



Subdivision Staging Policy: Briefing on Schools Test Methodology

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Description

Staff will provide an overview of the methodology (attached) used to administer the annual school test as required under the Adequate Public Facilities Ordinance as part of the Subdivision Staging Policy.

Subdivision Staging Policy and the Annual School Test

Background

In 1973 Montgomery County adopted subdivision regulations that included the Adequate Public Facilities Ordinance (APFO), with the goal of synchronizing development with the availability of public facilities. In the mid 1980s, the County Council enacted legislation to direct the Planning Board's administration of the APFO. This legislation, originally known as the Growth Policy is now called the Subdivision Staging Policy (SSP). It is a quadrennial policy that is reviewed in the second year of a seated County Council. The two main areas of public facility capacity considered in the policy are schools and transportation. With respect to school facilities, the SSP defines adequate school capacity by establishing thresholds for utilization, and sets the methodology for calculating the annual school test.

Calculation of Enrollment and Capacity

Adequate school capacity is a calculation that compares projected enrollment numbers with existing and planned facility capacity, often referred to as school utilization. The current SSP school test uses a definition of facility capacity that is based on MCPS program capacity. Program capacity is the number of students planned per classroom, per school level based on curriculum standards.

Projected capacity figures used in the annual school test are based on existing capacity and planned capacity with planned capacity measured as capacity funded in the 6-year Capital Improvements Program. Projected enrollment figures are based on several factors that are not as straightforward to calculate as capacity. The unprecedented and unpredictable increases in school enrollment over the past several years can be explained by a closer look at the factors affecting student enrollment.

The following explanation of these factors has been summarized from material provided by the Division of Long Range Planning, Montgomery County Public Schools:

Projected Enrollment

MCPS staff calculates projected enrollment using a variety of tools. First, enrollment numbers are generated by using actual birth rates to establish a base kindergarten cohort for the year and then projections of enrollment through 12th grade are made using a "cohort survivorship model." The forecast is adjusted for in/out migration; factors that apply to specific schools and growth from newly approved but not yet built development. Students from new development are added to the forecast when it appears that the development will be online during the six-year forecast period. The

number of students generated from new development is calculated by housing unit type. Enrollment forecasts are developed every year in September and revised in March.

The factors that affect MCPS enrollment are highly interrelated and, in some years, difficult to predict. Enrollment change is the result of the interaction of three factors; births, aging of the school-age population, and migration. Births and the aging of children constitute what may be seen as “natural increase” in enrollment (comparable to natural increase in the total population.) Migration is driven by economic forces tied to job and housing opportunities and is the more variable element of enrollment change.

Births

In forecasting school enrollments, trends in county births are compared to subsequent enrollment in kindergarten. In recent years, kindergarten enrollment in any given year has represented about 75 to 80 percent of resident births five years earlier. This is a net figure since some children not born in the county move in as preschoolers, while other children born in the county move out before entering kindergarten.

Since 2007 there has been a marked increase in school system enrollment—especially at the elementary school level. One factor in this growth was the State of Maryland mandate that all public schools provide a full-day kindergarten program.

Aging

Once students are enrolled in kindergarten, forecasting enrollment by the “aging” of students from kindergarten through Grade 12 is the most straight forward component of the enrollment forecast. Past records of the rate of change between grades show that, at most grade levels, enrollment can be accurately forecast by simply moving grade cohorts forward one grade for each year of the forecast.

The consistency of grade cohort movements is most dependent on the economic climate. During a period of rapid job growth and housing construction migration to the system will increase and the grade cohort change from one level to the next will increase. During more stable periods fewer students will migrate into the system from outside of MCPS.

Migration

Migration, defined as the movement of students into and out of the school system, is the least predictable component of enrollment change.

Over the past several years Montgomery County has experienced a net in-migration of students each year. In addition to the trend of increases in MCPS enrollment attributable to in-migration into the county, a pronounced increase in enrollment is also attributed to students entering MCPS from nonpublic schools. This trend is driven by the reputation of the public schools and, more recently, to the impacts of the recession on households' ability to afford nonpublic schools. This is fourth year where there has been a net gain in MCPS enrollment of 500 or more students from nonpublic schools.

Housing

The turnover of existing homes and apartments, and the occupancy of new housing, facilitate the migration of households to the county and children to the school system. There are many more existing homes available for resale, and rental units for lease, than there are new residential units coming on the market in any given year. Therefore, turnover of existing residential units has a much greater impact on enrollment change than new home sales and new apartment rentals.

Whatever the level of activity in the housing market, MCPS factors it into enrollment forecasts. In the case of new housing, MCPS tracks subdivision applications and incorporates them in school enrollment forecasts once they have received preliminary plan approval. Once a subdivision plan has approval, developers and builders are contacted regularly to determine build schedules and estimated completion dates. School enrollment forecasts are adjusted annually to account for changing home construction schedules. Factors are applied to the different housing types to estimate the number of school-age children that will be generated by a development. The official source of these "yield" factors is the Montgomery County Department of Planning's Census Update Survey. Shown below are the countywide rates from the most recent Census Update Survey.

COUNTYWIDE STUDENT YIELD FACTORS				
Housing Type	Number of students generated per unit:			
	Elementary	Middle	High	Total K-12
Single Family	0.334	0.127	0.133	0.594
Townhouse	0.188	0.106	0.147	0.440
Garden MF	0.142	0.069	0.071	0.282
High & Mid-Rise MF	0.042	0.039	0.033	0.114
Source: 2008 Census Update Survey, MNCPPC				

Forecast Accuracy

MCPS enrollment forecasts, by taking into account the various factors affecting enrollment, have a high degree of accuracy. The total county one-year forecast—the

forecast that drives staffing allocations and re-locatable placements—is typically within one percent of actual enrollment. The six-year forecast—the last year projected for the CIP planning period—is typically within one to two percent of what was forecast six years prior. More challenging are forecasts for individual school service areas. A forecasting maxim holds that accuracy is greatest the larger the area being projected and the larger the population in the area. At the small level of individual schools pronounced variations in enrollment can occur, resulting in a larger margin of forecast error.

Summary

The factors that affect MCPS enrollment change shows them to be highly interrelated and, in some years, difficult to predict. The unexpected consequence of the recession was an unprecedented surge in enrollment that began in 2008. This sudden change in enrollment trend was particularly pronounced in elementary schools in the lower half of the county (the Bethesda-Chevy Chase, Walter Johnson, and Richard Montgomery clusters.) All of these clusters serve established communities with little new housing construction. Adjusting to these rapid increases in enrollment will take several years as school capacity projects are planned and funds requested through the capital improvements program (CIP.)

Annual School Test

The annual school test is a three tiered test that evaluates school utilization levels in 25 cluster areas at the elementary, middle and high school levels (referred to in the resolution as grade levels). If school utilization levels exceed certain thresholds, action on subdivision applications are prescribed. Each year, MCPS prepares the data on school cluster utilizations for the school test, the Planning Board adopts the results of the school test, effective July 1st, and it remains in place for the following fiscal year. The current SSP test thresholds are:

- School facility Payment Threshold. If projected enrollment, 5 years in the future, at any grade level in any cluster will exceed 105% utilization but not exceed 120% utilization, the Board may approve a residential subdivision in that cluster during the next fiscal year if the applicant commits to pay a School Facilities Payment as provided in County law before receiving a building permit for any building in that subdivision.
- Moratorium Threshold. If projected enrollment at any grade level in any cluster will exceed 120% utilization, the Board must not approve any residential subdivisions in that cluster during the next fiscal year.

There are a few exceptions to these requirements. The Planning Board may approve a subdivision in a cluster in moratorium if the subdivision consists solely of multifamily housing and related facilities for elderly or handicapped persons or multifamily housing units located in the age-restricted section of a planned retirement community. The Planning Board may also approve a subdivision in any cluster in moratorium if the subdivision consists of no more than 3 housing units and the applicant commits to pay a School Facilities Payment as otherwise required before receiving a building permit for any building in that subdivision.

A relatively new component introduced in the 2007-2009 Growth Policy is the administration of a school capacity ceiling, commonly referred to as the School Queue. If a subdivision would cause a cluster to exceed the 120% threshold at any level, only the number of dwelling units that would reach the threshold would be allowed. Similarly, if a subdivision would cause a cluster to exceed the 105% threshold at any level, then the number of dwelling units which would exceed the threshold would make a School Facilities Payment to proceed to approval.

The FY2013 school enrollment and capacity information will be presented to the Planning Board just prior to the staff draft of the 2012 Subdivision Staging Policy. Preliminary analysis indicates that development in 14 school clusters will be required to make a school facility payment. In FY2012 there were 13 school clusters in which development approval has been subject to the payment of a school facility fee. One school cluster was in moratorium for FY2012, the Richard Montgomery cluster. In FY2013, the Richard Montgomery cluster moves out of moratorium with the B-CC cluster potentially taking its place. Although over the past few years, in case of clusters that exceed the 120 percent threshold for moratorium, the County Council has included "placeholder" capital projects in the adopted CIP when it is known that a capital project that resolves the cluster utilization issue is in the works. This is the case when facility planning is underway, but the request for design and construction funds has not yet been determined. The "placeholder" capital project essentially promises support for the full project when it is placed in the following year's CIP.

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