 40 years, the number of this type of language immersion programs in the U.S. has increased exponentially—from just three in 1971 to 448 in 2011.[77] About half of the programs provide

[77] Center for Applied Linguistics, Growth of Language Immersion Programs in the U.S., 1971-2011, available at http://webapp.cal.org/Immersion/

instruction in Spanish; yet programs also provide instruction in a variety of other languages, including French, Mandarin Chinese, Japanese, Hawaiian, and German, among others.[78]

Demand for traditional language immersion programs has been driven by parent and educator response to published academic research highlighting the benefits of bi- and multi-lingualism to children's cognitive and brain development.[79] Studies have shown that bilingualism is reliably associated with the variety of cognitive outcomes, including increased attentional control, memory, and linguistic development and awareness.[80] Additionally, bilingualism is associated with mental flexibility, creative thinking, and communication skills, and does not compromise students' overall academic achievement in either language.[81]

An increasingly popular model across the U.S. is the two-way or dual language immersion program that is designed to build bilingualism among both native English speakers and native speakers of other languages. Dual language immersion (DLI) is an instructional model that integrates native English speakers and native speakers of another language to provide instruction in core subjects to both groups of students in both languages.[82] The DLI model has gained popularity over the past 15 years. Statistics from the Center for Applied Linguistics (CAL) indicate that there are more than 450 dual language immersion programs currently operating in the U.S.[83] This increase has resulted from the growth in non-native English speaking students in the U.S. public education system, as well as findings from academic studies about the positive impacts of DLI on increasing student academic achievement and promoting linguistic and cultural equity.[84,85] A recent study of DLI programs in Portland Public Schools in Oregon, conducted by the RAND Institute with funding from the U.S. Department of Education's Institute for Education Sciences, found that students who were randomly assigned to DLI

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[78] Center for Applied Linguistics, Growth of Language Immersion Programs in the U.S., 1971-2011, available at http://webapp.cal.org/Immersion/

[79] Donke, Lisa. (2015). Integrating Language and Content Instruction in Immersion Classrooms: Literature Review. *MSU Working Papers in Second Language Studies, 6*(1), 49-62.

[80] Adesope, Olusola O. (2010). A Systematic Review and Meta-Analysis of the Cognitive Correlates of Bilingualism. *Review of Educational Research, 80*(2), 207-245.

[81] Lazaruk, Wally. (2007). Linguistic, academic, and cognitive benefits of French immersion. *Canadian Modern Language Review, 63*(5), 605-627.

[82] Howard, Elizabeth R., Sugarman, Julie, & Christian, Donna (2003). *Trends in Two-Way Immersion Education: A Review of the Research*. Baltimore: Center for Research on the Education of Students Placed At Risk.

[83] http://www.cal.org/twi/.

[84] Alvear, Sandra. (2015). *Reading Achievement Among English Language Learners: Evidence of Two-way Bilingual Immersion Advantages*. Houston: Houston Education Research Consortium, Rice University Kinder Institute for Urban Research.

[85] Sugarman, Julie. (2012). *Fostering Linguistic and Cultural Equity in Dual Language Programs*. Presented at The New York State Association for Bilingual Education.

programs outperformed control group students in English test scores, and there were no statistically significant differences in math or science performance.[86] Additionally, extensive research conducted by George Mason University professors Wayne Thomas and Virginia Collier has highlighted the academic and social benefits of DLI, including implementation of high quality language arts instruction, support for positive interdependence among students of different cultures, and active school-family partnerships.[87]

Research also indicates that the DLI model has been effective in meeting the academic and language needs of all students and providing equitable educational opportunities that do not emphasize instruction in one language group over another.[88] English language learners are able to continue building proficiency in their home language in an academic environment while gaining English proficiency that is required for high school graduation.[89] Additionally, native speakers of both languages receive instruction necessary to close the achievement gap while engaging in challenging and accelerated—not remedial—instruction.[90]

Most DLI programs offer instruction in Spanish and English, but they have expanded to include other languages such as Mandarin Chinese, French, German, Italian and Japanese.[91] In recent years, there has been interest at the national level to expand DLI programs to address languages that the National Security Agency has defined as "critical need languages" for global security and competitiveness. [92] These languages include Chinese, Arabic, Hindi, Persian, Urdu, Swahili, Turkish, Dari, Russian, Portuguese, and Korean. Development of DLI programs in these languages is the focus of STARTALK, an initiative launched in 2006 by the Director of National Intelligence that is being implemented in collaboration with the National Foreign Language Center at the University of Maryland.[93]

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[86] RAND (2015). *Study of Dual-Language Immersion in the Portland Public Schools Year 4 Briefing.* Retrieved from http://res.cloudinary.com/bdy4ger4/image/upload/v1446848442/DLI_Year_4_Summary_Nov2015v3_1_jwny3e.pdf

[87] Thomas, W. P., & Collier, V. P. (2002). *A national study of school effectiveness for language minority students' long-term academic achievement.* Santa Cruz, CA: Center for Research on Education, Diversity, and Excellence, University of California-Santa Cruz.

[88] http://www.idra.org/IDRA_Newsletter/April_2012_Curriculum_Quality/Two-Way_Dual_Language_Immersion_Programs/

[89] Howard, E.R., Sugarman, J. & Christian, D. et al. (2007). *Guiding Principles for Dual Language Education* (2d ed.), Washington, DC: Center for Applied Linguistics.

[90] Thomas, W. P., & Collier, V. P. (2003). The Multiple Benefits of Dual Language. *Educational Leadership, 61*(2), 61-64; Collier, V.P., & Thomas, W.P. (2014). *Creating Dual Language Schools for a Transformed World: Administrators Speak.* Albuquerque, NM: Dual Language Education of New Mexico – Fuente Press.

[91] Center for Applied Linguistics, available at http://www2.cal.org/jsp/TWI/SchoolListings.jsp.

[92] https://startalk.umd.edu/public/about.

[93] Ibid.

Research also shows that there can be some important challenges that should be considered in development of new DLI programs. Staffing, for example, can be a challenge on multiple levels. First, schools are often challenged in finding enough highly qualified, licensed teachers who are native speakers or have adequate level of proficiency in the target language.[94] Furthermore, schools need a pool of substitute teachers with proficiency in the target language to fill in when dual language immersion teachers are absent due to personal reasons or for district training. DLI teachers also require specialized professional development to address the content, language, and literacy needs of non-native and native English speaking students in dual language programs. Second, programs face challenges with accessing appropriate curriculum, materials, and resources that meet local district, state, and national standards. Third, in upper elementary levels, it can be challenging for teachers to teach advanced-level subject matters because students' language proficiency levels are not yet as advanced as their cognitive development.[95]

Implementation of DLI programs at the secondary level also poses unique challenges. Schools have faced conflicts in course scheduling for DLI classes and find that programs may conflict with students' other educational priorities. Additionally, programs must reduce the exposure to the target language to less than 50% of instructional time in order for students to enroll in required courses as well as DLI classes.[96]

Five of the seven school districts used to benchmark MCPS's practices currently operate traditional language immersion or dual language programs.

- **Baltimore County Public Schools (BCPS)** currently offers an elementary language immersion magnet program in French at Wellwood International School. Students spend a portion of their day learning academic content in French and the other portion learning in English, with the goal that students will become fluent in French by the end of Grade 5. At the middle school level, BCPS offers world language magnet programs in Spanish, French, and Japanese at Sudbrook Middle Magnet School, and in Spanish at Deer Park Middle School. Students in these magnet programs have 90-minute classes in their chosen language five days a week. Students may earn up to three high school credits by successfully completing the language courses. The selection process for

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[94] Fortune, Tara Williams (2012). *What the Research Says about Immersion.* Minneapolis: Center for Advanced Research in Language Acquisition, University of Minnesota.

[95] Met, M. (2002). Elementary school immersion in less commonly taught languages. In R. D. Lambert & E. Shohamy (Eds.), *Language policy and pedagogy: Essays in honor of A. Ronald Walton* (pp. 139-160). Philadelphia: John Benjamins Publishing Co.

[96] Lindholm-Leary, Kathryn & Adelson-Rodriquez, Nenette (2015). *Secondary Dual Language Education.* San Jose State University and San Diego County Office of Education.

participating in this program is the same as for other middle school magnet programs, discussed below. BCPS does not operate any dual language programs. [97]

- **Wake County Public School System (WCPSS)** offers language immersion and dual language immersion programs as part of its menu of magnet programs According to the WCPSS, these programs "offer students an opportunity to develop English acquisition as well as a second language (Spanish or Chinese) development. The Standard curriculum is utilized throughout all of the language immersion programs. Students, however, take their literacy, math, social studies and sciences classes in a second language. While students are together for their immersion experience, they have the opportunity to participate in globally focused specials, taught in English during other parts of the day."[98]

  At the elementary school level, WCPSS offers programs at three schools, including one Mandarin Chinese language immersion program, one Spanish language immersion program, and one Spanish dual language immersion program. At the middle school level, WCPSS offers language immersion programs in Spanish and Mandarin Chinese as part of its global studies middle school program when "*a cohort of students arrive from a participating pathway elementary school.*" At the high school level, WCPSS offers language immersion in Spanish and Mandarin Chinese as part of its global studies high school program when student cohorts in these languages "*arrive from a participating pathway middle school.*"

- **Houston Independent School District (HISD)** offers language immersion programs at two elementary schools as part of their magnet programs. One of the schools offers Arabic and the other school offers Mandarin Chinese. Beginning with the 2016-17 school year, HISD will offer a French immersion program at another elementary school. These language immersion programs begin in pre-kindergarten. Students spend half the day in classes in the foreign language offered at the school and the other half in classes in English with native speakers in the language. In addition, HISD offers two dual language elementary magnet programs in Spanish, as well as local dual language programs at more than 50 schools. Finally, HISD has an elementary foreign language magnet, which provides students the opportunity to explore three languages – Mandarin Chinese, French and Spanish. There are no academic criteria for students to be accepted into any of these elementary programs.[99]

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[97] http://www.bcps.org/offices/omp/.

[98] http://www.wcpss.net/Page/173

[99] http://www.houstonisd.org/Page/91077.

At the middle school level, HISD has a foreign language magnet program at one school that introduces students to Mandarin Chinese, French, German, Italian and Spanish by rotating the languages during Grade 6. In Grades 7 and 8, students focus on one or two languages. Students are given the opportunity to earn a high school credit for taking one of the languages. In determining who will be accepted into this magnet school program, HISD considers grades and test results. At the high school level, HISD offers a world languages magnet program at one school, which offers students the opportunity to take the following languages: Arabic; Mandarin Chinese; French; German; Hebrew; Hindi; Italian; Japanese; Latin; Russian; and Spanish. To enroll in this program, students must take the Pimsleur Language Aptitude Test.

High school language programs in HISD can lead to a high school diploma with a certification of biliteracy.[100] The Seal of Biliteracy was developed in California in 2011 when it became the first state to enact legislation enabling schools and districts to offer certificate of biliteracy achievement with a high school diploma. Since then, 12 other states and the District of Columbia have enacted similar legislation and offer the Seal of Biliteracy, although Maryland has not.[101,102] Each state or school district develops a set of criteria for determining biliteracy, which generally includes completion of English and second language credits, course grades, and AP or IB exam scores. HISD offers the Seal of Biliteracy with its graduation diploma.

- **Fairfax County Public Schools (FCPS)** offers dual language immersion programs in Spanish and Korean in nine elementary schools. The elementary school program provides literacy instruction to native English speaking and native Spanish or Korean speaking students (depending on the program) for half a day in each language. The curriculum follows the district program of studies. Students who graduate from a DLI program in elementary school have opportunities to take language immersion courses in middle and high school.[103] FCPS offer students the opportunity to earn a Seal of Biliteracy upon high school graduation.

- **Jefferson County Public Schools (JCPS)** currently offers one dual language program, but does not offer language immersion. The program provides elementary dual language for students who are learning Spanish as a second language and students who are learning English as a second language. Students receive daily instruction in math and

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[100] http://www.houstonisd.org/Page/91077.

[101] www.sealofbilteracy.org.

[102] States that offer Seal of Biliteracy include CA, NY, IL, TX, NM, WA, LA, MN, VA, IN, NV, and HI and D.C.

[103] http://www.fcps.edu/is/worldlanguages/elementary.shtml.

science in Spanish; the other content areas are taught in English.[104] This program is an "optional program," which means that it is open to all students in JCPS, but JCPS only provides transportation to students who live within the elementary cluster serves by the school hosting the program. JCPS currently does not offer dual language programs at the middle and high school levels.

- **Hillsborough County School District (HCSD) and Clark County School District (CCSD)** do not offer language immersion programs.

Conclusion and Program-Level Recommendations

Language immersion programs in MCPS were originally designed to provide opportunities for students to gain proficiency in a second language and to promote voluntary student transfers to support racial and ethnic diversity in target schools. The programs are open to all MCPS students and do not use academic selection criteria for admissions at the primary entry points in kindergarten and Grade 1. Enrollment is based on a random lottery process that gives preference only to siblings of currently enrolled students and, in three programs, to local students. This section provides the following key findings about language immersion programs in MCPS:

- Language immersion programs have promoted diversity in schools that house the programs; as a result, however, the language immersion student population is demographically different from the non-language immersion student populations in the hosting schools.

- Demand for the language immersion programs exceeds the supply of seats, which limits access to the programs for many students through the lottery.

- Almost a third of the available kindergarten seats were assigned to siblings of currently enrolled students through the sibling link in the student transfer policy, which reduced the number of seats for non-sibling students and hindered equity of access.

- Student enrollment in language immersion programs does not reflect the racial, ethnic, or socioeconomic diversity of MCPS. Data for 2013–14 show that the proportions of White students in elementary and middle school immersion programs exceeded districtwide proportions by 16.1 and 13.9 percentage points, respectively. Furthermore, the proportions of Hispanic/Latino and Black/African American students were much lower than districtwide proportions. Furthermore, there were only small numbers of

[104] http://www.jefferson.k12.ky.us/schools/Elementary/Hawthorne/dual.asp.

LEP students in the programs, even though some of the programs were housed within schools with substantial LEP populations.

- MCPS does not provide a clear pathway for language immersion students to continue language instruction through high school. Middle school programs are limited, and MCPS does not currently offer language immersion programs at the high school level. This lack of a clear pathway is a factor contributing to the decision of 40% of the students who begin language immersion in elementary school not to continue into middle school.

- The additional incremental costs for staffing and transportation associated with the elementary and middle school language immersion programs for the 2015–16 school year total approximately $1,860,804. These costs include district-level staff and program resources, local travel to support program implementation, translation and materials, program staffing, and transportation through an additional 20.66 bus routes for elementary language immersion students.

- Academic research on language immersion programs indicates that many school districts are opting to implement dual language immersion programs, either in addition to or in lieu of the traditional one-way language immersion programs, such as those currently offered in MCPS. Dual language immersion programs are designed to meet the learning needs of both native English speakers and native speakers of other languages in classrooms that provide instruction in both English and another target language, often Spanish. Research has shown that dual language immersion programs are effective in supporting bi-lingualism among native English speakers, a skill that is strongly associated with improved cognitive and brain development, and supporting English language and other academic development among LEP students.

In light of these findings, MCPS should consider the following recommendations for the language immersion programs:

- Revise existing or develop new communication, outreach, and recruitment strategies to ensure that broad segments of the MCPS community, including students from diverse racial and ethnic and socio-economic backgrounds, as well as non-native English speakers, have access to the information and are aware of the program opportunities and the process and timeline for applying to elementary language immersion programs.

- Enhance equitable access to elementary immersion programs by revising Policy JEE, *Student Transfers*, to clarify that the sibling link for elementary language immersion programs is not automatic; while siblings should be able to attend the same school where the immersion program is located provided that there are available seats, those siblings should be required to participate in the immersion lottery to earn a seat in the program.

- Develop and enhance practices for all language immersion schools to ensure that language immersion and home school students have meaningful social and academic interactions—such as expanded use of specials or electives, common lunch or recess periods, and extracurricular programs—and that recruitment efforts are tailored to encourage local student populations to apply for the programs.

- Develop a defined articulation pattern for language immersion students from elementary through high school, including an option for achieving a certificate of biliteracy upon high school graduation (such as the Seal of Biliteracy).

- Establish a systemic approach to dual language programs, starting at the elementary level and building upon models in other districts that have proven successful at reducing achievement gaps and expanding equitable access, for both native and non-English speakers. MCPS should consider development of programs in traditional target languages, such as Spanish, as well as programs in critical need languages.

Elementary Center Program for Highly Gifted Students

Overview

In the mid-1970s, MCPS first introduced elementary gifted and talented magnets in the southeastern portion of the county as part of its implementation of Board Policy ACD. With the development of the elementary center program for highly gifted students in the 1980s and 1990s, however, MCPS's approach to elementary gifted magnets shifted to consider interests other than the program's integration-focused origins. As currently operated, the elementary center program is intended to align with Board Policy IOA, *Gifted and Talented Education*, which was developed in 1978 and subsequently amended in 1986 and 1995 to affirm MCPS's commitment to gifted and talented education and to the implementation of acceleration and enrichment of instruction throughout the district's entire academic program.

Policy IOA, as well as the associated Regulation IOA-RA, emphasize the importance of addressing the cognitive and affective needs of high achieving and potentially high achieving students in order to extend each child's intellectual boundaries, expressly recognizing, consistent with Section 8-202 of the Education Article of the Maryland Annotated Code, that "*these talents are present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavor.*" The Policy mandates differentiated programs and services for gifted and talented students, including those with other special needs, to ensure that they receive the level and pace of instruction that they require within local schools and in specialized programs.

Gifted and talented programming, as stated in Policy IOA, is offered across MCPS elementary schools through a program of "*challenging instruction, flexible grouping, and scheduling arrangements that allow time with intellectual peers in in-depth study,*" as well as supplemental programs, and ongoing communication with parents. MCPS identifies and recommends students for gifted and talented programming through the Student Instructional Program Planning and Implementation (SIPPI) process, a universal screening in Grade 2 and rescreening in later elementary grades as needed. The SIPPI process uses data collected through multiple measures, including a parent input form and survey, teacher survey, classroom performance data, and student achievement on a cognitive abilities aptitude test. Pursuant to MCPS Regulation IOA-RA, MCPS provides targeted outreach "*to ensure advocacy and gifted and talented placement for students in traditionally underserved and underrepresented populations in gifted and talented programs.*"

A separate selection process is used for the elementary center program for highly gifted students, which is designed to "*meet the needs of gifted and talented students for differentiated educational programs and service beyond those normally provided by the regular school program.*"[105]

MCPS currently operates seven elementary centers located in eight schools.[106] The elementary centers were placed strategically throughout the county to maximize access for students. Transportation is provided for students through the use of centralized stops. A map of the catchment areas for each center is included in Appendix E.

Exhibit 14: Number of Seats and Geographic Areas Served by Elementary Centers for Highly Gifted Students

Elementary Center	Number of seats	Clusters served
Dr. Charles R. Drew ES	52 /grade	Blake, Springbrook, Sherwood, Paint Branch
Cold Spring ES	52 /grade	Churchill, Wootton
Chevy Chase ES	52 /grade	Bethesda-Chevy Chase, Whitman
Lucy R. Barnsley ES	78 /grade	Walter Johnson, Richard Montgomery, Rockville, Wheaton
Fox Chapel ES	52 /grade	Clarksburg (only Daly and Fox Chapel ES), Northwest, Poolesville, Quince Orchard, Seneca Valley
Clearspring ES	78 /grade	Clarksburg (except Daly and Fox Chapel ES), Damascus, Gaithersburg, Magruder, Watkins Mill
Oak View ES	26 /grade	Einstein, Kennedy, Northwood, and Montgomery Blair
Pine Crest	52 /grade	
Total	**442/grade**	

MCPS defines "highly gifted" as performing two years above grade level. The definition does not include other definitions of talent, such as artistic, creative, or leadership. The elementary center program is designed for gifted and talented students who do not have an intellectual peer group in their home school and whose individual needs cannot easily be met at their home school. The specialized instructional program was developed by MCPS staff to extend and accelerate the MCPS curriculum with enrichment materials as needed. Project-based and interdisciplinary learning are integrated into classroom instruction on a regular basis. All elementary centers include gemstone projects which are conducted during the third or fourth

[105] http://www.montgomeryschoolsmd.org/uploadedFiles/curriculum/specialprograms/elementary/ElementaryHighlyGiftedCentersBrochure.pdf.

[106] One center is offered across two elementary schools: Oak View ES and Pine Crest ES.

quarter of each year to engage students in original and authentic learning experiences, such as writing, creating, and producing original plays or operas.

Admission to the elementary centers is determined by a competitive selection process in Grade 3. Separate selection committees for each elementary center, composed of 10 to 16 MCPS staff with diverse backgrounds and professional experience, review each applicant to determine a pool of invited students, waitlisted ("waitpool") students, and not invited students. The selection committees consider the following multiple measures.

- application form;
- total and percentile scores on a cognitive reasoning assessment administered to applicants, which appraises general abstract reasoning abilities and capacity to apply abilities to verbal, quantitative, and non-verbal tasks;
- teacher recommendations and other school-based input;
- report card data and other test scores;
- student factors including FARMS eligibility and ESOL or special education needs;
- unique circumstances; and
- current school attended to determine special academic needs and the presence or absence of an intellectual peer group of other highly able students.

Feedback from district staff indicated that while the committees use multiple measures, the cognitive abilities assessment administered to applicants and other test data weigh heavily in the selection process; in addition, the process does not generally consider data from the universal gifted screening process in Grade 2, discussed above.

Outreach for elementary centers for highly gifted students is conducted through direct mailing to all Grade 3 students in MCPS, district-coordinated information meetings for parents at selected schools conducted in English and Spanish, and targeted outreach through elementary school staff. Materials are provided in English, Amharic, Chinese, French, Korean, Spanish, and Vietnamese, and are shared through PTA and school newsletters, Connect-Ed messages in English and Spanish, MCPS QuickNotes, and backpack flyers. Information about the program is included in the district's website and in its *Options* booklet. In addition to parent meetings, workshops are conducted to support parents in multiple languages with understanding and completing the application. Program materials and information are provided to all elementary school-based gifted and talented liaisons and counselors in fall meetings and with principals through memoranda and meetings.

In addition to the elementary center program for highly gifted students, the **Takoma Park ES Primary Magnet** offers a rigorous science and social studies program for high-achieving students in Grades 1 and 2. Admission to the primary magnet is a competitive process with academic admission criteria and a selection process similar to the one used for center program admissions. Students apply during their kindergarten school year. All home school students are reviewed as candidates for this primary magnet. Additionally, 16 seats in each grade are available

for non-home school students through the application process, and transportation is provided for these students at centralized stops. These data were not included with the elementary center program data because the program uses a unique curriculum model and serves students only in Grades 1 and 2.

Program-Level Findings

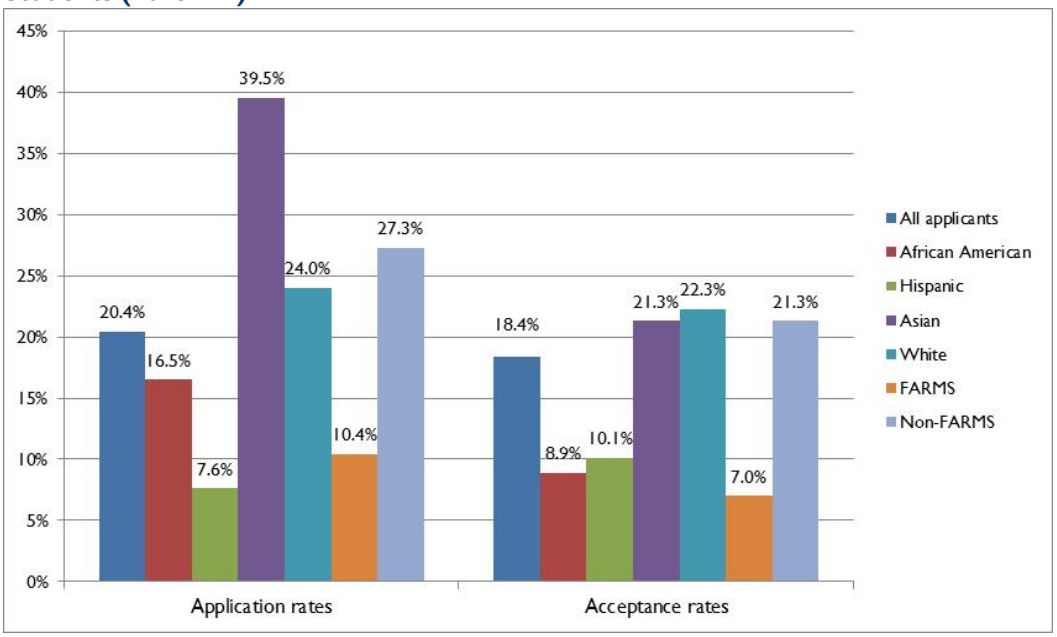
1. Number of seats and applicants

Applicants to elementary centers for highly gifted students exceed the supply of seats by more than 80%. For the 2013–14 school year, 2,431 students, representing about one-fifth (20.4%) of all Grade 3 students across MCPS, applied to an elementary center. Less than one-fifth (18.4%) of all applicants were invited to enroll in an elementary center (448 invitations out of 2,431 applicants).

Application rates are calculated by dividing the number of applicants within a subgroup by the total number of students in that subgroup. Application rates for elementary centers were highest among White and Asian students—24% of White Grade 3 students districtwide applied to an elementary center and 39.5% of Asian Grade 3 students applied. The application rates for Black/African American and Hispanic/Latino students were lower—16.5% and 7.6%, respectively. Disparities were also observed in application rates for students who were eligible for FARMS (10.4%) when compared with students who were not eligible for FARMS (27.3%); for LEP students (11.0%) compared with non-LEP students (24.1%); for general education students (22.5%) and special education students (5.9%).[107]

[107] Additional center programs are provided for gifted and talented learning disabled students pursuant to their Individualized Education Program (IEP).

Exhibit 15: Application and Acceptance Rates for Elementary Centers for Highly Gifted Students (2013–14)



Acceptance rates to elementary centers also varied across student subgroups by race/ethnicity, socioeconomic status, and English proficiency. Acceptance rates were measured by the percentage of applicants who were invited to attend an elementary center. The overall acceptance rate for all applicants was 18.4%. Reflecting broader national trends as discussed further below, the acceptance rate for Black/African American applicants (8.9%) was 9.5 percentage points lower than the overall rate, and for Hispanic/Latino applicants (10.1%) was 8.3 percentage points lower than the overall rate. Acceptance rates for Asian and White students exceeded the average acceptance rate—by 2.9 percentage points for Asian students (21.3%) and by 3.9 percentage points for White students (22.3%). Furthermore, the acceptance rate for students who were eligible for FARMS (7.0%) was 14.3 percentage points lower than for non-FARMS eligible students (21.3%).

The acceptance rate for LEP students (5.3%) was 15.4 percentage points lower than for non-LEP students (20.7%). There were no differences in the acceptance rates for general education (18.3%) and special education students (18.8%). Application and acceptance rates are presented in Exhibit 15.

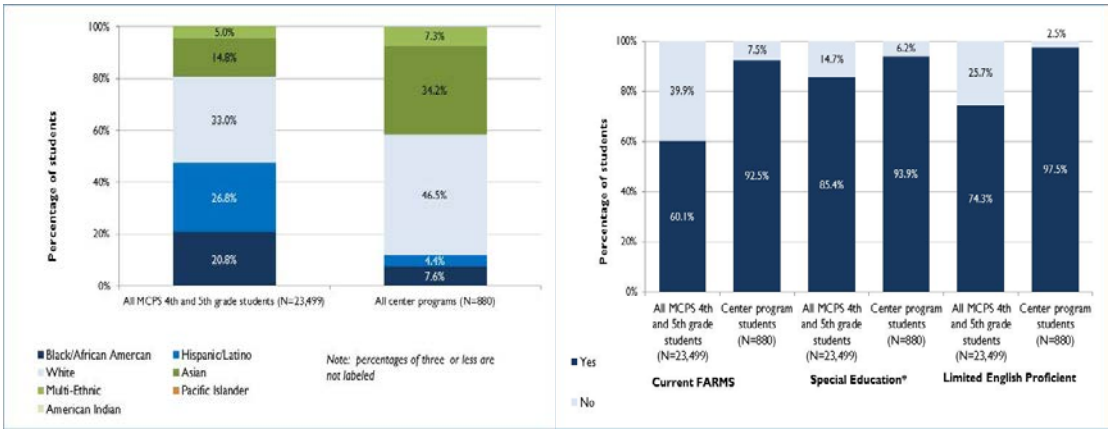
2. Profile of students in elementary centers

The profile of students in elementary centers differs markedly from the districtwide profile for students in Grades 4 and 5. In 2013–14, 880 students were enrolled in elementary centers. Almost half of the students in elementary centers (46.5%) were White and just over a third

(34.2%) were Asian. Conversely, only 7.6% of students in elementary centers were Black/African American, and 4.4% were Hispanic/Latino. As shown in Exhibit 16, the proportion of White and Asian students in elementary centers exceeded the districtwide averages for these groups by 13.5 and 19.4 percentage points, respectively; the proportions of Black/African American and Hispanic/Latino students lagged districtwide averages for these groups by 13.2 and 22.4 percentage points, respectively.

Enrollment rates for low-income and LEP students in elementary centers also lagged districtwide averages. Across the elementary centers, 7.5% of students were currently eligible for FARMS compared with 39.9% of students in Grades 4 and 5 districtwide. Furthermore, only 2.5% of elementary center students were LEP compared with 25.7% of students districtwide; and only 6.2% of elementary center students were special education students compared with 14.7% of students districtwide.

Exhibit 16: Districtwide and Program Enrollment by Race/Ethnicity, FARMS, English Proficiency, Special Education—Elementary Centers for Highly gifted Students (2013–14)



*Includes students with 504s

3. Academic outcomes of students in elementary centers

All students in elementary centers, including students in each racial/ethnic and socioeconomic subgroup, achieved the MCPS Grade 5 milestones in reading and math. Furthermore, across schools with elementary centers, achievement levels of the elementary center students exceeded the non-center student population by 15.9 percentage points in Grade 5 reading and 20.1 percentage points in Grade 5 math, with statistically significant differences.[108]

[108] Grade 5 Reading: Center students to home school students (p=.000, Cramer's V=.263); Grade 5 Math: Center students to home school students (p=.000, Cramer's V=.299).

Additionally, achievement levels of students in the elementary centers were significantly higher than district averages by 11.5 percentage points in reading and 19.8 points in math.[109]

Exhibit 17: MCPS Grade 5 Reading Data—Percentage of Students Meeting the Milestone (2013–14)

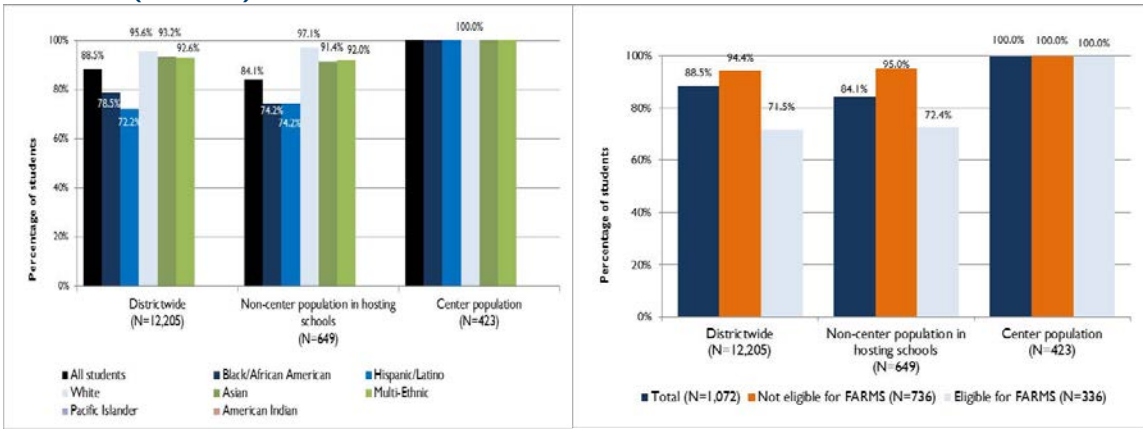
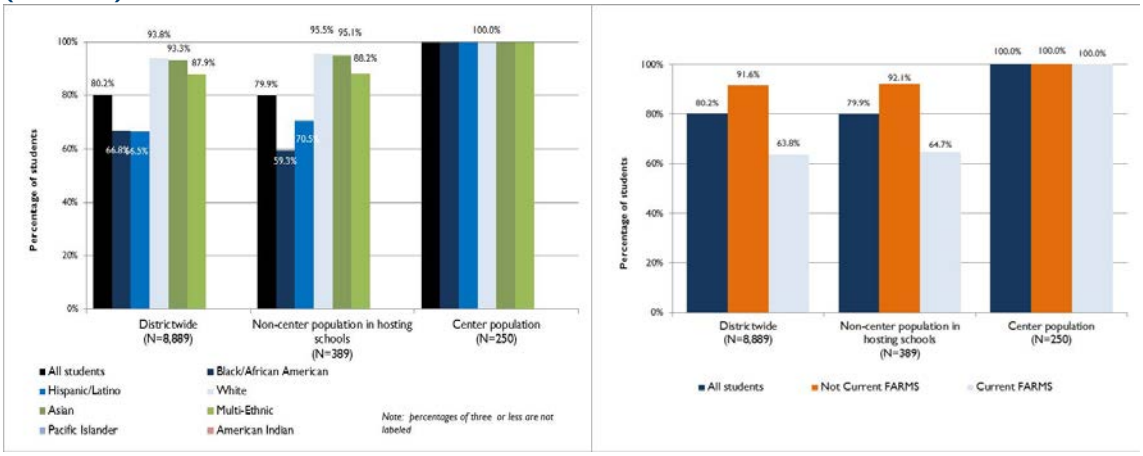


Exhibit 18: MCPS Grade 5 Math Data—Percentage of Students Meeting the Milestone (2013–14)



4. Perceptions of parents and staff

Parents and staff in elementary centers agree that they provide academic and social benefits for students. During focus groups, staff and parents in local school populations and elementary centers agreed that elementary centers can provide unique curricula and opportunities for

[109] Grade 5 Reading: Center students to districtwide (p=.000, Cramer's V=.081); Grade 5 Math: Center students to districtwide (p=.000, Cramer's V=.084).

students within a common peer group. Respondents most commonly agreed about the benefits of the self-contained environment and peer group of like students. They added that the peer group provides academic and social benefits for their children who were not challenged academically in their home school but who also struggled socially. Many staff and parents agreed that being in an elementary center has provided students with peers who are similar in these areas, which has allowed students to feel more comfortable within the class environment.

In focus groups, parents of students in the programs and not in the programs alike adamantly agreed that there are not enough seats in these programs. Because of these factors, they added, there are large numbers of qualified students who do not have access to the programs. Data from the community survey supported this viewpoint. More than half of the respondents (57.9%) reported that there are *too few* elementary centers, compared with a third (33.9%) who said there is the *right number* of these programs, and only 8.2% who felt there are *too many*.

According to focus group participants, transportation to elementary centers is a barrier to equitable access. During focus groups, parents and staff identified long bus rides and limited awareness among parents about the elementary centers as barriers to equitable access. For example, families who live far away from an elementary center have to rely on district transportation to centralized stops or a parent who can drive the child to the program every day. This can be a challenge for working or low-income parents who may not have the same access to transportation as other families.

Furthermore, principals noted that the district's decision to delay school start times may impact parents who need to leave early for work and do not have enough time before their work day starts to drive their child to the centralized stops. Staff and parents also noted that students may have long bus rides to attend an elementary center which is difficult for young children and reduces the amount of time they have for after-school activities.

> *"I don't think there is enough of an effort put out to the Hispanic families, or non-English speaking families in general to really draw them in. An application comes home, in English, to their home, from Montgomery County Public Schools. They don't know what it is. It looks like a brochure and I'm sure that 99% of them get thrown away because they can't read it. And there is no follow up. We don't do very well at advertising it." – MCPS staff*

In addition, according to focus group participants, limited parental awareness is also a barrier to access. Despite the outreach efforts identified above, parents and staff reported that limited awareness among parents about the elementary centers, and the application process can be a barrier in student access. Respondents agreed that the district should communicate more effectively with a broad segment of the population through clear and concise messages.

Staff and parents in elementary centers reported that home schools provide different levels of information about elementary centers. For example, some schools provide a lot of information

through letters, banners, and signs at the school and personal messages to parents. However, other schools provide limited information. Focus group respondents attributed the different levels of information provided by schools to several factors. They felt that the elementary centers have created a sense of competition among schools, which may serve as a disincentive for school staff to promote the programs. They perceived that principals may be incentivized, through higher school academic outcomes, to keep highly able students in their schools, and therefore may not advertise the elementary centers to their families. Lastly, respondents perceived that some principals do not philosophically support the educational model of self-contained gifted classes and therefore may not promote the programs in their schools. As one teacher remarked:

> *"There are opportunities for families to learn about the program but there are still a lot of people who don't get to learn about the center program who should. We get students from 16 to 17 schools, but there are some schools we never get students from." – MCPS staff*

Focus group participants perceive that gifted and talented instruction should be strengthened across all MCPS schools. During the focus groups, parents and staff agreed that strategies and materials used in elementary centers should be shared across schools so that all students who need enrichment and unique educational experiences can benefit from the elementary center resources. Staff added that co-planning between center and home school teachers provides valuable opportunities to share instructional resources, enrichment materials, and strategies that can be used with high achieving students who are not in the elementary centers. Some examples of shared resources that have become regularly integrated into MCPS literacy instruction are Junior Great Books developed by the Great Books Foundation and the Language Arts Curriculum developed by the College of William & Mary School of Education Center for Gifted Education. These literacy materials were originally identified as resources for gifted learners, but are now used with all students. A challenge, however, is that co-planning between center and non-center teachers is limited to schools that house elementary centers.

> *"The program takes the top students out of school but doesn't provide opportunities to the students who stay at the home school. Some of the GT [gifted and talented] curriculum could be achieved by non-GT students. That type of curriculum could be shared with other students…There are students in home schools who tested into GT but don't want to travel, don't want to stay away from friends. They should be served in some way at their home school." – MCPS community leader*

5. Impact on sending schools

The operation of elementary centers has limited effect on other elementary schools across MCPS, with the exception of possible staffing implications. In 2013–14, elementary students from 124 of the 133 elementary schools across MCPS were enrolled in an elementary center rather than in their home school. Twenty-five elementary schools had 10 or more home school

students (in Grades 4 and 5) who were enrolled in an elementary center at another school, including Piney Branch and Little Bennett ES, each of which had 21 students leave to attend an elementary center, and Spark M. Matsunaga ES with 19 students and Beall ES with 18 students. Elementary schools that did not have any students enrolled in an elementary center included Brown Station, Burnt Mills, Damascus, Darnestown, Jackson Road, Monocacy, William Tyler Page, Rock Creek Valley, Watkins Mill, and Wilson Wims ES. Complete data on the number of students in elementary centers by sending school is presented in the Appendix.

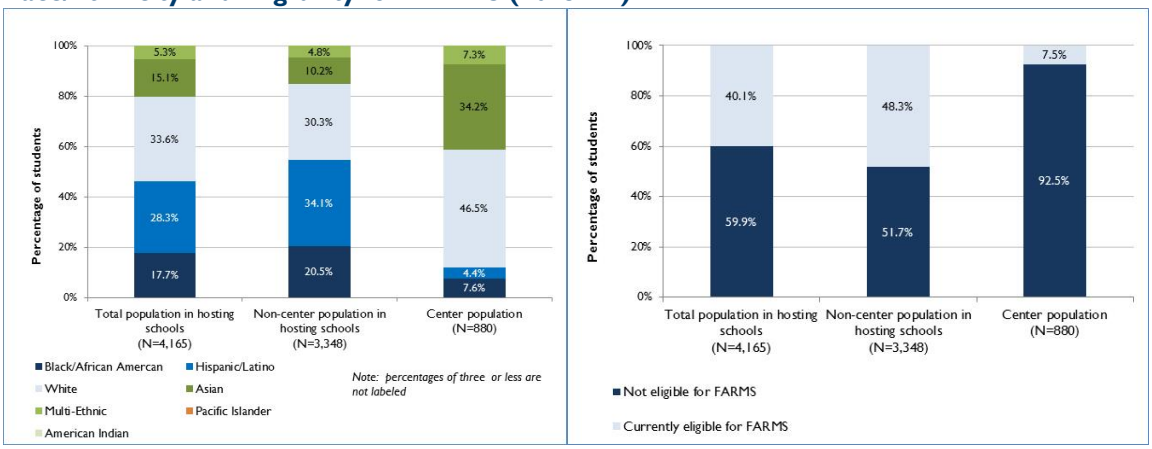
An analysis of MCPS elementary milestone data indicated that the transfer of students from home schools to elementary centers for highly gifted students had minimal impacts on the sending schools' academic data. Across the elementary schools that had students who left to enroll in an elementary center at another school, the overall proportions of students in each school who met the Grade 5 milestones in reading and math were impacted by two percentage points or less by the movement of these students.

Elementary schools could lose staff positions when the number of students who chose to attend an elementary center is large enough to reduce the number of classes at one or more grade levels. For example, if a school has 60 rising Grade 4 students in its home school population and six or seven of these students chose to leave and attend an elementary center, the number of Grade 4 class sections could decrease from three to two sections. The decrease could entail moving a teacher to another grade level or out of the school building. Additionally, as reported during parent and staff focus groups, students in home schools can be impacted by the movement of high-achieving students to elementary centers when it results in the reduction or loss of an academic peer group for the high achieving students who do not transfer.

6. Impact on schools in which the programs are located

There are concerns within the MCPS community that elementary centers create levels of within-school separation. These concerns are spurred by the differences in the demographic profiles of students in elementary centers and home student populations in schools that house the programs. These differences, in terms of proportion of students by race/ethnicity and eligibility for FARMS, are displayed in Exhibit 19.

Exhibit 19: Comparison of Student Populations in Schools with Elementary Centers by Race/Ethnicity and Eligibility for FARMS (2013–14)



These differences can lead to within-school separation and, as some staff and parents reported, a sense of "haves and have-nots" between center and non-center students. During focus groups, parents and staff stated that the elementary centers have strong benefits for home schools, in that they provide higher levels of rigor and academic expectations and can bring greater racial and economic diversity to the school. However, they also added that the self-contained classes limit the ability for center students to interact with home school students in a meaningful or substantive way. The interactions are primarily during recess or lunch, when students tend to self-segregate with friends from their own classes. Staff and principals in the schools that were visited reported that school staff and teachers have made strong attempts to integrate the two groups, such as through common field trips, specials, and non-instructional activities, but that the divide remains due to the self-contained nature of the instructional program.

7. Staffing and transportation costs for elementary centers

According to data provided by MCPS, the additional incremental costs for staffing and transportation costs associated with the elementary center program for highly gifted students for the current school year (2015–16) totals approximately $1,272,539. This total includes $72,612 to support testing and selection of students, including the costs of the test, scoring, and staffing for the selection process. Additionally, it includes $434,927 allocated for district-level staff and program resources, including portions of the salaries of program directors, supervisors, instructional specialists, a data management coordinator, and administrative staff to support program enrollment, as well as resources to support program training, membership in recognized gifted and talented organizations, office supplies (to support program training), and local travel to support program implementation. School-based staffing for the program is allocated within the local allocation, and elementary centers do not receive additional incremental staffing at the school level.

In addition, MCPS allocates approximately $765,000 for the additional incremental costs of transportation for students to elementary centers using centralized stops. The budget paid for 13.75 additional bus routes, including the cost of staff, fuel, equipment, and repairs.

8. Benchmarking and research

Limited racial, ethnic, and socioeconomic diversity in MCPS's elementary centers is a challenge observed in gifted and talented programs nationally. Across the county, there is an underrepresentation of Black/African American and Hispanic/Latino students in gifted and talented programs. Statistics from the U.S. Department of Education in 2011 indicate that while Black/African American students constituted 16.7% of the student population, they represented just 9.8% of students in gifted programs. Similarly, Hispanic/Latino students represented 22.3% of all students, but only 15.4% of students receiving gifted services.[110]

There is considerable evidence in the research to suggest that the underrepresentation of racial and ethnic subgroups and low-income students in gifted and talented programs can be attributed in large part to characteristics of the gifted identification processes, including and over-reliance on assessments to define giftedness. Academic research has attributed disparities in identification for gifted and talented services based on race and ethnicity due to systems of narrow, achievement-centered definitions of giftedness.[111] For example, processes that rely heavily on test scores lead to under-identification of students by income or race/ethnicity. This can be due to lower levels of access to outside test preparation or private psychologists or consultants who can test for giftedness outside the school.[112] Furthermore, research associates underrepresentation in gifted programs to educational inequities resulting from the overrepresentation of Black/African American, Hispanic/Latino, and low-income students in lower performing schools and in classrooms that are taught by less qualified and less experienced teachers.[113] In addition, tracking of students at early ages by academic ability separates students by academic and nonacademic factors, which serves to perpetuate educational inequities.[114] These educational inequities in turn impact the rate of gifted identification.[115]

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[110] Grissom, Jason A. & Redding, Christopher (2016). Discretion and Disproportionality: Explaining the Underrepresentation of High-Achieving Students of Color in Gifted Programs. *AERA Open, 2*(1),-1-25.

[111] Ford, D. Y. (1998). The underrepresentation of minority students in gifted education: Problems and promises in recruitment and retention. *Journal of Special Education*, *32*(1), 4–14.

[112] Mickelson R. (2003). When are racial disparities in education the result of racial discrimination? A social science perspective. *Teachers College Record.* 105(6), 1052–1086.

[113] Grissom, Jason A. & Redding, Christopher (2016). Discretion and Disproportionality: Explaining the Underrepresentation of High-Achieving Students of Color in Gifted Programs. *AERA Open, 2*(1),-1-25.

[114] Ibid.

[119.] Ibid.

Supplemental measures in the identification process, those beyond test scores, often rely on teacher ratings or recommendation, which have also been shown to under-identify students of color and low-income students.[116] Research suggests that methods used to solicit teacher input into the identification process can impact its effectiveness. For example, studies have shown that published and validated teacher-rating instruments, such as the *Gifted Rating Scales* or the *Scales for Identifying Gifted Students*, can be effective in identifying students.[117] Furthermore, when scales are highly correlated to academic achievement, the effectiveness diminishes, as they are duplicating information learned from standardized tests. Other studies have highlighted the association of teacher race with identification of gifted students from underrepresented groups. For instance, a recent AERA study indicated that Black/African-American students are referred to gifted programs, particularly in reading, at significantly lower rates when taught by non-Black/African American teachers—a concerning result given the relatively low incidence of assignment to same-race teachers among Black/African American students.[118]

Additionally, students of color have been shown to be impacted by what researchers Steele and Aronson called the "stereotype threat" in which student performance on assessments is suppressed due to the "*threat of being judged by a negative societal stereotype, or suspicion, about their group's intellectual ability and competence.*"[119] With this dynamic at play, the challenges of confronting racial isolation for students who are one of the only or a very few participants of color in a program may deter applications from other families, along with the lack of culturally relevant pedagogy.[120]

All districts used to benchmark MCPS practices offer gifted programming, but only three have elementary gifted centers. Like MCPS, all seven of the benchmark districts provide gifted and talented programming across all elementary schools. Three districts—Fairfax County Public Schools (FCPS), Houston Independent School District (HISD), and Jefferson County Public Schools (JCPS)—provide elementary center models as well as home school gifted programming. Four other districts—Baltimore County Public Schools (BCPS), Wake County Public School System (WCPSS), Clark County School District (CCSD) and Hillsborough County School District (HCSD)—provide gifted programming only in local schools.

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[116] Ibid.

[117] Peters, Scott, J. & Gentry, Marcia (2012). Group-Specific Norms and Teacher-Rating Scales: Implications for Underrepresentation. *Journal of Advanced Academics 23*(2), 125-144.

[118] Grissom, Jason A. & Redding, Christopher (2016). Discretion and Disproportionality: Explaining the Underrepresentation of High-Achieving Students of Color in Gifted Programs. *AERA Open, 2*(1), 1-25.

[119] Steele, Claude M. & Aronson, Joshua. (1995) Stereotype Threat and the Intellectual Test Performance of African Americans. *Journal of Personality and Social Psychology, 69*(5), 797-811.

[120] Ford, Donna. (2010). Integrating Multicultural and Gifted Education: A Curricular Framework. *Theory into Practice*, *44*(2), 125–137.

- In **FCPS**, the continuum includes embedding critical and creative thinking strategies into classroom lessons, differential lessons in areas of academic strength, and part-time advanced academics (Grades 3-6 only)—all of which are provided in local elementary schools using a local screening committee. Students in Grades 3-6 who require more intensive programming enroll in the full-time advanced academic program (AAP) that is provided in center locations and based on a central selection process. The process for AAP identification uses multiple criteria, including cognitive abilities testing, achievement testing, gifted behaviors rating scales completed by school staff, and parent questionnaires.[121]

- **HISD** offers a continuum of elementary gifted and talented programs through its Vanguard neighborhood and magnet programs, which are designed to meet the needs of students who "*excel in general intellectual ability in combination with creative/productive thinking and/or leadership ability*."[122] Vanguard neighborhood programs are offered in all elementary schools. The 10 Vanguard magnet programs are designed for students who seek to attend a school outside their neighborhood elementary school. The selection process for Vanguard neighborhood and magnet programs includes an application with information on family income; standardized test scores; cognitive ability tests scores; and teacher recommendation forms that assess students' demonstration of general intellectual ability, creative ability, and leadership ability. For the Vanguard magnet program, HISD conducts a lottery if there are more qualified applicants than there are spaces available.

- **JCPS** offers gifted programs, called Advance Programs, at its elementary schools, as well as a gifted and talented magnet program at King ES. King ES is a whole school magnet that offers two programs, gifted and talented and visual and performing arts, to address the idea that talent is demonstrated through traditional academic coursework as well as creative thinking in the arts. Students receive magnet instruction through elective courses and pull-out gifted and talented instruction. Admission to the gifted and talented magnet is based on student writing and math samples and teacher and parent recommendations.

Some districts are experimenting with different criteria and measures for identification of gifted and talented students and placement in elementary programs. MCPS's process for selecting students for elementary center programs utilizes multiple indicators to identify qualified

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[121] http://www.fcps.edu/is/aap/.

[122] HISD, Vanguard Magnet Programs, http://www.houstonisd.org/Page/106709; HISD, Magnet Programs, Frequently Asked Questions, http://hisdchoice.com/faq.

applicants. However, there are concerns regarding the heavy reliance on assessment scores as it may contribute to identifying only a narrow band of highly able students. Other districts are broadening screening to include universal screening, which is currently used by MCPS for regular gifted identification but not for elementary centers. For example, a study conducted in 2015 in a large school district in Florida found that universal screening of students, without any changes in standards used in the identification process, led to increases in the number of economically disadvantaged students and minorities placed in gifted programs.[123]

Research also highlights the value of identifying students for gifted education using local or group-specific norms that benchmark student performance against school peers with comparable backgrounds, such as by income level, or within a local context, such as district or school, rather than compare students with national norms that draw from a demographically heterogeneous group. Using national norms has been found to disadvantage low-income students due to the strong correlation of family income and achievement. Furthermore, the use of group-specific norms can be effective because it allows educators to control for variations among students' previous "opportunity to learn." Previous opportunity to learn can impact achievement levels of low-income students in comparison with higher-income peers and may mask academic potential.[124] The practice of using group-specific norms has been tested in school districts across the state of Florida which apply a targeted methodology, called Plan B, which includes multi-dimensional indicators of giftedness to help ensure students from low-income and English Language learner backgrounds are not overlooked in gifted education.[125]

Furthermore, the use of non-cognitive measures can be important in ensuring the students are identified at an early age for gifted and talented instruction or given opportunities in elementary school to adequately prepare them for admissions to selective secondary programs. Early identification is an essential component to developing an equitable pathway for students throughout the K-12 experience. The work of the Jack Kent Cooke Foundation exemplifies the importance of providing support at an early age. As stated by the Foundation, this work is important because "*the disparity between low- and higher- income students who reach advanced levels of academic performance appears in elementary school and continues through college. In short, smart but poor students who start off their academic careers scoring 'advanced' on standardized tests over time fall behind the wealthier students who started in the same place.*"[126] In order to provide equal opportunities for low-income students, the Foundation provides support to students starting in elementary school and

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[123] Giuliano, L., & Card, D. (2014). Does Gifted Education Work? For Which Students? *The National Bureau of Economic Research*. Retrieved November 17, 2015, from https://aagc.ssri.duke.edu/bright-idea-http://www.nber.org/papers/w21519.

[124] Peters, Scott, J. & Gentry, Marcia (2012). Group-Specific Norms and Teacher-Rating Scales: Implications for Underrepresentation. *Journal of Advanced Academics 23*(2), 125-144.

[125] Ibid.

[126] http://www.jkcf.org/about-us/

extending through graduate school to help students develop talents and excel educationally. Cooke scholars are selected from a national pool of students using a wide range of factors including academic achievement, financial need, grit, determination, and social commitment.[127]

Broad-based talent development programming is an effective means for increasing racial, ethnic, and socioeconomic diversity in elementary centers. An important corollary to the non-traditional methods for identification of underrepresented students for gifted and talented programs is the use of talent development programs to identify and nurture potential and diverse talents among young children and prepare them to pursue gifted education programs. According to a 2014 survey of gifted and talented programs conducted by the National Research Center on the Gifted and Talented at the University of Virginia's Curry School of Education, 51% of elementary school districts across the country currently offer talent development programs. MCPS currently offers programming in this area, but not on a broad scale.

The Young Scholars Program, first implemented in FCPS and expanded in numerous districts across the country, seeks to identify gifted students in early elementary school to prepare them for gifted education and other rigorous programming in upper elementary, middle, and high school. Beginning in kindergarten, students are identified through teacher observations, student work samples, and nonverbal ability tests. The students receive challenging academic coursework, summer school programming, after-school sessions, and field trips. Each school participating in this program has a half-time resource teacher credentialed in gifted education who implements the program. In addition, program staff has been trained in identifying and serving gifted learners and receive ongoing professional development.[128] In 2014, the University of Connecticut received funding through a Jacob K. Javits grant to implement Project SPARK (Supporting and Promoting Advanced Readiness in Kids), a scale-up model of the Young Scholars Program across New England to address the region's high achievement gaps and limited state support for gifted programming, and to test the model's effectiveness using a rigorous experimental research design. Maryville University has also adopted the Young Scholars Program model to develop an alternative identification process used in school districts in the St. Louis area. Other school districts, including multiple districts across Minnesota, are also implementing the Young Scholars Program model.

Another program aimed at nurturing and promoting the eligibility of underrepresented students for gifted programs is Project Bright IDEA (Interest Development Early Abilities) in Wake County, which is also supported by funding from a Jacob K. Javits grant. Implemented in 16 elementary schools as part of a study with Duke University, this program uses an evidence-based

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[127] Ibid.

[128] Clarenbach, Jane (2015). Expanding the View of Giftedness. *School Administrator, 72*(8), 18.

K–2 program model focused on fostering students' critical thinking skills. Participating teachers have received intensive training on the program model. The goal of this study is to identify more academically gifted students when students are tested for giftedness in Grade 3. Although the study is still underway, teacher observations indicate that students are already demonstrating cognitive improvement.[129]

JCPS offers a Talent Development magnet program at Byck ES following Howard Gardner's Theory of Multiple Intelligences. The program model includes use of learning centers, cluster grouping, differentiation, project-based learning, and choice boards which are graphic organizers to tap into student individual learning styles, as driving instructional strategies in all classrooms. Students also participate in discovery elective classes to help them realize their learning styles, artist-in-residence activities, and after-school programs.

Finally, in 2014, the College of Charleston began Project Talentum Academe, an initiative with Charleston County School District to create talent development academies (TDA) in schools serving large numbers of economically-disadvantaged students. Similar to the Young Scholars Program model, the TDAs are providing enrichment, after-school, and summer experiences to identify and foster talent in underrepresented groups. Furthermore, the TDAs include teacher development in the areas of gifted and talented education, culturally responsive teaching, and education psychology principles around motivation. Through this aspect of the model, this district is training a pool of K-5 teachers to serve as talent scouts and developers of the project in Title I schools.[130]

Other districts offer a variety of special programs at the elementary level, including an array of non-selective magnet programs, many of which use a "whole school' model. The programs described below are in addition to the gifted centers and immersion programs for these districts described in benchmarking sections above.

- **Clark County School District (CCSD)**, for example, offers non-selective magnet programs in nine elementary schools. The magnet themes include: IB Primary Years Programme; communications and creative arts; science, technology, engineering and math; science, technology, engineering, arts and math; and international studies. There are no academic admission criteria for CCSD's elementary magnet schools. Students are selected through a lottery that includes a preference for siblings and also takes into account geography and feeder schools. All of the elementary magnet schools are "whole

[129] https://aagc.ssri.duke.edu/bright-idea-3.

[130] http://orga.cofc.edu/pub/get_data.plx?data=psv02&html=htt03&phead=hdr01&pfoot=ftr01&pkey=1412347632.

language" magnet schools.

- **Wake County Public School System (WCPSS)** offers magnet programs in 25 elementary schools, including 22 whole-school magnets. The elementary magnet themes include: engineering; museums; creative arts and science; leadership; active learning and technology; IB Primary Years Programme; gifted and talented/AIG Basics; leadership and world languages; language immersion; Spanish and IB Primary Years Programme; Montessori/STEM; gifted and talented/Center for Play and Ingenuity; language immersion; and international studies. Except for 50% of the seats in its gifted and talented/AIG Basics magnet programs, the district does not use any academic criteria for elementary programs. Instead, it uses at weighted random lottery process to select students for its elementary magnet programs. For the lottery, each applicant is assigned a random number that is generated by the selection software. Then, points are awarded to applicants who meet any of the selection priorities, including sibling link and school capacity.

- **JCPS** offers magnet programs in 28 elementary schools. Fourteen are districtwide magnets, 13 have local magnet programs, and one offers an optional program which is open to all students in JCPS. The district only provides transportation to students who live within the elementary cluster where the optional program is located. The magnet themes include: excellence in teaching and learning; Waldorf; communications; environmental studies; gifted and talented; health and fitness for accelerated learning; international/cultural studies and language program; IB Primary Years Programme; leadership; math/science and technology; micro-society; Montessori; preforming arts; self-directed learning; talent development; technology; traditional education, visual and performing arts; and visual arts. Schools may develop and use criteria for admission to magnet programs, such as a student work samples, test scores, report cards, progress reports or checklists from teacher of childcare provider. The criteria are reviewed by the magnet staff. Schools select students based on their criteria.

- **HCSD** offers magnet programs in 12 elementary schools. The magnet themes include: IB Primary Years Programme; cultural arts and humanities; performing arts and environmental studies; animal science, medical and health; world studies; visual and performing arts; STEM and STEM gifted and talented development academy. All 12 of the elementary schools are "whole school" magnets. HCSD does not use academic criteria for admission to its magnet schools. Students are admitted to the magnet programs through a random lottery process. Siblings and students living within walking distance to the magnet school are given a preference.

- **HISD** offers magnet programs magnet programs at more than 50 schools, all of which are "whole school" magnets, in addition to the language immersion and Vanguard magnet programs discussed above. Examples of the magnet themes include: fine arts,

Montessori; STEM; STEAM; animal and environmental sciences; emerging medical scholars; science and technology; communications; SMaRT; and math and science. Unlike HISD's Vanguard magnet programs, none of these elementary magnets utilize academic selection criteria.

- **BCPS** currently offers magnet programs in six elementary schools, and will offer programs in three elementary schools for the 2016-17 school year, two of which will be "whole school' magnets. BCPS does not have use any academic criteria for admission to these elementary magnet programs. Students are selected based on a random lottery, with priority for siblings.

Conclusion and Program-Level Recommendations

Qualitative and quantitative data presented in this section indicate the following overarching findings about the elementary center program for highly gifted students.

- There is a strong demand for the elementary center program for highly gifted students—over 20% of all Grade 3 students apply. However, the supply of seats is limited, as only 18% of all applicants are invited to an elementary center. These data suggest the demand exceeds supply, a fact that is exacerbated by an increasing district enrollment without any increases in the number of elementary center seats over the past ten years.

- Black/African American, Hispanic/Latino, LEP, special education, and low-income students apply to the elementary center program at lower rates than White, Asian, and higher income students. This finding suggests that MCPS needs to continue to expand its efforts to target and identify highly able students from underrepresented groups. Furthermore, acceptance rates for these underrepresented groups are lower than for White, Asian, and higher-income students.

- These challenges notwithstanding, MCPS stakeholders who were interviewed for the study agreed on the value of gifted and talented instruction, but emphasized that programming should be improved across all home schools to enable all students, those in elementary centers or not, to have access to rigorous instruction.

- The additional incremental costs for staffing and transportation costs associated with the elementary center program for highly gifted students for the 2015–16 school year totaled approximately $1,272,539. The costs include testing and selection of students, district-level staff and program resources, training, membership in recognized gifted and talented organizations, office supplies, local travel for program implementation, school-based staffing, and transportation of students to centers with 13.75 additional bus routes.

- The research and benchmarking show that the underrepresentation of racial and ethnic groups in gifted education is a challenge shared in many school districts across the country. Academic research attributes the underrepresentation of student subgroups to a variety of factors, including educational inequities, gifted identification processes, and over-reliance on academic performance to define giftedness. In response, some districts are experimenting with different criteria and measures for identification of gifted and talented students and placement in elementary programs. Additionally, many districts, as is MCPS, are implementing broad-based talent development programming as an effective means for increasing racial, ethnic, and socioeconomic diversity in elementary centers. Expansion of these programs provides a promising strategy for increasing diversity in gifted programming.

In light of these findings, MCPS should consider the following recommendations for the elementary center program for highly gifted students:

- Work to address barriers to equitable access in the elementary center program by revising Board Policy IOA to broaden the definition of giftedness to focus on identifying students who are highly able from all backgrounds and implementing modifications to the identification process that have been developed in other districts and at the secondary and postsecondary levels, as discussed in the section on middle and high school magnets below.

- Develop and expand talent development programs and outreach efforts designed to identify, target, and recruit highly able students from underrepresented groups, including Black/African American and Hispanic/Latino students, non-native English speakers, and low-income students, to apply to the highly gifted centers.

- Develop new and enhance existing practices for all elementary centers to ensure that students in the center program and other students in hosting schools have meaningful social and academic interactions, such as expanded use of specials, common lunch or recess periods, and extracurricular programs.

- To the extent that MCPS considers expanding seat capacity for elementary centers for highly gifted students to keep pace with the overall growth in the district's population that has occurred since the last seat expansion in 2006, the district should ensure that any expansion is fully aligned with efforts to ensure equitable access to the highly gifted programs.

Middle and High School Magnets and Other Application Programs with Selective Admissions Criteria

Overview

Secondary magnet programs were originally developed in MCPS to serve the dual purpose of promoting diverse student enrollment and academic excellence in furtherance of Board Policy ACD, *Quality Integrated Education*. Over the years, as discussed in the historical context section, programs have been added and existing programs have been modified for other purposes including to stave off declining enrollment, provide theme-based instruction, offer programming for highly gifted secondary students, and meet community demand.

The programs addressed in this section are collectively referred to as ***secondary magnet and other application programs with selective admissions criteria***. As they currently operate, these programs also should be considered in the broader context of Board Policy IOA, *Gifted and Talented Education*, insofar as they are designed to address student interests and provide unique educational experiences for highly able students that are not offered through honors or Advanced Placement in home schools. Descriptions of the unique offerings in each program are provided in the following paragraphs.

Middle school programs:

The **Math, Science, and Computer Science** program at Takoma Park MS and the Upcounty Center Program for the Highly Gifted at Roberto Clemente MS provide opportunities for students to enroll in three magnet classes in math, science, and computer science that are taught using a student cohort model. The program follows a specialized curriculum developed by magnet teachers to engage students in accelerated and interdisciplinary instruction in mathematics, science and computer science. Students also participate in hands-on and project-based instruction and theme-based field trips.

The **Humanities** magnet program is offered at Eastern MS and the Upcounty Center Program for the Highly Gifted at Roberto Clemente MS. The program follows a specialized curriculum developed by magnet teachers to engage students in accelerated instruction in English and history and to offer a unique course in media production. For all other subject areas, magnet students enroll in classes with non-magnet students which follow the district's comprehensive curriculum. Magnet students also receive real-world learning experiences through field trips.

High school programs:

The **Mathematics, Science, and Computer Science** magnet program is offered at Montgomery Blair HS for students who reside in the southeastern region of the county and at Poolesville HS for students who reside in the northwestern region. The program offers advanced and unique coursework in each of the three targeted disciplines: mathematics, science, and computer science. In Grades 9 and 10, students receive block-period instruction in these subjects; they attend other required courses with non-magnet students. Most students complete all science and math requirements by the end of Grade 10 and are able to take unique electives during their junior and senior years. Magnet students have an extra elective period each day for in-depth study in a content area.

Poolesville HS also offers the **Global Ecology House** and **Humanities House** magnet programs. In Global Ecology, students participate in interdisciplinary coursework to integrate science and social sciences. The courses are designed to engage students in hands-on field work at least three days a week that provides opportunities for students to explore the human impact on the natural environment. In the Humanities House, students take an advanced curriculum that integrates the study of English, social studies, communications, and fine arts through interdisciplinary lessons. Students have opportunities to use state-of-the art visual media, including media production. In addition, students participate in research, long-term project work, and independent studies.

Richard Montgomery HS offers the **International Baccalaureate (IB)** program. The program includes both the Middle Years Programme (MYP) for students in Grades 9 and 10 and the Diploma Programme (DP) for students in Grades 11 and 12. IB is a rigorous academic program that engages students in high-level coursework through an interdisciplinary approach. For the DP, students are required to take IB-level courses in six areas (English, World Languages, Individuals and Societies, Mathematics, Experimental Sciences, and the Arts) and the IB Theory of Knowledge course. All students are also required to complete all required IB assessments, and participate in a community action project. Upon completion of the program, students received an IB diploma that can be accepted by post-secondary institutions for credits toward graduation.[131]

The **Visual Arts Center (VAC) at Albert Einstein HS** offers a rigorous and comprehensive program in visual arts and exposes students to opportunities for arts-related careers. Elective coursework includes visual arts as well as art history. Over their high school career, students develop a portfolio of work that addresses various aspects of the arts. Students can attend the VAC for full-day programs or for half-day programs in which they attend their home high school for core subject classes and travel to the VAC for arts electives courses.

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[131] In addition, local IB programs are offered at seven high schools (Bethesda-Chevy Chase, Einstein, Kennedy, Rockville, Seneca Valley, Springbrook, and Watkins Mill HS), but these programs are available *only* to students who attend those schools.

Three schools also offer application programs only open to students who attended a middle school that feeds into the DCC or are DCC residents. The programs include the **Communication Arts Program** (CAP) at Blair HS, the **Leadership Training Institute (LTI)** at Kennedy HS, and the **Bioscience and Engineering programs** at Wheaton HS.

The secondary magnet and other application programs with selective admissions criteria are designed to serve students based on the student's home cluster. As shown in the maps in Appendix E, students who reside in nine upcounty high school clusters—Clarksburg, Damascus, Gaithersburg, Magruder, Northwest, Poolesville, Quince Orchard, Seneca Valley, and Watkins Mill—can apply to the magnet programs at Roberto Clemente MS and Poolesville MS. All other students from the remaining 16 high school clusters apply to the programs at Takoma Park MS, Eastern MS, and Blair HS; and students who reside in the DCC or attend DCC feeder schools can also apply to the application programs at Blair, Kennedy, and Wheaton HS. The Richard Montgomery IB program and the VAC are countywide programs.

Exhibit 20: Number of Seats and Geographic Areas Served by Secondary Magnet and Other Application Programs with Selective Admissions Criteria—2013–14

School	Program	Number of seats	Geographic area(s) served
Takoma Park MS	Math, Science, Computer Science (magnet)	100 /grade	Regional
Eastern MS	Humanities (magnet)	100 /grade	Regional
R. Clemente MS	Math, Science, Computer Science (magnet)	50 /grade	Regional
	Humanities (magnet)	50 /grade	
Middle School Total		300/grade	
Montgomery Blair HS	Math, Science, Computer Science (magnet)	100 /grade	Regional
	Communication Arts Program (CAP) (application)	75 /grade	DCC middle school feeders and DCC residents
Poolesville HS	Math, Science, Computer Science (magnet)	50 /grade	Regional
	Humanities (magnet)	50 /grade	
	Global Ecology (magnet)	50 /grade	
R. Montgomery HS	International Baccalaureate (IB) (magnet)	100 /grade	Countywide
A. Einstein HS	Visual Arts Center (VAC) (magnet)	25 /grade	Countywide
J.F. Kennedy HS	Leadership Training Institute (LTI) (application)	30 /grade	DCC middle school feeders and residents
Wheaton HS	Bioscience program (application)	25 /grade	DCC middle school feeders and residents
	Engineering program (application)	25 /grade	
High School Total		530/grade	

Admission to these secondary programs takes into account criteria similar to those used for the elementary center program for highly gifted students, with the exception that different assessments are used, and there are required writing samples. Applicants to the VAC are also required to submit a portfolio of work that comprises 2-3 observational drawings and 5-7 completed artworks in any media. Additionally, applicants to the LTI at Kennedy are required to complete a self-evaluation and essay describing community and civic participation. Students apply for middle school magnet programs with selective admissions criteria in Grade 5 and for high school magnet and other application programs with selective admissions criteria in Grade 8. Transportation is provided to most programs for students who attend middle and high school magnets and other application programs with admission criteria through the use of centralized stops. Transportation is not provided for the VAC.

MCPS uses a variety of strategies to inform parents about available programs. Materials are provided in English, Amharic, Chinese, French, Korean, Spanish, and Vietnamese. All families of students in Grade 5 and of students who are enrolled in Algebra I or higher in Grade 8 are mailed information about the programs and how to access the application and informational meetings. Information is also provided in PTA and school newsletters, Connect-Ed messages in English and Spanish, MCPS QuickNotes, and backpack flyers. MCPS also posts an *Options* booklet on the district website and advertises these programs through MCPS TV. In the fall, parent information meetings are conducted in English and Spanish, and application workshops are held to support parents in each of the seven languages listed above to complete the applications at local schools. Furthermore, program materials and information about the programs are shared with all school-based gifted and talented liaisons, elementary school counselors, middle school resources counselors, and middle school accelerated and enriched instructional support teachers in fall meetings, as well as with all principals through memoranda and meetings. Each school is encouraged to advocate for two applicants by recruiting students who are qualified but may not be considering apply to a magnet or application program. District staff also conducts presentations at meetings of community organizations, such as the NAACP Parents Council.

Program-Level Findings

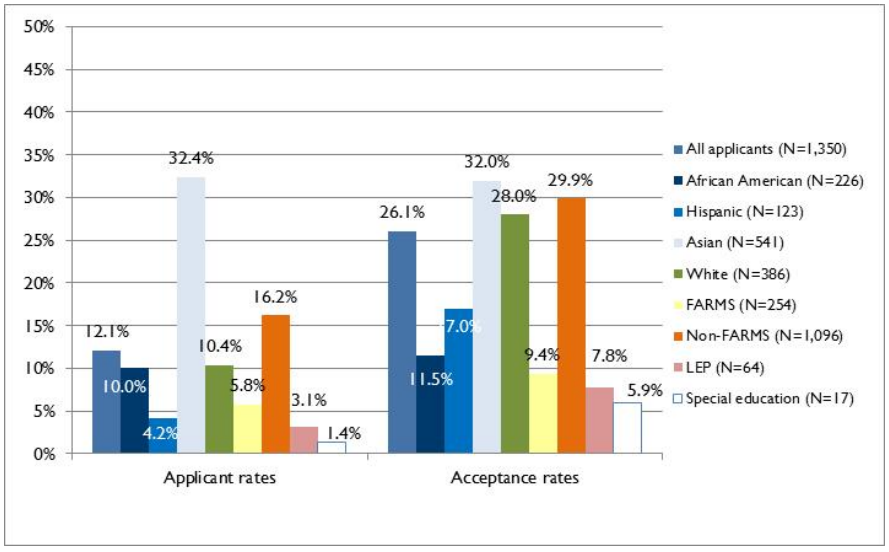
1. Number of seats and applicants

Demand for the secondary magnet and other application programs with selective admissions criteria exceeds the current supply of seats. For the 2013–14 school year, approximately 2,900 students applied for the 830 seats that were available in secondary magnet and other application programs with selective admissions criteria. Over half of all applicants to secondary magnet and application programs with selective admissions criteria applied to more than one program, including 47.7% at the middle school level and 55.1% at the high school level.

For middle school programs, 1,350 students applied for one of the 300 available seats; this represented 12.1% of all rising Grade 6 students in MCPS. For high school programs, there were 1,549 applicants for 530 available seats; this number represented 14.5% of all rising Grade 9 students in MCPS.

Application rates for secondary magnet and other application programs with selective admissions criteria were highest among Asian students and lowest among Hispanic/Latino and low-income students. An analysis of the demographic characteristics of the applicants compared with districtwide data showed the application rates varied substantially for students by racial/ethnic group and socioeconomic status. Exhibit 21 shows the application rates—as determined by the total number of applicants divided by the total number of rising Grade 6 students in the district for middle school programs and the total number of rising Grade 9 students in the district for high school programs. The data show that for middle school programs, application rates for Hispanic/Latino students (4.2%), students who were eligible for FARMS (5.8%), LEP students (3.1%), special education students (1.4%), Black/African American students (10.0%), and White students (10.4%) were below the overall rate for all applicants (12.1%). Conversely, application rates for Asian students (32.4%) and students who are not eligible for FARMS (16.2%) were above the overall rate.

Exhibit 21: Middle School Magnet Application and Acceptance Rates by Student Subgroup (2013–14)

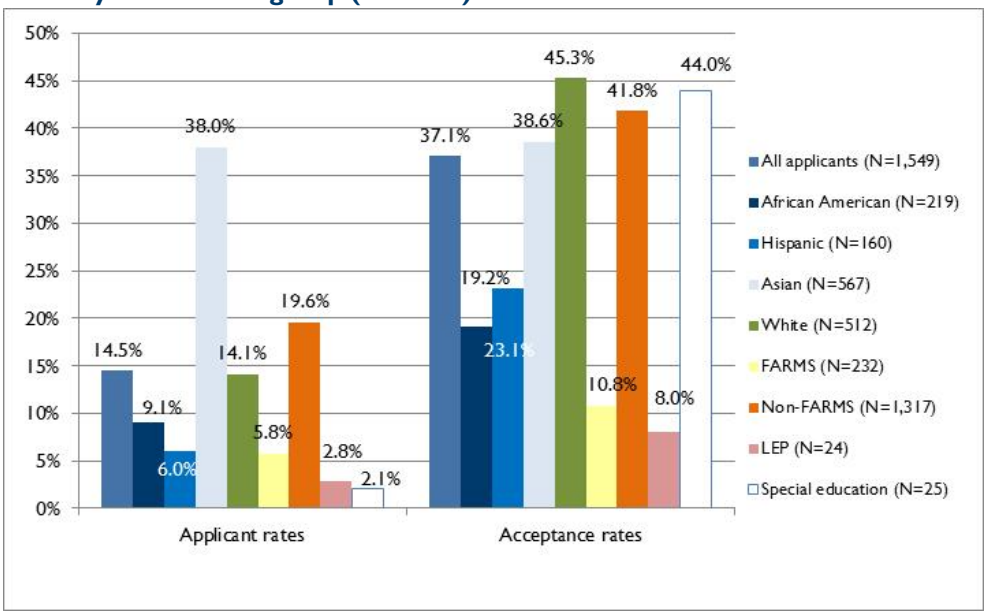


Data were similar at the high school level, for which the overall application rate was 14.5%. The application rates for Hispanic/Latino students (6.0%), FARMS students (5.8%), LEP students (2.8%), special education students (2.1%), and Black/African American students (9.1%) were below the overall rate. Conversely, the application rates for Asian students (38.0%) and students who were not eligible for FARMS (19.6%) were above the overall rate.

Acceptance rates—as calculated by the number of applicants who were invited to enroll in the program divided by the total number of applicants—followed a similar pattern. As shown in Exhibit 22, the overall acceptance rates were 26.1% for middle school programs, and

37.1% for high school programs. At both levels, the acceptance rates for students who were eligible for FARMS, LEP students, Black/African American students, and Hispanic/Latino students were below the average rate, while acceptance rates for Asian, White, and non-FARMS eligible students were above the average. At the middle school level, the acceptance rate for special education students was below average; however it was above average for the high school level. Tables with complete data are presented in the Appendix.

Exhibit 22: High School Magnet and Application Programs Application and Acceptance Rates by Student Subgroup (2013–14)



2. Profile of students in magnets and application programs

Secondary magnet and other application programs with selective admissions criteria serve a small subgroup of the district's population that does not fully reflect the racial, ethnic, and economic diversity of MCPS. In 2013–14, 1,026 students enrolled in middle school magnet programs with selective admissions criteria, representing approximately 3.1% of all middle school students districtwide; 1,985 students enrolled in high school magnets and other application programs with selective admissions criteria, representing 4.3% of all MCPS high school students. Data on the racial, ethnic, and socioeconomic distribution and English proficiency status of the students who were enrolled in magnet and other application programs with selective admissions criteria at both the middle and high school levels show substantial variance from districtwide demographics.

As shown in Exhibits 23 and 24, the proportion of Hispanic/Latino students in middle school magnet programs with selective admissions criteria was 20.4 percentage points lower than across the district; for high school programs, it was 18.2 percentage points lower than across the

district. Similarly, the proportion of Black/African American students in magnet and other application programs with selective admissions criteria was 13.5 percentage points lower than the districtwide proportion for middle school and 15.8 points lower for high school programs.

Similar patterns are seen for FARMS and special education students. There were fewer than 10 LEP students in these programs; therefore data are not presented for this subgroup. In middle school programs, the proportion of students who were eligible for FARMS lagged the districtwide proportion by 31.4 percentage points. The proportion of special education students lagged the districtwide proportion by 12.3 percentage points. At the high school level, the proportion of students who were eligible for FARMS was 30.3 percentage points lower than the districtwide proportion and for special education it was 9.6 points lower than the district.

Exhibit 23: Enrollment by Race and Ethnicity and Eligibility for FARMS—Districtwide and Program Students, by School Level (2013–14)

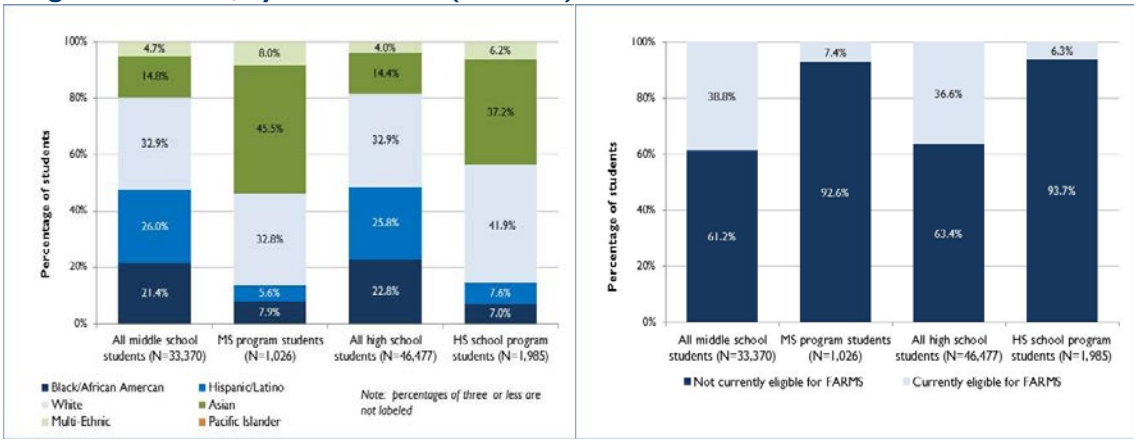
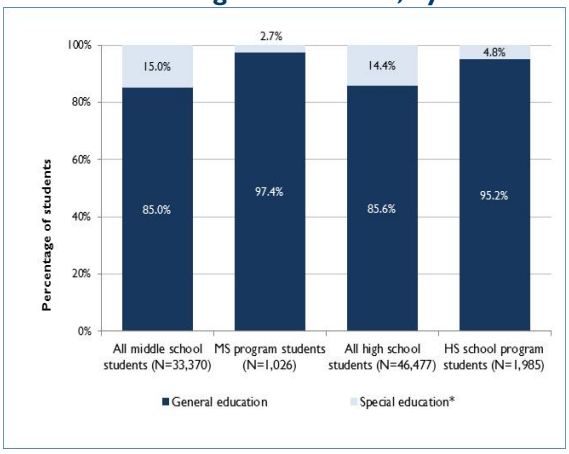


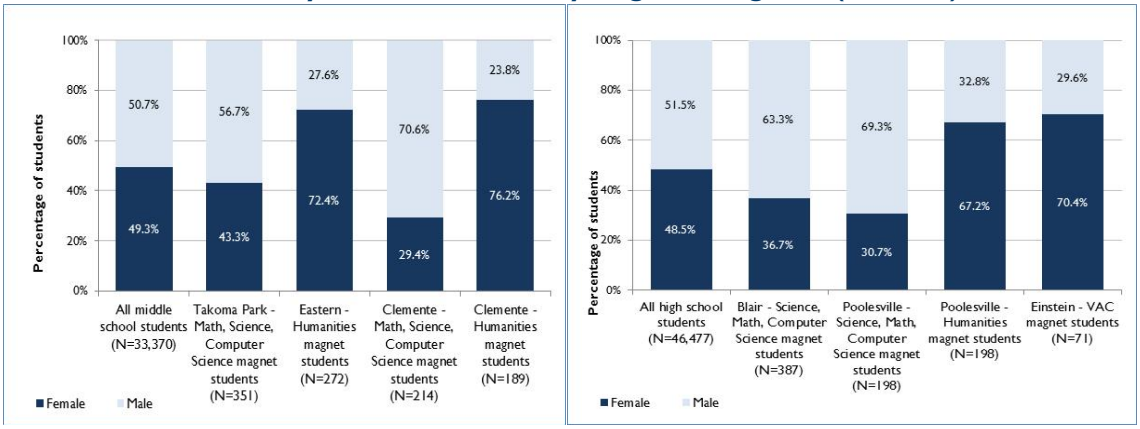
Exhibit 24: Enrollment by Special Education Status—All Students and Program Students, by School Level (2013–14)



*Includes students with 504s.

Enrollment data for 2013–14 also show that there are higher than average proportions of male students in math, science, and computer science magnet programs at both the middle school and high school levels, whereas female students enroll in humanities and arts magnet programs at higher than average proportions. These data are shown in Exhibit 25.

Exhibit 25: Enrollment by Gender— Secondary Magnets Programs (2013–14)

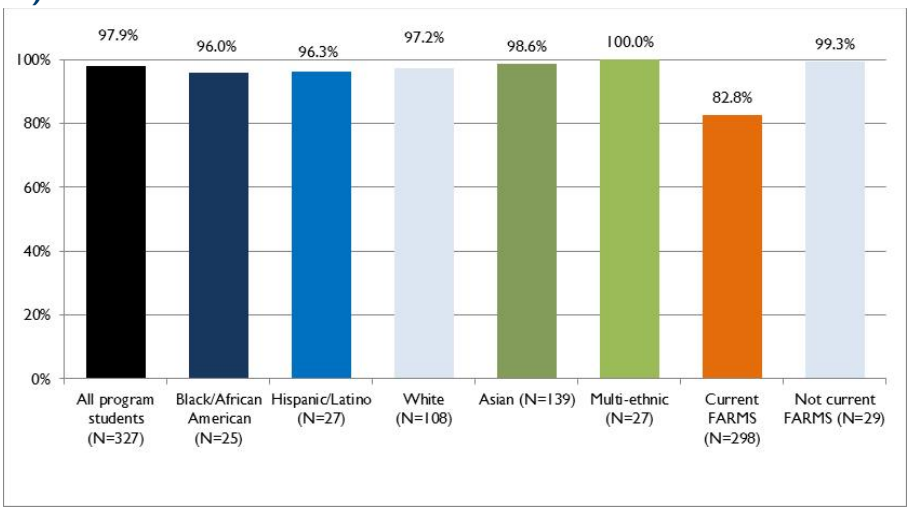


3. Academic outcomes of students in secondary magnets and other application programs with selective admissions criteria

Students in secondary magnets and other application programs with selective admissions criteria excel academically: almost all students in these programs met the MCPS milestones. Yet there were some achievement gaps by race/ethnicity and income level within the program student population. At the middle school level, 97.9% of all program students achieved the Algebra I milestone by Grade 8 in 2013–14. There were no statistically significant differences in achievement rates by race/ethnicity. There were, however, statistically significant differences in outcomes by student eligibility for FARMS: 82.8% of students in the programs who were eligible for FARMS met the milestone compared with a much higher proportion (99.3%) of students who were not eligible (see Exhibit 26).[132]

[132] Algebra I: FARMS to non-FARMS students (p=.000, Cramer's V=.325).

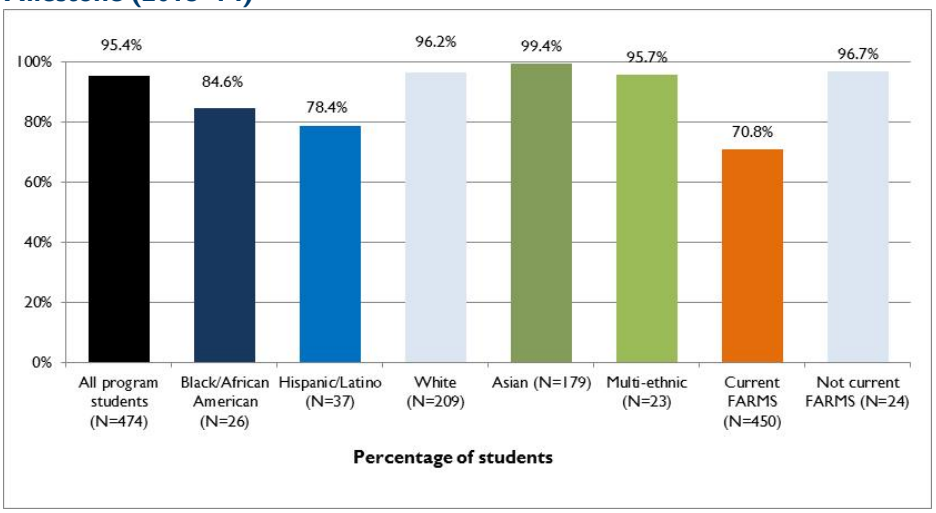
Exhibit 26: MCPS Algebra 1 by Grade 8 Milestone Data—Percentage of Middle School Magnet Students by Race/Ethnicity and Eligibility for FARMS Meeting the Milestone (2013–14)



At the high school level, statistically significant differences among program students by race/ethnicity and eligibility for FARMS were found on the SAT/ACT and AP/IB milestones. It should be noted that these two milestones are based on students who graduated. As shown in Exhibit 27, 95.4% of all students in magnets and other application programs with selective admissions criteria achieved the SAT/ACT milestone in 2013–14. Among these students, lower proportions of Black/African American (84.6%) and Hispanic/Latino students (78.4%) compared with White (96.2%) and Asian (99.4%) students met the milestone. The differences were statistically significant. The differences between students who were eligible for FARMS (70.8%) and students who were not eligible (96.7%) were also statistically significant.[133]

[133] SAT/ACT: Black/African American to White students: (p=.012, Cramer's V=.165); Hispanic/Latino to White students: (p=.000, Pearson's Chi Square=16.367); Asian to White students: (p=.033, Cramer's V=.108); FARMS to non-FARMS students (p=.000, Pearson's Chi Square=34.356).

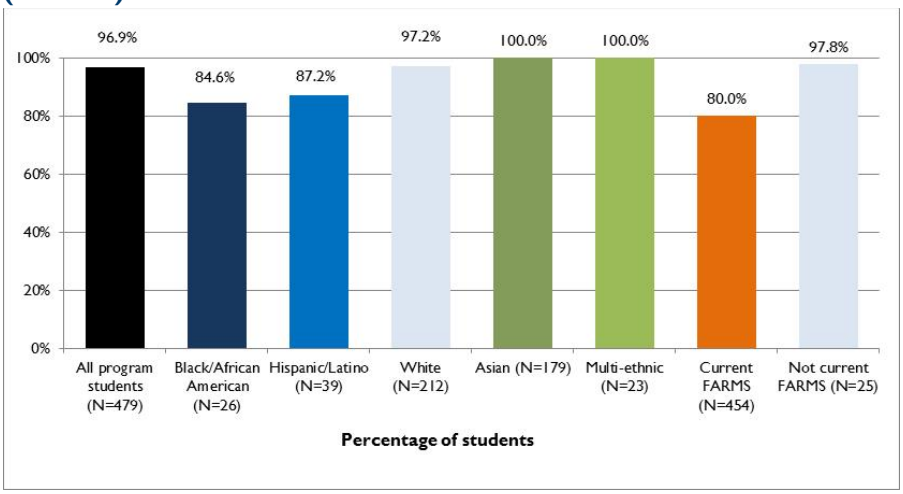
Exhibit 27: MCPS SAT/ACT Milestone Data—Percentage of Students in High School Magnet and Application Programs by Race/Ethnicity and Eligibility for FARMS Meeting the Milestone (2013–14)



Data on the AP/IB milestone show similar patterns. As displayed in Exhibit 28, overall, 96.9% of all students in magnets and other application programs with selective admissions criteria met the milestone. Among students in these programs, the proportions of Black/African American (84.6%) and Hispanic/Latino students (87.2%) were lower than of White (97.2%) and Asian (100%) students. The differences were statistically significant. The differences between students who were eligible for FARMS (80.0%) and students who were not eligible (97.8%) were also statistically significant.[134]

[134] AP/IB: Black/African American to White students: (p=.003, Cramer's V=.195); Hispanic/Latino to White students: (p=.005, Pearson's Chi Square=7.846); Asian to White students: (p=.023, Cramer's V=.115); FARMS to non-FARMS students (p=.000, Pearson's Chi Square =24.742).

Exhibit 28: MCPS AP/IB Milestone Data—Percentage of Students in High School Magnet and Application Programs by Race/Ethnicity and Eligibility for FARMS Meeting the Milestone (2013–14)



Across all middle and high school MCPS milestones, the proportions of students in magnets and other application programs with selective admissions criteria who met the milestone in 2013–14 were significantly higher than for non-program students in the schools that house the programs. These results were statistically significant and observed at both the middle and high school level and across each of the MCPS milestones.

Students who enrolled in magnets and other application programs with selective admissions criteria had slightly higher academic outcomes on the MCPS milestones than students who applied for the programs but were not accepted or enrolled. MCPS milestone data were analyzed separately for two groups of applicants to magnets and other application programs with selective admissions criteria: students who were accepted and enrolled in the program (hereafter referred to as *participants),* and students who applied but did not enroll (hereafter referred to as *non-participants)*. It should be noted that *non-participants* includes both students who applied and were not accepted and students who applied and were accepted but did not enroll. The number of students in the latter group was too small to conduct a separate analysis.

Thus, it must be noted that these data should be interpreted with caution because the analyses are limited to those who applied, and therefore the application process itself may also be a barrier for certain students. At the same time, it is likely that there were baseline differences between those that applied and were not invited and those that applied and were invited, and the programs themselves likely influence academic outcomes for students who enroll. Therefore, it may not be possible to determine whether or not differences in academic outcomes were due to differences between these two populations or due to the impact of having participated in the magnet program. Lastly, population sizes are quite small for many of the subgroups, limiting the usefulness of the data.

Notwithstanding these notes of caution, the results of the analyses show that for both middle and high school magnet programs, the proportion of participants who met select MCPS milestones was higher than for non-participants. For example, at the middle school level, the proportion of participants who met the Algebra I by Grade 8 milestone in 2013−14 was 10 percentage points higher than for non-participants, which was statistically significant. The differences were even greater among Black/African American and Hispanic/Latino students. The data show that 96% of Black/African American participants met the milestone compared with only 78% of Black/African American non-participants. Among Hispanic/Latino students, 96% of participants compared with 73% of non-participants met the milestone. These differences were also statistically significant.[135]

At the high school level, differences in academic milestone achievement between participants and non-participants varied by milestone. For example, the greatest difference was on the SAT/ACT milestone—the proportion of participants who achieved the milestone was 15 percentage points higher than of non-participants, a statistically significant difference. The differences between participants and non-participants were greater among Black/African American and Hispanic/Latino students.[136] Furthermore, on the AP/IB milestone, the proportion of participants who met the milestone was 10 percentage points higher than non-participants. The differences were only statistically significant for White and Asian students.[137]

4. Perceptions of parents, students, and staff

Parents and students in secondary magnets and other application programs with selective admissions criteria strongly agree that the programs provide unique academic experiences that are not readily available in home schools. In the focus groups, parents, staff, and students both in programs and not in programs agreed that the programs offer highly able students opportunities to learn within a cohort of students that has similar interests and academic ability. Parents and students agreed that joining a peer group of highly able students was a key factor in the decision to apply. As stated by a parent during the focus groups, *"Peer learning and motivation is very important. In the magnet program, you have a group of top smart students who motivate each other and*

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[135] Algebra I milestone: Participants to non-participants (p=.000; Pearson's Chi Square =27.028); Black/African American participants to Black/African American non-participants (p=.034, Cramer's V=.139); Hispanic/Latino participants to Hispanic/Latino non-participants (p.=010, Cramer's V=.235).

[136] SAT/ACT milestone: Participants to non-participants (p=.000; Pearson's Chi Square =41.595); Black/African American participants to Black/African American non-participants (p=.016, Cramer's V=.249); Hispanic/Latino participants to Hispanic/Latino non-participants (p.=005, Cramer's V=.257).

[137] AP/IB milestone: Participants to non-participants (p=.000; Cramer's V=.162); White participants to White non-participants (p=.013, Cramer's V=.132); Asian participants to Asian non-participants (p.=009, Cramer's V=.125).

learn together." Furthermore, some program students described that in their home school, they were always the "smart kid" who finished work quickly and read books during lessons. As one student stated, "*It is boring being the smart kid in class. [In] the magnet classes, everyone is that smart kid in class.*"

Focus group respondents also reported that programs provide opportunities for students to explore thematic areas of interest and delve deeply into academic subjects. For example, students in the math, science, and computer science magnet programs talked about how they were engaged in learning programming languages and robotics, as well as studying science at a more in-depth and advanced level. They added that working with other students who share similar interests builds an environment for better class discussions and projects. For example, a magnet teacher stated, "*There is a dynamic that happens when you get students who are that able together. You take all the students who are highly, highly able students from all over the county and put them in a room. The level of discussion, the level of the speed you can go and the amount of detail you can go into is higher.*" These opinions applied to other magnet programs as well. As a student in the VAC at Albert Einstein HS stated, "*There is something about the VAC that makes you take into consideration what you are going to do in the future, what you are going to focus on in school. Because it takes up that space in your schedule, it forces you to think about what you are dedicating yourself to.*"

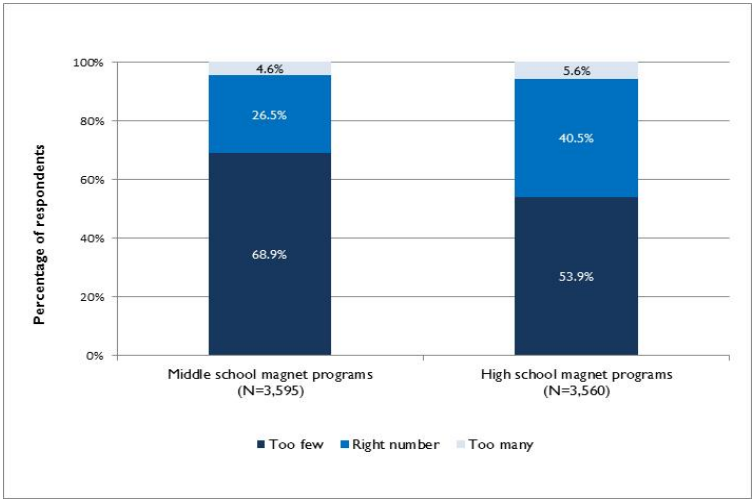
Parents and students who applied to these programs generally agreed they did so because they were seeking a higher level of academic rigor. During focus groups with parents, a common theme was that they were interested in the program because they did not think their child was being adequately challenged in their home school. As stated by a parent whose student did not attend a program, "*I just don't think he is getting enough challenge. They don't come home with work, they finish it at school. Only 15 minutes of homework which they do at school. I want to see work, struggle and challenge.*" Another parent agreed, stating of the programs, "*Raising the bar is a given. Students have deadlines for projects, which teaches them challenges of real life. That is the way the culture is in the [magnet program]; challenge is not a dirty word, it is just the culture.*" Students agreed; they added that they applied to the programs so they could be more challenged academically and be in a peer group of other students who learn quickly.

Stakeholders perceive that the limited number of seats is a barrier to equitable access. Both parents and students reported in focus groups that the limited number of seats is a major barrier to access. Because demand greatly outweighs the supply, many students and families are disappointed with the selection process. For example, the science, math, and computer science program at Montgomery Blair HS has 100 seats each year. Focus group respondents questioned what happens to the student who is 101st on the list. One parent stated, "*You can't arbitrarily say there are 100 smart kids in MCPS. You just don't have 100 kids each year who qualify for the program each year.*" Another parent stated, "*If we want to have a program that is directed to the really brilliant, then let all of the brilliant students in.*" Parents were also concerned because the number of seats drops from the elementary center program to middle school magnets, which restricts access to the programs further. As a parent explained, "*There are more seats in center programs than in middle school [magnets].*

Either you need to have a program that grows as you grow or you need to redesign the middle schools to serve the needs of the students." Students agreed. As one student stated, "*There is a finite amount of students that can be accepted into each program. There are a lot of students that don't make the cut and that doesn't mean they don't deserve to be in the program.*"

The community survey, however, showed mixed opinions about impact on the number of programs on equity of access. For example, when respondents were asked if they think that number of magnets and other application programs with selective admissions criteria programs offered by MCPS supports or does not support equitable access to the programs, just under half (47.4%) of the respondents said it *supports* equitable access, while slightly more (52.6%) reported it *does not support* equitable access.

Exhibit 29: *In your opinion, do you think MCPS offers too few, too many, or the right number of magnet and application programs?*



Yet, when asked if there are too few, too many, or the right amount of magnets and other application programs with selective admissions criteria, most respondents said *too few*. As shown in Exhibit 29, 68.9% of the respondents felt that there are *too few* middle school magnet programs, and 53.9% reported that there are *too few* high school magnet programs. Very few reported that there are *too many* programs (4.6% middle school and 5.6% high school programs).

On the other hand, many MCPS stakeholders believe that MCPS should also pursue equity by raising expectations and opportunities for rigorous instruction across all schools. Students, parents, and staff across focus groups agreed that there are highly able students in home schools as well as special programs. They added that all students should be offered a challenging academic program, whether they choose to attend a special program or a home school. As one parent

> "*Equity is in general a concern. For those children who didn't get into a magnet, how are you making sure they are challenged? It is not about giving resources to only magnet or only those who need support, it's about every child should be the focus.*" – *MCPS parent*

stated, "*The answer might not be to make more seats here; it might be make the schools more effective at meeting more of the need.*"

Some focus group respondents did not support expansion of magnet and other application programs with selective admissions criteria. They felt that the programs should be reserved for exceptional students, and that expanding the number of seats may dilute the academic caliber of the programs. Some staff agreed; as one teacher stated, "*If you mimic this program at every high school, there are not going to be enough students to fill those seats. Are there enough students to fill in at a third school, maybe there is, maybe there isn't.*"

Lack of parental awareness of programs is a barrier to equitable access. MCPS uses a wide array of communication tools to share information in multiple languages with families about magnet and other application programs with selective admissions criteria; however, information is not reaching all segments of the community equally. During the focus groups, parents and students indicated that they received information about magnet and other application programs with selective admissions criteria through a variety of methods, including mailings, email messages, MCPS website, newsletters, and open houses. They added that parents who are looking for the information will find more than enough through multiple methods and sources. They expressed concerns, however, that parents who do not know to look for the information or who have not been encouraged by school staff or teachers to research and apply to the programs may be unaware that the information is available.

Parents in focus groups also felt that the MCPS website has a plethora of important information, but it can be hard to navigate and uses complex language which can be a barrier for non-native English speakers. Some parents applauded the MCPS practice of providing translation in multiple languages, but others expressed concerns that if the information is not clear or easy to understand, parents will not be able to access it even if in their own language.

Many parents in focus groups also reported that they have relied heavily on word of mouth and independent research to keep up to date on

> "*The information needs to be given in real language. And it is time intensive, so I kept thinking, okay, if I was working two jobs, or if my husband was a cop and I was a nurse, if we were working night shifts, I would never get a handle on the information. It is skewed toward middle class parents who can make it a hobby, and this is not appropriate for this community.*" – *MCPS parent*
>
> "*The school system goes as far as getting information translated [and] phone calls in Spanish. This is good but not the answer. We need, internally, to have staff who build relationships with parents outside of school, at non-traditional school events or partnerships with organizations with high impact with families of non-English backgrounds. They need more community organizing efforts and schools do not understand how to do that and do not prioritize these efforts. The district staff in Community Outreach is stretched and under-resourced. This does not speak to a priority to be more inclusive. In this district, you almost need a Master's degree to keep up with communications.*" – *MCPS parent and community leader*

program and application requirements and timelines. These respondents acknowledged that they were able to obtain information through their own social networks that may not be equally accessible for other parents, especially low-income parents who work multiple jobs or are non-native English speakers.

> *"For parents who have access to personal computers, there is plenty of information. But if you are a parent who does not have their level of access, I'm not sure there is enough information. The county is good about sending out information, but most of the real information comes from parent conversation. If you are a parent that is not able to connect to other parents in these ways, you may not know to look for the information. Many people are too reliant on schools and don't understand that this is a different process and you need to advocate for your child." – MCPS parent*

Data from the community survey supported this finding. Among respondents, less than half (45.8%) reported that were *very familiar* with the different types of magnet and other application programs or *very familiar* with how to find out information about the programs (42.2%). The proportions of respondents reporting that being *very familiar* were even across racial and ethnic groups, with the exception of Hispanic/Latino respondents. On both items, Hispanic/Latino respondents were less likely to report being *very familiar* (29.3% and 28.2%, respectively). These data, which are presented in Exhibits 30 and 31, present a potential gap in MCPS's approach to communication about these opportunities. This concern is highlighted in the following parent comments: "*It is not that we as Hispanic families are not motivated; it is lack of information and lack of transportation*" and "*The interest meetings, at kindergarten or third or fourth grade, every time you have access to the programs, every time they are in English with interpreters. I think we could reach out to the community if we have meetings in Spanish.*"

Exhibit 30: ***In general, how familiar are you with the program options that are offered for MCPS's choice and special academic programs?***

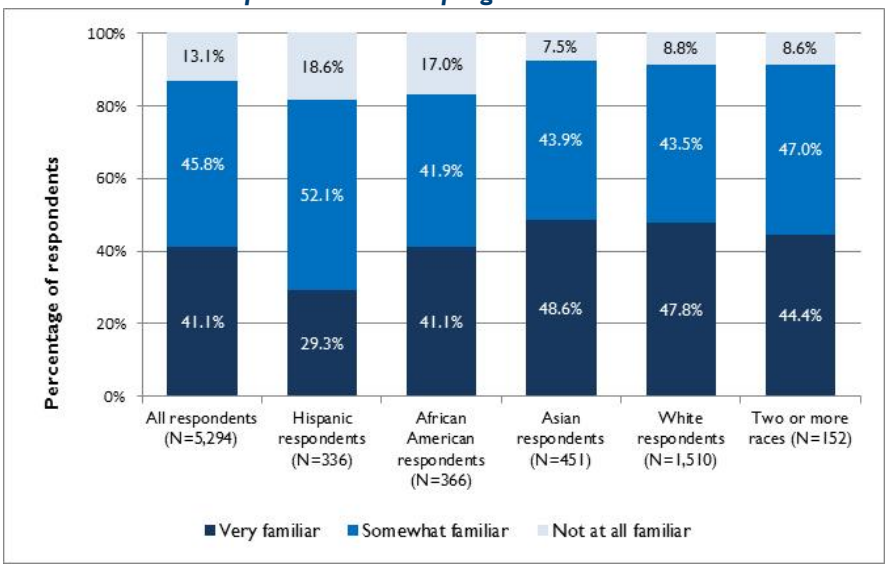
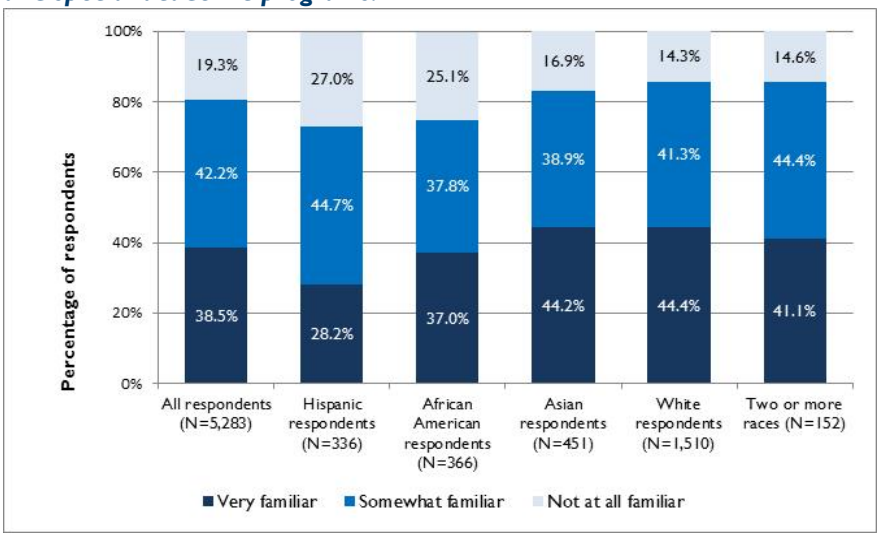


Exhibit 31: ***In general, how familiar are you with where to find information about MCPS's choice and special academic programs?***



Parents and staff also reported that information about magnet and other application programs with selective admissions criteria is shared in some schools more than others, resulting in families having differential access. During the focus groups, parents and staff agreed that some schools promote programs among their home school families and share information about the application and testing process more than other schools. They added that principals and teachers in some schools advocate more often for highly able students in the application process, while others advocate infrequently or not at all. Several staff also reported that it is challenging when they advocate for a student whom they believe should be admitted into a program but does not get selected during the admission process. In these situations, they added, staff can lose the respect or credibility of parents who were relying on them to be advocates. These situations may act as a disincentive for staff to share information about magnet programs or to advocate for students.

When asked how MCPS could improve information to reach *all* families, respondents suggested that the district conduct more community-based outreach, such as at community events where MCPS staff could meet prospective families. Respondents also suggested providing more training for school staff across *all* MCPS schools about the programs and strategies for

> *"Elementary schools with center programs do a great job of exposing students to the middle school programs. Other schools do not; you just get a postcard about the program and [it] tell[s] you to go to the website. If parents are not immersed in it, it is easy to lose your bearing fast - not be able to get all of the forms fill[ed] out or [meet] the deadline." – MCPS parent*
>
> *"It has been a big track. And when you are in 5th grade and ready to apply to the middle school, the teachers will tell you about it and make sure you are up-to-date. Once you are sort of in it, it is easy to get information about it. People want you to continue in it." – MCPS student*

encouraging students to apply to the programs who do not have parents who can advocate for them. Finally, they added that MCPS should develop more streamlined, targeted, and easy-to-read information about what the programs are, who should apply, and how to apply, that are presented in "digestible bites" of information.

5. Impact on sending schools

There are perceptions that magnet and other application programs with selective admissions criteria cause a "brain drain" on other schools across the district; however analyses of MCPS milestone data reveal that evidence to support this viewpoint is limited to a small number of schools. During focus groups and interviews, district staff and high school principals articulated concerns that schools that do not house selective programs suffer academically due to the loss of high achieving students to magnet programs.

Furthermore, they expressed concern that schools are not able to offer a variety of honors and Advanced Placement courses at their schools when a critical mass of high achieving students choose to attend a selective program instead of the home school. As one high school principal stated, "*Magnets have an adverse effect on the Strategic Planning Framework for some schools because they take the top students out, which may decrease the number of staff positions, decrease the number of high level courses that can be offered, and decrease [the] peer group for high achieving students.*" Other principals and staff, however, argued that students should not be denied the opportunity to enroll in programs that meet their needs and interests because of the impact on school-level outcomes.

Data from the analyses of MCPS milestone data showed impacts of the enrollment of students in secondary magnet and other application programs with selective admissions criteria only at a limited number of those students' home schools. In 2013–14, rising Grade 6 students assigned to 33 of the 38 middle schools based on attendance zones chose to enroll in a selective program rather than attend their home middle school. Rocky Hill MS had the highest number of zoned students who were enrolled in programs at other schools, 37 students. Other schools with high number of rising Grade 6 students in their local population who decided to enroll in middle school magnet programs included: Kingsview MS (29 students), Cabin John MS (25 students), and Herbert Hoover MS (22 students). Only two middle schools—A. Mario Loiederman MS and Parkland MS, which are both in the MSMC, discussed below—did not have students who were zoned to attend the school but chose rather to enroll in a middle school magnet program with selective admissions criteria in 2013–14.

At the high school level in 2013–14, each of the 25 MCPS high schools had rising Grade 9 students who chose to enroll in a magnet or other application program with selective admissions criteria at another high school rather than attend their home high school. The schools from which the largest number of Grade 9 students attended programs at other schools during the 2013–14 school year were Northwest HS (59 students), Wootton HS (44 students), Clarksburg HS (33 students), and Quince Orchard HS (32 students). Complete lists of the number of

students from each middle and high school data who enrolled in a magnet or other application program with selective admissions criteria are presented in the Appendix.

To examine the potential impact on the sending schools of students choosing to attend a magnet or other application program with selective admissions criteria rather than their home school, researchers compared MCPS milestone data using two student enrollment scenarios: 1) actual enrollment, i.e., all students who were enrolled in the school in 2013–14; and 2) hypothetical enrollment, i.e., enrollment in the school if *all* students who chose to attend a program were reassigned back to their home school. Data were analyzed to calculate and compare the percentage of students in each enrollment scenario that met the milestones. It should be noted that these analyses do not take into account any contribution that the program or school may have had in student achievement on the milestones. Furthermore, because the analyses require two scenarios using the same students, tests of statistical significance were not conducted.[138]

At the middle school level, the analyses show that Sligo MS and Francis Scott Key MS had lower schoolwide achievement levels on MCPS milestones than they would if all of their zoned students chose to enroll in the home school. The analysis of MCPS milestone data for the two groups, actual enrollment and hypothetical enrollment (as defined above), found that for Sligo MS, the total proportion of students who met the Grade 8 reading milestone in 2013–14 was 4.1 percentage points lower than it would have been if all students who chose to enroll in a magnet program were reassigned back to Sligo MS. Similarly, the school's percentage of students meeting the Algebra I by Grade 8 milestone was 7.4 percentage points lower than it would have been if program students chose to enroll in Sligo MS. There was also an impact at Francis Scott Key MS. Performance on the Algebra I by Grade 8 milestone in 2013–14 was 3.9 percentage points lower than it would have been if all program students were reassigned back to Key MS. The impact on all other middle schools was minimal (differences of less than two percentage points).

At the high school level for the 2013–14 school year, the differences in the achievement levels based on actual and hypothetical enrollment scenarios were greatest for Northwest HS. The analysis of MCPS milestone data for the two groups show that for Northwest HS, the total proportion of students who met the MCPS milestones was lower in three of the seven areas studied than it would have been if all students who chose to enroll in a program were reassigned back to Northwest HS: Algebra 2 by Grade 11 (3.0 percentage points lower), SAT/ACT (8.4 percentage points lower), and AP/IB (6.2 percentage points lower). It should be noted that the

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[138] In order to conduct tests of statistical significance, researchers would have to create duplicate data sets using dummy variables for the two scenarios, thus creating duplicate cases for each student. Due to the complexity of the task and the scope of research, these tests were not conducted. Furthermore, because the data show results for population-level analyses, rather than samples, differences can be interpreted as actual difference and do not require tests of statistical significance to measure the size of the differences.

AP/IB milestone may be impacted by students leaving Northwest HS to attend the Richard Montgomery IB magnet program.

There were impacts on other schools as well. For example, on the SAT/ACT milestone, four schools had lower percentages of students who met the milestone than if program students were reassigned back to their home school, including Seneca Valley HS (4.3 percentage points lower), Quince Orchard HS (4.4 percentage points lower), and Watkins Mill HS and Gaithersburg HS (both 4.6 percentage points lower). Again, it should be noted that these findings assume that school experience would not impact student achievement on the milestone. The impacts on other high schools were generally small with differences of less than two percentage points. Complete data for these analyses for middle and high schools are presented in the Appendix.

6. Impact on schools in which the programs are located

In schools with magnet and other application programs with selective admissions criteria, program students are not fully-integrated into the larger school population. In the focus group interviews, parents, students, and staff expressed concerns that the magnet and other application programs with selective admissions criteria often function as separate programs within the home schools. They added that the programs are oftentimes not fully integrated into the schools that house them, even though a single principal at each school oversees both the magnet program and the rest of the curriculum. It should be noted that this viewpoint was expressed even at Poolesville HS, which was designed as a "whole school" in order to increase integration among program and non-program students. At Poolesville HS, students from within and outside the attendance boundary can apply to enroll in one of three academically-selective magnet houses, and in-boundary students who do not enroll in an academically-selective magnet house are enrolled in a non-selective magnet program, the Independent Studies Program.

Respondents provided a number of possible reasons for the perceived separation between magnet programs and the home schools. Some respondents point to the fact that magnet students enroll in self-contained classes and only mix with non-magnet students during electives or non-instructional activities. These interactions can be further diminished if magnet students are scheduled for elective classes with primarily other magnet students due to scheduling constraints. A

> "*Unfortunately, it causes the relationships between groups of students to butt heads. Some of the students in the program feel they are entitled or better and sometimes the home students feel resentment.*" – *MCPS staff*
>
> "*The magnet is for people that excel, but it also kind of creates a barrier between people who are not in the magnet and are in the magnet.*" – *MCPS student*
>
> "*Special programs hurt more than they help. I think they create a sense of second class citizens among children who are too young to be subjected to that.*" – MCPS parent
>
> "*Special programs create a stigma for people who are in it and who are not in it. We are cutting kids off early by identifying them in one way.*" – MCPS parent

magnet student noted this problem by stating, "*We are not trying to purposely exclude people who aren't in your house [program], sometimes your classes just happen to be that way.*" Another reason given was that magnet students travel long distances to get to school and have limited opportunities to socialize with non-magnet students after school or on weekends. Both of these reasons indicate the challenges of integrating two distinct populations within one school building.

However, some respondents also expressed concerns that labeling of students can contribute to the perceived separation of magnet and other students. For example, some staff reported that magnet students and home school students participate in name-calling that causes a division between the groups. They added that name-calling can be exacerbated when adults use terms such as "*gifted,*" "*magnet,*" or "*regular*" to describe students. At the middle school level, parents, staff, and students reported the use of the term "*normie*" to refer to non-magnet students. The separation can be especially detrimental for home school students who apply to magnet programs but who are not accepted. These students must remain in the school and observe other students participating in the program when they cannot.

The perceived separation of students within the building may serve as a deterrent to attracting a more diverse population to the magnet programs. As a community leader and parent noted, "*When you have one Black child amongst all these White and Asian [students], they feel alienated.*" Furthermore, another parent stated, "*When we put our children into these programs, we don't realize the psychological impact that it is going to have later on as well; and that is something, if you had more diversity in these programs and more support for children of color, more of them would be in there and they would be successful.*"

Enrollment data further illustrate substantial differences in the racial, ethnic and socioeconomic characteristics of magnet students and the non-magnet student populations in schools that house these programs. As shown in Exhibits 32 and 33, the magnet student population includes higher proportions of Asian, White, and non-FARMS eligible students and lower proportion of Black/African American, Hispanic/Latino, and FARMS-eligible students when compared with the non-magnet populations. At the middle school level, the proportion of students who are eligible for FARMS is 46.8 percentage points higher in the non-magnet population than in the magnet student population. At the high school level, the difference is 49.3 percentage points.

Exhibit 32: Enrollment by Race and Ethnicity and Eligibility for FARMS—Middle Schools with Magnet Programs (2013–14)

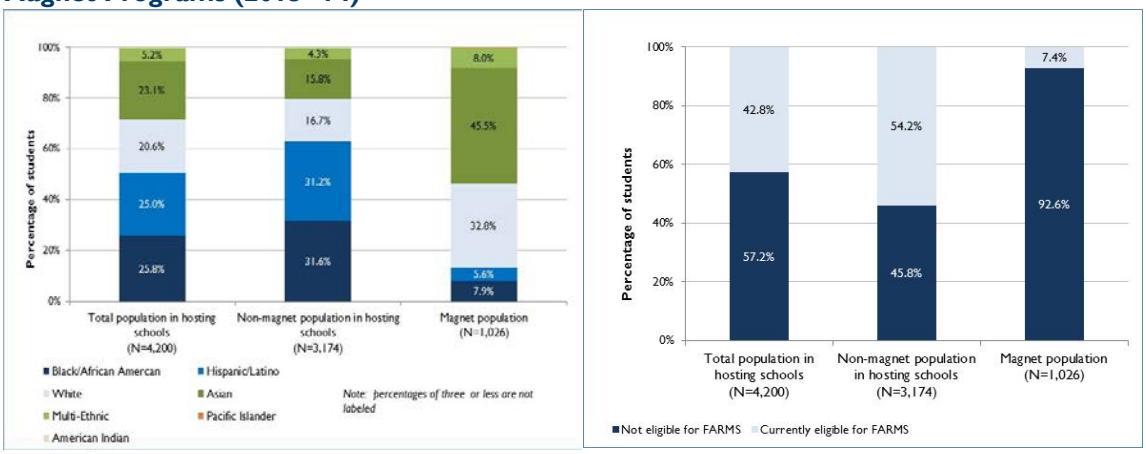
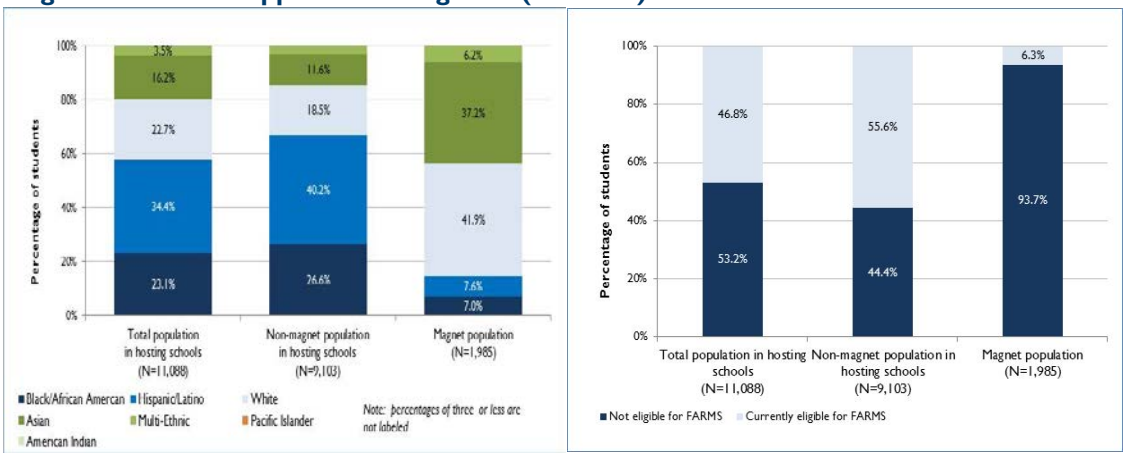


Exhibit 33: Enrollment by Race and Ethnicity and Eligibility for FARMS—High Schools with Magnet and Other Application Programs (2013–14)



7. Staffing and transportation costs for magnets and application programs

According to data provided by MCPS, the additional incremental costs for staffing and transportation associated with the magnet and application programs for the current school year (2015–16) totals approximately $3,938,093. The district allocates $123,887 to support testing and selection of students, including the costs of the test, scoring, and staffing for the selection process. This total also includes $289,952 allocated for district-level staff and program resources, including portions of the salaries of program directors, supervisors, instructional specialists, a data management coordinator, and site-based administrative staff to support program enrollment, as well as resources to support program training, membership in recognized gifted and talented organizations, IB annual membership dues (for Richard Montgomery HS), office supplies (to support program training), and local travel to support program implementation.

Also included in these costs are additional incremental school-based staffing allocations. At the middle school level, the total cost for school-level magnet staff was $734,254. The magnet programs at Takoma Park MS and Eastern MS were each allocated 1.6 FTE in staffing, and Roberto Clemente MS was allocated 2.0 FTE in staffing to support the magnet programs. At the high school level, the total cost for school-level magnet staff was $1.59 million. The budget was used to support 3.4 FTE in staffing for the IB program at Richard Montgomery HS, 4.6 FTE in staffing for the magnet houses at Poolesville HS, 6.2 FTE in staffing for the magnet and application programs at Montgomery Blair HS, 0.6 FTE in staffing for the Engineering and Bioscience programs at Wheaton HS, and 0.4 FTE in staffing for the VAC at Einstein HS. These allocations do not include magnet coordinators at the high school level because these positions are counted as additional administrators comparable to what other high schools receive based on their student enrollment.

In addition, MCPS allocates approximately $1.2 million for the additional incremental costs of transportation for students using centralized stops. The budget paid for 21.82 additional bus routes, including the cost of staff, fuel, equipment, and repairs.

8. Benchmarking and research

Most of the benchmark school districts of similar size and demographics to MCPS offer a variety of academically selective and non-selective secondary magnet and application programs. In contrast to MCPS's reliance on selective admissions criteria for magnets and other application programs at the secondary level, six of the seven school districts used to benchmark MCPS's secondary magnet and application programs—all but FCPS—offer a mix of academically selective and interest-based magnet or application programs. They also offer a broad selection of program models, including programs within schools as well as whole-school magnets. MCPS uses selective admissions criteria in all secondary magnets and other application programs that allow students to attend a school other than their home attendance school. MCPS also offers non-selective signature programs at the middle and high school level; however, these programs are only available to the local students in those schools or through the consortia model discussed below.

- **Clark County School District (CCSD)** offers magnet programs in 10 middle schools and 10 high schools. One high school magnet program is a "whole school" magnet. None of the middle school magnets are "whole school" magnet schools. CCSD does not have any academic criteria for admission to its middle school magnet programs. Students are selected through a lottery that includes a preference for siblings and also takes into account geography and feeder schools. At the high school level, CCSD also uses a lottery with a preference for siblings and considers geography and feeder schools. To be eligible for the lottery, students must meet certain criteria. The criteria that may be considered include grade point average, attendance, and citizenship (i.e., positive school

behaviors). For some high school magnet programs, additional criteria may be considered such as specific courses, grades in those courses, and auditions.

Magnet themes include: IB; international studies; creative arts; performing arts; technology; science, technology, arts, and engineering (STEM); coding, video gaming, and web design; leadership; finance; law; teacher education; aviation; medical; hospitality and tourism; and military science, technology, and emergency management (MSTEM).[139]

- **Wake County Public School System (WCPSS)** offers magnet programs at 10 middle schools, nine high schools, and two middle/high schools. Examples of the middle and high school themes offered include: gifted and talented (GT)/academically or intellectually gifted (AIG) basics; museums; technology; language immersion; leadership; global studies; IB; university connections, creative arts; medical sciences; STEM Early College; Vernon Malone College and Career Academy; and Wake Early College of Health & Science. At the middle school level, WCPSS does not use academic admission criteria for magnet programs, except for the Early College magnet programs and half of the seats in each of the gifted and talented/AIG magnets. Students applying for the AIG Basics program at the middle school level must be identified as academically or intellectually gifted according to Wake County policy in order to apply for that program. Any student may apply for the gifted and talented part of the program, and all students participate in the elective program of the gifted and talented theme. At the high school level, WCPSS uses academic admission criteria only for the Early College program. Selection for the Early College magnet program is aligned with, but not based solely on, the score on the early college application.

  WCPSS uses a weighted lottery selection process except for middle and high school Early College programs and for 50% of the seats in each of the gifted and talented/AIG middle school magnets. For the lottery, each applicant is assigned a random number that is generated by the selection software. Then, points are awarded to applicants who meet any of the selection priorities. The first priority is for incoming entry grade siblings of current magnet students. If a sibling applies during the magnet application period, that student is guaranteed admission to the magnet program to which he or she applied. After WCPSS has assigned all of the siblings who meet priority 1, WCPSS fills 90% of the remaining seats in the following order: current magnet students following program pathway (priority 2); current magnet students who seek to change their magnet pathway (priority 3); non-magnet student at magnet schools who follow their program pathway

[139] http://magnet.ccsd.net/magnet-schools/.

(priority 4); students residing in areas designated as high-performing (priority 5); students whose next facility is projected to be crowded (priority 6); and non-entry grade siblings of current magnet students whose first choice school is their sibling's school (priority 7). The remaining 10% of the seats are filled using the random number only.[140]

- **Hillsborough County School District (HCSD)** offers magnet programs at 12 middle schools and 14 magnet programs at the high school level. The middle school program themes include: environmental studies, a girls preparatory academy, a boys preparatory academy, two Visual, Performing and Communication Arts programs, cultural arts and the humanities, IB middle years program at three schools, medial studies, and STEM.[141] The high school program themes include: architecture; STEM; health; performing arts; college prep; collegiate academy; IB and urban teaching academy. HCSD does not use academic criteria to select students for its magnet middle schools. HCSD uses a random lottery process for selecting students for its magnet middle schools with a preference for siblings and students who live in the walk zone for the magnet school.

  HCSD uses academic criteria for all of its magnet high school programs. The criteria include: grades in core course (language arts, math, science, and social studies) from Grade 7 and from the first quarter of Grade 8; a writing sample; and standardized test scores from Grades 6 and 7 (the better of the two) for reading and math. Ten of the 12 magnet middle schools are "whole school" magnets. None of the high schools are "whole school" magnets.

- **Houston Independent School District (HISD)** offers middle school magnet programs in 30 schools. The magnet themes offered in middle schools include: gifted and talented ("Vanguard"); medicine; foreign language; engineering; career technology education; IB; Montessori; environmental studies; robotics; STEM; fine arts; health and medical science; performing and visual arts; futures; allied health; fine arts; single gender; math and science; and sports medicine.

  HISD's offerings are similar at the high school level: among the magnet programs at 32 schools, the themes include gifted and talented ("Vanguard"); college and career readiness; international studies; foreign language; maritime; teaching professions; fine arts; Early College; biomedical science; environmental sciences; engineering; media; culinary arts; hotel management; health professions; STEM; energy; futures; law

[140] http://www.wcpss.net/magnet.

[141] http://www.sdhc.k12.fl.us/doc/688/magnet-high.

enforcement and criminal justice; performing and visual arts; IB; single gender; computing science; aviation; technology; maritime and communications.

At both the middle and high school levels, some magnet programs are designated as "open enrollment," meaning there are no admission criteria, but rather HISD uses a random lottery to choose students based on interest. For other programs at both levels, HISD uses a matrix to determine whether students have the minimum skills necessary for the magnet curriculum. The matrix includes grades, test scores, and consideration of LEP and/or FARMS status. For the Vanguard middle and high school magnet programs, students must be identified as gifted and talented.

- **Baltimore County Public Schools (BCPS)** offers a similar range of secondary magnet programs. At the middle school level, the district offers four whole-school and four program-within-a-school magnets. Themes include: 21st Century digital learning; career and professional studies; conservation sciences; earth/space science; environmental; exploratory; health sciences; law and finance; performing arts; visual arts, mass communications, and world language. BCPS uses a random lottery to select students for the two middle school magnet programs that do not have admission criteria. For the other six programs, BCPS uses criteria for admission including academic performance and performance on a magnet assessment, which may include an audition, a practicum, an interview, a writing sample, or a test or performance assessment. To qualify, students must earn at least 70 of 100 points in the evaluation process. BCPS fills up to 20% of the seats by qualified applicants who show exceptional commitment and promise in the magnet program based on their performance on the magnet assessments. For the remainder of the seats, BCPS fills the seats using a random lottery of remaining qualified applicants.

  For high school, there are six "whole school" and nine program-within-a-school magnet programs. At the high school level, themes include: IB; sports science; computer science; mass communications; environmental studies; arts and communications; business and information technology; leadership and humanities; biomedical sciences; STEM; visual art; performing arts; teaching academy; information technology; law and public policy; interactive media production; engineering; and career and technical education programs. BCPS has admission criteria for all of its high school magnet programs, using a similar approach as described for the selection middle school magnets.[142]

[142] https://www.bcps.org/offices/omp/.

- **Jefferson County Public Schools (JCPS)** offers magnet or optional programs at 23 of its 28 middle schools. The middle school themes include: excellence in teaching and learning; aerospace; all-boys school; all-girls school; Catalpa/Waldorf model; digital and global leadership; gifted and talented; international studies; mathematics, science, and technology; Montessori; self-directed learning; sixth grade academy; seventh and eighth grade academy; traditional; visual and performing arts; environmental and life science; environmental education; fine arts; health careers and liberal arts. Schools may develop and use criteria for admission to magnet programs, such as a student work sample or test scores. The criteria are reviewed by the magnet staff. Schools select students based on their criteria. Four of the middle schools offering magnet or options programs are "whole school" magnets. Five of the 23 middle school programs are optional programs. This means that students living outside the school's attendance area may apply and be accepted into the options programs, but JCPS does not provide transportation.

  Additionally, JCPS offers magnet programs at six high schools and all six of the high schools offering magnet programs are "whole schools" magnets. The magnet themes include: self-directed learning; precollege curriculum with ten specialized programs in four areas of concentration – business, law, technology and health services; communications; college preparation; math/science/technology; visual arts; youth performing arts and traditional. Schools may develop and use criteria for admission to magnet programs, such as a writing samples, test scores, report cards, attendance records; behavior report, activities and interests surveys, teacher recommendations, interview, and auditions. Magnet staff reviews the criteria. Schools select students based on their criteria. Students from throughout JCPS may apply for the high school magnet programs. For five of the six high schools offering magnet programs, JCPS provides transportation for most students. JCPS does not provide transportation for one the high schools offering magnet programs.

Academic research has shown that non-selective magnet schools have a greater impact on promoting diversity than selective programs, and at the same time produce academic and social benefits for students. Over the past 40 years, numerous studies have been published about the academic and social benefits to students who attend racially, ethnically, and socioeconomically diverse schools.[143] The data indicate that students who attend schools with youth from different racial and ethnic backgrounds have improved academic outcomes, benefit

[143] Hawley, Willis. (2007). Designing Schools that Use Student Diversity to Enhance Learning of All Students. In Erica Frankenberg and Gary Orfield *(*Ed).*Lessons in Integration.* Charlottesville: University of Virginia Press.

from stronger in-class dialogue and debate, and form better understandings about different backgrounds and points of view.[144]

Research also shows that different types of magnet programs yield different impacts on student outcomes. For example, magnet programs that use selective admissions criteria have strong academic outcomes, largely due to the fact that they only accept high achieving applicants. However, research shows that magnet programs that utilize non-competitive standards, such as lotteries or open enrollment, have a stronger impact on promoting diversity and supporting desegregation goals.[145] Additionally, rigorous evaluations of magnet programs, in Connecticut and California, have presented data showing higher academic outcomes of students in non-selective magnet programs compared with students in comparable non-magnet schools.[146]

Furthermore, selective magnet schools that do not yield racially diverse student enrollment can negatively affect student outcomes, through increased racial isolation and within-school segregation. For example, a 2012 article "*To Be Black at Stuyvesant High,*" in the New York Times documented the experiences of a student who was one of only a few African American students at the elite high school in New York City. As stated in the article, "*She [student] has been the only black person in most of her classes, and often goes hours without seeing another. The school's attendance sheets have names and pictures of the students, and she said teachers were quick to learn who she is; there are few others like her, she said.*" In recent years, these issues of racial isolation and racial stereotypes have been spotlighted by minority students in MCPS. For example, in 2015, students at Bethesda Chevy-Chase HS were inspired by a play, video, and photo project conducted by African American students in Ivy League universities to create a six-minute YouTube video entitled "I, Too, Am B-CC." The video used short narratives from students of color to describe the challenges of African American and Hispanic students at the school. These narratives highlight the implementation of racial isolation in MCPS. For example as described in one student's words, "*I just felt like everyone was looking at me like, oh, I was that black girl who made the team because she was black and not because of merit.*"[147]

Research also indicates that the over-reliance on standardized tests in identifying students to participate in selective programs does not fully capture the wide ranges of intellectual

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[144] Siegel-Hawley, Genevieve (2012). How Non-Minority Students Also Benefit from Racially Diverse Schools. *The National Coalition of School Diversity. Research Brief No. 8.*

[145] Frankenberg, E., & Siegel-Hawley, G. (2008). *The Forgotten Choice: Rethinking Magnet Schools in a Changing Landscape.* Los Angeles: Civil Rights Project/ Proyecto Derechos Civiles. UCLA.

[146] Frankenberg, E., & Siegel-Hawley, G. (2011). Magnet School Student Outcomes: What the Research Says. *The National Coalition of School Diversity. Research Brief No. 6.*

[147] St. George, Donna (2015, February 23). Struggle of minority students in Montgomery: 'I, Too, Am B-CC'. *The Washington Post.*

capacities and abilities that are indicators of academic success. Academic research and the voices of community leaders and advocates have long highlighted the role that admissions tests play in creating barriers to access for some students. Data indicate that across school districts, as in MCPS, selective programs enroll higher proportions of Asian and White students and lower proportions of Black/African American and Hispanic/Latino when compared with district enrollments.[148] The level of racial and ethnic segregation in selective programs, which was originally ameliorated with the use of race-conscious admissions processes established as part of court-ordered desegregation plans or local efforts but since limited by decisions of the U.S. Supreme Court, has increased over the past several decades as districts started relying primarily on admissions tests to select the highest achieving students.

Research has highlighted that over-reliance on standardized tests to select students for programs may under-identify the academic potential of many students, especially of students of color and those from low-income backgrounds.[149] Research also suggests that the use of tests that evaluate material that students have not yet had the opportunity to learn in school is a less effective predictor of academic success than the use of school grades and exams that evaluate mastery of curriculum content. Additionally, the latter are not only more effective in predicting academic success but are a more equitable and fairer measure for low-income students and students of color.[150] In fact, some colleges and universities are shifting away from over-reliance on test scores to evaluate applicants, but rather are recognizing that high school grades "*outperform standardized tests in predicting college outcomes,*" irrespective of the quality or type of high school attended, and are also less closely associated with students' socioeconomic or racial backgrounds than the results of standardized tests.[151]

Challenges to the over-reliance on assessments have been a key point in complaints made against the academically selective high school, Thomas Jefferson (TJ) HS for Science and Technology in FCPS, as well as specialized high schools in New York City, as discussed more fully below. TJ is a nationally recognized selective high school that is designed to serve gifted and talented students from across FCPS and neighboring districts. However, it has struggled with issues of equitable access. The current admissions policy identifies a pool of semifinalist applicants who have the highest combined admissions test scores and grade point averages. A second review is conducted

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[148] Shakarian, Katrina. (2014, November 11). Remaining Elite, Ensuring Diversity: Boston, Chicago & New York Wrestle with Admissions to Special High Schools. *Gotham Gazette.*

[149] Callahan, Carolyn M. (2005). Identifying Gifted Students from Underrepresented Populations. *Theory into Practice*, *44*(2), 98-104.

[150] Atkinson Richard C. & Geiser, Saul (2009).Reflections on a Century of College Admissions. *Research & Occasional Papers Series: CSHE.4.09.* Retrieved from http://www.cshe.berkeley.edu/sites/default/files/shared/publications/docs/ROPS-AtkinsonGeiser-Tests-04-15-09.pdf.

[151] Ibid; see also William G. Bowen et al., *Crossing the Finish Line: Completing College at America's Public Universities* 8-10 (2009).

for each semifinalist using a holistic assessment that examines applicants' merits based on aptitude in science and technology, record of prior academic achievement, and interest and motivation, as well as considering gender and socioeconomic factors. In 2003, a complaint was filed with the U.S. Department of Education's Office for Civil Rights (OCR) claiming that the policy was being used to discriminate on the basis of race, against White students in favor of Black/African American students. In 2012, the complaint was resolved, finding no evidence of discrimination.[152]

However, in that same year, the Coalition of The Silence and the Fairfax County Branch of the NAACP jointly filed another complaint with OCR, this time claiming discrimination against Black/African American and Hispanic/Latino students. The complaint claimed that the disparity in the quality of education across FCPS schools and programs offered in the schools has produced a system of separate and unequal schools that are not equitably preparing students for admission to FCPS GT programs, which serve as a pipeline to TJ. Admissions to the gifted and talented programs use multiple factors but is heavily weighted on cognitive and standardized test scores.[153] As stated in the complaint, "*Nearly every FCPS student admitted to TJ attended a level 4 Advanced Academic center (GT) in middle school. Because Black and Latino students are denied access to these services at the very earliest stages of identification for 'giftedness,' the lack of Black and Latino representation at TJ should come as no surprise.*"[154] The most recent complaint against TJ underscores that impact of early identification of students for GT programs and the heavy reliance on test scores on admissions to selective programs at the secondary level.

The use of non-cognitive factors, such as self-efficacy and persistence, is an emerging area for admissions to selective colleges and universities that could also hold promise at the secondary level. Much of the traction for the trend toward using non-cognitive factors stems from the work of academic researchers such as Paul Tough, Carol Dweck, and Angela Duckworth.[155] Their research is focused primarily on the importance of preparing students to succeed to college and careers by equipping them with non-cognitive skills in addition to academic skills. It also highlights the importance of displaying other skills, such as motivation, perseverance, and grit to equip students with skills to excel and succeed. Numerous research studies have been conducted to study the link between non-cognitive skills and college or workforce performance.[156] In response to this research, admissions offices at some selective

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[152] http://www2.ed.gov/about/offices/list/ocr/docs/investigations/11041020-a.html.

[153] http://www.fcps.edu/is/aap/packet/ParentInformationPacketFCPS.pdf.

[154] https://coalitionofthesilence.files.wordpress.com/2012/10/fairfax-complaint-7-23.pdf.

[155] Tough, Paul (2012) *How Children Succeed: Grit, Curiosity, and the Hidden Power of Character.* Houghton Mifflin Harcourt, New York, NY; Dweck, Carol S. Ph.D. (2008). *Mindset: The New Psychology of Success.* New York: Ballantine Books; Duckworth, Angela (2016). *Grit: The Power of Passion and Perseverance.* New York: Scribner.

[156] https://www.ets.org/s/workforce_readiness/pdf/21334_big_5.pdf

colleges and universities are factoring in non-cognitive skills into their processes.[157] These processes include greater emphasis on essays and recommendations, and less or no emphasis on SAT or ACT scores. These institutions, however, have been challenged with the task of determining how to measure the non-cognitive skills in a valid and reliable way. The Educational Testing Service (ETS), in response to the increased interest in non-cognitive measures, has developed the Personal Potential Index (PPI), a teacher-completed assessment that rates students on a five-point scale in six categories: communication skills, ethics and integrity, knowledge and creativity, planning and organization, resilience, and teamwork.[158] The PPI has been used at the graduate admissions level, but has not been tested for secondary level admissions. Additionally, research in this topic area revealed no published tools that have been implemented on a large scale to measure non-cognitive skills for high school application processes. Furthermore, research also suggests that while non-cognitive skills are important, traditional academic skills are still critical to student success and should not entirely overlooked.[159]

There has been some academic research on the potential benefits of using guaranteed admissions to selective programs for a percentage of top academic performers at all feeder schools. For example, a study conducted in 2015 by the Research Alliance for New York City Schools and the Institute for Education and Social Policy in New York University examined the impact of admissions rules on diversity in the city's selective high schools. As in other districts, New York City has long faced significant challenges to its selective admissions process with claims that tests are racially biased and favor students who can afford expensive test preparation courses. In September 2012, the NAACP Legal Defense Fund, LatinoJustice PRLDEF, and The Center for Law and Social Justice at Medgar Evers College filed a federal civil rights complaint on behalf of a broad coalition of organizations challenging the admissions process. Since then, there have been many recommendations for modifying the selection process to incorporate alternative measurements or considerations. To study this issue, researchers from NYU conducted simulations of alternative admissions rules to the city's selective high schools using combinations of state test scores, grades, attendance, and other criteria. The data showed that one scenario produced substantial changes in the demographic mix of the programs—this

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[157] Jaschik, Scott (2012, April 9). How They Really Get In. *Inside Higher Ed.*

[158] Hoover, Eric. (2014, April 17). Colleges Want Student With Character, But Can't Measure It. *Nautilus.*

[159] For example, see Kohn, Alfie (2014, April 6). The Downside of "Grit:" What Happens When Kids are Pushed to Be More Persistent? *The Washington Post*; Sparks, Sarah D. (2014, August 19). Grit May Not Spur Creative Success, Scholars Say. *Edweek.*

scenario included a rule that guaranteed admissions to all students across the city who were in the top 10% of their middle school graduating class.[160]

This model, sometimes referred to as the "top ten percent" plan, has not been tested widely at the secondary school level, but there have been some recent experiments with reserving seats in magnet programs. After a desegregation consent decree ended, Chicago Public Schools (CPS) made revisions to its admissions process for magnet and selective schools to maintain diversity. For the entry grade level in CPS's selective elementary and secondary programs, 30% of seats are filled based on students' test scores and grades; the remaining seats are allocated through a lottery to the highest-scoring students from each of four different geographic tiers, which group census tracts based on: median family income; percentage of single-parent households; percentage of households where English is not the first language; percentage of homes occupied by the home-owner; adult education attainment; and the achievement scores from attendance area schools for the students who live in each census tract. For other non-selective magnets, the tiered approach is utilized for a portion of the seats, and for the remainder, there are separate lotteries for siblings and students who live in proximity to the schools.[161]

Another example is New York City, which recently announced a program in which seven elementary schools will set aside a percentage of seats in their choice admissions process for low-income families, English-language learners, or students in the child welfare system as a means of creating greater diversity within their schools.[162] In addition, there are other districts that expressly consider socioeconomic diversity in their magnet school selection processes, even if they do not reserve a percentage of seats on this basis.[163]

Moreover, several state university systems have had extensive experience with the percentage plan model. For example, the University of Texas was the first to implement the "Top Ten Percent" plan (TTP) to grant automatic admission to the top 10% of students across all districts across the state based on grade point average and class rank. Enrollment data since the plan was first adopted in 1998 have shown increases in the number and proportion of Black/African American, Hispanic/Latino, and Native American students who are being selected for and

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[160] Corcoran, Sean P. & Baker-Smith, Christine (2015). *Pathways to an Elite Education: Exploring Strategies to Diversify NYC's Specialized High Schools*. New York: New York University. Retrieved from http://steinhardt.nyu.edu/research_alliance/publications/pathways_to_an_elite_education.

[161] Chicago Public Schools, Office of Access and Enrollment, Selection Process for Magnet and Selective Enrollment Schools: An Overview, available at: http://www.cpsmagnet.org/apps/news/show_news.jsp?REC_ID=184188&id=0.

[162] Spencer, Kyle (2016, February 16). Programs Aim to Keep Schools Diverse as New York Neighborhoods Gentrify. *The New York Times*.

[163] Potter, Halley et al. (2016). A New Wave of School Integration: Districts and Charters Pursuing Socioeconomic Diversity. Century Foundation 15-16.

enrolling in the state's selective public universities.[164] However, the increase in diversity was not seen until the universities increased scholarships and financial aid for low-income students identified through the TTP in order to ensure that these students could afford to accept the admissions offer.[165] Two other states, Florida and California, have since adopted similar plans: Florida grants automatic admission to the University for Florida for the top 20% of students in graduating high school classes; the University of California systems provides automatic admissions to the top 4% of graduating high school classes.[166]

Observers point out that the TTP relies for its efficacy on segregation and racial isolation at the high school level; another critique is that the TTP admits under-prepared students who excelled in lower-performing high schools but who are not equipped to handle the rigor of an elite university and who may struggle to succeed academically. Critics also argue that the TTP may overlook qualified students who rank lower in high-performing high schools.[167] Another concern is that the TTP may benefit students who focus primarily on traditional schooling activities and coursework and may not identify students who are late bloomers in their high school careers or those who focus on extracurricular activities or civic activism which may be just as strong an indicator of college success. In response to these criticisms of the TTP, research from the Texas Higher Education Opportunity Project at Princeton University has provided data showing that Texas college students who were admitted under the TPP out-performed non-TTP in college success, even when the non-TTP had better admissions test scores.[168]

The TTP and other models discussed above are among the menu of options for admissions processes that focus specifically on promoting diversity, consistent with applicable law, which can be found in joint guidance issued by the U.S. Department of Education and the U.S. Department of Justice, including:[169]

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[164] Daugherty, Lindsay, Martorelli, Paco, & McFarlin, Issac (2014). The Texas Ten Percent Plan's Impact of College Enrollment. *EducationNext, 14*, 63-69.

[165] Webster, Nicholas (2007). *Analysis of the Texas Ten Percent Plan*. Kirwan Institute for the Study of Race and Ethnicity, The Ohio State University. Retrieved from http://kirwaninstitute.osu.edu/wp-content/uploads/2012/05/Texas-Ten-Percent_style.pdf.

[166] Horn, Catherine L. & Flores, Stella M. (2003). *Percent Plan in College Admissions: A Comparative Analysis of Three States' Experiences*. Cambridge, MA: The Civil Rights Project at Harvard University.

[167] Webster, Nicholas (2007). *Analysis of the Texas Ten Percent Plan*. Kirwan Institute for the Study of Race and Ethnicity, The Ohio State University. Retrieved from http://kirwaninstitute.osu.edu/wp-content/uploads/2012/05/Texas-Ten-Percent_style.pdf.

[168] Tienda, M. (2006). Harnessing diversity in higher education: Lessons from Texas. *Texas Higher Education Opportunity Project* forthcoming report. Available at: http://texastop10.princeton.edu/reports/forthcoming/Tienda--R03.pdf.

[169] http://www2.ed.gov/about/offices/list/ocr/docs/guidance-ese-201111.pdf.

- A school district could identify race-neutral criteria for admission to a school (*e.g.,* minimum academic qualifications and talent in art) and then conduct a lottery for all qualified applicants rather than selecting only those students with the highest scores under the admission criteria, if doing so would help to achieve racial diversity or avoid racial isolation.

- For students who meet the basic admissions criteria, a school district could give greater weight to the applications of students based on their socioeconomic status, whether they attend underperforming feeder schools, their parents' level of education, or the average income level of the neighborhood from which the student comes, if the use of one or more of these additional factors would help to achieve racial diversity or avoid racial isolation.

- If it would help achieve racial diversity or avoid racial isolation, a school district could decide to admit all applicants with grades that put them within the top quartile of their class at the schools from which the competitive program draws.

- A school district could give special consideration to students from neighborhoods selected specifically because of their racial composition and other factors. In the selection process, a district would treat all the students who live in the selected neighborhood the same regardless of their race.

Conclusion and Program-Level Recommendations

Secondary magnets and other application programs with selective admissions criteria were originally developed in MCPS to promote diversity and provide academically rigorous opportunities for students. Admissions to the programs is based on multiple criteria, including test scores, essays, report card grades, teacher and parent recommendations, and consideration of unique student characteristics, among others. However, qualitative and quantitative data suggest that test scores are a significant factor in the admissions process. This section provides the following key findings about the magnets and other application programs with selective admissions criteria in MCPS:

- Demand for magnets and other application programs with selective admissions criteria at the secondary level is high—overall approximately 1,350 students competed for 300 middle school magnet seats and 1,550 students competed for 530 high school magnet and application program seats in 2013–14.

- Magnet programs are not only popular, but they serve as a tool for MCPS to provide unique academic experiences for highly able and highly motivated students to learn within a cohort model.

- A review of academic data found that the implementation of selective magnet programs has limited effects on other schools in the district.

- MCPS uses a program-within-a-school model that houses magnet programs within larger school populations. This practice has caused perceptions of a divide between magnet students and local student populations. In the model, magnet students are separated into cohort groups for magnet classes and sometimes non-magnet classes, due to scheduling constraints. Additionally, the demographic characteristics of the magnet student population are different from those of the larger school populations which further perpetuates perceptions of within-school separation of the groups. Overall, the magnet student population comprises lower proportions of Hispanic/Latino, Black/African American, and low-income students and higher proportions of White, Asian, and higher income students.

- The demographic differences in the two populations are caused, in part, by lower application and acceptance rates for certain segments of the MCPS population, namely for Hispanic/Latino, Black/African American, LEP, and low-income students. The lower acceptance rates for these subgroups—a factor that may also deter applications—suggest that there areas for needed revision in the selection process.

- Lower application rates may also be due to different levels of parental awareness of the programs. Stakeholders stated that, although MCPS mails information on programs to all eligible students in English and Spanish, the district's approach to communications requires parents to seek out additional information and be able and have time to delve into the complex information that is presented. As a result, information may not filter to all segments of the community equally, especially to low-income or non-native English speakers.

- The additional incremental costs for staffing and transportation associated with the magnet and application programs for the 2015–16 school was approximately $3,938,093. These costs include resources for testing and selection of students, district-level staff and program resources, school-based staff allocations, staff training, membership in recognized gifted and talented organizations, IB annual membership dues (for Richard Montgomery HS), office supplies, and local travel to support program implementation. The costs also include transportation for students using centralized stops on 21.82 additional bus routes.

- Research and benchmarking on magnet and selective application programs show that many school districts have opted to offer a combination of academically-selective and non-selective programs that meet the needs and interests of a broad segment of their student populations. Academic research suggests that non-selective magnet schools have

a greater impact on promoting diversity than selective programs, and at the same time produce academic and social benefits for students.

- Academic research on selective magnet and application programs also indicates that the over-reliance on standardized tests in identifying students to participate in selective programs does not fully capture the wide ranges of intellectual capacities and abilities that are indicators of academic success. As a result, some school districts are following a practice used in postsecondary admissions of using non-cognitive factors, such as self-efficacy and persistence in admissions decisions. Additionally, several school districts are specifically factoring socioeconomic status into their selection process or utilizing a model developed at the postsecondary level of using guaranteed admissions for a percentage of top academic performers at all feeder schools.

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In light of these findings, MCPS should consider the following recommendations for the magnets and other application programs with selective admissions criteria:

- Work to address barriers to equitable access in the magnets and other application programs with selective admission criteria by revising Board Policy IOA to broaden the definition of giftedness to focus on identifying students who are highly able from all backgrounds, as stated in the section on elementary center programs for highly gifted students.

- Work to address barriers to equitable access in the middle and high school magnets and application programs by:
  (a) implementing modifications to the selection process to focus these programs on selecting equitably from among those applicants that demonstrate a capacity to thrive in the program, through a process that includes use of non-cognitive measures and/or offers automatic admissions to the programs for students in the top 5-10% of sending elementary or middle schools in the district; and

  (b) developing additional communication, outreach, and recruitment methods and tools that incorporate clearer messaging and community-based approaches that are designed to meet the needs and preferences of a broader segment of the MCPS community, including low-income families and non-native English speakers.

- Develop new and enhance existing practices for all magnet and application programs to follow in order to ensure that program and local student populations have meaningful social and academic interactions, such as expanded use of electives, non-instructional in-school time, and extracurricular programs.

- To the extent that MCPS decides to expand seat capacity for magnet programs at the middle and high school level to keep up with demand and increasing enrollment, the district should consider utilizing a wider variety of program models such as whole-school magnet

programs and programs that incorporate student interest rather than rely primarily on academic criteria.

High School Consortia

Overview

MCPS operates two high school consortia to provide educational options for students within broad geographic areas. Consortia programs were designed to support school choice with the goals of promoting diversity and providing unique academic programs that were not available across all MCPS high schools, as discussed in the historical overview section above. Maps of the regional consortia are presented in Appendix E.

The first, the **Northeast Consortium (NEC)**, was established in 1998 in response to increasing enrollment in the northeast area of the county and the need to open a new high school, James Hubert Blake HS. Among the goals for the consortium were to: feature innovative educational methods and practices that meet needs and interests of identified students; and to reduce isolation among racial and ethnic minority students in each of the three participating schools. Currently, the NEC comprises three schools that each offer a comprehensive high school academic program as well as unique signature programs for students with a special interest in the theme to advance their study through a series of elective courses or pathways.

- James Hubert Blake HS has a thematic focus on the fine arts and humanities and offers academy (smaller learning community) programs in Arts and Communications, Humanities and Public Services, Business and Consumer Services, and STEM (Science Technology, Engineering, and Math).
- Paint Branch HS offers two academy programs: the Academy of Science with elective pathways in medical careers, biotechnology, engineering, nutrition, and environmental sciences; and the Academy of Media, which offers courses in television and radio production, multimedia production, publications, and business and technical media.
- Springbrook HS offers two signature programs: Information Technology, including courses in computer science and programming, robotics, software applications, and video game development; and IB World, which includes the IB Middle Years and Diploma Programs. In addition, the school has a pathway program in Justice, Law and Society that offers courses in criminal justice, forensics, and law.

In the 2004–05 school year, MCPS opened the **Downcounty Consortium (DCC)** in response to increasing enrollment in the southeastern region of the county and the need to re-open Northwood HS which had been closed in the 1980s. The DCC functions similarly to the NEC, with the goal to increase racial and socioeconomic diversity across five schools and provide programs that meet the different interests and needs of students across the consortium. In each school, students have the opportunity to select an academy that focuses on career pathways in smaller learning communities within a larger comprehensive high school. Students who complete

an academic course pathway and a capstone (college level class, internship, or research project) receive special recognition upon graduation.

- Albert Einstein HS offers the International Baccalaureate Program Academy; the Finance, Business Management, and Marketing Academy; the Renaissance Academy; and the Academy of Visual and Performing Arts.
- John F. Kennedy HS offers the International Baccalaureate Program; the Media Communications Academy; Health Careers Academy; the Business Management Academy; and the Naval Junior Reserve Officer Training Corps program (NJROTC).
- Montgomery Blair HS offers the Academy of Entrepreneurship and Business Management; Human Service Professions Academy; the Academy of International Studies; Academy of Media, Music and the Arts; and the Academy of Science, Technology, Engineering and Math.
- Northwood HS offers the Academy of Technology, Environmental, and Systems Science; the Humanities, Arts, and Media Academy; the Musical Theater Academy; the Politics, Advocacy, and Law Academy; and the Montgomery College Middle College (MC^2@N).
- Wheaton HS offers the Academy of Biosciences and Health Professions; the Academy of Engineering; the Academy of Information Technology; and the Institute for Global and Cultural Studies.

In addition to the academies, as discussed in more detail in the prior chapter, Montgomery Blair, Kennedy, and Wheaton HS offer application programs with selection criteria, open only to students who reside in the DCC or attended middle schools that feed into DCC high schools, and Montgomery Blair HS and Einstein HS operate magnets open to students outside of the DCC, as well. These magnet and application programs, as already noted, utilize separate admissions processes distinct from the consortium lottery described below.

For each consortium, students participate in a random selection lottery that incorporates consideration of the following factors: 1) student preference; 2) school capacity; and 3) demographic factors, including gender and socioeconomic status (based on student eligibility for FARMS at any point during the student's education in MCPS). Students can be guaranteed placement in their first choice school if they have a sibling who currently attends that school or if they live in that school's base area. Base areas are not attendance zones; rather, they are non-contiguous geographic areas near or around each school, established to allow students to choose to attend a school near their home while also promoting, at least when they were originally developed, racial integration.

Students who do not receive their first choice school during the lottery and new students can participate in a second round of the lottery. Students who do not receive their first choice in either of the two rounds of the lottery can appeal their assignment to DCCAPS. NEC and DCC students are provided transportation.

DCCAPS conducts a variety of outreach strategies to provide information to consortia families about the choice process and the programs offered at each school. To begin, all families of Grade 8 students in middle schools located within the NEC and DCC clusters are mailed information about evening informational meetings and the programs offered in each of the consortium schools. The evening informational meetings are held in the fall in English and Spanish for all families, and special meetings are offered for families of students in the special education program and for families of students who currently attend private school. In addition, each consortium school conducts an Open House in the fall to showcase the school's offerings and signature and/or academy programs. DCCAPS also works with Grade 8 counselors in middle schools to share information about the consortia and help students complete interest forms to identify areas of potential interest or aptitude. All Grade 8 students are given a Choice form and have approximately three to four weeks to complete and return the forms; follow-up is conducted with students who do not return the form. In 2013–14, 99.0% of students completed and returned the form. Students who do not make a selection are assigned to a school based on school capacity in the DCC and base area in the NEC.

Program-Level Findings

1. Choice lottery participants

Almost nine in 10 students in the NEC were assigned to their first choice school, and approximately half of all students selected their base area school as their first choice. In 2013–14, 1,315 students participated in the NEC lottery—among these students, 88.9% were assigned to their first choice school. The first choice match rates (meaning students who were assigned to their first choice) were high across all student subgroups, with slight differences. For example, 91.7% of Hispanic/Latino students, 88.5% of Black/African American students, 85.6% of White students, and 85.9% of Asian received their first choice. Furthermore, 91.4% of students who were currently eligible for FARMS and 86.2% of non-FARMS students were assigned to their first choice.

Differences in the first choice match rates may be attributed to the proportions of students who selected their base area school or were placed due to sibling link. Within the lottery process, half (50%) of students applying in the NEC choice process chose their base area school as their first choice, and thus received automatic placement in the school. An additional 6% of students were placed due to sibling link.

Three-quarters of students in the DCC received their first choice school; this rate is lower than in the NEC because of the large proportion of students who selected Montgomery Blair HS as their first choice. For the DCC lottery in 2013–14, 1,848 students participated and 74.7% were assigned to their first choice school. Just under half (42%) of students chose their base area school as their first choice and received automatic placement; an additional 8% was assigned due to sibling link. First choice match rates were lower in the DCC than NEC due to

capacity issues in the DCC schools as a result of increasing enrollments across the area and because of the over-selection of Montgomery Blair HS as a first choice in the lottery.

First choice rates in the DCC lottery varied by student subgroup. For example, 80.7% of Hispanic/Latino students received their first choice, while 72.1% of Black/African American, 73.9% of White, and 59.1% of Asian students did. Students who were currently eligible for FARMS were more likely than non-FARMS students to be assigned to their first choice school (79.3% to 66.9%).

Differences in the first choice match rates by student subgroup were also impacted by the high number of base area students who selected Montgomery Blair HS as their first choice school. In fact, because of the high number of base area students who selected Montgomery Blair HS as their first choice in 2013–14, only 5% of students (N=49) who did not reside within Montgomery Blair HS's base area or had sibling link were assigned to Montgomery Blair HS through the lottery. Additionally, 175 seats at Montgomery Blair HS are filled each year for the magnet and CAP programs which reduces the overall number of students selected for Montgomery Blair HS in the choice lottery. As a result, the first choice rates for students who chose Montgomery Blair HS were much lower, and impacted the rates across the DCC.

Consortia families are generally very satisfied with the choice process. Each year, MCPS administers a short survey for families participating in the choice process to measure their levels of satisfaction with the process and the amount of information they received. In 2013–14, high proportions of families expressed satisfaction with each of the consortium. In the NEC, 82% of families reported that they *had enough information to rank schools in order*; 76% indicated that *in general, we see benefits to the choice process*; and 73% reported that *the program's offerings influenced our decision.* For the DCC, the data were similar: 78% reported that they *had enough information to rank schools in order*; 76% indicated that *in general, we see benefits to the choice process* and that *the program's offerings influenced our decision.*

2. Profile of students enrolled in each high school consortium

The efficacy of the consortia in achieving diversity goals has been affected by the changing demographics across the county and important historical decisions about which schools to include and the use of base areas. Since the consortia began operating—in 1998 for the NEC and 2004 for the DCC—the county and district have experienced major demographic shifts that have impacted the effects of the choice process on school diversity. As discussed in the context section of the report and presented in graphs in the Appendix, the geographic areas of both consortia currently include much higher proportions of Black/African American, Hispanic/Latino, and low-income students than they did 15 to 20 years ago. In some areas, the proportions of students in each of these subgroups have increased by 20 or more percentage points since the establishment of the consortia. Thus, across each consortium, the student

population is less diverse than when the consortium was created, which has limited the efficacy of the choice process in supporting diversity.

Furthermore, two key decisions in the development of consortia—the use of base areas and the selection of the schools to include—affected the impact of the consortia on diversity from the onset. The rationale for base areas was that students could attend schools near their home if they preferred. But the base areas are different from typical attendance zones because they are non-contiguous geographic areas and their original design was intended to promote diversity and ensure that, if all students chose their base area school, none of the schools in the consortium would be racially isolated. Over time, the populations in the base areas have shifted, however, and they have not been redrawn. Moreover, the use of base areas has limited the impact of the consortia because each year about half of students in the choice process chose to attend their base area school.

Another key decision made by Board at the time of the development of each consortium was to opt against including high schools with higher proportions of White students and students who were not eligible for FARMS—namely Sherwood HS in the NEC and Bethesda-Chevy Chase HS in the DCC. Without these schools, the student population across each consortium was not as diverse, in terms as race, ethnicity, or socioeconomics. These decisions, thus constrained the potential for the consortia to promote diversity; and the impact of the decisions has been magnified over time with shifts in enrollment and diversity across the consortia.

As a hypothetical exercise, the demographic composition of the NEC was calculated for the NEC in 2013–14, with the addition of Sherwood HS, and the results are quite different. Without Sherwood HS, the current enrollment across the NEC, as presented in Exhibits 34 and 35, includes 46.4% Black/African American students, 13.6% White students, 24.1% Hispanic/Latino students, and 12.3% Asian students, and 50.2% of students are eligible for FARMS. If Sherwood HS had been included in the NEC, the current enrollment across the NEC would comprise 38.6% Black/African American students, 24.4% White students, 21.2% Hispanic/Latino students, and 12.3% Asian students, and 42.1% of students would be eligible for FARMS.

Findings are similar for the DCC. In 2013–14, enrollment across the DCC comprised 27.8% Black/African American students, 15.4% White students, 43.1% Hispanic/Latino students, and 11.0% Asian students, and 41.1% of students were eligible for FARMS. These data are presented in Exhibits 36 and 37. If the enrollment data for the DCC were calculated including Bethesda-Chevy Chase HS, instead of Wheaton HS, the student population would include 25.5% Black/African American students, 24.6% White students, 36.5% Hispanic/Latino students, and 10.1% Asian students, and 48.9% of the students would be eligible for FARMS.

Even though the consortia were designed to increase racial, ethnic, and socioeconomic diversity across the schools, the current school enrollments are demographically very

similar to the schools' base areas. When established, the high school consortia were each designed to create greater racial, ethnic, and socioeconomic diversity across the participating schools. However, student enrollment across the consortia regions, as discussed in the context section of the report, has increased substantially in the past decades. In addition, the areas have experienced continued demographic change, with higher enrollment of Hispanic/Latino, LEP and low-income students across all consortia schools (see charts provided in MCPS Division of Long-Range Planning in Appendix). These enrollment shifts have impacted the efficacy of the consortia on increasing diversity. None of the NEC schools are racially or socioeconomically isolated, but enrollment data from 2013–14 show that the proportion of students in each racial and ethnic group and by socioeconomic status is almost identical to the proportions of these groups in each school's base area. As shown in Exhibit 34, in the NEC schools, the percentages of students in each racial and ethnic subgroup and who were eligible for FARMS each varied by less than 3.0 percentage points from percentage in the base areas (in other words, the school enrollment if all students attended their base school).

Data in Exhibit 34 also show that the racial and ethnic composition of each of the three schools varied slightly from that of the NEC as a whole. For example, the proportion of Black/African American students across the NEC was 46.4% which is slightly higher than the proportion of Black/African American students enrolled in Blake HS (42.7%) or in Springbrook HS (42%), but was lower than in Paint Branch HS (53.6%). Additionally, the proportion of Hispanic/Latino students across the NEC was 24.1%, which is slightly higher than at Blake HS (22%) or Paint Branch HS (16.5%) but lower than at Springbrook HS (34.6%). Also, the proportion of White students across the NEC (13.6%) is higher than at Paint Branch (10.7%) or Springbrook HS (9.0%) and lower than at Blake HS (21.0%). Data for FARMS, as shown in Exhibit 35, provide similar findings.

Exhibit 34: NEC—Actual Enrollment vs. Base Area Population, by Race/Ethnicity (2013–14)

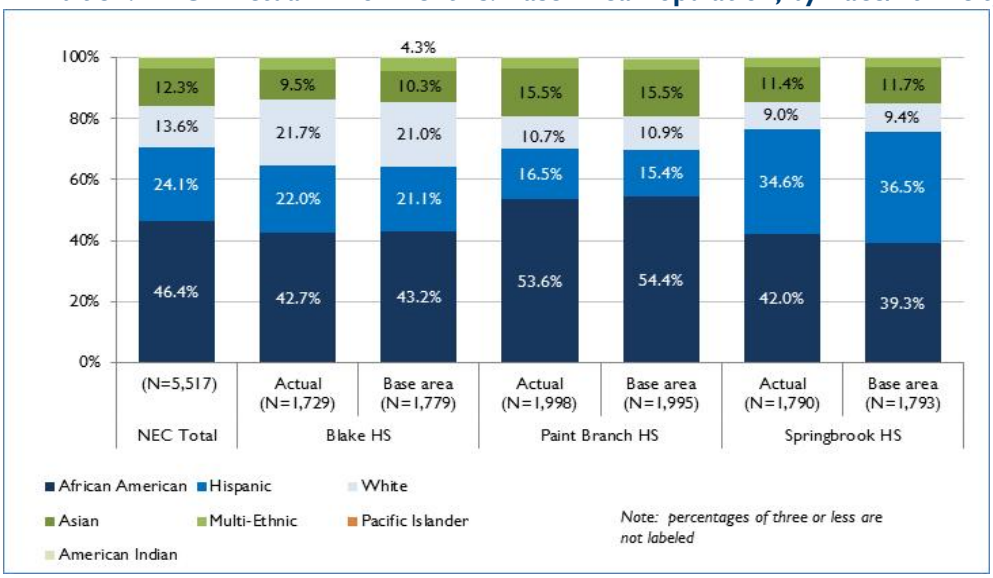
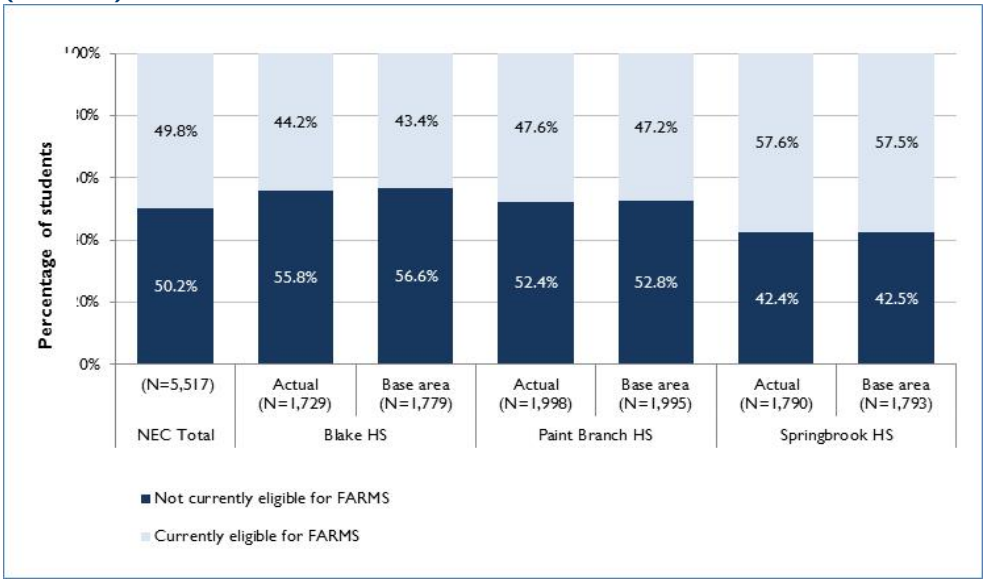


Exhibit 35: NEC—Actual Enrollment vs. Base Area Population, by Eligibility for FARMS (2013–14)



Similar data are shown in Exhibit 36 for the DCC. As in the NEC, none of these schools are racially or socioeconomically isolated, but in four of the five DCC schools, the percentages of students in each racial and ethnic subgroup and who were eligible for FARMS each varied by less than 2.5 percentage points between actual enrollments and the base area populations. It should be noted that enrollment data include all students in the DCC schools, including students enrolled in magnet and application programs with selective admissions criteria that are located within DCC schools.

At the fifth DCC school, Montgomery Blair HS, the actual enrollment and base area population were different. At Montgomery Blair HS, there was a higher proportion of Asian students and lower proportions of Black/African American, Hispanic/Latino, and low income students in the actual enrollment than in the base area population. It should be noted that Montgomery Blair HS houses two application programs—the science, math, computer science and CAP—which have high enrollments of White and Asian students. These students are included in the school enrollment data, and therefore, impact the racial, ethnic, and socioeconomic composition of the school in relation to the consortium. The impact of these programs on school demographics is discussed in the section on magnets and other application programs.

A comparison of each school's racial, ethnic, and socioeconomic composition in relation to the DCC as a whole provides similar findings to those for the DCC. None of the schools have a student population that precisely reflects the racial, ethnic, or socioeconomic composition of the DCC as a whole.

Exhibit 36: DCC—Actual Enrollment vs. Base Area Population, by Race/Ethnicity (2013–14)

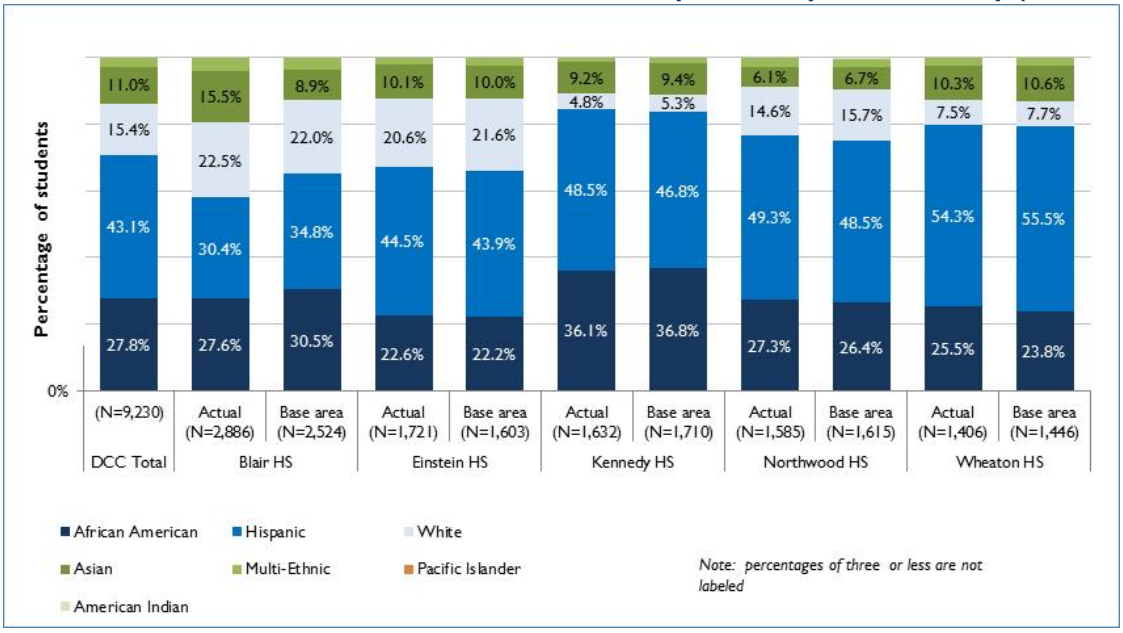
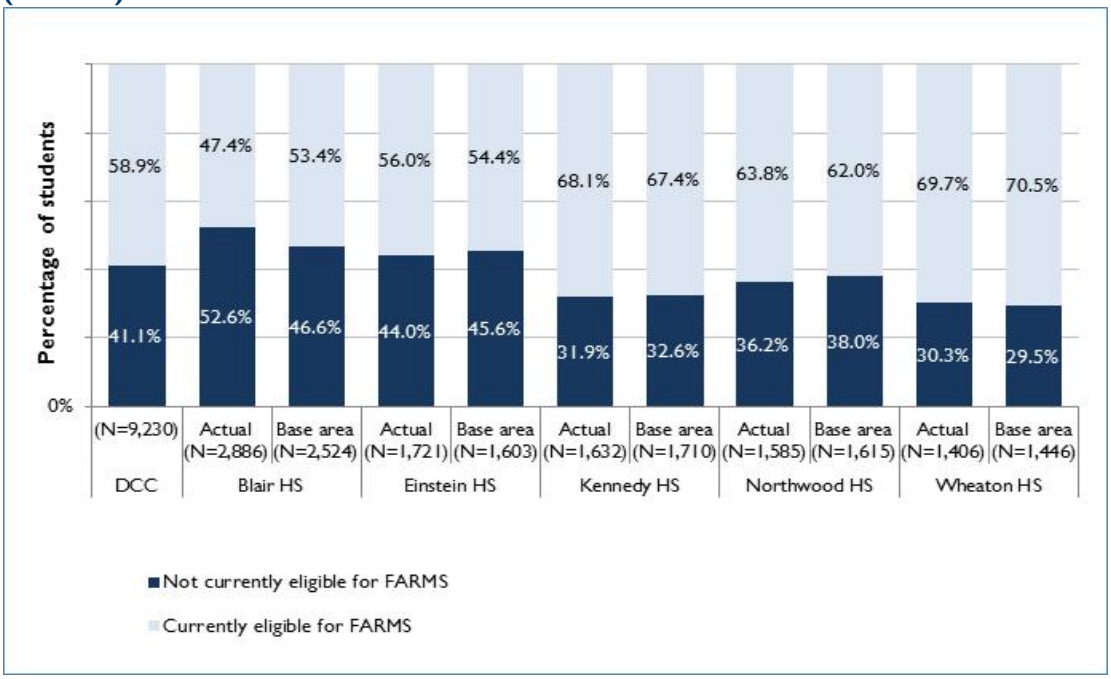


Exhibit 37: DCC—Actual Enrollment vs. Base Area Population, by Eligibility for FARMS (2013–14)

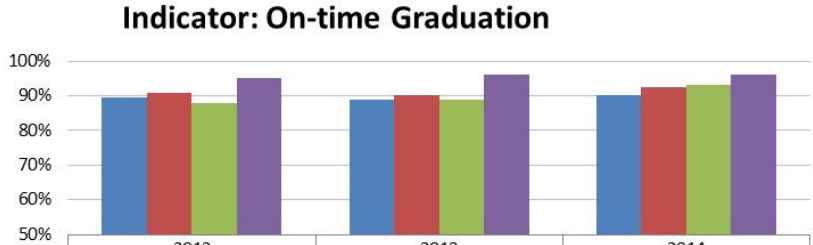


3. Academic outcomes of students in each high school consortium

Over the past three years, the consortia have had limited success in increasing student outcomes and reducing achievement gaps. Across the NEC and the DCC, student achievement levels on MCPS high school milestones have remained flat over the past three years. Furthermore, on each of the high school milestones, achievement levels across the consortia lag compared to districtwide averages, which have also remained flat over the past three years. Data for all milestones are presented in the Appendix.

There were, however, several areas of improvement within the consortia in the area of academic performance. In the NEC, as shown in Exhibit 38, the proportion of Black/African American students who met the on-time graduation milestone increased in comparison with the proportion of White students who met the milestone; and the difference was statistically significant.[170]

Exhibit 38: MCPS On-time Graduation Data—Percentage of Students Meeting the Milestone: Districtwide, NEC Total, and Subgroup



	2012	2013	2014
Districtwide	90%	89%	90%
NEC Total	91%	90%	92%
NEC African American	88%	89%	93%
NEC White	95%	96%	96%

Within the DCC, student achievement overall on the Algebra 2 by Grade 11 milestone increased by 7 percentage points over the past three years (from 46% to 53%), and the difference was statistically significant (Exhibit 39). Districtwide, the proportion increased by only 2 percentage points. Furthermore, the proportion of Black/African American students who met the Algebra 2 milestone increased, and the increase was greater than for White students and statistically significant.[171]

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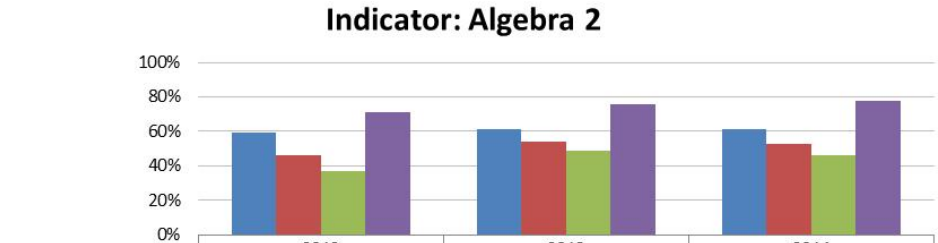
[170] On-time graduation: NEC Black/African American students in 2012 to 2014 ($p<=.009$; Pearson Chi-Square=6.734).

[171] Algebra 2: DCC in 2012 to 2014 ($p< .05$; Pearson Chi-Square=15.290); Algebra 2: Black/African American students in 2012 to 2014 ($p=.006$; Pearson Chi-Square =7.568).

Exhibit 39: MCPS Algebra 2 by Grade 11 Data—Percentage of Students Meeting the Milestone: Districtwide, DCC Total, and Subgroup



	2012	2013	2014
Districtwide	59%	61%	61%
DCC Total	46%	54%	53%
DCC African American	37%	49%	46%
DCC White	71%	76%	78%

4. Perceptions of parents, students, and staff

Parents and students in both consortia generally agree that the choice process provides strong benefits for students who want to choose a school based on specific interests in the themes. During the focus groups, about half of the students reported that they chose their school because they had a specific interest in the theme or the programs that were offered. Responses from parents in focus groups about their children's choices were similar. Respondents who chose schools for a specific theme or program were generally very satisfied with the opportunity to select a school based on interests and passions. Furthermore, they noted that students who are in theme-based programs or academies are generally more interested and engaged in school and more serious about their studies. One student from Blake HS stated about his experience to take classes in an area of interest: "*I feel like Blake has really helped me find my passion…you can really create your own schedule according to your own interests.*"

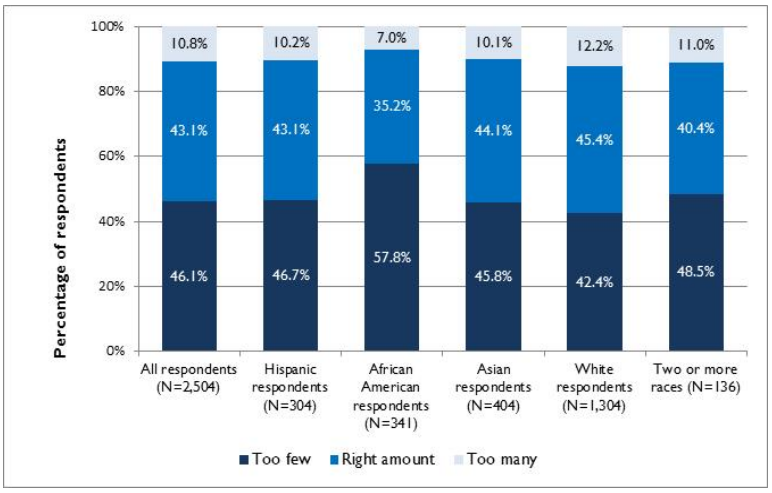
Students in focus groups also reported that the theme-based electives and classes are more interesting and engaging because they tap into student aptitudes. For example, a student noted, "*IB challenges you to think creatively, more than just answering questions or sitting in class and taking notes. You are watching videos, relating it to your real life and making connections.*" These viewpoints highlight the benefits of choice, especially at the high school level, when many students are developing personal or intellectual passions. Courses that tap into those interests tend to be engaging for students and enable them to make real-world connections to their school work.

> "*For me personally, during my eighth grade year, I went to Takoma and my home school was [Montgomery] Blair. But I knew up to that point that I was interested in the biomedical sciences and it was brought to my attention that Wheaton has the only biomedical program in the DCC. So to me that was a straight attraction.*" – *MCPS student*

Families and staff in the DCC raised some concerns, however, that the consortia academies are not as well-developed as advertised during the open houses and in marketing materials. Some of the parent focus group respondents, for example, reported that during the open houses, each school marketed the academies as smaller learning communities when they are actually a series of elective courses. They added that students who need to take core courses, specifically in Grades 9 and 10, do not have access to the academy elective because there is no room in their course schedule. They also expressed concerns that some students may not have access to special theme-based electives due to course scheduling conflicts. Furthermore, upper class students who do not have room in their schedules for electives, such as students who are over-age and under-credited (oftentimes this group includes students who have emigrated from other countries), do not have the same access to the academies as other students. Focus group participants added that this point is not made clear through the marketing; therefore, students may not be fully informed about the opportunities that are available in the academies.

Parents and community members provided mixed feedback about whether MCPS should continue to offer high school consortia. On one hand, in focus groups, some parents within each high school consortium indicated a preference for rigorous, neighborhood high schools over the consortia and suggested that resources used for the consortia be re-allocated to strengthen academics across all of the high schools. Furthermore, some parents in focus groups indicated that they support neighborhood schools because these schools promote a stronger sense of community and connections between families and the schools than do consortia schools.

Exhibit 40: ***In your opinion, do you think MCPS offers too few, too many, or the right number of high school consortia?***



As one parent stated, "*A flaw of the consortia model is that there is no continuity of student experience. Students are not able to go from elementary to middle to high school with their peers.*" They also reported that parent engagement is lower in consortia schools because many parents do not live near the school and cannot attend school meetings and functions.

Conversely, close to half (46.1%) of the respondents to the community surveys indicated that they think MCPS currently offers *too few* high school consortia, and only 10.8% said that MCPS offers *too many* high school consortia. When the data were disaggregated by respondent

race/ethnicity, Black/African American respondents were most likely to say there are *too few* high school consortia (57.8%), while responses were similar for all other subgroups (42.4% to 48.5%).

5. Staffing and transportation costs for the high school consortia

According to data provided by MCPS, the additional incremental costs for staffing and transportation associated with both the NEC and DCC high school consortia for the current school year (2015–16) total approximately $2,672,030.

For the NEC, the total additional incremental costs were approximately $1,045,964. This total includes $167,277 at the district-level to conduct the lottery and support membership dues and fees for signature programs at the three schools. Two schools received additional incremental staffing to support their signature programs: 0.4 FTE in staffing for Paint Branch HS and 1.4 FTE in staffing for Springbrook HS, which equaled about $188,687 in total school-based staffing allocations. It should be noted that costs to support signature programs are not unique to the NEC schools, as a number of other high schools throughout the district operate such programs, although for local students only. In addition, about $690,000 is used for the additional incremental transportation costs for 14 bus routes to transport students throughout the NEC, including budgets for staff, fuel, equipment, and repairs.[172]

For the DCC, the total additional incremental costs were approximately $1,626,066 (not including the countywide or regional magnets or application programs located at DCC schools, which are discussed in the previous section). This total includes $181,081 at the district-level to conduct the lottery and support membership dues and fees for the academy programs at the five schools. In addition, the DCC schools received a total of $607,985 in additional incremental school-based staffing to support their academies, including 0.8 FTE for Northwood HS, 0.8 FTE for Wheaton HS, 1.0 FTE for Blair HS, 1.6 FTE for Einstein HS, and 1.6 FTE for Kennedy HS. In addition, about $837,000 is used for additional incremental transportation costs for 17 bus routes to transport students throughout the DCC, including staff, fuel, equipment, and repairs.

6. Benchmarking and research

Other districts provide students with choice among schools on a regional or district-wide basis, and several have utilized "controlled choice" models that have been successful at promoting diversity. Controlled choice is a process that provides families a choice of schools

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[172] It should be noted that the number of bus routes is higher than reported in a 2008 by the Office for Legislative Oversight which may indicate bus transportation has increased as the consortium has become more established and more families are choosing schools other than their home schools.

beyond an attendance zone, but maintains the goal of promoting racial, ethnic, and socioeconomic integration.[173] MCPS's high school consortia were developed through a comprehensive analysis of controlled choice models that consider student diversity as part of the student selection lottery, although the DEC and NEC do not utilize all aspects of the controlled choice model.

Controlled choice was first implemented in Cambridge, Massachusetts in 1981 as a voluntary method of school integration through the elimination of neighborhood schools. As originally designed, the Cambridge plan aimed "*to provide students with the opportunity to excel academically and to grow and accept others as their peers in an integrated and balanced learning environment.*"[174] In 2001, the assignment process was revised in light of evolving legal precedents to emphasize socioeconomic status, as measured by eligibility for FARMS, rather than race/ethnicity in its formula to promote school integration. The process was revised to maintain proportions of FARMS eligible students in each school that are reflective of the districtwide average. The process first matched school assignments with families' first choice; however, it used factors such as socioeconomic balance, gender balance, school capacity and student enrollments, and the language requirements of dual immersion schools.[175] Using this plan, the district has maintained diversity in schools while granting most families their first choice.[176]

Cambridge's model has led to implementation of similar controlled choice plans that weigh socioeconomic diversity in various school districts across the county, ranging from Montclair Public Schools in New Jersey, to Champaign Unit 4 Schools in Illinois, and Berkeley Unified School District in California.[177] Lee County Public Schools in Florida, for example, developed a controlled choice plan in the context of a court-ordered desegregation plan and to avoid redrawing school boundaries in response to growth and shifting demographics. The original plan, developed in 1997, was designed to foster school improvement and provide diverse enrollments. Since its initial implementation, the plan has been revised to provide increased opportunities for families to enroll their children in school close to their home and reduce bus ride times. Additionally, the plan promotes student achievement and educational equity by

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[173] Alves, Michael J., & Charles V. Willie (1990). Choice, Decentralization, and Desegregation: The Boston "Controlled Choice Plan". In William Clune and John White (Ed). *In Choice and Control in American Education, Vol. 2*. New York: The Falmer Press.

[174] http://www.cpsd.us/UserFiles/Servers/Server_3042785/File/Migration/SC_Presentation.pdf?rev=0.

[175] http://www.cpsd.us/departments/frc/making_your_choices/about_controlled_choice.

[176] Shircliffe, Barbara & Morley, Barbara. (2013). Valuing Diversity and Hoping for the Best. In Gary Orfield and Erica Frankenberg (Ed). *Educational Delusions? Why Choice Can Deepen Inequality and How to Make Schools Fair*. Berkeley: University of California Press.

[177] Potter, Halley, et al. (2016). A New Wave of School Integration: Districts and Charters Pursuing Socioeconomic Diversity, Century Foundation. 14.

"standardizing a rigorous curriculum and replicating successful programs in each zone."[178] Success of the plan in promoting diversity relies on annual review of the plan assignments and the ability for the district to reassign schools to zones based on shifting demographics of the district.[179] Jefferson County Public Schools (JCPS) also implements a controlled choice process at the elementary school level. The district's more than 80 elementary schools are divided into 13 clusters. Students are assigned to a cluster based on home address. Within the geographic clusters, students are assigned to schools based on a choice process that considers the following factors: parental preferences, school capacity, and socioeconomic status.[180]

The District of Columbia is one of the more recent school districts to consider a controlled choice system in order to maintain diversity in schools to counteract the growing school segregation that is aligned with housing segregation.[181] Controlled choice has its challenges, however. Plans can be confusing for parents and may have to establish preferences for geographic proximity, which may reduce ride times for students but limit the impact of the plan on promoting diversity. Furthermore, research suggests that choice models that do not outline diversity or socioeconomic goals may lead to greater stratification than models that have goals.[182] In order for the plan to work effectively, all schools must provide high-quality programs that are desirable for parents. If parents perceive schools to vary in quality, the process will produce inequitable demand and may decrease enrollment in lower-performing schools.

In contrast to these "controlled choice" options, New York City implements an open choice enrollment for all high school students. The process utilizes a complex algorithm to match students with high schools based on student preference, school capacity, and school rankings and priorities. The process includes selective and non-selective schools; students are able to rank up to 12 high schools. It provides opportunities for all students to choose a high school based on area of interest, preferred geographic location, or other factors. Recent studies, however, question the equity of the plan, citing data that low-performing students are disadvantaged by the process by being more often assigned to low-performing high schools. Through the process,

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[178] http://www.leeschools.net/_cache/files/8f9bf18c-4def-4225-bb3b-e799444ab3a8/2409F41080EBBBA514F814C025F0CE75.2015-16-plan-for-student-assignment.pdf.

[179] Ibid.

[180] http://www.jefferson.kyschools.us/Pubs/ChoicesElem.pdf.

[181] Chaltain, Sam, Kahlenberg, Richard, & Petrilli, Michael (2014, January 24). How D.C. Schools Can Ward Off the "Big Flip." *The Washington Post*.

[182] Wells, Amy Stuart, & Roda, Allison (2009). White Parents, Diversity and School Choice Policies: Where Good Intentions, Anxiety, and Privilege Collide. Accessed at http://www.vanderbilt.edu/schoolchoice/conference/papers/Wells-Roda_COMPLETE.pdf

which is designed to improve educational options, some of the neediest students may be stuck in the least desirable schools.[183]

The DCC and NEC have relied on the effectiveness of smaller learning communities in attracting students to schools. However, in recent years, many school districts have experienced challenges with implementing this model. Restructuring large high schools into smaller learning communities has been a strategy implemented in high school reform for more than two decades. In the late 1990s, the development of small, personalized learning communities was one of four key objectives in the Breaking Ranks Model for improving outcomes in low-performing high schools, along with ensuring that all students have access to rigorous, standards-based, real-world experiences; developing staff capacity to systematically use data for purposes of equity, accountability, and instructional improvement; and implementing collaborative leadership strategies that engage staff, students, parents, and the broader community in supporting school and student success.[184]

Smaller learning communities were validated as an important high school reform strategy around 2000 with the creation of the U.S. Department of Education Smaller Learning Communities (SLC) grant, designed to enable school districts to develop or expand smaller schools (or learning communities) within large comprehensive high schools to help improve student engagement, achievement, and behavior outcomes. MCPS received a federal SLC in 2004 to develop academy programs in each of the five DCC schools and again in 2010 to support programs in the NEC. The small schools movement has been a popular tool for high school reform across the country, including major initiatives in New York and Chicago, among other districts. Furthermore, the Bill and Melinda Gates Foundation provided extensive funding across the country to support the model.

However, two decades later, research is highlighting some important challenges that districts and schools have encountered with implementation of this model, and in particular with converting existing, large schools into SLCs. For example, a five-year national evaluation of the Bill and Melinda Gates Foundation's National High Schools Initiative revealed that conversion of large high schools to SLCs is often hindered by the need to focus on structural changes required for implementing SLCs and by challenges associated with assigning staff and students to SLCs in an equitable manner. Furthermore, the conversion to SLCs is often challenged when key stakeholders are unable to agree upon or establish a clear vision for the learning environment, and when stakeholders are resistant to changes in instructional methods and strategies that are

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[183] Nathanson, Lori, Corcoran, Sean, & Baker-Smith, Christine (2013). *High School Choice in New York City: A Report of the School Choices and Placement of Low Achieving Students.* New York: Research Alliance for New York City Schools, New York University Steinhart School of Culture, Education, and Human Development.

[184] Lachat, Mary Ann (2001). *Data-Driven High School Reform: The Breaking Ranks Model.* Providence: Brown University.

encouraged in order to make the conversion to SLCs effective. As a result, many large high schools have converted to SLCs, but still function as comprehensive high schools with staff who teach across SLCs and students who are assigned to SLCs but do not identify as a member of an SLC. Furthermore, the model has produced mixed results in terms of improved student outcomes. For example, data show that some SLCs produce positive results in terms of student attendance, engagement, and achievement gains in the first few years of the model, but many schools have not been able to sustain the outcomes or impact over time.[185]

An effective model of high school choice with growing popularity across the country is the development of career pathways to provide choice using rigorous college and career-focused programs. Programs that include a combination of career and technical education (CTE), rigorous academic coursework, and opportunities to engage in the workforce—while creating clear pathways through high school, college, and beyond—are gaining momentum nationally; and district staff reported that they are working on bolstering such pathway programs in MCPS.

Career pathway approaches range in scope from discrete, school-based models, such as career academies within schools or whole school CTE programs, to systemic approaches designed to achieve broad and sustainable reforms in how students prepare for college and career. Research has highlighted the positive impact that these programs are having on student outcomes. For example, Linked Learning is a large-scale initiative in California designed to engage students in education by integrating rigorous academics with career-based learning and real-world workplace experiences through career-oriented pathways. Data show that the initiative has produced an impact on graduation level, credit accumulation, and program persistence and that students entering the program with low achievement scores demonstrate greater academic success than similar students enrolled in traditional high schools.[186] Additionally, a rigorous evaluation of Programs of Study, a career pathway model promoted by the U.S. Department of Education Office of Vocational and Adult Education, showed that "by the end of tenth grade, students' test scores, grade point averages, and progress to graduation tended to be better for the students in Programs of Study than for control/comparison students."[187]

A recent study on career pathways conducted by MDRC attributes the growing popularity of career pathway models to the underlying principles and practices common to most programs, including: offering pathways that keep students' options open; allowing students to select their

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[185] Shear, L., Means, B., Mitchell, K., House, A., Gorges, T., Joshi, A., Smerdon, B., & Shkolnik, J. (2008). Contrasting Paths to Small-School Reform: Results of a 5-year Evaluation of the Bill & Melinda Gates Foundation's National High Schools Initiative. *Teachers College Record*, *110*(9), 1986-2039.

[186] SRI International (2015). Taking Stock in the California Linked Learning District Initiative: Six-Year Evaluation Report.

[187] Visher, M. & Stern, D. (2015). *New Pathways to Careers and College: Examples, Evidence, and Prospects*. New York: MDRC.

pathway; using an integrated curriculum that includes real-world applications; providing personalized academic and social supports; integrating workforce exposure through employer partnerships and work-based learning; partnering and collaborating with postsecondary institutions and strong intermediary organizations; and setting high standards, establishing accountability systems, and engaging in data-driven decision-making.[188]

A benchmark district that is implementing career pathways using a consortium model is Jefferson County Public Schools, which recently established a partnership with Ford Next Generation Learning to enhance and improve the high school programs and district choice model. In 2008, JCPS organized 16 area high schools into three clusters, and it developed five career themes which are each offered in one high school in each cluster to provide access for all students to JCPS's career themes. Students within each cluster can choose to attend any of the schools in the cluster. The programs were designed to prepare students for college and careers and promote collaboration and business partnerships around a career theme.[189]

In 2012, JCPS found that only about a third of students were enrolling in career pathways offered in the cluster high schools, and the programs were not accomplishing the goals to increase career and college readiness. In response, JCPS forged a partnership with the Ford Fund to develop and implement the three-year Ford Next Generation Learning (NGL) Master Plan and to become one of 17 school districts to join the Ford Motor Company's NGL Community. The Master Plan is being implemented from 2013–2016 to: 1) transform teaching and learning through teacher externships with industry and community partners and ongoing professional development to support effective implementation of project-based learning across schools; 2) redesign high schools by implementing high quality professional career themes in which all students will participate, implementing individual learning plans for all students, and using data to evaluate programs; and 3) sustain change through business and civic leadership which will include industry councils for each career program, a CEO Advisory Board of local civic and business leaders to advise and advocate for the programs, and parent and family engagement. With the Master Plan, JCPS is working to increase participation in career themes to 100% of students, increase the percentage of students who graduate college and career ready, and increase the graduation rate and decrease the dropout rate across the district.[190]

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[188] Ibid.

[189] http://www.jefferson.kyschools.us/Pubs/ChoicesMSHS.pdf.

[190] http://www.jefferson.kyschools.us/Projects/Ford/Ford.pdf.

Conclusion and Program-Level Recommendations

Overall, the choice process for MCPS's high school consortia produces high levels of satisfaction among families and students, places a large majority of students in their first choice school, and provides access to an array of themed programs that it may not be feasible to offer in all home schools. Within the NEC, 76% of families reported that they see benefits in the choice process, and almost 90% of students received their first choice process. In the DCC, also 76% of families reported seeing benefits in the process, and 75% of students were placed in their first choice school.

While the consortia lottery process has avoided concentrating students of a particular socioeconomic status in any of the schools, shifts in demographics and limitations in the design of the process impede its efficacy in promoting racial, ethnic, and socioeconomic diversity, an original goal for each consortium. Enrollment data show that in both consortia, the proportions of students in each racial, ethnic, and socioeconomic group in each school are almost identical to the proportions in the base areas, in other words what enrollments would be if all students were assigned to their base school. This finding should be considered within the context of several key factors, including the shifting demographics within Montgomery County over the past 20 years, which has decreased the demographic diversity across the schools in each consortium, as well as the political decisions at the outset to use base areas and exclude other possible schools that were originally considered, such as Sherwood HS and Bethesda-Chevy Chase HS.

Despite this finding, many consortium families and students place a high value on choice. They report that students are more engaged in their education and school when they can choose courses and pathways of study aligned with their individual interests and passions. Across the NEC, students reported high satisfaction with the signature themes and were pleased to have a choice of schools. In the DCC, students and families were satisfied with the choices, and more than half of students chose a non-base area school as their first choice. Yet, concerns were raised during student and parent focus groups that the consortia academies were not as well-developed as advertised during open houses and in marketing materials. As a result, some students and parents who participated in the focus groups expressed disappointment that the academies functioned primarily as a series of electives rather than wall-to-wall academies. Parent focus group participants also felt that high schools with geographic attendance zones help build a sense of community which is missing in consortia schools.

The additional incremental costs for staffing and transportation associated with both the NEC and DCC high school consortia for the 2015–16 school year total approximately $2,672,030. This includes approximately $1,045,964 for the NEC and $1,626,066 for the DCC. The costs include resources to conduct the lottery and support membership dues and fees for signature programs and academy themes; incremental staffing to support the programs; and additional incremental transportation costs for bus routes.

The high school consortia in MCPS were designed based on comprehensive analyses of different choice models, including the controlled choice model, which provides students with a choice of schools beyond an attendance zone but maintains the goal of promoting racial, ethnic, and socioeconomic integration. A number of districts across the country, including for example, Cambridge Public Schools (MA), Montclair Public Schools (NJ), Lee County Public Schools (FL), and Jefferson County Public Schools among others, have effectively used controlled choice models to promote diversity. MCPS's consortia, however, do not follow all aspects of the controlled choice model, but do consider socioeconomic status in the choice lottery. In addition, both consortia have relied on the effectiveness of smaller learning communities in attracting students to schools. Academic research has shown that school districts across the country have experienced challenges with implementing the SLC model. In its place, some districts, including for example Jefferson County Public Schools, are moving toward career pathways as a more effective model of high school choice that provides options of students using rigorous college and career-focused pathways.

In light of these findings, MCPS should consider the following recommendations for the high school consortia:

- Conduct a comprehensive review of the academies and other theme-based programs in each DCC and NEC school to ensure they provide rigorous instructional options that are consistent with the district's SPF and provide access to programs that would not otherwise be available in home schools, such as career education pathways.

- Consider adopting practices that have been successful in the MSMC for promoting racial, ethnic, and socioeconomic diversity, as discussed in the next section, namely elimination of base areas and the admission of out-of-consortium students who are interested in the thematic programs in consortia schools.

Middle School Magnet Consortium

Overview

MCPS operates one middle school consortium—the Middle School Magnet Consortium (MSMC)—which was created in 2006 with support from a federal MSAP grant. The MSMC is the district's most recent model for choice and special programs, and as such, it has benefitted from lessons learned in the other models. The MSMC was developed in response to increasing school enrollments and the need to re-open the previously closed Belt Jr. HS (to be re-named A. Mario Loiederman MS). It was designed to develop academic programs of high-interest to students; promote racial, ethnic, and socioeconomic diversity; and increase student achievement across the three participating schools, which were among the lowest achieving and most racially- and economically-isolated schools in the district. The consortium comprises three schools, each of which offers a theme-based magnet program with no academic selection criteria. Each school follows a block schedule which offers an 8th period for additional elective classes.

- **Argyle MS for Digital Design and Development** focuses on the development and application of information technology. All students take at least one technology course or elective each year; students with a special interest can take additional technology electives in subjects such as web development, programming, digital art, or media literacy. Students can earn high school credit for select electives.
- **A. Mario Loiederman MS of Creative and Performing Arts** provides opportunities for students to take multiple electives in the arts, including visual art, dance, film, theater, band, and music. Students can also extend their arts education through school-wide clubs; dance, instrumental, or choral groups; and outreach opportunities provided by professional artists. Students can earn high school credits for select arts electives.
- **Parkland MS for Aerospace Technology** provides an enriched and accelerated science program with a focus on aerospace technology. Students enroll in two science courses each year, allowing them to take Honors Physics for high school credit or Investigations in Earth Space Systems in Grade 8. Electives are also offered in astronomy, robotics, engineering, and programming. Parkland MS is also the only middle school in the state of Maryland to offer Civil Air Patrol through the U.S. Air Force Auxiliary.

In the MSMC, students are assigned to a school through a lottery process in which student preferences, as well as demographic factors, are considered. Unlike the high school consortia, the MSMC does not have base areas. No preference is given based on the geographic proximity of a school to a student's home, but students can receive a preference if they have a sibling who attends one of the schools. In addition, each of the three schools in the MSMC accepts up to 100 out-of-consortium students each year, and approximately 60-70 of accepted students enroll. Factors that are considered for out-of-consortium applicants include: number of available seats,

number of applicants, choice ranking, socioeconomic (eligibility for FARMS) profile of applicants, and proportion of FARMS students at the applicant's home school. The last factor is designed to minimize the impact on sending schools and promote socioeconomic diversity in the MSMC. It should be noted that some of the reasons why invited out-of-consortium students may not accept invitations to the MSMC include: they receive invitations to selective middle school magnet programs; the MSMC does not provide transportation for out-of-consortium students; and MCPS does not currently offer high schools where students have a guarantee or preference to continue in the theme.

Students who do not receive their first choice school during the lottery and new students can participate in a second round of the lottery. Students who do not receive their first choice in either of the two rounds of the lottery can appeal their assignment to DCCAPS. All in-consortium students are provided transportation. Initially, transportation was provided for out-of-consortium students; however it was discontinued due to budget constraints. Maps of the regional consortia are included in Appendix E.

Outreach for the MSMC is similar to strategies conducted for the high school consortia. DCCAPS mails information to all Grade 5 students in feeder elementary schools located within the MSMC about evening informational meetings and the magnet programs offered in each MSMC school. The evening informational meetings are held in the fall and conducted in English and Spanish for all families. In addition, each school conducts an Open House in the fall to showcase the magnet program and provide student presentations of theme-based work. DCCAPS also works with elementary school counselors to share information about the magnet programs. All Grade 5 students in MSMC feeder schools are given a Choice form to complete; follow-up is conducted with students who do not return the form. In 2013–14, 99.0% of students completed and returned the form. Students who do not make a selection are assigned to a school based on school capacity.

Program-Level Findings

1. Choice lottery participants

Almost nine in 10 students who participated in the MSMC lottery received their first choice school. For the 2013–14 school year, 1,383 students participated in the MSMC choice lottery, including 750 out-of-consortium applicants and 633 in-consortium applicants. All (100%) of in-consortium applicants and 40.8% of out-of-consortium applicants received a placement in one of the three MSMC schools. Among students who were given a placement in the choice lottery, a large majority (85.4%) was assigned to their first choice school; the remaining 14.6% were assigned to their second choice school.

As shown in Exhibit 41, there were some differences by subgroup in the proportions of students who received their first choice. For example, 84.3% of Black/African American students, 83.8%

of Hispanic/Latino students, and 85.7% of White students received their first choice, compared with 90% of Asian students. Additionally, students who were eligible for FARMS were less likely to receive their first choice school (81.8%) than non-eligible students (90.4%).

Exhibit 41: MSMC—Percentage of Students Assigned by Choice, by Subgroup (2013–14)[1]

	First Choice		Second Choice	
	N	%	N	%
Total†	**732**	**85.4%**	**125**	**14.6%**
Race/ethnicity				
American Indian	-	-	-	-
Asian	117	90.0%	13	10.0%
Black/African American	198	84.3%	37	15.7%
Hispanic/Latino	294	83.8%	57	16.2%
Multi-Ethnic	-	-	-	-
Pacific Islander	-	-	-	-
White	90	85.7%	15	14.3%
Special education status				
General education	621	85.5%	105	14.5%
Special education*	111	84.7%	20	15.2%
Gender				
Female	376	84.9%	67	15.1%
Male	356	86.0%	58	14.0%
Limited English Proficiency (LEP)				
Not LEP	553	86.8%	84	13.2%
LEP	179	81.4%	41	18.6%
Eligibility for free and reduced price meals (FARMS)				
Not Current FARMS	322	90.4%	34	9.6%
Current FARMS	410	81.8%	91	18.2%
NOT ever FARMS	299	90.9%	30	9.1%
Ever FARMS	433	82.0%	95	18.0%

[1] All (100%) students received their first or second choice in the lottery.

*Includes students with 504s.

†Data are not presented when N≤10.

Siblings accounted for 3.5% of out-of-consortium invitations and 12.5% of in-consortium assignments. As shown in Exhibit 42, among the 750 out-of-consortium applicants, only 26 students (3.5%) received an invitation due to sibling link. The proportions were less than 6% across all three schools. Among in-consortium students in the MSMC lottery, 79 of the 633 students received their first choice due to sibling link, accounting for 12.5% of the assignments. The proportion of students who received their first choice school due to sibling link was lowest at Argyle MS (7.1%) and highest at Loiederman MS (15.8%), with Parkland MS in the middle (12.7%).

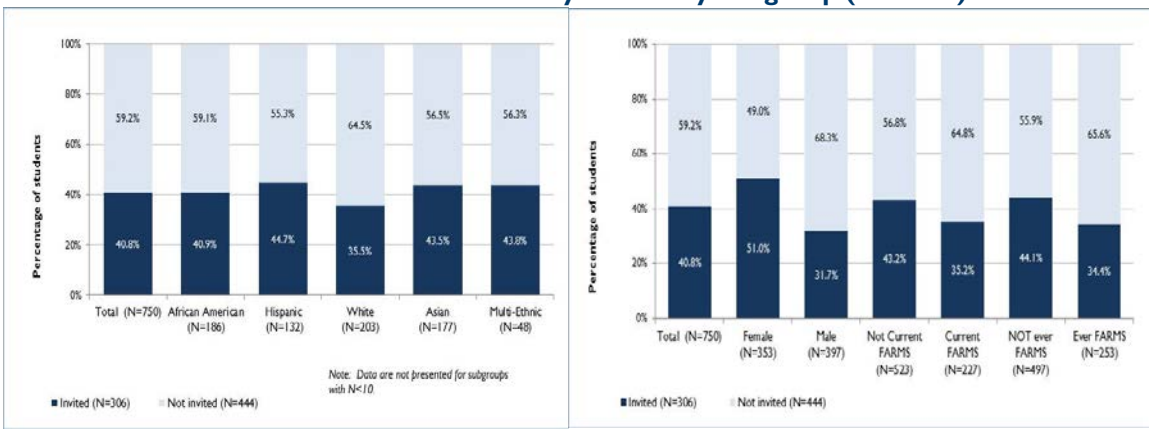
Exhibit 42: MSMC Lottery Results—Invitations/Assignments Due to Sibling Priority, In-Consortium and Out-of-Consortium, by School (2013–14)

	Out-of-Consortium Applicants			In-Consortium Students		
	Total N	Sibling†		Total N	Sibling	
		N	%		N	%
MSMC	750	26	3.5%	633	79	12.5%
Argyle MS (first choice)	230	13	5.7%	156	11	7.1%
Loiederman MS (first choice)	210	≤10	-	240	38	15.8%
Parkland MS (first choice)	310	≤10	-	237	30	12.7%

†Data are not presented when N≤10.

Among the 750 out-of-consortium applicants, only 40.8% were given a seat through the lottery—indicating very high demand for the MSMC programs and limited seat capacity. As shown in Exhibit 43, the overall acceptance rate for out-of-consortium students into MSMC magnet programs for the 2013–14 school year was 40.8%. The rates were slightly higher for Hispanic/Latino (44.7%), Asian (43.5%), and multi-ethnic (43.8%) students, and slightly lower for White students (35.5%). The proportion of Black/African American students who were invited was 40.7%. When the data were disaggregated by gender and FARMS, they show that female students (51.0%) had higher acceptance rates than male students (31.7%); and students who were not currently eligible for FARMS (43.2%) were more likely to be invited than students who were eligible for FARMS (35.2%). The same pattern is seen when examining the data for students who were ever eligible for FARMS. The discrepancy in invitation rates by FARMS-eligibility results at least in part from consideration in the lottery process of socioeconomic status and limitations within the process on the number of students who are accepted from schools with high proportions of FARMS-eligible students.

Exhibit 43: MSMC Out-of-Consortium Lottery Results by Subgroup (2013–14)



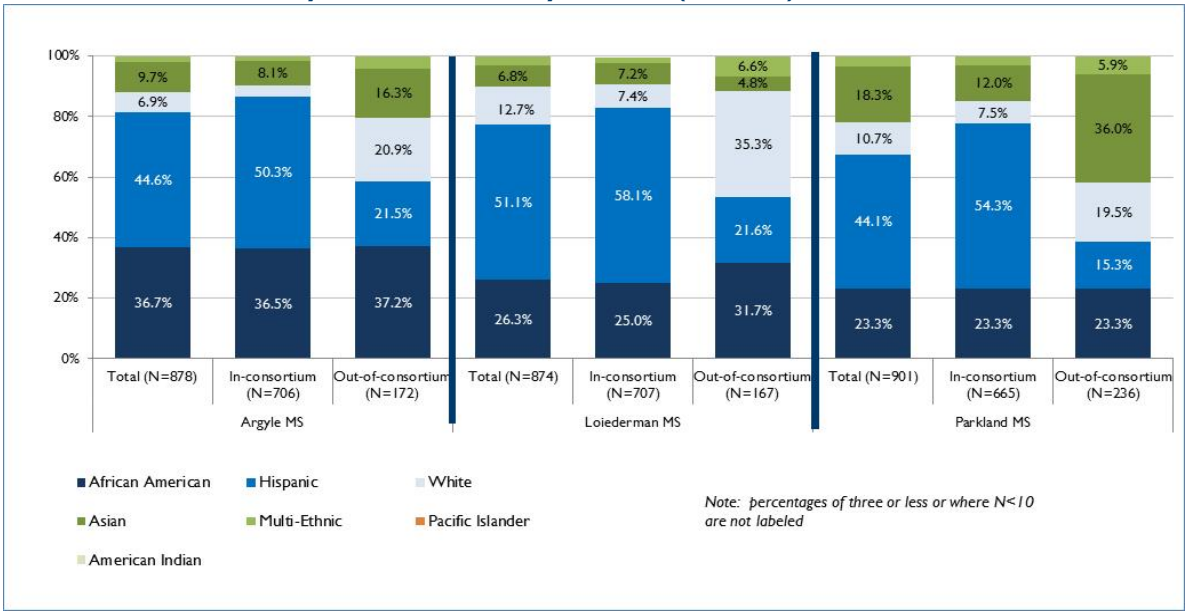
MSMC families expressed high levels of satisfaction with the choice process. Each year, DCCAPS includes a short survey of families participating in the MSMC choice process to

measure their levels of satisfaction with the process and the amount of information they received. For the 2013−14 school year, high proportions of in-consortium and out-of-consortium families expressed satisfaction with the process. Among in-consortium families, 87% of families reported that they *had enough information to rank schools in order*; 81% indicated that *in general, we see benefits to the choice process*; and 78% reported that *the program's offerings influenced our decision*. Satisfaction was even higher among out-of-consortium families: 90% reported that they *had enough information to rank schools in order*; 92% indicated that *in general, we see benefits to the choice process* and that *the program's offerings influenced our decision*.

2. Profile of students enrolled in the MSMC

The out-of-consortium applicant pool has been the key factor in achieving greater diversity; the pool contains higher levels of racial and ethnic diversity than the in-consortium choice pool. Across each of the MSMC schools, the out-of-consortium student population in 2013-2014 included higher proportions of White and Asian students and lower proportions of Hispanic/Latino students than the in-consortium populations. These differences impacted enrollment by creating more diverse enrollments by student race/ethnicity (Exhibit 44).

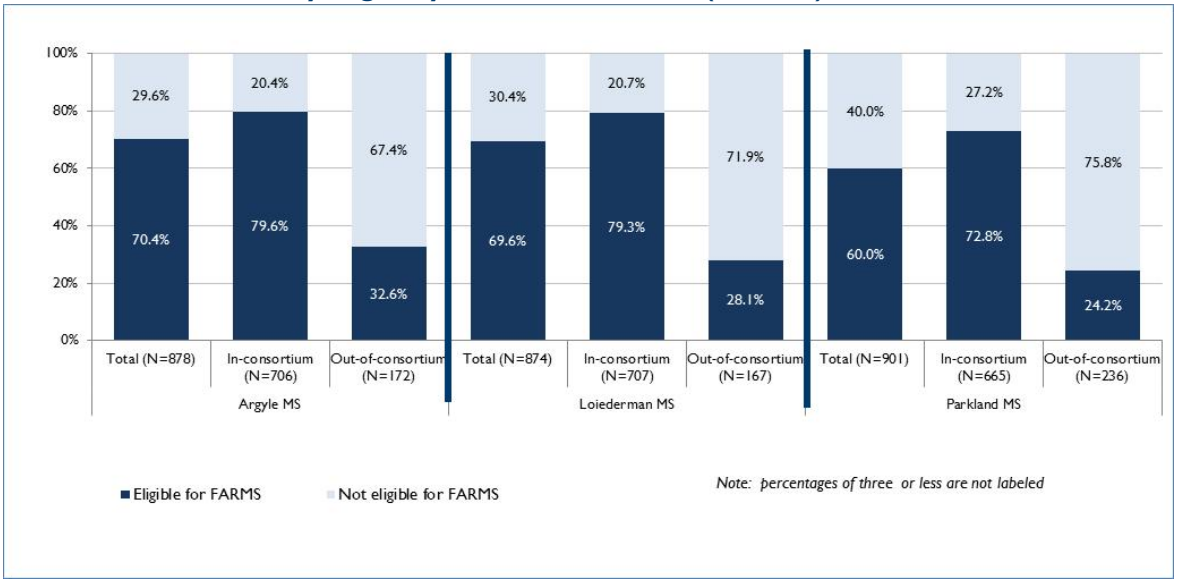
Exhibit 44: Enrollment by Race and Ethnicity—MSMC (2013–14)



The differences between the two populations in terms of income level were more apparent. As shown in Exhibit 45, across all three schools, the proportion of students who were eligible for FARMS was much lower among out-of-consortium students than among in-consortium students. As a result, the addition of out-of-consortium students has produced lower overall FARMS rates in each school than the school would have with only in-consortium students:

by -9.2 percentage points at Argyle MS, by -9.7 points at Loiederman MS, and by -12.8 points at Parkland MS.

Exhibit 45: Enrollment by Eligibility for FARMS—MSMC (2013–14)



Just under half of out-of-consortium students articulated to a high school within the DCC in 2013–14. Out-of-consortium students, while not zoned to attend a high school within the DCC based on their residence, can articulate to one of the five high schools by graduating from one of the MSMC schools, all of which are feeders to the DCC high schools. In 2013–14, 70 of the 152 out-of-consortium graduates (46.1%) articulated to a DCC high school, while the remaining 82 (53.9%) attended a non-DCC high school. The largest number of students enrolled in Wheaton HS (24 students), followed by Albert Einstein HS (20 students), Kennedy HS (12 students), Northwood HS (9 students), and Montgomery Blair HS (5 students).

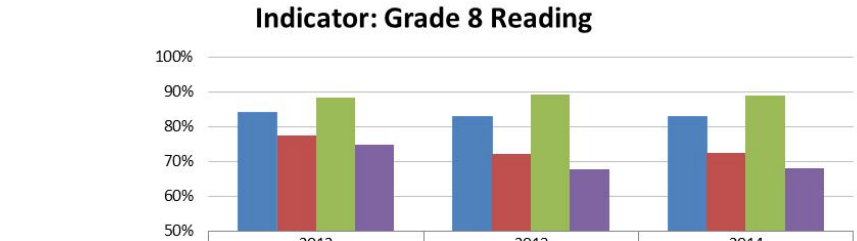
3. Academic outcomes of students in the MSMC

Achievement levels for in-consortium MSMC students on MCPS milestones are lower than district levels and have decreased over the past three years, consistent with broader district trends. An analysis of data from the Grade 8 reading and Algebra I by Grade 8 milestones indicated that the proportion of in-consortium students across the MSMC schools who achieved the milestone was lower than the district average, and the differences were statistically significant.[191]

[191] Grade 8 reading: MSMC total to district average ($p<.05$; Pearson's Chi-Square =64.146); Algebra I: MSMC total to district average ($p<.05$; Pearson's Chi-Square =138.106).

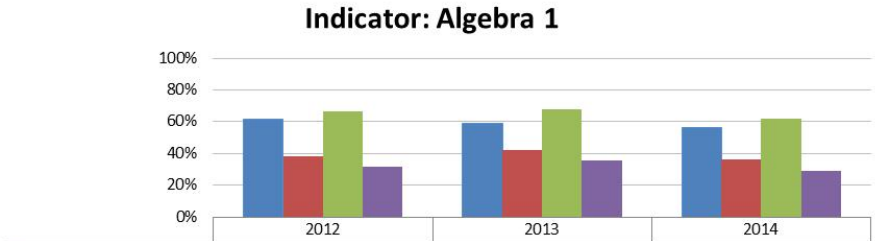
Furthermore, the analysis shows that within the MSMC schools, the proportion of all students meeting each of the milestones has declined over the past three years—by 4 percentage points on the Grade 8 reading milestone (a statistically significant difference) and by 3 percentage points on the Algebra I by Grade 8 milestone (not statistically significant). It should be noted that declines were also observed districtwide—by 1 percentage point in Grade 8 reading and by 6 percentage points in Algebra I by Grade 8 (statistically significant decline). These data are presented in Exhibits 46 and 47, respectively.

Exhibit 46: MCPS Grade 8 Reading Data—Percentage of Students Meeting the Milestone—Districtwide and MSMC (2013–14)



	2012	2013	2014
Districtwide	84%	83%	83%
MSMC Total	77%	72%	73%
MSMC Out-of-Consortium	88%	89%	89%
MSMC In-Consortium	75%	68%	68%

Exhibit 47: MCPS Algebra I by Grade 8 Data—Percentage of Students Meeting the Milestone—Districtwide and MSMC (2013–14)



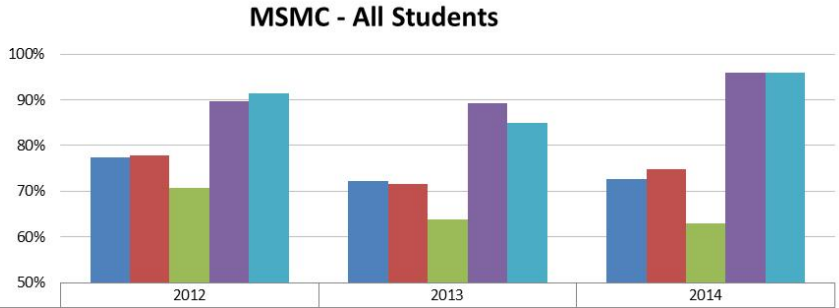
	2012	2013	2014
Districtwide	62%	59%	56%
MSMC Total	39%	42%	36%
MSMC Out-of-Consortium	66%	68%	62%
MSMC In-Consortium	32%	35%	29%

Although there are no academic requirements for entry into the MSMC, out-of-consortium students demonstrated higher levels of academic achievement on MCPS milestones than in-consortium students and have outscored districtwide averages. As also shown above in

Exhibits 46 and 47, a higher proportion of out-of-consortium students than in-consortium students met each milestone, and the differences were statistically significant.[192] For example, in 2013-14, 89% of out-of-consortium students met the Grade 8 reading milestone compared to 68% of in-consortium students. A similar difference was observed for the Algebra I by Grade milestone—in 2013-14, 62% of out-of-consortium and 29% of in-consortium students met this milestone. Additionally, the proportions of out-of-consortium students who met the milestones were higher than districtwide averages. The difference on the Grade 8 reading milestone was statistically significant.[193]

Over the past three years, the performance of Hispanic/Latino MSMC students on the Grade 8 reading milestone declined, while performance of all other groups did not show significant differences. Grade 8 reading milestone data disaggregated by student race/ethnicity are presented in Exhibit 48. As shown, the proportion of Hispanic/Latino students who met the Grade 8 reading milestone declined from 71% in 2012 to 63% in 2014 and the difference was statistically significant. It should be noted that the overall Hispanic/Latino population has increased both within the MSMC and across the district. Changes for all other racial/ethnic subgroups over the three years were not statistically significant.[194]

Exhibit 48: MCPS Grade 8 Reading Data—Percentage of Students by Race/Ethnicity Meeting the Milestone (2013–14)



	2012	2013	2014
Total	77%	72%	73%
African American	78%	72%	75%
Hispanic	71%	64%	63%
White	90%	89%	96%
Asian	91%	85%	96%

[192] Grade 8 reading: Out-of-consortium to in-consortium ($p<.05$; Pearson's Chi-Square =28.288); Algebra I: Out-of-consortium to in-consortium ($p<.05$; Pearson's Chi-Square =61.749).

[193] Grade 8 reading: Out-of-consortium to district average ($p=.41$; Pearson's Chi-Square =4.184).

[194] Grade 8 reading: Hispanic/Latino students in 2012 to 2014 ($p=.025$; Pearson's Chi Square = 5.050).

4. Perceptions of parents, students, and staff

Parents, staff, and students indicate that the MSMC provides unique opportunities for in- and out-of-consortium students that they would not receive in other middle schools. Across focus groups, respondents reported that the MSMC programs provide beneficial academic experiences and opportunities for students to focus on areas of interest and earn high school credits in those areas. For example, at Loiederman MS, students can take multiple arts electives and earn high school arts credits, as well as participate in dance teams, jazz band, National Junior Thespians Society, morning news crew, and other theme-related extracurricular activities to expand their exposure to the arts. A Loiederman student provided the following quote about his experience in the school: "*I don't think I would be able to express myself the same way through music as the way I do here. For me, expressing myself is through performing arts.*"

At Parkland MS for Aerospace Technology, all students complete the required middle school science courses by the end of Grade 7, making them eligible to take honors Physics for high school credit in Grade 8, and students can participate in physics club, Great Adventure Club, and Lego robotics, among other activities. A Parkland student remarked, "*Parkland teaches you more about preparing for the future.*" Argyle MS for Digital Design and Development also provides unique experiences for all students through technology electives and integration of technology throughout the curriculum. Argyle MS has 14 teachers in its technology department who offer a variety of technology electives, such as programming and web design. As a student noted, "*In the future, everything is going to be technology; by learning about it now, we are getting a jump start.*"

According to focus groups participants, the magnet themes are an important factor for out-of-consortium students in applying to the schools, but they are less important across the in-consortium population. During focus groups with students and parents, many of the out-of-consortium families indicated that the magnet theme and academic programs were important factors in their decision to apply to the MSMC. Many of the parents were looking for a more rigorous academic program than was offered in their home schools. One out-of-consortium parent remarked, "*The class options, even beyond the arts, are so far beyond at [name of non-MSMC school], it doesn't matter what you do for a living, arts make you see things in a different way. It is very valuable.*" Another parent agreed, stating, "*Because you have something that they like going on at school, whether it is robotics, dance, or theater, it encourages them to do well in the classes because they see the integration.*"

In-consortium families, however, were more likely to report during focus groups that the proximity of the school to their home and the choices of their children's friends were more important than the school theme. This is not to say that the themes were irrelevant to in-consortium families, but that they also wanted their children to attend school in their neighborhood. As one in-consortium parent stated, "*Living in the Argyle area, this is not a choice to me. It is a choice for people like you who are coming from Wootton. I chose the neighborhood school because I didn't see a difference between the three schools and Argyle is the closest.*"

Parents, students, and staff within MSMC schools strongly agreed that MCPS should provide more opportunities for whole-school magnet programs, such as those in the MSMC, in order to expand access and provide opportunities for students to focus on areas of interest. A majority of the parent and student focus group participants were highly satisfied with the theme-based electives, the block schedule, and the extra 8th period class to help expose students to the theme in greater depth. They added that the themes worked to engage students in learning and provided opportunities for rigorous and accelerated instruction. Additionally, they agreed that the whole-school model provides equal opportunities for all students to participate in the magnet programs and benefit from the thematic offerings. Furthermore, when asked if MCPS should offer more, fewer, or the same number of programs like the MSMC magnets, almost all respondents said *more*. Some comments on this topic included:

> "*When kids are able to choose, they are going to feel more empowered and be able to reflect on why they made those choices.*" – *MCPS staff*

> "*There should be more programs like Parkland because there are students who come a long way from home to go there because they really like the program.*" – *MCPS student*

> "*Because of the [MSMC] choice program, it is the reason why I continue to let my child be in the Montgomery County schools. Choice is the gem of the system.*" – *MCPS parent in MSMC*

> "*Definitely more. If you all go to the same exact type of school, it will be boring. Everyone will learn the same thing. If they go to different schools, they can do different things in the future.*" – *MCPS student*

MSMC parents and students expressed concerns that the absence of transportation for out-of-consortium students and the geographic location of the programs are barriers to access. Parents reported that they have worked with other families and school staff to set up carpools; however, these have not solved transportation problems for all out-of-consortium families. They added that low-income families and families with two working parents do not have the same level of access because they cannot get their child to an MSMC school from outside of the consortium area. As one parent stated, "*I'm lucky, I'm only 15 minutes away [from the school]. If we lived someplace else in the county, he would probably not get the opportunity that he is getting, to take the electives that he wants to be taking. For our family, it is all about geography.*" This sentiment was echoed by other parents; for example, one stated: "*Distance does not make sense for some parents. If we had to drive all the way to school and couldn't connect to a bus or a carpool, we couldn't do it. When they [district] took transportation away, it discouraged some families. Schools are trying to coordinate carpools; they are not paid for this. It is not their job, it is the county's [job], but they are not doing it.*" A student also commented, "*Spread out the programs and provide transportation. Some kids want to come here but they can't because of transportation.*"

5. Impact on sending schools

MSMC schools attracted students who were zoned to each of the other 35 middle schools in MCPS. In 2013–14, there were out-of-consortium students attending an MSMC school who were drawn from each of the other 35 middle school in MCPS. These numbers include students at all grade levels, not just incoming Grade 6 students. The school from which the largest number of students was drawn was Col. E. Brooke Lee MS (57 students), followed by Earle B. Wood MS (37 students), Briggs Chaney MS (34 students), Benjamin Banneker MS (31 students), Julius West MS (26 students), Rocky Hill and Newport Mill MS (each with 25 students), William H. Farquhar MS and Silver Spring International MS (each with 23 students), Francis Scott Key MS (22 students), and Forest Oak MS (20 students). Additionally, the following schools sent between 11 and 19 students: Lakelands Park MS, Redland MS, Neelsville HS, Rosa Parks MS, White Oak MS, Eastern MS, Gaithersburg MS, Sligo MS, MLK Jr. MS, Westland MS, Kingsview MS, Tilden MS, and John T. Baker MS. All other schools sent less than 10 students.

6. Impact on schools in which the programs are located

The whole-school model used in the MSMC magnets is successful in creating integrated learning environments. All three magnets in the MSMC are whole-school programs—that is, all students, including out-of-consortium students who were admitted through the magnet lottery and in-consortium students who live within the MSMC home boundaries, benefit from the unique educational opportunities. This model provides opportunities for all students, not just high achieving students, to participate in rigorous and thematic instruction and to earn high school credits while in middle school. In addition, all students are magnet students; therefore there are no labels and no separation of students within the school. During focus groups with students, many of them were not aware of the terms "in-consortium" or "out-of-consortium." When asked, the principal had to help them determine this by asking them what elementary school they attended. Comments from parents on this topic included:

> "*I would have chosen any of these three schools over any other options. I like that the whole school is a magnet. At some schools, there are schools within schools. If you put a tiered system within a middle school, it creates a difficult air or dynamic among students.*" – *MCPS parent*

> "*There is a vast difference between the highly gifted programs and these programs in terms of challenge. But there are fewer opportunities for students to develop a superiority complex. There is so much division between the groups [in other magnets]. Her son's friends in the highly gifted program tried to convince him that it would not be a good choice [to attend MSMC] because then he would be with the 'normals'.*" – *MCPS parent*

7. Staffing and transportation costs for MSMC

According to data provided by MCPS, the additional incremental costs for staffing and transportation associated with MSMC for the current school year (2015–16) total approximately $1,491,891. MCPS budgeted $298,255 at the district-level for staff and resources, including portions of the salaries of program directors, supervisors, instructional specialist, a data management coordinator, and site-based administrative staff to support program enrollment and to conduct the lottery, as well resources to support membership in recognized associations to support school signatures, office supplies (to support lottery process), and local travel to support program implementation. Each of the three MSMC schools received a 1.0 FTE in additional incremental staffing to support a coordinator position, which equaled about $503,636 in total school-based staffing allocations. In addition, about $690,000 is used for additional incremental transportation costs for 14 bus routes to transport in-consortium students throughout the MSMC, including budgets for staff, fuel, equipment, and repairs.

8. Research and benchmarking

Research suggests that whole-school magnet programs can be more effective than programs within schools at promoting diversity among students. As discussed in the high school consortia section, MCPS's consortia models grew out of a comprehensive analysis of choice models, including research on controlled choice which accounts for socioeconomic status in student assignment. The MSMC model is different from the high school choice model in that it follows the controlled choice model more closely—there are no attendance or base areas zones for the participating schools. The lottery process takes into consideration only student choice and demographic factors. Furthermore, in MCPS, the MSMC program model is unique because the schools offer whole-school magnet programs that are based on student interest and do not use academically selective admissions criteria. The whole-school model was selected for the MSMC based on extensive research on magnet programs.

Research on magnet programs generally focuses on two types of programs: whole school magnets in which all students in the building participate in the magnet program, and programs within schools that offer magnet curricula to some but not all of the students in the school. Research shows that whole school models have been more effective in promoting diversity and achieving desegregation goals, while programs within schools tend to struggle with issues of within-school segregation since magnet and home school students are not integrated for instruction.[195] In addition, whole school magnets are more effective than programs within

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[195] Steele, L. & Eaton, M. (1996). *Reducing, Eliminating, and Preventing Minority Isolation in American Schools: The Impact of the Magnet Schools Assistance Program.* American Institutes for Research, U.S. Dept. of Ed., Office of the Under Secretary, Washington, D.C.

schools at providing equitable access to the quality educational offerings. Programs within schools, on the other hand, have often produced racially-isolated classrooms.[196]

Furthermore, whole school magnet programs have been effectively implemented as a turnaround strategy for low-performing schools by increasing socioeconomic diversity with the student population. For example, in the 1980s, Wake County Public School System (WCPSS) developed special magnet themes in many of its schools to provide attractive options to families and help reduce the impact of "White flight" from inner city schools. The themes served to attract economically and racially diverse student populations, which in turn had positive impacts on the academic achievement levels of all students in the schools. In fact, data showed that the district's low-income, minority and White students outperformed comparable students in other large districts in the state.[197] Other districts that have effectively implemented whole school magnets to help turnaround low performing schools include Clark County School District (CCSD) and Hamilton County Public Schools in Tennessee.[198]

Many of the benchmark districts use the whole school magnet model to provide broad opportunities for all students to participate in special programs. As stated earlier in the section on secondary magnets and other application programs, most of the districts used to benchmark MCPS's practices offer some whole school magnets at the secondary level, including Baltimore County Public Schools (BCPS), Houston Independent School District (HISD), Wake County Public School System (WCPSS), Clark County School District (CCSD), and Hillsborough County Public Schools (HCPS). These programs are designed to attract out-of-boundary students into magnet programs based on student interest in a theme, while providing enhanced academic opportunities for students in the home school populations. The model serves to increase diversity by attracting new students to the magnet and integrating them with the home school population in magnet and core classes.

Research also highlights the importance of integrating students of different backgrounds and ability levels at the classroom level in helping to decrease achievement gaps. Magnet schools that effectively integrate students at the classroom level, as well as at the school level, provide opportunities for students from various backgrounds to learn together, which help break down socioeconomic barriers and allow students to benefit from one another academically which can

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[196] Pootinath, Pornpat & Walsh, Nathan (2011, December 6). Desegregated Schools with Segregated Classrooms. *The Cities, Suburbs & Schools Project.* Retrieved from http://commons.trincoll.edu/cssp/2011/12/06/pornpat-and-nathan-temporary-title/.

[197] Kahlenberg, Richard (2009). *Turnaround Schools That Work: Moving Beyond Separate but Equal.* Washington: The Century Foundation.

[198] http://school-diversity.org/pdf/NCSD_SIG_Proposal_withcoverletter_10-31-14.pdf.

help to diminish preconceptions and stereotypes about other groups.[199] Research also suggests that strategies to integrate students within classrooms, such as through cooperative learning, benefit achievement of low-income students because all students have equal opportunities to participate in rigorous academic work. Conversely, ability grouping or tracking can serve to diminish the benefits of socioeconomically-integrated schools because students do not have opportunities to interact with different groups of students in meaningful learning experiences. This can actually widen the achievement gap between high- and low- performing students over time."[200]

Yet, some argue that integrating students of mixed ability levels within classrooms may negatively impact outcomes of high achieving students.[201] However, schools have effectively achieved integration at the school and classroom level using methods such as small group pull-out services for enrichment or differentiation. Additionally, at the secondary level, schools offer classes with an honors option, so that students who can and are interested in pursuing higher level instruction can do so by completing extra assignments and classwork. These strategies allow high achieving students to receive rigorous instruction within integrated class environments.[202]

Conclusion and Program-Level Recommendations

Findings from the study of the MSMC produced the following overarching findings:

- Families who participate in the MSMC choice process are generally very satisfied with the magnet program offerings and the lottery process. Overall, close to 90% of students are placed in their first choice school.

- There is a high demand for MSMC programs. For the 2013–14 school year, approximately 750 out-of-consortium students applied for 300 available seats; only about 40% of the applicants were admitted due to limited number of seats. The admission of out-of-consortium students to the magnet programs is a key factor in the MSMC's

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[199] Pootinath, Pornpat & Walsh, Nathan (2011, December 6). Desegregated Schools with Segregated Classrooms. *The Cities, Suburbs & Schools Project.* Retrieved from http://commons.trincoll.edu/cssp/2011/12/06/pornpat-and-nathan-temporary-title/.

[200] Hawley, W. D. (2007). Designing schools that use student diversity. In E. Frankenberg & G. Orfield (Eds.) *Lessons in integration: Realizing the promise of racial diversity in American schools* (pp. 31–56). Charlottesville, VA: University of Virginia Press.

[201] Brewer, D. J., Rees, D. I., & Argys, L. M. (1995). Detracking America's schools: The reform without cost? *Phi Delta Kappan, 77*(3), 210–212, 214–215.

[202] Ibid.

success in increasing racial and socioeconomic diversity across the schools. The admission of out-of-consortium students has led to a decrease in each school's overall FARMS rate by nine or more percentage points.

- MSMC utilizes a non-selective, whole-school magnet model that was developed based on lessons learned from MCPS's other choice and special academic program models. Unlike other secondary magnet programs in MCPS, the MSMC programs do not use selective academic criteria. However, similar to other magnet programs, the MSMC provides important educational opportunities—for all students in the school. Furthermore, the whole-school model has promoted integration of students by race, ethnicity, and socioeconomic status by mixing out-of-consortium and in-consortium students in academic and extracurricular activities using the whole school magnet programs.

- Out-of-consortium students in MSMC schools thrive academically: their overall achievement levels exceed district averages, even though there are no academic criteria for admission to the programs. In-consortium students, however, do not perform as well and have overall achievement levels that are lower than the districtwide average. Among these students, there are also achievement gaps between students by race, ethnicity, and socioeconomic status.

- The additional incremental costs for staffing and transportation associated with MSMC for the 2015–16 school year total approximately $1,491,891. This includes district-level for staff and resources, support for the lottery, membership in recognized associations to support school signature programs, office supplies, local travel to support program implementation, and additional incremental transportation costs for 14 bus routes to transport in-consortium students throughout the MSMC.

- Data from the research and benchmarking suggests that whole-school magnet programs can be more effective than programs within schools at promoting diversity among students. This model is a key component why the MSMC programs have been effective in promoting socioeconomic diversity in MCPS. Research additionally highlights the importance of integrating students of different backgrounds and ability levels at the classroom level in helping to decrease achievement gaps.

In light of these findings, MCPS should consider the following recommendation for the MSMC programs:

➢ Consider expanding the MSMC program model:
(a) MCPS should consider expanding out-of-consortium seats, provided there is sufficient capacity, in order to keep up with demand and increasing district enrollments; and/or

(b) To the extent that the MSMC schools do not have available capacity, MCPS should consider expanding the whole-school magnet model to other MCPS middle schools to keep up with demand for non-selective, theme-based programs and increasing district enrollment.

Change of Student Assignments (COSA)

Overview

This section of the report provides information and data on change of school assignment (COSA) requests and the intersection of COSA transfers with choice and special academic programs. The data provide an overview of the requested and approved COSAs for the 2013–14 school year and show the impact of COSAs granted for sibling link and articulation from middle to high school on student movement across the district. Before these data are presented, this section provides an overview of the COSA process and a brief history of how COSAs have been impacted by revisions made to Policy JEE, *Student Transfers*, over the past 20 years.

Purpose and History of COSAs

Change of student assignments or COSAs are defined as situations when a student requests to attend a school within MCPS that is not the school to which the student is assigned based on established attendance areas or in accordance with an Individualized Education Plan (IEP). COSAs are regulated under Policy JEE, *Student Transfers*, which was created for the purpose of "*establishing procedures concerning within-county transfer of students.*" The Policy was originally developed in 1972 and served to support MCPS's voluntary desegregation efforts in alignment with Policy ACD, *Quality Integrated Education.* Policy JEE, as originally written, included the following provisions for approval of a transfer request: "*a) The school from which the student is transferring would not be unduly affected, b) The school to which the student is transferring is not unduly burdened by overcrowding, understaffing, or lack of adequate instructional resources, and c) The racial/socioeconomic balance on both schools is not unduly affected.*"

In 1999, in response to the U.S. Court of Appeals for the Fourth Circuit's decision in the *Eisenberg* v. *Montgomery County Public Schools*, the Board suspended consideration of race in Policy JEE, *Student Transfers*. In 2002, the Policy was officially amended to eliminate the aforementioned provisions, which essentially separated the Policy from the district's integration efforts.[203] The revisions impacted the stated desired outcomes of the Policy. Prior to the revisions, the desired outcomes were "*to facilitate movement of students without adversely affecting school enrollment, utilization, or diversity.*" With the 2002 revisions, the outcomes were modified to state the following as a desired outcome: "*to maintain the stability of school attendance boundaries by promoting home school attendance and*

[203] Memorandum to the Board of Education from Sharon Cox, Board Policy Committee Chairman re: Final Action on Policy JEE, *Student Transfers*. (March 12, 2002).

respecting the space needs or limitations of the individual schools." Noticeably missing is the outcome of diversity.[204]

The current version states that "*Students are expected to attend the school within the established attendance area in which they reside or are assigned in accordance with an IEP*." This version, along with the accompanying MCPS Regulation JEE-RA, outline that requests for COSAs are considered only in situations of documented unique hardships, with the following exceptions, as outlined in the 2016–17 COSA booklet:

> *Unique hardships depend on the family's individual and personal situation. Problems that are common to large numbers of families, such as issues involving day care or program/course preferences, do not constitute a hardship, absent of additional, compelling facts. – COSA Handbook (2014–15)*

- "***Sibling link:*** *Younger sibling may attend the school of an older sibling in the regular/general program, if the older sibling will be attending the requested school the following school year, absent a boundary change*;"
- "***Continuation****: Although a new COSA form must be submitted,* ***middle*** *school students on an approved COSA will be permitted to continue to that school's feeder pattern high school, absent a boundary change. However,* ***elementary*** *school students return to their home middle schools, unless a new COSA form is submitted and approved based on unique hardship or one of the stated exceptions applies*;" and
- "***Exempt programs:*** *Students selected for an exempt countywide program do not need to submit a COSA form. The student has met the criteria for and been admitted to and attends a countywide program;* and.
- "***Family relocation/scheduled move:*** *When a family moves within Montgomery County, preference to remain in the original school will be considered to complete the current school year only*."

Thus, under Board policy, admissions to MCPS's magnets, elementary centers for highly gifted students, and language immersion programs are exempt from COSAs, and families typically are not required to submit a COSA request in such circumstances. Under Policy JEE, "*if an older sibling attends a magnet or special program, an exemption may be granted on a case-by-case basis, with consideration given to space needs or limitations at the requested school*." In practice, sibling links are not granted for the programs with academic criteria (magnets and elementary centers), but they are granted for language immersion programs. COSAs are not used for change of assignments within the regional consortia (DCC, NEC, and MSMC); instead, a separate processes is administered by DCCAPS.

On June 13, 2013, the Board tentatively adopted revisions to Policy JEE, *Student Transfers*, which included changes to two of the exemptions. The proposed revisions changed the exemption

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[204] The Policy was amended again in 2006, with only non-substantive changes.

regarding sibling link to clarify the circumstances in which a COSA may be approved when a student's older sibling attends a special program. The proposed revisions specified that, in such circumstances, a COSA may be approved "*to the regular program at the school on a case-by-case basis with considerations given to classroom space, grade-level enrollment, and staffing allocations, or other impacts.*" The proposed revisions also eliminated the automatic exemption for granting COSAs for the "*continuation at the articulation point from middle school to high school.*"[205] This change would have made Policy JEE consistent with how elementary to middle school transitions are handled.

The Board sought public comments on the proposed revisions to Policy JEE. During the public comment period, the Board received opposition to the proposed changes on the sibling link and automatic articulation from middle school to high school. As a result, on November 12, 2013, the Board decided not to move forward with the proposed changes and await "*further analysis of the proposed changes*" as part of this study.[206]

COSA and Other Student Transfer Data

Approximately one-fifth of all students in MCPS attended a school outside of the attendance boundary or in one of the three regional consortia in 2013–14. As shown in Exhibit 49, in 2013–14 alone, 32,281 students (21.2% of all MCPS students in Grades K-12) attended a school outside of the attendance boundary in which their residence was located or a school in one of the three consortia that utilized lottery assignment processes. Reasons for transfers included: to enroll in a choice or special academic program, which is the focus of this report (although it is important to note that this number does not include all students in choice or special programs because some attend such programs in their home schools); provision of certain special education services as outlined in an IEP; and change of school assignment (COSA) requests or other administrative reasons

Among the students who attended a school outside of their attendance boundary in 2013–14, approximately 25% were due to COSAs or other administrative reasons. Two-thirds (66.2%) of student movement was due to enrollment in choice or other special academic programs; and 9.0% was for the provision of special education services outlined in an IEP. The remaining 24.7% of the transfers were due to COSAs and other administrative reasons, accounting for approximately 8,000 students. It should be noted that transfers due to COSAs cannot be separated from other administrative reasons because MCPS does not systematically and consistently record flags in its student data system to determine the reason for a student

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[205] Memorandum to the Board of Education from Patricia O'Neill, Chair Board Policy Management Committee re: Rescission of Tentative Action for Policy JEE, *Student Transfers*. (November 12, 2013).

[206] Memorandum to the Board of Education from Patricia O'Neill, Chair Board Policy Management Committee re: Update Regarding Policy JEE, *Student Transfers*. (April 29, 2014).

transfer or monitor which students have received COSAs in prior years—although staff report that the number of transfers for reasons other than COSAs is typically very small. The data were analyzed using multiple data files to determine enrollment in choice and special academic programs, special education services, and other transfers, and thus are an approximation.

Exhibit 49: Number and Percentage of MCPS Students who Attended a Consortia School or a School Other than Home School, by School Level and Reason (2013–14)

School level		Reason for attending school other than home school						
		All reasons	Choice or special academic program outside home school		Special education services		COSAs and other reasons (admin transfer, etc.)	
		N	N	%	N	%	N	%
All students		32,281	21,380	66.2%	2,918	9.0%	7,983	24.7%
Elementary school		7,751	1,936	25.0%	1636	21.1%	4,179	53.9%
Middle school	*(non-consortia)*	6,119	1,194	20%	625	10%	1,647	27%
	(consortia)		2,653	43%*				
High school	*(non-consortia)*	18,411	1,323	7.2%	657	3.6%	2,157	11.7%
	*(consortia)**		14,274*	77.5%*				

*High school consortia totals include students who attend base area or non-base area school.

In 2013–14, 2,986 COSAs were requested, of which 2,347 (79%) were granted. These data are based on point-in-time snapshot of the requests that were submitted through July 2013 for the 2013–14 school year. The data were provided in a data file that included information on the requests submitted, the reasons, the status of each request, and the "leaving" and "entering" schools for each request. Furthermore, it should be noted the COSA decisions are ongoing; and therefore, these data only show the requests that were submitted through July 2013 and may not include the full cumulative impact of COSAs on school enrollment. In 2013–14, COSAs impacted almost all of the schools within MCPS, in that there is at least one student who requested to enter the school and at least one student who requested to leave the school through a COSA.

The majority of COSA requests across all grade levels was submitted on account of a unique hardship or scheduled moves. In 2013–14, 58% of COSA requests were for unique hardship, an additional 18% were for scheduled moves, 15% were for siblings, and 5% were to complete a program sequence (although this last category may be significantly understated for reasons discussed further below). Unique hardship requests made up a higher proportion of the requests at the elementary level (63%) than at the middle school (56%) or high school (50%) levels. COSAs for scheduled moves were even across the levels. The patterns were similar for approved COSAs. Among the COSAs that were approved in 2013–14, 51% were due to hardships, 22% for scheduled moves, 17% for siblings, and 5% to complete a program sequence.

Exhibit 50: Reasons for Requested COSAs, by Grade Level (2013–14 SY)

Reason for Request†	Total requests (N = 2,986)		Elementary (N = 1,529)		Middle school (N=715)		High school (N = 742)	
	N	%	N	%	N	%	N	%
Hardship	1,744	58%	970	63%	401	56%	373	50%
Scheduled move	532	18%	270	18%	129	18%	133	18%
Siblings attend requested school	434	15%	262	17%	79	11%	93	13%
Complete sequence[207]	136	5%	-	-	-	-	126	17%
Other	136	5%	27	2%	96	13%	17	2%

† Data are not presented when N≤10.

Exhibit 51: Reasons for Granted COSAs, by Grade Level (2013–14 SY)

Reason for Request†	Total granted (N = 2,347)		Elementary (N = 1,227)		Middle school (N=552)		High school (N = 568)	
	N	%	N	%	N	%	N	%
Hardship	1,190	51%	700	57%	257	47%	233	41%
Scheduled move	511	22%	262	21%	123	22%	126	22%
Siblings attend requested school	399	17%	240	20%	74	13%	85	15%
Complete sequence	120	5%	-	-	-	-	113	20%
Other	127	5%	25	2%	91	16%	11	2%

† Data are not presented when N≤10.

Exhibit 52: Percent of COSAs Granted, by Reason (2013-2014 SY)

Reason for Request†	Total Requests		Elementary		Middle school		High school	
	Total Requests	% Granted	Total Requests	% Granted	Total Requests	% Granted	Total Requests	% Granted
Hardship	1,744	68%	970	72%	401	64%	373	62%
Scheduled Move	532	96%	270	97%	129	95%	133	95%
Siblings attend requested school	434	92%	262	92%	79	94%	93	91%
Complete Sequence	136	88%	-	-	-	-	126	90%

[207] According to feedback provided by district staff, the number of students who attend a school outside than their attendance boundary for program continuation is higher than the number reflected in the table.

Reason for Request†	Total Requests		Elementary		Middle school		High school	
	Total Requests	% Granted	Total Requests	% Granted	Total Requests	% Granted	Total Requests	% Granted
Other	146	89%	27	93%	96	95%	17	65%
Total	2,986	79%	1,529	80%	715	77%	742	77%

† Data are not presented when N≤10.

COSA requests to complete a sequence, meaning articulation of a feeder pattern from middle school to high school, accounted for 17% of all requests at the high school level; 90% of these requests were approved. At the time of the analyses, this constituted 126 of the requests that were submitted, of which 90% were approved. The majority of COSA requests granted for program continuation exemptions were found to be concentrated among just 17 high schools. In 2013-14, more than half (55%) of the COSAs that were granted for program continuation impacted five high schools—Bethesda Chevy-Chase HS (18 approved COSAs for program continuation), Walter Johnson HS (13), Winston Churchill (12), Richard Montgomery (10), and Rockville (10).

COSAs granted for program continuations intersect with choice and special academic programs when a student attends a special program in middle school, for example the language immersion program at Westland MS or the magnet programs at Takoma Park MS or Eastern MS, the students can articulate automatically into the high school in the feeder patterns (B-CC or the DCC schools, respectively). For example, among the 18 COSAs into B-CC HS for program continuation, 13 of the students (72.2%) articulated from the language immersion program at Westland MS. Among the 12 COSAs into Churchill HS for program continuation, six (50%) of the students articulated from the language immersion program at Herbert Hoover MS.

It should be noted that these data show the impact of COSAs for articulation to high school *for just one year*. To understand the magnitude of the impact at the school level, the numbers must be multiplied for four grade levels. For example, when the 18 COSAs in 2013–14 into B-CC HS are multiplied for each of the four grade levels, the true impact is an additional 72 students enrolled in the school due to program continuation COSAs. Furthermore, across the district, when the 113 approved COSAs for program continuation are multiplied by four, the data show that more than 450 students are attending a school other than their home school due to a COSA for program continuation.

It should also be noted that COSAs are granted for articulation in a feeder pattern from middle school to high school and are currently not associated with a specific program and course sequence. Thus, COSAs granted for articulation are not currently evaluated based on whether or not the student's academic needs could or could not be met at the home school; the requests are

granted purely to continue in a cluster and feeder pattern. Moreover, due to the automatic exemption in Policy JEE to articulate from middle school to high school, not all families fill out a COSA request in such circumstances, and students who attend programs in either the DCC or NEC are not required to submit COSAs to articulate into the respective high school consortium; therefore, the numbers reported in the analysis above may under-estimate the scope and impact of student movement for this purpose.

Data presented in previous sections of the report show that sibling link in the application process for elementary language immersion programs reduces the number of seats available for other families. The findings also acknowledge the negative impact of entirely eliminating sibling links for families with multiple children. As a result, a program-level recommendation was provided in the section on immersion programs to "consider revisions to Policy JEE *Student Transfers* to clarify that the sibling link for immersion and other choice programs is not automatic; while siblings of applicants should be able to attend the same school where the special academic program is located provided that there are available seats, those siblings should be required to participate in the application process, such as the lottery for immersion programs, to earn a seat in the program."

Policy JEE does not allow for transfers for students who seek to attend a signature program or career and technical education pathways at a school other than their home school. COSA requests, although periodically submitted for these purposes, are not granted.[208]

There were very small differences in the approval rates for students by racial, ethnic, or socioeconomic group. As shown in Exhibit 53, the approval rates for COSA requests were generally similar across student groups, with some small differences. For example, the approval rate for requests made on behalf of Black/African American students (77%) was slightly lower than for White (81%), Hispanic/Latino (79%), and Asian (80%) students. It should, however, be noted that only 70% of the requests made by multi-ethnic students were approved. Furthermore, the approval rate for requests made on behalf of students who were eligible for FARMS (77%) was slightly lower than for non-FARMS eligible students (80%).

Exhibit 53: Approval Rates for COSA Requests, by Student Characteristics (2013–14 SY)

Student Characteristics	Total Requests	Approved (Full or 1-Year)	
		N	%
Total†	**2,986**	**2,347**	**79%**
Race/ethnicity			
American Indian	≤10	-	-

[208] http://marylandpublicschools.org/MSDE/stateboard/legalopinions/2010/docs/ChristineC.Opin.No.14-59.pdf.

Student Characteristics	Total Requests	Approved (Full or 1-Year)	
		N	%
Asian	297	239	80%
Black/African American	817	626	77%
Hispanic/Latino	922	725	79%
Multi-Ethnic	138	97	70%
Pacific Islander	≤10	-	-
White	803	654	81%
Special education status			
General education	2,576	2,040	79%
Special education	337	249	74%
504	73	58	79%
Gender			
Female	1,495	1,182	79%
Male	1,491	1,165	78%
Limited English Proficiency (LEP)			
not LEP	2,368	1,867	79%
LEP	618	480	78%
Eligibility for free and reduced price meals (FARMS)			
Not current FARMS	1,672	1,336	80%
Current FARMS	1,314	1,011	77%
NOT ever FARMS	1,545	1,239	80%
Ever FARMS	1,441	1,108	77%

† Data are not presented when N≤10.

Research and Benchmarking

While MCPS eliminated consideration of demographics in student transfers after *Eisenberg v. MCPS*, some districts have continued to utilize demographic factors to ensure that transfers do not increase school segregation. This practice is typically used when districts seek to align the overall approach set forth in their student attendance zone policies and their transfer policies to ensure against unintended consequences, and often they are linked together in a single policy. A recent study identified at least 12 districts across the country that consider socioeconomic diversity as a factor in their intra-district student transfer policies, and five others that use this factor only for inter-district transfers.[209] For instance, Seminole County Public

[209] Potter, Halley et al. (2016). A New Wave of School Integration: Districts and Charters Pursuing Socioeconomic Diversity, Century Foundation. 17.

Schools in Florida allows for what it labels "capacity transfers," when students seek to move from an overcrowded school to a school that is at or under capacity, and "diversity incentive transfers," which are transfers that promote socioeconomic diversity within schools that have proportions of FARMS eligible students that exceed the districtwide average. An example of a "diversity incentive transfer" permitted in Seminole County is when a student who is eligible for FARMS and attends a school with a high proportion of FARMS eligible students seeks to transfer to a school with a local proportion of FARMS eligible students. Similar transfers are permitted for a non-FARMS eligible student in a student with a low FARMS rate who seeks to transfer to a school with a higher FARMS rate.[210]

Other examples of options for student transfer processes that focus specifically on promoting diversity, consistent with applicable law, can be found in joint guidance issued by the U.S. Department of Education and the U.S. Department of Justice, including:[211]

- A school district might categorize neighborhoods based on average household income and allow a student from a geographic area with a lower than average household income to transfer out of his or her assigned school and into a school that draws from a geographic area with a higher than average household income if it would help to achieve racial diversity or avoid racial isolation.

- A school district could design a transfer program that expressly relies upon the overall racial composition of geographic areas within the district. For example, in evaluating requests to transfer into a predominantly Asian-American school, a school district could give priority to students who live in a neighborhood comprised predominantly of non-Asian-American households, regardless of the race of the particular student requesting the transfer. All students from this neighborhood would be treated the same in the decision-making process.

Most of the districts used to benchmark MCPS's practice allow for student transfers for programmatic reasons. Transfer requests for the reason of attending a school that offers a program not offered in a student's home school are accepted, although not automatically granted, in a number of the benchmark districts. It should be noted that transfers have implications on school capacity. Capacity of schools to receive transfers varies in benchmark districts. Many of MCPS's schools are restricted by capacity issues. HISD, for example, allows qualified students to participate in vocational programs that are not offered on their zoned

[210] http://www.scps.k12.fl.us/Portals/0/assets/pdf/newsStories/2012/12/Policy%205.30-10.pdf.

[211] http://www2.ed.gov/about/offices/list/ocr/docs/guidance-ese-201111.pdf

campus.[212] BCPS also accepts special permission transfer requests "*when a student desires to pursue a curricular, academic, or sequential program of study not offered in the student's regularly assigned school.*"[213] Similarly, in Fairfax County Public Schools (FCPS), transfer requests are considered when "*a student intends to enroll and remain enrolled for the year in a sequential curricular program from the Fairfax County Public Schools Standard Course offering which is not offered at the base high school.*"[214] Additionally, in Hillsborough County, school choice allows parents to request a student transfer for up to three non-magnet or CTE programs, given that the requested schools have capacity.[215]

Conclusion and Recommendations

An analysis of data on COSAs indicates that the changes previously proposed by the Board in the amended Policy JEE, *Student Transfers*, support the district's commitment to equity. Specifically, as currently implemented, the sibling link for applicants to elementary language immersion programs and program continuations from middle school to high schools can inhibit equitable access for some students. In light of these findings, MCPS should consider the following recommendations:

- Enhance equitable access by revising Policy JEE, *Student Transfers*, to clarify that the sibling link for elementary language immersion programs is not automatic; while siblings should be able to attend the same school where the immersion program is located provided that there are available seats, those siblings should be required to participate in the immersion lottery to earn a seat in the program.

- To the extent that the district considers revisions to Policy JEE, *Student Transfers*, to alter the automatic articulation from middle school to high school within the cluster feeder pattern *or* consider approvals for programmatic requests, MCPS should analyze the impact on both school capacity and its efforts to promote diversity and avoid racial isolation.

- Systematically implement and utilize program flags for COSA requests to analyze the impact of COSAs, as well as revisions to Policy JEE, on both school capacity and efforts to promote diversity and avoid racial isolation.

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[212] http://www.houstonisd.org/site/handlers/filedownload.ashx?moduleinstanceid=157796&dataid=111920&FileName=Section18%201415%20B.pdf.

[213] https://www.bcps.org/system/policies_rules/rules/5000Series/RULE5140.pdf.

[214] http://www.boarddocs.com/vsba/fairfax/Board.nsf/files/8TPJAK4C3EDA/$file/R2230.pdf.

[215] http://www.sdhc.k12.fl.us/doc/660/choice-faq.

Summary Findings and Recommendations

Summary Findings

The data and results presented throughout the report on MCPS's choice and special academic programs point to the following overarching district-level findings for MCPS to consider in assessing alignment of these programs with the district's Strategic Planning Framework.

- **MCPS provides a wide variety of choice and special academic programs that have been developed at key junctures in MCPS's history and layered upon each other to create a complex system of programs that are not fully aligned with the district's core values, including equity.**

- **Information and communications about MCPS's wide variety of choice and special academic programs are not filtering to all segments of the community equally, which is impacting equity of access to the programs.**

- **There are significant racial and socioeconomic disparities in the enrollment and acceptance rates to academically selective programs, which suggest a need to revise the criteria and process used to select students for these programs to eliminate barriers to access for highly able students of all backgrounds.**

- **The district's implementation of some provisions in the current Board Policy JEE, *Student Transfers*, does not fully align with MCPS's goal to provide equitable access to choice and special academic programs.**

- **The placement of special academic programs within local schools has increased the diversity of those schools' student population, but, in the absence of targeted mechanisms to integrate the program participants and non-participants, it has created conditions of within-school separation.**

- **The MSMC has been more successful than the high school consortia (the DCC and the NEC) in promoting racial, ethnic, and socioeconomic diversity due in large part to shifting demographics as well as three programmatic elements: the MSMC, unlike the DCC and the NEC, does not utilize base areas, admits out-of-boundary students, and has developed and implemented distinct, whole-school themes.**

- **The overall demand for choice and special academic programs in MCPS exceeds the supply of seats in the programs.**

- **MCPS does not systematically track participation in or attrition from its choice and special academic programs.**

Recommendations

In light of these key findings, Metis provides the following recommendations that will help MCPS better achieve equity of access and excellence through choice and special programs:

1. Revise Policy ACD, *Quality Integrated Education*, to clarify a defined mission for choice and special academic programs with input from community and staff stakeholders to clearly outline the goals and purposes for the programs, as well as their alignment with MCPS' core values and stakeholders' strong belief that MCPS should pursue equity on a broad level by raising expectations and opportunities for rigorous instruction across all schools.

2. Develop and implement new strategies for communicating, outreach, recruitment, and sharing information with underrepresented or hard-to-reach families within MCPS. These strategies should include, but not be limited to:
    - Streamlined communications in easily-understood language;
    - Revision of existing communication tools for cultural validity;
    - Outreach to families at community events or locations;
    - More opportunities for one-on-one or in-person communications with and recruitment of families; and
    - Additional materials and events held in languages other than English.

3. Implement modifications to the selection process used for academically competitive programs in MCPS, comprising elementary centers for highly gifted students and secondary magnet programs, to focus these programs on selecting equitably from among those applicants that demonstrate a capacity to thrive in the program, that include use of non-cognitive criteria, group-specific norms that benchmark student performance against school peers with comparable backgrounds, and/or a process that offers automatic admissions to the programs for students in the top 5-10% of sending elementary or middle schools in the district.

4. Invest resources to expand and enhance early talent development programs for students of underrepresented groups in order to bolster participation of a broader segment of the MCPS student population in academically selective programs.

5. Consider revisions to Policy JEE, *Student Transfers*, to clarify that the sibling link for immersion and other choice programs is not automatic; while siblings of applicants should be able to attend the same school where the special academic program is located provided that there are available seats, those siblings should be required to participate in the application process, such as the lottery for immersion programs, to earn a seat in the program.

6. To the extent that the district considers revisions to Policy JEE, *Student Transfers*, to alter the automatic articulation from middle school to high school within the cluster feeder pattern *or* consider approvals for programmatic requests, MCPS should analyze the impact on both school capacity and its efforts to promote diversity and avoid racial isolation.

7. Facilitate a process to devise strategies for fuller integration of special programs into the schools that house the programs to ensure that program participants and home school students have meaningful social and academic interactions, such as expanded use of specials or electives, common lunch or recess periods, and extracurricular programs; and that recruitment efforts are tailored to encourage home school populations to apply for the programs.

8. Conduct a comprehensive review of the signature and academy themes offered in each DCC and NEC school to ensure they provide options that are consistent with the district's Strategic Planning Framework and provide access to programs that would not otherwise be available in home schools, such as career education pathways.

9. Assess the feasibility and impact of revising the high school consortium model to reconsider the use of base areas and to allocate a number of seats for out-of-consortium students to enroll in signature programs and themes.

10. To the extent that MCPS invests in expanding seat capacity in choice and special programs catch up with growth in district enrollment and demand, it should ensure that these efforts are aligned with the district's core values, including equity, and consider a wider variety of models, such as dual language and whole-school, theme-based magnet programs that use lottery admissions processes that rely primarily on student interest.

11. Consistently utilize variables within the district's student data system to identify students who enroll in choice and special academic programs to assess participation, attrition, and academic and other outcomes of students in the programs to monitor implementation and impact of the programs.

Appendix

A. Benchmarking districts
B. Program data tables
C. Community survey data tables
D. MCPS Division of Long Range Planning: Enrollment figures
E. MCPS catchment area maps

A. Benchmarking Districts

Baltimore County Public Schools (MD) is a county school system in Maryland of similar size and comparable demographics (by race/ethnicity and FARMS) to MCPS. BCPS conducted an audit of the district's large magnet program in 2013.

Houston Independent School District (TX) is a large urban district (202,000 students) with high percentages of Hispanic (62%) and FARMS (76%) students. HISD has received several national awards, including the 2013 Broad Prize and 2012 finalist. In recent years, the district conducted a study of its more than 100 magnet programs which include early college and college preparation programs, career magnets, international and STEM-themed programs, and gifted and talented programs.

Wake County Public School System (NC) serves an equal number of students with very similar demographics to MCPS. WCPPS has an extensive menu of magnet and choice programs and experienced challenges to the student assignment and equity plans within the past several years.

Hillsborough County Public Schools (FL) is the third largest county school system in Florida and the eighth largest in the country with 208,000 students. Hillsborough offers a range of school choice options including magnet programs, virtual programs, and school transfers. Included in its magnet program portfolio are gifted and talented and International Baccalaureate programs, among others.

Jefferson County Public Schools (KY) serves 101,000 students and offers a portfolio of choice including academically advanced programs and magnet programs for students outside of home zones. It also offers high school consortia for geographic areas.

Fairfax Public Schools (VA) has a total district enrollment of 186,000 students and is the largest district in Virginia. The student population is diverse with 40% White, 25% Hispanic, 19% Asian American, and 10% Black/African American. Almost 30,000 students receive English for Speakers of Other languages services.

Clark County School District (NV) is the fifth largest school district in the county serving 320,000 students. The district offers nationally-recognized magnet schools and career and technical academies, as well as online secondary school options. Almost half (46%) of the district's population is Hispanic/Latino, 26% is White, and 13% is Black/African American. CCSD offers a variety of language programs to serve English speakers and speakers of languages other than English through dual immersion programs as well as one-way world languages programs.

B. Additional program data tables

Exhibit B1: Middle School Magnet Programs: District Enrollment, Applicants, Invited Students (2013–14)

	District Enrollment (5th grade in 2012–13)		Magnet Program Applicants		Magnet Program Invited Students	
	N	%	N	%	N	%
Total†	**11,163**	**100.0%**	**1,350**	**100.0%**	**352**	**100.0%**
Race/ethnicity						
American Indian	18	0.2%	-	-	-	-
Asian	1,668	14.9%	541	40.1%	173	49.1%
African American	2,271	20.3%	226	16.7%	26	7.4%
Hispanic	2,945	26.4%	123	9.1%	21	6.0%
Multi-Ethnic	532	4.8%	71	5.3%	24	6.8%
Pacific Islander	11	0.1%	-	-	-	-
White	3,718	33.3%	386	28.6%	108	30.7%
Special education status						
General education	9,574	85.8%	1308	96.9%	-	-
Special education*	1,589	14.2%	41	3.1%	-	-
Gender						
Female	5,519	49.4%	734	54.4%	203	57.7%
Male	5,644	50.6%	616	45.6%	149	42.3%
Limited English Proficiency (LEP) status						
Not LEP	9,120	81.7%	1,286	95.3%	-	-
LEP	2,043	18.3%	64	4.7%	-	-
Eligibility for free and reduced price meals (FARMS)						
Not Current FARMS	6,772	60.7%	1,096	81.2%	328	93.2%
Current FARMS	4,391	39.3%	254	18.8%	24	6.8%
NOT ever FARMS	6,378	57.1%	1,050	77.8%	325	92.3%
Ever FARMS	4,785	42.9%	300	22.2%	27	7.7%

† Data are not presented when N<10.

*Includes students with 504s.

Exhibit B2: High School Magnet and Other Application Programs: District Enrollment, Applicants, Invited Students (2013–14)

	District Enrollment (8th grade in 2012-13)		Magnet Program Applicants		Magnet Program Invited Students	
	N	%	N	%	N	%
Total†	10,684	100.0%	1,549	100.0%	575	100.0%
Race/ethnicity						
American Indian	17	0.2%	-	-	-	-
Asian	1,491	14.0%	567	36.6%	219	38.1%
African American	2,411	22.6%	219	14.1%	42	7.3%
Hispanic	2,670	25.0%	160	10.3%	37	6.4%
Multi-Ethnic	453	4.2%	90	5.8%	45	7.8%
Pacific Islander	2	0.0%	-	-	-	-
White	3,640	34.1%	512	33.1%	232	40.3%
Special education status						
General education	9,226	86.4%	1,494	96.4%	551	95.8%
Special education	1,458	13.7%	55	3.6%	24	4.2%

	District Enrollment (8th grade in 2012-13)		Magnet Program Applicants		Magnet Program Invited Students	
	N	%	N	%	N	%
Gender						
Female	5,228	48.9%	810	52.3%	286	49.7%
Male	5,456	51.1%	739	47.7%	289	50.3%
Limited English Proficiency (LEP) status						
Not LEP	9,830	92.0%	1,525	98.5%	-	-
LEP	854	8.0%	24	1.5%	-	-
Eligibility for free and reduced price meals (FARMS)						
Not Current FARMS	6,718	62.9%	1,317	85.0%	550	95.7%
Current FARMS	3,966	37.1%	232	15.0%	25	4.3%
NOT ever FARMS	6,046	56.6%	1,218	78.6%	527	91.7%
Ever FARMS	4,638	43.4%	331	21.4%	48	8.3%

† Data are not presented when N<10.

*Includes students with 504s.

Exhibit B3: Number of Students who Opted to Enroll in a Magnet Application Program (2013–14), by Home Middle School

School††	Number of Students
Rocky Hill MS	37
Kingsview MS	29
Cabin John MS	25
Herbert Hoover MS	22
Julius West MS	16
Silver Spring International MS	16
Robert Frost MS	15
Lakelands Park MS	15
Sligo MS	13
Newport Mill MS	13
Westland MS	10
Ridgeview MS	9
Banneker MS	8
White Oak MS	8
Francis Scott Key MS	7
Earle B. Wood MS	7
Neelsville MS	7
Forest Oak MS	6
North Bethesda MS	6

†† Data are not presented when N<5.

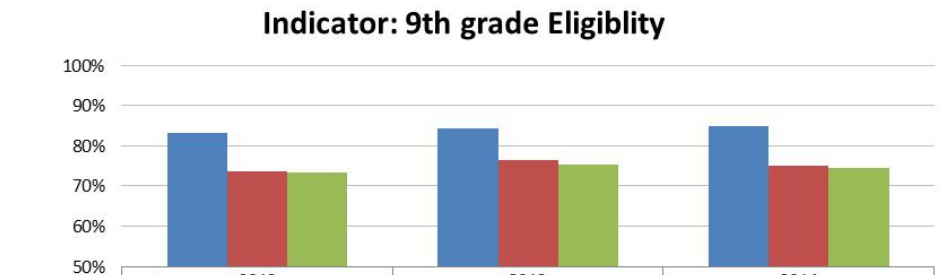
Exhibit B4: Number of Students who Opted to Enroll in a Magnet or Application Program (2013–14), by Home High School

School††	Number of students
Northwest HS	59
Thomas S. Wootton HS	44
Clarksburg HS	33
Quince Orchard HS	32
Winston Churchill HS	23
Col. Zadok Magruder HS	17
Walter Johnson HS	17
Damascus HS	15
Northwood HS	14
Gaithersburg HS	13
Watkins Mill HS	12
Bethesda-Chevy Chase HS	11
Albert Einstein HS *	9
Seneca Valley HS	9
Walt Whitman HS	9
James Hubert Blake HS	9
Sherwood HS	9
Springbrook HS	9
John F. Kennedy HS	8
Richard Montgomery HS *	8
Rockville HS	8
Montgomery Blair HS *	6

* Includes magnet application programs only; does not include other application programs that are part of the DCC.
*Does not include students who attended the magnet and were zoned for the school.

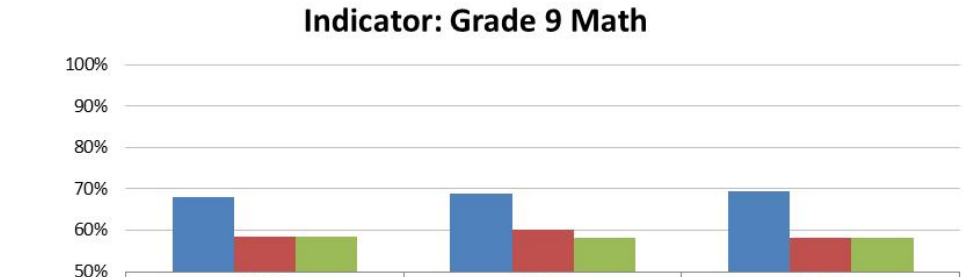
†† Data are not presented when N<5

Exhibit B5: MCPS Grade 9 Eligibility Data—Percentage of Students Meeting the Milestone: Districtwide, NEC Total, and DCC Total



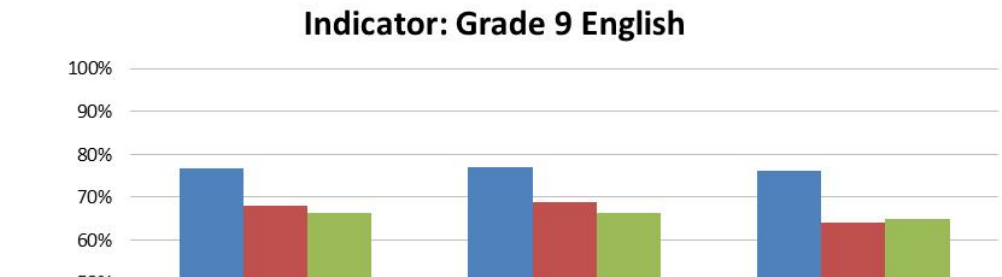
	2012	2013	2014
Districtwide	83%	84%	85%
NEC Total	74%	76%	75%
DCC Total	73%	75%	75%

Exhibit B6: MCPS Grade 9 Math Data—Percentage of Students Meeting the Milestone: Districtwide, NEC Total, and DCC Total



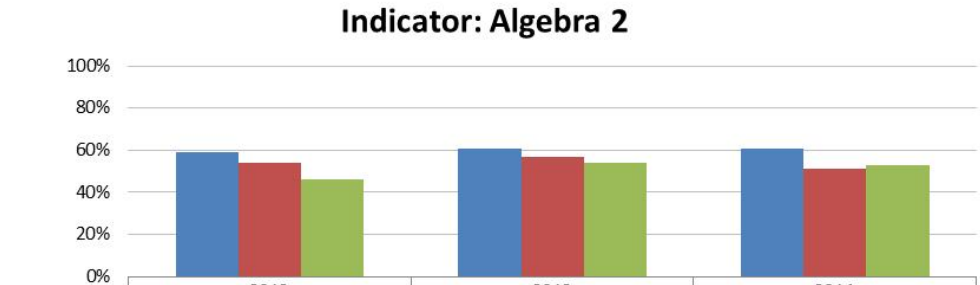
	2012	2013	2014
Districtwide	68%	69%	70%
NEC Total	58%	60%	58%
DCC Total	59%	58%	58%

Exhibit B7: MCPS Grade 9 English Data—Percentage of Students Meeting the Milestone: Districtwide, NEC Total, and DCC Total



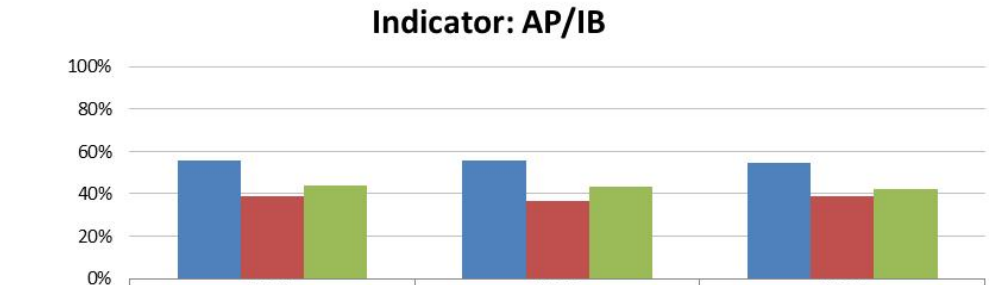
	2012	2013	2014
Districtwide	77%	77%	76%
NEC Total	68%	69%	64%
DCC Total	66%	66%	65%

Exhibit B8: MCPS Algebra 2 Data—Percentage of Students Meeting the Milestone: Districtwide, NEC Total, and DCC Total



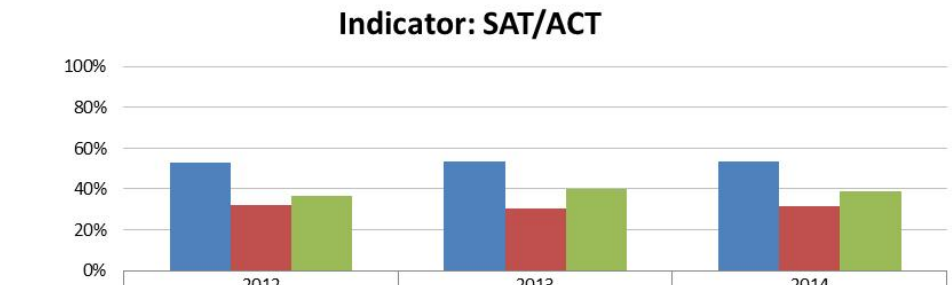
	2012	2013	2014
Districtwide	59%	61%	61%
NEC Total	54%	57%	51%
DCC Total	46%	54%	53%

Exhibit B9: MCPS AP/IB Data—Percentage of Students Meeting the Milestone: Districtwide, NEC Total, and DCC Total



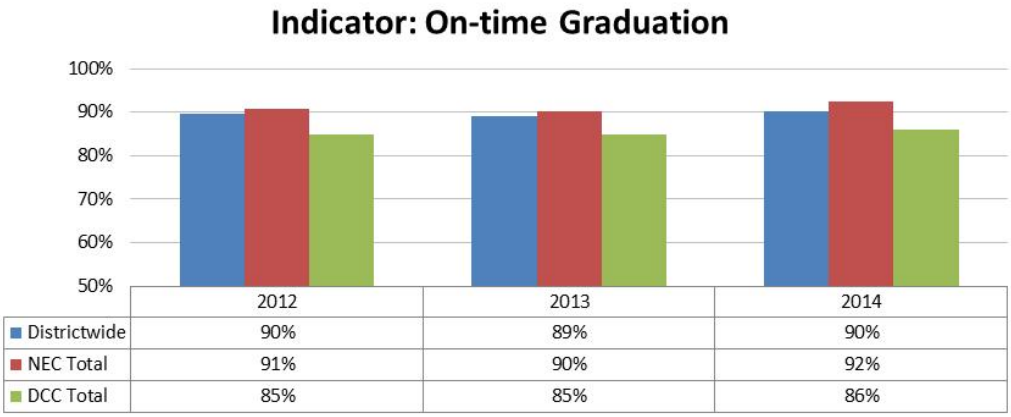
	2012	2013	2014
Districtwide	56%	56%	55%
NEC Total	39%	36%	39%
DCC Total	44%	43%	42%

Exhibit B10: MCPS SAT/ACT Data—Percentage of Students Meeting the Milestone: Districtwide, NEC Total, and DCC Total



	2012	2013	2014
Districtwide	53%	53%	53%
NEC Total	32%	30%	31%
DCC Total	37%	40%	39%

Exhibit B11: MCPS On-time Graduation Data—Percentage of Students Meeting the Milestone: Districtwide, NEC Total, and DCC Total



	2012	2013	2014
Districtwide	90%	89%	90%
NEC Total	91%	90%	92%
DCC Total	85%	85%	86%

C. MCPS Study of Choice and Special Academic Programs Online Community Survey—Annotated Results (N=5,318)

Exhibit C1: *In general, how familiar are you with these aspects of MCPS's choice and special academic programs.*

	Total N	Not at all familiar	Somewhat familiar	Very familiar
The program options that are offered (i.e., magnet, highly gifted centers, language immersion, and consortia)	**5,294**	13.1%	45.8%	41.1%
Where to find information about programs	**5,283**	19.3%	42.2%	38.5%
Locations of programs across the county	**5,284**	27.0%	44.2%	28.8%
How to apply to these programs	**5,281**	28.4%	37.6%	34.0%
Criteria for admission to these programs	**5,284**	34.5%	38.4%	27.1%
Transportation options available for these programs	**5,287**	39.3%	35.1%	25.6%
Unique curriculum and activities that are offered in these programs	**5,285**	30.7%	41.2%	28.0%

Exhibit C2: *To what extent do you think that MCPS's application programs (magnets and elementary centers for highly gifted students) help advance MCPS's:*

	Total N*	Not at all	A little	A lot
Vision which is to inspire learning by providing the greatest public education to each and every student.	**3,596**	9.5%	27.3%	63.2%
Mission that each student will have the academic, creative problem solving, and socio-emotional skills to be successful in college and career.	**3,593**	10.2%	27.2%	62.5%
Core value of learning that we must engage every student, every day; and learning is achieved by cultivating curiosity and encouraging determination, focus and hard work.	**3,621**	10.2%	24.8%	65.0%
Core value of **relationships that** meaningful collaboration is vital to our success, and strong partnerships are built on trust and open and honest communication.	**3,407**	14.9%	29.3%	55.8%

	Total N*	Not at all	A little	A lot
Core value of respect that each individual's contributions add value to our learning community and fair treatment and honesty are essential.	**3,406**	15.4%	30.4%	54.2%
Core value of excellence that raising the bar and setting high standards is necessary to ensure that all students graduate ready for college and career.	**3,577**	9.4%	21.0%	69.6%
Core value of equity that each and every student matters; and outcomes should not be predictable by race, ethnicity, or socioeconomic status.	**3,489**	22.3%	26.3%	51.4%

*Analyses exclude responses of "Don't know."

Exhibit C3: *To what extent do you think that MCPS's language immersion programs help advance MCPS's:*

	Total N*	Not at all	A little	A lot
Vision which is to inspire learning by providing the greatest public education to each and every student.	**2,802**	11.4%	28.8%	59.8%
Mission that each student will have the academic, creative problem solving, and socio-emotional skills to be successful in college and career.	**2,723**	13.1%	29.0%	57.8%
Core value of learning that we must engage every student, every day; and learning is achieved by cultivating curiosity and encouraging determination, focus and hard work.	**2,752**	12.0%	25.4%	62.5%
Core value of **relationships that** meaningful collaboration is vital to our success, and strong partnerships are built on trust and open and honest communication.	**2,614**	14.5%	28.5%	57.0%
Core value of respect that each individual's contributions add value to our learning community and fair treatment and honesty are essential.	**2,608**	14.4%	26.5%	59.1%
Core value of excellence that raising the bar and setting high standards is necessary to ensure that all students graduate ready for college and career.	**2,727**	12.2%	25.0%	62.8%
Core value of equity that each and every student matters; and outcomes should not be predictable by race, ethnicity, or socioeconomic status.	**2,673**	19.6%	26.7%	53.8%

*Analyses exclude responses of "Don't know."

Exhibit C4: *To what extent do you think that MCPS's regional consortia help advance MCPS's:*

	Total N*	Not at all	A little	A lot
Vision which is to inspire learning by providing the greatest public education to each and every student.	**2,552**	15.4%	31.4%	53.2%
Mission that each student will have the academic, creative problem solving, and socio-emotional skills to be successful in college and career.	**2,521**	15.5%	31.9%	52.6%
Core value of learning that we must engage every student, every day; and learning is achieved by cultivating curiosity and encouraging determination, focus and hard work.	**2,518**	15.1%	30.1%	54.8%
Core value of **relationships that** meaningful collaboration is vital to our success, and strong partnerships are built on trust and open and honest communication.	**2,423**	18.2%	31.8%	49.9%
Core value of respect that each individual's contributions add value to our learning community and fair treatment and honesty are essential.	**2,434**	18.6%	31.0%	50.4%
Core value of excellence that raising the bar and setting high standards is necessary to ensure that all students graduate ready for college and career.	**2,511**	16.5%	30.2%	53.3%
Core value of equity that each and every student matters; and outcomes should not be predictable by race, ethnicity, or socioeconomic status.	**2,474**	21.8%	28.5%	49.7%

*Analyses exclude responses of "Don't know."

Exhibit C5: *In your opinion, to what extent is access to each of the following types of MCPS choice and special academic programs equitable for all students?*

	Total N*	Not at all equitable	Somewhat equitable	Fully equitable
Application programs (magnet and gifted centers)	**3,253**	22.3%	41.9%	35.8%
Language immersion programs	**2,702**	23.3%	41.6%	35.1%
Regional consortia schools	**2,513**	22.9%	42.5%	34.6%

*Analyses exclude responses of "Don't know."

Exhibit C6: *In your opinion, does each of the following factors support or not support equitable access for all students to application programs (magnets and elementary centers for highly gifted students)?*

	Total N*	Does not support	Supports
Number of programs across the county	**2,929**	52.6%	47.4%
Geographic location of programs across the county	**2,916**	49.6%	50.4%
Transportation options	**2,770**	41.9%	58.1%
Admissions criteria	**2,711**	34.9%	65.1%

*Analyses exclude responses of "Don't know."

Exhibit C7: *In your opinion, does each of the following factors support or not support equitable access for all students to language immersion programs?*

	Total N*	Does not support	Supports
Number of programs across the county	**2,351**	59.1%	40.9%
Geographic location of programs across the county	**2,310**	53.1%	46.9%
Transportation options	**2,081**	43.6%	56.4%
Admissions criteria	**2,117**	35.6%	64.4%

*Analyses exclude responses of "Don't know."

Exhibit C8: *In your opinion, does each of the following factors support or not support equitable access for all students to regional consortia?*

	Total N*	Does not support	Supports
Number of programs across the county	**2,217**	48.5%	51.5%
Geographic location of programs across the county	**2,233**	49.6%	50.4%
Transportation options	**2,021**	44.8%	55.2%
Admissions criteria	**1,996**	37.5%	62.5%

*Analyses exclude responses of "Don't know."

Exhibit C9: *In your opinion, do you think MCPS offers too few, too many, or the right number of choice and special academic programs?*

	Total N	Too few	Right number	Too many
High school magnet programs *i.e., Blair HS Science and Math, Blair Communication Arts Program (CAP), Richard Montgomery IB, Einstein VAC, Wheaton Bioscience and Engineering, Kennedy Leadership Training Institute, and Poolesville)*	**3,560**	53.9%	40.5%	5.6%
Middle school magnet programs *(i.e. Takoma Park, Eastern, and Roberto Clemente)*	**3,595**	68.9%	26.5%	4.6%
Elementary school magnet programs (*i.e. Takoma Park ES)*	**3,570**	65.8%	26.3%	7.9%
Middle school language immersion programs	**3,411**	60.0%	31.3%	8.7%
Elementary school language immersion programs	**3,464**	62.0%	29.3%	8.7%
Elementary centers for highly-gifted students	**3,501**	57.9%	33.9%	8.2%
Middle school regional consortia	**3,337**	48.6%	40.1%	11.3%
High school regional consortia *(i.e., NEC and DCC)*	**3,364**	45.4%	43.0%	11.6%

Exhibit C10: *Which best describes you?*

	N	%
Parent or guardian	**3,285**	86.7%
Community member without school age children	**29**	<1%
Student	**309**	8.2%
MCPS staff	**102**	2.7%
Other	**66**	1.7%
Total	**3,791**	**100%**

Exhibit C11: [Parents only] *Which of the following applies to you?**

	Number of Responses	%
Child attends choice program	1,560	50.6%
Child attends neighborhood school	1925	62.4%
Child does not attend MCPS school	90	2.9%
Child graduated MCPS school	246	8.0%

*Responses total greater than 100% because multiple responses were accepted.

Exhibit C12: [Parents only] *If you have one or more children who currently attend a MCPS choice or special academic program, which type of program?**

	Number of Responses	%
Magnet program	726	50.7%
Language immersion program	471	32.9%
Elementary center for highly-gifted	252	17.6%
Consortium	212	14.8%

*Responses total greater than 100% because multiple responses were accepted.

Exhibit C13: [Students only] *Which of the following describes you?*

	N	%
I attend a MCPS choice or special academic program	238	57.8%
I attend a MCPS school that does not have a choice or special academic program	123	29.9%
I attend a private or charter school, or a school outside the MCPS district	7	1.7%
I am home schooled	2	<1%
Other	42	10.2%
Total	**412**	**100%**

Exhibit C14: [Students only] *Which type of choice or special academic program do you attend?*

	N	%
Magnet program	154	77.4%
Language immersion program	17	8.5%
Elementary center for highly-gifted	2	1.0%
Consortium	26	13.1%
Total	**199**	**100%**

Exhibit C15: Respondents, by Race/Ethnicity (optional item)

	N	%
American Indian	10	<1%
Asian	451	15.9%
Black or African American	366	12.9%

	N	%
White	1,510	53.3%
Two or more races	152	5.4%
Pacific Islander	6	<1%
Hispanic or Latino	336	11.9%
Total	**2,831**	**100%**

*Response categories with less than 10 respondents are not reported.

D. MCPS Study of Choice and Special Academic Programs Presentation by Division of Long Range Planning—School System and Application Program Demographics

Exhibit D1:

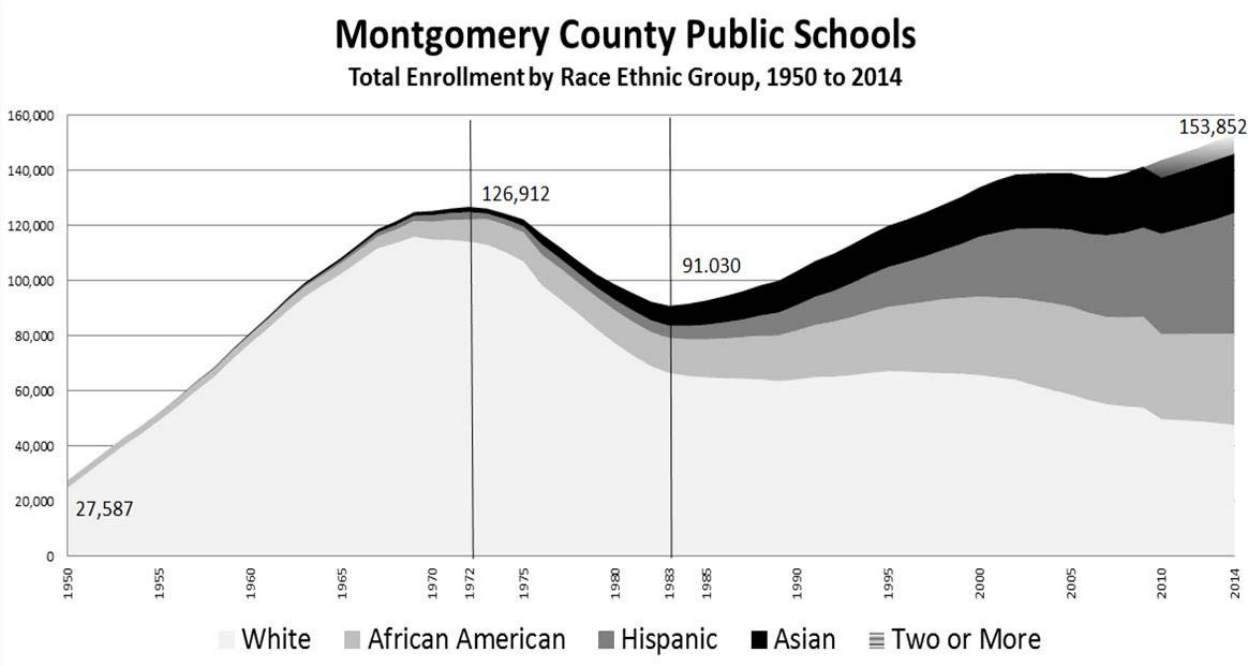
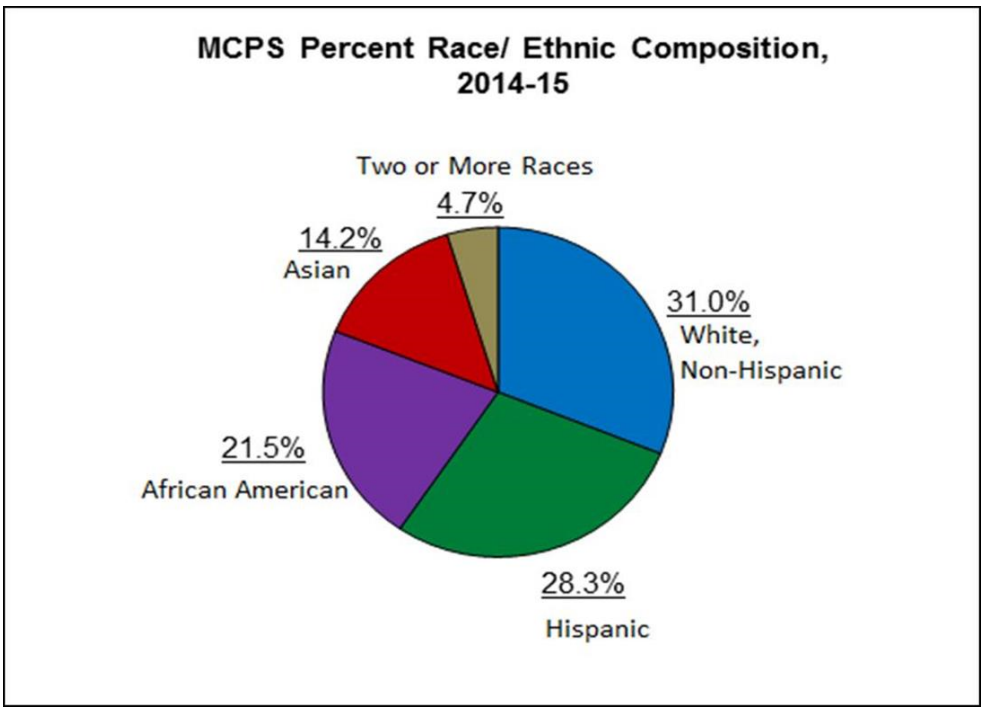


Exhibit D2:



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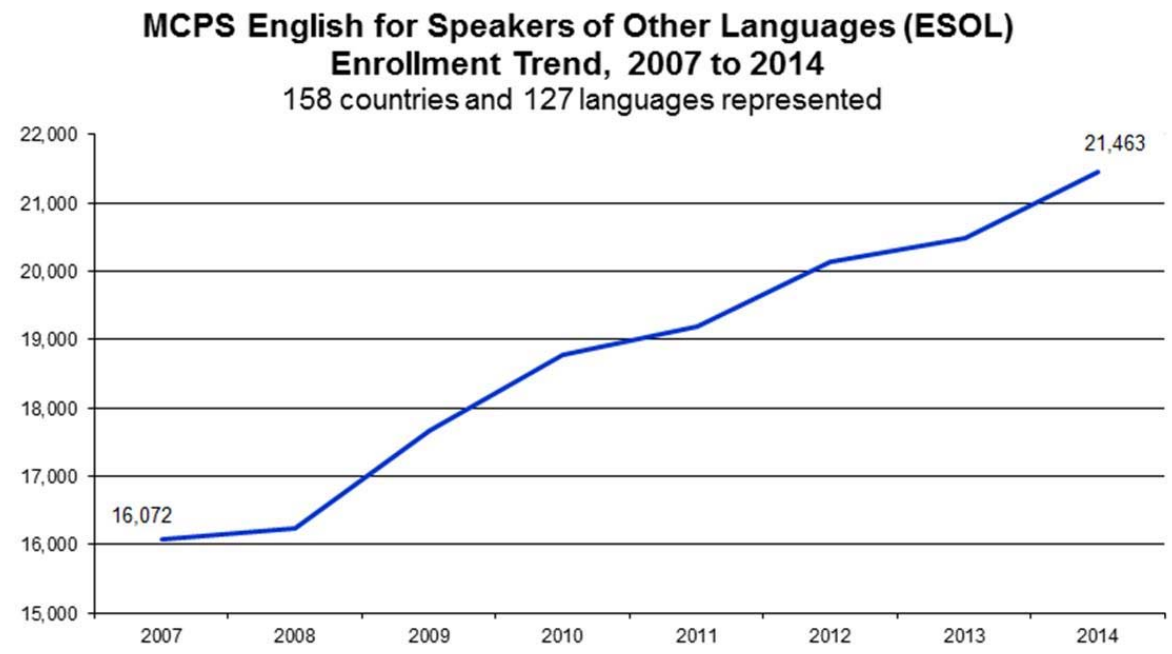
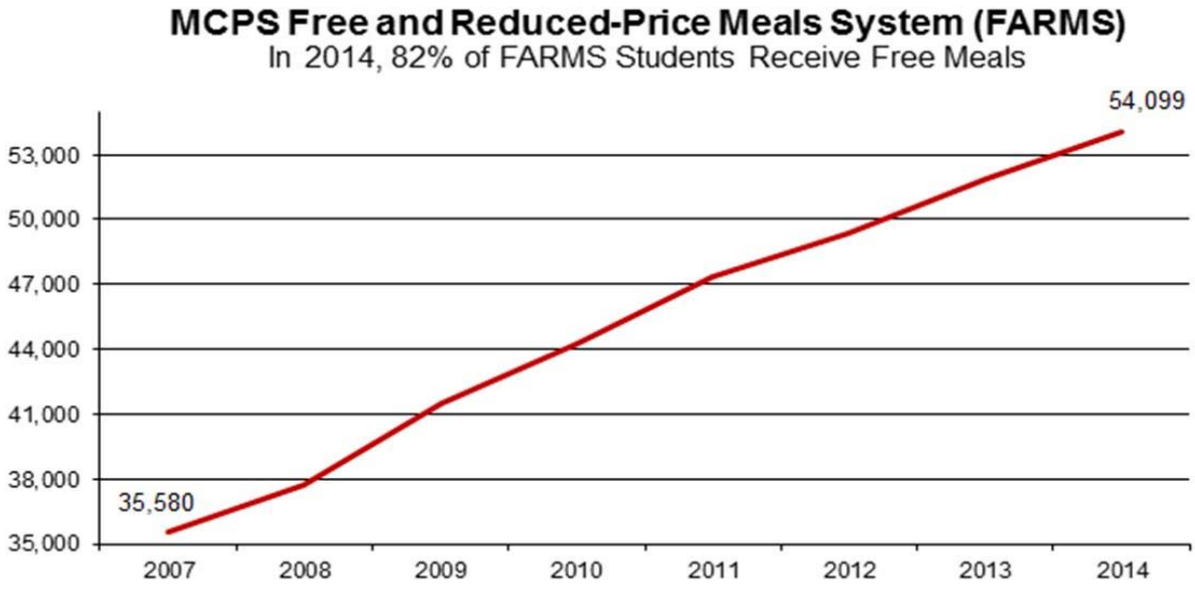


Exhibit D4:



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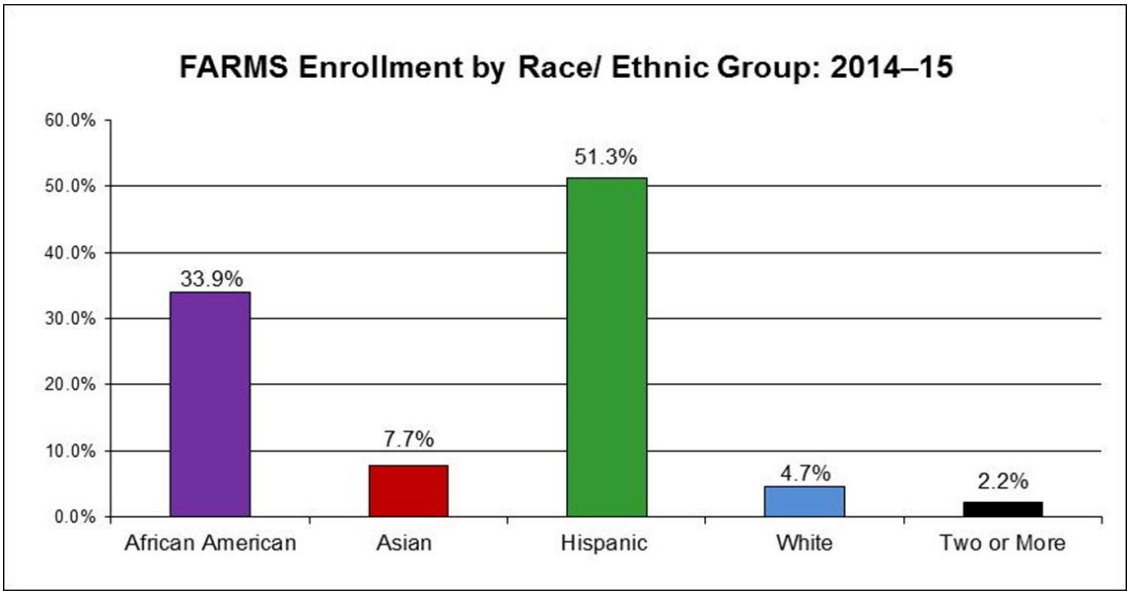

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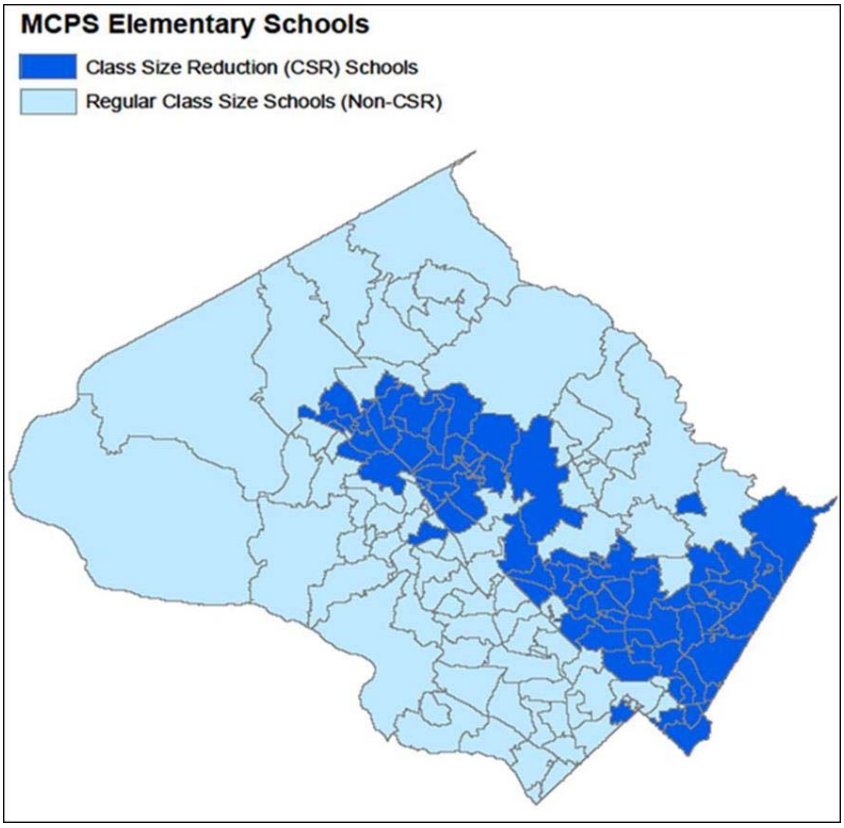


Exhibit D7:

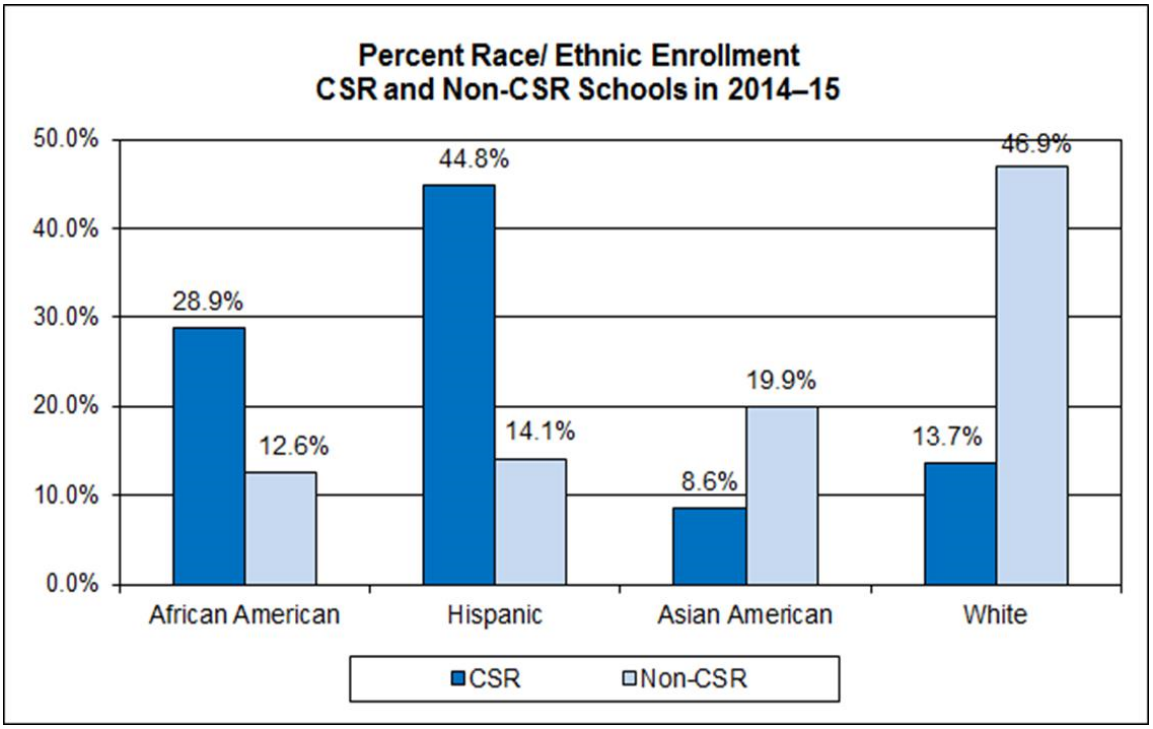
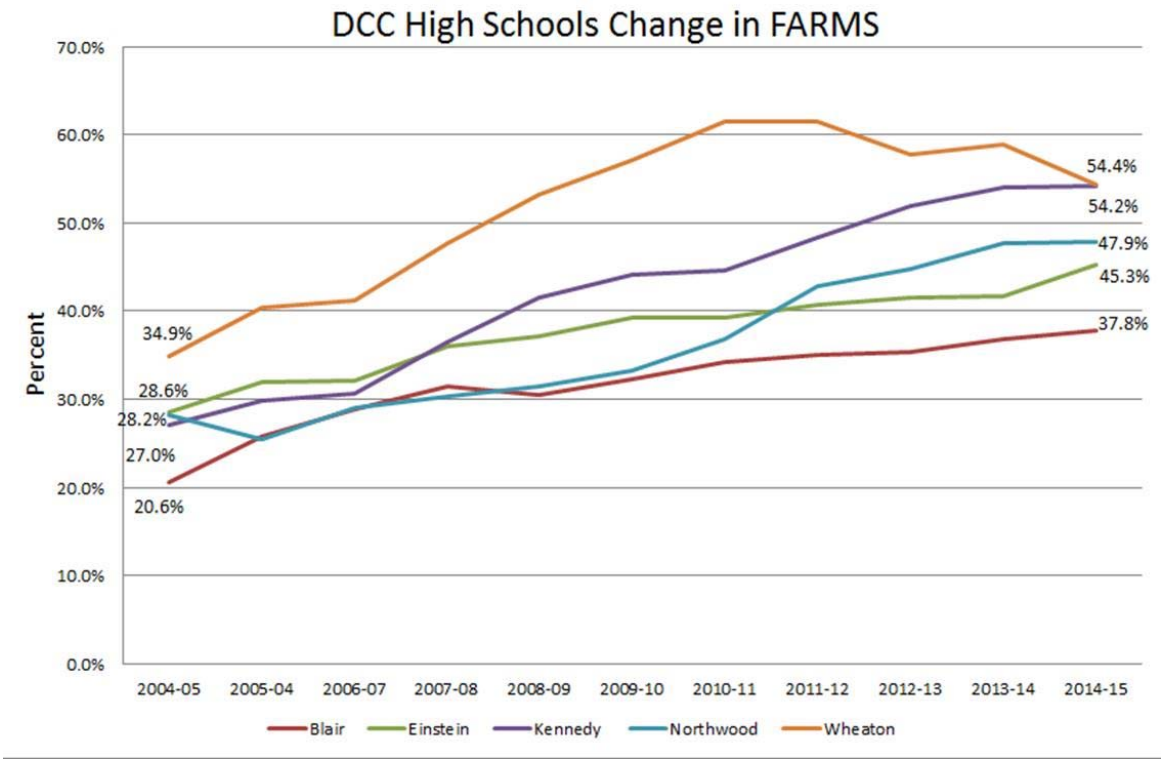


Exhibit D8:



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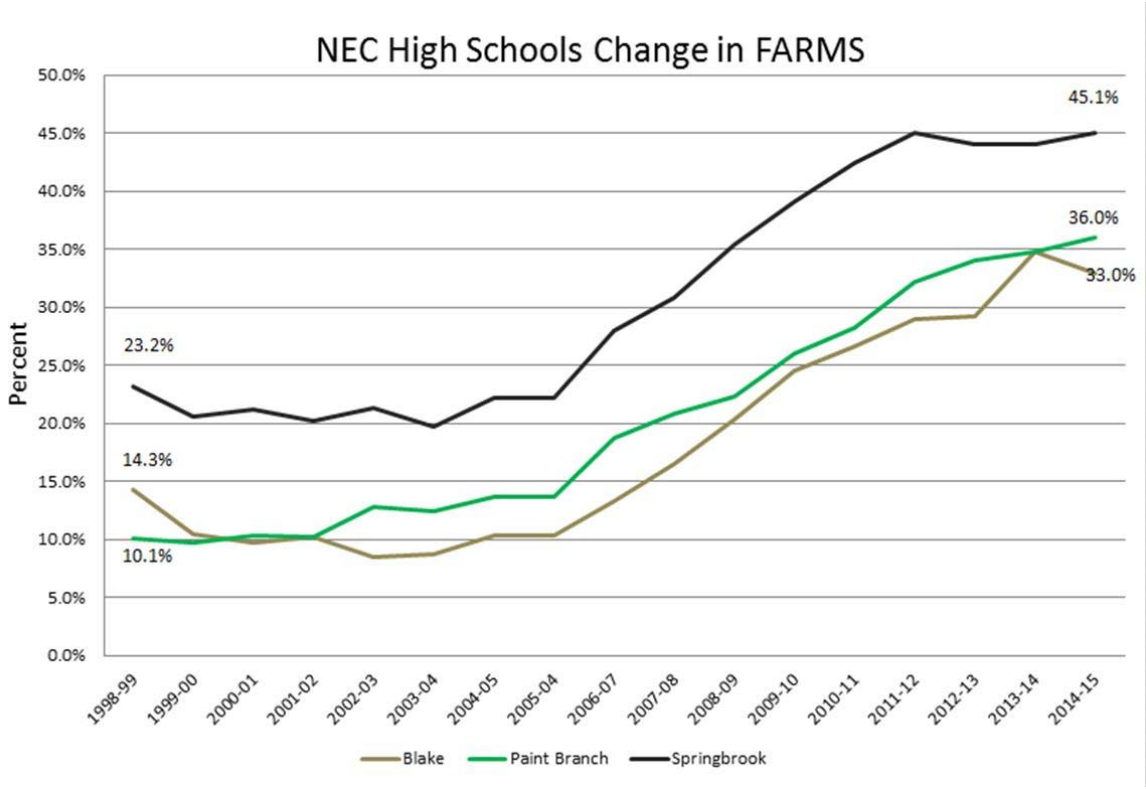
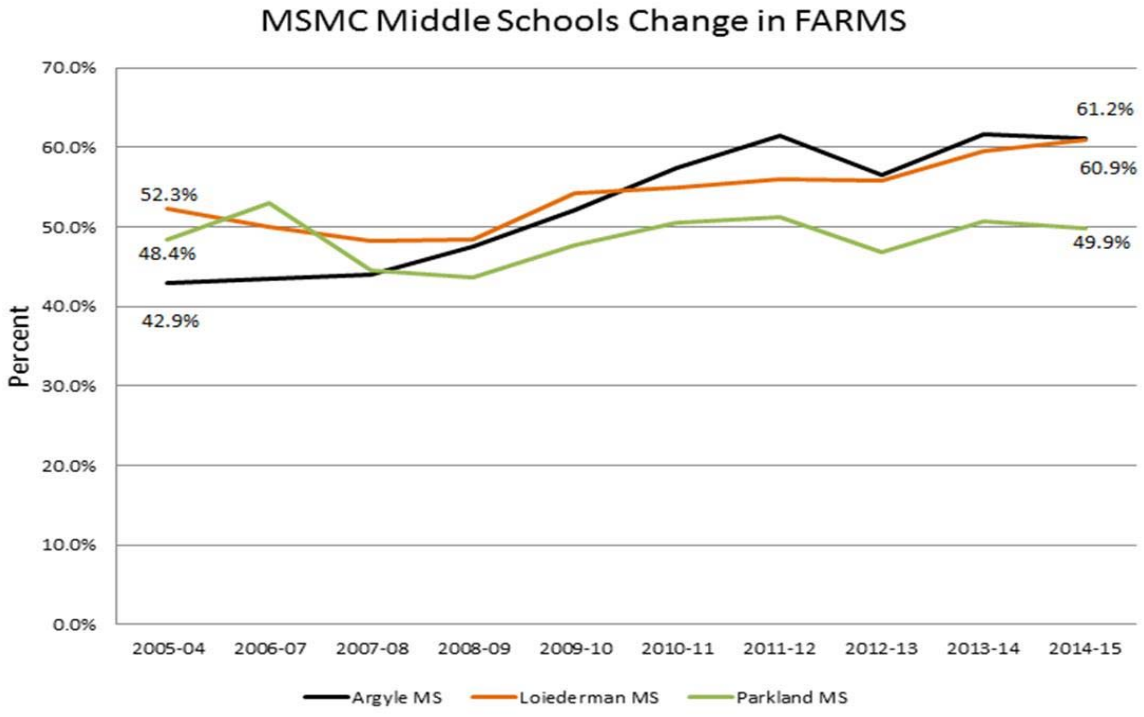
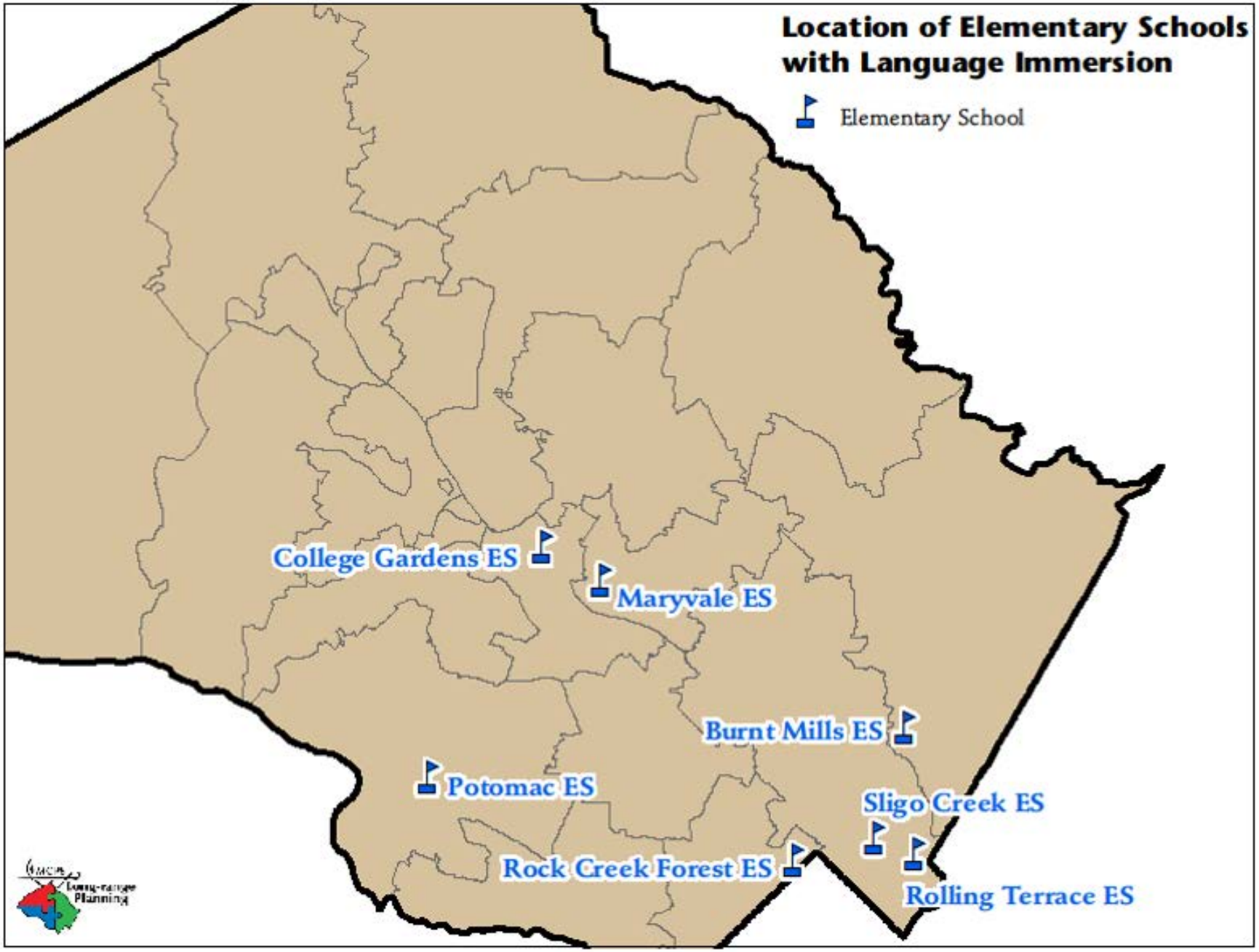


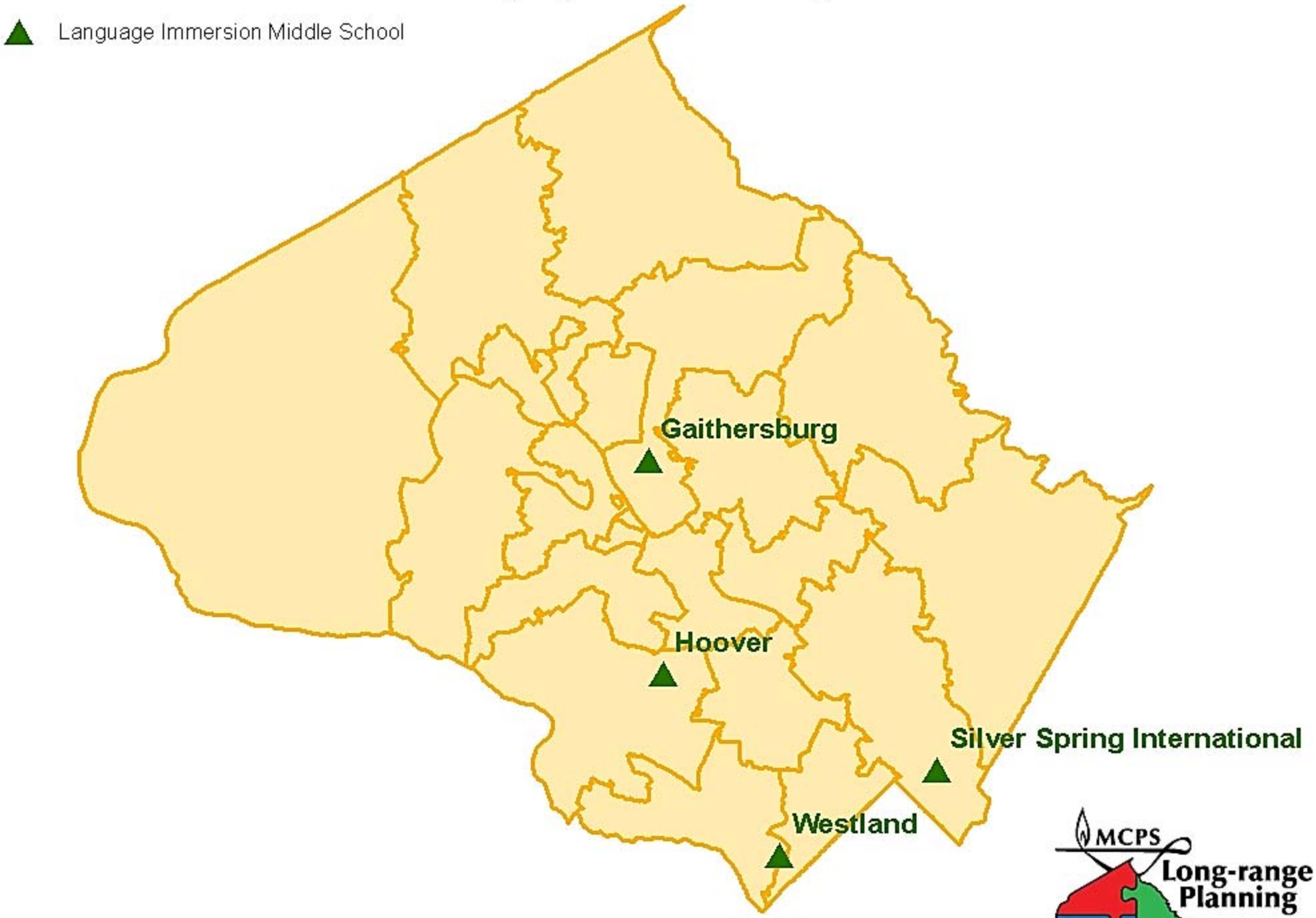
Exhibit D10:



E. MCPS Catchment Area Maps


Location of Elementary Schools with Language Immersion
Elementary School
College Gardens ES
Maryvale ES
Burnt Mills ES
Potomac ES
Sligo Creek ES
Rock Creek Forest ES
Rolling Terrace ES

Location of Middle Schools With Language Immersion Programs



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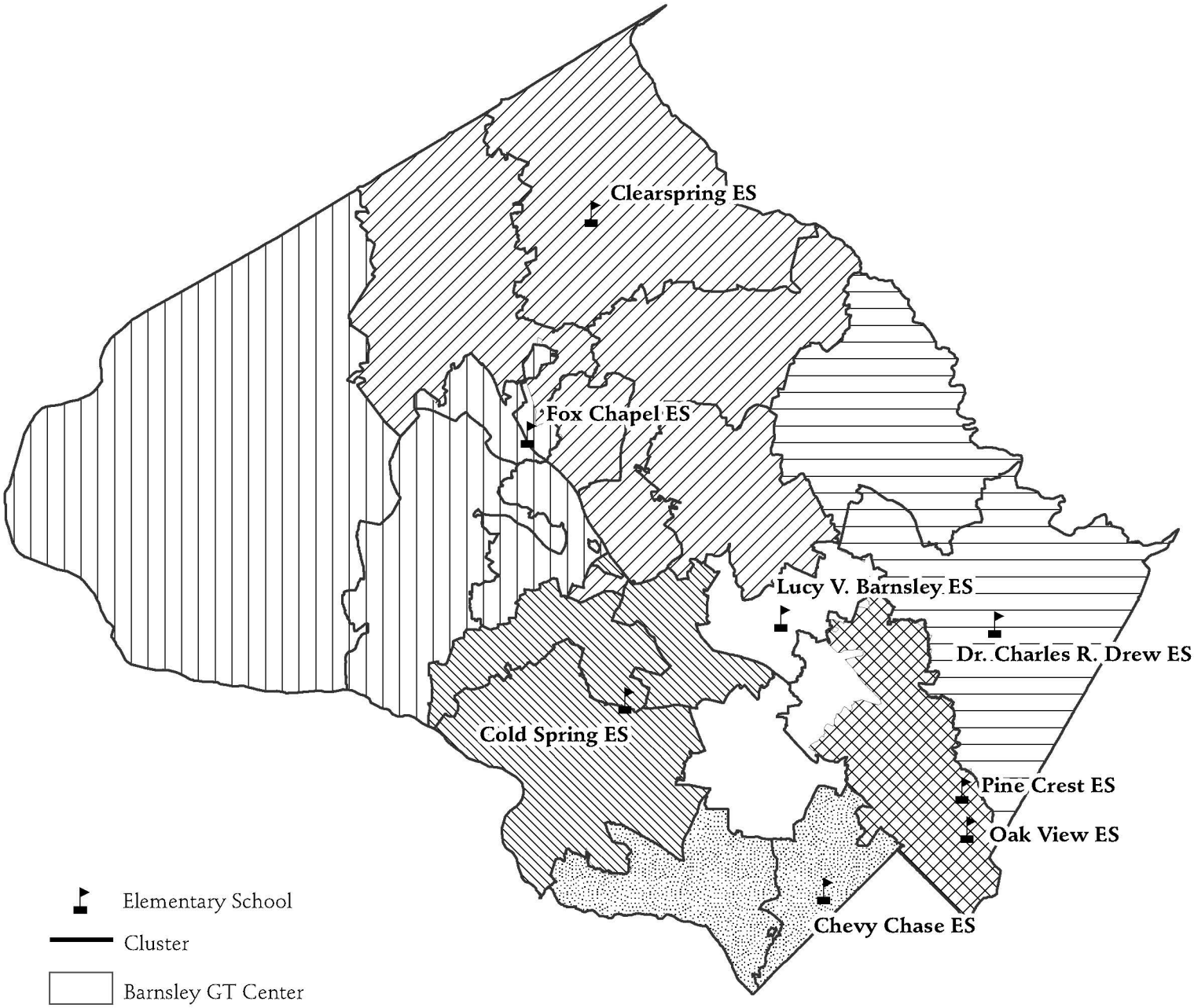
Highly Gifted Catchment Areas



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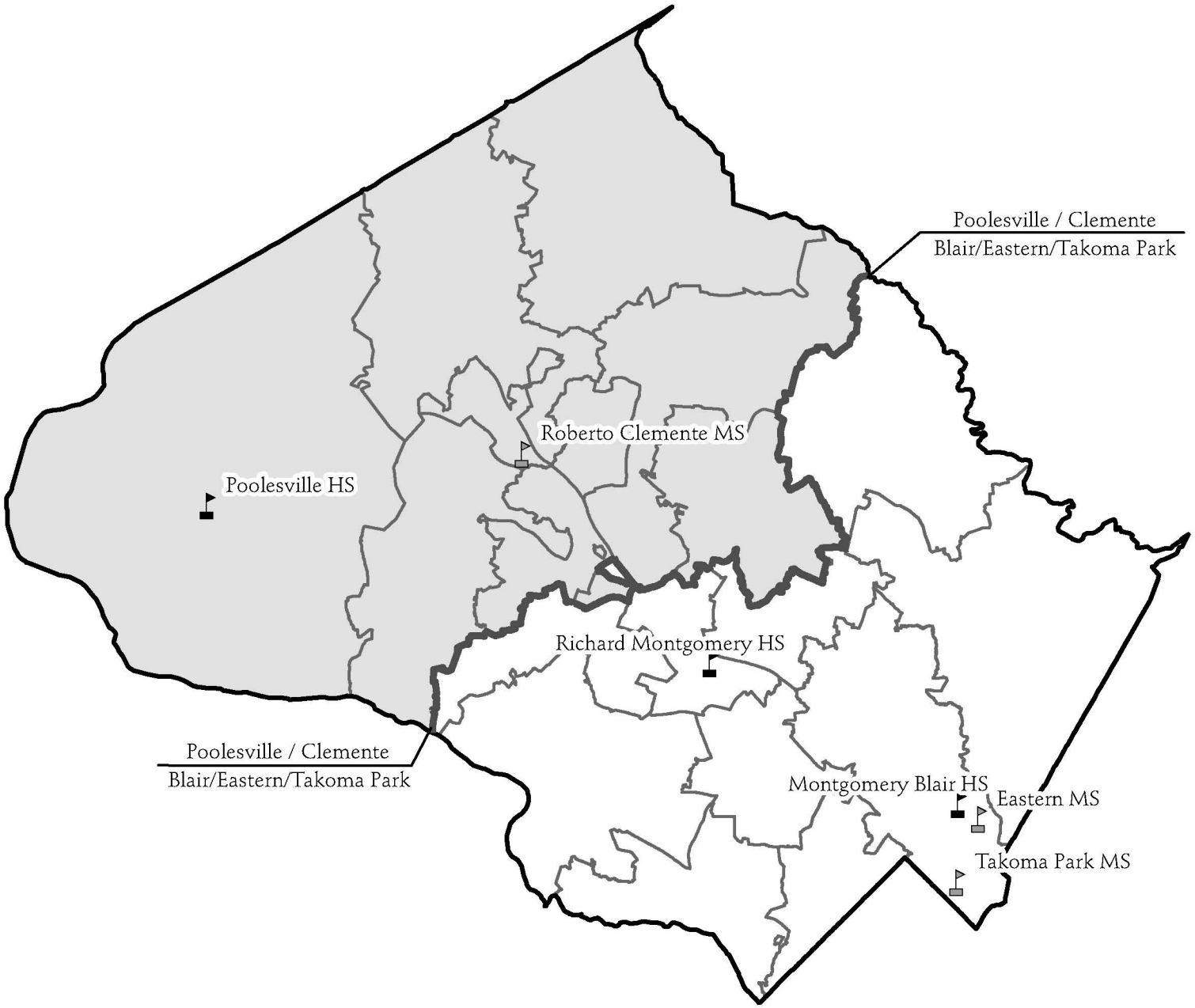
Secondary Magnet School Catchment Areas



Middle School

High School

Secondary Magnet School Catchment Boundary

0 2.25 4.5 9 Miles

MCPS Long-range Planning

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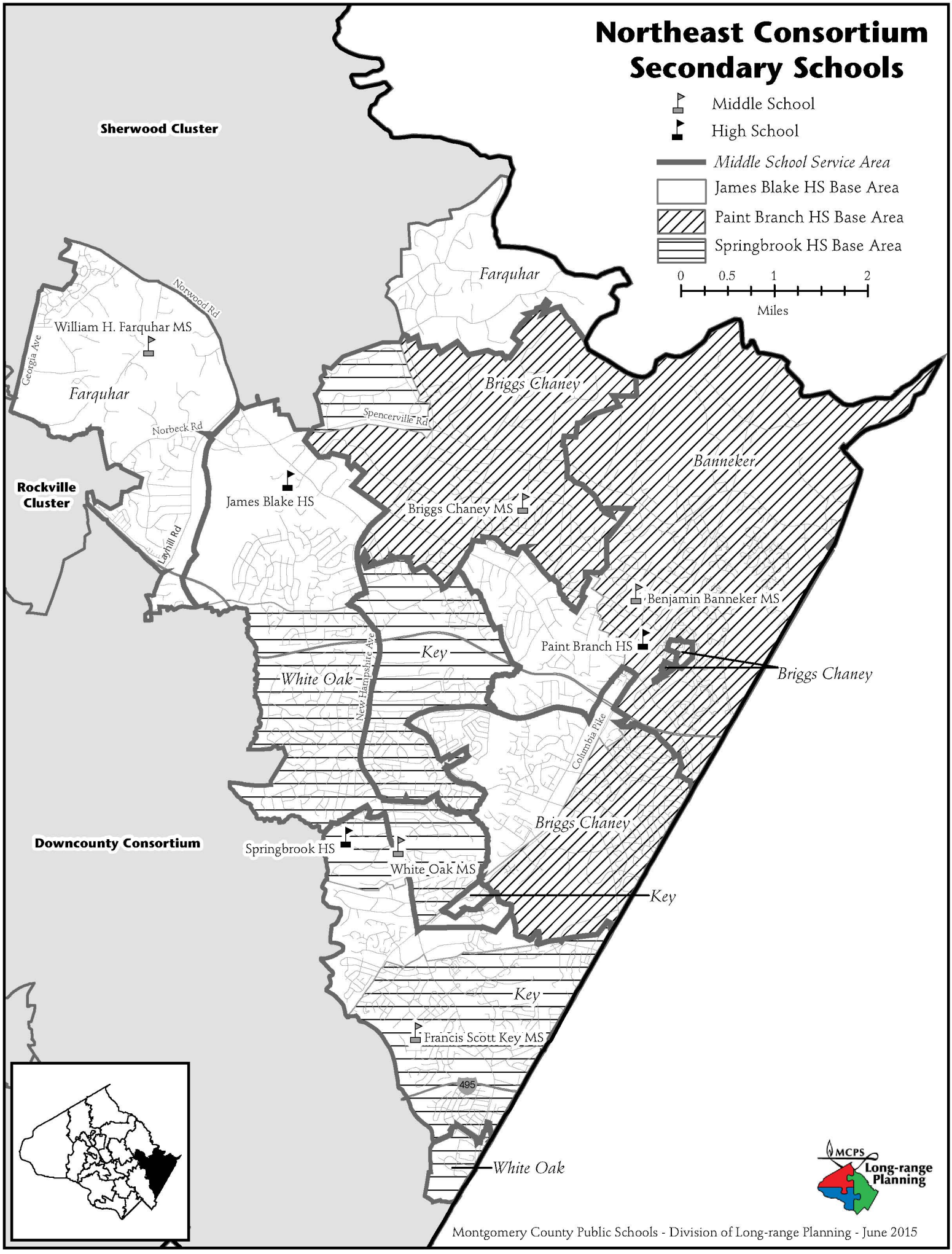
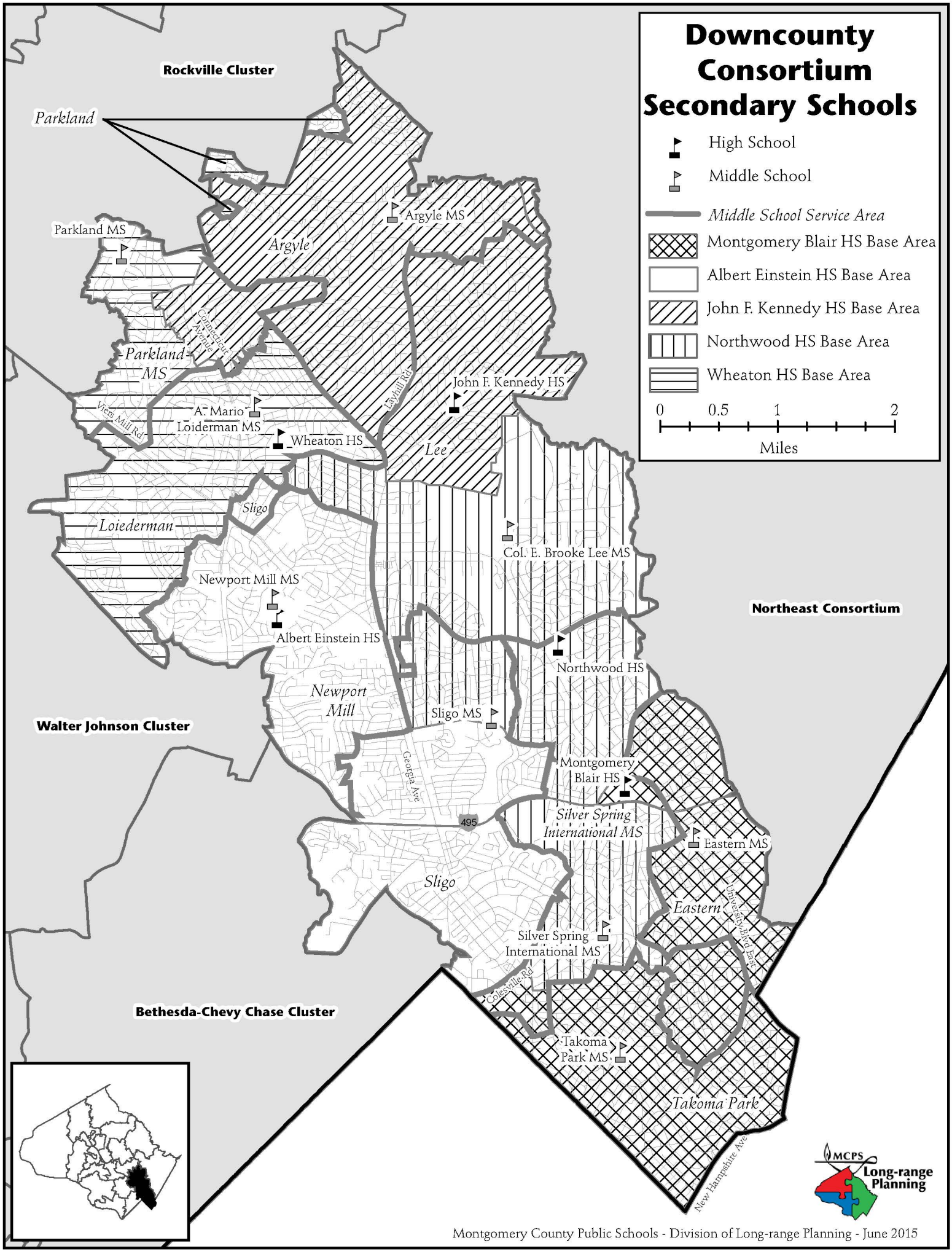
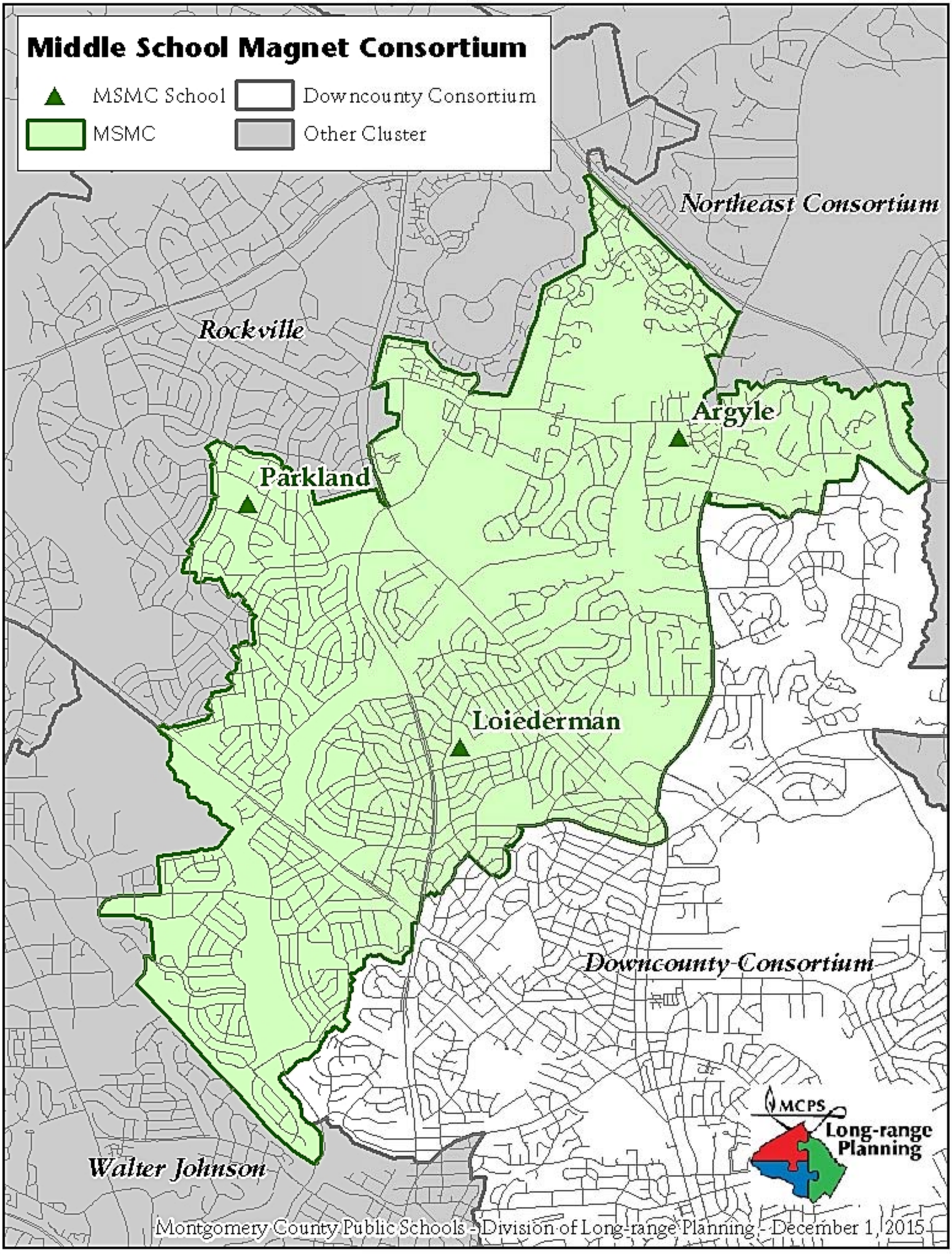

Northeast Consortium Secondary Schools
Middle School
High School
Middle School Service Area
James Blake HS Base Area
Paint Branch HS Base Area
Springbrook HS Base Area
0 0.5 1 2
Miles
Sherwood Cluster
Rockville Cluster
Downcounty Consortium
Norwood Rd
Georgia Ave
William H. Farquhar MS
Farquhar
Norbeck Rd
Layhill Rd
James Blake HS
Spencerville Rd
Briggs Chaney
Briggs Chaney MS
Banneker
Benjamin Banneker MS
Paint Branch HS
Key
White Oak
New Hampshire Ave
Columbia Pike
Springbrook HS
White Oak MS
Francis Scott Key MS
495
MCPS
Long-range Planning
Montgomery County Public Schools - Division of Long-range Planning - June 2015



Montgomery County Public Schools - Division of Long-range Planning - June 2015


Middle School Magnet Consortium
MSMC School
Downcounty Consortium
MSMC
Other Cluster
Northeast Consortium
Rockville
Argyle
Parkland
Loiederman
Downcounty Consortium
Walter Johnson
MCPS
Long-range Planning
Montgomery County Public Schools - Division of Long-range Planning - December 1, 2015