ES Methodology

Guiding Documents

School Board Policy B-2.1 will guide the process of redrawing elementary school boundaries. The policy includes six considerations which are described below with the data points used for each and shown in the School Level Data Table.

Efficiency
- Percent of a building's permanent seat utilization by school. This is the projected number of resident students divided by the building permanent seat capacity. The permanent seat capacity is only for K to 5 students and excludes 36 seats assumed for preK students.

Proximity
- Yes/no if all planning units that are within the expanded walk zone for a specific school are assigned to that school

Stability
- This data point is not applicable (N/A) in the school level data table because no elementary school involved in this process was involved in a previous boundary process.

Alignment
- Lists the number of middle schools to which each elementary school articulates.

Demographics
- Number of resident students receiving Free or Reduced Lunch by elementary school boundary.
- The percent of 2017 resident students receiving Free or Reduced Lunch as a proportion of the estimated 2019 resident enrollment.

Contiguity
- Contiguous boundaries at school level

Data Sources

Student demographic data is sourced from the Arlington Public Schools Student Information System. Staff will create planning unit level data for the relevant considerations.

Methodology

Enrollment projections will use two data sources:
- The Fall 2017 Ten Year Projections for 2018-27 will be used for county-wide projection figures.
- Planning unit projections are performed at the student residence-level. Students are "aged" into the next grade cohort at the place of residence, not by their attending school.

County-wide cohort transition rates will be used for all planning units to age students from one grade to the next. Existing 2017-18 resident students who attend an option school are excluded from the resident student count by planning unit for grades K through 5. In addition, Montessori students are excluded evenly for Grades 1 through 5 based on 2017-18 enrollment at Drew Montessori.

In order to calculate incoming kindergarten cohorts from 2018 to 2021, staff uses a multi-step approach. The Fall 2017 Ten Year Projections for total kindergarten students from 2018 to 2021 are distributed by planning unit based on each planning unit's 3-year historical share of kindergarten resident students. The resident kindergarten students allocated to each planning unit are then reduced by the number of kindergarten students assumed to attend an option school, including Montessori.

The number of 2018 to 2021 kindergarten students assumed to attend an option school is based on distributing the option school students from the Spring 2018 Enrollment Projection update and the 2017-18 first-grade student count at Drew Montessori by the share of each neighborhood school's total 2017 resident kindergarten students. The kindergarten option students allocated to each neighborhood school are further distributed to each school's component planning units based on each planning unit's relative resident student population size of that school's component planning units.

Due to changes in the Options & Transfer Policy, historical transfer rates from neighborhood schools to option schools will no longer apply to incoming students. The 2018-19 school year is the first year of enrollment under the revised policy.

The enrollment projections also included the estimated student impact from expected housing development. Through a partnership with Arlington County Government, APS received a list of forecasted new residential projects assumed to be habitable within the next ten years. To this housing forecast by year, APS applies a Student Generation Rate that estimates the number of public school students residing in each new residential building. These buildings are assumed to become habitable over the course of two years. Accordingly, the impact of new students is spread over two years. Students coming from new buildings are distributed among the kindergarten through 5th grade cohorts starting at the time of expected building construction through the end of the projection period. Through this period, the kindergarten cohort—comprised of assumed kindergarteners stemming from births five years prior and new construction—is also impacted by the county-wide cohort transition rate as they age through elementary school.

Notes and Assumptions

- Staff is using most recent available data; full impact of change to Options & Transfer policy is unknown.
- Relocatable classrooms will continue to be needed across APS after boundary changes and capital projects.
- The model calculates resident K-5 students only and assumes all students will attend their newly assigned school. If the School Board decides to "grandfather" certain students, data will need to be adjusted.
- To accommodate preschool programs, thirty-six (36) seats will be deducted from each school to calculate capacity utilization. The 36 seats equal approximately two classrooms in the school building.

    - This assumption includes two PreK classrooms in the school building and a third potentially accommodated in a relocatable classroom. School principals will be able to locate classes in the rooms as they see fit. The actual number of students, type, and number of preK programs and classrooms will vary.
- Montessori students are treated as option school students in this model because they attend a county-wide Montessori program.

Proposal Development

Initial scenarios were developed by focusing on each of the individual policy considerations. In the single consideration maps, staff amplified the value of each policy consideration and analyzed the resulting map. Staff then merged the single consideration maps to create a blended proposal.

Although policy considerations are not weighted, certain considerations do have more impact than others. Stability and Contiguity considerations have little impact because no current elementary students in the schools involved have been part of a previous boundary process and the proposal eliminates an island from current boundaries. Alignment is addressed by examining elementary school to middle school patterns. Efficiency, proximity, and demographics have greater impact in proposal development. Efficiency and proximity are closely related to walkability and to the attempt to balance the percent utilization of each building. Demographics also impacts the boundary proposal; while it is difficult to balance the percentage of students receiving free and reduced lunch across the schools involved, staff seeks to bring the percentages closer to the county-wide average.