

Virginia Beach School District Matches Students to Seats with GIS

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The Office of Demographics and Planning at the Virginia Beach City Public Schools district (VBCPS) is staffed entirely by one individual. In a district comprised of close to 75,000 students, with a high level of attendance mobility, demographic analysis would be overwhelming without the support of the latest in planning technology. For the last five years, VBCPS has been using School Planner™, a geographic information system (GIS) application developed by The Omega Group headquartered in San Diego, California.

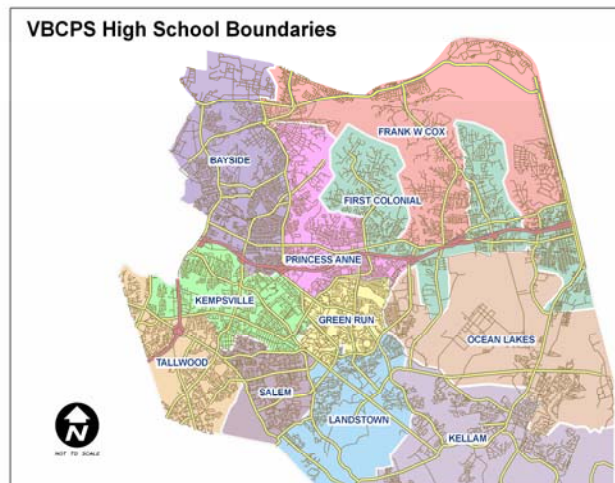
The VBCPS has an impressive record for building trust in current and future student enrollment numbers among stakeholders---parents, civic leaders and school board members. The total district student enrollment projection in two of the past four years has been within one tenth of one percent of the actual student enrollment. On several occasions, without relying on outside consultants, the school board has decided to adopt staff recommendations on proposed redistricting initiatives based solely on staff projections of student membership. Additionally, there has been a high level of public acceptance of proposed attendance policy changes during this same period.

School Planner™ integrates student enrollment data with the ArcGIS mapping environment. It provides projections based on several key variables impacting student enrollment such as kindergarten growth rate and residential construction, and utilizes both historical and current student data. The projections can be done at the attending level as well as the residing level. Such comparisons are very helpful especially for a district like VBCPS that has an open enrollment policy allowing students to apply to specialized scholastic programs or academies (such as math/science) offered at high schools outside their regular attendance zones. Queries to detect enrollment trends can be easily made at the block, neighborhood, school zone, or division level.

The VBCPS recently completed a redistricting initiative at the high school level that illustrates how enrollment projection accuracy, redistricting recommendations and public support were hugely aided by the use of School Planner™. As VBCPS Board Member Jane Brooks explains, “The Omega Group’s School Planner garners trust and objectivity. It has aided the VBCPS School Board Building Utilization Committee’s ability to develop all possible scenarios, to select the least disruptive and most effective redistricting recommendations and to enable the public to understand and become involved.”

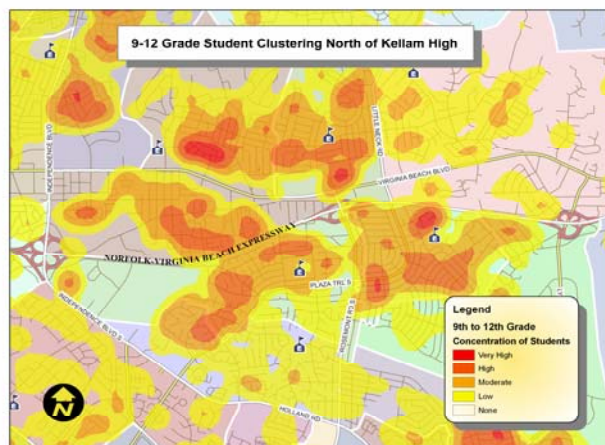
The redistricting initiative addressed two significant enrollment trends among the district’s eleven high schools. School Planner™ enrollment projections showed a steadily decreasing district-wide high school population while at the same a significantly increasing student membership at one already overcrowded high school. The growth in enrollment at Kellam High comes from continuous heavy residential construction in its attendance area. Lower overall enrollment for all high schools, beginning in the 2007-2008 school year, is consistent with the natural progression of a shrinking cohort of incoming high school students due to past birth rate reductions and accompanying declines in kindergarten enrollment.

Kellam High was not considered a good candidate to receive a classroom addition given its age, lack of adequate core facilities and space to support an addition, and given the fact that the school had already received two smaller additions many years ago. While favoring funding of a new high school may have been the most expedient option, the school board needed to consider what was in the best fiscal interest of the district over the longer term. Therefore, the district would need to redistrict to balance high school attendance while conforming to district policy requiring that redistricting be accomplished with the least number of reassigned students.



For school demographers, evaluating different redistricting scenarios usually means working at a small scale such as a street block or neighborhood. Asst. Superintendent Elizabeth Taylor emphasizes the challenges of redistricting, "The School Planner™ system has enabled the VBCPS to make data driven decisions for school redistricting. In the past, it was impossible to look quickly and efficiently at various scenarios without weeks of research. The program allows us to brainstorm a variety of options, look at the impact of these options, and then make decisions in a scientific manner."

Using School Planner™, the district tested the impact of boundary adjustments between adjacent schools with a shortage of space and those with available space (current available space and/or projected available space through classroom add-on construction). For instance, queries were run to determine the density of high school students residing in neighborhoods. This is important when redistricting in order to prevent splitting up large numbers of children from the same neighborhood into separate attendance boundaries.



The recommended and eventually adopted plan will construct classroom additions at the two schools adjacent to Kellam High, both newer modern facilities, and will transfer approximately 600 students from Kellam to those schools. Consequently, the school district can economically add needed classroom space immediately, balance student populations long term, and eliminate the need to build a much more costly facility that may not be needed in a decade. The savings from avoiding a costly initiative to build a new high school can be applied to other capital improvement program critical needs.

The approval of these plans rests heavily on accurate student enrollment numbers and is testimony of the confidence the School Board has in staff projections. It is also evidence of the acceptance of the parents and civic leaders in the community of the district's analytical capabilities. Exposure to geographic information system technologies during the proposal process gives most stakeholders a higher comfort level that decisions are being made in a data driven fashion. In fact the School board policy demands that an objective methodology be followed in conducting assessment of enrollment conditions.

When parents arrive at public meetings to hear policy proposals, School Planner™ is up and running on the big screen and the staff demographer can answer questions immediately in the same way as when working alone in the office or with the school board facilities use committee. According to D.A. "Al" Albowich, who represents the city-wide Council of Civic Organizations on the VBCPS Building Utilization Committee, "School Planner™ provides for making decisions based upon data and not subjective or arbitrary opinion, facilitates 'what if' scenarios to quickly display and evaluate different potential rezoning alternatives and gives an excellent visual presentation to interested citizens and parents to demonstrate that the rezoning proposals are based on facts and rational decisions."

From building a school district budget based on accurate student numbers, to making school construction or redistricting decisions – the technology found in School Planner™ is vital to successful facilities and resource use in school district operational management. With this tool, VBCPS has been able to accommodate changes to student enrollment without unnecessary capital costs or major revisions to attendance boundaries.

By Donald Greer and Trip Albagdadi



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