Small schools do better across the board at knowing students well, keeping their work meaningful, and joining with others in collaborative communities. In the push toward higher student achievement, how can we bring their successes into the large schools most of our students attend?

STRAIGHT FROM THE BURSTING halls of a Sacramento, California middle school, at first Francisco Bustos did not know what to make of the tiny lakeshore community of Northport, Michigan. His father had moved the family there, to work first as an orchard laborer and then in a casino on a nearby reservation; and with only 311 fellow students in kindergarten through twelfth grade, Francisco, 14, felt shy and exposed.

"I had a way of acting, before, that helped protect me from gangs and all," he says. "I had lost a lot of my friends to violence." Schoolwork mattered less than survival, and attitude was Francisco's chief defense.

His self-protective stance began to falter, though, as Northport teachers who knew his name and cared about his nature encouraged him to work harder and risk more. "They give me extra help," he says. "They know I can do better if I try." In a meeting with his parents and adviser, he resolved to prove them right.

Francisco's story could have come right from a textbook describing the advantages of small schools, whose positive effects on student attitudes and achievement have proved especially striking for minorities and those without socioeconomic advantages. But students need not move to the country to reap those rewards, Essential schools around the country are finding.

By breaking up into separate units of no more than 500, even huge urban schools with thousands of students can achieve the personal stake in student success that underlies Essential School principles. Using smaller size as a lever, such units may then gain autonomy over budgets and hiring, forge new links with parents and community, and build thriving support networks of like-minded schools.

The more this happens, argue Essential school leaders like Ted Sizer and Deborah Meier, the more likely that students like Francisco Bustos will experience the conditions necessary for learning: teachers who know their students well, standards generated together by a community, and bonds that hold us to the values we profess.

How Schools Got So Big

Today's public schools grew large in an era that regarded their task as producing large numbers of educated citizens as efficiently as possible. In both curriculum and administrative affairs, economies of scale seemed to dictate more courses in fewer sites; standardized procedures and tests; and, ultimately, the union-management relations that characterized factory production.

Schools not being factories, the product often disappointed. Though teacher credentials may improve and costs decline as schools grow, research shows that at some critical "tipping point" student achievement actually goes down, reports Craig Howley, who has conducted
In schooling as in factories, efficiency seemed to dictate economies of scale. Schools not being factories, the product often disappointed.

A review of the research for the ERIC Clearinghouse on Rural Education and Small Schools. To gain only 17 percent more curriculum, a school’s size must double—and even then, the additional courses benefit only a small percentage of students. As a school grows, too, problems of crowding, management, and whatever economies its large size may confer.

Moreover, what we call “large” has shifted since James Bryant Conant’s influential 1959 book The American High School Today, argued for consolidating smaller schools into more efficient units that would graduate classes of about 100. But as suburbs, small towns, and cities alike reorganized into dramatically larger districts with many fewer schools, the number of students in a typical school soared accordingly. These days, when a big-city high school might enroll upwards of 4,000 students, researchers tend to regard as “small” an elementary school of 300 to 400 students and a secondary school of 400 to 800.

**Small Enough to Share**

But Sizer, Meier, and other Essential school leaders would like to see the numbers keep going down from there.

“When I don’t know the name of every student, the school is too big,” says Sara Newman, principal of the Brooklyn International School, one of several dozen small new Coalition member schools in New York City. Her school works in close partnership with two others like it in Manhattan and the Bronx, each serving no more than 300 students who arrive with little or no English. She credits their extraordinarily high rates of attendance, graduation, and college acceptance to the close attention these students receive from teachers who know their diverse needs and situations.

Newman’s teaching staff can also still fit around one table to talk, which many regard as essential to good schooling. “Teaching is intellectual work,” says Bill Ayers, whose Small Schools Workshop at the University of Illinois has sparked a resurgence of small alternative public schools in Chicago. “It happens when reflective people share relationships that center on teaching, curriculum, assessment, and the lives of children. Small schools allow teachers—maybe ten, maybe twenty of them—to do that together. When you can’t sustain that any more, the school’s too big.”

Agreeing with that sentiment, the Center for Collaborative Education (CCE) in New York launched the Coalition Campus Project, working with the Board of Education to dismantle several of the city’s enormous public high schools and reconstitute them as small autonomous schools inhabiting the same building. The old Julia Richman High School site on East 67th Street, for example, now houses several Essential Schools, a professional development center, a Head Start program, and a program for teen-age parents. In the Bronx, the former James Monroe High School is heading along a similar path, with two Coalition high schools already in place.

But a new set of issues crops up when several smaller units share a space, observes CCE co-director Heather Lewis. Ideally each tenant would benefit from a building-wide network that shares a philosophy, spans the path from early childhood to adulthood, and provides joint learning opportunities for teachers. In practice, though, both the Julia Richman and the James Monroe sites include schools outside the Coalition approach, and even some within the Coalition prefer to network elsewhere (Manhattan International School, for example, shares the Julia Richman site but networks with the Brooklyn and Bronx International schools.)

To help resolve neighborhood issues, the Julia Richman schools established a site council, and Lewis highly recommends some such arrangement. But each of CCE’s schools must also belong to a small collaborative network, even if not at its site, through which teachers give critical feedback to each other. At Julia Richman on Election Day, teachers from Urban Academy, Vanguard High School, and the Ella Baker School gathered to hash out new ideas together. A few miles away, the three International Schools were making plans to visit and critique each other’s graduation exhibitions and portfolios.

**HORACE**

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What Research Has Found About Small Schools

For both elementary and secondary students of all ability levels in all kinds of settings, research has repeatedly found small schools to be superior to large schools on most measures and equal to them on the rest. The Northwest Regional Educational Laboratory in Portland, Oregon recently made available Kathleen Cotton’s digest of 103 studies of the relationship of school size to various aspects of schooling.

The studies Cotton reviewed focused on issues of achievement (31), attitudes toward school or particular school subjects (19); social behavior problems (14); levels of extracurricular participation (17); students’ feelings of “belongingness” versus alienation (6); interpersonal relations with other students and school staff (14); attendance (16); dropout rate (10); academic and general self-concept (9); college acceptance, success, and completion (6); teachers’ attitudes and collaboration (12); the quality of the curriculum (10); and schooling costs (11). Their chief points:

- Academic achievement in small schools is at least equal—and often superior—to that of large schools. Achievement measures used in the research include school grades, test scores, honor roll membership, subject-area achievement and assessment of higher-order thinking skills, and greater achievement and years of attained education after high school.

In reporting these conclusions, researchers are careful to point out that they apply only when variables other than size—student attributes, staff characteristics, time-on-task, and the like—are held constant; and smaller schools showed long-range effects independent of rural school advantages.

The effects of small schools on the achievement of ethnic minority students and students of low socio-economic status (SES) are the most positive of all.

- Student attitudes toward school in general and toward particular school subjects are more positive in small schools. The attitudes of low-SES and minority students are especially sensitive to school size and improve greatly in small schools.

- Student social behavior—as measured by truancy, discipline problems, violent, theft, substance abuse, and gang participation—is more positive in small schools.

- Levels of extracurricular participation are much higher and more varied in small schools than large ones, and students in small schools derive greater satisfaction from their extracurricular participation. The single best-supported finding in the school size research, this holds true regardless of setting and is most applicable to minority and low-SES students.

- Because research has identified important relationships between extracurricular participation and other desirable outcomes, such as positive attitudes and social behavior, this finding is especially significant.

- Student academic and general self-regard is higher in small schools than in large ones.

- A smaller percentage of students drops out of small schools than large ones.

- Students have a greater sense of belonging in small schools than in large ones. Feeling alienated from one’s school environment is both a negative in itself and is often found in connection with other undesirable outcomes, like low participation in extracurricular activities.

- Student academic and general self-regard is higher in small schools than in large ones.

- Interpersonal relations between and among students, teachers, and administrators are more positive in small schools than in large ones.

- Students from small and large high schools perform comparably on college-related variables such as entrance examination scores, acceptance rates, attendance, grade point average, and completion.

- Teacher attitudes toward their work and their administrators are more positive in small schools than in large ones.

- Poor students and those of racial and ethnic minorities, who continue to be concentrated in large schools, are more adversely affected—academically, attitudinally, and behaviorally—by attending large schools than are other students.

- Despite the common belief that larger schools have higher quality curricula than small schools, no reliable relationship exists between school size and curriculum quality. Even a small school can offer a curriculum that compares favorably in breadth and depth to that offered in larger settings.

- Larger schools are not necessarily less expensive to operate than small schools. Small high schools cost more money only if one tries to maintain the big-school infrastructure. Average per-pupil costs do decline as enrollment increases, but then reach a minimum and begin to rise with further school growth.

How Much Autonomy?

In Chicago, Philadelphia, and New York one can find plenty who favor breaking large schools into small units along these lines. But they differ on just how much autonomy such schools need.

"Once a small school organizes around teaching and learning, it needs the authority to hire its own staff and decide on allocating its resources," Heather Lewis declares. "If the district and union do not support the teaching and learning piece this way, new schools end up structured in the same ways as the old big schools." The first Coalition Campus schools have appreciably lowered their costs by using staff differently than do larger schools, early data show. But regulations on seniority transfers for teachers can trip up such plans, she notes, as can policy issues like budgeting, space, and contracts or licensing.

For Chicago's Essential schools the issue of autonomy looms less large, says Jack Mitchell, who directs their network, the Chicago Forum for School Change. "We favor any way in which we can get our schools to be more personal," he says. "If teachers can improve their practice, it creates stronger bonds between teachers and students, which motivates students to improve their effort and performance. If we can do that by breaking a big school into separate academies under one principal, we'll do that."

The Chicago school system defines a small school as having a cohesive, self-selected faculty with substantial autonomy, a coherent curricular focus that provides a continuous educational experience, and inclusive admissions. The unit may be fully autonomous, with a principal, a Local School Council, a unit number, and a separate budget. Or it may exist in a "multiplex" building that houses a number of semi-autonomous small schools, each with a lead teacher but sharing one principal and Local School Council.

Such a unit may also be a school-within-a-school "academy," located either in a larger host building or in a satellite location, but served by the host school principal and Local School Council. Schools-within-schools may share facilities, but have their own names, faculty, students, curriculum, schedule, and budget.

At DuSable High School, one such academy opened its doors in September, focusing on television and radio broadcasting and video production. Students couple their academic coursework with projects that might include producing a radio talk show or interning at local media stations.

The Chicago Essential high schools now teach all ninth graders in transitional "freshman academy" units, and many section off other units as well. The 4,000 students at Chicago Vocational High School, for instance, choose from eight specialized programs oriented toward different careers, from banking and finance to transportation, manufacturing, or the performing arts.

In Philadelphia, the district recently asked all its large schools to break up into "small learning communities," an approach first tried in "charter" units now well established in comprehensive high schools such as Simon Gratz, a longtime Coalition member. But extending the practice to elementary and middle schools, the district has found, takes more attention than simply telling staff what "small learning community" means. (See sidebar at left.) So along with establishing clusters of schools that can share teaching and learning strategies, the central office is revising its accounting and reporting functions to support autonomous decisions made by the new small units. Soon it will be able to chart spending and student achievement patterns not just by school but also by small learning community.

Because the school-within-school has not proved an effective approach to whole-school change, the Coalition now discourages schools from using "pilot programs" to launch Essential school ideas. (See

Philadelphia's "Small Learning Communities"

Funded by the Annenberg Challenge, in late 1994 Philadelphia's school district adopted the ambitious "Children Achieving" plan that included reorganizing its schools into neighborhood clusters, and breaking every big school up into "small learning communities." Virtually all students in comprehensive high schools were affiliated with such a unit during the 1995-96 school year, and hundreds more were beginning in elementary and middle schools. Philadelphia defined small learning communities as having the following traits:

- Heterogeneous, including all children
- Multi-year, providing a close relationship among students, parents, and teachers lasting longer than one school year
- Unified, built around a theme or an instructional approach
- Instructional, promoting strategies that help students reach high standards
- Collaborative, providing time for teachers to work together and grow professionally
- Connected, with students and teachers spending most of their time in one community
- Empowered, having the authority and resources to design their own instructional program
- Accountable, responsible for improving student performance
- Small, having fewer than 400 students

Why Do Students Do Better in Small Schools?

Kathleen Cotton's comprehensive review of research for the Northwest Regional Educational Laboratory distilled the chief factors to which researchers attribute the superiority of small schools:

- Everyone's participation is needed to populate the school's offices, teams, clubs, and so forth, so a far smaller percentage of students is overlooked or alienated.
- Adults and students in the school know and care about one another to a greater degree than is possible in large schools.
- Small schools have a higher rate of parent involvement.
- Students and staff generally have a stronger sense of personal efficacy in small schools.
- Students in small schools take more responsibility for their own learning; their learning activities are more often individualized, experiential, and relevant to the world outside of school; classes are generally smaller; and scheduling is much more flexible.
- Small schools more often use instructional strategies associated with higher student performance—team teaching, integrated curriculum, multi-age grouping (especially for elementary children), cooperative learning, and performance assessments.

games to the student-made sign that welcomes visitors and their business interests into town.

When Carolyn Cornman graduated here in 1968, the Gideon school had 1,700 students from kindergarten through twelfth grade. Today it enrolls 400, and Cornman teaches English to the children of her former schoolmates. Unemployment and poverty rates equal those in Missouri's worst inner-city schools, yet stepping into this school's culture feels like stepping back 30 years, teachers say.

"When class ends, the relationship doesn't end," says Allen Winchester, who moved his family here after retiring from the Army several years ago. "You go into town and people say, 'There's a teacher.' It's a way of life." Gideon's secondary teachers recognized their own convictions in Essential School ideas and took fire, applying for grant money to rethink their curriculum and teaching practices. Only around 20 percent of Gideon's graduates go on to college; most head for the city to look for work. In that context, deepening what they would experience here took on even more importance.

"For a child in this town, this school is your best chance—your only chance—for a better life," Cornman says. In her long-block semester course students write resumes and letters to the editor, read short novels like The Scarlet Letter, and prepare argument papers on topics like women in the military. Math teacher Shawn Pyland, a 1977 Gideon graduate herself, gave up all "general math" courses to teach algebra concepts to everyone. Students do research on the Internet and post information on Gideon's own Web site, which they helped design in order to attract new industry to town. And Allen Winchester's government classes have launched a full-scale effort to revitalize and clean up their town.

Can Curriculum Compete?

When schools like Gideon's engage in community development and community-based learning, what we think of as scheduling "costs" actually become investments in the community's future, asserts Paul Nachtigal, who directs the Annenberg Rural Challenge. And such authentic connections between their schoolwork and their community exemplify the Essential School philosophy of "student as worker."

But can a small school's curriculum provide enough breadth and depth to satisfy the needs of every student? "Less is more," those who belong to small Essential schools reply; and both Kathleen Cotton's and Craig Howley's reviews of the research cite at least a dozen studies that back up this belief.

Some of these analyses take a mathematical approach: the relationship between a school's size and the number of its curricular offerings, for example, diminishes as schools become larger. Quantity does not equal depth, others note as they analyze what the "shopping-mall high school" offers the majority of students.

But the most persuasive evidence resides in those small Essential schools that have crafted a rich and deep curriculum—often integrated across subject-area lines, and often led by teachers who are willing to explore areas outside their specialty.

Started by neighborhood parents and teachers under the aegis of their local school district, the Oakland Charter Academy makes its home on an industrial pier in this California port city. Its 150 largely Latino seventh through ninth graders face poverty and social barriers, and its staff confronts bureaucratic and financial obstacles at every turn. Yet on a shoestring budget this school has provided better conditions for high quality learning than many of its larger neighbors.

In a state where teacher loads of 150 are the norm, Oakland Charter's five full-time and five part-time teachers need know fewer than 50 students well each year, because they integrate their curriculum into two long core blocks. Language arts and social studies are taught together; academic teachers also teach physical education; classes are taught in both Spanish and English. Everyone stays after school for social and cultural activities, from dance to chess. The school enjoys not only close ties with its parent neighborhood but a relationship with the University of California at Berkeley, which sends student tutors to help out in math. A family therapist works at the school four-fifths time, and "teachers are on the phone with parents pretty much every day," says principal Martha Acevedo.

Other small Essential schools in less adverse circumstances have found that a narrowly focused academic curriculum can produce high levels of achievement even when enrollments are quite small. The Brown School in Louisville, Kentucky, which enrolls 600 students in kindergarten through grade twelve, prides itself on a rigorous course of study, for example. And Grass Lake Junior-Senior High School near Ann Arbor, Michigan, with 370 students, offers an interdisciplinary, project-based curriculum that any larger school might envy. "It is possible to offer at the 400-pupil level," concludes a 1987 study by D. H. Monk with which many other studies concur, "a curriculum that compares quite favorably in terms of breadth and depth with curriculums offered in much larger settings."

The size of schools seems often to have more to do with politics, economics, and social factors than with what works best for students.
This often goes hand in hand, other research shows, with flexible teaching practices: teaching teams, multi-age grouping, cooperative learning, alternative assessments, and an experiential learning focus. The small school typically gives both staff and students more responsibility for their own learning. Classes are smaller, activities are tailored to the individual, and scheduling is much more flexible. The learning needs of students, not the organizational needs of the school, tend to drive school operations.

When a School Grows

So what happens when a small school used to these norms confronts the demands of a growing student population? California's Oceana High School more than doubled in size over the last few years because a neighboring school closed, and its current size of 770 students "makes a heck of a difference," according to its new principal, Dick Morosi. "The sheer numbers are tougher to deal with."

The smaller Oceana worked hard to develop a very personal school culture, Morosi says, and that has paid off. The faculty of 37 still meets together weekly; the campus is still quiet and safe; classwork is still organized around individual or small-group learning; portfolios and projects characterize the curriculum and assessment practices. Teachers use "turning protocols" to reflect together on student work, and seven standing committees address ongoing governance issues.

"Some people find our new size unwieldy," Morosi says, "and perhaps we do have less sense of community now. But we still use consensus, and we observe definite norms and procedures in our meetings. And even though our graduating class is around 140 now, for the most part the students still know each other."

Because of its larger size, he notes, Oceana can now offer more electives without losing sections from its academic core. And its extracurricular program is more varied. "Open enrollment in our district means we have to vie with other schools for students," Morosi says. "The district will simply not support us as a smaller school; in fact, in California your average daily attendance figure determines how much money per pupil you get. We have to compete."

In truth, despite unequivocal research in favor of small schools, the size of schools across the country seems often to have more to do with politics, economics, and social factors than with what works best for students. And the cycle perpetuates itself. "The larger and more anonymous are the institutions that come in contact with the community," asserts Bill Ayers of the Small Schools Workshop, "the more likely that individuals—parents, businesspeople, community organizations—feel like part of a mob."

Young people respond to the same factors, he adds; when schools are impersonal, they drop out. "Kids need a place where they are known and valued by adults they care about," Ayers declares. "They drop out when they feel that 'nobody cares if I stay.' Educators see that as an indictment of parents, but it is an indictment of us—our structures don't let us tell kids it matters to us. We have too many kids and too little time. That's a structural issue, and it undermines our intent. We need to create a new structure to tell 200 kids it matters."
Reviews of the Research


Klemski, Michael, “Small Schools: The Numbers Tell a Story,” from the Small Schools Workshop, University of Illinois at Chicago (115 South Sangamon, Chicago, IL 60607; tel. 312-413-8066), 1996.


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