

EXECUTIVE SUMMARY

**Strategic Designs: Lessons from
Leading Edge Small Urban High Schools**

Education Resource Strategies

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Executive Summary

Thirty years ago, urban high school organization looked very similar from one school to the next. Today, rising dropout rates and persistent achievement gaps — less than three-quarters of all students graduate from high school, and only about half of African American and Latino students do (Greene & Winters, 2005) — have generated an urgency around redesigning the urban high school. Creating small high schools has become a central element of this redesign movement, based on research showing that small schools may be especially effective for urban students (Cotton, 1996). Few would argue that simply making schools smaller would lead to dramatic student improvement. Instead, reformers envision improving instruction and, through the “smallness,” being able to create a supportive community of adult and student learners.

At Education Resource Strategies (ERS), we work with school and district leaders to help them more strategically use resources — people, time, and money — to improve student performance. We have found that many school districts begin creating small high schools without a clear sense of how much they will spend or how to ensure that small schools organize in ways that will promote high performance. To begin to address these challenges, the Bill & Melinda Gates Foundation supported ERS in a three-year effort aimed at building understanding and tools to support districts in creating cost-effective systems of high-performing urban high schools.

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This report summarizes our four main findings from detailed case studies of nine small urban high schools (see Figure A). We have dubbed these nine schools “Leading Edge Schools” because they stand apart from other high schools across the country in designing new ways to “do school” while outperforming most high schools in their local districts. This report explores how the Leading Edge Schools organize their resources — people, time, and money — including how they take advantage of their smallness to improve

student performance. The report also looks at how much each of these schools spends to achieve their organizational designs and how the local context — funding levels, administrative policies, and union contracts — affects resource decisions. Although these schools spend varying amounts per pupil and organize resources in unique ways, they share a set of practices that distinguishes them from typical large urban high schools.

FIGURE A

Characteristics of Leading Edge Schools in SY2005–06ⁱ

	High Tech High School	Life Academy of Health and Bio-science	MetWest High School	University Park Campus School	Noble Street Charter High School	Perspectives Charter School	Academy of the Pacific Rim	Tech-Boston Academy	Boston Arts Academy
District	San Diego	Oakland	Oakland	Worcester	Chicago	Chicago	Boston	Boston	Boston
Governance	Charter	District	District	District	Charter	Charter	Charter	Pilot ⁱⁱ	Pilot
Grades	9–12	9–12	9–12	7–12	9–12	6–12	6–12	9–12 ⁱⁱⁱ	9–12
Total enrollment grades 9–12	507	255	128	149	482	186	130	227	395
Free and reduced-price lunch	22%	92%	58%	68%	85%	86%	53%	69%	56%
<i>Below, near, or above local district in ELA^{iv}</i>	Above	Above	Above	Above	Above	Below	Above	Above	Above
<i>Below, near, or above local district in math</i>	Above	Near	Above	Above	Above	Below	Above	Above	Below
Attendance rate	97%	97%	95%	96%	95%	94%	94%	95%	93%
Graduation rate	99%	96%	96%	91%	87%	91%	91%	83%	84%
Percentage points above local district graduation rate	+17	+26	+25	+24	+14	+18	+32	+24	+26

ELA = English language arts

Note: The tests used for the ELA and math measurements are the Massachusetts Comprehensive Assessment System, Prairie State Achievement Examination (Illinois), and California High School Exit Examination. The graduation and attendance rates are self-reported from the schools' report cards: www.boston.k12.ma.us (Boston), www.wpsweb.com (Worcester), www.cde.ca.gov/ta (California), and www.cps.k12.il.us (Chicago).

ⁱ Boston schools were studied in SY2004–05, and all other schools were studied in SY2005–06. Data shown are for the study year.

ⁱⁱ A pilot school in Boston is a district school that has significant waivers from both union contract and administrative policies.

ⁱⁱⁱ TechBoston Academy only had grades nine through 11 in the year of our study (SY2004–05).

^{iv} We have defined "near" as within +/- 5 percentage points of the local district average.

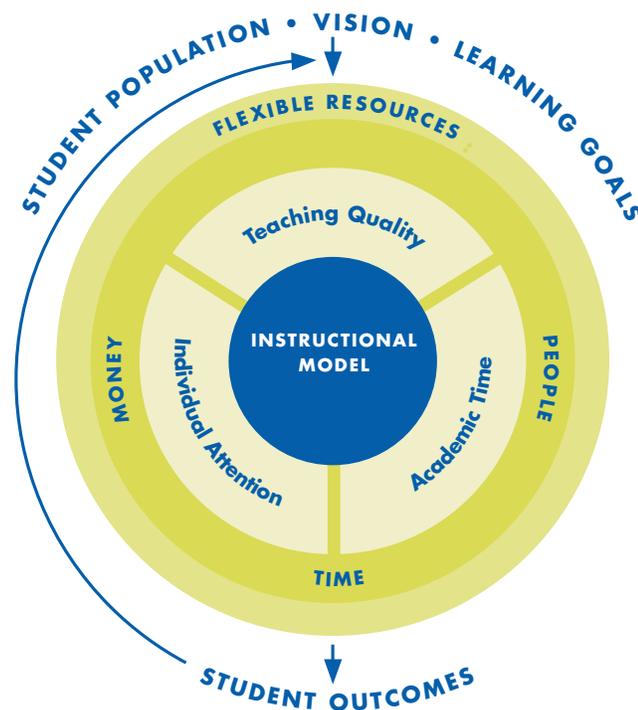
Finding 1: Leading Edge Schools create customized Strategic Designs that organize resources — people, time, and money — to advance a clearly defined instructional model.

We found that Leading Edge Schools create high-performing organizational structures — or Strategic Designs — that deliberately organize people, time, and money to advance their specific instructional models (see Figure B). They create these Strategic Designs through four interconnected practices:

1. Clearly defining an instructional model that reflects the schools’ vision, learning goals, and student population;
2. Organizing people, time, and money to support this instructional model by (a) investing in teaching quality, (b) using student time strategically, and (c) creating individual attention for students;
3. Making trade-offs to invest in the most important priorities when faced with limits on the amount, type, and use of people, time, and money; and
4. Adapting their strategies in response to lessons learned and changing student needs and conditions.

FIGURE B

Strategic Design



Teacher characteristics, staffing patterns, schedules, and budgets look very different across the Leading Edge Schools. Many of these differences can be linked to each school's "instructional model," the decisions a school makes about how it organizes and delivers instruction, what the focus of its content will be and whether it will be the same for all students, where and when learning will take place, and which specific programs or pedagogies will be implemented. Choices about how schools organize and deliver instruction reflect their beliefs about how young adults learn and develop. Although many high schools treat these decisions as given or unchangeable, leaders at Leading Edge Schools make them deliberately and organize their resources to support them.

Leading Edge Schools' instructional models reflect three broad approaches to teaching and learning:

1. **Core academics:** a rigorous core academic college-preparatory program for all students;
2. **Relevance:** a curriculum that is relevant to student interests and/or the world in which they live; and
3. **Personalization:** personal relationships between adults and students are fostered to ensure all students are known well by at least one adult.

All Leading Edge Schools incorporate some aspects of each approach, while tending to emphasize one over the others. Differences in Strategic Designs reflect different decisions about resource use that depend on the relative priority and interplay of the three approaches, combined with varying levels of and control over resources.

Finding 2: Leading Edge Schools share a common set of high-performing practices — investing in teaching quality, using student time strategically, and creating individual attention — that advance their instructional models.

To explore whether and how our case study schools organize resources in high-performing ways, we used a framework based on more than a decade of research (Miles & Frank, 2008). Although these Leading Edge Schools organize resources in unique ways, they share a set of common practices that distinguish them from typical large urban high schools. They organize people, time, and money in high-performing ways to (a) invest in teaching quality, (b) use student time strategically, and (c) create individual attention for students.

In looking across the resource strategies at the Leading Edge Schools, we found that they all:

- Organize around **rigorously selected, highly talented, and flexible teaching staff** that fit their specific instructional models and can serve in a variety of roles, teach multiple subjects, and respond to a range of student needs. Depending on the school's instructional model, this can range from hiring teachers who are generalists and interested in forming personal bonds with small numbers of students to hiring subject specialists who are able to carry large teacher loads.

- Require much **more formal time for teacher professional development and collaboration** — an average of five times more than local districts. Even the three Leading Edge Schools that are district high schools and are constrained by the negotiated length of teacher day and year devote from 44 to 116 more hours to professional development and collaborative planning time than their districts require.
- Schedule an average of 20 percent **more student time** and devote an average of 233 equivalent days **more in core academics** over the student career than traditional local district schools. This extra time translates into more than a full year of academic instruction. They accomplish this mostly through a combination of extending the school day and increasing the number of required core academic classes that students take across the four years.
- Create small class sizes that combine students across programs and performance levels, and integrate into the school day formal **time for targeted individual and small group academic support** delivered by classroom teachers rather than volunteers.
- Use **multiple data sources to assess student needs**, both at entry and throughout a student’s career. They systematically combine quantitative and qualitative information on incoming students gathered from student orientations, school-developed writing assessments, home visits, and parent surveys. They have structures and systems that enable teachers to adjust instruction and support based on ongoing student learning needs.
- Weave into school designs multiple ways of **fostering relationships between teachers and students**, rather than relying solely on advisory structures. Schools combine purposefully designed advisory programs to complement other structural supports, including small class size, individual academic support, and keeping students and teachers together for multiple years to create continuity.

Finding 3: Leading Edge Schools work within small school size and funding-level constraints to prioritize core academics and professional community over program diversity.

Each of the Leading Edge Schools balances the use of people, time, and money within their own resource context — including funding levels and the flexibility to use people, time, and money in desired ways — to support their instructional models. This explains why budget and staffing patterns look so different across even those schools with similar designs and priorities. This balancing requires the schools to make trade-offs among priorities and results in different organizational structures. However, *regardless of funding levels or size, Leading Edge Schools invest first to assemble high-quality core academic teachers and school leadership to facilitate the creation of professional learning communities.*

Except for the smallest Leading Edge Schools, most choose to maintain traditional leadership and guidance positions, even though they have the flexibility to eliminate them. These positions consume a greater portion of the small school budget because they are spread over a smaller number of

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students. This leaves less money for these small schools to devote to the other traditional high school functions. So, most Leading Edge Schools choose to prioritize core academics. They do this through two related practices. First, they offer a single, common program of study with few or no electives in noncore courses. Second, they hire a cadre of expert core academic teachers who teach multiple subjects, including noncore academics classes, and play multiple roles. At almost all the Leading Edge Schools, 84 percent or more of

classroom teachers are core academic teachers as compared to approximately 65 percent in their local large high schools. Many of the Leading Edge Schools also leverage community resources to expand opportunities for students.

Finding 4: Leading Edge Schools require flexibility from traditional administrative practices and union contracts around hiring, staffing, and time to implement their Strategic Designs.

Leading Edge Schools can support their designs so effectively within the constraints presented by school size and given funding levels because they have the flexibility in both the amount and use of their other resources — people and time. All Leading Edge Schools choose their staff and structure their roles to fit the schools' needs. And they all find ways to increase the amount and change the structure of teacher and student time.

Conclusion

As these Leading Edge Schools demonstrate, creating small schools is about so much more than smallness. It is about the way schools create Strategic Designs by taking advantage of size and rethinking the high school experience for urban students. These designs begin with clearly defined instructional models, and they organize people, time, and money in high-performing ways to invest in teaching quality, use student time strategically, and create individual attention.

Through this summary report and the accompanying individual case studies, we provide nine high-potential ways of organizing small schools that could serve as starting points for school designers and districts seeking to redesign high schools. However, leaders should note that these profiles provide snapshots in time. What makes these designs strategic is that resources align with the schools' instructional models in the context of their specific resource levels and constraints *at a particular moment*. Leading Edge School leaders understand that the inputs and

outputs of schools are a collection of moving parts, some more predictable than others. They also understand that even when informed by evidence and experience, not every resource decision will hit the mark.

These insights suggest a new paradigm for supervising and supporting schools — especially as schools are outlining their improvement plans, budgets, and staffing needs each year. In this new paradigm, supervision would be less about *enforcing* a specific use of resources and much

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more about *enabling* schools to more effectively match their hiring, staff assignment, student grouping, and schedules to their particular challenges.

Although Leading Edge School leaders do not necessarily use a systematic approach to aligning resources to their designs, the research framework and quantitative measures we used to understand them could serve as powerful tools for assessing resource use and promoting discussion and problem solving between school leaders and those who support and supervise them.

With this in mind, we have created a set of *diagnostic indicators* that describe how schools use people, time, and money in ways that seem to matter most for improving student performance. Many of these are not typically measured or reported. These indicators cannot determine whether a particular resource use is “right” or “wrong.” Instead, they can serve as a basis for understanding and reflecting on how schools organize resources to support instructional models and respond to student learning needs. Because people, time, and money are limited assets and schools must make trade-offs and choices, diagnostic indicators should be viewed collectively for a full understanding of a school’s resource use. These diagnostic indicators would be especially powerful if schools could compare their resource use against other schools in their state or district with similar characteristics, resource flexibilities, and instructional models.

The lesson for both research and practice is that *effective resource use is not about a single strategy — but about how resources are combined to support a well-defined instructional model and highly capable teachers*. Schools and districts must begin to systematically measure their use of people, time, and money and compare those allocations to their instructional models to ensure they are putting their resources toward their most important priorities. In the meantime, although there are no simple solutions, we can draw on a powerful set of resource strategies and invest to recruit, develop, and support strategic school leaders to enact those strategies in ways that align with a clear instructional model and goals for student learning.