

ANSWERS TO THE ARGUMENT THAT CLASS SIZE REDUCTION COSTS TOO MUCH

Reducing class size is a long term investment which pays substantial returns.

Class Size vs. Pupil Teacher Ratio

When answering the argument that class size reduction costs too much, you must first explain the difference between Class Size and Pupil Teacher Ratio (PTR). **Class Size** is the number of students who regularly appear in a teacher's classroom and for whom that teacher is primarily responsible and accountable. **PTR** is a derived estimate commonly computed by dividing the number of students in a school by the number of professionals who work at or serve that school (e.g., counselors, special teachers, administrators, librarians, etc.). The difference between Class Size and PTR is about 9 or 10 students. In a school with a PTR of 16:1 you will find class sizes of about 25 or 26. (For additional information read the structured abstract of Mark Sharp's dissertation. The abstract can be found on the Reduce Class Size Now web site- http://www.reduceclasssizenow.org/sa_articles/SA9.pdf.)

Collect the Following Data to Make Your Case

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| § Number of Students | § Number of Retainees for each Grade Level |
| § Number of Schools | § Number of Dropouts for each Grade Level |
| § Number of Title I schools | § Annual Cost of State Incarceration |
| § Number of Welfare Families | § Amount of Federal, State, and Local Education Funding |
| § Per Pupil Expenditure | |

Class Size Reduction Should be Implemented in Phases

- § During the first year of implementation reduce class sizes in kindergarten, first grade, and second grade.
- § The second year of implementation, reduce class sizes in third grade and fourth grade.

Initial Costs

- § Teacher Salaries
- § Classroom Space

Return on the Investment

Krueger's (2002) analysis of STAR's class size experiment "suggest[s] that the internal real rate of return from a seven-student reduction [from 22 students to 15 students] in class size in the first four years of primary school is about 6%. At a 4% discount rate, every dollar invested in small classes yields about \$2 in benefits." (For additional information read the structured abstract of Alan Krueger's analysis. The abstract can be found on the Reduce Class Size Now web site- http://www.reduceclasssizenow.org/sa_articles/SA13.pdf.)

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| § <i>Teacher Morale</i> - increased attendance; reduced substitute costs; reduced "burnout" | § <i>Fewer Dropouts</i> - unemployment rate for dropouts is 4 times greater than for high school graduates |
| § <i>Teacher Incentive</i> - attract and retain quality teachers | § <i>Improved Student Behavior</i> - vandalism costs decrease; expulsions and suspensions decrease; fewer discipline problems; fewer classroom disruptions |
| § <i>Parent and Community Involvement</i> - attract parents and volunteers; better communication between teachers and parents; field trips (etc.) less congested and require fewer volunteers (1 teacher and 2 volunteers can take a class on a field trip) | § <i>Early Identification of Learning Disabilities</i> - special education programs reduced in later years; programs accurately "targeted" to most needy students |
| § <i>Improved Academic Achievement</i> - better test scores; helps close the racial achievement gap | § <i>Improved High School Graduation Rates</i> - adults without high school diplomas earn 42% less than high school graduates |
| § <i>Fewer Retentions</i> - number of students "held back" decreases; schools pay double for every grade a student repeats | § <i>Increased College Entrance Test-taking Rates</i> |

Sample Plan for Implementation of Class Size Reduction in SMART District

§ Year 1 implementation: reduce class sizes in kindergarten, first grade, second grade

§ Year 2 implementation: add third grade and fourth grade

Example of Class Size Reduction in SMART District

Number of Students in District: 3,487	Total Number of Classroom Teachers: 206	
Number of Students in K-4: 1,358	Number of Classroom Teachers K-4: 62	
Per Pupil Expenditure (PPE): \$7,985	Beginning Teacher Salary: \$30,964	
Revenue: Local- \$7,575,308	State- \$17,801,278	Federal- \$2,483,260

Costs

Additional Classrooms- Additional space not needed. Classroom space was found by reorganizing existing classroom and building space and in some cases by using two teachers per room.

Additional Teachers- Year 1: Kindergarten – Grade 2: 9 teachers added to reduce classes from 22 to 18
9 teachers added at \$30,964 each = \$278,676 in costs
Year 2: Grades 3 – 4: 5 teachers added to reduce classes from 22 to 18
5 teachers added at \$30,964 each = \$154,820 in costs
Total Cost for Additional Teachers: \$433,496

Estimated Savings from Decreased Retentions

38 K-2 Students Retained (Year 1:Pre-Implementation)	27 K-2 Students Retained (Year 1:Post-Implementation)
48 K-4 Students Retained (Year 2:Pre-Implementation)	34 K-4 Students Retained (Year 2:Post-Implementation)
86 K-4 = \$686,710 (\$7,985 PPE X 86)	61 K-4 = \$487,085 (\$7,985 PPE X 61)
\$686,710 - \$487,085 = \$199,625 Saved Due to 30% Decrease of Retainees	

Payment for Implementation

Savings \$199,625 + Federal \$233,871 = \$433,496

Note: Costs of teachers can be reduced by reassigning support teachers (e.g., reading, math, special, etc.) to a small class of their own. With classes of 18 it is possible for one paraprofessional to assist two teachers.

Additional Educational and Economic Benefits

- § High school graduation rates for lower socioeconomic (SES) students improved from 70.2% (no small classes) to 88.2% if students had small classes in grades K-3; graduation rates for higher SES students improved, but less dramatically (83.7% to 87%). *Finn, Gerber, and Boyd-Zaharias, 2004*
- § College test-taking rates for African-American students who had been in a small class in K-3 were statistically significant, reducing the gap between the rates of African-American and white students in taking the ACT or SAT college-entrance tests by 54%. If taking college-entrance exams equates with the person's actually attending college, then the large gains for minority students can have economic benefit from earnings and reduced need for social services. *Krueger and Whitmore, 2000*
- § If all students were in a small class in grades K-3 for one to four years . . . the black-white test-score gap would fall by 38% in grades K-3, and by 15% thereafter. *Krueger and Whitmore, 2001*

Nationwide Costs of NOT Reducing Class Size

- § Each year's dropouts will cost the country over \$200 billion during their lifetimes in lost earnings and unrealized tax revenues (Catterall, 1985).
- § High school graduates, on the average earn \$9,245 more per year than high school dropouts (Employment Policy Foundation, 2002).
- § In today's workplace, only 40% of adults who dropped out of high school are employed (Alliance for Excellent Education, 2003).
- § 75% of America's state and 59% of America's federal prison inmates are high school dropouts (Harlow, 2003).
- § A 1% increase in high school graduation rates would save approximately \$1.4 billion in incarceration costs, or about \$2,100 per each male high school graduate (Alliance for Excellent Education, 2003).
- § The estimated tax revenue loss from males ages 25 – 34 who did not complete high school would be approximately \$944 billion, with cost increases to public welfare and crime at \$24 billion.
- § A National Center for Education Statistics study found high school dropouts were more than twice as likely to receive public assistance as high school graduates who did not go on to college (Smith et al., 1996).