

March 12, 2013

No Division Required in This School Problem

By **KATHARINE Q. SEELYE**

BOSTON — While school officials and parents here were debating how to assign students to Boston’s public schools, a lanky young man was quietly observing their public proceedings.

He quickly saw the Rubik’s Cube-like puzzle: How could the school system design a plan that would send children to a good school, close to their homes — in a city that had too few good schools? And could that plan also ensure that students from poor neighborhoods had the same chance of attending good schools as those from more affluent neighborhoods?

The current system, for kindergarten through eighth grade, divides the city into three large zones, a holdover from its traumatic experience in the 1970s with forced busing to end segregation. Today, many students are still bused far from home, yet many disadvantaged students are still in lower-performing schools.

Over the last year, a 27-member advisory committee pored over its options and weighed competing proposals, but became hopelessly tangled up as it considered proposals that created more zones to fix the inequality.

The young man, Peng Shi, a 24-year-old doctoral student at the [Massachusetts Institute of Technology](#), began asking questions and talking to parents. Then he made a suggestion: why not drop the idea of zones altogether?

For Boston, it was a breakthrough moment. Mr. Shi made some suggestions about how to assign the almost 40,000 students to the 96 schools without using zones and his proposal quickly rose to the top of a pile of about 10 others.

It went through several iterations. The final one gives families a list of at least six schools starting with the two closest high-quality schools, then the next two closest of at least medium quality.

Last month, after a year of study and more than 70 community meetings, the committee voted overwhelmingly to recommend that the Boston School Committee adopt Shi’s model. The school committee was planning to vote on it Wednesday night.



OPEN

MORE IN EE

Democ
Stung b
School

Read More

Not everyone is happy with the plan. Critics say it perpetuates inequities. But if it passes, the plan would represent the most significant change in the city's student assignment system in nearly a quarter-century, finally dismantling the remnants of the notorious busing plan.

That it took a dispassionate outsider with coding skills but no political agenda to formulate the model is a measure of the complexities facing urban school districts today. Many such districts, like Boston's, are plagued by inequities, with too few good schools and children mostly of color trapped in low-performing schools. Overcoming that legacy here has been so emotionally charged that previous attempts to redraw the zones have failed (though in 2005 the district did change the algorithm it uses to assign students).

Mr. Shi has no ties to the Boston school system; he was born in China and grew up in Canada. But he is deeply interested in market design, which helps policy makers think about complex trade-offs to bring about positive social results.

"It's groundbreaking in that it doesn't look at just geography but at quality," Carol R. Johnson, the school district's superintendent, said of Mr. Shi's model. (It was innovative for Boston though some other cities, including Chicago and San Francisco, have used a similar approach.)

The overhaul of the assignment system started last year, when Mayor [Thomas M. Menino](#) said he wanted students to attend schools closer to home, hoping to stimulate more parental involvement and neighborhood cohesiveness.

But many parents complained that there was not enough focus on the issue of equity and the district's fundamental problem — the scarcity of good schools.

"Peng was at these meetings and just listening," said Megan Wolf, who is part of a grass-roots parents' organization.

One fear expressed by families of all socioeconomic backgrounds was that their children could be crowded out of the district's few good schools and end up at ones that are lower-performing. Some families would most likely opt out of the public school system, if not leave the city altogether, they said. Whites make up about 47 percent of Boston's population but only 13 percent of the public school population.

"He started saying things like, 'What I'm hearing is, parents want close to home but they really care about quality,'" Ms. Wolf said. "He said, 'I'm working on something to try to meet those two goals.' He didn't have a political agenda."

Mr. Shi became interested in school assignment last year after his national kidney exchange

proposal had fallen through. “I prayed about finding another project,” said Mr. Shi, who is active in Christian fellowship groups.

He was born in Kunming, China, where his father was a statistics professor and his mother an abdominal surgeon. When he was 11, his family moved to Canada for his education. He graduated from high school in Toronto and was accepted at M.I.T., Princeton and Duke. Money was tight, so he chose Duke for its offer of a full scholarship.

He likes “to use mathematics and quantitative thinking,” he said, “to try to use the gifts God has given me.”

But Boston was not an easy project. With his father ill with lung cancer, he worked 18-hour days from Toronto over the Christmas break, communicating long distance with his economics professors, Parag Pathak at M.I.T., and Tayfun Sonmez at Boston College.

The school district and Mayor Menino had commissioned Dr. Pathak’s lab, at M.I.T.’s School Effectiveness and Inequality Initiative, to try to forecast what schools parents might choose under various new proposals. Using choices that the parents had made in the past, Mr. Shi built computer simulations, did demand modeling and generated hundreds of thousands of files and graphs.

But the advisory committee members still had to weigh the importance of things like distance from home, standardized test scores, whether a sibling attends the school, and overall equity.

“It boils down to what is fair and whose claims to a school are most deserving,” Professor Pathak said. “In the end, these are value judgments.”

A controversial element of the plan is the “walk zone priority,” which gives preference to students living within walking distance of a school.

Research by Dr. Pathak and Dr. Sonmez shows that the walk-zone priority does not actually give much of an advantage to students living nearby. But Mr. Shi’s original proposal had no walk zone, and he said in an interview that he personally saw no reason for it; it was added in later.

The walk-zone priority has become intensely symbolic, and Ms. Johnson, the superintendent, said last week that she was “rethinking my position on walk zone.” She said she expected some attempt on Wednesday night to eliminate it from the plan before the school committee casts its final vote.

Still, even critics say that Mr. Shi helped everyone think outside the box and that without him,

the end product would have been worse.

For his part, Mr. Shi said he found the work humbling.

“We can only contribute one piece of this, and we don’t claim we have solved anything,” he said. “If you reduce this to a math problem, you think you can solve it. But real life is much more complicated.”

This article has been revised to reflect the following correction:

Correction: March 14, 2013

An article on Wednesday about a proposal from an M.I.T. doctoral student to remake the student assignment system used by Boston’s schools misspelled his birthplace in China. It is Kunming, not Kumming.

This article has been revised to reflect the following correction:

Correction: March 16, 2013

An article on Wednesday about a proposal from an M.I.T. doctoral student to remake the student assignment system used by Boston’s schools misstated the reason for the implementation of court-ordered busing in the city in the 1970s. It was to end segregation, not desegregation.