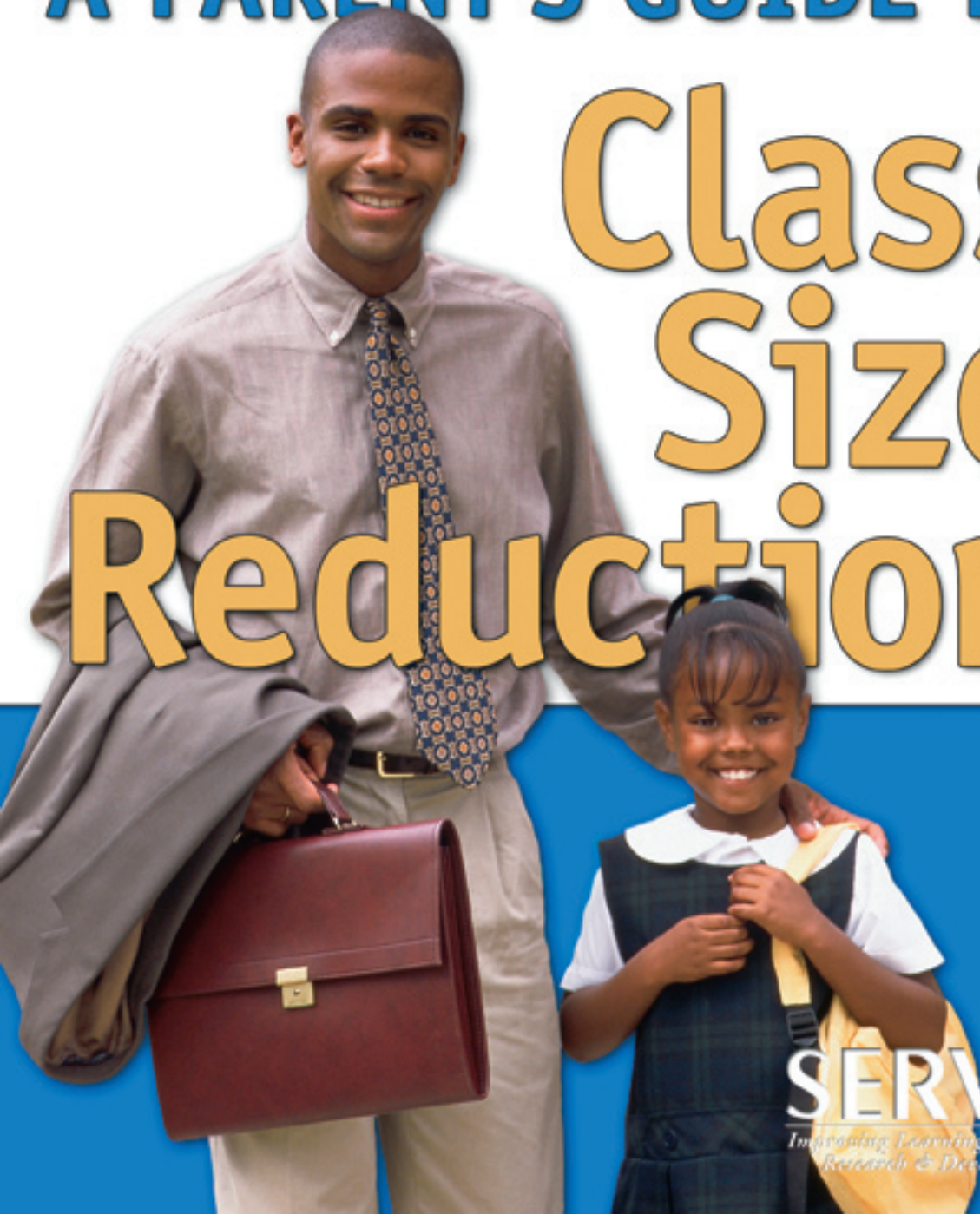
A PARENT'S GUIDE TO

Class Size Reduction



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A Parent's Guide to Class Size Reduction

Introduction

Reducing the number of students in a class, especially in the early grades, is one approach educators have taken to improve student achievement. Class size reduction programs have been implemented at the state, district, and individual school levels. This publication defines class size reduction, provides an overview of class size reduction research, lets parents know what to expect from a class size reduction program, and answers frequently asked questions. It offers information for a variety of audiences—parents primarily, but also policymakers and state-, district-, and school-level educators.

What Is Class Size Reduction?

Class size reduction programs lower the number of students in a classroom—typically, in the range of 15 to 18 students—and are generally implemented in the primary grades (K–3). The central goal of class size reduction is to improve academic achievement for all students. However, educators can choose this approach for other reasons as well. While class size reduction is beneficial to all types of students, low-income and minority students particularly benefit. Research has shown that, in terms of standardized test scores, students benefit most when:

- They are in small classes early in their schooling experience.
- They remain in the small class setting for several years.

In addition to increased academic achievement, class size reduction also produces changes in the ways teachers interact with

students and parents. Smaller classes allow teachers to increase individual instruction and small-group work, and students can potentially move through the curriculum at a quicker pace. Communication between teachers and parents also tends to increase when smaller classes are implemented.

Over the past 20 years, educators in more than 25 states—most notably Tennessee, Wisconsin, and California—have initiated class size reduction programs. In the SERVE region, Alabama, Florida, Georgia, North Carolina, and South Carolina have enacted some form of class size reduction legislation, and Mississippi educators have used federal funds to reduce class sizes. For several years, SERVE has studied the class size reduction programs of two North Carolina sites: Burke County Schools and Draper Elementary (Rockingham County Schools).

Class Size Reduction in Mississippi

"We have had practically no discipline problems. The children are more of a team, and they expect the best from each other. This saves a great amount of our instructional time for actual instruction."

— South Tippah School District, Mississippi, teacher Suzanne Wooley, in Rucker & Tankson (2000)

What Does the Research Say?

Interest in class size reduction programs increased after the Tennessee class size experiment in the 1980s called Project STAR. From 1985–1989, STAR involved more than 11,000 students in kindergarten through third grade in 79 elementary schools. Enrolling students at participating schools were randomly assigned to one of three types of classes:

1. A small class (13–17 students) with one teacher
2. A regular class (22–25 students) with one teacher
3. A regular class with a teacher and a full-time teacher assistant

Teachers were also randomly assigned to the different types of classes, and students stayed in the same type of class through the third grade, if they remained in their original school.

Students were tested in the spring of each school year, and other information was also collected, including how the teachers taught, how students behaved and participated in class, and the number of students retained in grade. Researchers continued to study the STAR students after they returned to regular classes in the fourth grade and as they moved through high school.

Not everyone agrees about the conclusions to be drawn from the research on class size reduction. Some researchers have concluded that there is no strong link between class size and student achievement (Hanushek, 1999). Some have noted that class size reduction, if carried out on a large scale, can worsen teacher shortages (Laine & Ward, 2000). Others have suggested that class size reduction is too expensive and there may be more cost-efficient ways to improve student achievement (Johnson, 2002). Much of this research, in turn, has been criticized for faulty methodology and for confusing pupil-teacher ratio with average class size (Biddle & Berliner, 2002).

Tennessee's Project STAR Findings:

- At each grade level (K–3), in all types of schools, on every kind of standardized test, and for all subjects, the small-class students performed better than their peers in regular and regular/assistant classes (Boyd-Zaharias & Pate-Bain, 2000a).
- Smaller classes had the lowest percentage of students retained in grade among the three groups (K–3) (Word et al., 1990).
- In kindergarten through third grade, the greatest advantages were found for minority, inner-city students from low socio-economic backgrounds, revealing that smaller classes help reduce the white-minority achievement gap (Word et al., 1990).
- Benefits were sustained in grades 4–8 (Finn, Gerber, Achilles, & Boyd-Zaharias, 2001).
- STAR students who attended small classes in the early grades generally performed better academically than their regular-class peers in mathematics, reading, and science in grades 4, 6, and 8 (Finn, Gerber, Achilles, & Boyd-Zaharias, 2001).
- Students from the smaller classes were better behaved and were rated as using more effort on classwork and taking more initiative in learning activities than were students from the larger classes (Finn, 1998).
- Benefits were sustained to high school (Boyd-Zaharias & Pate-Bain, 2000b).

- Students assigned to the small classes in early grades:
  - Graduated on schedule at a higher rate than did students from either the regular classes or the regular classes with an assistant.
  - Completed school with an honors diploma more often than students from either the regular classes or the regular classes with an assistant.
  - Dropped out of school less often compared to regular classes and regular classes with an assistant (Boyd-Zaharias & Pate-Bain, 2000b).
- Assignment to the smaller classes was also related to an increase in the likelihood that African-American students would take the ACT or SAT college entrance exams (Krueger & Whitmore, 2001).

Class size reduction in other states has confirmed the STAR findings and also found the following small class size benefits:

- **Benefits to students:** Parents report that students like school more. Student self-confidence and relationships with peers improve in small classes, and student participation and cooperation tend to increase. Students also show a higher level of academic focus in the smaller classrooms (Harman & Egelson, 2000; Achilles, Kiser-Kling, Owen, & Aust, 1994; Cavenaugh, 1994; Molnar, Smith, Zahorik, Halbach, Ehrle, Hoffman, & Cross, 2001; Burke County Public Schools, 1994).
- **Benefits to teacher-student relationships:** Teachers are able to give more individual attention to students. Teachers are also able to rely less on testing and make more use of portfolio assessments and classroom projects (Harman & Egelson, 2000; Achilles et al., 1994; Egelson & Harman, 2000; Zahorik, Molnar, Ehrle, & Halbach, 2002; Stecher & Bohrnstedt, 2000).
- **Benefits to teacher-parent communication:** Teacher-parent communication and interactions increase and improve, and parents report a more family-like atmosphere at the school (Harman & Egelson, 2000; Achilles et al., 1994; Egelson & Harman, 2000).
- **Other potential benefits:** Class size reduction programs may help schools recruit and keep teachers. Also, class size reduction programs may serve as a draw for attracting businesses to the school district[1] (Burke County Public Schools, 2000; Personal communication with Burke County (NC) Schools Superintendent David Burleson, March 18, 2002).

[1] For more information on class size reduction research, see *How Class Size Makes a Difference* at *www.serve.org/classsize/HCSMAD* or order a free copy by calling 800-352-6001.

What's the Difference Between Class Size and Pupil-Teacher Ratio?

The terms *pupil-teacher ratio* and *average class size* are often used interchangeably, but incorrectly. A **pupil-teacher ratio** is calculated by dividing the number of students in a school by the number of certified personnel at that school. *Certified personnel* includes not only regular classroom teachers but also administrators, music, art, physical education, and special education teachers, as well as other professionals who are usually not in classrooms. **Average class size** is calculated by dividing the number of students in a school by the number of regular classroom teachers only. For example, a study of the Boston Public Schools (Miles, 1995) found that the pupil-teacher ratio for the district was 13:1, but the average class size was 23, and, thus, a more accurate representation of the typical classroom setting. So, while reducing the pupil-teacher ratio seldom positively impacts student achievement, reducing class size does and is the focus of this publication.

What Can Parents Expect from Their School's Class Size Reduction Program?

While class size reduction can produce positive results, implementation can be challenging, as it may require more teachers or a change of teacher responsibilities, more classroom space, and additional materials. Schools and districts implementing class size reduction typically rely on some combination of local, state, and federal funds to pay for the program, but funding sources can change with administrations. For instance, a federal program that provided money for hiring additional teachers in support of class size reduction was ended in 2002. Schools and districts, therefore, must rely on their own sustainable resources for funding. Common strategies include eliminating teacher assistant positions, changing teachers' instructional responsibilities, reducing or eliminating electives, and using mobile units for classrooms. Taxes are typically not increased to fund class size reduction.

Reduced Class Size in Wisconsin

"Teachers are better able to get to know their students and families. Our population is mobile, and having SAGE-size classes is a great benefit to having time to meet with and contact parents, especially for less stable [or] mobile families. Conferences/contacts are more frequent, which helps parents feel more comfortable with school and have a solid understanding of their child's learning."

— Wisconsin principal of reduced class size school, in Molnar et al. (2001)

Frequently Asked Questions About Class Size Reduction

How big will the classes be?

Maximum class size in most class size reduction programs falls between 13 and 20 students, and the typical range is between 15 and 18 students.

What grades will be affected?

Occasionally class size reduction programs are implemented in middle or high school, but they are typically targeted at the early grades: kindergarten through third grade. This is because results achieved in the primary grades can last into high school and beyond.

Will there be enough qualified teachers if the school implements class size reduction?

It depends on the program. In 1996, California began a statewide class size reduction program that reduced class size in kindergarten through third grade from an average of 33 students per class to an average of 20. California implemented the program very quickly and soon required large numbers of additional teachers. By 1999, California districts had hired 29,000 additional teachers. As there were not enough certified teachers to meet this increase in demand, the percentage of fully certified teachers in kindergarten through third grade dropped from 98% in 1995 to 87% in 1999. However, due to the size and rapid implementation of the program, California's example is unique. Other states have implemented class size reduction in selected districts and schools rather than statewide and have not experienced these difficulties in meeting their teacher needs, and, conversely, many view their class size reduction programs as useful teacher recruitment and retention tools.

What happens to the teacher assistants?

One of the things the STAR study found was that teacher assistants in classrooms had no consistent positive effect on student

achievement. That is, there were no differences in average test scores between students in regular-sized classes with teacher assistants and those without. During implementation of class size reduction, teacher assistant positions are often eliminated to free up funding for additional teacher salaries. When Burke County (North Carolina) Schools implemented class size reduction, district officials decided not to use teacher assistants in the smaller classes. Assistants were trained to work in a one-on-one tutoring program or were moved to work in the upper grades of their assigned schools. Some assistants who left or retired were not replaced; no one lost his or her job as a result of the new initiative. At the time, the loss of teacher assistants in first through third grade was questioned because community support for the assistants was strong. Annual surveys conducted by the superintendent since the late 1990s, though, show that a majority of the parents want smaller classes as the top funding priority.

At Draper Elementary School (Rockingham County, North Carolina), the principal converted the five teaching assistant positions for first through fourth grades, along with several specialty teacher positions, into regular classroom teacher positions. The displaced assistants were reassigned elsewhere in the district. Again, there was initial concern among the community and teachers about the loss of assistants, but this faded as they saw the benefits of class size reduction.

Small Class Size in North Carolina

"Class size reduction is a critical component in our elementary program. Having 15 students to each teacher allows each child to have daily one-on-one assistance as well as group-centered activities. This kind of environment is very important in the child's early formative years."

— in Burke County Public Schools' Annual Report of Progress (2000)

How will instruction be different in smaller classrooms?

While some teachers continue to teach the same way they always have, teachers in small classes often report changing their teaching from whole-class instruction to a more varied approach, with an emphasis on individual students and small-group instruction, hands-on activities, and project-based learning. Teachers spend less time on discipline and cover the content at a faster pace. They also report they are better able to identify and meet students' needs and provide quick feedback and individual attention. Teachers report greater enthusiasm for teaching in small classes than in regular size classes.

Students in small classes have fewer discipline problems and higher levels of academic focus and participation. Teachers attribute the changes to fewer students and more time to get to know their students and evaluate and respond to their needs. If parents feel their children are not experiencing more individualized instruction in a small class, they should talk with the teacher.

How will teacher-parent communication change?

Teacher-parent communication usually increases and improves after schools start a class size reduction program. Teachers know the students and parents better, and parents feel comfortable sharing information about their child with the teacher. Teachers in small classes tend to communicate more often with parents, using notes, phone calls, conferences, and regular student progress reports. Parents of students in small classes tend to volunteer more in the classroom and participate more in parent-student events.

Where do schools find the extra classroom space?

Sometimes schools have extra space due to fewer students, but usually superintendents and principals must be creative in meeting the needs for more classroom space. North Carolina's Burke County Schools met this requirement in several ways. It took advantage of a system-wide grade configuration change; just prior to the class size reduction program, the system went from a kindergarten–6th elementary, 7th–9th junior high, and 10th–12th high school configuration to a kindergarten–5th, 6th–8th, and 9th–12th scheme. This change made previous sixth-grade classrooms in elementary schools available for primary classroom space. Mobile units were also added in elementary schools where space was limited. Because parents supported the reduced class size program, using mobile units for additional classroom space has not been an issue. In some cases, Burke County also remodeled and reopened older schools that had previously been closed. When Wisconsin's Kenosha Public School District implemented a class size reduction program, some schools

Class Size Reduction in Tennessee

"The small class size was very helpful to me this year because I had educationally challenged students who needed a little more time and attention. The class size enabled me to do group work with those students while others worked. Also, I could identify the needs of each student, and assessment was made quickly. In a full size class of 25 students, I could not identify student learning problems as quickly."

— Tennessee teacher on reduced class size, in Achilles (1999)

converted their art, music, or multipurpose rooms to regular classrooms (Odden & Archibald, 2001).

What will happen to art, music, physical education, foreign language, and special education?

To create the additional teacher positions necessary for class size reduction, schools and district personnel sometimes convert specialty education teacher positions into regular classroom teacher positions. For instance, the principal at Draper Elementary School converted one and a half Title 1 positions (positions for assisting low-performing students), one Spanish teacher position, and portions of the physical education and music positions into regular classroom teacher positions. To ensure that the students still had physical education and music classes weekly, some classes were doubled up for those sessions. In California, almost two-thirds of the districts have shifted funds from other programs to help fund class size reduction. Music/arts programs are among those most often affected.

What about special needs students?

The sooner a student with special education needs is identified, the better. Early identification may allow the student to receive early help and avoid lengthy and expensive special education treatment later on. STAR found that placement in small classes increased the probability that a student would be identified early as needing special education help, but that placement in a regular size class or a regular class with an assistant reduced the probability that a student's special education needs would be identified. Teachers in reduced size classes also report having better opportunities to implement special needs students' individualized learning plans (Achilles, 1999).

Will my child have difficulty transitioning to a large class in the higher grades?

One common concern is that students may not adjust well when they return to larger classes. Research, however, shows that most students have no trouble adjusting. In fact, the STAR study found

that in fourth grade, students from the smaller classes were better behaved, put more effort into class work, and took more initiative in learning activities than students from the larger classes (Finn, 1998). Additionally, the academic gains achieved in the smaller classes in the early grades remained with the students. Middle school students who attended STAR small classes scored at levels indicating that they were from four to eight months ahead of their peers who had not been in small classes in early elementary grades.

Is class size reduction here to stay?

This will depend on a number of conditions, including financial, parental, and community support, and the commitment of district and school administrators and teachers. For example, Burke County Schools began its class size reduction program in 1991, and today, all first-, second-, and third-grade classrooms in each of its 17 elementary schools have class sizes of 15 or fewer students. Through three superintendents and several school board turnovers, the class size reduction program has survived and grown. The parents, community, administrators, and educators have all seen the benefits of small classes and want the program to continue. With this support, the superintendents have found ways to pay for the program. Small class size has become permanent, to the extent that as new elementary schools are built, first- through third-grade classrooms are built for class sizes of 15 students, rather than the customary 25.

What Can Parents Do?

Class size reduction continues to be a key strategy considered when trying to improve student achievement. Without additional funding, though, class size reduction programs may require some tradeoffs. Research has demonstrated the benefits of class size reduction, and many legislators, educators, and parents believe the benefits far outweigh the challenges. Parental support, though, is critical to the success of class size reduction programs. Parents can be instrumental in pushing for the creation of a program. Especially in the early stages of class size reduction programs, schools and districts need parental support until the results begin to speak for themselves. With established programs, parental support is needed to ensure that class size reduction remains a funding priority. Parents can support smaller classes by being involved at the school and knowing firsthand about classroom conditions; by being knowledgeable about class size reduction research; by writing letters of support to the principal, superintendent, and school board; by attending and speaking at board meetings; or by other means relevant to the local situation. Smaller classes can be worth the effort.

These websites have more information on class size reduction:

- **Health and Education Research Operative Services (HEROS), Inc.**
  www.heros-inc.org/classsizeresearch.htm
- **Reduce Class Size Now**
  www.reduceclasssizenow.org
- **What We Have Learned About Class Size Reduction in California**
  www.classize.org/techreport/index-02.htm
- **Reducing Class Size: What Do We Know?**
  www.ed.gov/pubs/ReducingClass/title.html
- **2000–2001 Evaluation Results of the Student Achievement Guarantee in Education (SAGE) Program**
  www.uwm.edu/Dept/CERAI/documents/sage/cerai-02-01.htm
- **National Education Association Class Size Reduction Page**
  www.nea.org/classsize
- **American Federation of Teachers Class Size Reduction Page**
  www.aft.org/issues/class_size.html

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