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Relevance Strategic Designs
Life Academy of Health and Bioscience

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ERS
Education Resource Strategies

Rethinking Resources for Student Success
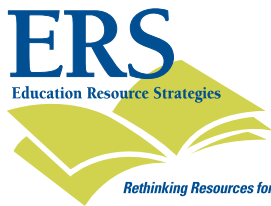
Case Studies of Leading Edge
Small Urban High Schools

Education Resource Strategies

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Case Studies of Leading Edge Small Urban High Schools

This report is one of nine detailed case studies of small urban high schools. Each case study can be accessed individually or in one complete document at www.educationresource strategies.org.

Core Academic Strategic Designs

1. Academy of the Pacific Rim
2. Noble Street Charter High School
3. University Park Campus School

Relevance Strategic Designs

4. Boston Arts Academy
5. Life Academy of Health and Bioscience
6. Perspectives Charter School
7. TechBoston Academy
8. High Tech High School

Personalization Strategic Designs

9. MetWest High School

Also available on our Web site, www.educationresourcestrategies.org:

- Executive summary and full report: "Strategic Designs: Lessons from Leading Edge Small Urban High Schools"
- Detailed methodology
- Data request and interview protocol
- Introduction to the "Big 3" framework
- Comparative Leading Edge School data on diagnostic resource indicators (by school)

Thirty years ago, urban high school organization looked similar from one school to the next. Today, rising dropout rates and persistent achievement gaps have generated an urgency around redesigning the urban high school. Creating small high schools has become a central element of this redesign movement, with reformers envisioning improving instruction and, through the schools' "smallness," creating a supportive community of adult and student learners.

At Education Resource Strategies (ERS), in our work with school and district leaders, 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. In response, 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.

This report is one of nine detailed case studies of small urban high schools that served as the foundation for our report "Strategic Designs: Lessons from Leading Edge Small Urban High Schools" (available at www.educationresourcestrategies.org). We 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.

We found that Leading Edge Schools deliberately create high-performing organizational structures, or Strategic Designs, that deliberately organize people, time, and money to advance their specific instructional models — the set of decisions the schools make about how they organize and deliver instruction. 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.

4. Adapting their strategies in response to lessons learned and changing student needs and conditions.

Reviewing the case studies, readers will find that teacher characteristics, staffing patterns, schedules, and budgets look very different across the nine schools. Their 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.

We also found that although no school organizes resources exactly the same, high-performing schools organize people, time, and money to implement three high-performance resources strategies. They:

1. Invest to continuously improve **teaching quality** through hiring, professional development, job structure, and collaborative planning time.

2. Use **student time** strategically, linking it to student learning needs.

3. Create **individual attention** and personal learning environments.

Using these strategies as our framework, we assessed case study school practices and quantified their resource use. We did this by creating a set of *diagnostic indicators* that describe how schools best use their resources for improving student performance. They are used throughout the case studies to illustrate resource use.

A detailed methodology, an in-depth introduction to the "Big 3" framework, and a full list of the diagnostic indicators can be found at www.educationresourcestrategies.org.

Education Resource Strategies hopes that these case studies will serve multiple purposes: to generate ideas about implementing strategies in schools; to help develop new small schools and reform existing schools; and to engage colleagues, principals, and teachers in conversations about what is possible in their districts. By detailing how these nine Leading Edge Schools organize their resources — people, time, and money — to improve student achievement, it is our hope that readers will be able to apply the findings to their own context and contribute to changing the national conversation around resource use from "how much" to "how well."

5. Life Academy of Health and Bioscience

2111 International Boulevard
Oakland, CA 94606

www.lifeacademyhighschool.org

Life Academy of Health and Bioscience opened in September 2001 as Oakland Unified School District's first autonomous small high school. It has its origins in the Fremont High School Health Academy, a program that had been within Fremont High School, one of the district's large comprehensive high schools.

Life Academy's mission

Life Academy of Health and Bioscience strives to provide a rigorous college-preparatory experience for its students. The school is driven to improve opportunities for Oakland students in the fields of medicine, mental health, biotechnology, and science.

Summarized from www.essentialschools.org/cs/resources/view/ces_res/332

Life Academy was started for students who have an interest in science, but according to the principal, it now draws students with broad interests because of its reputation for being safe and supportive. It has been one of Oakland Unified's most successful schools and the only high school in the district to meet the federal annual yearly progress goals and maintain an attendance rate of more than 94 percent.

Life Academy's goal is to prepare students for college through project-based learning, real-world experiences, and weaving health and bioscience throughout its curriculum and internships. In SY2005–06, the school had 255 students in grades nine through 12. About 65 students enroll each year, at all grade levels, via a lottery — many more are wait-listed. The high school provides a full-inclusion model to bring its English language learners into regular classrooms. It has expanded its tutoring program, and it focuses on literacy skills with all students.

Staff has devoted a great deal of time to building relationships among teachers, students, and parents, so everyone has input on the school's direction and improvement. The principal attributes Life Academy's success to three factors: personalized learning; a collaborative atmosphere; and numerous partnerships with community groups, businesses, and other external organizations. The school has a shared-leadership model, and all teachers serve on a committee of some type and are involved in school decisionmaking.

A district leader in learning

Life Academy's approach to learning and its successful use of limited resources have helped make it popular. Teachers use projects and hands-on activities that connect to teenage issues. The school provides seniors with a college counseling center; organizes field trips to places such as Point Reyes, Los Angeles, and Yosemite; and partners with local biotech companies, Oakland Children's Hospital, and others for internships.[1]

Although the high school's leadership does not have the autonomy to alter the hours of the student schedule, it uses the time differently than traditional Oakland Unified high schools, focusing heavily on core academic time, especially in the sciences. Life Academy also offers a post-session that uses the last 10 days of the school year to focus on noncore academic courses, such as art, physical education, and community building. "Post-session is like summer camp," says Life Academy's principal. "It is something that never happens in a low-income public school, and it's magical."

Well-educated and dedicated staff

Life Academy's teaching staff is a well-educated, versatile group. Seventy-five percent of the school's science teachers have master's degrees, and all have between six and 11 years' teaching experience. Although the school has hired experienced teachers to teach science, about 38 percent of the teachers overall have three or fewer years' teaching experience.

Life Academy personalizes instruction through advisory and tutoring. All students have an advisory class in which students and teachers develop and monitor an individual learning portfolio. Although this requires time and work for teachers above what is required by the Oakland teachers' union contract, the teachers sign a waiver agreeing to spend additional time on advisory sessions. Faculty members teach five of six periods, plus an advisory period.

School leaders also have established in-kind partnerships to provide resources such as tutoring, career and college advising, and after-school activities. The partnership support for enrichment and noncore subjects allows school leaders to invest all of the internal resources on core academics and the sciences.

Student demographics

Life Academy has a diverse student population that includes a significant number of English language learners and students with disabilities. The school has a higher population of low-income students than the district average, as shown in Figure 5.1.

FIGURE 5.1

Student demographics: Life Academy and Oakland Unified district average, SY2005–06

|	Life Academy	Oakland Unified district average
Race/ethnicity		
Hispanic	62%	35%
African American	18%	40%
Asian	16%	17%
Other	4%	2%
Caucasian	0%	6%
Socioeconomic status		
Free and reduced-price lunch	92%	66%
Program		
English language learners	29%	28%
Special education	8%	12%

Source: http://dq.cde.ca.gov/dataquest/DistEnr2.asp?TheName=Oakland&cSelect=0161259--OAKLAND+UNIFIED&cChoice=DistEnrEth&cYear=2005-06&cLevel=District&cTopic=Enrollment&myTimeFrame=S&submit1=Submit; percentages are rounded to the nearest whole number.

Student performance

Figure 5.2 compares the performance of Life Academy students to the Oakland Unified average on the reading and math portions of the California High School Exit Exam (CAHSEE)[2] in school years 2005 and 2006. Life Academy students outperformed district students on the reading portion of the exam and had comparable scores in math in both years.

FIGURE 5.2

Percentage of students passing CAHSEE: Life Academy and Oakland Unified, 2004 and 2005

Source: http://dq.cde.ca.gov/dataquest.
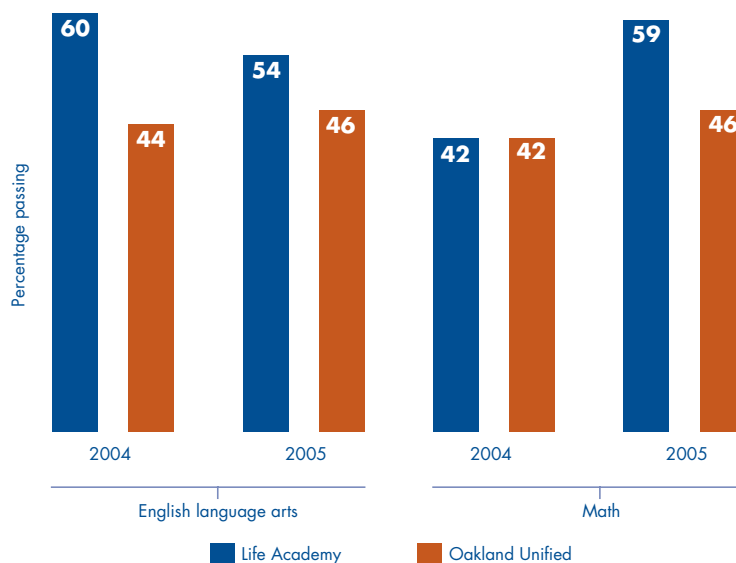
Note: CAHSEE is only reported as percentage passing and does not yet break student scores down by proficiency.

Life Academy exceeds the district in other indicators of student performance, such as attendance and graduation rates, as shown in Figure 5.3. It has a lower suspension rate and, to date, has not had one student drop out.

FIGURE 5.3

Other indicators of student performance, SY2005–06

	Life Academy	Oakland Unified district average
Attendance rate	97%	64%[i]
Suspension rate	7%	16%
Dropout rate	0%[ii]	7%
Graduation rate	96%	71%

Source: Oakland Unified school report cards; percentages are rounded to the nearest whole number.

[i]. http://dq.cde.ca.gov/dataquest/expulsion/ExpReports/DistrictExp.aspx?cYear=2005-06&cChoice=
DstExp1a&cCounty=01&cNumber=0161259&cName=Oakland+Unified.

[ii]. Oakland Unified report cards state a 0 percent dropout rate, but Life Academy's principal estimates a 4 percent dropout rate between grades nine and 12. Students leaving Life Academy are carefully tracked by the school's administrators.

Per-pupil spending

As shown in Figure 5.4, Life Academy received $7,058 per pupil from Oakland Unified for SY2005–06, including the per-pupil allocation for high school students and the small-school adjustment ($141.67 per student). This is approximately $2,500 more per pupil than the district's highest-performing, large high school received. Life Academy spends more per pupil on leadership, due in part to its small size and its choice to retain a traditional structure with both a principal and an assistant principal. The principal makes the most of this investment by having the assistant principal play numerous roles, such as teaching one to three classes, organizing the tutorial program, and evaluating teachers to lessen the span of review.

FIGURE 5.4

Per-pupil operating expenditures, SY2005–06

	Life Academy	Oakland Unified comparison school[i]
Total fully allocated operating budget[ii]	$1,907,082	$11,248,860
General education per pupil (unweighted, fully allocated, including private, no geographic adjuster)	$7,058	$5,382
Percentage above that is privately funded	4%	N/A[iii]
Percentage spent on instruction Student-teacher ratio	48% 13:1	49% 21:1
Percentage spent on leadership[iv]	14%	8%
Percentage spent on pupil services[v]	4%	3%

i. Comparison schools are the highest-performing, nonexam schools in the district that were selected to provide a comparison to the Leading Edge Schools' per-pupil cost.[3]

ii. Fully allocated operating budget includes the costs of running a school on a daily basis.[4]

iii. Data on private funding were not collected for the comparison schools.

iv. Leadership coding includes all functions associated with governance, school administration, secretaries and clerks supporting school leaders, and accountability (research, evaluation and assessment, community relations, attendance tracking, student assignment, etc.).

v. Pupil services coding includes all functions associated with noninstructional programs.[5]

Oakland Unified has been steadily cutting its budget to reduce costs. The lean budget requires school principals to think strategically about resource use. Life Academy tries to use its limited resources creatively, such as focusing its teachers, time, and money on core academics and developing partnerships with outside organizations to provide after-school enrichment.

Oakland Unified is one of a few large urban districts in the United States to budget teacher salaries based on actual salaries rather than average salaries with a weighted student funding formula. This means that if a teacher is replaced by a new teacher who earns less money, the

extra funds are given to the school's general budget. But, as Life Academy's principal notes, although starting a school with inexperienced teachers is initially inexpensive, costs quickly build up each year as the teachers gain experience and education credits.

Oakland Unified also bases its per-pupil allocation on students' average daily attendance, providing incentives to schools for keeping their attendance rates high. Life Academy's creative response is to allocate time at the end of the school year for noncore classes and enrichment opportunities, such as art and physical education, to keep students interested in attending school through the final day of classes. In an effort to be cost-effective, Life Academy has its core academic teachers teach the noncore classes during the last two weeks of school in addition to relying on in-kind partnerships.

Life Academy also relies on external partnerships for its College and Career Information Center. The center is funded through a district grant and provides a valuable service in the absence of a full-time guidance counselor. It provides students with help on SAT testing and college applications. Without the partnership, the principal would be forced to hire a guidance counselor, taking a position away from the core subjects.

Flexibility dimensions[6]

As a small school within Oakland Unified, Life Academy is subject to district and local union policies. The school has some autonomy over the hiring and firing of its staff, and it can alter class size (see Figure 5.5). This autonomy in hiring is overridden when there are layoffs within the district, forcing all schools to accept internal staff. It does not control teachers' salaries or the total amount of teacher and student time. However, teachers at Life Academy are required to sign waivers from their local union contract to have more instructional responsibilities, including teaching an advisory in addition to their full teaching loads.

FIGURE 5.5

Flexibility dimensions

Flexibility dimension	Life Academy
Hiring and firing	Yes (except during district layoffs when the school must hire internally)
Teacher time	No
Class size	Yes
Student time	No
Staffing composition	Yes
Salary	No (district pay scale)
Option to opt out of district services	Yes (can use outside contractors)
Discretion over nonsalary budget	Yes (can carry over external funds)

Resource strategies

The following sections highlight Life Academy's practices around three resource strategies of high-performing high schools: the school's investment in teaching quality, its strategic use of student time, and the provision of individual attention to students.[7]

Life Academy resource strategy highlights

1. *Invest to continuously improve teaching quality through hiring, professional development, job structure, and collaborative planning time*

   - Hiring process ensures teachers are high quality and committed to increased instructional responsibilities

   - 108 more teacher hours in professional development and collaborative planning time than Oakland Unified district average

2. *Use student time strategically, linking it to student learning needs*

   - 465 more hours each year in core academics compared to district average achieved through longer school days and science theme

   - Student schedule organized to reflect the school's emphasis on science and core academics

3. *Create individual attention and personal learning environments*

   - Each staff member advises 17 students for those students' entire time at the school

   - Student progress tracked using multiple assessments with support provided through the advisory structure and tutoring

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■ **Resource strategy 1**

Invest to continuously improve teaching quality through hiring, professional development, job structure, and collaborative planning time

- *Hiring process ensures teachers are high quality and committed to increased instructional responsibilities*

- *108 more teacher hours in professional development and collaborative planning time than Oakland Unified district average*

Hiring process ensures teachers are high quality and committed to increased instructional responsibilities

Life Academy has autonomy over its hiring process, and a teacher committee evaluates applicants. The principal believes it is important to involve other teachers in the hiring process because as a small school the group struggles if one teacher struggles.

Life Academy attracts many applicants from outside the district. The principal looks for candidates who have been through strong credentialing programs and who understand and are willing to devote the extra time to instruction and advisory sessions. Life Academy teachers sign a waiver agreeing to teach five of six periods plus advisory. According to the principal, the demand on teachers is an even greater issue than funding when considering the sustainability of small schools. "There is an emotional intensity that wears people down in small schools," the principal says. Nevertheless, the school has retained nine of its original 16 faculty members.

Life Academy prioritizes its science focus in the hiring process. Seventy-five percent of Life Academy's science teachers have master's degrees, and all have been teaching between six and 11 years. In contrast, 38 percent of Life Academy teachers overall have three or fewer years' teaching experience.

The school also has a partnership with Teach for America (TFA) and has hosted TFA instructors for the past three years.

108 more teacher hours in professional development and collaborative planning time than Oakland Unified district average

Life Academy structures professional development time for two and a half hours every Wednesday afternoon between 1:30 p.m. and 4 p.m., when students have an early dismissal. Teachers use the time to share best practices, examine student work, collaboratively develop professional development models, build the advisory curriculum, and meet as content teams. In SY2005–06, content teams worked together to revise their scope and sequence, and they collaborated on the curriculum to avoid overburdening teachers with daily planning, given the large course loads. The professional development committee runs the meetings together with the principal.

Life Academy also invests in content-based and grade-based collaborative planning time for teachers during the school day. For example, school leaders have structured one 50-minute period of collaborative planning time each week for math and humanities teachers, as they consider these foundational subjects for student success. As 71 percent of ninth grade teachers have three or fewer years' experience, school leaders deliberately assigned ninth grade teachers together and structured their schedules to include collaborative planning time, which teachers in other grades do not have. Life Academy grouped their most experienced teachers in the 10th grade to create collaborative planning time in the schedule for less experienced ninth grade teachers.

In addition to teachers' weekly meeting time, Life Academy teachers have eight and a half professional development days throughout the year. Teachers have three and a half days at the start of the school year, four days throughout the year, and one day at the end of the year. This represents five and a half days more than the Oakland Unified teacher contract specifies. According to the assistant principal, teachers ideally would be paid for the extra time, but there is not a sustainable funding source. Although the 108 hours above what is required by the Oakland Unified contract is voluntary, the culture at Life Academy is so strong that all of the teachers participate.

■ **Resource strategy 2**
   Use student time strategically, linking it to student learning needs

- *465 more hours each year in core academics compared to district average achieved through longer school days and science theme*
- *Student schedule organized to reflect the school's emphasis on science and core academics*

465 more hours each year in core academics compared to district average achieved through longer school days and science theme

Although Life Academy and Oakland Unified students are in school for 180 total instructional days, Life Academy structures longer school days, yielding 226 additional student hours each year compared to the district average. Life Academy students spend 837 hours, or 64 percent, of their total time in core academics — the third highest of all Leading Edge Schools. This represents 465 more hours in core academics each year than their Oakland Unified counterparts.

Life Academy's graduation requirements are the same as the district (see Appendix 5.3), but the school expects students to surpass these basic requirements, especially in the sciences. Life Academy students take four years of English language arts, four years of math, three years of history, three years of a foreign language, and two science courses each year. Mastery of the content also is important. Math courses begin with Algebra I and go to AP Calculus. If students struggle to master basic math or Algebra I concepts, the faculty provides tutoring and math support through the advisory sessions.

Life Academy's decision to have a science theme contributes to the majority of the school's increased hours in core academics. Students choose electives in three science tracks, including physiology, biotech, or psychology and mental health. In addition to the two science classes students take each year, 11th and 12th graders complete paid internships in their science track with community partners — local hospitals, clinics, and biotech companies — either two afternoons a week (for physiology and psychology) or during the summer (biotech).

Life Academy also has structured students' advisory so that two of the four advisory sessions are focused on literacy. This structure gives students 57 additional hours of literacy enrichment for the year.

Student schedule organized to reflect the school's emphasis on science and core academics

Life Academy uses the student schedule as a tool to implement its instructional model, which emphasizes relevance through a science theme. As shown in Appendix 5.2, the staff designed a blocked/unblocked schedule in which most science classes have a longer block to allow for project-based learning. School leaders also organize 11th and 12th grade schedules so that students can participate in science-based internships two afternoons a week or during the summer, as mentioned above. Conversely, math and foreign language classes meet every day for 50 minutes, as school leaders believe the daily repetition of the material taught in these subjects is more important than meeting for longer blocks of time.

With its focus on core academics, Life Academy students take very few noncore courses during the school year. Instead, students take the district-required art and physical education courses at the end of the school year, during the 10-day post-session. School leaders also use the post-session to build community. Life Academy teachers work in pairs to develop and teach the post-session activities. This unique structure allows the school to focus on core academics throughout the school year and then celebrate the end of the year together through fun activities. As a school that receives per-pupil funding based on student attendance, it has the added benefit of keeping students in school through the last day of the year — something that most schools struggle to do.

Life Academy is very reflective about its use of student time. In SY2006–07, Life Academy changed the schedule for its ninth graders from four periods to three between 8:20 a.m. and 12:05 p.m. The school dropped an extra period of science in favor of teaching teams, smaller class sizes, and longer instructional blocks in English language arts and math. School leaders made the change following a ninth grade teacher's recommendation for more attention on English language arts and math.

■ **Resource strategy 3**
   Create individual attention and personal learning environments

- *Each staff member advises 17 students for those students' entire time at the school*
- *Student progress tracked using multiple assessments with support provided through the advisory structure and tutoring*

Each staff member advises 17 students for those students' entire time at the school

On average, a core academic teacher at Life Academy has a teaching load of 101 students. As this relatively large number of students does not inherently foster individualized attention, Life Academy has embedded other strategies to provide students a more personalized learning experience. Life Academy's principal strategically allocates teachers to create class sizes that reflect the school's overall focus on biosciences. For example, Life Academy invests in smaller math classes (19 students) through extra math teachers at the expense of larger humanities classes (27 students).

Another main component of creating a personalized experience is the school's advisory program. Every staff member at the school, including administrators, advises a group of 16 to 18 students. Students stay with the same advisor for four years, allowing staff to get to know students and their families and to support students' learning throughout their high school careers. The advisory program was originally designed to have students switch advisors each year, but school leaders found that the consistency increased the level of personalization and fostered ongoing relationships with families.

Advisory groups meet each morning for five minutes to check in before the first period and then for 50 minutes four times per week to focus on social and emotional issues and literacy (each two days a week, as described above). Although the morning time is administrative and not included in the total support and enrichment time, it allows students to check in daily with a trusted adult and a small group of peers.

A teacher committee plans the advisory curriculum and shares it with the entire staff to ease the burden of planning. According to the principal, the advisory program also has helped improve parental involvement by creating a four-year-long relationship between the advisor and parents. Advisory also helps boost student attendance, which is consistently more than 94 percent, as noted, an important factor for a school that receives its per-pupil allocation based on average daily attendance.

Student progress tracked using multiple assessments with support provided through the advisory structure and tutoring

Every student at Life Academy has a personalized learning plan in which students reflect on their strengths and weaknesses in reading, writing, and math and their work habits and community involvement, and they then make goals for improvement. Students' advisors monitor student progress over time and discuss the progress with colleagues and parents.

Teachers and administrators at Life Academy also monitor students' progress through a reading assessment that students take twice a year — in September and May. They use the results to pinpoint areas in which students need additional support. Struggling readers are placed in a reading-intervention class instead of a second science class.

Teachers at Life Academy also use CAHSEE data to identify areas in which students need help. The school uses tutors — both during the school day and after school — for further, targeted support. The school partners with the University of California, Berkeley, which provides eight tutors who each work six hours per week. The tutors help math teachers in the morning to reduce class sizes, pull students needing extra literacy help out of advisory, and work with students in small groups on Wednesday afternoons. During the academic school year, Life Academy stays open until 6 p.m. three days a week for students to receive extra help, use computers, or participate in after-school activities run by outside partners. This additional remediation time (about seven and a half hours a week) is voluntary for students. However, Life Academy's culture of high achievement encourages students to take advantage of these opportunities.

NOTES

[1] www.essentialschools.org/cs/resources/view/ces_res/332

[2] CAHSEE is a criterion-based test that all California public school students must pass to graduate.

[3] In Oakland, where we did not have a prior relationship, we met with district leaders to seek feedback on which comparison school to use and obtain school budgets. Oakland comparison school demographics: 1,734 students; 59 percent African American; 19 percent Asian; 7 percent Caucasian; 13 percent Hispanic; 2 percent other; 92 percent free or reduced-price lunch; 10 percent students with disabilities; 11 percent English language learners.

[4] These costs include provision and support of the academic program; administration and support services; provision and maintenance of the physical plant; and auxiliary services such as food, transportation, and security. For district schools, some of these costs are administered at the district central office level. If a charter school has a charter management organization (CMO), some of these costs are administered at the CMO level.

[5] These include social and emotional needs (social workers, character education, mentoring, parent programs, etc.), physical health (itinerant therapists, nurses, etc.), students with disabilities and English language learners evaluation/diagnostics, career/academic counseling, and other noninstructional programs (athletics, truancy, etc.).

[6] Flexibility dimensions are a school's ability to use its resources — people, time, and money — as it chooses. Schools can be limited by legal or administrative constraints, such as federal or state laws, union contracts, or district policies. The degree of school flexibility depends on both how much it has and whether the school can use the resource as it chooses.

[7] This framework for analysis, the "Big 3" resource strategies of high-performing schools, is more fully described in Appendix 5.1.

Resource strategies

Resource principles	What we see in the school	Diagnostic indicators
Invest in teaching quality		
Hire and organize staff to fit school needs in terms of expertise, philosophy, and schedule	• Teacher committee reviews applications; strong emphasis placed on finding someone who fits with school culture and is willing to work extra hours	• Use of a rigorous, strategic hiring process. • 38% of core academic teachers with three or fewer years' experience • 76% of core teachers teaching more than one subject • Leverage outside experts for core (internships) and noncore courses
Integrate significant resources for well-designed professional development that provides expert support to implement the schools' instructional models	• 8.5 days devoted to professional development before, during, and after the school year • Weekly professional development time every Wednesday afternoon	• $786 per teacher on professional development (not including teacher time) • 10% staff with instructional leadership roles
Design teacher teams and schedules to include blocks of collaborative planning time effectively used to improve classroom practice	• Math and humanities teachers have collaborative planning time once a week for 50 minutes • Experienced teachers grouped in 10th grade to create collaborative planning time for less experienced teachers in ninth grade	• 11% of teacher year in professional development (with collaborative planning time) • 159 total yearly teacher professional development hours (with collaborative planning time) • 25 minutes collaborative planning time per week • 10% professional development in content-based teams
Enact systems that promote individual teacher growth through induction, leadership opportunities, professional development planning, evaluation, and compensation	• Principal and assistant principal have evaluative responsibilities; regular review informs employment, support, and professional development	• Ratio of teachers to school-based evaluators is 8:1 • Regular review of teacher performance and growth • 0% of teacher compensation devoted to leadership roles

(continued)

Resource principles	What we see in the school	Diagnostic indicators
Use student time strategically		
Purposefully align the schools' schedules with their instructional models and student needs	• Blocked/unblocked schedule allows longer blocks of instructional time in core academic subjects, including the sciences and humanities • Reflective about the schedule, adjusted to allow more time in ninth grade English language arts and math in SY2006–07	• School schedules reflect instructional model and academic needs of students • 94 total yearly hours in noncore academics • 7% of student year in noncore academics • 24% of student year in theme (sciences)
Maximize time on academic subjects, including longer blocks of uninterrupted time	• Offers a college-preparatory program with a health and biosciences theme • Students take few noncore classes during the school year so they can take two science classes; elective coursework is through the three science tracks and includes an internship in 11th grade	• 1,306 yearly student hours • 837 average yearly hours in core academics • 766 yearly hours in ninth grade core academics • 766 yearly hours in 12th grade core academics • 64% of student year in core academics • 3,348 total core academic hours over four years
Vary individual student time when necessary to ensure all students meet rigorous standards	• Extra academic support is voluntary and provided after school through tutoring • Exceeds the district's graduation requirements	• 99 yearly hours in academic support • 8% student year in academic support • Ratio of time in ninth grade math to average time in math: 1.0 • Ratio of time in ninth grade English language arts to average time in English language arts: 0.91
Create individual attention		
Assess student learning on an ongoing basis and adjust instruction and support accordingly	• Every student has a personalized learning plan • Uses CAHSEE and reading assessment data to monitor progress and provide support	• Use formative assessments systematically to guide instruction throughout the year
Create smaller group sizes and reduced teacher loads for targeted purposes	• Smaller class sizes in math	• Average class size overall: 23 • Average class size core: 24 • Average class size English language arts: 27 • Average class size math: 19 • Average teacher load overall: 104 • Average teacher load core: 101 • Average teacher load English language arts: 106 • Average teacher load math: 88
Organize structures that foster personal relationships between students and teachers	• Every adult has an advisory and stays with students all four years; advisories meet 225 minutes per week (100 of which are spent on literacy)	• Student to core academic teacher ratio is 16:1 • Average number of students assigned to adult advocate: 17 • 40 total yearly teacher hours spent in social and emotional support • 255 students in grades 9–12 • Looping practices around strategically grouped students through advisory

Life Academy sample student schedule

	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
8:20–8:25	Advisory Check-in	Advisory Check-in	Advisory Check-in	Advisory Check-in	Advisory Check-in
8:30–9:20	Science	English Language Arts	Math 8:33–9:10	Science	English Language Arts
9:25–10:15		History	English Language Arts 9:15–9:52		History
10:20–11:10	English Language Arts	Science	History 9:57–10:34	English Language Arts	Science
11:15–12:05	History	Science	Science 10:39–11:16	History	Science
12:05–12:45	Lunch	Lunch	Science 11:21–11:58	Lunch	Lunch
12:50–1:40	Advisory	Advisory	Science 12:03–12:40	Advisory	Advisory
1:45–2:35	Math	Math	Lunch 12:40–1:15	Math	Math
2:40–3:30	Language	Language	Faculty Meeting/ Study Hall (150 minutes) 1:30–4:00	Language	Language

APPENDIX 5.3

Oakland Unified graduation requirements

Subject	Credits/semesters
English language arts	40 credits: 8 semesters
Math	30 credits: 6 semesters minimum, including algebra and geometry
Science	30 credits: 2 semesters of physical science, 2 semesters of biology, 2 semesters of science electives
U.S. history	10 credits: 2 semesters
World cultures	10 credits: 2 semesters
American economics	10 credits: 2 semesters
World language	10 credits: 2 semesters
Art	10 credits: 2 semesters
Physical education	20 credits: 4 semesters
Electives	60 credits: 11 semesters
Total	**230 minimum credits**

Life Academy staff list

Position	Full-time equivalent	ERS coding categories	Other
Principal	1.00	Leadership	
Assistant principal	1.00	Leadership	
Science	1.00	Instruction	
Math	1.00	Instruction	
Science	1.00	Instruction	
Physical education	0.20	Instruction	
Science	0.80	Instruction	
Science	1.00	Instruction	
Humanities	1.00	Instruction	
Humanities	1.00	Instruction	
English	1.00	Instruction	
Humanities	1.00	Instruction	
Foreign language	1.00	Instruction	
Math	1.00	Instruction	
Science elective	1.00	Instruction	
English	1.00	Instruction	
Math	1.00	Instruction	
Secretary	1.00	Leadership	
Custodian	1.00	Operations and maintenance	Budgeted from central
Special education	0.80	Instruction	Budgeted from central
Special education aide	0.80	Instruction	Budgeted from central
Student support	0.10	Pupil services	
College counseling	1.00	Pupil services	In kind

Acknowledgments

Education Resource Strategies, Inc., is a nonprofit organization that has worked extensively with urban public school systems to rethink the use of district- and school-level resources and build strategies for improved instruction and performance.

Our mission is to be a catalyst for the creation of high-performing urban school systems by promoting and supporting the strategic management of education resources. Our unique strength is in our action research where our partnerships with school systems bridge research and practice. We support our clients with Web-based tools, research and training, and diagnostic analyses tailored to their districts. Together, we outline strategies that are actionable and transformational both within and beyond the districts in which we work.

ERS's work and research have identified several areas in which school systems effectively leverage their resources to improve instruction, forming the basis for our five practices areas: Strategic School System Design; School Funding and Staffing Systems; Strategic School Design; School Support, Planning, and Supervision; and Human Capital.

For more information on Education Resource Strategies and our work and practice areas, visit www.educationresourcestrategies.org.

Rethinking the Cost of Small High Schools Project

The Bill & Melinda Gates Foundation supported Education Resource Strategies in a three-year effort aimed at building understanding and tools that would support districts in creating cost-effective systems of high-performing urban high schools.

Out of our extensive research, we created the following reports and tools to support leaders as they consider and design small high schools in their districts. All materials are available at www.educationresourcestrategies.org.

- **"The Cost of Small High Schools: A Literature Review"**

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

- **"Case Studies of Leading Edge Small Urban High Schools"**

- **"District Spending in Small and Large High Schools: Lessons from Boston, Baltimore, and Chicago"**

- **Going to Scale Tool**

- **Small Secondary School Design Tool**

- **District Assessment Tool**

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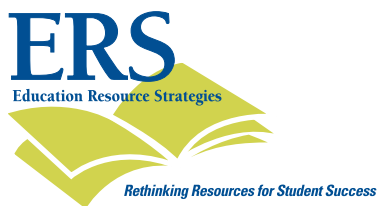
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