

are small schools better?

SCHOOL SIZE considerations for Safety & Learning

Recent school shootings have intensified concerns that many students get lost in large, impersonal schools and some become tragically alienated. At the same time, the push for higher achievement and the quest to narrow the achievement gap between poor students – who are often African American and Latino – and those from middle- and upper-income families have led to questions about the role school size plays in student learning.

From the perspectives of both safety and academics, new studies and experience from the 1990s have strengthened an already notable consensus on school size: smaller is better. There is overwhelming evidence that violence is less likely in smaller schools. And a number of studies also find a correlation between smaller size and higher achievement for poor and minority students, with all students performing at least as well if not better than in large schools.

This *Policy Brief* outlines key research findings and looks at what the research says about why size appears to make a difference, how small is small enough, effective approaches to downsizing, and key barriers. Finally, it offers policy implications and recommendations.

Key Research Findings

For decades, economies of scale and program comprehensiveness have provided the rationale for a national trend toward ever-larger schools. High schools with 2,000 or 3,000 students are now commonplace; enrollment in many urban high schools approaches 5,000. Until recently, policymakers paid scant attention to red flags raised by school size research, much of which relied on case studies.¹

In the 1990s, episodes of violence, as well as a national agenda to ensure success for every student, led a number of struggling urban districts to launch bold downsizing initiatives. That action triggered a host of large-scale studies, involving hundreds of schools and indicating compelling reasons to consider downsizing.²

No agreement exists on optimal school size, but research reviews suggest a maximum of 300-400 students for elementary schools and 400-800 for secondary schools. In general, studies focused on social and emotional aspects of success conclude that no school should be larger than 500, while those looking primarily at test scores say that somewhat larger is still effective, especially for more affluent students. Perhaps most notably, researchers focusing on the interaction between poverty and enrollment size offer a rule of thumb: The poorer the school, the smaller its size should be.³

The major benefits found to derive from small schools include:

- *Students learn well and often better.* A 1996 analysis of 103 research documents concluded that achievement in small schools – especially for poor and minority students – is at least equal and often superior to that in large schools. No study found large-school achievement superior.⁴

- *Violence and behavior problems diminish.* Truancy, classroom disorder, vandalism, aggressive behavior, theft, substance abuse, and gang participation all decrease.⁵
- *Attendance is higher; dropouts fewer.* For example, students in small high schools in Chicago's poorest neighborhoods attended up to five more days per semester and dropped out at a third to half the rate of students in larger schools. (The same students had slightly higher grade-point averages and improved their reading scores by the equivalent of almost half a year.)⁶
- *Extracurricular participation increases.* Students join teams and clubs in significantly higher numbers – including students otherwise considered marginal.⁷
- *Poor and minority students benefit most.* These students are concentrated in some of the nation's largest schools.

Why Size Matters

Smallness alone does not automatically translate to effectiveness. In fact, when small schools act like large ones – e.g., retaining departmental structures – little improvement is likely. But smallness offers opportunity. A more-human scale allows for much more personal connection and the leeway to reform programs and practices in ways known to enhance learning.

Positive changes that smallness invites include:

- *Strong personal bonds.* Students feel a greater sense of engagement, belonging, and personal value when their classmates and teachers get to know them. Acting out decreases as informal structures replace rules.⁸
- *Parent and community involvement.* Parents and teachers on a first-name basis can become allies in fostering student success. Business and community organizations find it easier to make links (e.g., via internships or collaborative projects) with small schools.
- *Simplicity and focus.* Communication is much easier. Staff can work together to focus the school on learning and build a coherent, high-quality curriculum across disciplines and grade levels.⁹
- *Improved instructional quality.* Student achievement is influenced much more by caliber of instruction than by number of courses offered.¹⁰ Faculties collectively responsible for designing the school program around results are likely to press for professional development that will help meet specific instructional goals.
- *Improved teacher working conditions and job satisfaction.* Teachers surveyed in Chicago's small schools, for example, expressed great satisfaction in being able to draw on the skills

and insights of colleagues as well as influence the structure and direction of the school.¹¹

- *Built-in accountability.* The “internal community of accountability”¹² that develops among teachers, parents, and students promotes a culture of caring and rigor marked by hard work, high aspirations, and an expectation that all will succeed.

In short, while large schools tend to be depersonalized, rule-governed *organizations*, small schools are able to be close-knit, flexible *communities* where no one is a stranger.¹³ As such, they are able to temper the negative effects of poverty so that success is not stratified along socioeconomic lines.¹⁴

Barriers

Despite growing public interest in downsizing, changing long-established structures and behaviors is difficult. And a number of political, economic, and social factors mitigate against schools' efforts, including:

- *Iconic notions of school, especially high school.* The public's image of what a high school should be is perhaps the greatest barrier to change. Most people want better but not different. The majority like the idea of smaller high schools, according to a new survey, but see other reforms as more pressing.¹⁵
- *Lack of time, resources, and technical assistance.* Schools need sustained support from the district and other assistance providers to gain new kinds of knowledge; free up planning time; involve parents and the community; persevere in implementing new structures, schedules, and approaches; and evaluate progress.
- *System impediments.* Laws in some states create incentives for building large schools. District policies that centralize budgeting and decisionmaking often restrict small schools' autonomy and flexibility. Nationwide, the push for one-size-fits-all curricula and modes of instruction runs counter to the individualized approaches prized in small schools.
- *Cost concerns.* Many view small schools as an unaffordable luxury. Those who see large schools as ineffective counter that economies of scale are illusory.¹⁶ In recent studies, researchers have begun analyzing costs in new ways. A much-cited study of small high schools in New York City concluded that the cost per *graduate* is less, due to lower dropout and higher graduation rates. It concludes that “quite small additional budgets” are “well worth the improved outputs.”¹⁷ Moreover, a Maine state planning agency study noted often-overlooked transportation costs associated with consolidated, non-neighborhood schools. Between 1970 and 1995, that state's student numbers decreased by 27,000, but school

busing costs rose from \$8.7 million to more than \$54 million.¹⁸

Cities faced with rising enrollments and few construction sites tend to build huge schools. One cost-effective, small-schools alternative, promoted by the National Clearinghouse on Educational Facilities, is sharing space – with colleges, social service agencies, or cultural organizations.¹⁹

Policy Implications/Recommendations

Especially in high schools, interventions aimed at turning around low performance may founder if policies ignore school size. Similarly, as long as large numbers of poor and minority students attend huge, bureaucratic schools, attempts to narrow the achievement gap may be ineffective.

How state and district policies can support downsizing:

- *Provide incentives for creating small schools.* Start-up capital, identification or development of models, and provision of external assistance all help enable schools to downsize. States and districts can institute matching grants to encourage private funding.
- *Target resources to schools with concentrations of poor and minority students.* A clear starting place is in factory-like inner-city middle and high schools.

- *Remove disincentives that may exist in law or policy.* Audit existing statutes, policies, regulations, and procedures for provisions that may impede smallness or encourage bigness. Some policies encourage consolidation or favor large high schools for construction funding. Building codes may need reinterpretation to allow space sharing.
- *Let form follow function.* Find architects experienced at school designs that promote learning and safety.²⁰

Conclusion

Small schools are not a panacea, but they may be a key ingredient of a comprehensive approach to student success. Especially for high schools, which often seem impervious to change, small size is increasingly becoming part of any serious reform effort. Attention to size may be particularly important in turning around low performance and giving poor and minority students the extra boost that a community of caring, competence, and high expectations offers. Finally, a more-human scale is a potent antidote to student alienation. While impersonal bigness may actually provoke disruptive or violent behavior, small schools conducive to trust and respect tend to defuse it.

APPROACHES TO DOWNSIZING

Small learning communities take a variety of forms. Chicago, for example, has created about 150 small schools each serving 200–400 students in the city’s poorest neighborhoods. They include freestanding schools, schools within schools, and arrangements whereby a principal oversees several independent schools headed by lead teachers.²¹

Across the country, increasing numbers of “academies” within high schools operate around themes such as engineering or health care. The research on such schools-within-schools, often seen as the most feasible downsizing option, remains tentative, however. To really offer the benefits of small scale, such schools require clear structural arrangements as well as separate leadership and authority.²²

One promising model being used by 35 urban high schools is the Talent Development High School with Career Academies, a comprehensive, phased approach featuring a ninth grade “success academy” for groups of 150–180 freshmen taught by interdisciplinary teacher teams. Upper-grade students attend career academies of 250–300 students, each with its own theme but sharing an academic core. All academies have their own faculty, management team, building section, and entrance. Extensive teacher training and coaching are integral. A “twilight school” offers extra help to struggling students.

Additional annual costs to plan and implement new management and organization in this model are about 1–2% of the total budget. Costs for redesigning curriculum and instruction depend on the school’s level of technology and annual budget for books, instructional materials, and staff development.

Evaluation of the original site, launched in 1995, showed clear gains in math and writing and significant improvements in attendance and promotion rates. Teacher concerns about tardiness, absenteeism, fights, vandalism, student apathy, and drug use decreased dramatically.²³

ENDNOTES

1. Raywid, M.A. (1997, December/1998, January). Synthesis of research. Small schools: A reform that works. *Educational Leadership*, 55 (4), 34–39.
2. Wasley, P.A., & Lear, R.J. (2001, March). Small schools, real gains. *Educational Leadership*, 5 (6), 22–27.
3. Howley, C., & Bickel, R. (2000). *Results of four-state study: Smaller schools reduce harmful impact of poverty on student achievement*. Washington, DC: Rural School and Community Trust; www.ruralchallengepolicy.org
4. Cotton, K. (1996). School size, school climate, and student performance. Portland, OR: Northwest Regional Educational Laboratory; www.nwrel.org
5. Cotton, K., Ibid.
6. Wasley, P.A., Fine, M., Gladden, M., Holland, N.E., King, S.P., Mosak, E., & Powell, L.C. (2000). *Small schools: Great strides — A study of new small schools in Chicago*. New York: Bank Street College of Education; www.bankstreet.edu/html/news/SmallSchools.pdf
7. Cotton, K., Ibid.
8. Gregory, T. (2000, December). *School reform and the no-man's land of high school size*. Seattle, WA: University of Washington, Small Schools Project at the Center for Reinventing Public Education.
9. Wasley, P.A., et al., Ibid.
10. Eckman, J.M., & Howley, C.B. (1997). *Sustainable small schools: A handbook for rural communities*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.
11. Wasley, P.A., et al., Ibid.
12. Wasley, P.A., et al., Ibid.
13. Sergiovanni, T.J. (1996). *Leadership for the schoolhouse: How is it different? Why is it important?* San Francisco: Jossey-Bass.
14. Raywid, M.A., Ibid.
15. Public Agenda. (2001). *Teachers, parents find smaller schools appealing, but see other education reforms as more pressing*. New York: Author; www.publicagenda.org.
16. Bryk, A.S. (1994, Fall). *Issues in restructuring schools*. Madison, WI: Center on Organization and Restructuring of Schools, School of Education, University of Wisconsin-Madison.
17. Steifel, L. et al. (1998). *The effects of size of student body on school costs and performance in New York City high schools*. New York: New York University, Institute for Education and Social Policy.
18. Beaumont, C.E., & Pianca, E. (2000). *Historic neighborhood schools in the age of sprawl: Why Johnny can't walk to school*. Washington, DC: National Trust for Historic Preservation; www.nationaltrust.org
19. Nathan, J., & Febey, K. (2001). *Smaller, safer, saner, successful schools*. Washington, DC: National Clearinghouse for Educational Facilities and Minneapolis, MN: Center for School Change, Humphrey Institute of the University of Minnesota; www.edfacilities.org/pubs/saneschools.pdf
20. For an example, see: DeMarco, A. (1997, March). *A smarter approach to school reform. Facilities design and management*, 42–45. (Contact Jennifer Seidl, 646.654.4471.)
21. Wasley, P.A. et al., Ibid.
22. Gregory, T., Ibid.
23. Contact: James M. McPartland, Co-Director, Talent Development High School Program, Center for Research on Students Placed at Risk, Johns Hopkins University, 410.516.8800; jmcpartlan@csos.jhu.edu; <http://scov.csos.jhu.edu/talent/talent.html>

Additional resources:
<http://www.edfacilities.org/rl/size.cfm>

The information in this brief is based on the work of WestEd's Policy Program. The brief was written by Joan McRobbie with the research assistance of Malia Villegas. For further information, call 415.615.3160 or visit the Policy Program's Web site, www.WestEd.org/policy.

WestEd, a nonprofit research, development, and service agency, works with education and other communities to promote excellence, achieve equity, and improve learning for children, youth, and adults. While WestEd serves the states of Arizona, California, Nevada, and Utah as one of the nation's Regional Educational Laboratories, our agency's work extends throughout the United States and abroad. It has 16 offices nationwide, from Washington and Boston to Arizona, Southern California, and its headquarters in San Francisco.

For more information about WestEd, visit our Web site at WestEd.org, call 415.565.3000 or, toll-free, (1-877) 4WestEd, or write:

WestEd
730 Harrison Street
San Francisco, CA 94107-1242.

This report was produced in whole or in part with funds from the Office of Educational Research and Improvement, U.S. Department of Education, under contract #ED-01-CO-0012. Its contents do not necessarily reflect the views or policies of the Department of Education.

© 2001 WestEd. All rights reserved. Permission to reproduce, with WestEd copyright notice included, is hereby granted.

WestEd®

730 Harrison Street
San Francisco
California 94107-1242

Address service requested

Non-Profit U.S. Postage P A I D Los Alamitos, CA 90720 Permit No. 87
