In little more than two years, the Philadelphia school district has stripped $400 million out of its annual budget, closed 30 schools, eliminated nearly 7,000 jobs, and lost more than 20,000 students.

The teetering city system, said Superintendent William R. Hite Jr., desperately needs "to show a win."

So Mr. Hite is placing a controversial bet: Although scores of schools opened here this month without regular guidance counselors, nurses, or basic supplies, the superintendent is pouring millions of dollars into expanding what he considers to be three of the city's most innovative schools. They include Science Leadership Academy, an acclaimed magnet high
school at the forefront of the national effort to marry educational technology with so-called "deeper learning."

"We have to have an investment conversation about the types of schools we would love to see in our district," Mr. Hite said in an interview. "This whole conversation cannot just be about what we're taking away, what we are starving, what we are eliminating."

Across the country, new academic standards, increased competition from charter schools, and the growing use of technology to "disrupt" traditional forms of schooling are prodding districts, often resistant to change, to try their hand at encouraging innovation. As in the charter sector, attempting to scale successful models is a key strategy.

In Philadelphia, the short list of reasons to be hopeful begins with Christopher Lehmann, the founder and principal of Science Leadership Academy.

"He's truly a visionary leader, known for giving teachers and students the freedom to excel," said Brian Lewis, the CEO of the International Society for Technology in Education, which in May gave Mr. Lehmann its "Outstanding Leader Award" for his use of technology to support learning.

But experts urge caution. The nuts and bolts of replicating nontraditional school models are complicated, said Donald J. Peurach, an assistant professor of education at the University of Michigan in Ann Arbor, and big-city district bureaucracies—often characterized by stagnant cultures, high turnover, restrictive labor agreements, and chronic funding shortages—are particularly ill-suited to the task.

"These are agencies that came into existence to administer schools, not improve them," Mr. Peurach said.

Options Limited

Skeptics also question whether investing scarce resources in a small, highly selective magnet school is the best strategy for sparking citywide educational improvement.

For Mr. Hite, though, the options are limited, and the stakes are plain.

The Sprint to Replicate Philadelphia's Science Leadership Academy

January 8: Chris Lehmann, founder of the Science Leadership Academy, emails Philadelphia schools Superintendent William Hite about the possibility of expanding the school's model within the district

April 16: The Philadelphia district withdraws its recommendation to close Beeber Middle School
Sitting cross-legged on the stage of Beeber's auditorium, Mr. Lehmann, a compulsive user of social media, tweeted a photo to his 20,000-plus followers: "The first families of #SLA-Beeber—so exciting!!"

Much of the national attention Science Leadership Academy has garnered—including recognition from President Barack Obama and Microsoft co-founder Bill Gates—has focused on the school's abundance of technology. Since its founding in 2006, every student has received a laptop, and SLA was named an Apple Distinguished School in each year from 2009 to 2013.

What makes Science Leadership Academy special, Mr. Lehmann emphasized, is how that technology is used.

"I'm passionate about this idea that schools can be authentic and empowering and relevant and caring places," he said. "And what we have seen over the last seven years is there are a lot of families who want that for their children."

For the current school year, Mr. Lehmann said, SLA had 125 available slots, but more than 2,100 applicants, most of whom met the school's demanding admission requirements around grades, test scores, and attendance.

Critics argue that the ability to handpick top students minimizes the significance of Mr. Lehmann's accomplishments and the potential impact of replicating his model, especially in Philadelphia, where independent charter operators have successfully brought to scale strategies for dramatically turning around some of the city's most challenging neighborhood schools.

Mr. Lehmann bristles at such comparisons and highlights what he sees as major pedagogical and cultural differences between his approach and that of many large charter management organizations.

"I want to build a structure that smart, creative, kind people can come in and imbue with their own energy, ideas, and passion," he said. "I don't want standardization."

The new SLA@Beeber, as the second campus is called, will grow slowly, from a lone 9th grade class this school year to a full 500-student high school by 2016-17. Mr. Lehmann is also preparing to test the SLA model next school year in a neighborhood middle school that admits all students.

Among those benefiting now is Renee Hughes, a 53-year old business analyst who is between jobs. Ms. Hughes said her oldest son graduated from the original SLA, and she is eager to provide her 14-year old son Caleb with a similar experience.

"What really makes the school is the teachers," she said. "They know how to ask the students the right
questions to get them engaged."

'A Pain Point'

Mr. Hite said Science Leadership Academy is the type of school he wants to see proliferate throughout the 136,000-student district.

But the superintendent ticked off a long list of structural barriers that have thwarted his plans: Onerous state regulations. Untenable contracts with labor unions. Lack of will inside the district's central office. And, of course, money.

Across the nation, it's a familiar refrain, said Ethan Gray, the executive director of the Cities for Education Entrepreneurship Trust, a network of 32 foundations, nonprofits, and organizations pushing education innovations in their cities. Given the barriers to change inherent in most district bureaucracies, Mr. Gray said, "it's almost hard to [imagine] what replicating an innovative school means in that context."

As a result, most of the trust's member organizations avoid giving money to traditional public schools altogether.

Locally, the Philadelphia School Partnership is bucking that trend, bankrolling much of the first-year startup costs for the three district programs that Mr. Hite wants to expand. But despite Philadelphia's financial woes, the partnership's $6 million grant offer, which included $1.9 million for Science Leadership Academy, quickly emerged as a source of controversy, highlighting the limited space Mr. Hite has for maneuvering.

Critics vilified the superintendent and Mr. Lehmann for taking money from an organization they accuse of seeking to starve regular neighborhood public schools of resources—a claim that Mark Gleason, the partnership's executive director, does not dispute.

"As you invest in new schools, as you put resources into turnarounds and expansions, systemically, you are shifting resources out of the most-challenged schools," Mr. Gleason said. "That is true. That is happening. And that is a pain point in this process."

The tensions came to a head in July, when Philadelphia's governing School Reform Commission debated whether the cash-starved district should accept the partnership's grant offer.

Commission member Joseph Dworetzky grilled Mr. Hite and his staff about the numbers: Expanding the three school programs could cost more than $28 million over the next five years, more than 90 percent of which would likely have to be covered by a district currently unable to buy adequate supplies of paper for most of its schools.

"You've got to keep track of where the money is coming from," said Mr. Dworetzky, his voice rising, "and this money is coming from everybody else!"

How It Works

The commission ultimately voted 4-1 to accept the grant. But before the real work of creating the new SLA@Beeber had even begun, Mr. Lehmann was bruised. "I'm a person," he said. "It's painful."

Mr. Lehmann regained his enthusiasm in time for a weeklong training session for the eight educators hired to staff Science Leadership Academy's new campus, held in early August.
"What you are about to do is exhausting and rewarding," he told the teachers, "and if you do it right, you get to make a difference in a way you only think you understand."

Veteran Philadelphia administrator Christopher Johnson, an intellectual comrade-in-arms of Mr. Lehmann's tapped to lead SLA@Beeber, and staff members from SLA's flagship campus then plunged the teachers into a crash course on their new school's unusual way of doing business. The focus was on creating lesson units that build upon student questions and culminate in project-based assessments, as well as using digital tools to track and share a wide range of student work and data.

"I was pretty much blown away," said Karthik Subburam, hired to teach math and engineering at SLA@Beeber after spending the past four years at Philadelphia's Germantown High, a struggling neighborhood comprehensive high school approved for closure last spring.

Mr. Lehmann's insistence that technology be "ubiquitous, necessary, and invisible" will be a significant change, Mr. Subburam said: "At Germantown, it was more a specific use of technology to enable students to do well on tests."

But what kept the 40-year-old former engineer up at night was the entirely new way he will be teaching: "I'm coming from a very structured environment, where we had to follow the district's seven-step lesson format. I have to become more of a facilitator."

Mr. Peurach, the University of Michigan professor, said getting teachers like Mr. Subburam quickly up to speed is a big challenge when replicating outside-the-box school models.

Mr. Lehmann's commitment to facilitating collaboration and mentor-apprentice relationships should help, he said, as will the external grant support, $20,000 of which paid for the summer training. But such resources can only be stretched so far.

"In the early stages, they can solve problems with closeness and intimacy," Mr. Peurach said. "But going from one school to two is a lot different than going from two schools to 25."

On Sept. 9, as Renee and Caleb Hughes pulled up to Beeber for the first day of school, the forces working for and against Philadelphia's innovation gamble swirled.

On the school's front steps, Superintendent Hite, Mayor Michael A. Nutter, and a bevy of elected officials held a press conference on student safety, while protestors called for more funding for public education.

"Well, at least this school's going to get a lot of attention," Ms. Hughes sighed.

**Center of Attention**

Inside Beeber, sharp disparities were evident between the new high school and the struggling middle school now sharing a building.

On the first and second floors, middle schoolers—nearly all poor and African-American—wore uniforms and passed by glazed windows that let in only a hint of the bright fall sun outside.

On the third floor, SLA@Beeber's new 9th graders, a multiracial mix drawn heavily from the city's top elementary and middle schools, were dressed in an array of colorful styles. Through newly installed windows, they could look out over the tops of the nearby rowhouses, on to the city skyline in the distance.
In the mad dash to open the new school, the new staff of SLA@Beeber hadn't quite reached the finish line: Mr. Johnson's office, for example, consisted of nothing but a chair and a telephone.

But already, the school's many advantages were on display, fodder for the skeptics who dismiss Mr. Hite's gamble as little more than grabbing after "low-hanging fruit."

"I don't think it's a very significant accomplishment to replicate a magnet school," Mr. Gray of the CEE Trust said. "At the end of the day, it still results in a broad group of underprivileged kids being continuously underserved."

For Mr. Johnson, though, the time for such concerns was past.

With Mr. Lehmann back running Science Leadership Academy's flagship campus, the flamboyant 45-year old, who grew up just a stone's throw from Beeber, circulated between classrooms, answering student questions and beginning to mold the new campus to his own personality.

In Caleb Hughes' room, Mr. Johnson began to speak, but was interrupted by the press conference and protests still taking place outside.

He closed the classroom window to block out the noise.

"Now," he told the students, "I think we're ready to get started."

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