



educational
transformations



RESEARCH ON SCHOOL SIZE

BRIEFING PAPER

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The issue of school size is central to matters of provision in public education. Discussions and debates frequently centre on whether schools are too small to offer a quality education for its students. It is therefore important that change proceed in the light of what is known about the relationship between school size and outcomes that are relevant to the implementation of a transformation agenda.

There is a considerable body of research on school size, much of which is from the United States where there are concerns that secondary schools, in particular, are too large in some settings. The view that large schools are more cost-effective than small schools has been challenged. An increasing number of school systems have implemented a strategy to maintain or create small schools or re-structure large schools to form schools-within-schools. Perhaps the largest cross-system initiative is the project of the Bill and Melinda Gates Foundation that provided nearly \$500 million by the end of 2003 to create new small high schools.

The following is a summary of research to 1996 on the topic (adapted from Cotton, 1996). Compiled by the North West Regional Educational Laboratory, it is generally regarded as the most comprehensive of its kind, drawing on 49 primary sources that reported findings on a range of variables. Research since 1996 generally confirms the findings.

1. School consolidation has been carried out through much of this century, resulting in fewer and much larger schools and school districts. Consolidation continues.
2. The research base on the relative effects of large and small schools is large and quite consistent. The research base on the effects of school-within-a-school (SWAS) arrangements is smaller and less conclusive.
3. There is no clear agreement among researchers and educators about what constitutes a 'small' school or a 'large' school. Many researchers, however, indicate that an appropriate and effective size is 300-400 students for a primary school and 400-800 students for a secondary school.
4. Much school consolidation has been based on the beliefs that larger schools are less expensive to operate and have higher-quality curricula than small schools. Research has demonstrated, however, that neither of these assertions is necessarily true.
5. Academic achievement in small schools is at least equal—and often superior—to that of large schools.
6. Student attitudes toward school in general and toward particular school subjects are more positive in small schools.
7. Student social behaviour—as measured by truancy, discipline problems, violence, theft, substance abuse, and gang participation—is more positive in small schools.

8. 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.
9. Student attendance is better in small schools than in large ones.
10. A smaller percentage of students drop out of small schools than large ones.
11. Students have a greater sense of belonging in small schools than in large ones.
12. Student academic and general self-concepts are higher in small schools than in large ones.
13. Interpersonal relations between and among students, teachers, and administrators are more positive in small schools than in large ones.
14. Students from small and large high schools do not differ from one another on college-related variables such as entrance examination scores, acceptance rates, attendance, grade point average, and completion.
15. Teacher attitudes toward their work and their administrators are more positive in small schools than in large ones.
16. Attributes associated with small school size that researchers have identified as accounting for their superiority include:
 - a. Everyone's participation is needed to populate the school's offices, teams, clubs, etc., so a far smaller percentage of students is overlooked or alienated.
 - b. Adults and students in the school know and care about one another to a greater degree than is possible in large schools.
 - c. Small schools have a higher rate of parent involvement.
 - d. Students and staff generally have a stronger sense of personal efficacy in small schools.
 - e. Students in small schools take more of the responsibility for their own learning; their learning activities are more often individualised, experiential, and relevant to the world outside of school; classes are generally smaller; and scheduling is much more flexible.
 - f. Grouping and instructional strategies associated with higher student performance are more often implemented in small schools—team teaching, integrated curriculum, multi-age grouping (especially for primary children), cooperative learning, and performance assessments.
17. The evidence for the effectiveness of school-within-a-school (SWAS) arrangements is much more limited, but it suggests that students benefit from this form of organisation if the SWAS is sufficiently separate and distinct from the other school(s) housed in the same building.
18. Poor students and those of racial and ethnic minorities are more adversely affected—academically, attitudinally, and behaviourally—by attending large schools than are other students.



REFERENCE

Cotton, K. (1996) *School Size, School Climate, and Student Performance*. School Improvement Research Series (Close-up #20). NW Regional Educational Laboratory (available at www.nwrel.org/scpd/sirs/10/c020.html).