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Introduction

Through data analysis, benchmarking, and community engagement, this boundary analysis seeks to understand the degree to which current school boundaries in Montgomery county further MCPS's objectives to facilitate equitable and optimal outcomes in facility use, student diversity within schools, student proximity to schools, and stability of student assignments. This study draws its analytical framework from the four factors outlined in Policy FAA, which guide all long-range educational facilities planning in MCPS: student demographics, geography, stability of assignments over time, and facility utilization. This report begins with an exploration of some of the contextual and historical factors that underly the analyses and insights shared in Chapter 2: Data Analysis.

MCPS at a Glance

At 165,267 students and 200 general education schools, Montgomery County Public School System (MCPS) is the largest public school system in the state of Maryland, and the 14th largest school system in the nation in 2019. As of the 2018-2019 school year, MCPS had 23,587 employees, including 13,142 teachers.¹

MCPS is widely regarded for academic achievement. It is recognized as an award-winning school system and includes several nationally recognized schools. MCPS received the 2010 Malcolm Baldrige National Quality Award, the highest presidential honor for organizational excellence. In 2016, 13 MCPS high schools reached U.S. News & World Report's Best High Schools list—eight of which received gold medals as part of the nation's top 500 high schools. In the 2018-2019 school year, 41 MCPS schools were recognized as National Blue Ribbon schools. ² In 2018, MCPS released its FY 2018 Strategic Framework, a set of strategies that recommits the district to its core vision to "inspire learning by providing the greatest public education to each and every student" and its core values of learning, relationships, respect, excellence, and equity.³

As the population of Montgomery County grows larger and more diverse, so too does MCPS' student body. In the last decade, the total population of Montgomery County has grown from around 972,000 to over 1.05 million, amounting to an eight percent increase overall. During this same period, total student enrollment increased from 144,064 to 165,267, an increase of about 15%.⁴ As the maps (**Figure 1.2 - Figure 1.3**) show, the last decade's growth has not been distributed evenly throughout the district. Certain schools and parts of the county are more impacted than others by in-migration and shifting age demographics. For instance, between 2010 and 2020, areas in the north of the county (including the vicinity of Clarksburg, Gaithersburg, and Damascus) experienced the greatest amount of net population gain, with increases of 30% or more in total population.

MCPS by the Numbers

- 165,267 students (fall 2019)
- 200 general education schools
- 135 elementary schools
- 40 middle schools
- 25 clusters
- 8 special/continuing schools
- 2 high school consortia



Today's Conditions

- Overcrowded schools
- Changing educational programming needs
- Changing demographics
- Proximity to schools



- "Our School System." 2018. 2019 2018. https://www.montgomeryschoolsmd.org/uploadedFiles/about/MCPS-At-A-Glance.pdf.
- 2 MCPS Strategic Framework. FY2018. https://www.montgomeryschoolsmd.org/campaigns/Strategic-Planning-2017/index.html#Board.
- 3 MCPS Strategic Framework. FY2018. https://www.montgomeryschoolsmd.org/campaigns/Strategic-Planning-2017/index.html#Board.
- 4 Three major drivers of student population trends—resident live births, aging of the student population, and migration patterns-- are discussed in depth in the FY 2021-2026 CIP.

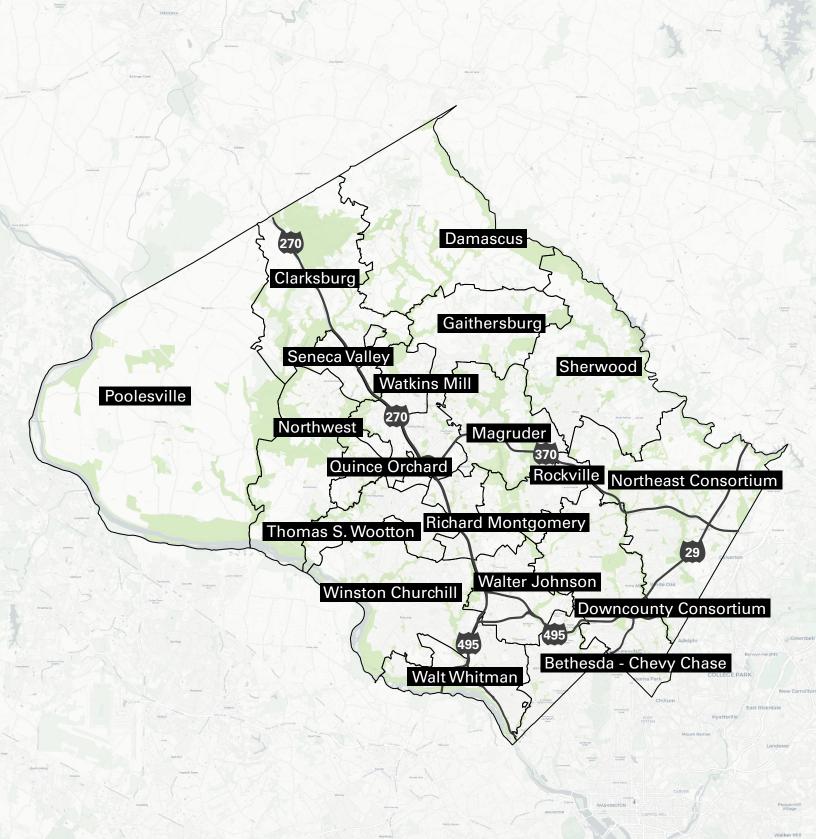


Figure 1.1 *Map of Montgomery County Public School Clusters*

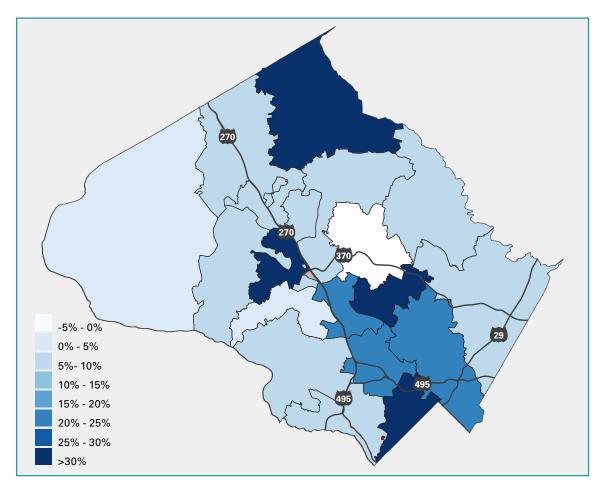


Figure 1.2 Change in Student Enrollment by Cluster, 2010-2018 (source: U.S. Census Bureau)

As in other pivotal moments in the school system's long history, MCPS is faced with the need to respond to changing conditions and address the diverse needs of students and families across the county. These changing conditions underpin the BOE's call for a districtwide analysis of school boundaries, and provide critical context for the analyses in this report:

• Overcrowded schools: Over half of all MCPS schools are overutilized (in other words, student enrollment exceeds the school's programming capacity), in some cases, so severely that the county has placed a moratorium on residential development in particular areas. As the county works to accommodate this overcrowding through new construction and additions, many students attend class in relocatable classrooms. As total school enrollment grows, some MCPS schools bear a greater burden than others. Nineteen schools in the district is under-utilized (meaning enrollment numbers are below 80% of the school's program capacity).

¹ See discussion of Subdivision Staging Policy on page 69.

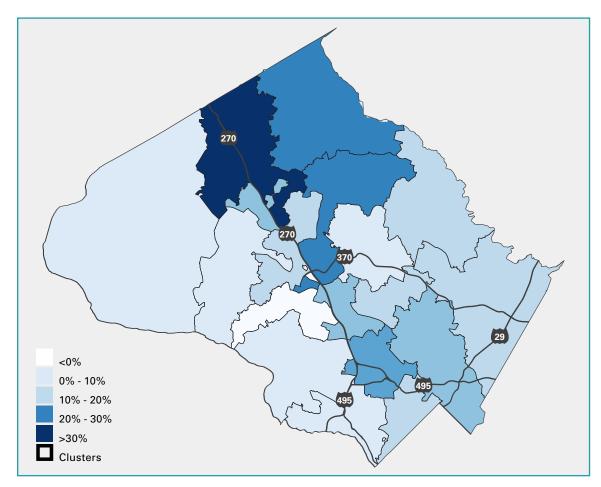


Figure 1.3 Change in Total Population by Cluster, 2010-2018 (source: U.S. Census Bureau)

- Changing programming needs: As demographics change and total enrollment grows, the district's programmatic needs also change and grow. For example, a growing number of enrolled students whose first language is not English raises the need for ESOL (English for Speakers of Other Languages) programming. Other programming impacted by changes in enrollment includes Special Education services, Pre-K/Head Start programs, and Class-size Reduction (CSR) elementary schools, including both Title I and Focus schools.
- Changing demographics: MCPS's student body is increasingly diverse. The school system has seen a particular increase in the proportion of Hispanic, Asian American, and African American students in the last couple of decades. However, neither racial/ethnic nor socio-economic diversity are evenly distributed across the district.

Challenges related to school proximity: The county's varied geography and transportation networks creates complex conditions with regards to school proximity. The average distance between students' homes and school ranges greatly across the urban, suburban, and rural areas of the county. Districtwide, approximately 45% of students do not attend the school closest to them. This excludes students who do not attend their home school, including for magnet and choice programs. The travel time and safety of students' trips to school is of great concern to many families across the district.

Snapshot in Time

Although MCPS is growing and changing, this report focuses on existing conditions and should be seen as a snapshot in time. The recent and ongoing growth of MCPS provides important context, however this report does not attempt to project future growth, enrollment, or other trends.





Participants in a table discussion at a regional public meeting at Gaithersburg High School, December 5, 2019 (photo credit: Rodrick Campbell)

MCPS: School System Context

To understand the conditions impacting MCPS school boundaries today, it is important to understand certain key characteristics of the school system's geographic boundaries and assignment patterns.

MCPS is comprised of **25 clusters**, some of which are grouped as part of the county's two high school **consortia**.

A cluster is a geographic grouping of **school attendance areas**. Each cluster contains one high school, and the elementary and middle school(s) which send students to that high school. Each elementary school and middle school within a cluster has its own attendance area, which defines the geography for student assignment to that school.

Geographic Assignment Models

Most MCPS students attend the school they are assigned, based on their residential address and the school district's attendance areas. This school is referred to as the student's **base school**, or home school.

MCPS uses a feeder system. Most elementary school students are likely to attend the same middle school as their elementary school classmates, and the same high school as their middle school classmates. However, 26 elementary schools and 6 middle schools in the county have "split articulations." In these cases, students at an elementary school or middle school do not all attend the same secondary school.

Most schools in MCPS are elementary schools (kindergarten-5th grade), middle schools (6th-8th grade), or high schools (9th-12th grade). One exception to this is paired schools. In the case of **paired schools**, the feeder pattern includes two different elementary schools: one for kindergarten through 2nd grades, and one for 3rd-5th grades. Six clusters in MCPS contain paired schools.

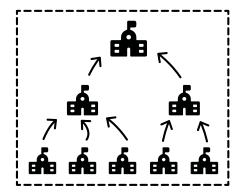
Eight of the county's clusters are a part of one of the district's two high school consortia: the Northeast Consortium (NEC) and Downcounty Consortium (DCC). A consortium contains multiple high schools, and the elementary and middle

Feeder Pattern

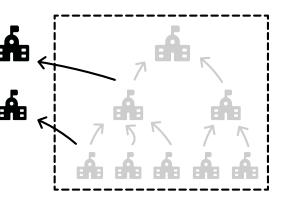
HS

MS

ES



Split Articulation



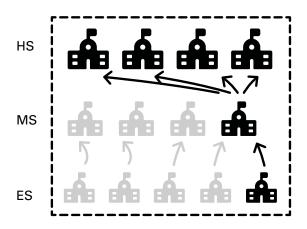
schools that feed into these high schools. Students residing within the geographic boundaries of the consortia enroll in a lottery to attend a school other than their base school, at all school levels. Assignment in the consortia lottery is based on student choice, sibling link, school capacity, and socioeconomic factors. Students living outside of the geographic boundaries of the consortia may also enroll in a lottery to attend a school within the consortia, but they are not guaranteed a spot at any consortia school.

MCPS also has one consortium at the middle school level, the Middle School Magnet Consortium (MSMC). The MSMC is a group of three magnet schools, each with a particular academic specialty.

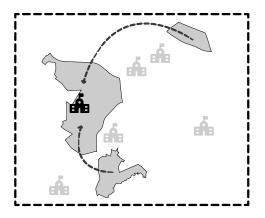
See Appendix B1: Geographic Zones on page 428 for a detailed map and table of MCPS clusters and consortia.

While school assignment areas generally consist of geographically contiguous (or uninterrupted) areas, MCPS also contains "island assignments." An island assignment is a geographically non-contiguous school attendance area. MCPS has drawn non-contiguous school attendance areas for a variety of reasons over the course of its history. Recent boundary studies have strived to minimize island assignments and create contiguous boundaries. However, a significant number of schools in MCPS have non-contiguous school attendance areas. As of the start of the 2019-2020 school year, 58 MCPS schools have non-contiguous school attendance areas, or island assignments. This equates to about 29% of schools.¹

Consortium



Island Assignments



^{1 2019-2020} Student-Level Data, via MCPS.

Alternative Student Assignment Models

This Districtwide Boundary Analysis focuses on MCPS' geographic boundaries—in other words, the school a student is assigned to attend based on their home address (also known as a student's base school, or home school). Not all students in MCPS attend their base school, due in part to the district's choice programs. Through school choice programs, students may apply to be a part of specialized programs -- either within their base school or at a school other than their base school. Choice programs are offered at the elementary, middle, and high school levels, and they may be local (available only to students assigned to the local school), regional (available to students living in a certain geographic region of the county), or districtwide. Choice programs are offered at the elementary, middle, and high school levels. They include competitive academic magnet programs, specialized academic programs (arts, science, communications, etc.), language immersion programs, the International Baccalaureate (IB), and others. Depending on the program, students may be admitted through a lottery process, an application process, and/or based on past academic achievement.

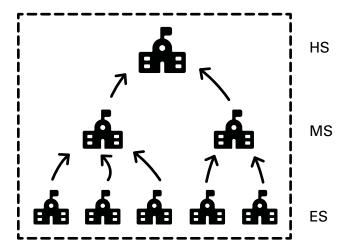
Another way in which students in MCPS may attend a school other than their base school is through **COSA** (**Change of School Assignment**). A student may apply for a school transfer through COSA due to unique hardship, a family move (valid for the remainder of the current school year), or siblings (i.e. to attend the same school as an older sibling).

As of the 2019-2020 school year, approximately **9.48**% of students attend a school other than their base school.¹This number excludes students who reside within a consortia, as well as students enrolled in Special Education programs outside of their home schools.

^{1 2019-2020} Student-level Data, via MCPS.

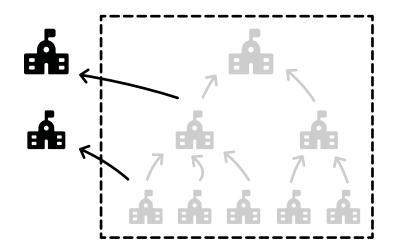
Student Assignment

Feeder Pattern



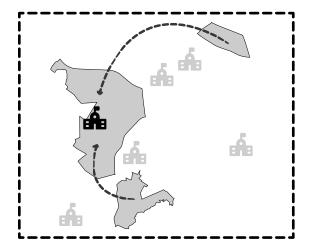
Most elementary school students are likely to attend the same middle school as their elementary school classmates, and the same high school as their middle school classmates.

Split Articulation



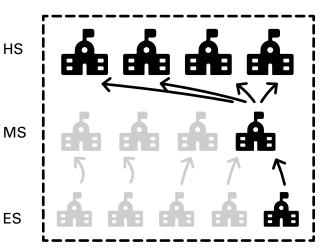
In these cases, students at an elementary school or middle school do not all attend the same secondary school.

Island Assignments



An island assignment is a geographically non-contiguous school service area.

Consortium



Students living within the geographic boundaries of a consortium are guaranteed a seat at their assigned home school and may enroll in the lottery to attend a school other than their base school.

The Need for a Districtwide Assessment: Why Now?

Over the last 20 years, MCPS student enrollment has increased by more than 30,000 students. This growth has helped MCPS become one of the largest and most diverse districts in the nation. Unfortunately, facility construction has not been able to keep pace with this significant growth. The strain on capacity at many schools, paired with the school system's continued commitment to equity and excellence, prompted the Board of Education to initiate an assessment of current school boundaries to ensure that MCPS can continue to provide high-quality facilities that support the educational programming needed to maintain an equitable, culturally responsive, and high-performing school district.

This action from the BOE began in part due to the concerns and actions of MCPS students. In January of 2019, the BOE approved a resolution proposed by then-student member of the BOE Ananya Tadikonda calling for a districtwide boundary analysis. Tadikonda has said that this resolution grew out of conversations with students around the county concerned about the issues of school utilization and diversity in a growing school system.

The intersecting conditions of overutilized schools and a growing county are at the core of MCPS's present need to analyze school boundaries on a districtwide level. The Subdivision Staging Policy (SSP) annual school test presents an example of the nexus of school overcrowding, population growth, and county development. The SSP annual school test looks to school enrollment data to ensure that school capacity is keeping up with county growth. Due to severe overutilization, four clusters and 13 elementary school attendance areas are currently under residential development moratoria, effective July 2019 in response to school conditions in these areas.¹

In response to the ongoing challenge of addressing racial and socioeconomic equity, MCPS has implemented various strategies over the years to improve equitable outcomes and integrate the school system, including magnet and choice programs, and class-size reduction policies for elementary Focus Schools.²

However recent reports find that disparities persist across such factors as race/ethnicity, socioeconomic advantage, and ESOL (English for Speakers of Other Languages) status. In 2019 ERS, a national non-profit that works with school districts to improve equitable outcomes through resource use, conducted a report about equity in MCPS through the lens of resource use (including the distribution and quality of staff, time, and money). The report pointed to inequities seen in MCPS, including achievement gaps between FARMS and non-FARMS

¹ FY2020 Annual School Test (https://montgomeryplanning.org/wp-content/ uploads/2019/06/20190620-PB-Presentation-Annual-School-Test-FINAL.pdf).

² See page 60 of this Introduction ("Policy-Based Strategies") for more discussion of choice and class-size reduction programs. For more information about Title I school programs in MCPS, see: https://www.montgomeryschoolsmd.org/departments/dtecps/title1/.

students, and inequities related to teacher experience level.¹ A 2016 report by Metis Associates on school choice in MCPS found that, despite the progress the county has made historically in desegregating schools through school choice and consortia, this set of voluntary integration strategies falls short of MCPS's current objectives regarding equity. MCPS continues to experience isolation (including by race/ethnicity and class)—including within schools with specialized programs—, and access to specialized programs such as magnet programs may not be equitable.²

A districtwide assessment of school boundaries is an important step as MCPS continues to plan for growth and pursue its core values of **Learning**, **Relationships**, **Respect**, **Excellence**, and **Equity**. This analysis looks comprehensively at the four core issues at the heart of facilities planning--utilization, diversity, proximity, and assignment stability. By synthesizing findings from community engagement, data analysis, and benchmarking, this process will equip the BOE with meaningful insights to guide future decision-making.



Participants in a table discussion at a regional public meeting at Gaithersburg High School, December 4, 2019 (photo credit: Rodrick Campbell)

¹ ERS, Achieving Excellence and EquityThrough Resource Use (2019) (https://www.montgomeryschoolsmd.org/uploadedFiles/learning-journey/Board%20Report%20-%20All%20sections%20v28%209%2030.pdf).

² Metis Associates. (2016). Montgomery County Public Schools: Study of Choice and Special Academic Programs.

History of MCPS

Enrollment History

Enrollment in Montgomery County Public Schools has changed over time, following regional and national trends in economic growth and population change. During the "Baby Boom" of the 1950s and 60s, the school system saw enormous growth, expanding from 48 schools in 1950, to 203 schools in 1972. During this period of growth, student enrollment more than quadrupled from 27,587 in 1950, to 126,912 at the peak of the population boom in 1972¹. During the "Baby Bust" that followed, enrollment decreased sharply, leading to the closure of 60 schools. Student enrollment dipped to its lowest point at 91,030 in 1983.² Even as overall enrollment dropped during this period, enrollment increased for African American and Hispanic students. As net enrollment has risen in the decades that followed, the proportion of African American, Hispanic, and Asian American students continues to increase.

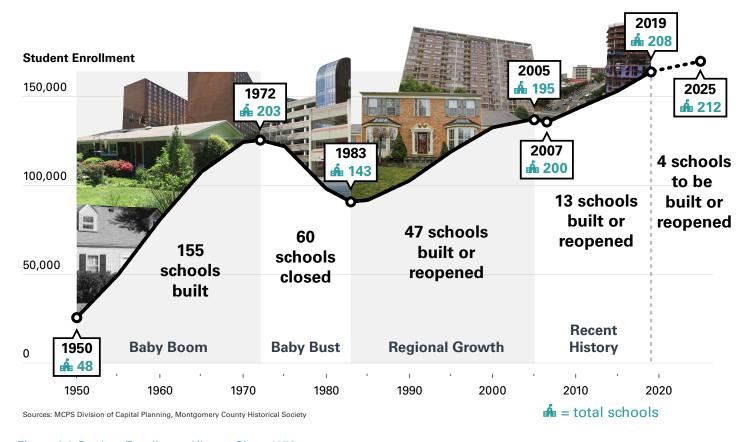


Figure 1.4 Student Enrollment History Since 1950

¹ Montgomery County Public Schools Division of Long-range Planning (2010).

² Ibid.

Enrollment has grown continuously ever since, with 47 schools built or reopened during a period of regional growth starting in the mid-1980s which brought total student enrollment to 139,387 by 2005. This growth can be attributed both to increased birth rates (also known as the "Baby Boom Echo"), as well as to increased levels of immigration to the region. This in-migration to the region was aided by a growing economy and a period of sustained job growth and development. According to the Montgomery County Historical Society, almost half of the population growth in the Greater Washington, D.C. region since the 1980s is due to immigration.

After a plateau in enrollment growth from 2005 to 2007 due to changes in kindergarten age requirements and out-migration due to rising housing costs, MCPS once again saw an increase in enrollment around the time of the Great Recession, between 2007 and 2009. While this economic crisis caused a decline in the housing and job markets, MCPS enrollment grew for various reasons, including both in-migration (international and regional) and the phenomenon of households removing their school-aged children from private schools and enrolling them in the public school system.³

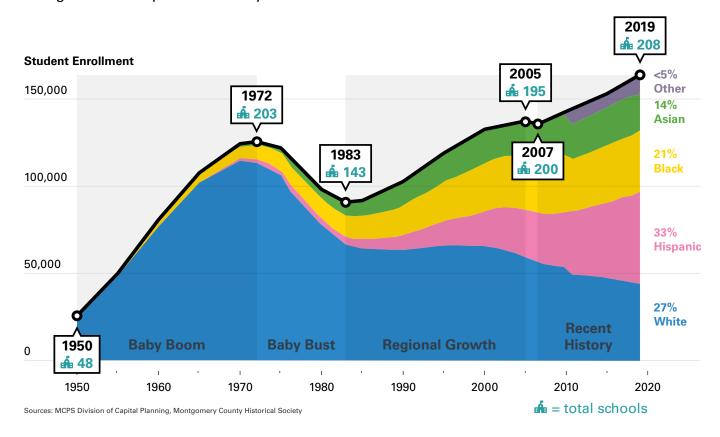


Figure 1.5 Student Demographic Change Since 1950

¹ Montgomery County Public Schools Division of Long-range Planning (2010).

² Ibid.

³ Ibid.

⁴ Office of the Superintendent, MCPS. 2013. "Memorandum: Long-Range Facilities Planning Process." Memorandum. Rockville, MD.

MCPS has seen sustained growth in student enrollment in the last decade. In response, the district has continued to open previously closed schools and plan for new construction to accommodate county growth and development patterns. As of the 2019-2020 school year, 165,267 students are enrolled in MCPS. The district expects to reopen or build four schools by 2025, and enrollment projections estimate that MCPS will grow by upwards of 6,000 students over the next five years, with a projected enrollment total of 171, 319 by 2025.

Policy History

MCPS has been shaped over time by policies and programs that reflect both wider historical trends and distinct local conditions. The timeline (**Figure 1.6**) offers snapshots of key moments in time that help to set the scene for the conditions impacting school boundaries in MCPS today.

After the Brown vs. Board of Education Supreme Court decision in 1954, Montgomery County began the process of voluntarily desegregating its schools from 1955 and 1961—leading the way as the first county in Maryland to integrate its public schools.² In 1954, the BOE established an Advisory Committee on Integration tasked with establishing a plan for integrating MCPS schools in accordance with the new federal mandate. By April 1955, the committee approved an integration plan to be put into effect at the start of the school year that September, including the closing of Black elementary schools deemed "sub-standard" elementary schools, and the reassignment of students across the county

Policy FAA

Policy FAA is the **Educational** Facilities Planning policy of the Montgomery County Board of Education adopted in 1986, during a period of growing student enrollment. The policy seeks to establish standards and procedures for long range educational facilities planning, and to this day it governs the Board's planning and decision-making related to school facilities, including school construction, boundary changes, and assignment patterns. Policy FAA outlines the Board's approach to educational facilities planning, including the purpose, procedures, and Key Facility Indicators for such planning. FAA establishes the four factors to be considered when developing facility and assignment recommendations, including school boundaries: demographic characteristics of the student population, geography, stability of school assignments over time, and facility utilization.

Note: No, FAA is not an acronym! All BOE policies are titled with a series of letters (i.e. ABA, ECM-RA, JEE-RA). The first letter of a policy refers to the section it falls within. Policy FAA falls under Section F ("Facilities Development"), subsection FA ("Facility Development Goals").

Policy FAA can be accessed online at: https://www.montgomeryschoolsmd.org/departments/policy/pdf/faa.pdf



See: CIP Master Plan FY2021-2026 at https://www.montgomeryschoolsmd.org/departments/planning/cipmaster.aspx.

² Montgomery County Historical Society. n.d. "The Decree Had Been Handed Down:" The Experience of Public School Desegregation in Montgomery County as Told by Six Women Who Were There." https://montgomeryhistory.org/online-exhibit-desegregation/after-the-verdict/.

based on proximity, and not on race.^{1 2 3} In 1967, long after the initial launch of integration efforts, MCPS implemented its first busing program to racially integrate the school system.⁴ While integration marked the beginning of an important era of racial progress, local historians and longtime county residents recall this period of time as a challenging one—with racial tensions throughout the county as many White families resisted integrated schools.

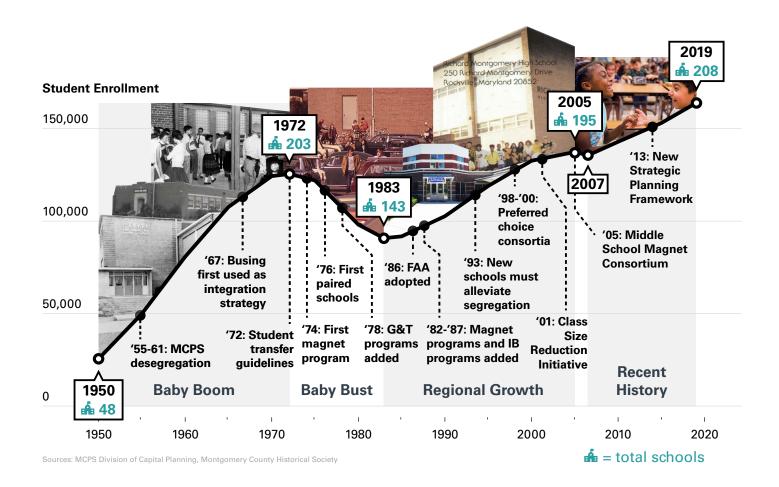


Figure 1.6 MCPS Policy History Since 1950

¹ Montgomery County Historical Society. n.d. ""The Decree Had Been Handed Down": The Experience of Public School Desegregation in Montgomery County as Told by Six Women Who Were There:" https://montgomeryhistory.org/online-exhibit-desegregation/after-the-verdict/.

Note: local historians report that the BOE established a threshold that integrated schools be comprised of no more than about a third of African American students (See "The Decree Had Been Handed Down").

³ See also, "DesegregationTimeline: Montgomery County Public Schools": https://montgomeryhistory.org/wp-content/uploads/2017/10/Integration-timeline.pdf.

⁴ See Montgomery County Historical Society for more resources on school integration in MCPS.

Early integration programs focused on relocating Black students, which placed a greater burden on Black families.¹ Additionally the closing and integration of historically Black schools was disruptive to the Black community, including detrimental effects on the employment of Black educators.²

In 1975, in light of the continued challenges of racial inequity and segregation, the Board of Education adopted Policy ACD, Quality Integrated Education, an attempt to maintain diversity and avoid racial isolation in the school system. This policy also called for additional support and resources to be allocated to underperforming schools "to ensure all students have the opportunity to reach their potential." As part of the implementation of Policy ACD, the county's first elementary magnet programs were developed. These early magnet programs would go on to become three programs in effect today: elementary and middle school language immersion, elementary centers for highly gifted students, and magnet and application programs at the middle and high school level.

In the late 1970s, a newly elected Board of Education reconsidered some of the school system's integration strategies and created a plan to close schools due to low enrollment (a plan later rejected by the Maryland State Board of Education). The BOE adopted Policy IOA in 1978, placing an emphasis on the needs of high-achieving students, and launching the county's first gifted and talented programs. In 1982, Board of Education elections ushered in a Board that turned its attention back to magnet school programs. In 1985, the Math, Science, and Computer Science magnet program opened at Montgomery Blair High School to address de facto segregation and attract high performing students to Blair. In 1986, in the wake of increasing student enrollment, the Board adopted Policy FAA, Educational Facilities Planning. The Board passed this policy to have a formal and consistent plan for utilizing and planning schools in accordance with the county's educational objectives and

Regulation FAA-RA

Regulation FAA-RA established the processes to implement Policy FAA. This includes the development of the Capital Improvement Program (CIP), Educational Facilities Master Plan (EFP), and non-capital strategies including school site selection, boundaries, geographic student choice assignment plans, and school closures/consolidations. This regulation offers guidelines for developing and considering both capital and non-capital strategies, as well as for the implementation of the four key considerations outlined in Policy FAA.

Regulation FAA-RA can be accessed online at: https://www.montgomeryschoolsmd.org/departments/policy/pdf/faara.pdf



See, for example: Franklin, Ben A., and Special To the New York Times. 1982. "Minority Parents Fight Maryland School Panel." The New York Times, March 1, 1982, sec. U.S. https://www.nytimes.com/1982/03/01/us/minority-parents-fight-maryland-school-panel.html.

^{2 &}quot;From Segregation to Integration: Two Black Teachers Look Back." 2005. Connection Newspaper. February 14, 2005. https://www.connectionnewspapers.com/news/2005/feb/14/from-segregation-to-integration-two-black/.

³ MCPS Policy ACD, accessed at: https://www.montgomeryschoolsmd.org/departments/policy/pdf/acd.pdf.

establish guidelines for decision making and planning processes. Updated and amended many times since its passage, Policy FAA continues to guide MCPS school facilities planning. Through the remainder of the 1980s, MCPS continued to add new magnet programs, and established the county's first International Baccalaureate (IB) program at Richard Montgomery High School in 1987.

In 1990, MCPS evaluated its Minority Student Achievement Plan, and to address inadequacies of this program as determined by the study, the Board of Education adopted the Success for Every Student Plan in 1992. Following this, in 1993, the Board amended Policy FAA to include consider options more likely to produce racial diversity in long range facilities planning. At the end of the decade, MCPS established its two high school consortia. The Northeast Consortium was formed in 1998, replacing the controlled choice model with a preferred choice model. In 2000, the county began a three-year initiative to reduce class sizes in primary grades, focusing on schools most heavily impacted by poverty and English language learners. The Downcounty Consortium was approved in 2000 and opened in 2004 with the support of a federal Small Learning Communities (SLC) grant. Shortly thereafter, in 2005, the Middle School Magnet Consortium (MSMC) opened.

In the 2010s, MCPS continued to plan for enrollment growth with an eye on equity and closing achievement gaps between students of different races, ethnicities, and socioeconomic statuses. In 2013, the Board approved a new Strategic Planning Framework, which defines equity as a core value in strategic planning.



Participants in a table discussion at a regional public meeting at White Oak Middle School December 14, 2019 (photo credit: C.D. Boykin)

MCPS Strategies: Adapting To Change

During its history, MCPS has employed a number of strategies to keep up with changing enrollment, including both infrastructure-based strategies, and policy-based strategies.

Infrastructure-based strategies:

Policy-based strategies:

- School construction and additions
- Land management
- Facility improvements
- Relocatable Classrooms
- Repurposed Facilities

- Articulation patterns
- Consortia
- School choice programs
- Reduced class sizes
- Paired schools
- Boundary changes

Infrastructure-Based Strategies

School construction and additions

New school construction increased at the most rapid rate in the 1950s and 60s, but the county continues to increase capacity by building more schools and classrooms.

Land management

Part of the work of MCPS's Division of Capital Planning is to represent the interests of the school system in countywide land use planning. This includes site selection for school construction and assessing school capacity for residential development.

Relocatable classrooms

(commonly called portables)

This is a short-term strategy that MCPS uses to accommodate overcrowding in schools, while necessary capital improvements are taking place. In 2019, there were 434 relocatable classrooms in use in MCPS schools.¹

Facility improvements

This strategy includes capital projects to update aging infrastructure, make facilities more sustainable, and renovate spaces to meet programming needs. Often, facility improvements simultaneously address the need for greater capacity and updated infrastructure.

Repurposed facilities

MCPS may repurpose public facilities to accommodate enrollment needs. Within schools, facilities may be repurposed to create more classroom space (for instance, MCPS has repurposed computer laboratories as classrooms at some schools, given access to wireless computers and a decreased need for computer laboratories).

[&]quot;Superintendent's Recommended FY2021 Capital Budget and the FY 2021-2026 Capital Improvements Program." 2019. Montgomery County Public Schools. http://gis.mcpsmd.org/cipmasterpdfs/CIP21 EntireBook.pdf.

Policy-Based Strategies

Articulation patterns

Articulation patterns have been adjusted without changing larger cluster boundaries. For instance, through a split articulation pattern, a portion of elementary students attend a different middle school from their peers to relieve overcrowding but rejoin those peers for high school.

Consortia

Consortia serve as a strategy to better integrate schools in relatively close proximity based on a student's preferences. The lottery-based admission system for consortia schools takes school capacity into account.

School choice programs

School choice programs allow students to enroll in schools, regardless of geographic proximity, based on entry into special programs, such as academic magnet programs, language immersion, or the IB program. School choice—dating back to the first magnet programs in the 1970s-- was developed as a strategy to integrate schools across the county.

Boundary Changes

Boundary changes are another noncapital strategy MCPS has used throughout its history to address enrollment and programming priorities and needs. This is discussed in greater detail on **page 61**.

Paired schools

In some cases, MCPS has created paired schools to address shifting enrollment needs and better integrate communities at the elementary level. In paired schools, students attend a primary (kindergarten-2nd grade) and secondary (3rd-5th grade) elementary school in two separate facilities, allowing for adjustments to enrollment across more schools.

Reduced class sizes and utilization benchmarks

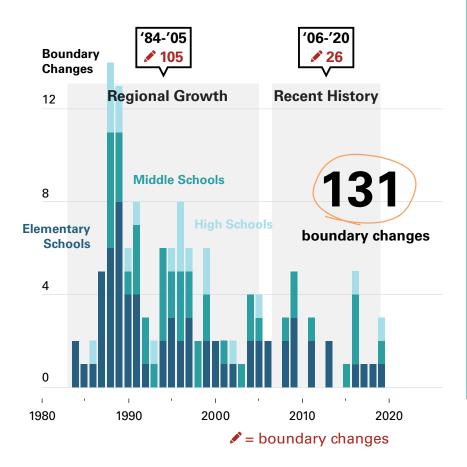
MCPS uses utilization benchmarks from state- and county-level policies, including utilization rate, school site size, and enrollment ranges. Elementary schools with high FARMS and ESOL rates (called Focus Schools) are designated as class size reduction schools and allocated greater support to maintain lower class sizes and support educational programming. MCPS has also instituted districtwide class size reduction programs, such as the 2000-2003 Early Success Performance Plan which reduced focus schools to an average of 17 students per class, and an initiative in 2017 which allocated funding to new teachers and adjusted standards to reduce class sizes districtwide.12

 [&]quot;Investing to Reduce Class Size and Close the Achievement Gap." 2016. Montgomery County Public Schools. May 25, 2016. https://news. montgomeryschoolsmd.org/mcps-board-of-education/investing-to-reduce-class-size-and-close-the-achievement-gap/.

² See FY 2014 CIP (https://www.montgomeryschoolsmd.org/uploadedFiles/departments/planning/Archive_MP14_Complete.pdf).

School Boundaries

As Montgomery County has grown and changed, the Board of Education has conducted regular boundary studies to determine whether school attendance areas should be redrawn in particular areas of the county. Since 1984, the MCPS Board of Education has made changes to school boundaries a total of 131 times. Approximately two in three of these changes were related to new school construction and additions.



Boundary Study

This comprehensive **boundary analysis** is distinct from a **boundary study**, which is the BOE's process for studying specific boundaries and considering a formal change, and will not recommend specific **boundary changes**, which must be issued by the Board of Education.

Boundary studies involve geographically specific research of boundary options, within a certain scope set by the superintendent of schools. This research includes an analysis of factors such as travel time and traffic patterns, current and projected enrollment, and the articulation patterns of affected schools. Through a boundary study, MCPS staff develop boundary options to be considered by the BOE. Read more about boundary studies and the development of boundary options in Policy FAA-RA.



Figure 1.7 Boundary Change History, 1980 to present

¹ Data on past school boundary changes, via MCPS Office of Shared Accountability.

Policy FAA, authorized by the BOE in 1986 and last updated in 2018, outlines four factors to be considered when developing facility and assignment recommendations, including school boundaries:

- demographic characteristics of the student population
- geography
- stability of school assignments over time
- facility utilization

As these key factors guide the county's decision-making in facilities planning and student assignment, they, in turn, form the backbone of this comprehensive boundary analysis.

Boundary changes are the result of Board of Education-mandated resolutions. Typically, the superintendent charges MCPS to conduct a boundary study and develop options to present to the Board of Education. MCPS conducts the boundary study and issues potential recommendations to the board and superintendent. Following this, the superintendent issues their preferred recommendation and provides a presentation detailing this recommendation to the board. The Board ultimately votes to enact a boundary change, after a process including both internal work sessions and public hearings.¹

Capital Improvements Program (CIP) Master Plan

The MCPS Capital Improvements Program is a six-year master plan for capital improvements in Montgomery County Public Schools. This plan is the mechanism through which the Board of Education requests funding from the County Council and the State of Maryland for countywide and major planning projects, and is submitted for full review by the County Council every other year (odd years). On "off-years" (even years), the County Council considers amendments to the CIP master plan. The most recent CIP plan (FY2021-2026) includes:

- The superintendent's recommended capital budget and recommended projects for fiscal year 2021.
- An overview of enrollment, demographic, and development trends in MCPS and Montgomery County.
- Facility Planning Objectives to guide the school system in accommodating enrollment growth and program changes.
- Recommended Actions and Planning Issues, organized by high school clusters and consortia. A summary of Countywide Projects proposed to meet the needs of schools throughout the district.

The plan contains useful information about the MCPS planning environment, as well as data on school utilization, demographics, enrollment projections, facility information, and recommended capital improvements.

The CIP Master Plan for FY 2021-2026 can be accessed online at: https://www.montgomeryschoolsmd.org/departments/planning/cipmaster.aspx.

A more detailed explanation of the policies and procedures related to boundary recommendations and changes can be found in Policy FAA-EFP (Educational Facilities Planning). This document can be found online at https://www.montgomeryschoolsmd.org/departments/policy/pdf/ faara.pdf.

Montgomery County Context

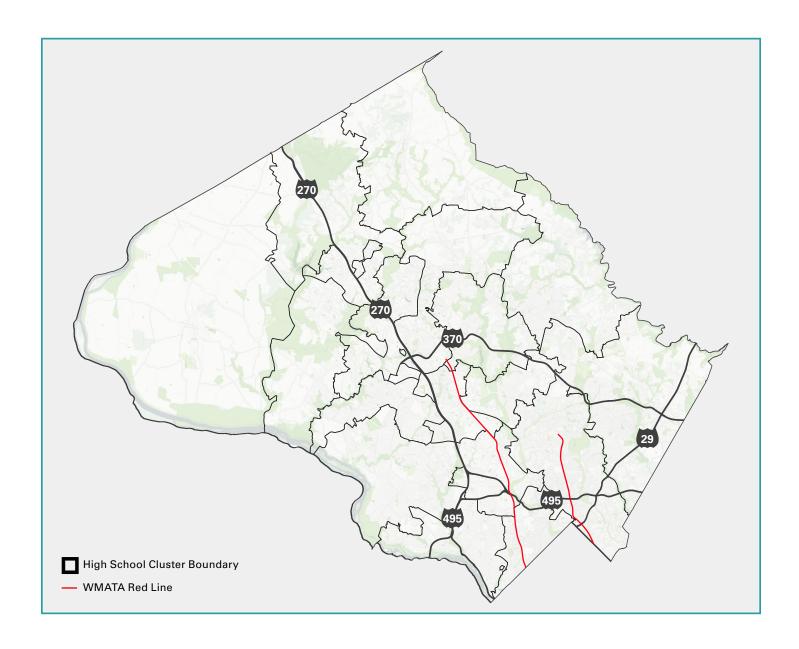


Figure 1.8 Map of County Context

Located outside of Washington, D.C., Montgomery County is home to over 1,050,000 residents, making the county the most populous in Maryland. Montgomery County's approximately 500 square miles contains a range of urban, suburban, and rural areas—including three incorporated cities (Gaithersburg, Rockville, and Takoma Park), 12 towns, and a 93,000-acre agricultural reserve. In order to understand the planning challenges and opportunities facing MCPS, it is critical to understand the wider context of Montgomery County. The county today is marked by population growth and diversification, and evolving land use and development patterns.

Diversity and Population Growth

Montgomery County has grown increasingly diverse in the last two decades. The fastest growing segment of the population is the Hispanic population, which grew by 258% between 1990 and 2016 (to a total of 199,402, or about 19% of the total population)¹. The Asian and African American populations have also each grown substantially, growing by 153% and 108% respectively during that same time period. As these ethnic and racial groups grew, the non-Hispanic White population in Montgomery County declined, from 59.5% of the population in 2000, to 44.5% in 2016. According to the Montgomery County Planning office, the increasing diversity of the county can be attributed in large part to a rise in international immigration. Foreign-born residents make up approximately a third of the countywide population today (as compared to 19% in 1990).

The growth and diversification of Montgomery County's population must also be understood in the context of a growing region and state. While Montgomery County is the most populous county in Maryland, it is not the fastest growing. Likely due to its already large population, and decreasing amounts of developable land and transportation capacity, Montgomery County is growing less rapidly than many of its neighbors in the region.² Between 2000-2016, eight other counties in Maryland surpassed Montgomery County's overall population growth rate, including nearby Howard and Frederick Counties.³ It should be noted that, despite being outpaced by these counties in terms of population growth, MCPS has grown more rapidly in public school student enrollment.⁴

¹ Montgomery County Trends Report 2019 (Montgomery Planning, MNCPPC)

² Ibid

³ See: http://www.usa.com/rank/maryland-state-population-growth-rate-county-rank.html

⁴ Enrollment data via National Center for Education Statistics (NCES)

Housing

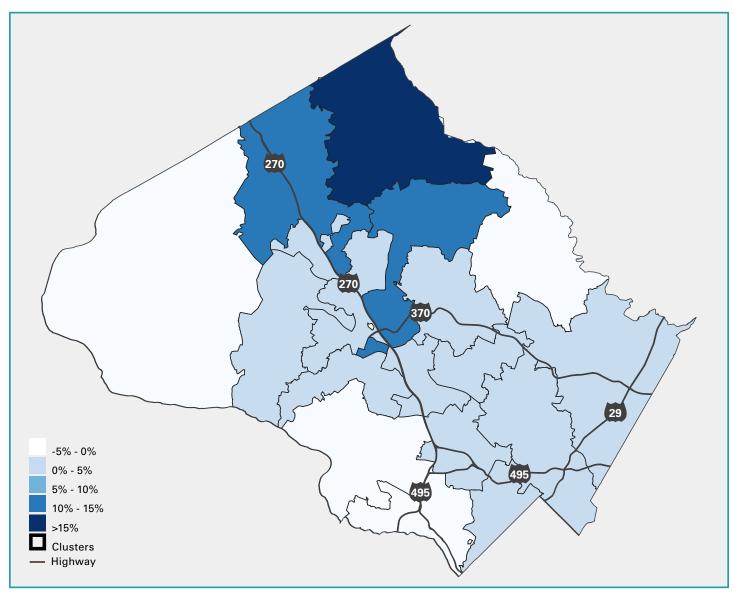


Figure 1.9 Map of Percentage of Change in Total Housing Units, 2010-2018

As the population of Montgomery County has grown and diversified in recent years, the housing supply has also grown and changed. While overall housing supply has expanded to meet the needs of a growing population, planners note the significant growth of multi-family housing. The number of units in large multi-family developments (50 or more total units) more than doubled between 1990 and 2016. As of 2016, renters comprised over 35% of households.¹

The county's single-family housing market has remained strong since the 1990s,

¹ Montgomery County Trends Report 2019 (Montgomery Planning, MNCPPC).

despite the Great Recession in 2008. Yet--consistent with the county's development trends toward more multi-family housing--, the overall home ownership rate has fallen in recent decades. This is particularly true among households under age 35, whose homeownership rates have fallen to nearly half of what they were in 1990 (from 45% to 28%). Households aged 75 and above represent the only age group with increased homeownership rates since the 1990s, which points to a trend of increased aging in place, and decreased opportunity and means for single-family home ownership among younger residents¹.

Producing and preserving affordable housing grows increasingly important as the county grows. In 1973, Montgomery County adopted the Moderately Priced Dwelling Unit (MPDU) program, with the goal of expanding affordable housing options in the county. This program is recognized as a model nationwide for its effective dispersal of affordable housing throughout the county. Between 1976 and 2016, 15,415 affordable housing units (both for sale and rent) were produced under this program, with an average annual production of about 367 units a year.

In 2004, the County Council published a 30-year review of the MPDU program, which issued a number of recommendations for updates to accommodate changing needs and conditions in Montgomery County. One of the findings in this report was that, as developable land becomes scarcer in Montgomery County, so too will the availability of affordable housing.⁴ Recent projections on County growth and housing needs have echoed these concerns. As of 2019, it is projected that Montgomery County needs an additional 48,700 homes to accommodate population and job growth by 2030.

Affordable housing continues to be a challenge for the county today. In 2019, around 43% of households in the county are low-to-moderate-income (LMI) households, and over a third of these households experience housing cost burden (in other words, their housing costs exceed what they can afford).⁵

¹ Ibid.

² Montgomery County Department of Housing and Community Affairs (DHCA) (https://www.montgomerycountymd.gov/DHCA/housing/singlefamily/mpdu/produced.html).

³ Ibid

⁴ MPDU 30 Year Review https://www.montgomerycountymd.gov/DHCA/Resources/Files/housing/singlefamily/mpdu/report_mpdu30yearreview.pdf.

⁵ Meeting the Washington Region's Future Housing Needs (http://www.urban.org/sites/default/files/publication/100946/meeting_the_washington_regions_future_housing_needs_2.pdf).

Development Trends

Land use planning and development patterns in Montgomery County reveal a county that is growing and densifying, with an emphasis on the urbanization of transportation corridors. The county represents a large and diverse land area with a variety of densities and characters—including urban, suburban, rural, and agricultural areas. The density ranges seen in the map in **Figure 1.10** are based on categories used by the Montgomery County planning department to classify regions of the county from most to least dense (in persons per square miles).

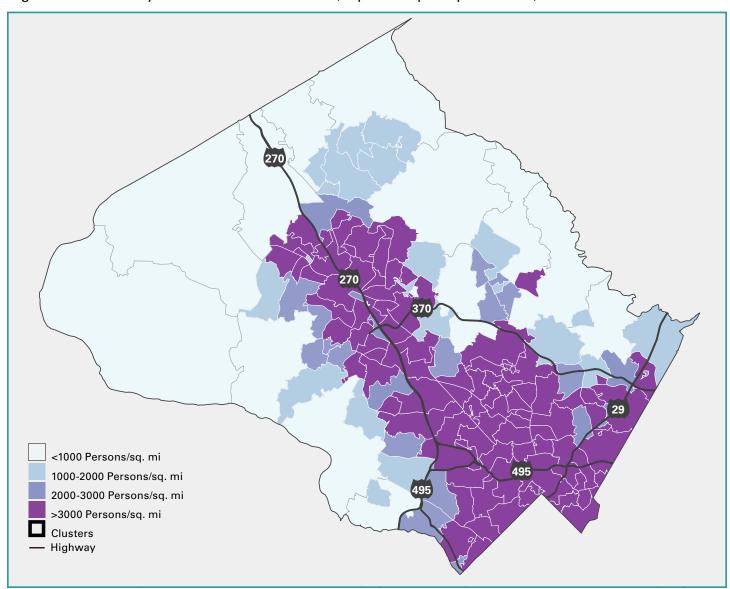


Figure 1.10 Population Density in Montgomery County, Shown in Terms of Elementary School Zones (Source: U.S. Census Bureau)

The patterns of density seen in this map can be traced back to historical land use planning. The MNCPPC regional general plan ...On Wedges and Corridors, adopted in 1964, lays out a vision for regional growth along urbanized corridors, following major highways and transit lines, with growth in Montgomery County concentrated along Interstate 270. In this vision, corridor cities along Interstate-270 are flanked by "wedges" of medium density, low density, farmland, and open space.¹

I-270 has been the focal point of the county's development since the 1960s and remains an important geography of growth in the county. Stretching from Bethesda to Clarksburg, I-270 is lined with dense hubs envisioned in master planning as "corridor cities," including Rockville, Gaithersburg, Germantown, and Clarksburg. As the most highly trafficked corridor in the county, 355/I-270 continues to provide the footprint for a considerable amount of population growth and density.

About a third of the county—or 93,000 acres—is covered by agricultural and rural land. According to *Thrive Montgomery 2050*, residential land uses comprise more than 32% of the county's total acreage, with the vast majority of this acreage (92%) occupied by single-family housing. About 18% of land in the county is undeveloped and available for development.²

While population density follows a clear pattern throughout the county, most MCPS clusters contain a range of densities. Twelve out of nineteen clusters contain a mix of densities, including eight clusters that range from rural to metropolitan.

Many master and sector plans recently approved by the county emphasize developing a mix of commercial (stores, restaurants, offices, etc.) and residential uses (houses and apartments) around existing transportation infrastructure. For example, the Marc Rails Communities Sector Plan, approved in 2019, proposes revitalizing areas within walking distance of the Boyds and Germantown MARC stations. New transportation infrastructure is also reshaping the development landscape in Montgomery County. The Purple Line, a light rail transit line connecting Bethesda to New Carrollton, with 10 stops within Montgomery County limits, is in development and expected to begin service in 2022. Over the last decade, communities along the planned transit line have updated their sector plans to accommodate greater density, a mixture of uses, and new development around planned Purple Line stations.

¹ The ...On Wedges and Corridors general plan can be accessed online at: https://montgomeryplanning.org/wp-content/uploads/2017/10/GeneralPlanWedgesandCorridors1964colorocr.pdf.

² Montgomery Planning. "Thrive Montgomery 2050." https://montgomeryplanning.org/planning/master-plan-list/general-plans/thrive-montgomery-2050/.

³ See: Montgomery County Office of Planning (https://montgomeryplanning.org/planning/transportation/transit-planning/purple-line/purple-line-related-projects/).

In the last five years, the county has seen residential development "hot spots," where a great majority of new single-family and multi-family (i.e. apartments and condominiums) construction has taken place. These areas are shown in the map in **Figure 1.11**. Key new single-family construction residential permit hot spots include the Clarksburg and Northwest cluster. Key new multi-family residential building hot spots include Downcounty Consortium, Damascus, and Clarksburg.

Subdivision Staging Policy (SSP)

The SSP is a policy put in place to ensure that public facilities and infrastructure in Montgomery County systems are keeping pace with county growth and development. The SSP assesses whether there are adequate public facilities present to support new residential subdivisions, including schools. The SSP calls for annual tests of school capacity and utilization. As a result of the **annual school test**, parts of the county may be placed on a **development** moratorium (or, a temporary halt on residential development) to prevent further school overcrowding. The SSP is updated every four years, with the next review and update due in 2020.





Participants at a Public Meeting at White Oak Middle School on December 14, 2019 (Photo credit: C.D. Boykin)

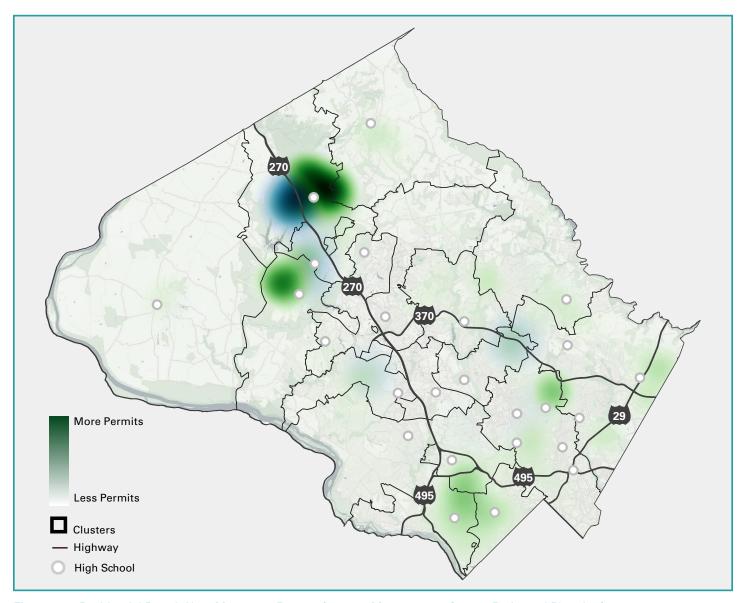


Figure 1.11 Residential Permit Heat Map, 2015-Present (source: Montgomery County Parks and Planning)

In the map above, green indicates single-family residential permits issued since 2015 and blue indicates multi-family residential permits issued since 2015. Grey points indicate MCPS high school locations.

Process Overview

Fall and Winter 2019

Phase 1

Data Analysis, Community Awareness, Ideas Gatherings

Data Analysis & Benchmarking Community Engagement Winter and Spring 2020

Phase 2

Testing Ideas and Metrics

Data Analysis Community Engagement **May - June 2020**

Phase 3

Final Report and Presentation

Project Objectives

This Districtwide Boundary Analysis aims to understand Montgomery County's school boundaries by analyzing a range of data, guided by criteria, standards, and values outlined in MCPS and state-level policy. The study builds upon MCPS's engagement efforts from Spring 2019 and continues to involve community members through a variety of forums to fully understand the spectrum of challenges towards creating more meaningfully integrated, diverse, accessible, and culturally responsive schools within the county.

This Comprehensive Boundary Analysis seeks to understand the degree to which the current school boundaries in Montgomery County:

- facilitate equitable use of facilities
- support optimal facility utilization in terms of program capacity and enrollment in schools
- optimize student diversity
- further the four factors in Policy FAA for consideration in educational facility planning, including school boundaries: facility utilization, student demographics, geographic proximity, and stability of assignments over time

The report will not make recommendations on potential boundary revisions. Rather, this analysis aims to produce a critical data resource for MCPS, that can inform future decision-making related to the school system's ongoing work of evaluating existing school boundaries and considering options for boundary changes.

Integral to this analysis of current school boundaries is an analytical assessment and summary of the community engagement process.

Analysis Framework: The Four Lenses

This first section, **Introduction, Context, and Existing Conditions** covers a range of analysis about the existing conditions of school boundaries in MCPS, adapting the four key considerations from Policy FAA as our four major lenses of inquiry:

Assignment Stability

Stability of school assignments over time is one of four factors outlined by Policy FAA to be considered in educational facility planning. MCPS attempts to minimize the number of times the same student(s) are impacted by reassignments leading to changing schools within a particular school level. The policy states: "student reassignments should consider recent boundary or geographic student choice assignment plan changes, and/or school closings and consolidations that may have affected the same students." Assignment stability is an outcome of boundary changes, and this analysis is not recommending any boundary changes. As such, the analysis around assignment stability is limited to a data review focused on historical boundary changes.

See **Assignment Stability** section, starting on page 77.

Utilization

Through this lens, we aim to better understand the degree to which schools are operating above or below their **program capacity**. Policy FAA states that schools should operate between 80-100% utilization rate. In this section, we seek to better understand the landscape of school utilization across different school levels, throughout school articulation/feeder patterns, and in relation to student enrollment projections.

See **Utilization** section, starting on page 93.

Diversity

The diversity lens corresponds to Policy FAA key consideration of demographic characteristics of the student population. Under Policy FAA, the BOE strives to encourage student diversity, in accordance with Policy ACD, Quality Integrated Education. To analyze diversity, we look at FARMS and Ever-FARMS rates, racial/ethnic dissimilarity, and ESOL (English for Speakers of Other Languages) to gain a better understanding of how diversity is distributed across schools and clusters.

See **Diversity** section, starting on **page 173**.

Proximity

The proximity lens corresponds to the key consideration under Policy FAA of geography. Under this consideration, the BOE policy encourages a continued commitment to community schools, with an emphasis on students attending schools close to their place of residence. Under Policy FAA, school boundaries should emphasize adjacency, both within existing high school clusters, and to include other nearby geographies. In this report, our analysis of proximity includes an analysis of school walksheds, and distance analyses that consider students' distance between home and school.

See **Proximity** section, starting on **page 253**.

Project Approach and Phases

At the core of this boundary analysis process is both data analysis and community engagement. As the consultant team analyzes data, the insights and feedback of community members are crucial to form a more complete picture of the current conditions of MCPS school boundaries. The intertwined processes of data analysis and community engagement are planned across three phases, beginning in Fall 2019 and concluding in June 2020.

Phase 1: Data Analysis, Community Awareness, and Ideas Gathering

In this phase, we began analyzing data and benchmarking MCPS with comparable districts around the country. Alongside this analysis, we began a process of community awareness and information gathering aimed to increase county residents' awareness around central challenges and opportunities within the current boundaries and provide a platform for discussion. This included hosting six regional public meetings, and conducting targeted outreach through interviews, small group meetings, virtual engagement, and more. Regional meetings and targeted outreach informed and shaped the data analysis process (see **Section II**: **Community Engagement**, starting on **page 352** for more detail).

Phase 2: Testing Ideas and Metrics

In this phase, we will continue to conduct data analysis, making use of the insights from both community engagement and data analysis in Phase 1. This stage of engagement will highlight intersections and trade-offs between the four lenses at the heart of this analysis (utilization, diversity, proximity, and assignment stability). In this phase, community members will be invited to explore the data in this report using an interactive tool. The resulting feedback from the public will continue to inform our ongoing analysis.

Phase 3: Final Report and Presentation

In this phase, we will synthesize key insights from Phases 1 and 2 into a comprehensive report to be presented to the Board of Education. Altogether, this report will consist of an executive summary and three sections, covering existing conditions of boundaries in MCPS (Section I), feedback from community engagement (Section II), and the interconnectedness of the four lenses (Section III).

A Report in Three Sections

The publication of this interim report represents the culmination of Phase 1 of data analysis. Phase 2 of data analysis and community engagement will culminate in the presentation of a final report to the Board of Education in June of 2020, which will be added to this analysis as Section III.

Section I: Introduction, Context, and Existing Conditions

This first section covers a range of analysis about the existing conditions of school boundaries in MCPS, adapting the four key considerations from Policy FAA as our four major lenses of inquiry (utilization, diversity, proximity, and assignment stability). It also covers benchmarking, comparing MCPS to six other school districts around the country.

Section II: Community Engagement

The second section explains our approach to community engagement, its impact on our data analysis, and the insights we have drawn from the engagement process through regional meetings, small group meetings, interviews, and virtual engagement. This section will be expanded in the final report to reflect phase 2 community engagement insights.

Section III: Deeper Analysis - How do the Lenses Intersect

The final section brings the four lenses into conversation with one another, in a deeper analysis of the interrelatedness of utilization, diversity, proximity, and assignment stability. It will be added as part of the final report to the BOE.

Supplementary Materials and Further Exploration

This interim report presents an initial analysis of both data and community engagement as a part of this Districtwide Boundary Analysis. However, due to the limitations of the project scope, there are areas that are not covered at length in this report but may be of interest to many readers. The table below provides a breakdown of resources that can supplement this report. See the **Further Reading on page 406** for a more extensive list of resources to deepen your exploration of these and other areas of interest.

For further exploration of	See:
Student performance and achievement	 Maryland State Report Card (link: https://reportcard.msde.maryland.gov/) MCPS Annual Report (https://www.montgomeryschoolsmd.org/info/annualreport/) MCPS Equity Accountability Model (https://www.montgomeryschoolsmd.org/data/LAR-charts/Equity-Accountability-Model-Achievement.html)
School choice, magnet, and consortia programs	 Montgomery County Public Schools: Study of Choice and Special Academic Programs, 2016. (Link: https://www.montgomeryschoolsmd.org/uploadedFiles/info/choice/ChoiceStudyReport-Version2-20160307.pdf)
Education policy	 For information about federal education policies, see U.S. Department of Education (link: https://www.ed.gov/) For information about state-level education policies, see Maryland Department of Education (link: http://www.marylandpublicschools.org)
Educational facilities planning (including capital budgets, planned renovations and additions, and more)	 Board of Education Requested FY 2021 Capital Budget and FY 2021-2026 Capital Improvements Program (CIP) Present and past budgets and CIP plans archived at: https://www.montgomeryschoolsmd.org/departments/planning/cipmaster.aspx Educational Key Facilities Indicator (KFI): https://www.montgomeryschoolsmd.org/departments/facilities/kfi/
Montgomery County planning (including affordable housing, development, transportation and traffic, and more)	 Montgomery County Planning –inventory of master plans Montgomery County Trends Report (January 2019) Safe Routes to School Program (SRTS)
Boundary Studies	 Current and past MCPS boundary studies: https://www.montgomeryschoolsmd.org/departments/planning/boundary.aspx