School Boundaries: Finding Solutions While Gaining Community Support

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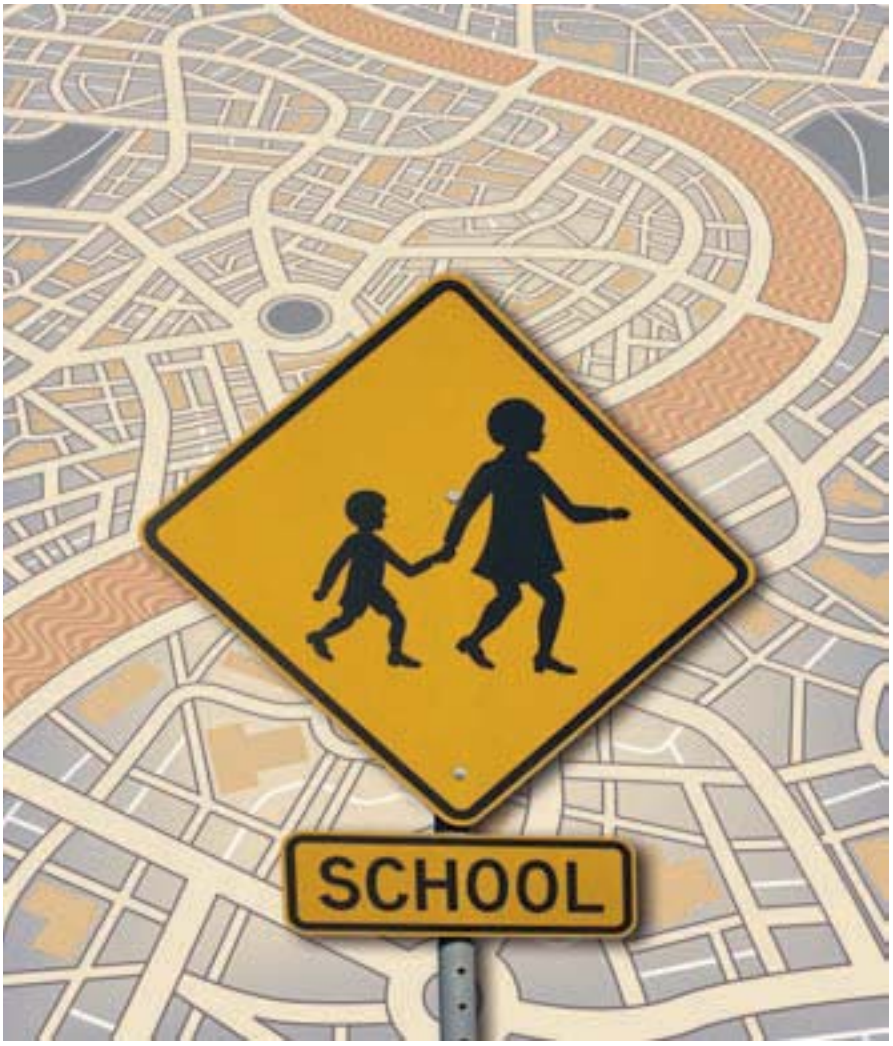

Some of the most complicated issues facing school districts across the country revolve around resource allocation and student assignment planning. Determining school attendance boundaries, selecting sites for new schools, closing existing ones, balancing seat utilization while minimizing travel costs, and achieving socioeconomic diversity are all daunting challenges with enormous political, economic, and emotional stakes.

How can district administrators gain parent and community support for decisions that are intrinsically multidimensional, complex, and fraught with emotion? How can they evaluate and communicate the difficult policy trade-offs and win broad-based support and community consensus?

One school district in Tampa, Florida, has found answers to some of these questions. Hillsborough County Public Schools, the nation's eighth-largest school district, partnered with a research firm to pioneer a new methodology for creating school attendance boundaries—a process that engages the community, optimizes efficiency, and increases school diversity.

The approach is transparent and encourages community participation at every stage. In a large-scale 2008–2009 "reboundary" project involving nine high schools and nearly 25,000 students, the methodology proved so successful that not a single parent or community member opposed the new boundaries at the final adoption meeting.

The techniques developed in Hillsborough County are broadly applicable to urban districts seeking to drive school diversity in the context of the Supreme Court's 2007 *Parents Involved* decision, which prohibits the use of individual student ethnicity for the purposes of developing school boundaries and for all student assignment planning.

Diversity and Resource Use

To understand how the process is most effectively applied, it's important to first define the issues that Hillsborough County Public Schools hoped to overcome by drawing new school attendance boundaries.

Hillsborough County Public Schools has long struggled to overcome racial segregation within the district. From 1971 to 2001, the district was under a court-ordered

desegregation plan. The school board made diversity and inclusion a policy priority for the district, and through magnet and school choice plans, the district made significant progress in achieving its diversity goals. But at the same time, district transportation costs increased dramatically, as district-provided student transportation became a primary option in allowing students to take advantage of magnet and school choice programs.

While the district moved to combat racial isolation and enhance diversity, it also faced significant challenges to achieving efficient and consistent levels of classroom use. The combination of the success of school choice plans and shifts in migration and residential settlement patterns created significant geographical imbalances. Thus, while some schools operated at 120% capacity and the district spent millions on costly portables, others were at only 60% capacity. In all, nearly 20% of the district's seats were unfilled.

Combined with constitutionally mandated class-size requirements, the imbalances created a difficult set of student assignment challenges. And while fostering diversity is a positive educational goal for the Hillsborough County Public Schools, the requirements of the Supreme Court's *Parents Involved* decision made it even more difficult to address the challenges of creating schools that are diverse and inclusive. Without new tools and approaches that would seem fair and reasonable to parents and the community, Hillsborough County Public Schools risked sliding back toward segregation of its schools.

A New Approach

To address these issues, the district took steps to develop a new process for drawing new school attendance boundaries, testing the methodology in an initial pilot project. The first step, in 2007, was to create an attendance boundary for a new middle school using a sophisticated set of geospatial modeling tools.

The district contracted with a consumer research company based in Tampa to manage the technical aspects of the pilot. Specifically, the company built a multivariate trade-off model that allowed district staff to assess the utilization and transportation consequences of 28 potential boundary options. After reviewing the options, staff selected the best solution, which was adopted by the school board with minimal disagreement from the community.

Based on the initial success of the middle school project, the district collaborated with the company on a second phase of work that involved developing boundaries and a boundary-setting process for two new and seven existing high schools in 2008–2009.

For this type of complex effort, staff members typically begin with maps, spreadsheets, and a geographic information system and produce current boundary maps; draw and "tweak" boundaries; run GIS queries; and, as quickly as possible, settle on a set of boundaries that work. This kind of process commonly involves months of work to produce just one or two sets of attendance boundaries for the board to approve.

In the Hillsborough approach, the analysis started with a question: "Based on what criteria and what decision rules do we want to develop our boundaries?" With school board leadership and operational guidance from staff, the project team established that utilization balance, transportation cost, and diversity criteria would be used to evaluate eventual boundary options.

The team designed a diversity index that allowed the measurement of relative diversity but did not use any student-specific racial or ethnic data. Then, using the agreed-on decision rules, the team built a multiobjective geospatial optimization model. Over thousands of model runs, the team generated multiple boundary solutions with different weights given to different criteria.

District staff and board members reviewed 79 "optimal" boundary scenarios that were fully documented in terms of the school-specific utilization and transportation trade-offs. The diversity index was calculated for potential solutions, allowing decision makers to evaluate the diversity implications of each possible solution. Staff selected four scenarios that were deemed most effective in balancing use while minimizing transportation and enhancing diversity.

The process was, by its very nature, unbiased, evenhanded, and fair.

After these four scenarios were chosen, the team produced the maps. By using this method to evaluate and select "the best" boundary scenarios, no one on the staff or analytical team could possibly know which neighborhoods and households would be affected by the boundary changes. Staff decisions on which maps to create were made solely on the basis of the decision criteria and the weightings agreed on by the board at the beginning of the process. The process was, by its very nature, unbiased, evenhanded, and fair.

Community Buy-In: Key to Success

At the outset of the high school project, district staff scheduled a series of school-based community meetings to explain the boundary selection process and engage in a dialogue with concerned parents and community members. The project team explained the process, emphasizing that decisions would be driven by explicit, known criteria and rigorous analytics. The team also explained that the decisions reached would be "blind" with respect to specific communities and households and that maps would be produced only near the end of the decision-making process.

At every parent and community meeting, the team reiterated the decision criteria and asked participants if they had other higher priorities for the new boundaries. All participants agreed that the decision criteria were fair and reasonable.

At the end of the project, before formal board consideration, additional community meetings were held and proposed boundary maps were displayed and discussed. The project team listened to parental concerns about neighborhoods, transportation burdens, and impacts on the availability of certain academic programs and cocurricular activities. Staff handled many of these concerns on a case-by-case basis and even made minor boundary adjustments to take into account legitimate community concerns and ground truth.

By engaging the community throughout the process, the district obtained buy-in and won support for the new boundaries. At the final adoption meeting, not a single parent or community member addressed the board to dispute the proposed boundaries.

The district achieved school utilization balance and the maximum difference between "full" and "empty" schools was six percentage points. At the same time, the district was able to reduce annual transportation costs by hundreds of thousands of dollars and increase diversity by as much as 11% at some schools with only a 2% increase in related transportation costs.

Because of the success of the pilot projects, the Hillsborough County Public Schools won 1 of 10 federally funded demonstration project grants to plan new boundaries for the county's 46 middle schools.

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With this proven methodology, districts not only can realize what in the past appeared to be mutually exclusive goals but also can gain consensus from community members involved in the process—thereby facilitating better and more effective planning in the future.

By combining rigorous, evidence-based analytics with an exercise in community citizenship, these projects demonstrate that school districts can attain attendance boundaries that are efficient and diverse.

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