

Class Size Committee

Final Report

October 16, 2013

The following is a brief summary and recommendations from the Rye School Board's ad-hoc committee on class size.

Committee Charge

The ad-hoc committee was created at the March 20th meeting and charged at the April 17th Rye School Board meeting as follows:

The ad-hoc committee on class size was initially conceived as a way to examine issues related to the most appropriate instructional group size for students in RES as well as RJH. However, it quickly became apparent that simply focusing the numbers of students in a given classroom could miss the bigger issue of how should we think about structuring our schools to maximize student learning for all students in Rye Public Schools. Therefore, the ad-hoc committee should be charged to examine best practices for staffing of teachers, specialists, paraprofessionals, and other educators in order to maximize opportunities for student learning.

Committee Membership

The committee was fortunate to have a diverse and engage committee comprised of the following individuals:

- Scott Marion (Committee Chair and Board member)
- Mike Schwartz (Board member)
- Karen Allen (Parent representative)
- Kathleen MacLeod (Parent representative)
- Mary Lyons (SAU 50 Assistant Superintendent)
- Chris Pollet (RJH Principal)
- Suzanne Lull (RES Principal)
- Jacqueline DeFreze (RES 4th grade teacher)
- Margaret Hanna (RES 2nd grade teacher)
- Laura Sunderland (RJH art teacher)
- River Bissonnette (RJH 6th grade science)
- Margaret Louney (RJH special education)

Committee Meetings

The committee met 5 times since June on the following dates: June 10, July 9, August 16, September 3, and October 10, for approximately one hour for each meeting. The summaries of the meetings are attached as Appendix A.

Committee Process

The committee followed an agenda driven process such that the first few meetings focused on gathering information from a variety of sources, the next meetings involved discussing the goals for the policy, and the final set of meetings involved creating a recommended policy for class sizes in Rye. The discussions are reflected in the meeting notes attached as Appendix A, but the Committee wants to call special attention to its research efforts.

Committee Research

The Committee wanted to base its decisions and recommendations on fair examination of existing educational research, best practices, and a comprehensive examination of the views of Rye teachers and parents.

Educational Research

Scott Marion and Chris Pollet did a scan of the educational research literature to see if there were any conclusions that could be drawn to inform our discussions in Rye. Much of the research and policies focused on reducing class sizes from ratios well above 20:1 to just below this ratio, which is not very applicable to Rye since our class sizes are already below this mark. The Tennessee STAR study was one of the few true experiments ever conducted on class size where students and teachers were randomly assigned to classes of different sizes and were kept in these class sizes for at least three consecutive years. Additionally, students considered at risk were provided with more intensive educational interventions beyond the class size intervention. This study concluded that students in classes with fewer than 18 students outperformed students in classes larger than 18 students and these differences persisted over time. However, these gains were most notable for educationally disadvantaged students, typically poor and minority students, again, not directly applicable to Rye. Education Week produced a helpful summary of the research that can be found in Appendix B.

New Hampshire School Districts

Mike Schwartz collected information from key NH school districts that the committee considered “peer districts” to see what could be learned from the policies and practices in these districts (see Appendix C). Specifically, we selected districts from high socioeconomic towns that had both high levels of academic achievement and high rates of longitudinal growth. The districts examined included Bow, Bedford, and Oyster River. All of the districts considered factors when determining class size. In all districts, K-2 is lower than 3-5, with generally a jump in fifth grade. Bedford uses a range of ± 2 . Mike Schwartz also shared the NH minimum standards requirements for class size, which is 25 or fewer for grades K-2 and 30 or fewer for grades 3 and higher.

Rye Teachers

Jacque DeFreze, Maggie Hanna, and Laura Sunderland surveyed the teachers at both RES and RJH to ascertain their opinions of the optimum class size for the grade that they teach in Rye. The committee wants the board to recognize that the term “optimum” was used in this survey and not a term such as “acceptable.” In general, the teachers thought that optimum class sizes for RES and RJH ranged between 15-20 students per class. Teachers of students in K-1 were generally at the lower end of this range, while teachers in grades 2-8 indicated that the optimum

class size was at the upper end of this range. Please see Appendix D for the specific survey responses.

Rye Parents

Karen Allen and Kathleen and MacLeod surveyed parents from both RES and RJH to see if specific preferences for optimum class sizes by grade could be determined. The committee made the decision to use the same terminology (“optimum”) for the parent survey as was used on the teacher survey to ensure that differences in results were not due to terminology. There were 199 parent responses¹ to the survey and the results are presented in Appendix E. As can be seen from the results in Appendix E, there was considerable overlap between the parent and teacher view of “optimum” class size, although it parents generally preferred smaller classes than teachers at each grade level.

Policy Goals and Structure

The committee spent a fair amount of time working to clarify the policy goals and to come up with a structure of the policy that will work best in Rye. The committee was clear that the following were the main goals of a class size policy in Rye:

- ✓ Maximizing learning for students
- ✓ Transparency for parents
- ✓ Budgeting for board and administration

The committee was interested in having a broad policy and then creating more specific guidelines or procedures within this policy for the schools. SAU 50 currently does not have a class size policy so there was discussion about whether this policy should apply to the SAU or just Rye. The committee decided to just focus on Rye for now and then allowing the SAU policy committee to decide if it wanted to create an SAU policy. The committee wanted to make sure that the policy allows for flexibility for the factors that may influence student learning in a particular class such as:

1. The numbers and distribution of students that will help the teacher be most effective with the specific children in the class,
2. The availability of additional certified specialists and/or paraprofessionals in the classroom and in the school,
3. The experience of the teacher and his or her familiarity with district programs and policies,
4. The square footage of the classroom, and
5. Standards for safety (i.e. technical education, consumer and homemaking, etc.)

The committee wanted to ensure that the policy reflects both teacher and parent opinions, but that it is also supported by the most relevant research.

¹ This does not mean that there were 199 unique responses.

Recommended Policy (Draft Revised: October 16, 2013)

Given the research and rationale presented above, the committee drafted the following recommended policy to be considered by the Rye School Board.

The Rye School District is committed to maintaining small class sizes. In conjunction with a commitment to fiscal responsibility to the citizens of Rye, class size determinations in the School District should be made in order to maximize student learning and students' social and emotional development.

The administration considers the following factors, among others, in determining the size of each class:

- Individual student needs,
- The availability of additional certified specialists and/or paraprofessionals in the classroom and in the school,
- The experience of the teacher at that grade level and/or content area(s),
- The square footage of the classroom, and
- Standards for safety.

The recommended class sizes in the district are as follows.

Grade (Range)	Recommended Class Size Range
K-2	15-18
3-5	17-20
6-8	18-22

These ranges are guidelines and not requirements and fluctuations beyond these guidelines can be made by the administration

Appendix A: Summary of Class Size Meetings

Rye Public Schools
Ad-hoc Committee on Class Size
Meeting Date: June 10, 2013
Meeting Notes: Draft July 5, 2013
Revised: July 9, 2013

Attendees:

RES: Jacquie DeFreze, Lane Richardson, Maggie Hanna
RJH: Laura Sunderland, Chris Pollet,
Parents: Kathleen MacLeod, Karen Allen
Rye School Board: Mike Schwartz, Scott Marion

Meeting held at Rye Elementary School. Convened at 10:30 AM

Since a couple of committee members were not present at the start of the meeting, the remaining members agreed to delay electing a committee chair until later in the meeting.

The committee first reviewed the charge to the ad-hoc class size committee from the Rye School Board at its April 17, 2013 meeting. The charge is as follows:

The ad-hoc committee on class size was initially conceived as a way to examine issues related to the most appropriate instructional group size for students in RES as well as RJH. However, it quickly became apparent that simply focusing the numbers of students in a given classroom could miss the bigger issue of how should we think about structuring our schools to maximize student learning for all students in Rye Public Schools. Therefore, the ad-hoc committee will consider best practices for staffing of teachers, specialists, paraprofessionals, and other educators in order to maximize opportunities for student learning.

The committee first discussed the schedule for the deliverable, which will be a set of recommendations to the Rye School Board. The Board members suggested that it will be important to have these recommendations early in the budget process. The committee agreed to deliver its recommendations for class size by October 1, 2013.

There was a discussion about whether there was a policy in place. Mary Lyons and Mike Schwartz did not think there was a written policy, but there has been a practice in place for many years of keeping class size at 20 or fewer students. There has been more of a focus for keeping classes smaller at the younger grades.

The committee discussed the need to think strategically about class size so that it is not just a focus on numbers, per se, but a focus on specific educational issues, especially on considering ways to maximize learning of all students in Rye. Mike Schwartz suggested that any policy should reflect consideration of multiple factors. The committee then generated the following list of possible factors to investigate for their potential impact on class size recommendations.

- ✓ Grade level

- ✓ Student characteristics—and the diversity of student characteristics within a given grade or class
- ✓ Availability of aides
- ✓ Teacher expertise
- ✓ Subject area

The committee felt strongly that any recommended policy must allow for flexibility for principals to make decisions in the best interest of learning for all students. One of the main goals of the policy is to help set expectations for parents so there is a clear and transparent rationale for why class sizes are the set the way they are.

While there has been a long-standing interest in Rye of maintaining low class sizes, the committee recognized the importance of not letting class sizes get too low in order to allow for classroom activities such as cooperative groupings and other learning activities.

Scott Marion reported on Bedford's general class size policy of $20+2$ and the committee indicated a preference for a policy that employed a similar range (± 2) instead of a fixed number.

The teachers indicated that they recognized that the small class size in Rye is a luxury.

Mike Schwartz asked the teachers if it is harder to differentiate in reading or math. Maggie Hannah noted that math takes a little more explicit instruction, so it might be a little harder, but not necessarily as a general rule.

The issue of electing a committee chair was brought up again. Mary Lyons asked if anyone was interested in volunteering to be the chair. Scott Marion indicated that he would be willing to serve as chair. Mike Schwartz moved to nominate Scott as chair. Chris Pollet seconded the nomination. Scott Marion was elected as chair unanimously.

The committee discussed what type of information would help inform the work of the committee for the next meeting. All agreed that several forms of research would be helpful to inform subsequent deliberations. The following information will be brought to the next meeting and the committee member responsible for the information is noted in parentheses.

1. A summary of high quality published research (Scott Marion and Chris Pollet already provided several articles, but all were encouraged to search for additional research)
2. Information gathered from Rye teachers regarding their views on class sizes (Jackie DeFreze, Maggie Hanna, Laura Sunderland)
3. A survey of several high performing NH school districts regarding their class size policies and practices (Mike Schwartz)
4. Opinions from parents (Kathleen MacLeod, Karen Allen)

Maggie Hannah created a Google Doc to post information for the committee. The Doc can be found at: <https://docs.google.com/document/d/1TkHjb-pToC4j2sfL8Su6u8E6HWiZXv-kmsJUKVBOd7s/edit>

The committee decided that the next meeting would be held on Tuesday, July 9, 2013 from 8:00-9:00 AM at Rye Elementary School.

**Rye Advisory – Class Size
Committee Meeting
Tuesday, July 9, 2013, 8:00 AM
Rye Elementary School
Meeting Notes**

Board Charge: To establish comprehensive guidelines for determining class size at RES and RJH, considering staffing to efficiently maximize student learning.

In attendance: Suzanne Lull, Scott Marion, Kathleen MacLeod, Mike Schwartz, Karen Allen, Jacquie DeFreze, Maggie Hanna, Laura Sunderland, Mary Lyons.

AGENDA:

Minutes from the last meeting were approved. Future meetings will be posted.

2. Introductions & welcome Suzanne Lull- ☺

3. Review of research

Reminder about google docs.

- ✓ **Existing literature**—Scott Marion-General finding that smaller classes for children who are struggling or not prepared the number is 18. There is a lot of research on class size. Only one controlled experiment from Tennessee. Most research is inner city. It shows that when lower, more gains for children.
- ✓ **NH Districts**—Mike Schwartz- Shared Oyster River, Bow and Bedford. Bedford had factors in consideration of class size. K-2 is lower than 3-5. Jump in fifth. A range is good. Might be good to have a range and try to stay below so that people know what to expect. These are high achieving towns. NH standards K-2 (25) 3 and up (30).

- ✓ **Teacher information**—Jacquie DeFreze, Maggie Hanna, Laura Sunderland
Copies of the Survey Monkey results were handed out. The results of the class size numbers were shared:

K- 16, 14-15, 16	Music- 18	6- 16-18, >20
1-15-18, 16	PE- 20	7-12-15
2- 17-18, 14-15,>17	Lib- 17	8-20
3- 2?, 16-18, 15-20		LA- 10-15, 15max
4- 18, >20		Tech- 10 (safety)
5- 20, 16		PE- 18 Music-16

- ✓ **Parent information**--Kathleen MacLeod, Karen Allen
Right now we have Para's in K and the rest are based on special education.
We will survey the parents from both schools.
Questions will be:

1. An Ad Hoc Advisory committee is researching class size considering issues such as meeting individual student needs, socialization, and budgetary considerations. Please indicate your optimal class size for each grade level.

2. Please provide a rational for your answer thinking about RTI, class composition, specialist in the classroom, etc

It would be good to add what grade/s their child is going into.

4. Goals for Policy

- ✓ Maximizing learning for students
- ✓ Transparency for parents
- Budgeting for board and administration
- ✓ Other

5. Structure of Policy? Tabled due to time

- ✓ Range?
- ✓ Not to exceed?

6. Subsequent meetings? Next meeting August 16th at 8:00 AM

7. Things to think about: use of paras, looping?, co-teaching models? Classroom reduction teacher (certified teacher) If we are getting feedback should we look at staffing?

**Rye Advisory – Class Size
Committee Meeting Summary
Tuesday, August 16, 2013, 8:00
Rye Elementary School
Meeting Notes**

Board Charge: To establish comprehensive guidelines for determining class size at RES and RJH, considering staffing to efficiently maximize student learning.

In attendance: Suzanne Lull, Scott Marion, Mike Schwartz, Karen Allen, Maggie Hanna, Laura Sunderland, Mary Lyons, Chris Pollet, and River Bissonnette (2nd half of meeting).

Meeting notes:

Scott Marion called the meeting to order at 8:05 AM.
Review of July 9 meeting summary

Mary Lyons moved to approve the minutes from July 9, 2013. Mike Schwartz seconded the motion. Unanimously approved, but Chris Pollet abstained since he was unable to attend the July 9 meeting.

Taking stock of what we've learned from our review of research and other information

- ✓ Review of parent survey results:
http://www.surveymonkey.com/sr.aspx?sm=7496eP7ddOgRcNk4kDBoFBivU7mdySwfDveWShgjKvM_3d

There was a discussion of parent compared to teacher responses. It appeared that parents preferred lower numbers than teachers, but the general pattern of results was similar. There was some concern that parents might not have been given enough background information before asking their opinions about idea class sizes. The committee acknowledged that parent input is very important, but it is just one of many sources of information to inform the committee.

Clarifying our policy goals

- ✓ Maximizing learning for students
- ✓ Transparency for parents: needs to be important
- ✓ Budgeting for board and administration
- ✓ Other?

This agenda item was not addressed directly, but was discussed in the context of discussions about how to structure the policy recommendation.

How shall we structure the policy?

Mary Lyons suggested having a broad policy and then creating more specific guidelines or procedures within this policy for the schools. SAU 50 currently does

not have a class size policy so there was discussion about whether this policy should apply to the SAU or just Rye. Mike Schwartz suggested focusing just on Rye for now and then allowing the SAU policy committee decide if it wanted to create an SAU policy.

The committee wanted to make sure that the policy allows for flexibility for the factors that may influence student learning in a particular class such as:

- ✓ Differentiated Instruction
- ✓ Collaborative Learning
- ✓ Social and Emotional Development
- ✓ Needs of specific content
- ✓ Availability of paraprofessionals and support staff

The committee then worked on writing a rough draft of a policy. Mary Lyons suggested starting with parameters and then writing up description. Karen Allen suggested that the Bedford policy would be a good starting point.

The committee confirmed our charge: We are creating a recommended policy that will be presented to the Rye School board, which may then go to the SAU policy committee. The committee discussed how the policy recommendation should be structured. The recommended policy should begin with a preamble that explains the rationale for the policy, then factors that will influence final decisions each year creating the actual class size, and then the policy would include suggested ranges of targeted class sizes. Some of the factors to be considered include:

6. The numbers and distribution of students that will help the teacher be most effective with the specific children in the class,
7. The availability of additional certified specialists and/or paraprofessionals in the classroom and in the school,
8. The experience of the teacher and his or her familiarity with district programs and policies,
9. The square footage of the classroom, and
10. Standards for safety (i.e. technical education, consumer and homemaking, etc.)

The committee wanted to ensure that the policy reflects both teacher and parent opinions, but that it is also supported by research. The committee discussed whether the recommended class size should be a minimum, maximum, or range and whether it should be for grade spans or individual grades. Mike Schwartz suggested that we try both approaches to see which one makes more sense to the committee. The committee also wanted to ensure that the policy built in flexibility for the administrators.

Scott Marion and Mike Schwartz agreed to collaborate on a draft policy or policies and will share the draft(s) with the rest of the committee through GoogleDocs.

Schedule for future meetings

- ✓ Committee meeting Tuesday Sept. 3, 3:00 pm at Rye Junior High School

- ✓ There is a School Board Meeting on Sept. 18 and if we are able to agree on a recommended policy on September 3, we will aim to present the policy to the Board at the September meeting.

Mary Lyons moved to adjourn the meeting at 9:20 AM. Mike Schwartz seconded the motion. Unanimously approved.

**Rye Advisory – Class Size
Committee Meeting Minutes
Tuesday, September 3, 2013, 3:00 PM
Rye Junior High School
Meeting Notes**

In attendance: Chris Pollet, Scott Marion, Karen Allen, Jacquie DeFreze, Suzanne Lull, Mary Lyons, Meg Louney, Maggie Hanna, Mike Schwartz, River Bissonnette, Mrs. Mcleod

Board Charge: To establish comprehensive guidelines for determining class size at RES and RJH, considering staffing to efficiently maximize student learning.

AGENDA:

Approval of Minutes- Motion to accept minutes from the August meeting was made by Mary Lyons, 2nd by Jacquie DeFreze.....all in favor. Minutes passed.

Review Draft Policy- There was a lengthy discussion

We need to present recommendations to the board for the class size policy.
Committee makes rec to board, the board will then check with lawyers for approval and then it will become policy for the board.
NH School Board association- Attorney

- 2 versions of the policy-
Original and tracked changes from Karen Allen
- Should we add “physical” to the bullets for the whole child?
Academic
Social/emotional
Decision made to not add physical as it is addressed in PE. Class size decision should not be made about physical.
- Take out ensure and add maximize to the first paragraph
- Get rid of maximum/maximizing from each bullet
- It is all about student needs so many think that simple is better. Portsmouth just did away with their class size policy for upper grades.
- We strive to meet class sizes of up to 20.
- We need to think policy vs guidelines
- Goal is to set out clear expectations/shall consider is strong wording to not get the administration struggling

- #1 what does that imply?? Characteristics of the students- concern. Is it covered in the bullets above? **It was decided to remove number 1.**
- #2- refers to an extra reading specialist or a science specialist. It doesn't have to be for special education
- In determining the size of each class, the administration **shall consider** the following factors
- Should we **CHANGE** to may consider or shall consider some?
- **Change numbers to bullets**
- The admin should consider the following factors, among others to determine the class size
- #3 The experience of the teacher and his or her familiarity with district programs **and policies**, delete
- #5 **remove ie list**
- Class size- **Class size should be based upon the criteria described above, with the following guidelines for ideal class size in our district. Fluctuations beyond these guidelines can be made by the administration upon approval by the School Board.**
- **CHANGE TO** -The following guidelines for class size in our district are as follows.
- **No change-will leave for now**
- Smaller table or larger table- we will use the smaller table
- Range- lose the +/- and just put the numbers
- "Recommended range" Add the +/- below the Recommended Range
- Grades 6-8 (keeping in mind adding in New Castle)- Change range from 18-22 to ?
 - Due to time the meeting ended at 4:30
 - Scott will send out next meeting date.

**Rye Advisory – Class Size
Committee Meeting
Thursday, October 10, 2013
3:10 PM
Rye Junior High School
Meeting Summary**

Board Charge: To establish comprehensive guidelines for determining class size at RES and RJH, considering staffing to efficiently maximize student learning.

Attendees: Scott Marion, Mary Lyons, Suzanne Lull, Chris Pollet, River Bissonnette, Karen Allen, Kathleen MacLeod.

Absent: Mike Schwartz, Jacquie DeFreze, Maggie Hannah, Laura Sunderland, Margaret Louney

Minutes of the September 3, 2013 meeting

Mary Lyons moved to accept the minutes from the September 3rd meeting.
Chris Pollet seconded the motion.
All approved.

Review Draft Policy

The draft policy, based on the feedback from the September 3rd meeting was presented. Karen suggested getting rid of the maximum size column. This led to a discussion about the ramifications of going above this maximum size. The committee was more in favor of just having a recommended range rather than indicating a maximum value. Committee members saw challenges with the maximum from both angles. They were worried that some members of the public would try to press to have class sizes as close to the maximum as possible, while there was concern that administrators hands might be tied if they needed to exceed the maximum value.

There was also a discussion of whether the recommended range should include the ± 2 , but all agreed that if we were going to use the ± 2 , then we should just extend the recommended range to encompass these values.

The committee also suggested several editorial changes to clean up the wording and to make the language of the policy more straightforward. A “clean” copy of the **revised policy is presented below.**

Plan for Board Presentation

The committee agreed that the Board presentation should include a brief summary of the data the committee collected and how we used it to inform our recommended policy. The policy will be presented to the Board at the next meeting on Wednesday, October 16, 2013.

Appendix B: Summary of Educational Research

EDUCATION WEEK

Published: August 3, 2004

Class Size

Updated July 1, 2011

Reducing class size has become a perennial education improvement strategy, often popular with teachers and parents for its ability to give teachers more individual instructional time with students. Yet as states and districts struggle with tight budgets, more policymakers and researchers have begun to turn away from straight class-size reduction in favor of other methods to increase individual instruction time, such as restructured class formats, co-teaching, and distance learning.

Reducing class size gained prominence as a federally supported school-improvement strategy in 2000, with the creation of a federal class-size-reduction program, which gave states funding to recruit, hire, and train new teachers. Under the reauthorized Elementary and Secondary School Act—also known as the No Child Left Behind Act of 2001—that program was consolidated into a more general teacher-quality block-grant program funded at \$2.85 billion for 2002.

The national ratio of students to teachers in public schools fell between 1980 and 2008, from 17.6 to 15.8 students per teacher, according to the National Center for Education Statistics. However, because the statistics count special education and other specialized teachers who normally have much smaller classes than regular classroom teachers do, the U.S. Department of Education [estimates](#) the current average class size is closer to 25 students (Sparks, 2010).

In *Quality Counts 2008*, the EPE Research Center found that 21 states had a class-size reduction policy in place for the 2007-08 school year. By 2010, all but 15 states had [laws restricting the number of students](#) that may be included in a general education classroom, in some or all grades. Following the start of an economic downturn in 2008, 19 states relaxed or eliminated their class-size laws or policies, usually as a cost-saving measure (Sparks, 2010; Dorko, Sparks, 2010).

Likewise, states and districts have begun to shift their use of the federal teacher-quality block grants away from class-size reduction measures. According to an analysis by the Washington-based think tank Center for American Progress, 38 percent of districts surveyed in 2008-09 used the grants, called Title II, Part A funds, to reduce class sizes, but overall, the number of teachers whose jobs were underwritten by those grants decreased by 40 percent between 2002-2003 and 2008-2009. (Chait, 2009)

Research, for the most part, tends to support the belief in the benefits of small classes. While not all studies on the subject have shown that students learn more in smaller settings—and some are still ongoing—most have linked smaller classes to improvements in achievement.

The biggest and most credible of those studies, Tennessee's statewide Student/Teacher Achievement Ratio, or [STAR](#), project, begun in the late 1970s, found that the learning gains students made in classes of 13 to 17 students persisted long after the students moved back into average-size classes (HEROS, 2011). What's more, the Tennessee researchers found, poor and African-American students appeared to reap the greatest learning gains in smaller classes. After kindergarten, the gains black students made in smaller classes were typically twice as large as those for whites. Follow-up studies through the years have found the students who had been in small classes in their early years had better academic and personal outcomes throughout their school years and beyond (Krueger, 2001; Sparks, 2011).

Likewise, a 2001 evaluation of the Student Achievement Guarantee in Education, or SAGE, class size reduction program by researchers at the University of Wisconsin-Milwaukee found that a five-year-old program of class-size reduction in Wisconsin resulted in higher achievement for children living in poverty. Research from Columbia University Teachers College in New York showed the context of class-size reduction can affect its success in improving student achievement (Ready, 2008). Similarly, Charles M. Achilles, one of the original principal researchers on the STAR study, has said researchers and policymakers will have difficulty replicating the improvements seen in the STAR study without including key elements of that program, such as early intervention and small class sizes of three years or more (Achilles, 2008).

Researchers agree that shrinking the number of students in a class does not automatically translate into better learning. To squeeze the most out of their new settings, teachers may need to alter their teaching practices, dropping lecture-style approaches and providing more frequent feedback and interaction. And, while the studies that found positive effects from class-size reductions have focused on efforts that cut classes down to 16 or so students, states have so far tended to reduce classes only by a few students.

As school improvement ideas go, reducing class sizes is costlier than many others and more complicated than it appears at first blush. For example, Florida estimates its class-size program will cost \$40 billion to implement through 2020. An analysis of 24 state policies by the Brookings Institution's Brown Center on Education Policy found many of those initiatives may not be worth the cost because the average class-size reductions were not large enough to improve student achievement (Whitehurst, 2011).

One concern surrounding efforts in various states to shrink class sizes is that the press for quantity will come at the expense of quality, forcing schools and districts to hire underqualified or unprepared teachers.

California learned that lesson firsthand when the state undertook its own class-size-reduction initiative beginning in 1996. In the first year of implementation, more than one-fifth of the new teachers hired in that state had only emergency credentials. Hit hardest were schools serving poor and minority students. In the hunt for new space, administrators found themselves carving classrooms out of broom closets and erecting portable classrooms on playgrounds.

It remains to be seen how much federal support will be given to class-size reduction programs in the next iteration of the Elementary and Secondary Education Act. U.S. Secretary of Education

Arne Duncan has voiced a preference for expanding school days and years to increase instructional time over reducing class sizes. He cited statistics from the Organization for Economic Cooperation and Development, a Paris-based group representing major industrialized countries, showing that several high-performing Asian countries have higher average class sizes: 33 in Japan and 36 in South Korea, compared with the estimated 25 students in the United States.

SOURCES

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- Dorko, K., Sparks, S.D., "[Setting Class-Size Limits](#)" (Interactive Map), Education Week, 2010.
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- Health and Education Research Operative Services, Inc., "[Project STAR Overview](#)," 2011.
- Krueger, A.B., Whitmore, D.M., "[The Effect of Attending a Small Class in the Early Grades on College-Test Taking and Middle School Test Results: Evidence from Project STAR](#)," 2001.
- Ready, D., "[Class-Size Reduction: Policy, Politics, and Implications for Equity](#)," Education Week, April 9, 2008.
- Sparks, S.D., "[Class Sizes Show Signs of Growing](#)," Education Week, Nov. 24, 2010.
- U.S. Department of Education, "[Class-Size Reduction Myths and Realities](#)," 2002.
- Whitehurst, G.J., "[Class Size: What Research Says and What it Means for State Policy](#)," 2011.

Web Resources

- The [SERVE Center](#) at the University of North Carolina at Greensboro provides information on state-level class-size reduction initiatives, research, and recommendations.
- [Class Size Matters](#) is a non-profit clearinghouse for information on class size, focusing on the benefits of smaller classes.
- *Education Week* [compared state laws](#) in a 2010 interactive map and follows developments in class size policies in its [Class Size](#) news article collection. The Illinois State Board of Education analyzed the cost of lowering the class size limit statewide in a 2006-07 [Class Size Survey](#).
- In the 2011 series "[Class Size: What Research Says and What it Means for State Policy](#)," Russ Whitehurst and colleagues at the Brookings Institution analyzed class-size research and programs.
- The [North Central Regional Education Laboratory's](#) report, "[Using What We Know: A Review of the Research on Implementing Class-Size Reduction Initiatives for State and Local Policymakers](#)," presents information on the costs and benefits of reduced class size. It also includes advice on implementing class-size reduction policies.
- The 2008 American Journal of Education article "[Achievement Differences and School Type: The Role of School Climate, Teacher Certification, and Instruction](#)" analyzes class size impact by looking at math scores on the National Assessment of Educational Progress.
- "[The Tennessee Study of Class Size in the Early School Grades](#)," published in 1995 by the [Future of Children](#), is arguably the spark that ignited interest in the relationship between class size and student achievement. (Requires [Adobe's Acrobat Reader](#).)

- In [*The Class Size Debate*](#), June 2002, from the [Economic Policy Institute](#), economists Eric A. Hanushek and Alan B. Krueger debate the merits of smaller class sizes and the research methods used to measure its effects. (Requires [Adobe's Acrobat Reader](#).)
- "[Class Size: Counting Students Can Count](#)," Fall 2003, from the [American Educational Research Association](#), reviewed research up to that point that showed smaller class sizes shrink the achievement gap for minority students and shift schools away from ineffective spending. Another study from that year, "[Crowd Control](#)" by Education Next, examined data from the Third International Mathematics and Science Study to compare the effects of class size around the world. "While Americans squabble over whether class size should be 18 or 25 students," they note, "teachers in Korean schools routinely face classrooms of more than 50 students."

Appendix C: Summary of NH “Peer District” Class Size Policies

Schools Policies:

Bow:

District class size recommendations are:

Kindergarten	18 students or less
Grades 1 and 2	22 students or less
Grades 3 through 8	25 students or less

Oyster River:

The Oyster River Cooperative School District will adhere to all state laws and regulations pertaining to class size. In the event of scheduling conflicts, staffing shortages, space limitations, fiscal limitations, or other issues that prevent a classroom from adhering class size regulations, the Superintendent or designee will contact the New Hampshire Department of Education and seek alternative compliance allowances through the applicable State procedures.

In an effort to provide the best possible education for all students in the Oyster River Cooperative School District it is the goal of the Oyster River Cooperative School Board to support the following guidelines related to class size.

Kindergarten	Not to exceed 18 students
Grades 1, 2 and 3	Not to exceed 20 students
Grades 4 and 5	Not to exceed 22 students
Grades 6, 7 and 8	Teams of not more than 90 students per 4 person team
Grades 9 through 12	In general not to exceed 22 students with the exception of those classes that may be above or below 22 students depending upon curriculum, activities, space limitations or for safety reasons. The Principal will be responsible for making these decisions.

Because resources (both space and staff) are limited it is understood that these are goals and not absolute limits and will not exceed state minimum standards guidelines.

Classes below 12 will be brought to the attention of the Superintendent for approval

Bedford:

The School Board believes that class size has a bearing upon effective teaching. A reasonable and equitable class enrollment for each teacher in the School District is defined as follows:

K: 20:1 with paraprofessional Gr. 1-4:20:1 Gr. 5-8:25:1

The School Board understands that achieving this goal is dependent upon the financial ability of the school district. In determining the size of various classes, the administration will consider the following factors:

11. The type of load that will help the teacher be most effective with the children in the class.
12. The experience of the teacher and his or her familiarity with district programs and policies.
13. Required preparation and correction time for the particular class.
14. The square footage of the classroom. Efforts will be made to conform to state standards (i.e., 30 sq. ft. per elementary school student, etc.).

Standards for safety (i.e. technical education, consumer and homemaking, etc.).

Appendix D: Summary of Teacher Responses Regarding Optimum Class Size

Summary of Class Size Survey of Teachers by Grade

Survey Question: What is the OPTIMUM class size for your grade?

Grade	Teacher 1	Teacher 2	Teacher 3
K	16	16	14-16
1	15-18	16	
2	17-18	14-15	17-18
3	16-18	18-20	
4	18	<20	
5	20	16	
6	16-18	<20	
7	12	15	
8	20	18	

Appendix E: Summary of Parent Responses Regarding Optimum Class Size

Question #1: What is the grade of child or children during 2013-2014?

Grade	Percent	Count
K	13.10%	26
1st	13.10%	26
2nd	17.10%	34
3rd	18.10%	36
4th	18.60%	37
5th	17.10%	34
6th	11.60%	23
7th	15.10%	30
8th	20.60%	41
Total Responses		199

Question 2: What is the optimal class size for each of the following grades? (see next page).

Optimal Class size (% of respondents followed by number of respondents in each cell in parentheses)																			
	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Count
K	1.3 (2)	0.7 (1)	10.0 (15)	0.7 (1)	23.3 (35)	5.3 (8)	13.3 (20)	29.3 (44)	8.7 (13)	2.0 (3)	2.7 (4)	0.7 (1)	2.0 (3)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	150
1	0.0 (0)	0.0 (0)	4.7 (7)	0.7 (1)	16.1 (24)	5.4 (8)	12.8 (19)	31.5 (47)	14.8 (22)	4.7 (7)	5.4 (8)	0.7 (1)	2.7 (4)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.7 (1)	149
2	0.0 (0)	0.0 (0)	2.6 (4)	1.3 (2)	12.6 (19)	4.6 (7)	7.3 (11)	35.8 (54)	14.6 (22)	7.3 (11)	8.6 (13)	0.7 (1)	3.3 (5)	0.0 (0)	0.7 (1)	0.0 (0)	0.0 (0)	0.7 (1)	151
3	0.0 (0)	0.0 (0)	2.0 (3)	1.3 (2)	7.3 (11)	4.0 (6)	7.3 (11)	33.3 (50)	16.0 (24)	8.7 (13)	10.7 (16)	0.7 (1)	7.3 (11)	0.0 (0)	0.7 (1)	0.0 (0)	0.0 (0)	0.7 (1)	150
4	0.0 (0)	0.0 (0)	1.3 (2)	0.0 (0)	5.4 (8)	4.0 (6)	9.4 (14)	26.8 (40)	9.4 (14)	14.1 (21)	15.4 (23)	2.0 (3)	10.7 (16)	0.0 (0)	0.7 (1)	0.0 (0)	0.0 (0)	0.7 (1)	149
5	0.0 (0)	0.0 (0)	1.4 (2)	0.0 (0)	4.8 (7)	2.8 (4)	7.6 (11)	20.7 (30)	12.4 (18)	13.8 (20)	20.0 (29)	0.7 (1)	14.5 (21)	0.0 (0)	0.7 (1)	0.0 (0)	0.0 (0)	0.7 (1)	145
6	0.0 (0)	0.0 (0)	1.4 (2)	0.0 (0)	4.2 (6)	2.8 (4)	3.5 (5)	16.1 (23)	9.1 (13)	10.5 (15)	21.7 (31)	2.1 (3)	25.2 (36)	0.0 (0)	1.4 (2)	0.0 (0)	1.4 (2)	0.7 (1)	143
7	0.0 (0)	0.0 (0)	0.7 (1)	0.0 (0)	4.1 (6)	1.4 (2)	4.1 (6)	17.9 (26)	9.7 (14)	9.0 (13)	20.7 (30)	1.4 (2)	23.4 (34)	0.7 (1)	2.8 (4)	0.7 (1)	1.4 (2)	2.1 (3)	145
8	0.0 (0)	0.0 (0)	0.6 (1)	0.0 (0)	5.8 (9)	0.0 (0)	3.9 (6)	18.8 (29)	11.7 (18)	7.1 (11)	16.9 (26)	1.3 (2)	25.3 (39)	0.0 (0)	3.2 (5)	0.0 (0)	1.9 (3)	3.2 (5)	154