



SCHOOL SIZE, SCHOOL CLIMATE, AND STUDENT PERFORMANCE

A Summary of Research by Kathleen Cotton

Excerpted from Kathleen Cotton, School Size, School Climate, and Student Performance (Portland, OR: NWREL), 1996, pp 10-11, a comprehensive review of formal research studies on school size.

The following list highlights the major points identified in this paper.

1. School consolidation has been carried out through much of this century, resulting in many fewer and much larger schools and school districts. Consolidation efforts continue into the present time.
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 an elementary 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 behavior—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 in 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 individualized, 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—for example, team teaching, integrated curriculum, multiage grouping (especially for elementary 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 organization 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 behaviorally—by attending large schools than are other students. Unfortunately, poor and minority students continue to be concentrated in large schools.

Despite this persuasive support for small schools, a gap remains—indeed grows—between research and practice regarding school size. "The preponderance of professional literature in the past decade," writes Williams, "indicates that educational researchers support the concept of small school effectiveness. It appears, however, that the determinants of school size are seldom the result of research.... More often, school size is the result of other factors—political, economic, social, demographic.... We who have become convinced of the superiority of small schools have, as our next challenge, the task of communicating our findings to those who have the power to influence decisions about the size of our schools."