



The Progress of Education Reform 1999-2001

What's Inside

- Smaller High Schools
- Cost Effectiveness
- Improved Performance

School Size

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When It Comes to High Schools, Does Size Matter?

School size is an issue of growing interest and concern among education reformers, teachers, parents and policymakers. Hundreds of high schools across the nation, in both inner-city and suburban districts, have student populations exceeding 2,500. The anonymity and alienation such large schools can produce have been blamed for a variety of problems, from chronically low levels of student achievement to acts of student violence.

Over the past decade, many communities across the country have sought to address the problem by creating smaller high schools in a variety of formats, and a corresponding body of research has grown around the study of such schools.

Researchers have found that, under the right conditions, smaller schools produce stronger student performance as measured by attendance rates, test scores and graduation rates. A particularly strong correlation has been established between smaller school size and improved performance by poor students in urban school districts.

As for the costs of downsizing schools, researchers have found that while larger schools may be more cost effective on a *per-pupil* basis, smaller schools produce greater numbers of graduates and therefore may be more efficient on a cost *per-graduate* basis.

But the research also has found that small schools are not a panacea and that their success hinges on overcoming numerous pitfalls and difficulties. One potential pitfall is a school could become "too small" and thus be limited in its ability to provide the necessary services and courses that students need. There is, however, no research consensus on the optimum size for a small school, or what constitutes "too small."

This issue of *The Progress of Education Reform 1999-2001* provides a brief review of major research findings on the costs and benefits of small schools, their impact on student achievement, and policies that either hinder or facilitate their development.

Research Shows Small Schools Can Be Cost-Effective and Improve Learning

Here are highlights from several recent reports and studies on small schools:

Smaller, Safer, Saner Successful Schools (Joe Nathan and Karen Febey; Center for School Change; 2001) www.edfacilities.org/pubs/saneschools.pdf

According to this report, the positive effect of small schools on student performance has been confirmed with a level of clarity and confidence that is rare in the history of education research. Smaller schools produce higher student achievement, higher graduation rates, fewer discipline problems, a safer learning environment and greater satisfaction for families, students and teachers.

The report examines how communities across the country have developed strategies to create smaller schools, with an eye toward both reducing costs and increasing student opportunities and achievement. It includes case studies of successful small schools in 12 states: Arizona, California, Colorado, Illinois, Kansas, Massachusetts, Minnesota, New York, Ohio, Oregon, Texas and Washington.

According to the report, many communities have been able to develop highly successful small schools by sharing school facilities with other organizations such as museums, libraries, day care centers, senior citizens programs and businesses. The benefits of such arrangements include:

- Broader opportunities and a richer learning environment for students
- Expanded social services for students and their families, including health care, literacy training and counseling
- Higher student achievement and graduation rates
- Ability to use tax dollars and other limited resources in a more efficient manner.

The Effects of Size of Student Body on School Costs and Performance in New York City High Schools (Leanna Stiefel, Patrice Iatarola, Norm Fruchter and Robert Berne; Institute for Education and Social Policy; New York University; 1998) www.nyu.edu/iesp/publications/effects/effects.pdf

This study of New York City high schools found that smaller schools produce stronger student performance (as measured by attendance rates, test scores and number of graduates), particularly among poor students.

The study also concluded that while smaller high schools — of 600 or fewer students — typically had higher per-student costs than most of the city's high schools, they were more cost effective than most schools because they produced higher-than-average graduation rates and lower-than-average dropout rates.

The authors recommended that, when making budget decisions, policymakers take into account both the cost effectiveness of smaller schools and their positive impact on student achievement.

Small Schools: Great Strides, A Study of New Small Schools in Chicago (Patricia A. Wasley, Nicole E. Holland, Sherry P. King, Esther Mosak and Linda C. Powell; The Bank Street College of Education; 2000) www.bankstreet.edu/html/news/releases/smschool.html

This report was based on a study of small schools (350 students or fewer) established between 1990 and 1997 in the Chicago area. The report found that students in these schools had lower dropout rates, completed more courses, made higher grades and showed some improvements in standardized test scores. In addition, parents, teachers, students and community members alike were more satisfied with their schools. According to the findings, most small schools are found in the poorest urban neighborhoods and served predominantly black and Hispanic children.

The report provides a series of recommendations, including that state policymakers provide funds to downsize the largest high schools and provide incentives for school districts to create smaller schools.

The authors caution that, while the study's results clearly indicate small schools' potential to improve student performance, not all small schools are successes, and they certainly are not the "sole solution to all that ails education." But the authors conclude that the small-school model, when properly implemented, can be a key ingredient in a comprehensive plan to improve school and student performance.

Small Works: School Size, Poverty and Student Achievement (Craig B. Howley and Robert Bickel; Rural School and Community Trust; 2000)

Article on study: www.aasa.org/publications/ln/02_00/02_21_00smallschools.htm

This study, which included 13,600 urban, suburban and rural schools in four states, examined whether small schools can reduce the harmful effects of poverty on student achievement. It found that smaller

schools do help narrow the achievement gap — as measured by standardized tests — between students from poor communities and students from wealthier communities. According to the study, the less affluent the community served, the smaller a school should be to maximize the school's performance.

The study did not set an absolute size limit for “large” or “small” schools. Instead, within each state, the researchers considered school size in relative terms, comparing the performance of larger and smaller schools in communities with greater or lesser levels of poverty.

The study drew specific conclusions about schools in each of the four states:

- In Texas, between 26% and 57% of the schools studied (depending on grade level tested) likely would have higher levels of student achievement if the schools were smaller. At the 10th-grade level, more than half of the schools studied were found to be too large to maximize achievement given the income level of the communities they serve.
- In Ohio, smaller schools and smaller districts at all grade levels were associated with higher achievement in poorer communities. The report found that, at the 9th-grade level, 90% of the schools studied likely would produce higher scores if they were smaller.
- In Georgia, between 36% and 68% of the schools studied (depending on grade level tested) likely would produce higher scores if the schools were smaller.
- In Montana, there was strong evidence that smaller schools outperform larger schools across all socioeconomic lines.

Small Schools, Big Results: Nebraska High School Completion and Postsecondary Enrollment Rates by Size of School District (Patricia E. Funk and Jon Bailey; Nebraska Alliance for Rural Education; 1999) www.cfra.org/resources/small_schools_big_results.htm

The authors of this report argue that the traditional cost-per-pupil formula used in Nebraska to determine school funding does not accurately measure the overall costs involved and that the formula should be shifted to one that measures the “cost per graduate.” When measured on a cost-per-graduate basis, the report found, high school completion rates increase as school size decreases, and the annual cost differences between the smallest schools and the most “efficient” (based on per-pupil cost) larger schools can be cut in half.

According to the authors, any remaining higher costs associated with small schools virtually disappear when the substantial social costs of nongraduates (lower earnings, unemployment, welfare and incarceration) are considered.

The report also found that students in Nebraska counties with the smallest schools are more likely to complete high school and enroll in college than students in counties with the largest schools. Because postsecondary education and/or training has become critical to success in the modern competitive workplace, the report concludes, higher-than-average graduation rates are a substantial benefit to society provided by smaller schools.

New Small Learning Communities: Findings From Recent Literature (Kathleen Cotton; December 2001) www.nwrel.org/scpd/sirs/nslc.pdf

This report provides a comprehensive review of current research regarding small schools and discusses the elements found to be essential for small-school success. Research conducted over the past 15 years has demonstrated convincingly that, under the right conditions, small schools are either equal or superior to large schools on every important measure, the author writes. These findings have led to strong interest in creating and implementing small schools across the country. The report attempts to inform education leaders interested in small schools by providing: definitions of various types of small schools and small learning communities, research findings about the results of well-run small schools, the requirements for small-school success, and barriers to achieving such success.

Among the report's key findings:

- Researchers do not agree on any one definition of what constitutes a small school, although many assert that a maximum of 400 students is the best size for a small high school.
- Small schools have been created in a multitude of formats, including autonomous schools and schools created within larger “host” schools.
- When compared with large schools, smaller schools typically produce higher student achievement, reduce the negative effects of poverty on achievement, and provide greater safety and lower costs per student graduated.
- There are numerous barriers and pitfalls to creating a small school, including laws, regulations and policies designed with large schools in mind; impatience for improved student achievement on the part of persons outside the school; staff who do not fully understand and accept why a school has been downsized; increased demands on school staff’s time and energy; and too little focus on innovation.

For additional information on small schools, see the following Web sites:

Public Agenda (2002 survey comparing views of teachers, parents and students in large and small high schools)

www.publicagenda.org/aboutpa/aboutpa3qg.htm

The Small Schools Project

<http://smallschoolsproject.org/>

Cross City Campaign for Urban School Reform

www.crosscity.org/programs/teaching/sm_school_resources.htm

The Gates Foundation

www.gatesfoundation.org/education/resourcesresearch/keyissuesschoolsize.htm

Small Schools Workshop at the Center on Reinventing Public Education

www.smallschoolsworkshop.org

Clearinghouse on Rural Education and Small Schools

www.ael.org/eric/small.htm

National Clearinghouse for Educational Facilities

www.edfacilities.org/rl/size.cfm#5288

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