

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

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

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.

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

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.

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.