



UNITED STATES DEPARTMENT OF EDUCATION  
OFFICE OF THE SECRETARY

FAX TRANSMITTAL

TO: Mike Cohen, Tanya Martin & Bell Kincaid

ORGANIZATION: DPC

PHONE NUMBER: \_\_\_\_\_

FAX NUMBER: 456 - 5581

FROM: Terry Dozier

PHONE NUMBER: 401 - 0607

MESSAGE: Here is the Department's revision  
of the CSR brief. We would like to  
use this as the basic information we  
provide people. ~~would like to use~~  
If possible - we'd like the WH & Dept. to  
both use this new version. Substance has  
not changed - only emphases. Let me know  
if you

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## UNITED STATES DEPARTMENT OF EDUCATION

WASHINGTON, D.C. 20202- \_\_\_\_\_

# A NATIONAL EFFORT TO REDUCE CLASS SIZE: SMALLER CLASSES WITH QUALIFIED TEACHERS

**REDUCING CLASS SIZE IN GRADES 1-3 TO NATIONWIDE AVERAGE OF 18.** In his State of the Union address, President Clinton proposed a \$12 billion initiative over 7 years (\$7.3 billion over 5 years) to help local schools provide small classes with qualified teachers in the early grades. This will help make sure that every child receives personal attention, gets a solid foundation for further learning, and learns to read independently by the end of third grade. The new initiative would reduce class size in grades 1-3 to a nationwide average of 18, by providing funds to help local school districts hire and pay the salaries of an additional 100,000 teachers. States would receive funds for teacher training, and new teachers would be required to pass state competency tests.

**Small Classes Make a Difference.** Studies confirm what parents and teachers know from experience -- small classes promote effective teaching and learning. In a landmark four-year experimental study of class-size reduction in grades kindergarten through 3 in Tennessee, researchers found that students in smaller classes earned significantly higher scores on basic skills tests in all four years and in all types of schools. The effects of smaller classes were largest for students in inner-city classes. Follow-up studies have shown that these achievement gains continued after the students returned to regular-size classes after third grade. Teachers in the study reported that they preferred small classes in order to better identify student needs, provide more individual attention, and cover more material effectively.

**A Competent Teacher in Every Classroom.** To master the basics and learn to read well, students need teachers who are qualified to teach. President Clinton's class size reduction initiative would help provide qualified teachers in grades 1-3 by:

- ▶ **Requiring Teachers to Meet State Certification Standards.** Participating states and school districts would be required to ensure that individuals hired to fill these new positions be either fully certified or making satisfactory progress toward full certification.
- ▶ **Providing Funds for Teacher Training and Recruitment.** 10% of the funds in this initiative will be used to promote high quality teaching. Funds may be used to (1) provide teachers with additional training needed to meet certification requirements; (2) train teachers in proven practices for teaching reading and in effective practices in small classes; (3) provide mentors or other support for newly hired teachers; and (4) provide incentives to recruit qualified teachers to high poverty schools.
- ▶ **Encouraging States to Adopt Rigorous Professional Tests and Upgrade Teacher Certification Requirements.** Teachers should be able to demonstrate that they know the subject to be taught and have the necessary knowledge and skills to help their

students reach challenging state academic standards. States would be encouraged to use a portion of their funds to toughen teacher certification requirements and to require new teachers to demonstrate competence. For example, states could use these funds to develop rigorous tests of subject matter expertise and professional knowledge that prospective teachers would be required to pass before they start teaching.

As an interim measure, states would be required to implement a basic skills test for new teachers. Each state would select the tests it determines are most appropriate for this purpose. Most states already require testing of new teachers in basic skills. Funds may be used to test new teachers before they are hired.

**Holding Schools Accountable for Results.** School districts receiving these funds would be required to show that each school is making measurable progress in improving reading achievement within three years, or take necessary corrective actions -- such as providing additional teacher training, revising the curriculum, or implementing proven practices for teaching reading. School districts could lose funding if there were no subsequent improvement in reading achievement in those schools. School districts would also be required to publish an annual school report card, providing parents and taxpayers with clear information on student achievement, class size, and teacher qualifications.

**Targeting Funding.** Funds for the President's class size reduction initiative would be distributed to states on the basis of the Title 1 formula. Within the state, each high-poverty school district would receive the same share of these funds as it received under Title 1, and the remaining funds would be distributed within the state based on class size. Matching funds would be required from participating school districts, on a sliding scale ranging from 10-50%, with high-poverty districts contributing the least. Once a state has reached an average class size of 18 in grades 1-3, it could use these funds to further reduce class size in the early grades, or it could extend its efforts to other grades.

**Providing Facilities for Additional Classrooms.** In order to help school systems meet the need for additional classroom space, the President is (1) proposing a \$10 billion school modernization initiative over 10 years, that would provide incentives for communities to invest in local school facilities by leveraging \$22 billion in bonds during 1999-2000; (2) ensuring that changes to facilities in order to accommodate class size reductions are an allowable use of school modernization funds; (3) allowing for phased-in implementation of class size initiative to enhance state/local planning.

**Building on Successful Reforms in Arkansas.** As part of his comprehensive education reforms while Governor of Arkansas, Bill Clinton reduced class size in Arkansas to 20 in kindergarten and 23 in grades 1 through 3. His 1983 education reform plan also included a statewide intensive training program for elementary teachers and principals to improve teaching of reading, as well as basic skills testing for new teachers and basic skills and subject matter testing for experienced teachers.

Urgent



## FAX TRANSMISSION

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Number of Pages (including cover sheet): 3

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Comments:

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S.L.C.

43

1 (b) SUPPLEMENT NOT SUPPLANT.—Amounts pro-  
2 vided to a State under this section shall be used to supple-  
3 ment and not supplant other Federal, State and local  
4 funds provided for programs that serve the health and de-  
5 velopmental needs of children. Amounts provided to the  
6 State under any of the provisions of law referred to in  
7 this section shall not be reduced solely as a result of the  
8 availability of funds under this section.

9 (c) FUNDING.—The Board shall use amounts made  
10 available for a fiscal year under section 111(a)(2)(B)(i)  
11 to carry out this section in such fiscal year.

12 **SEC. 132. IMPROVING ELEMENTARY EDUCATION.**

13 (a) GRANTS AUTHORIZED.—From amounts made  
14 available under section 111(a)(2)(b)(ii) for each fiscal  
15 year, the Secretary of Education shall award grants to  
16 States to enable the States to train, recruit and hire ele-  
17 mentary school teachers for the purpose of reducing the  
18 average class size for students in grades 1 through 3 to  
19 [not less than 15 and] not more than 18 students per teach-  
20 er.

21 (b) REGULATIONS REQUIRED.—The Secretary of  
22 Education, not later than March 1, 1999, shall promulgate  
23 regulations implementing the grant program described in  
24 subsection (a).

25 (c) STATE PLAN.—

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## 44

1 (1) IN GENERAL.—Each State desiring a grant  
2 under this section shall submit to the Secretary of  
3 Education a State plan at such time, in such man-  
4 ner, and accompanied by such information as the  
5 Secretary may require.

6 (2) CONTENTS.—Each State plan shall dem-  
7 onstrate to the satisfaction of the Secretary of Edu-  
8 cation that—

9 (A) the activities assisted by the State with  
10 funds provided under this section will be con-  
11 ducted in compliance with the regulations de-  
12 scribed in subsection (a); and

13 (B) the State will use the funds provided  
14 under this section to reduce class size for stu-  
15 dents in grades 1 through 3 in elementary  
16 schools throughout the State, focusing on using  
17 the funds to train, recruit and hire teachers for  
18 elementary schools serving communities with  
19 the least resources for training, recruiting and  
20 hiring teachers for the grades and the highest  
21 student-to-teacher ratios for the grades.

22 (3) APPROVAL.—The Secretary shall approve a  
23 State plan submitted under paragraph (1) if the  
24 State plan meets the requirements of this sub-  
25 section.

## Specifications for Class Size Reduction and Teacher Financing Initiative

### 1. Findings

- Recent research has shown that students attending small classes in the early grades make more rapid educational progress than than students in larger classes, and that these achievement gains persist through at least the 8th grade.
- The benefits of smaller classes are greatest for lower-achieving, minority, poor, and inner-city children. One study found that urban fourth-graders in smaller-than-average classes were three-quarters of a school year ahead of their counterparts in larger-than-average classes.
- Teachers in small classes can provide students with more individualized attention, spend more time on instruction and less on other tasks, and cover more material effectively, and are better able to work with parents to further their children's education.
- Smaller classes allow teachers to identify and work sooner with students who have learning disabilities and, potentially, can reduce the those students' need for special education services in the later grades.
- Students in smaller classes are able to become more actively engaged in learning than their peers in large classes.

### 2. Purpose

It is the purpose of this program to help States and local educational agencies hire 100,000 additional teachers in order to reduce class sizes nationally, in grades 1-3, to an average of 18 students per classroom and to improve teaching in the early grades so that all students can learn to read independently and well by the end of the third grade.

### 3. Program Funding

From funds made available under [the tobacco settlement], the Secretary is authorized to use \$1,100,000,000 in FY 1999 and...[include each year's funding level?]

### 4. Allocations to States

From the amount made available under #3, the Secretary shall reserve not more than 1 [%] percent for payments to the Outlying Areas and to the Secretary of the Interior for activities consistent with this program in schools supported by the Bureau of Indian Affairs. The Secretary shall

allocate funds among the outlying areas and the BIA in accordance with their respective needs.

From the remaining funds, the Secretary shall provide each of the 50 States, DC and Puerto Rico with a grant in an amount that bears the same relationship to the total available for allocation as the amount of funding the State received under section 1122 of the Elementary and Secondary Education Act in the previous year bore to the total amount available for allocation under that section.<sup>1</sup>

Also need standard reallocation language, in case some States elect not to participate.

### 5. Applications

The State educational agency of each State desiring to receive funding under this authority shall submit an application to the Secretary at such time, in such form, and containing such information as the Secretary may require.

The application shall include:

- A description of the State's plan for reducing class size in grades 1-3, including an average class size that the SEA proposes as a target for the State to reach with program funds;<sup>2</sup>
- A description of the SEA's plan for allocating program funds within the State, and an assurance that the SEA will make this plan public within the State;
- A description of the SEA's overall strategy for improving teacher quality within the State, including actions it will take to ensure the availability, within the State, of a sufficient number of qualified teachers to fill the positions created with program funds. The strategy shall also describe how the SEA and the State's LEAs will ensure that:
  - Individuals hired for positions created by program funds will meet all of the State's current requirements for full certification, or will be making satisfactory progress toward achieving full certification;
  - Individuals hired for positions created by program funds will be prepared to

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<sup>1</sup>NCES has pointed out that providing Puerto Rico with its Title I share would allow the Commonwealth to bring average class size down to something like 9. (Because teacher salaries are very low there, the same amount of money buys a lot more teachers.) Do we want a special allocation rule for Puerto Rico?

<sup>2</sup>States would not have to show how they will reduce average class size to exactly 18, since 18 will be the national average but not the precise number for every State.

teach reading effectively;

-- Individuals hired for positions created by program funds will receive ongoing professional development in effective reading instruction practices and in effective small-class instruction practices; and

-- Individuals hired for positions created by program funds will be required to pass a test of their academic knowledge and teaching competency.

-- A description of the assessments that the SEA will use to measure increases in student achievement in reading;

-- A description of how the State will use other funds, including other Federal funds, to improve teacher quality within the State;

-- An assurance that the SEA will produce an annual, public report on student achievement, average class size, and teacher qualifications in grades 1-3.

The Secretary shall approve an application of a State if such application meets the above requirements and holds reasonable promise of achieving the purposes of this program.

#### 6. Within-State Allocations

States shall use their allocations to make subgrants to local educational agencies for the purpose of reducing class size and improving instruction in grades 1-3.<sup>3</sup> States shall base these allocations on: (1) LEAs' current or projected class sizes in grades 1-3; and (2) the relative ability of LEAs to finance class size reductions with their own funds. State shall make allocations in such a manner as to enable local educational agencies to reduce their average class sizes, in grades 1-3, to the average class size proposed in the State application.

Special rule: In making suballocations, States shall ensure that LEAs in which (1) at least 30 percent of children are from low-income families or in which (2) at least 10,000 children are from such families receive at least the same share of the allocations as those LEAs received of the State's allocation under ESEA section 1122 in the preceding fiscal year.<sup>4</sup>

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<sup>3</sup>Does all the money go out in suballocations, or would States be able to retain some for administration and for State-level activities? The NCES class-size projections assumed that all funds would flow to LEAs, but some of the activities listed in the fact sheets (e.g., revising licensure standards, creating and administering teacher competency tests) would seem to be State-level. And States will incur some administrative costs.

<sup>4</sup>Would this requirement apply to LEAs that already have grade 1-3 class sizes below 18 (or below the State's goal)?

## 7. Uses of Funds

With funding the State receives for fiscal years 1999-2003, LEAs shall use at least [may use up to?] 10 percent for activities to ensure that teachers hired with program funds, and other teachers who will teach smaller classes, are prepared to teach reading and other subjects effectively in a smaller class setting. Activities undertaken in pursuit of this objective may include:

- Training teachers in effective reading instructional practices (including practices for teaching students who experience initial difficulty in learning to read) and in effective instructional practices in small classes;
- Paying the costs for teachers hired under this part and who are not fully certified to obtain full certification;
- Providing mentors or other support for teachers hired for positions created by this authority;
- Providing incentives for recruitment of teachers for schools that have a particularly difficult time hiring certified instructors;
- Providing scholarships or other aid to paraprofessionals or undergraduate students in order to expand the pool of qualified teachers.<sup>5</sup>

LEAs shall use the remaining amounts available for payment of the salaries and benefits for the additional teachers needed to reduce class sizes in grades 1-3 to the level determined as the State goal in the State application. LEAs that have already reached this objective may use the funds to: (1) make further class size reductions in grades 1-3; (2) reduce class sizes in other grades; or (3) undertake any of the quality improvement activities listed above.

## 8. Matching Requirement

The Federal share of the cost of activities carried out under this authority [or else the share of the cost that is paid for under this authority -- see comment below] shall be no more than:

- \_\_\_ percent in LEAs that have greater than a 50 percent child poverty level;
- \_\_\_ percent in LEAs with poverty rates of more than 40 percent but no more than 50 percent;
- \_\_\_ percent in LEAs with poverty rates of more than 30 percent but no more than 40

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<sup>5</sup>Could also include activities to strengthen teacher licensure and creating teacher competency tests but, as noted in footnote 3, these seem like State-level activities.

percent;

\_\_\_ percent in LEAs with poverty rates of more than 20 percent but no more than 30 percent;

\_\_\_ percent in LEAs with poverty rates of more than 10 percent but no more than 20 percent; and

\_\_\_ percent in LEAs with poverty rates of no more than 10 percent.<sup>6</sup>

A local educational agency may meet the matching requirement through cash expenditures<sup>7</sup> (1) from any non-Federal sources [or (2) funds from other Federal programs, so long as the funds are used in a manner consistent with those programs]<sup>8 9</sup>

#### 9. Carryover

Language may be needed to supersede the language in section 421 of GAPA, if we want to allow States to carry money over more than the one extra year.

#### 10. Accountability

Within 3 years of receiving funding under this program, each local educational agency shall provide evidence, to its State educational agency, of the achievement of the LEA's students, grades 1-4 [?] in reading. Such evidence shall be: (1) in a form determined by the SEA; (2) based on the assessments LEAs are using under ESEA Title I or on comparably rigorous State or local assessments; and (3) disaggregated to show the achievement of students in individual schools and of students in different racial groups, by gender, and for students with disabilities and with limited English proficiency.

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<sup>6</sup>Seems like we need to scale the matching requirement, based on the size of the districts in each of these six cohorts, in order to come up with an overall average match of 20 percent (assuming a proportionate allocation of funds to districts in each cohort). As a start, matching rates of 0%, 10%, ...50% would produce an average match of \_\_\_ percent. Another approach might be to allow States to do their own scaling, so long as the average match for the State is 20 percent, but this would have Mississippi matching at the same rate as Connecticut, which doesn't seem right.

<sup>7</sup>In-kind matching wouldn't allow the program to generate 100,000 new teachers.

<sup>8</sup>Not sure if there has been a decision on this issue yet.

<sup>9</sup>One final issue on the match: the memo to the President said that the overall match would increase to 30 percent in year 6. Is this still the intent?

LEAs with schools that fail to show improvement in reading achievement after 3 years shall enter into a program improvement plan. The program improvement plan may provide for: (1) the LEA's intervention, in schools failing to show improvement, in order to change curriculum, management, or staffing; (2) implementation, in those schools, of comprehensive, research-based education reform models; or (3) any other improvement strategy jointly agreed to by the LEA and SEA.

Beginning in the sixth year of the program, SEAs shall reduce the allocations to LEAs operating schools that fail to show improvement in reading achievement by an amount equivalent to the share of the LEAs' allocations attributable to those schools.

#### 11. Participation of Private School Teachers

Include language requiring participating LEAs to provide for the inclusion (in a manner proportionate to the number of children in the areas served by the LEA who attend private schools) of private school teachers in the professional development activities the LEAs and their schools carry out under the program.

#### 12. Evaluation

The cost estimates did not provide funding for an evaluation or other national activities. We suggest a small set-aside for an evaluation of: (1) the extent to which the program achieves its objective of reducing class sizes; (2) the impact of the program on reading achievement; (3) the quality of the teachers hired with program funds; (4) the success of State and local efforts to use program funds to ensure high-quality teaching; and (5) the effectiveness of the program's accountability provisions.



UNITED STATES DEPARTMENT OF EDUCATION  
OFFICE OF THE SECRETARY

**FAX TRANSMITTAL**

**TO:** Mike Cohen, Bill Kincaid, Tanya Martin

**ORGANIZATION:** DPC

**PHONE NUMBER:** 456-5575

**FAX NUMBER:** 456-5581

**FROM:** Terry Dozier

**PHONE NUMBER:** 401-0607

**MESSAGE:** Here are some powerful  
quotes from our Teacher Listserv  
on class size.

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## CLASS SIZE REDUCTION

### TEACHERS' THOUGHTS

*"I dream of a smaller class and it is not because I want to work less, have fewer papers to grade or fewer report cards to fill out. It is because I want to be the teacher that EVERY child in my class needs. I want to have the time to really help them reach their potential, to talk to them, to help them when they fall behind." Kelly McCalla - South Carolina*

Kelly McCalla is one of many award-winning teachers who speaks so powerfully about the need to keep class sizes small. Below are other quotes which only reinforce the importance of class size reduction for students and their learning and for teachers and their teaching.

#### Eileen Snook - Arizona

- This year my class sizes are between 28 and 33. I know in my heart that if I had 18 -20 students in each of my classes, I'd have 90% fewer behavior problems, more time to teach instead of police, lessons with more depth and breadth, more field trips and the almighty SAT scores would soar.

#### Marianne Cavanaugh - Connecticut

- With large class sizes would I have the time to sit at each student's desk and individually work through the use of the TI-82 calculator with them? Would I have discovered that Nikki is awesome at conceptual understanding if she was buried in a large group and that Chrissie could learn the full functionality of graphing linear equations even though she can't multiply? If we are expecting to increase the math ability of our students and prepare them for the next century, we need to spend time in small classes developing problem solving expertise in our students. ?

#### Don Johnson - Minnesota

- In small classes the teacher can focus on individual needs, diagnosing and prescribing for their specific needs, facilitating their learning, communicating with their parents as partners, challenging kids to do research, and goading them to seek out and formulate their own perspectives and defend their hypotheses.

#### Julie Ashworth - South Dakota

- In most of our classrooms one-half or more of our class has changed since the beginning of the year. I have 27 third graders and I am continually challenged to rebuild community, welcome each child, assess their strengths and weaknesses along with 26 other extremely needy students. Class size reduction would positively impact the outcomes and successes in our classrooms.

**Anne Jolly - Alabama**

- High class loads discourage good teaching and especially good assessment. Since well-designed, quality assessments help to drive the instructional program, high class loads lead to less effective instruction.

**Emily Vickery - Colorado**

- The issue of reducing student-teacher ratios is especially important in urban areas when considering the performance gap between urban and non-urban students. When putting class size reduction in place, positive results won't be seen overnight. Proper measures and benchmarks must be in place to assess the effectiveness of class size reduction so the results can be reported to policymakers and taxpayers. We must garner and continue public trust in funding public education's emphasis on more individualized instruction.

**Donna Swindal - Minnesota**

- More than the numbers have to change to make class size different. We need to be sure that teaching changes also. Very careful planning for the whole school and its space and personnel must happen to enable an average K-3 size of 18. Regular teacher growth and inservice in a positive setting are very important factors.

**Thomas Howe - Wisconsin**

- Small classes are not a panacea. We must change our teaching and reaction to students. This year I'm enjoying the smallest classes of my career and to some degree I've failed to change and make this valuable for students. This is true because I've got 19 years of experience piled up that tells me how to teach to lots of kids. Partly, it's because I've not been trained to individualize instruction to a great degree.

Many of the wonderful instructional strategies, individualized teaching methods and research-driven teaching reforms that come to us die a tragic but quick death in the face of the harsh reality of too many students and too little time. Not only the kids lose out...so do the teachers.

**Caroline W. McCullen**

- I have seen many excellent teachers become discouraged by the overwhelming feeling of facing classes of 35-40 students each period. That is not to their discredit. We have failed to give them the support they need in a workable environment.

**Nancy Flanagan - Michigan**

- There is no discussing, no listening, no sharing, less personal involvement as numbers grow. And that's always, always the key - personal involvement. Yes, class size matters. But I'm also glad the issue of "where are all those qualified, competent teachers coming from?" was raised. I would suggest that I'd rather have my child in a class of 30 with an experience, dynamic teacher than in a class of 16 with an uncertain, emergency-certified novice.

**Kathy Schwalbe - South Carolina**

- Students deserve more of my time. I am almost relieved to sit down with stacks of essays, personal reflections, and literary responses at night because I have the time I really need to read what they have written. I want to understand what they have written and how they have improved, but my time is stretched to the max.

**Dan Salava - Minnesota**

- In a large class teachers are forced to teach to the middle. Teachers need to be constantly listening and collecting information about students as readers so they can keep pushing them ahead. With small class sizes we can challenge the readers that are doing well and support the struggling readers in meaningful ways.

**Rhoda Coleman - California**

- I cannot agree more with President Clinton that class size reduction is immensely beneficial to students. However, there must be some way to slow down this process so that the new teachers receive proper training before they go into the classroom, not during and after. There really is a difference between a trained and untrained teacher. We need just one year of lag time to allow the new cadre of teachers to get a year of education course work or internship under their belts...then extend the class size reduction.

## **CLASS SIZE INITIATIVE**

### **Outstanding Issues**

- Legislation
- Outreach
- Communication

Attn: Tanya Martin  
 From: Marcia Sanders

Miami Herald  
 2/2/98

# The trouble with smaller classes

By SHARI RUDAVSKY and DANIEL de VISE  
 Herald Staff Writers

If President Clinton gets his way, 100,000 new teachers will be deployed across the country, shrinking the average size of an elementary school class to 18.

That sounds ideal to Fredrica Delevoe, who struggles to control a class crammed with 28 second-graders at Tradewinds Elementary School in Coconut Creek.

"To have a class size of 18 would be Utopia," she says.

But even if Congress embraces Clinton's \$12 billion vision, sketched out in

in South Florida,  
 Clinton's plan to add  
 teachers would require  
 more schoolrooms.

his State of the Union speech last Tuesday, the teachers won't bring much relief to South Florida schools unless they come with new classrooms.

"You can't reduce class size if you don't have any buildings," said Henry Fraind, spokesman for the Miami-Dade

County school district.

"Where are we going to put them?" asked Mark Seigle, who is in charge of hiring teachers in Broward County. "Our problem is we don't have classrooms to put them in."

Some new classrooms are on the way. Last fall, the Florida Legislature approved hundreds of millions of dollars for new school construction statewide. But Miami-Dade and Broward say it's far less than they need to compensate for exploding growth.

Clinton's initiative comes with another program that would help school

PLEASE SEE CLASS SIZE, 11A

# would require new classrooms

## CLASS SIZE, FROM 1A

districts modernize aging classrooms by offering them interest-free loans. Such an offer would not help districts loath to go into debt. Broward, for example, has already borrowed money for school construction.

The federal plan to reduce class size would place an additional 100,000 first-through third-grade teachers in classrooms across the country during the next seven years.

Florida's share would be \$49.9 million the first year, with a large part of that going to Miami-Dade and Broward, the state's two largest districts. Some of the money could come from the tobacco settlement.

In South Florida, as in much of the state, districts have not been able to build enough schools to keep pace with surging enrollment.

### Class size exceeds goal

As a result, class size far exceeds the Clinton goal. In Broward, elementary classes bulge with an average of 26.8 students. In Dade, first grades average 27.1 students, second grades 27.9, and third grades 28.9.

While Broward Superintendent Frank Petruzielo said he appreciates the president's attention, he doubts that Clinton's plan is realistic. "To me, it's one of those things, you throw a bunch of money at the wall and see what sticks," he said.

In Broward, it would cost \$5 million to decrease the size of middle classes by one student, Petruzielo figures.

The problem is that new teachers do not come cheap. The government estimates that each new teacher would cost about \$40,000 — \$25,000 in salary, about \$6,000 in benefits, and the rest in professional development.

### B. Florida's salaries

But starting salaries in South Florida are higher than those in other areas across the country. And the government does not take into account recruitment costs.

Each year, Broward spends about \$50,000 in recruitment efforts, Seigle said. If Broward were to double the number of teachers it tried to attract, it would need to spend twice as much to do so.

Commissioner of Education Frank Brogan agrees that \$12 billion seems insufficient. "I don't believe the federal government's math adds up," Brogan said.



Harold H.

## DOUBTS ABOUT PLAN: Broward's Frank Petruzielo.

Reducing the average class size for first through third grade in Florida alone would require "an astronomical amount of money," he said.

The question remains: Is it worth it?

### Big reductions necessary

Research on the link between class size and performance suggests this: Trimming class size can raise achievement, but only when the reduction is dramatic.

A report published in the late 1970s correlated the findings of 80 studies that compared how students performed in smaller and larger classes. Researchers Gene V. Glass and Mary Lee Smith found that gains came only in classes reduced to 15 or fewer students.

"I don't think it will bring noticeable returns in student achievement," Glass said of the Clinton plan. "But it clearly is popular with teachers, teachers unions and the NEA," he said, referring to the nation's largest teacher union.

Proponents of a national class-size reduction effort point to another study.

Researchers at Tennessee State University found that students in classes of 13 to 17 consistently outperformed students in classes of 22 to 25, and that their gains persisted over time.

### An educational foundation

The Clinton education officials believe this study. Reducing class sizes in the early grades will help students master the basics and lay the foundation for the rest of their education, said the officials.

secretary for Secretary of Education Richard Riley.

"This is certainly a down payment on future efforts," she said. Many states have taken steps in that direction.

The Tennessee Legislature in 1989 set aside funds to trim class sizes in kindergarten through the third grade in 17 high-poverty school districts.

California went even further, spending nearly \$1 billion in 1996 to reduce average class size to 20 from a statewide average of 28 in three lower grades. The incentive program offered school districts \$650 a student in a classroom trimmed to 20 students or fewer, and it offered districts \$25,000 toward the purchase of each new classroom.

In Florida, an effort to reduce elementary classes in Broward turned into a "cruel hoax," Petruzielo recalled.

### A costly program

A few years ago the state allocated money for extra teachers, but there were no open classrooms. The district ended up spending the money on paraprofessionals, which in some instances produced even larger classes.

Another fear that accompanies hiring new teachers is that in a rush to fill vacancies, teacher quality will suffer.

In the giant Los Angeles school district, for example, a push to trim class size from 30 to 20 touched off a hiring spree that filled many classrooms with underqualified teachers.

"The procedure that you have for recruiting and for screening, all of that gets swept away in the need for warm bodies," said Jacques Nacson, senior policy analyst for the National Education Association.

However, in South Florida, qualified teachers are not in short demand. The climate and relatively high pay scale attract more applicants than there are jobs.

Those fortunate enough to get jobs think the Clinton initiative could make a world of difference.

Patti Anton, a first-grade teacher at Silver Palms Elementary School in Pembroke Pines with a class of 28, said that with 18 students "you can take those marginal kids, who need a little extra attention, and you can really get to them."



**A NATIONAL EFFORT TO REDUCE CLASS SIZE:  
SMALLER CLASSES WITH QUALIFIED TEACHERS**

January 26, 1998

**REDUCING CLASS SIZE IN GRADES 1-3 TO NATIONWIDE AVERAGE OF 18.** In his State of the Union address, President Clinton will propose a \$12 billion initiative over 7 years (\$7.3 billion over 5 years) to help local schools provide small classes with qualified teachers in the early grades. This will help make sure that every child receives personal attention, gets a solid foundation for further learning, and learns to read independently by the end of third grade. The new initiative will reduce class size in grades 1-3 to a nationwide average of 18, by providing funds to help local school districts hire and pay the salaries of an additional 100,000 teachers. States will receive funds for teacher training, and new teachers will be required to pass state competency tests.

**Small Classes Make a Difference.** Studies confirm what parents and teachers know from experience--small classes promote effective teaching and learning. In a landmark four-year experimental study of class size reduction in grades kindergarten through 3 in Tennessee, researchers found that students in smaller classes earned significantly higher scores on basic skills tests in all four years and in all types of schools. The effects of smaller classes were largest for students in inner-city classes. Follow-up studies have shown that these achievement gains continued after the students returned to regular-size classes after third grade. Teachers in the study reported that they preferred small classes in order to better identify student needs, provide more individual attention, and cover more material effectively.

**A Competent Teacher in Every Classroom.** To master the basics and learn to read well, students need teachers who are qualified to teach. President Clinton's class size reduction initiative will help provide qualified teachers in grades 1-3 by:

**Requiring State Basic Skills Testing for New Teachers:** States would be required to implement basic skills testing for new teachers, to ensure parents that new teachers have basic reading and math skills. Each state would select the tests it determines is most appropriate for this purpose. Most states have such tests. Participating states and school districts would also be required to ensure that individuals hired to fill these new positions be either fully certified, or making satisfactory progress toward full certification. School districts could use funds to provide teachers with the additional training needed to meet certification requirements.

**Providing Funds for Teacher Training and Testing:** 10% of the funds in this initiative can be used to promote high quality teaching by (1) training teachers in proven practices for teaching reading and in effective practices in small classes; (2) providing mentors or other support for newly hired teachers; (3) providing incentives to recruit qualified teachers to high poverty schools; and (4) testing new teachers before they are hired and developing more rigorous tests for beginning teachers.

**Encouraging States to Adopt Rigorous Professional Tests and Upgrade Teacher Certification Requirements.** Teachers should be able to demonstrate that they know the subject to be taught and have the necessary knowledge and skills to help their students reach challenging state academic standards. States would be encouraged to use a portion of their funds to toughen teacher certification requirements and to require new teachers to demonstrate competence. For example, states could use these funds to develop rigorous tests of subject matter expertise and professional knowledge that prospective teachers would be required to pass before they start teaching.

**Holding Schools Accountable for Results.** School districts receiving these funds would be required to show that each school is making measurable progress in improving reading achievement within 3 years, or take necessary corrective actions -- such as providing additional teacher training, revising the curriculum, or implementing proven practices for teaching reading. School districts could lose funding if there is no subsequent improvement in reading achievement in those schools. School districts would also be required to publish an annual school report card, providing parents and taxpayers with clear information on student achievement, class size, and teacher qualifications.

**Targeting Funding.** Funds for the President's class size reduction initiative will be distributed to states on the basis of the Title 1 formula. Within the state, each high-poverty school district would receive the same share of these funds as it received under Title 1, and the remaining funds would be distributed within the state based on class size. Matching funds would be required from participating school districts, on a sliding scale ranging from 10-50%, with high-poverty districts contributing the least. Once a state has reached an average class size of 18 in grades 1-3, it could use these funds to further reduce class size in the early grades, or it could extend its efforts to other grades.

**Providing Facilities for Additional Classrooms.** In order to help school systems meet the need for additional classroom space, the President is (1) proposing a \$10 billion school modernization initiative over 10 years, that will provide incentives for communities to invest in local school facilities by leveraging \$22 billion in bonds during 1999-2000; (2) ensuring that changes to facilities in order to accommodate class size reductions is an allowable use of school modernization funds; (3) allowing for phased-in implementation of class size initiative to enhance state/local planning.

**Building on Successful Reforms in Arkansas.** As part of his comprehensive education reforms while Governor of Arkansas, Bill Clinton reduced class size in Arkansas to 20 in kindergarten and 23 in grades 1 through 3. His 1983 education reform plan also included a statewide intensive training program for elementary teachers and principals to improve teaching of reading, as well as basic skills testing for new teachers and basic skills and subject matter testing for experienced teachers.

H. R. 1000

## Class Size Q's and A's

**1. How much does this proposal cost, and how will it be paid for?**

This initiative will cost \$12 billion over 7 years, and \$7.3 billion over 5 years. It fits within the President's commitment to send Congress a balanced budget. Funding for this initiative will come from funds provided to states as part of comprehensive tobacco legislation.

**2. What is class size in grades 1-3 now?**

The nationwide average is 22, though many communities have classes much larger than that.

**3. How does this proposal to hire 100,000 teachers compare with other Congressional proposals to hire additional teachers that have recently been announced?**

A number of members in both Houses and both sides of the aisle have developed their own proposals to help school districts recruit or hire additional teachers. The President's proposal is the only one that is specifically aimed at providing smaller classes in the early grades. We do note that Rep. Paxon has announced a proposal that would also hire 100,000 teachers. While there are important differences between the President's proposal and Mr. Paxon's (Paxon's is not focused on reducing class size, and it is funded by eliminating Goals 2000, Americorps, the NEA), we hope that Paxon's proposal indicates that this is an area in which we can achieve bipartisan cooperation.

**4. Gov. Wilson in California has launched his own initiative to reduce class size. Does the President's duplicate California's effort?**

No. First, the President is proposing to reduce class size to an average of 18, whereas California's objective is 20. So this initiative can help California go further. Second, participating states like California will need to maintain their own efforts, and not simply use federal funds to substitute for state dollars. Third, we've learned from the experience in California in designing our proposal-- school districts need qualified teachers, adequate space for smaller classes, and the time to plan for lowering class size. The President's proposal takes care of all of these requirements.

**5. Gov. Gilmore in Virginia ran on a platform of hiring more teachers. Has the President stolen Gov. Gilmore's idea?**

No. In 1983 when he was Governor of Arkansas, Bill Clinton reduced class size in kindergarten to 20 and in grades 1-3 to 23. He also instituted teacher training programs in reading, and teacher testing. This national initiative to reduce class size draws on the President's decades-long leadership and experience in education; not from recent initiatives of any governor.

**6. Will the teachers unions oppose the President's call for competency tests for teachers?**

We hope not. Teachers have as great an interest as anyone in making sure that new teachers are well prepared to teach, and the unions have expressed a strong commitment to making sure new teachers are prepared to teach well.

**7. This is a massive new funding program. Is this an effort to "buy" the support of the education establishment for the President's testing program?**

This program is a significant new investment in education, as are his School Modernization and Education Opportunity Zones initiatives. Together they reflect his deeply held view that education is his top priority, and must be the top priority for the nation. His budget reflects his priorities. They are part of an overall strategy to set very high standards and give students, teachers and schools the support they need to reach those standards.

**THE WHITE HOUSE**  
**WASHINGTON**

January 21, 1998

**MEMORANDUM FOR THE PRESIDENT**

**FROM:               BRUCE REED**  
**MIKE COHEN**

**SUBJECT:           Class Size Design Issues**

Over the past several weeks, we have worked with the Vice President's Office, OMB, and the Education Department to develop recommendations on the design of your class size initiative. This memorandum explains our consensus recommendations and asks for a decision on the single issue on which we have not reached agreement -- whether to require basic skills testing for new teachers.

**I. Background**

The purpose of this initiative is to reduce class size and provide qualified teachers in the early grades, so that all 8 year olds learn to read. More specifically, this initiative will help bring down class size across the nation from an average of 22 to an average of 18 in grades 1-3. In designing the initiative, we have been guided by several considerations.

First, as you know, the best research suggests that the benefits of smaller classes accrue especially to the most disadvantaged students, and occur most powerfully when classes are no larger than 15-18 students. To be both credible and effective, the initiative must get the majority of classes into that range, especially in high-poverty schools. Second, California's recent experience demonstrates that programs to reduce class size lead to the hiring of unqualified teachers, particularly in urban areas, if safeguards are not built in. Third, efforts to reduce class size can exacerbate and be frustrated by shortages of space. Fourth, because this is a new area of federal involvement in education, the requirements placed on state and local grant recipients in order to ensure effective use of the funds must be especially well justified.

There are a number of other proposals to provide federal support to recruit or hire teachers, primarily to respond to the need to hire an estimated 2 million teachers over the next decade. Senator Kennedy proposes to help recruit 100,000 teachers per year over the next decade by forgiving up to \$8,000 in loans for each person who becomes a teacher. Rep. George Miller has also advanced a proposal to provide loan forgiveness for an-as-yet unspecified number of individuals who enter teaching.

In contrast to the Kennedy and Miller proposals, your proposal provides funds to hire teachers rather than forgive loans, since the primary cost of reducing class size is salaries for additional teachers. There is little evidence that loan forgiveness is an effective tool for attracting additional people into the profession. Moreover, you have already proposed a scholarship program (not loan forgiveness) to steer people who have decided to enter the profession toward high poverty schools.

Rep. Bill Paxon has also announced a proposal to help school districts hire 100,000 teachers, by funding teacher salaries. His proposal would pay for these new teachers by eliminating Goals 2000, Americorps, the National Endowment for the Arts, and a number of other programs. While these additional teachers could be used to lower class size, Paxon does not require that funds be used for this purpose. In addition, Senate Republicans announced an education package yesterday which they claim would fund 50,000 new teachers by block granting other programs.

We believe the existence of Republican proposals for the federal government to pay teacher salaries -- a proposal that both attaches conditions (under Paxon's plan, teachers hired with these funds could not be tenured) and requires states and local school districts to share the total cost of the initiative -- provides some protection for your proposal against charges of federal intrusion. It may also form the basis of a bipartisan achievement.

## II. Funding Issues

Your budget will include \$12 billion over 7 years to hire 100,000 teachers, enough to reduce class size in grades 1-3 to an average of 18 nationwide. The table below shows the annual budget, number of teachers communities would hire each year, and the impact on class size.

| Fiscal Year  | Budget (in billions) | Number of Teachers Hired | Average Class Size in Grades 1-3 |
|--------------|----------------------|--------------------------|----------------------------------|
| 1998         |                      |                          | 21.9                             |
| 1999         | \$1.1                | 35,714                   | 20.3                             |
| 2000         | \$1.3                | 42,208                   | 20.1                             |
| 2001         | \$1.5                | 48,701                   | 19.8                             |
| 2002         | \$1.7                | 55,195                   | 19.6                             |
| 2003         | \$1.74               | 56,331                   | 19.5                             |
| 5 Year Total | \$7.34               |                          |                                  |
| 2004         | \$2.3                | 82,143                   | 18.6                             |
| 2005         | \$2.8                | 100,000                  | 18.1                             |
| 7 Year Total | \$12.4               |                          |                                  |

## **A. Distribution of Funds to States**

We would distribute funds to states on the basis of the Title 1 formula, which is based on the number of students in the state, weighted by poverty and the cost of education. We also considered distributing the funds based on the number of new teachers needed to reduce class size to the target of 18, also weighted by poverty and cost. Although this formula is somewhat more efficient in targeting funds for the program purposes, it would penalize California because of that state's own class size reduction initiative. Further, while a handful of states receive either "windfalls" or "shortfalls" under the Title 1 formula when measured against the number of teachers they need to reach the class size target, most states receive a comparable percentage of the total funds under either formula.

With this formula, we will be able to reduce average class size in grades 1-3 to 18 nationwide. Once a state has reached an average of 18 in grades 1-3, it could use these funds to reduce class size in those grades still further, or to reduce class size in other grades.

## **B. Targeting Funds Within States**

Though this proposal is universal in scope, we want to drive the funds to school districts with the largest class sizes, and to give priority to high-poverty districts. To accomplish this objective, we would require states to guarantee high-poverty school districts at least the same share of the state's class size funds that they receive of the state's Title 1 funds. States would allocate the remaining funds on the basis of class size within the state.

This approach ensures that major urban school districts and other high-poverty areas will receive their fair share of the funds, while still leaving states with the ability to target funds to school districts with large classes, regardless of their income levels.

## **C. Cost-Sharing Requirements**

We would require matching funds from participating school districts on a sliding scale that would average 80% federal and 20% local. High-poverty school districts would be required to provide a 10% match, while the wealthiest would be required to provide a 50% match. School districts could use other federal funds for the match, which would primarily benefit high-poverty school districts that receive substantial amounts of Title 1 funds. This approach would encourage districts to use Title 1 funds for class size reductions, rather than continuing to hire classroom aides or resource teachers who pull Title 1 students out of the classroom.

#### **D. Duration of Program**

Because we will be presenting a five year budget, many will assume that we expect this initiative to end after five years. This expectation will heighten concerns that local school districts will be stuck with higher personnel costs once the program ends. (Rep. Paxon's proposal would end federal funding after 5 years.) We believe that the best way to deal with this concern is to make clear that we see this initiative as a continuing part of federal aid to education -- not a one-time effort.

This longer approach will also be necessary in order to fund 100,000 teachers; the funding levels in the first five years will pay for approximately 56,000 teachers. Because we are paying for this initiative through tobacco legislation, we will have a revenue source that can support a long-term program.

### **III. Teacher Quality**

For reductions in class size to result in improved reading performance, we need to ensure that both newly hired and existing teachers are fully qualified, and have the knowledge and skills to teach reading effectively in small classes. Considerable research and recent experience in California demonstrate that many existing teachers need help to alter their teaching practices to capitalize on small classes. In addition, many school districts in California, particularly in high-poverty areas, have hired teachers on emergency certificates, who lack even basic preparation for teaching. We propose a number of steps to deal with these challenges.

**A. 10% Set-Aside for Teacher Testing and Training:** The overall budget for this initiative is based on the average cost of newly hired teachers (assuming that 75% are beginning teachers and 25% are experienced teachers returning to the classroom or moving between districts) plus a 10% increment in the first 5 years to address teacher quality issues. This increment will give every school district funds that can be used for a number of purposes, including (1) testing new teachers before they are hired and developing improved tests for teachers; (2) training existing teachers in effective reading instruction practices and/or in effective practices in small classes; (3) providing mentors or other support for newly hired teachers; (4) providing incentives to recruit teachers to high poverty schools; and (5) providing scholarships or other aid to paraprofessionals or undergraduates and to expand the pool of qualified teachers.

We will permit districts to carry over unspent funds, which will enable them to invest in the first couple of years in recruiting and training qualified teachers, before reducing class size on a large scale. In addition, we will require districts to develop an overall strategy for improving teacher quality including a plan to use other funds, such as those from Title 1, the Eisenhower Professional Development Program, America Reads, and Goals 2000.

**B. Require Teachers to Meet State Certification Standards:** We would require states and school districts to ensure that individuals hired to fill these new positions must be either fully certified or making satisfactory progress toward full certification. School districts could use the teacher quality funds to provide teachers with the additional training needed to meet certification requirements.

**C. Encourage States to Adopt Rigorous Professional Tests and Upgrade Teacher Certification Requirements:** As part of this initiative, we would allow states to use some of the teacher quality funds to make their teacher certification requirements more rigorous and performance-based, reflecting what beginning teachers must know and be able to do. There is widespread agreement that current teacher certification requirements are not a good indicator of teacher quality and need to be upgraded. The National Commission on Teaching and America's Future, chaired by Gov. Hunt, has recommended that states toughen their licensure requirements. The Commission recommended that prospective teachers be required to pass rigorous tests of subject matter expertise and professional knowledge before they start teaching, and that beginning teachers not be fully certified until they have taught for several years and can demonstrate that they have met rigorous standards of classroom teaching, through classroom observations and other forms of performance assessment.

Twenty states have already adopted performance-based standards along these lines. Sixteen states are working together to develop common assessments for beginning teachers, and additional states are likely to join this effort over time. Permitting states to use a portion of their funds to improve their licensure systems is likely to accelerate these trends and to improve the quality and preparation of people entering the profession. In addition, performance-based certification will make it easier to promote "alternate route" programs that do not require prospective teachers to attend teacher education programs.

**D. Teacher Testing:**

All of your advisors agree on the three steps outlined above. There is disagreement about one additional component -- requiring new teachers to pass state basic skills tests. All of your advisors feel strongly that the above measures are not sufficient to persuade the public that new teachers would be able to measure up in the classroom. Existing teacher certification requirements are generally not viewed as an effective means of ensuring quality, and the tougher standards and testing requirements we are encouraging states to adopt will not be implemented for some time. Many of your advisors believe that this initiative also should require states to use basic skills testing for new teachers, with the particular test selected by each state.

The argument for a teacher testing report is that it will give parents the confidence that new teachers in the elementary grades have basic reading and math skills. It also

builds on your landmark efforts on teacher testing in Arkansas. A tough, clear message on teacher competency would make it difficult for Republican opponents to paint this initiative as simply a way for the Administration to help teachers' unions expand their memberships. The Paxon proposal takes a "tough on teachers" approach by prohibiting the teachers hired from gaining tenure. The Senate Republican education package announced this week encourages states to test elementary and secondary teachers, and allows them to use federal funds for teacher testing (activities already permitted under Goals 2000). The proposal, however, does not make this testing mandatory.

Under this proposal states would give prospective teachers basic skills tests at some point before they enter the classroom. Approximately 40 states already have such a requirement in place.<sup>1</sup> States would retain the ability to let teachers who fail the test teach with an emergency certificate. We considered and rejected a stronger proposal, which would require all prospective teachers to pass a test before they could do any teaching. We decided, however, that such a requirement, might well have too great an impact on poor districts, which already have a hard time finding qualified teachers. It could also drive states to lower the passing score on the tests.

The Education Department opposes this proposal, and recommends that we limit ourselves to encouraging states to adopt tough new state tests of subject matter and professional knowledge for beginning teachers, as part of our effort to upgrade teacher certification requirements. Education would be willing to require states to implement these new tests by 2003.

You are quite familiar with the arguments against a teacher testing requirement. The Education Department argues that a basic skills test is no assurance of teacher quality, and sets the bar too low for teachers, undermining your long-standing push for higher standards for both students and teachers. The Education Department believes such a test will send the wrong message to the public about teachers, reinforcing the notion that academically weak people go into teaching. Education also points out that states will be able to get around a testing requirement by granting emergency licenses.

Finally, you should know that many in the civil rights community are likely to raise concerns that any new testing requirements, especially without proper validation, are likely to have disparate impacts on minorities.

\_\_\_\_\_ Require Teacher Testing in Basic Skills    \_\_\_\_\_ No requirement    \_\_\_\_\_ Discuss Further

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<sup>1</sup> According to the most recent state-by-state data, the following states would have to institute basic skills testing for teachers under this proposal: Alaska, Georgia, Idaho, Iowa, Maryland, Missouri, New Jersey, New York, Utah, and Vermont.

#### **IV. Facilities**

The need to find additional classrooms to reduce class sizes will increase existing facilities needs. This impact will not be evenly distributed. Some areas, particularly cities with increasing immigrant populations (e.g., Los Angeles, South Florida) have schools that are already extremely over-crowded, while other cities, particularly in the Northeast (e.g., Baltimore, Washington, D.C.) have more capacity than the student population demands.

We propose several steps to address facilities issues, including (1) Use our \$10 billion school construction initiative to provide incentives for communities to invest in local school facilities; (2) Make facilities changes needed to reducing class size an allowable use of school construction funds; (3) Phase in implementation of the class size reduction proposal to allow for enhanced state/local facilities planning; and, (4) Allow districts that have no space available for additional classes to use some of their class size reduction funds to implement proven reading instruction practices.

#### **V. Accountability**

School districts receiving these funds will be held accountable both for using them to reduce class size, and for improving student performance in reading. We propose three forms of accountability.

First, a school district receiving these funds must show it is actually reducing class size, by reporting class size in grades 1-3 to parents and to the state each year. Second, as is the case with other federal education programs, we will incorporate a "maintenance of effort" provision, requiring states to keep up their overall investments in K-12 education. Third, we will use existing Title 1 accountability and reporting requirements to ensure that every school district and individual school makes measurable progress in improving reading achievement within three years. If a school fails to make adequate progress, it must develop and implement a corrective action plan. If the school fails to show improved reading achievement after implementing the corrective action plan, the state could withhold the equivalent of the school's share of the district's funds.

#### **VI. Rollout**

Over the next few days, we will begin more extensive discussions with possible allies on this initiative. So far, Congressional Democrats have been enthusiastic.

January 19, 1998

NOTE TO MIKE COHEN RE: CLASS-SIZE MEMO

As you are dealing with Education's comments on the draft, here are a few additional things to consider:

1. P. 4 -- Drawing the connection to Title V: Since Title V is competitive and limited to select districts/consortia, but class-size is universal (though it covers just three grade levels), shouldn't we indicate that low income districts would receive a preference in the Title V competition for showing how they will effectively integrate both class size funds and Title V funds into a comprehensive effort to recruit and prepare new teachers? I think this probably makes more sense than requiring districts to address how they MIGHT use Title V funds if they get them.
2. P. 5 -- Rather than "allowing/permitting" states to use class-size funds to upgrade their performance based teacher certification standards, shouldn't we be proactively "encouraging" this for states that need it?
3. P. 6 -- I think the "other advisors" view on the competency-based teacher test should explicitly distinguish the current situation from that facing then-Gov. Clinton when he established the teacher tests in Arkansas: as opposed to the early 1980's, when there were (as far as I know) no widespread performance based assessments on the horizon, today states are steadily moving towards such an approach, and pushing a competency-based test could well muddy those waters - a real downside that didn't exist in '83. In other words, while there was no viable alternative to a basic skills test at the time the Arkansas teacher test was adopted, there soon will be, and arguably we should focus exclusively on building a strong consensus around that goal and pushing states to reach it much more rapidly (and far sooner than 2005 -- that's obviously way too far off).
4. P. 6 -- I don't think I realized that there was discussion about allowing school construction funds to be used to buy portables. Given that portables have been the poster child of the school construction debates around the country (especially in Florida), I think this is very problematic message-wise.

Hope this is helpful.

-- Bill

Draft  
1/14/98

ED Comments

## MEMORANDUM FOR THE PRESIDENT

FROM: BRUCE REED  
MIKE COHEN

SUBJECT: Class Size Reduction Initiative Design Issues

The purpose of this memo is to provide you with some detail about the critical design issues in the Class Size Reduction Initiative.

### Background

The purpose of this initiative is to reduce class size and provide qualified teachers in the early grades in order to ensure that all 8 year olds learn to read. More specifically, this initiative will help reduce class size to an average of 18 in grades 1 and 2, and to 1x in grade 3. In designing it, we have been guided by several considerations.

First, the best research evidence suggests that the benefits of smaller classes occur most powerfully when classes are no more than 15-18 students. To be both credible and effective, this initiative must get the vast majority of classes into that range.

Second, California's recent experience demonstrates that programs to reduce class size can and will lead to the hiring of plainly unqualified teachers, particularly in urban areas, if safeguards are not built in.

Third, efforts to reduce class size can exacerbate and be thwarted by shortages of space.

Fourth, because this is a new area of federal involvement in education, the requirements placed on state and local grant recipients in order to ensure effective use of the funds must be clearly justified and not leave us vulnerable to charges of federal intrusion.

Fifth, Sen. Kennedy and Rep. Paxon have recently proposed their own "100,000 teachers" initiatives. Though different, each is designed to help recruit teachers to fill the projected 2 million vacancies over the next decade due to enrollment increases and teacher turnover. Neither is specifically designed to reduce class size. - ~~they are not~~ to

These proposals have generated some press attention on their own, and considerable press speculation about the nature of your proposal. We believe this has several implications for your initiative. First, we believe that your proposal must ultimately involve close to 100,000 teachers, though given our purpose, design and

that  
 ✓ budget, this will take more than five years. Second, we believe the existence of a  
 ✓ Republican proposal for the federal government to pay teacher salaries on a large  
 scale, to attach conditions to it (e.g., teachers hired with these funds could not be  
 tenured), and to require states and local school districts to share the total cost of the  
 initiative, provides some protection for your proposal against charges of federal  
 intrusion. It may also ultimately provide the basis of a bipartisan effort.

## Design Issues

### Budget, Distribution of Funds and Project Impact

The table below shows the budget, the number of teachers ~~we~~ <sup>communities</sup> would hire each year, and the impact on class size ~~reduction~~.

| Fiscal Year | Budget         | Number of Teachers | Avg. Class Size in Grades 1&2 | Avg. Class Size in Grade 3 |
|-------------|----------------|--------------------|-------------------------------|----------------------------|
| 98          |                |                    | 22.1                          | **                         |
| 99          | \$1.1 billion  | 39,159             | 19.8                          |                            |
| 00          | \$1.3 billion  | 46,279             | 19.4                          |                            |
| 01          | \$1.5 billion  | 53,399             | 19.0                          |                            |
| 02          | \$1.7 billion  | 60,519             | 18.7                          |                            |
| 03          | \$1.74 billion | 61,765             | 18.6                          |                            |
| 04          | \$1.8 billion  | 80,556             | 18.0                          |                            |
| 05          | \$2.25 billion | 100,965            | 18.0                          |                            |

*\*\*Awaiting final numbers from Education Department*

### Assumptions:

- 20% state/local cost sharing in Years 1-5; 30% cost sharing in years 6-7.
- Includes 10% quality/training component for Years 1-5.
- All teachers are brand-new (just out-of-school) hires.

## Distribution of Funds to States

We would distribute funds to states on the basis of the Title 1 formula, which is based on the number of students in the state, weighted by poverty and by the cost of education. We also considered distributing the funds based on the number of new teachers needed to reduce class size to the target of 18, also weighted by poverty and cost. While this formula is somewhat more efficient in targeting funds for the program purposes, it also would "penalize" California because of that state's own class size reduction initiative, a situation that would be ~~politically~~ untenable. Further, while a handful of states either receive "windfalls" or "shortfalls" under the Title 1 formula compared to the number of teachers they would need to hire to reach the class size target, for the most part states receive a comparable percentage of the total funds under either formula. ✓

### Distribution of Funds Within States

Though this proposal is universal in scope, we want to drive the funds to school districts with the largest class sizes, and to give priority to high poverty districts. To accomplish this, we would require states to guarantee high poverty school districts (with at least 10,000 poor children or 30% of students in poverty) at least the same share of the State's class size funds that they receive of the State's Title 1 funds. States would allocate the remaining funds on the basis of class size within the state. In addition, the State would describe its methodology for making this allocation in its plan to the Department, and make that methodology public within the State. ✓

### Cost - Sharing P Requirements

We would require matching funds from participating local school districts, on a sliding scale. In the initial five years, this would average 80% federal and 20% local; in years 6 and beyond the local matching requirement would increase to 30%. High poverty school districts would be required to provide a 10% match, while the wealthiest would be required to provide a 50% match. School districts would be permitted to use other federal funds for the match. This approach would encourage districts to use Title 1 funds for class size reductions rather than continuing to hire classroom aides or resource teachers who pull Title 1 students out of the classroom -- practices that are neither required or encouraged by the Title 1 statute, but which have nonetheless been continued in many districts around the country. ✓

### Duration of Program

Because we will be presenting a five year budget, many will automatically assume that we expect this initiative to end after five years. This will heighten concerns about federal intrusion and fears that local school districts will be stuck with higher personnel costs shortly after the program is fully implemented. We believe that the best way to deal with this is to make clear that we see this initiative as a continuing part of federal aid to education, and not a one time effort. ✓

like Paxon

This longer approach will also be necessary in order to fund 100,000 teachers; the funding levels in the first five years will pay approximately 62,000 teachers. Because we are featuring this initiative as part of the overall tobacco settlement, we will have an added basis for describing this as a long term program.

### **Providing Qualified Teachers in Every Classroom**

For reductions in class size to result in improved reading performance, we need to make sure that both newly hired and existing teachers are fully qualified, and have the knowledge and skills to teach reading effectively in small classes. This will not occur without a deliberate strategy, for considerable research and recent experience in California demonstrate that many existing teachers lack expertise in reading instruction and will need help to alter their teaching practices to capitalize on small classes. Further, many school districts, particularly in high poverty areas, will hire teachers on emergency certificates, lacking even basic preparation for teaching.

We propose a number of steps to deal with these challenges.

**Invest in Teacher Quality:** The overall budget for this initiative is based on the average cost of newly hired teachers plus a 10% increment to address teacher quality issues. This will give every school district funds that can be used for a number of purposes, including (1) training existing teachers in effective reading instruction practices and/or in effective practices in small classes; (2) providing mentors or other support for newly hired teachers; (3) providing incentives to recruit teachers to high poverty schools; (4) providing scholarships or other aid to paraprofessionals or undergraduates in order to expand the pool of qualified teachers.

We will permit districts to carry over unspent funds. This will permit districts to invest in the first couple of years in recruiting and training qualified teachers, before reducing class size on a large scale.

Local school districts will also be required (and have the time) to develop an overall strategy for improving teacher quality as part of the class size reduction initiative, and will be encouraged to consider how to use other funds, including federal funds from Title 1, Eisenhower Professional Development Program, America Reads, and Goals 2000.

**Require Teachers to Meet State Certification Standards:** States and school districts would be required to ensure that individuals hired to fill these new positions must be either fully certified or are making satisfactory progress toward full certification. School districts could use the teacher quality funds described above to provide teachers with the additional training needed to meet certification requirements.

*Connection to Title V?*

### Help States Adopt Upgraded, Performance-Based Teacher Certification Standards:

There is widespread agreement that current teacher certification requirements <sup>are not</sup> as a good indicator of teacher quality; at best, they are a floor. As part of this initiative, we would <sup>encourage</sup> allow states to use a small portion of their funds to improve their current licensure systems by developing and adopting performance-based teacher certification standards. Under this approach, states <sup>encouraging</sup> would set explicit standards for what new teachers should know and be able to do, and assess new teachers against these standards. The National Commission on Teaching and America's Future has recommended that states move in this direction. Twenty states have already adopted performance-based standards. Sixteen states are working together to develop common assessments for beginning teachers, and additional states are likely to join this effort over time. Permitting states to use a portion of their funds to improve their licensure systems is likely to accelerate these trends. ✓

**Hold School Districts Accountable for Results:** As discussed below, part of the overall design for this initiative will be to require school districts to make measurable progress in improving reading achievement within 3 years <sup>or lose continued funding</sup>. This approach will provide powerful incentives for school districts to recruit and hire people who will be effective in the classroom, and to provide all teachers in grades 1 and 2 with high-quality professional development. ✓

All of your advisors agree on the four steps outlined above. There is disagreement about one additional component:

**Require New Teachers to Pass State Basic Skills Tests:** Some of your advisors feel strongly that, as part of this initiative, states should require new teachers to pass a basic skills test, selected by the state, in order to be certified. Thirty-five to forty states already require some kind of written test as part of teacher licensure requirements, so this requirement would only affect seven states (Idaho, Iowa, New Hampshire, South Dakota, Utah, Vermont, and Wyoming). We would leave the content and timing of the test up to the state, so that it could accommodate state practices as minimal as requiring undergraduates to pass a basic skills test in order to enter a teacher education program, or as rigorous as requiring new teachers to pass performance assessments demonstrating mastery of the mathematical knowledge required to teach to new state math standards. ✓

<sup>No. B/c of emergency approval + states let teachers fail repeatedly + continue to teach.</sup>  
 [This requirement would give parents the confidence that new teachers in the elementary grades at least have basic reading and math skills, and is needed because teacher certification standards in general are not seen as much of an indicator of teacher quality.] A tough, clear message on teacher competency would <sup>Not true. It would send a message only.</sup> also make it difficult for Republican opponents to paint this initiative as simply a way for the Administration to help the teachers' unions expand their memberships. The most comparable Republican proposal takes a "tough on teachers" approach by prohibiting the teachers it hires from being tenured.

### basic skills

that they believe w.))  
not improve teacher quality

Other advisors are opposed to a teacher testing requirement. They believe that requiring a basic skills test, even in only a handful of states, would leave us open to charges of federal intrusion. <sup>It seems that this proposal</sup> ~~In addition, passing a basic skills test~~ would not provide much assurance of teacher quality, <sup>also</sup> and this approach would wrongly steer states toward lower rather than higher standards for teachers. Many prospective and current teachers would find a the requirement to pass a basic skills test demeaning. In addition, many in the civil rights community are likely to raise concerns that new testing requirements, especially without proper validation, are likely to have disparate impacts on minorities.

**INSERT Alternative Facilities**

because the basic skills tests are so low, the proposal would not prevent ~~the current situation~~ districts from letting teachers teach on an emergency basis w/o demonstrating basic skills or from letting

The need to find additional classrooms in order to reduce class sizes will increase the existing, considerable facilities needs. However, this impact will not be evenly distributed. Some areas, particularly cities with increasing immigrant populations (e.g. Los Angeles, South Florida) have schools that are already extremely over-crowded, while there are other cities, particularly in the northeast (e.g. Baltimore, D.C.) that have more capacity that the student population demands.

We propose several steps to address facilities issues, including (1) Rely on our school construction initiative to provide incentives for communities to bond/fund local school facilities; (2) Make the purchase of portable classrooms <sup>or other facilities</sup> changes for the purpose of reducing class size allowable use of school construction funds; (3) Phase in implementation of the class size reduction proposal to allow for enhanced state/local facilities planning; and, (4) Allow those districts that absolutely have no space available to use some of their class size reduction funds on proven reading practices.

Could this eat up all the funds? Should we say up to  $\frac{x}{100}$  of these funds?

### Accountability

School districts receiving these funds must be accountable both for using them to actually reduce class size, and for improving student performance in reading. We propose two forms of accountability.

First, a school district receiving these funds must show it is actually reducing class size rather than filling old slots, by reporting class size in grades 1 and 2 to the state each year.

Second, school districts must show reading achievement gains after 3 years in order to receive continued funding. Rather than establishing a separate accountability system for this initiative, we would build on Title 1 reporting and accountability requirements, which already require school-by-school reporting of progress in reading.

See attached alternative

measured against state standards and tests as defined under Title 1 and Goals 2000. Under Title 1, school districts must define adequate annual progress for each school. Under this initiative, for every school that fails to make adequate progress over three years, the district would lose that share of its funds.

See  
attached

This would be the first time a federal education program seriously held funding recipients accountable for results.



## ED Comments on Draft Class Size Memo

Have a simple, clear purpose which gives rise to complex, intelligent behavior rather than complex rules and regulations that give rise to simplistic thinking and stupid behavior.

-- Dee Hock, Founder of VISA

### Cons to the current proposal on teacher testing:

- Passing a test of basic skills is no assurance of quality.
- Requiring States to include a basic skills test as part of their certification requirements does not prevent the current situation which allows people to teach under an emergency license without demonstrating they possess basic skills. California confirmed this and indicated that candidates can fail and retake the test multiple times.
- It sets the bar too low and contradicts the Administration's push for high, rigorous standards. Last year the President's State of the Union address called on States to give students challenging national tests in reading and math that would be benchmarked against world-class standards. What message do we send if we say teachers need only take a basic skills test?

We should work to ensure that States demand higher, rather than lower standards for teachers. Other professions do not require a basic skills test. For example, the bar exam in law is a rigorous test of content and professional knowledge.

- It sends the wrong signal to the public, reinforcing the notion that academically weak people go into teaching. We should raise the image of teachers, not demean it.

### Two Other Options (ED prefers Option B):

- A. Require States to give a basic skills test that all candidates must pass **BEFORE** they are allowed to teach.

#### PROS:

- If we are going to advocate a basic skills test, we should put some teeth into it. This will ensure that those who cannot pass a basic skills test will not be in the classroom.
- Provides parents with more confidence.

#### CONS:

- Still sets the bar too low and does nothing to enhance the profession
- Could create a shell game; districts may simply switch qualified teachers to the targeted grades, harming students in other grades
- May negatively affect the supply in poor districts that already have a hard time finding qualified teachers. Richer districts will meet this requirement with no problem. This could increase inequities across districts and exacerbate the recruitment problems for poorer districts.

7

**B. Establish State Bar Exams for Teachers.** Rather than just the current option that simply allows states to use some of the new funds to develop more rigorous licensure standards, we propose that we use this opportunity to push for high, rigorous standards that measure what teachers should know and be able to do. Therefore, we propose that as a condition of receiving these funds, by 2005,

- **States will develop an equivalent of a state bar exam for K-3 teachers.** This test would include:
  - Test of content knowledge
  - Test of professional knowledge[INTASC currently recommends that the first two tests of content and teaching knowledge be given and passed BEFORE a person can be hired on a probationary license.]
- **States will develop rigorous, performance-based assessments that include:**
  - Classroom observation
  - Portfolio of teacher's work (sample lesson plans, student work, videotapes, etc.)[INTASC recommends that the portfolio be completed within 1-3 years. Full certification would be granted upon the successful completion of the portfolio.]
- States will report to the public the percentage of teachers in each district that do not meet these new standards, including the state bar exam, and these new standards and reports could be used to weed out incompetent teachers.
- **States will develop a strategy for ensuring that all elementary teachers are competent in the teaching of reading.**

**PROS:**

- This option could truly raise the over-all quality of the pool of potential teachers.
- It would treat teachers as professionals, the same as lawyers, doctors, etc.
- The bar has been raised. Using a real assessment process, incompetent individuals would be weeded out based on something more rigorous than a basic skills test.
- An assessment tied to actual classroom performance and content knowledge is a more valid measure of quality.
- The new, more rigorous requirements for certification would provide States with a framework for linking accreditation of state teacher education programs to the ability of their graduates to meet these standards.

**CONS:**

- Schools will not see immediate results.
- States and districts will find this more intrusive.
- The plan for ensuring quality is more complex and difficult to explain, although a state bar exam for teachers is quite easy to explain.

JAN. 10. 1993 07:51 PM DEPT OF ED. DEPT. SEC. 8

The draft memo currently proposes to discontinue funding for districts that do not show "measurable progress" in improving reading within 3 years (pp. 5 and 6). However, how would this be measured? What about districts where the student populations changes dramatically from year to year?

Rather than discontinuing funding, we suggest making continued funding contingent upon districts providing a plan to show what steps they would take in schools that have not shown improvement in reading achievement within 3 years. The plans could include staff changes, reconstitution, implementation of a comprehensive school reform plan, among other changes.

Draft  
1/20/98

**MEMORANDUM FOR THE PRESIDENT**

**FROM: BRUCE REED  
MIKE COHEN**

**SUBJECT: Class Size Reduction <sup>Fund</sup> Block Grant Design Issues**

The purpose of this memo is to provide you with some detail about the critical design issues in the Class Size Reduction Block Grant. On one issue, a proposal to test new teachers, we present options for your consideration.

**I. Background**

The purpose of this initiative is to reduce class size and provide qualified teachers in the early grades in order to ensure that all 8 year olds learn to read. More specifically, this initiative will help reduce class size from an average of 22 nationwide to an average of 18 in grades 1-3. In designing it, we have been guided by several considerations.

First, the best research evidence suggests that the benefits of smaller classes accrue especially to the most disadvantaged students, and occur most powerfully when classes are no larger than 15-18 students. To be both credible and effective, this initiative must get the vast majority of classes into that range, especially in high-poverty schools.

Second, California's recent experience demonstrates that programs to reduce class size can and will lead to the hiring of plainly unqualified teachers, particularly in urban areas, if safeguards are not built in.

Third, efforts to reduce class size can exacerbate and be thwarted by shortages of space.

Fourth, because this is a new area of federal involvement in education, the requirements placed on state and local grant recipients in order to ensure effective use of the funds must be clearly justified and not leave us vulnerable to charges of federal intrusion.

There are a number of other proposals to provide federal support to recruit or hire teachers, primarily to respond to the need to hire an estimated 2 million teachers over the next decade. Senator Kennedy proposes to help recruit 100,000 teachers per year over the next decade by forgiving up to \$8,000 in loans for those who become teachers. Rep. George Miller has also advanced a proposal to provide loan forgiveness for an-as-yet unspecified number of individuals who enter teaching.

In contrast to the Kennedy and Miller proposals, your proposal involves funding teacher salaries rather than providing loan forgiveness, since the primary cost of reducing class size is salaries for additional teachers. In addition, there is little evidence that loan forgiveness is an effective tool for attracting people who otherwise wouldn't teach into the profession, and considerable evidence to suggest that it is insufficient to attract and retain well prepared candidates where they are needed most -- in the high-poverty urban and rural districts that most frequently experience shortages.

Rep. Bill Paxon has also announced a proposal to help school districts hire 100,000 teachers, by funding teacher salaries. His proposal would pay for this by eliminating Goals 2000, Americorps and the National Endowment for the Arts as well as a number of other programs. While these additional teachers could be used to lower class size, Paxon does not require that funds be used for this purpose.

We believe the existence of a Republican proposal for the federal government to pay teacher salaries on a large scale, that attaches conditions to it (e.g., teachers hired with these funds could not be tenured), and that requires states and local school districts to share the total cost of the initiative, provides some protection for your proposal against charges of federal intrusion. It may also ultimately provide the basis of a bipartisan effort.

## II. Funding Issues

*that* Your budget will include \$11.4 billion over 7 years to hire 100,000 teachers, enough to reduce class size in grades 1-3 to an average of 18 nationwide. The table below shows the annual budget, number of teachers communities would hire each year, and the impact on class size.

| Fiscal Year | Budget (in billions) | Number of Teachers Hired | Avg. Class Size in Grades 1-3 |  |
|-------------|----------------------|--------------------------|-------------------------------|--|
| 1998        |                      |                          | 22.1                          |  |
| 1999        | \$1.1                | 39,159                   | 19.8                          |  |
| 2000        | \$1.3                | 46,279                   | 19.4                          |  |
| 2001        | \$1.5                | 53,399                   | 19.0                          |  |
| 2002        | \$1.7                | 60,519                   | 18.7                          |  |
| 2003        | \$1.74               | 61,765                   | 18.6                          |  |
| 2004        | \$1.8                | 80,556                   | 18.0                          |  |
| 2005        | \$2.25               | 100,965                  | 18.0                          |  |

## A. Distribution of Funds to States

We would distribute funds to states on the basis of the Title 1 formula, which is based on the number of students in the state, weighted by poverty and by the cost of education. We also considered distributing the funds based on the number of new teachers needed to reduce class size to the target of 18, also weighted by poverty and cost. While this formula is somewhat more efficient in targeting funds for the program purposes, it also would "penalize" California because of that state's own class size reduction initiative, a situation that would be untenable. Further, while a handful of states either receive "windfalls" or "shortfalls" under the Title 1 formula compared to the number of teachers they would need to hire to reach the class size target, for the most part states receive a comparable percentage of the total funds under either formula.

*Participating* With this formula, we will be able to reduce average class size in grades 1-3 to 18 nationwide. ~~No~~ state will be above 20, and states which already have small classes, like Arkansas, ~~will~~ *could* get to an average of 18.

Once a state has reached an average of 18 in grades 1-3, it could use these funds to further reduce class size in those grades, or it could extend its efforts to other grades.

## B. Targeting Funds Within States

Though this proposal is universal in scope, we want to drive the funds to school districts with the largest class sizes, and to give priority to high-poverty districts. To accomplish this, we would require states to guarantee high-poverty school districts (defined as those with at least 10,000 poor children or 30% of students in poverty) at least the same share of the State's class size funds that they receive of the State's Title 1 funds. States would allocate the remaining funds on the basis of class size within the state. In addition, the State would describe its methodology for making this allocation in its plan to the Education Department, and make that methodology public within the State.

This approach ensures that major urban school districts and other high-poverty areas will receive their "fair share" of the funds, while still leaving states with the ability to target funds to school districts with large classes, regardless of their income levels.

## C. Cost-Sharing Requirements

We would require matching funds from participating local school districts, on a sliding scale. In the initial five years, this would average 80% federal and 20% local; in years 6 and beyond the local matching requirement would increase to 30%. High-poverty school districts would be required to provide a 10% match, while the wealthiest would be required to provide a 50% match. School districts would be permitted to use other federal funds for the match, a feature that will primarily benefit high-poverty school districts that receive substantial amounts

of Title 1 funds. This approach would encourage districts to use Title 1 funds for class size reductions rather than continuing to hire classroom aides or resource teachers who pull Title 1 students out of the classroom -- practices that are neither required or encouraged by the Title 1 statute, but which have nonetheless been continued in many districts around the country.

#### **D. Duration of Program**

Because we will be presenting a five year budget, many will automatically assume that we expect this initiative to end after five years. This will heighten concerns about federal intrusion and fears that local school districts will be stuck with higher personnel costs shortly after the program is fully implemented. (Rep. Paxon's proposal would end federal funding after 5 years.) We believe that the best way to deal with this is to make clear that we see this initiative as a continuing part of federal aid to education, and not a one-time effort.

This longer approach will also be necessary in order to fund 100,000 teachers; the funding levels in the first five years will pay for approximately 62,000 teachers. Because we are paying for this initiative with revenue from tobacco legislation, we will have an added basis for describing this as a long-term program.

### **III. Teacher Quality**

For reductions in class size to result in improved reading performance, we need to make sure that both newly hired and existing teachers are fully qualified, and have the knowledge and skills to teach reading effectively in small classes. This will not occur without a deliberate strategy, for considerable research and recent experience in California demonstrate that many existing teachers lack expertise in reading instruction and will need help to alter their teaching practices to capitalize on small classes. Further, many school districts, particularly in high-poverty areas, will hire teachers on emergency certificates, lacking even basic preparation for teaching.

We propose a number of steps to deal with these challenges.

**A. 10% Set-Aside for Quality:** The overall budget for this initiative is based on the average cost of newly hired teachers plus a 10% increment in the first 5 years to address teacher quality issues. This will give every school district funds that can be used for a number of purposes, including (1) training existing teachers in effective reading instruction practices and/or in effective practices in small classes; (2) providing mentors or other support for newly hired teachers; (3) providing incentives to recruit teachers to high poverty schools; (4) providing scholarships or other aid to paraprofessionals or undergraduates in order to expand the pool of

qualified teachers.<sup>1</sup>

We will permit districts to carry over unspent funds. This will permit districts to invest in the first couple of years in recruiting and training qualified teachers, before reducing class size on a large scale.

Local school districts will also be required (and have the time) to develop an overall strategy for improving teacher quality as part of the class size reduction initiative, and will be encouraged to consider how to use other funds, including federal funds from Title 1, Eisenhower Professional Development Program, America Reads, and Goals 2000.

**B. Require Teachers to Meet State Certification Standards:** States and school districts would be required to ensure that individuals hired to fill these new positions must be either fully certified or are making satisfactory progress toward full certification. School districts could use the teacher quality funds described above to provide teachers with the additional training needed to meet certification requirements.

**C. Encourage States to Adopt Rigorous Professional Tests and Upgrade Teacher Certification Requirements:** As part of this initiative, we would allow states to use a small portion of their funds to make their teacher certification requirements more rigorous and performance-based, reflecting what beginning teachers must know and be able to do. There is widespread agreement that current teacher certification requirements are not a good indicator of teacher quality and need to be upgraded. The National Commission on Teaching and America's Future, chaired by Gov. Hunt, has recommended that states toughen their licensure requirements to reflect what beginning teachers must know and be able to do. The commission recommended that prospective teachers be required to pass rigorous tests of subject matter expertise and professional knowledge before they start teaching, and that beginning teachers not be fully certified until they have taught for several years and can also demonstrate that they have met rigorous standards of classroom teaching, through classroom observations and other forms of performance assessment.

Twenty states have already adopted performance-based standards along these lines. Sixteen states are working together to develop common assessments for beginning teachers, and additional states are likely to join this effort over time. Permitting states to use a portion of their funds to improve their licensure systems is likely to accelerate these trends and to improve the quality and preparation of people entering the profession. We estimate that the state the furthest

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<sup>1</sup> At the NAACP Convention in July you announced a \$65 million per year competitive grant program to help high-poverty urban and rural communities recruit and prepare new teachers (Title V of the Higher Education Act). Districts that compete for these funds would receive priority for showing how they will effectively integrate both class size funds and Title V funds into a comprehensive effort to recruit and prepare new teachers.

along could have more rigorous certification and testing requirements in place in the next 3-4 years, and that all states could be brought on line by 2005.

**D. Hold School Districts Accountable for Results:** As discussed below, part of the overall design for this initiative will be to require school districts and each individual school to make measurable progress in improving reading achievement within 3 years, or take corrective action. If improved reading achievement does not result after corrective action, the district could lose a portion of its continued funding. This approach will provide powerful incentives for school districts to recruit and hire people who will be effective in the classroom, and to provide all teachers in grades 1-3 with high quality professional development.

All of your advisors agree on the four steps outlined above. There is disagreement about one additional component:

**Requiring new teachers to pass state basic skills tests.** Most of your advisors feel strongly that the above measures are not sufficient to persuade the public that new teachers would be able to measure up in the classroom. Existing teacher certification requirements are generally not viewed as effective means of ensuring quality, and the tougher standards and testing requirements we are encouraging states to adopt will not be implemented for some time. They feel that, as part of this initiative, states should require basic skills testing for new teachers, with the particular test selected by each state.

This requirement is intended to give parents the confidence that new teachers in the elementary grades at least have basic reading and math skills, and is needed because teacher certification standards in general are not seen as much of an indicator of teacher quality. It also builds on your landmark efforts on teacher testing in Arkansas. A tough, clear message on teacher competency would also make it difficult for Republican opponents to paint this initiative as simply a way for the Administration to help the teachers' unions expand their memberships. The most comparable Republican proposal takes a "tough on teachers" approach by prohibiting the teachers it hires from being tenured

Under this proposal states would be required to give prospective teachers basic skills tests at some point before they enter the classroom. Approximately 40 states already have such a requirement in place.<sup>2</sup> As is the case with teacher certification requirements, states would retain the ability to let teachers who fail the test to teach with an emergency certificate. We considered and rejected a stronger version, that would require prospective teachers to pass the test before they could teach. We felt that such a requirement, while reasonable on its face, might well negatively affect the supply of teachers in poor districts that already have a hard time finding qualified teachers. It could also drive states to simply lower the passing score on the tests.

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<sup>2</sup> According to the most recent state-by-state data, the following states would have to institute basic skills testing for teachers under this proposal: Alaska, Georgia, Idaho, Iowa, Maryland, Missouri, New Jersey, New York, Utah and Vermont.

The Education Department opposes this proposal, and recommends that any efforts in teacher testing be limited to the proposal above to encourage states to adopt tough new tests of subject matter and professional knowledge for beginning teachers, as part of initiatives to upgrade teacher certification requirements. If it is necessary to require states to test teachers, Education would prefer to require states to implement these new tests.

Education argues that passing a basic skills test is no assurance of teacher quality. It sets the bar too low for teachers, and undermines your long-standing push for higher standards for both students and teachers. It sends the wrong message to the public about teachers, reinforcing the erroneous notion that academically weak people go into teaching. Further, because our proposal would permit teachers who fail the test to teach under an emergency license, Education points out that our testing requirement would not prevent the current situation, in which people can teach without demonstrating they possess basic skills. Finally, many in the civil rights community are likely to raise concerns that new testing requirements, especially without proper validation, are likely to have disparate impacts on minorities.

#### **IV. Facilities**

The need to find additional classrooms in order to reduce class sizes will increase the existing, considerable facilities needs. However, this impact will not be evenly distributed. Some areas, particularly cities with increasing immigrant populations (e.g. Los Angeles, South Florida) have schools that are already extremely over-crowded, while there are other cities, particularly in the northeast (e.g. Baltimore, D.C.) that have more capacity than the student population demands.

We propose several steps to address facilities issues, including (1) Rely on our \$10 billion school construction initiative to provide incentives for communities to invest in local school facilities; (2) Make facilities changes needed to reducing class size an allowable use of school construction funds; (3) Phase in implementation of the class size reduction proposal to allow for enhanced state/local facilities planning; and, (4) Allow those districts that absolutely have no space available for additional classes to use some of their class size reduction funds to implement proven reading instruction practices instead.

#### **V. Accountability**

School districts receiving these funds must be accountable both for using them to actually reduce class size, and for improving student performance in reading. We propose three forms of accountability.

First, a school district receiving these funds must show it is actually reducing class size rather than filling old slots, by reporting class size in grades 1-3 to parents and to the state each year. Each school must publish an annual report card showing reading achievement, class size

and teacher qualifications.

*This requirement could be easily integrated into existing school report cards.*

Second, as is the case with other federal education programs, we will incorporate a "maintenance of effort" provision, that requires states to keep up their overall investments in K-12 education.

Third, we will require accountability for results. Rather than establishing a separate accountability system for this initiative, we would build on Title 1 reporting and accountability requirements, which already require school-by-school reporting of progress in reading, measured against state standards and tests as defined under Title 1 and Goals 2000. Under Title 1, school districts must define adequate annual progress for each school.

Under this initiative, for every school that fails to make adequate progress over three years, the district would be required by the state education agency to develop and implement a corrective action plan. If the school fails to show improved reading achievement after implementing the corrective action plan, the state could withhold the equivalent of the school's share of the district's funds.

## **RESOLVING THE TEACHER QUALITY CHALLENGE**

Teachers are the heart and soul of education. When all the rhetoric is stripped away, the bottom line is that learning depends on what goes on in the classroom between a student and a teacher.

Above all else, parents want caring, competent, and qualified teachers for their children. "Who did you get?" is the most important question parents ask their children when they go back to school each year. Parents know that the answer to that question will determine to a great extent their child's success, not only for the current school year, but for years to come. This is especially true when we talk about teachers for the primary grades -- the teachers who will be teaching children the most fundamental skill of all -- reading.

For both moral and political reasons, we must remain as strong as possible in our Class Size Reduction proposal on the issue of teacher quality. However, we also must acknowledge that ensuring teacher quality is complex.

We can and must clearly distinguish ourselves from the Paxton proposal in two ways:

- We want to reduce class size for a purpose -- to ensure that every child learns to read.
- We want to ensure that the teachers hired to reduce class size are well-prepared to teach reading to all children and provide 20% of our funds to this goal.

We should concede to the conservatives that the current state licensure requirements do not ensure quality. Therefore, we propose to work with the Congress, States, teacher unions, school boards, legislators, and others to determine how best to provide every child with a caring, competent, and qualified teacher.

Our strategy should be that the President articulates a clear goal -- We want high-quality teachers, teaching in small classes, to ensure that every child can read. No parent should have to choose between smaller class sizes or good teachers. We must provide both! Therefore, our proposal should articulate a goal that forces people to respond in complex ways.

## **What are States currently doing to ensure that parents are getting the kinds of teachers they want for their children?**

According to a CCSSO Policies and Practices Survey of State Departments of Education (Spring 1996):

Written test for licensure -- 37 States (including DC, DODD, and territories)

- Basic skills -- 30 states
- Professional Knowledge -- 23 states
- Subject Knowledge test -- 27 states

Performance-based assessment -- 18 states have some form in place / 15 others in planning stage

- Mainly observations done during student teaching or the first year

Neither a written nor performance-based assessment -- 11 states

### **Summary of Quality Counts Survey of States:**

20 have standards for new teachers (identified abilities teacher candidates must demonstrate)

8 have adopted assessments (does not include those who test basic skills)

17 evaluate classroom performance prior to issuing a license

30 participate in INTASC but only 16 contribute to developing assessments

23 require alignment of teacher education programs with K-12 content standards

19 require at least 12 weeks of student teaching

8 require and fund induction programs for new teachers

14 have established independent professional standards boards

14 provide time for professional development

41 provide funds for professional development (does not include states that provide competitive grants for professional development)

State incentives for National Board Certification:

- 14 license portability
- 10 license renewal
- 13 fee supports
- 8 pay supplements

## Options

Given the Department's concerns about getting the money to the districts that are least able to attract high-quality teachers and preventing an accountant's nightmare, we could pursue the following options:

### **To qualify for funds through the Small Classes with Quality Teachers Program:**

- States and LEAs must ensure that individuals hired to fill these new positions must be either fully certified or making satisfactory progress toward full state certification.
- In addition to resources from this program, States and LEAs may use funds under Title I, Goals 2000, America Reads, and the Eisenhower Professional Development Program to provide all new and experienced teachers in the targeted grades with high-quality professional development that is of sufficient intensity and duration to have a positive and lasting impact on the teachers' performance in reading instruction. Professional development shall also be aligned with state content standards in order to enable **all** children to meet state student performance standards in reading.

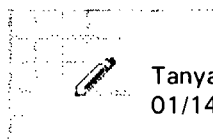
### **Future funding would be contingent on States and LEAs making progress on a number of factors including:**

- A reduction of class size in the targeted grades
- No decrease in per pupil spending on education
- A plan to reduce the percentage of uncertified teachers within any LEA receiving funds
- Provision of high-quality professional development in reading to all teachers in the targeted grades
- An increase in reading achievement in those LEAs receiving funds

### **The Small Classes with Quality Teachers Program will allow for national activities designed to:**

- A. Support States that desire to improve their current state licensure systems
- B. Attract well-prepared teachers to the LEAs that have the most trouble recruiting and retaining qualified teachers.

Title  
V



Tanya E. Martin  
01/14/98 02:32:05 PM

Record Type: Record

To: Bruce N. Reed/OPD/EOP, Elena Kagan/OPD/EOP  
cc: Michael Cohen/OPD/EOP, William R. Kincaid/OPD/EOP  
Subject: Class Size Proposals



CSOPTS.WPL

Attached are the tables Mike discussed with you that lay out options for the class size initiative.

Table 1 -- shows our current proposal to reduce class size to an average of 18 in grades 1 and 2, funding teacher salaries plus an additional 20% for teacher quality improvement.

Table 2 -- modifies the current proposal by reducing the teacher quality component to 10%.

Table 3 - shows additional class size targets and costs .

**CLASS SIZE INITIATIVE**

**Table 1**  
**Current Proposal**

| <b>Fiscal Year</b> | <b>Budget</b> | <b>No. of Teachers</b> | <b>Average Class Size<br/>Grades 1&amp;2</b> |
|--------------------|---------------|------------------------|----------------------------------------------|
| 98                 |               |                        | 22.3                                         |
| 99                 | \$1.1 billion | 31,741                 | 20.2                                         |
| 00                 | \$1.3 billion | 37,512                 | 19.9                                         |
| 01                 | \$1.5 billion | 43,284                 | 19.6                                         |
| 02                 | \$1.74billion | 49,055                 | 19.3                                         |
| 03                 | \$1.7 billion | 50,065                 | 19.2                                         |
| 04                 | \$2.2 billion | 63,483                 | 18.5                                         |
| 05                 | \$2.7 billion | 78,487                 | 17.8                                         |

**Table 2**  
**Modified Current Proposal**  
**10% Quality Component**

| <b>Fiscal Year</b> | <b>Budget</b>  | <b>No. of Teachers</b> | <b>Average Class Size<br/>Grades 1&amp;2</b> |
|--------------------|----------------|------------------------|----------------------------------------------|
| 98                 |                |                        | 22.3                                         |
| 99                 | \$1.1 billion  | 34,713                 | 20.1                                         |
| 00                 | \$1.3 billion  | 41,025                 | 19.7                                         |
| 01                 | \$1.5 billion  | 47,337                 | 19.4                                         |
| 02                 | \$1.7 billion  | 53,648                 | 19.1                                         |
| 03                 | \$1.74 billion | 54,753                 | 19.0                                         |
| 04                 | \$2.2 billion  | 69,427                 | 18.2                                         |
| 05                 | \$2.7 billion  | 85,837                 | 17.5                                         |

**Table 3**  
**Optional Assumptions and Targets**

| <b>New Target</b>    | <b>Total Teachers</b> | <b>Final Yr. Cost: 20% Quality</b> | <b>Final Yr. Cost: 10% Quality</b> | <b>5 Year Mark: 20%</b>          | <b>5 Year Mark 10%</b>           |
|----------------------|-----------------------|------------------------------------|------------------------------------|----------------------------------|----------------------------------|
| Av. 18<br>Grades 1-3 | 129,000               | \$4.5 billion                      | \$4.1 billion                      | 50,000 teachers<br>Class Avg. 21 | 55,000 teachers<br>Class Avg. 21 |

|                       |         |               |                |                                  |                                    |
|-----------------------|---------|---------------|----------------|----------------------------------|------------------------------------|
| Max. 18<br>Grades 1-2 | 93,000  | \$3.2 billion | \$2.95 billion | 50,000 teachers<br>Class Avg. 19 | 55,000 teachers<br>Class Avg. 19.0 |
| Av. 19<br>Grades 1-3  | 100,000 | \$3.5 billion | \$3.2 billion  | 50,000 teachers<br>Class Avg. 21 | 55,000 teachers<br>Class Avg. 21   |

### **Written Teacher Assessment as a Requirement to Licensure<sup>1</sup>**

- Seven (Idaho, Iowa, New Hampshire, South Dakota, Utah, Vermont, and Wyoming) out of 50 states and the District of Columbia do not require any written assessment as part of teacher licensure.
- Three out of 50 states and the District of Columbia require only that testing is done at the college level as part of completion of a teacher education program. In these states, no specific state or National Teacher Exam (NTE) is required.

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<sup>1</sup>See attached table for data on individual states. Two states (Louisiana and Ohio are not included on this analysis).

Required Written Teacher Assessment  
New Licenses: 1996

| State                | Basic Test | Other Test | Comments                                                                                                                                 |
|----------------------|------------|------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Alabama              |            |            | Testing is required as college as part of an approved teacher educ program. No specific required state test or NTE                       |
| Alaska               |            |            |                                                                                                                                          |
| Arizona              | X          |            |                                                                                                                                          |
| Arkansas             | X          | X          |                                                                                                                                          |
| California           | X          | X          |                                                                                                                                          |
| Colorado             | X          | X          |                                                                                                                                          |
| Connecticut          | X          | X          |                                                                                                                                          |
| Delaware             | X          |            |                                                                                                                                          |
| District of Columbia | X          | X          |                                                                                                                                          |
| Florida              | X          | X          |                                                                                                                                          |
| Georgia              |            | X          |                                                                                                                                          |
| Hawaii               | X          | X          |                                                                                                                                          |
| Idaho                |            |            |                                                                                                                                          |
| Illinois             | X          | X          |                                                                                                                                          |
| Indiana              | X          | X          |                                                                                                                                          |
| Iowa                 |            |            |                                                                                                                                          |
| Kansas               | X          | X          |                                                                                                                                          |
| Kentucky             | X          | X          |                                                                                                                                          |
| Louisiana            |            |            | Left message with SEA                                                                                                                    |
| Maine                |            | X          |                                                                                                                                          |
| Maryland             | X          | X          |                                                                                                                                          |
| Massachusetts        | X          | X          |                                                                                                                                          |
| Michigan             | X          | X          |                                                                                                                                          |
| Minnesota            | X          |            |                                                                                                                                          |
| Mississippi          | X          | X          |                                                                                                                                          |
| Missouri             | X          | X          |                                                                                                                                          |
| Montana              | X          | X          |                                                                                                                                          |
| Nebraska             | X          |            |                                                                                                                                          |
| Nevada               | X          | X          |                                                                                                                                          |
| New Hampshire        |            |            |                                                                                                                                          |
| New Jersey           | X          | X          |                                                                                                                                          |
| New Mexico           | X          | X          |                                                                                                                                          |
| New York             | X          | X          |                                                                                                                                          |
| North Carolina       | X          | X          |                                                                                                                                          |
| North Dakota         |            |            | Tests are taken at the end of college instruction. No required test at the state level                                                   |
| Ohio                 |            |            | Left message with SEA                                                                                                                    |
| Oklahoma             | X          | X          |                                                                                                                                          |
| Oregon               | X          | X          |                                                                                                                                          |
| Pennsylvania         | X          | X          |                                                                                                                                          |
| Rhode Island         | X          |            |                                                                                                                                          |
| South Carolina       | X          | X          |                                                                                                                                          |
| South Dakota         |            |            |                                                                                                                                          |
| Tennessee            | X          | X          |                                                                                                                                          |
| Texas                | X          | X          |                                                                                                                                          |
| Utah                 |            |            |                                                                                                                                          |
| Vermont              |            |            |                                                                                                                                          |
| Virginia             | X          | X          |                                                                                                                                          |
| Washington           |            |            | Basic requirement is the completion of approved college program. Washington colleges provide a basic skills test that varies by college. |
| West Virginia        | X          | X          |                                                                                                                                          |
| Wisconsin            | X          |            |                                                                                                                                          |
| Wyoming              |            |            |                                                                                                                                          |

## States Requiring Teacher Assessment for New License: 1996

| State                | Written test<br>(Areas Included)   | Performance Assessment<br>(Type used or developing)              |
|----------------------|------------------------------------|------------------------------------------------------------------|
| Alabama              | —                                  | Planning                                                         |
| Alaska               | —                                  | Portfolios, Classroom Obs.                                       |
| American Samoa       | —                                  | Portfolios, Classroom Obs., Simulated Exercises                  |
| Arizona (1994)       | —                                  | —                                                                |
| Arkansas             | Basics, Prof. Know, Subject        | Under development                                                |
| California           | Basics, Subject (if not completed) | —                                                                |
| Colorado             | Basics, Prof. Know, Subject        | Portfolios, Classroom Obs., Simulated Ex.                        |
| Connecticut          | Basics, Prof. Know, Subject        | Portfolios, Classroom Obs. (yr 1), Simulated Exercises (science) |
| Delaware             | Basics                             | Planning (portfolios)                                            |
| District of Columbia | Basics, Subject                    | Under review                                                     |
| DoDEA                | Basics, Prof. Know.                | —                                                                |
| Florida              | Basics, Prof. Know, Subject        | Classroom Obs.                                                   |
| Georgia              | Subject                            | —                                                                |
| Hawaii               | Basics, Prof. Know, Subject        | —                                                                |
| Idaho                | None                               | —                                                                |
| Illinois             | Basics, Subject                    | —                                                                |
| Indiana              | Basics, Prof. Know, Subject        | Planning, In discussion                                          |
| Iowa                 | None                               | —                                                                |
| Kansas               | Basics, Prof. Know.                | —                                                                |
| Kentucky             | Basics, Prof. Know, Subject        | Portfolios, Classroom Obs., Simulated Exercises                  |
| Louisiana (1994)     | —                                  | —                                                                |
| Maine                | Prof. Know.                        | —                                                                |
| Maryland             | Basics, Prof. Know, Subject        | Class. Obs.                                                      |
| Massachusetts        | Basics, Subject                    | Planning                                                         |
| Michigan             | Basics, Subject                    | Classroom Obs.; Planning                                         |
| Minnesota            | Basics                             | Planning                                                         |
| Mississippi          | Basics, Prof. Know, Subject        | Portfolios, Classroom Obs.                                       |
| Missouri             | Basics, Prof. Know, Subject        | Classroom Obs.                                                   |
| Montana              | Basics, Prof. Know.                | Planning (multi-criteria assess.)                                |
| Nebraska             | Basics                             | In planning stage                                                |
| Nevada               | Basics, Prof. Know, Subject        | —                                                                |
| New Hampshire        | —                                  | —                                                                |
| New Jersey (1994)    | —                                  | —                                                                |
| New Mexico           | Basics, Prof. Know.                | —                                                                |
| New York             | Basics, Prof. Know, Subject        | Portfolios, Classroom Obs., Simulated Exercises                  |
| North Carolina       | Prof. Know., Subject               | Portfolios, Classroom Observation                                |
| North Dakota         | —                                  | Classroom Obs., Simulated Exercises                              |
| N. Mariana Islands   | —                                  | —                                                                |
| Ohio                 | Prof. Know., Subject               | Pilot Study w/INTASC - Math, Eng/LA                              |
| Oklahoma             | Subject                            | —                                                                |
| Oregon               | Basics, Prof. Know, Subject        | Classroom Obs.                                                   |
| Pennsylvania         | Basics, Prof. Know, Subject        | —                                                                |
| Puerto Rico          | Basics, Prof. Know, Subject        | Planning                                                         |
| Rhode Island         | None                               | Planning (Port., Class. Obs., Sim. Ex.)                          |
| South Carolina       | Basics, Prof. Know, Subject        | APT (Class. Obs.)                                                |
| South Dakota         | —                                  | In student teaching                                              |
| Tennessee (1994)     | —                                  | —                                                                |
| Texas                | Basics, Prof. Know, Subject        | —                                                                |
| Utah                 | —                                  | —                                                                |
| Vermont              | —                                  | —                                                                |
| Virginia             | Basics, Prof. Know, Subject        | —                                                                |
| Virgin Islands       | —                                  | Planning                                                         |
| Washington           | —                                  | Class. Obs.                                                      |
| West Virginia        | Basics, Subject                    | —                                                                |
| Wisconsin            | Basics                             | Class. Obs.                                                      |
| Wyoming              | —                                  | Planning (portfolios)                                            |
| <b>TOTAL</b>         | <b>37</b>                          | <b>18</b>                                                        |

"—" = No state policy requirement. Basics = Basic Skills; Prof. Know. = Professional knowledge of teaching; Subject = Subject area knowledge.  
 Port. = Portfolios; Class. Obs. = Classroom Observations; Sim. Exer. = Simulated Exercises

Source: State Departments of Education, CCSSO Policies and Practices Survey, Spring 1996.

Council of Chief State School Officers, State Education Assessment Center, Washington, DC.

## **CLASS SIZE INITIATIVE**

### **Oustanding Issues**

- Sub-state allocation
- Maintenance of effort
- Teacher Quality  
Stringent requirements vs state friendly design e.g. performance-based assessments
- Links to Title I and America Reads
- Briefing/outreach strategy for groups
- Legislative strategy
- Special Education/LEP classes

## Class Size Reduction Issues

### Budget and Distribution of Funds

- \$7.7 - \$8 Billion over 5 years
- What would we do over 7 years? 5-7 still open  
100,000 teachers still open

### Distribution of Funds

- Title 1 formula to states - solve CA problem
- Within states -- by:
  - need;
  - Title 1
  - mixed approach (need + Title 1)
  - need, with wealthier districts required to cost-share Adjust match

### Cost - Sharing requirements

- 80-20 vs. 90-10
- Limit to wealthiest districts?

### One time vs. Permanent

### Teacher Quality

- no hiring of uncertified teachers in target grades and no increase in percentage of teachers with emergency licenses overall
- no increase in percentage of teachers with emergency licenses
  - and, plan for reducing percentage of uncertified teachers; or, or,
  - training within 1 year for teachers with emergency credentials;
- real performance-based certification within 3 years
- 20% funds for quality
- ability to use funds in initial years for training and expanding pool of qualified teachers years

### Facilities

- rely on school construction initiative
  - make reduction in class size a permissible use of school construction \$

### Accountability

- School district must show reading achievement gains after 3 years in order to receive continued funding
  - Require use of state standards and tests as defined under Title 1/Goals 2000 as measures of achievement (no standards and tests, no\$)
  - How much of achievement gain is necessary for continued funding?
- School district must show it is actually reducing class size rather than filling old slots
  - what kind of data systems are needed and how will they be created to monitor

- this?
- what about places that can't find qualified people and delay class size reduction efforts?

### **Planning and Flexibility**

- require state plan (what do we need to know from state).
- require district plans, submitted to state
- permit carryover of funds to enable districts to recruit well-prepared teachers
  - when would a district have to start hiring teachers in significant numbers?

### **Relationship to Title 1**

- Title 1 schoolwides required to integrate Title 1 and class size funds to reduce class size, train teachers and improve achievement
- encourage more effective use of existing Title 1 funds



**Terry\_Dozier @ ed.gov**

12/15/97 05:09:00 PM

Record Type: Record

To: See the distribution list at the bottom of this message

cc:

Subject: Homework on INTASC

Below I have summarized my conversation with Jean Miller about the current state of teacher licensure requirements as they relate to the work of INTASC. I look forward to our conversation tomorrow.

Terry

Jean stated that there are 18-20 states that are actively incorporating the INTASC standards in their state regulations for licensing. At this point, INTASC has core standards that are generic. I will bring these to the meeting tomorrow. In addition, they are developing content specific standards. At this point the content specific standards are complete in math (I will bring copies of these as well). English/Language Arts for 5th-12th grade are almost finished the pilot phase. The science standards are beginning the pilot phase this year.

INTASC is currently working on the elementary standards that will have a heavy focus on reading, writing, and math. The assessment piece will be next. They will be ready to field test the assessment piece (that will include reading) in early 1999.

When complete, the INTASC performance-based assessments will have 3 parts:

- Test of content knowledge  
Eventually INTASC will develop this. Right now states are using existing tests such as the NTE or PRAXIS.
- Test of teaching knowledge  
This is a written, constructed response test that demonstrates that the candidate has a working knowledge of pedagogical principles and can apply them in hypothetical situations.
- Portfolio of teaching  
This is designed like the National Board's portfolio assessment. It includes videos of the candidate teaching and student work.

INTASC is recommending that the first two tests of content and teaching knowledge be given and passed BEFORE a person can be hired on a probationary license. The portfolio should be completed within 1-3 years before the candidate gets a permanent teaching license.

This is the situation in Connecticut. CT actually has its own performance-based standards in science, social studies, and elementary education. CT is using the INTASC standards for the permanent licensing of math teachers this year. The English/Language Arts standards that CT is using are INTASC like. Jean felt that CT's elementary education standards were too generic. They do not have a strong enough content base in reading, writing, and math.

Under the INTASC scenario, an individual would not have to graduate from a College of Education to enter the classroom on a probationary license. However, they would have to demonstrate knowledge of their content and pedagogical principles. They would complete the portfolio while basically working in an internship situation.

When I asked Jean where states are in terms of willingness to implement performance-based assessments, she indicated that most, if not all, states recognize that the current licensing standards are inadequate. However, the reasons states resist performance-based assessment is that it is so costly and difficult to defend. Unlike a multiple-choice test which is clear cut, constructed response questions and portfolios require multiple assessors to assure consistency.

At this point, INTASC has determined that it will cost \$450-\$500 per candidate to use their system. This is based on using master teachers as readers. After initial training for the readers, INTASC would ask each teacher to give them two weeks each year -- 12 days to score portfolios and two days for retraining. Each day they would be expected to score 2 portfolios. Using this model, if a state needs to hire 6000 new teachers, they would need to train 250 readers. If individuals were freed full time to score, it would not require as many readers. However, INTASC sees benefits in using practicing teachers to do the scoring. In the process of scoring the portfolios of beginning teachers, these readers become better, more reflective teachers themselves.

One final note -- Today at the IAS Conference, Bill Hawley, Dean of the University of Maryland School of Education, stated that we have research that confirms that teachers who undergo the current teacher certification process out perform those who don't. Evidence of performance includes in some cases student achievement data, but more often it is based on the assessment of independent observers who are measuring the teachers against a common standard. These independent observers are not told which teachers are certified and which are not. This helps support our position of holding firm on Option A.

Message Sent To:

---

Allison Balderston  
Barry White  
Iratha H. Waters  
Mary I. Cassell  
Mary L. Smith  
Tanya E. Martin  
Thomas L. Freedman  
Wayne Upshaw  
William R. Kincaid



UNITED STATES DEPARTMENT OF EDUCATION

THE SECRETARY

FAX TRANSMITTAL

TO BRUCE REED  
MIKE COHEN

PHONE \_\_\_\_\_ FAX \_\_\_\_\_

FROM SECRETARY RILEY

PHONE \_\_\_\_\_ FAX 401-2098

PAGE(S) TO FOLLOW \_\_\_\_\_ DATE \_\_\_\_\_

MESSAGE: \_\_\_\_\_  
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UNITED STATES DEPARTMENT OF EDUCATION

THE SECRETARY

November 25, 1997

Mr. Bruce N. Reed  
Assistant to the President  
for Domestic Policy  
The White House  
Washington, D. C. 20500

Dear Bruce:

Enclosed is a thoughtful response from three key people in my Department regarding the classroom size issue.

I wanted all of you in the White House to have this information before we break for the holidays.

I hope that you and your family have a pleasant and meaningful Thanksgiving weekend.

Yours sincerely,

A handwritten signature in cursive script, appearing to read "Dick", is written over the typed name.

Richard W. Riley

cc: Mike Cohen



UNITED STATES DEPARTMENT OF EDUCATION

OFFICE OF THE SECRETARY  
November 23, 1997

MEMORANDUM

TO: Secretary Riley

FROM: Terry Dozier, Special Advisor on Teaching  
Paul Schwarz, Principal in Residence  
Mary Beth Blegen, Teacher in Residence

RE: Class Size Reduction Proposal

We want to express what must be key components of any proposal around class size reduction. While the idea is very appealing both to teachers and the public, it is a very difficult and complex issue. Our ideas are focused in the following areas.

- **Teacher Quality/Training**

Reducing class size without attending to the qualifications and training of teachers will negate benefits gained through that reduction. Even a small class size with an ill-prepared teacher will result in a poor education for the students impacted. With our work on Title V and with the National Commission on Teaching and America's Future, we are trying to focus the nation on the importance of enforcing high standards for teachers. Both you and Governor Hunt spoke passionately last week at the National Press Club about our need to maintain those standards. This proposal, if done right, could strengthen support of high standards for teachers and students but, if unaddressed, would be a retreat.

- **Knowledge of Research Findings**

All of the research findings around reducing class size tell us that it is not very effective unless the student-teacher ratio is reduced to 15-1. In addition, reducing class size alone without other improvements, including professional development for teachers and meeting the ensuing demands of more classroom space, does not necessarily lead to increased student achievement. If teachers continue to teach in the same way that they did with a class size of 30-1, few benefits will result by simply lowering the student-teacher ratio.

- **Cost**

One reason school districts have not voluntarily proceeded with class size reductions has been the prohibitive costs involved compared with the potential benefits. Tony Alvarado, Superintendent of District 2 in New York City, recently stated at the Department that reducing class size by one student across grade six would cost \$1 million. This figure does not include the necessary training needed

to help teachers learn to teach more effectively in smaller class settings. So the training of teachers to teach well in the smaller classes must be part of the proposal.

- **Space**

Many schools do not have the space to reduce class size. In some districts in California, the class size reduction initiative has floundered because of the lack of classroom space. Those districts have been unable to take advantage of the funds. We suspect that those districts that are already overcrowded and could benefit the most from such an initiative might be the least able to find space and teachers to take advantage of such a program. So it would be important to couple a major investment in class size with a major investment in school construction.

- **Unfunded Federal Mandate**

When the federal government moves aggressively into the operational budgets of school districts and then pulls out, the result is an unfunded mandate which can have very negative consequences. So the source of funding must be permanent.

- **Targeting**

It is unclear whether this proposal will be targeted to our most vulnerable students -- students in poor neighborhoods, learning-disabled students, limited-English-proficient students, etc. Currently some classes have an enrollment of 30 and others have only 18. We are unsure if this program will have the same effect in both situations. So targeting the reductions to the highest-need schools is extremely important.

- **Proper Role of the Federal Government**

The current proposal identifies actions to be taken in specific grade levels. In doing so, this proposal moves decision making away from local districts and schools, preventing them from targeting those areas that they know need the most attention. For example, some states have already taken measures to reduce class size in primary grades. In addition, recently a superintendent told Department officials that he prefers to use additional money for professional development for his entire staff rather than to reduce class size. So this clearly shows the need to have a package of initiatives, e.g., school construction, teacher development, class size reduction, so that there would be flexibility to address one area more than another based on need and previous state or local action.

We are aware that this proposal has wide appeal and we support legislation that brings additional support to schools. As the three people at the Department most responsible for bringing the school perspective to policy making, we believe our views can be helpful in strengthening this initiative.

U.S. DEPARTMENT OF EDUCATION  
OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

NATIONAL CENTER FOR EDUCATION STATISTICS

DATE: 12/16TIME: 6<sup>30</sup>TO: AllisonFAX #: 956-5581FROM: Andy Orland

MESSAGE:

Avg. class sizes ~~under~~ under 6 and 8 billion  
teacher scenarios for kids in classes over 18 in  
grades 1 and 2.

Working now on total avg. class sizes  
under the scenario two scenarios

NUMBER OF PAGES, INCLUDING COVER SHEET: 3If you did not receive the complete transmission,  
please call 219-2297RETURN FAX NUMBER: (202) 219-1736

\$ 8 Billion

\$ 6 Billion

| Avg. class<br>size for stud.<br>in class over 18 | <u>Combined cost for reduc</u><br><u>STATE</u><br>U.S. | New avg.<br>class size for<br>over 18 |
|--------------------------------------------------|--------------------------------------------------------|---------------------------------------|
| 16.9                                             | Alabama                                                | 18.0                                  |
| 19.2                                             | Alaska                                                 | 20.3                                  |
| 19.1                                             | Arizona                                                | 20.4                                  |
| 15.4                                             | Arkansas                                               | 16.6                                  |
| 22.5                                             | California                                             | 23.8                                  |
| 20.6                                             | Colorado                                               | 21.6                                  |
| 19.3                                             | Connecticut                                            | 20.0                                  |
| 20.8                                             | Delaware                                               | 21.9                                  |
| 17.5                                             | District of Columbia                                   | 18.7                                  |
| 19.4                                             | Florida                                                | 20.7                                  |
| 17.9                                             | Georgia                                                | 19.0                                  |
| 19.4                                             | Hawaii                                                 | 20.2                                  |
| 19.1                                             | Idaho                                                  | 20.1                                  |
| 18.8                                             | Illinois                                               | 20.0                                  |
| 19.4                                             | Indiana                                                | 20.2                                  |
| 18.9                                             | Iowa                                                   | 19.8                                  |
| 18.4                                             | Kansas                                                 | 19.5                                  |
| 16.8                                             | Kentucky                                               | 18.2                                  |
| 15.4                                             | Louisiana                                              | 16.9                                  |
| 17.3                                             | Maine                                                  | 18.2                                  |
| 21.6                                             | Maryland                                               | 22.5                                  |
| 18.8                                             | Massachusetts                                          | 19.9                                  |
| 20.1                                             | Michigan                                               | 21.4                                  |
| 20.9                                             | Minnesota                                              | 21.9                                  |
| 15.2                                             | Mississippi                                            | 16.8                                  |
| 17.8                                             | Missouri                                               | 18.9                                  |
| 17.5                                             | Montana                                                | 18.6                                  |
| 18.8                                             | Nebraska                                               | 19.9                                  |
| 23.2                                             | Nevada                                                 | 24.1                                  |
| 19.6                                             | New Hampshire                                          | 20.2                                  |
| 21.2                                             | New Jersey                                             | 22.0                                  |

students in classes  
more than 18 students

\$18 Billion

\$6 Billion

| #DIV/0! Combined cost for | #DIV/0!         |
|---------------------------|-----------------|
| #DIV/0!                   | #DIV/0!         |
| #DIV/0! STATE             | #DIV/0!         |
| 15.4 New Mexico           | 16.5            |
| 18.4 New York             | 19.6            |
| 20.0 North Carolina       | 21.1            |
| 16.4 North Dakota         | 17.6            |
| 19.0 Ohio                 | 20.1            |
| 17.4 Oklahoma             | 18.4            |
| 19.3 Oregon               | 20.2            |
| 19.3 Pennsylvania         | 20.3            |
| 18.8 Rhode Island         | 19.7            |
| 17.8 South Carolina       | 18.8            |
| 17.2 South Dakota         | 18.5            |
| 17.9 Tennessee            | 19.0            |
| 16.2 Texas                | 17.4            |
| 22.4 Utah                 | 23.2            |
| 16.7 Vermont              | 17.6            |
| 19.1 Virginia             | 19.9            |
| 20.1 Washington           | 21.0            |
| 16.3 West Virginia        | 17.7            |
| 19.3 Wisconsin            | 20.2            |
| 17.0 Wyoming              | 18.1            |
| #DIV/0!                   | <del>22.3</del> |
| #DIV/0! SOURCE: U.S. Depa | <del>22.7</del> |
| #DIV/0! Staffing Su       | <del>22.5</del> |
| "SASS by S                | <del>22.2</del> |
| by State, ur              | #DIV/0!         |
| public scho               |                 |

Method: Average sal  
entire U.S. T  
public school  
base year sal

students in classes  
if more than 18 students

## **CLASS SIZE REDUCTION (CSR) FORMULA OPTIONS**

### **Formulas:**

- 1. Class Size benchmark formula** -- takes into account state teacher salaries, number of new teachers needed to reduce class size to max of 18, and poverty/access to resources.
- 2. Title I formula** -- state receives funding for CSR based on Title I
- 3. State share of Medicaid spending** -- state receives share of CSR funding based upon share of total Medicaid expenditures.
- 4. Total population** -- state receives share of CSR funding based on share of total US population

### **For each formula:**

1. How much \$\$ goes to each state?
2. How much of a class size reduction (of what ceiling) is paid for?
3. Run formulas assuming
  - (a) \$9.2 in federal funds with additional 20% from state match, and
  - (b) \$11.5 billion in federal funds, full federal funding no state match.

250 years

PrincetonUniversity

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His primary research and teaching interests are in the general areas of labor economics, industrial relations, and social insurance. His current research projects include an examination of disability and the work force; a study of the relationship between school quality and labor market success; a study of the U.S. employment miracle; and an analysis of the impact of technological change on the labor market. He served as chief economist at the U.S. Department of Labor, 1994-1995. He has also been named a Sloan fellow, an NBER Olin fellow, and was elected a fellow of the Econometric Society. He is the editor of the Journal of Economic Perspectives. Ph.D. [Harvard University](#).

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## **Class Size Reduction Initiative**

### **Smaller Classes + Quality Teachers = Increased Student Achievement**

#### **1. Purpose**

The purpose of this initiative is to reduce class size and provide quality teachers in the early grades, to help all students learn to read independently and well by the end of the 3rd grade.

#### **2. Design Issues to Address**

##### **Funding levels**

- Presume \$5 - \$10 billion over 5-7 years
- Phased-in implementation
- Cost-sharing requirement
- Do not assume this is one-time initiative
- Distribution of funds: by formula to state and within state to district, based on number (and cost?) of new teachers needed to meet targets? Is there a better approach?

##### **Class Size Targets**

- NCES producing updated information on current state-by-state average class size in each of grades K-3; this will form basis for estimating cost of reductions to different ceilings (15, 18, 20) at two or more grade levels
- Need to figure out how to deal with differences in current class size within and between states -- what do we do with states/districts that are at or close to target: (1) let them use funds for class size reductions in other grade levels?

##### **Teacher Quality**

- Professional Development for existing teachers, focused on effective teaching in small groups, on language acquisition and on effective reading instruction.
- Preparation and Hiring of new teachers, to ensure that increased demand does not lead to lowering of licensure/hiring standards, and to ensure that new teachers are adequately prepared.
- Teacher Recruitment: How to attract quality teachers to inner cities, and prevent exodus of most qualified/experienced teachers to new openings in suburbs; how to phase in class size reductions so that pipeline issues are addressed at same time
- Helping or removing low performing teachers: Requirement to have serious teacher evaluation system in place that identifies weak teachers, gives them help and if necessary removes them.
- For above issues: what do we require from states/districts? What do we (help) pay for in this initiative? How do we link this initiative with teacher training and related funds in America Reads, Eisenhower, Title 1 and in Title V proposal?

##### **Facilities Issues**

- How should we link this with school construction initiative, if at all, beyond rhetorically?

### **Local Planning and Flexibility**

- Need to give districts adequate time for planning and phase-in
- What do we require in the way of state and local plans--how directive and specific should we be?
- How can we best encourage and help local districts and schools carefully and intelligently think through the range of issues they need to address--what kind of t.a. will be needed?
- Possible options for districts that cannot find the space or teachers for reducing class size to target levels:
  - o reductions in instructional group size for reading alone
  - o intensive, proven reading approaches such as Reading Recovery and Success for All
  - o After-school tutoring
  - o small summer classes
  - o one-time use of \$ for facilities (e.g, to buy portables)

### **Equity Issues**

- Reductions in class size will have biggest positive impact on low income, minority, inner-city kids, BUT:
- Urban schools will have the hardest time attracting and retaining qualified teachers, and are most likely to hire people who don't meet licensure requirements
- High poverty school districts most likely to be affected by funding arrangements that require matching funds or dislocations
- Inner city school districts have greatest facilities problems
- Impact on bilingual education needs to be watched--especially in light of shortage of qualified teachers.

### **Accountability/Evaluation**

- Requirement for local districts to evaluate impact on reading achievement, make midcourse corrections as needed, and, ultimately lose funds if no demonstrable achievement gains over time?
- National evaluation?

## Draft

# Class Size Reduction Plan to Ensure Teacher Quality

Reducing class size without attending to the qualifications and training of teachers will negate benefits gained through smaller classes. Students in a small class but with an ill-prepared teacher will have difficulty in achieving to high standards. In addition, research verifies that new and experienced teachers need training in how to teach more effectively in smaller class settings before the full benefits of a class size reduction can be realized. This proposal, therefore, strengthens support for high quality teaching while also reducing class size. In doing so, it is an investment in students and our teaching force.

## Option A (more stringent)

To qualify for funds through this program:

- States must prove that they have fully certified teachers who meet the current state licensure standards to fill all positions created in LEAs that use funds from this program to reduce class size in grades K-3.
- States must also ensure that the percentage of uncertified teachers (i.e. teachers who do not meet the current state licensure standards) will not be increased within any LEA receiving funds to reduce class size.
- Funds unavailable to reduce class size because states do not have enough fully certified teachers who meet the current state licensure standards, must use the money from this program to develop a system which would ensure that all new and experienced K-3 teachers have the knowledge and skills to teach reading to all students and to teach effectively in smaller class settings.
- States shall ensure that LEAs receiving assistance under this program shall provide sustained, intensive, high-quality professional development for all K-3 teachers that is of sufficient intensity and duration to have a positive and lasting impact on the teachers' performance in reading instruction. Professional development shall also be aligned with state content standards in order to enable **all** children to meet state student performance standards in reading.
- In addition to resources from this program, states and LEAs may use resources from Title I, Goals 2000, America Reads, and the Eisenhower Professional Development Program to implement the professional development requirement for reducing class size.
- States that have met the target class size in grades K-3 may use funds from this program to improve the quality of instruction throughout the whole continuum of teacher

invest in fully  
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put them in  
you do

if in d. k. i. i.  
left teach &  
force  
mid-career  
pros

## Draft

development.

Future funding will be contingent on:

- States decreasing the percentage of uncertified teachers within any LEA receiving funds to reduce class size.
- States demonstrating that reading achievement has improved in those LEAs that receive money through this program.

*Not as stringent in hiring emerg licensed teachers -  
can hire but train*

## Option B

To qualify for funds through this program:

- States must ensure that the percentage of uncertified teachers (i.e. teachers who do not meet the current state licensure standards) will not be increased within any LEA receiving funds to reduce class size.
- States must provide a plan on how they will decrease the percentage of uncertified teachers within an LEA receiving funds from this program.
- States shall ensure that all new and experienced K-3 teachers participate in sustained, intensive, high-quality professional development that is of sufficient intensity and duration to have a positive and lasting impact on the teachers' performance in reading instruction. Professional development shall also be aligned with state content standards in order to enable **all** children to meet state student performance standards in reading.
- States may use funds under Title I, Goals 2000, America Reads, and the Eisenhower Professional Development Program to implement the professional development requirement for reducing class size.

*But would allow  
to shift  
around.*

Future funding will be contingent on:

- States decreasing the percentage of uncertified teachers within any LEA receiving funds to reduce class size.
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## **CLASS SIZE AND TEACHER COSTS ESTIMATES**

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**Date:** 12/1/97  
**To:** The Record  
**From:** Marilyn McMillen and Kerry Gruber  
**Subject:** Class size and teacher costs estimates

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The task at hand is to develop teacher salary and benefits cost estimates associated with alternative K-3 class size reduction scenarios.

We start with the observed class size estimate of 21 students per class in K-3 classrooms. These class size data are restricted to teachers in self-contained classrooms or teachers of general academic subjects in a departmentalized setting; excluded are enrichment and pull-out teachers. This estimate was developed for grades K-3 teachers using 1993-94 data from the Schools and Staffing Survey (SASS).

This estimate, combined with the Common Core of Data (CCD) students membership count of 13,772,291 in grades K-3 in 1993-94, yields an estimate of 655,823 K-3 classroom teachers in 1993-94.

In order to estimate the number of additional teachers that would be needed to reduce the average class size, the target class size under a series of scenarios is divided into the student membership count to estimate the total number of teachers needed under each scenario. The difference between each of these estimates and 655,823 K-3 teachers yields an estimate of the number of additional teachers needed under each scenario. (Implicit here is an assumption of a fixed number of K-3 students in membership under each scenario).

To estimate the costs associated with the salaries and benefits of these additional teachers, we start with the average teacher salary for newly hired (most recent three years) teachers in grades K-3 in 1993-94. The ratio of 1.265 for instructional staff fringe benefits to salaries from the National Public Education Financial Survey (NPEFS) is applied to the average salary estimate to take benefits into account. Finally, assuming inflation over the 1997-98 and 1998-99 school years is on a par with inflation since school year 1990-91, a CPI based inflation factor of 1.144 is applied to the 1993-94 estimate of teacher salary and benefits. This yields an estimate of \$36,099 needed for each additional teacher in 1998-99.

The number of additional teachers projected under each of the classroom size scenarios multiplied by \$36,099 results in an estimate of the costs associated with teacher salaries and benefits needed to meet the target class size under each scenario.

---

**Estimates of numbers of teachers, new teachers, and salary and benefit costs under alternative class size scenarios**

| <b>Class size</b> | <b># Teachers</b> | <b># New Teachers</b> | <b>New \$'s</b> |
|-------------------|-------------------|-----------------------|-----------------|
| 21                | 655,823           |                       |                 |
| 20                | 688,615           | 32,792                | 1,183,758,408   |
| 19                | 724,857           | 69,034                | 2,492,058,366   |
| 18                | 765,127           | 109,304               | 3,945,765,096   |
| 17                | 810,135           | 154,312               | 5,570,508,888   |
| 16                | 860,768           | 204,945               | 7,398,309,555   |
| 15                | 918,153           | 262,330               | 9,469,850,670   |

**SOURCE:** Estimated from 1993-94 SASS, 1993-94 CCD, 1993-94 NPEFS, and CPI.

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## ***A Proposed Planning Process To Explore Reducing Class Size in the Primary Grades***

We know from our continuous reading of the research on what constitutes successful school environments that essential ingredients include the presence of talented, well trained teachers, an engaging classroom where opportunities for active student learning thrive, and a teacher-student ratio that provides all students with optimum opportunities for small group instruction and individual attention. Effective classroom practice must focus directly on results and in this proposal the intended result is to ensure that every child leaving the third grade is equipped to read for understanding and for continuous learning.

While individual schools within a district should be allowed to retain discretion in determining the most appropriate organizational designs and instructional strategies for helping students to meet the academic standards that precede promotion to the intermediate grades, there are definite advantages to providing schools with options for reducing class size or capping enrollment in the primary grades to no more than 22-24 students per class, depending on the grade level, the available facilities and the organizational design for the elementary schools.

A district willing to reduce class size in the elementary schools must begin with a very specific goal. There must be some logical connection between this reform proposal and the investment in student achievement. The goal must drive a plan for student achievement and take into account the following considerations:

**Part One-- Considerations That Take Place At The District Level in Collaboration with Building Staff and the Business Office.**

- 1. Achievement Data Analysis--**A review of student achievement over the past five years, and the percentage of students leaving third grade able who have met the standard; i.e. they are able to read for understanding.
- 2. Enrollment Data Analysis--**a cohort survival method that predicts the enrollments, current and projected, based on birth and mobility rates, for the next five years.
- 3. Facilities Analysis--**a review of existing facilities usage, a review of the long-range facilities improvement plan and a comparison of cohort survival analysis to the projected facilities usage plan.
- 4. Staff Analysis--**The potential always exists for increasing the primary grade staff without increasing the numbers of employed teachers. If the costs for increasing staff, even with federal support appears prohibitive, we should offer federal support for valid, useful and creative models that, in essence, still reduce class size. The options that follow can either reduce class size or improve the teacher/student ratio.

District staff will need to offer guidance to staff on possible waivers that will allow such changes as increasing class size at the intermediate grades, creating inclusion classes that free up special ed teachers to work in tandem with regular classroom teachers, creating multi-age or multi-grade classes, and considering options for modified cross grade grouping models.

Unique opportunities may include a staggered school day that allows for two school day schedules, or one could imagine a year round schedule that doubled the room usage, and of course, doubled the number of staff teaching at the primary level. Done creatively, this might not mean an overall huge increase in the teaching force.

- 5. Teacher Competencies:** An analysis of the years of graduate training possessed by all elementary teachers; an analysis of how many teachers have specialized graduate training and are certified in the areas of reading and early

childhood education.

**6. Projected Teacher Turnover Rate:** A important key to improving the quality of the teaching force is the ability of the district to attract, train and retain qualified, competent staff. A projection analysis that accompanies the analysis of staff competencies provides a very clear picture of the available and future teaching force. An important set of data, since reducing class size works only if qualified staff are available to effectively meet the needs of students possessing diverse learning styles and needs and they employ dynamic, flexible instructional strategies.

**7. Analysis of Professional Development Opportunities:** The existing resources available to support the ongoing professional development needs of staff should be inventoried and assessed both for effectiveness and usefulness. Our bill should spend as much money ensuring an adequate supply of well qualified teachers to be hired, as it does on reducing class size. We cannot support plans that have gaping holes in the areas requiring descriptions of how the district will ensure that only qualified teachers are hired.

**8. Analysis of the adequacy and availability of contemporary instructional materials.**

Perhaps the easiest job, but maybe not, is that of inventorying the availability of instructional materials. Even though there is not necessarily an increase in the total student body the materials will need to be distributed over a greater number of classrooms. The availability of technology for additional classrooms will probably need to be increased. The budget implications would need to be explored.

#### **Part Two-Suggested Conditions for Building Level Involvement**

1. The building staff must demonstrate, through some form of affirmation, commitment not just to the organizational redesign, but to the goal of improved student achievement.
2. The issue of equity and excellence must drive the planning and be responsive to the long range goal of mitigating the multiple effects of poverty on achievement.
3. The staff must view professional development as long range, continuous and vital to ensuring that student gains in the primary grades are not lost once they enter the intermediate and high school years.
4. The building must commit to ongoing data gathering and staff must develop the analytic capability to generate accurate data useful for diagnosis and instructional planning.

## **CLASS SIZE REDUCTIONS**

### **WORKING ASSUMPTIONS**

- **NATIONWIDE INITIATIVE**  
This initiative would be a nationwide program to reduce class sizes in the early (K-3?) grades to XX (somewhere in the 20-15 range).
- **\$9-10 BILLION OVER 5 YEARS**  
States/districts would receive grants to pay a percentage of the teacher salaries necessary to reduce class size to the target range.
- **COST-SHARING/ PARTNERSHIP MECHANISM**  
States/districts would receive grants to cover a portion of the teacher salaries (e.g. 50% match).
- **FOCUSED ON IMPROVING READING**  
The purpose of an initiative to reduce class size in the primary grades would be to enhance reading instruction.

### **ISSUES TO ADDRESS**

- **CLASS SIZE TARGET**  
What grade levels? Class size target (18? 15?)  
What are the cost variances at 15? 18? 20?  
What target does the research support?  
Is target an average or a ceiling?  
What do we do for states/districts that have met target?
- **CRITICAL DESIGN ISSUES**  
  
**Teacher Quality**  
How do we make sure that licensure/hiring standards are not lowered?  
What kind of training? How do we pay for and provide training?  
  
**Facilities**  
How do we tie into school construction initiative?  
  
**Planning**  
How do we allow for planning process?  
Should we build in flexibility so that those districts not able to meet constraints (i.e. teacher hiring/facilities) can still improve reading? e.g. intensive tutoring programs

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### ISSUES TO ADDRESS

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What grade levels? Class size target (18? 15?)  
→ What are the cost variances at 15? 18? 20? *# teachers / cost | Grades<sup>K</sup> 1, 2, 3*  
What target does the research support? *Teacher Salary | Tonger / Marty*  
Is target an average or a ceiling?  
What do we do for states/districts that have met target?
- **CRITICAL DESIGN ISSUES**  
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How do we make sure that licensure/hiring standards are not lowered?  
What kind of training? How do we pay for and provide training? */ who doing?*  
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→ How do we allow for planning process? *J. Ditt*  
Should we build in flexibility so that those districts not able to meet constraints (i.e. teacher hiring/facilities) can still improve reading? e.g. intensive tutoring programs

## **CLASS SIZE REDUCTIONS**

- **SCOPE: \$9-10 BILLION OVER 5 YEARS**

States/districts would receive grants to pay a percentage of teacher salaries to reduce class size in grades K-3. Grants would also be used to pay for training of new and in-service teachers.

- **NATIONWIDE INITIATIVE**

The class reduction grants would be distributed nationwide. The total number of teachers needed to reduce class size 22-15 in grades K-3 is 292,000. (The total cost of salaries about 11.6 billion -- assuming teacher salaries of \$40,000.)

- **COST-SHARING/ PARTNERSHIP MECHANISM**

States/districts would receive grants to cover a portion of the teacher salaries (e.g. 50% match). Alternatively, states/districts would commit to reduce class size from 21-18, and the federal government would commit to provide the resources to reduce the class size from 18 down to 15.

- **TEACHER TRAINING/TEACHER STANDARDS**

A class size reduction initiative will generate numerous side effects -- significantly, it will put additional pressures on the need for teacher recruitment and training.

The immediate need for new teachers may put pressure on districts to hire uncredentialed or unqualified teachers. States/districts that chose to participate in the federal program would be required to ensure that new teacher entry standards were not decreased (were strengthened?) and that new hires had achieved at minimum some basic level of competency.

The federal government would also provide funds to states to pay for teacher training in two areas: strategies/skills for teaching reading and strategies/skills for teaching in small class environments.

- **ISSUES TO BE RESOLVED**

- Grade levels
- Size of reduction (18? 15?)
- Type of teacher entry standards -- testing? state certification that teachers are meeting standard? requirement that states give basic skills test?
- Tie to teacher dismissal procedures
- Tie to construction initiative

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Access No: 66952019970818 ProQuest - The New York Times (R) Ondisc  
Title: Smaller Classes Aren't a Cure-All  
Authors: Michael Kirst  
Source: New York Times, Late Edition (East Coast)  
Date: Aug 18, 1997 Sec: A Editorial Desk p: 19  
Length: Medium (649 words) Type: Commentary  
Memo: [Op-Ed]  
Subjects: Class size; Academic achievement; Education reform;  
Education & Schools; Law & Legislation; States (US);  
Teachers & School Employees  
Abstract: Michael Kirst Op-Ed questions efforts in 18 states to  
legislate smaller classes as way to improve public schools;  
says it is not clear whether cutting class sizes improves  
academic performance (M)

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Article Text:

PALO ALTO, Calif. -- Eighteen state legislatures have passed, or are considering passing, bills dictating smaller classes as a way to improve the public schools. In New York, the Legislature authorized \$142 million solely for the hiring of some 3,600 new teachers by 1999 to relieve overcrowding in New York City schools.

In many places, reducing the number of students per class is an end in itself, valued above many other educational goals. But so far the research about the effectiveness of cutting class sizes is inconclusive. It's not clear whether it improves academic performance, as measured in test scores.

Class size reduction is overwhelmingly popular with parents and teachers. In California, where legislation has recently gone into effect, teachers believe they have more time to help lagging students and to cover more material. Parents feel that decreasing the number of children in classrooms is worth doing no matter what, even though it creates many new problems. About 30 percent of the new teachers in California are uncertified and schools have given up libraries, computer labs and pre-school centers to create more classroom space.

New York City schools already don't have enough space; classes are taught in closets and hallways. That squeeze, plus the logistical nightmare of hiring 3,000 more teachers for the school year that begins shortly, prompted the state to delay carrying out the new class-reduction policy for another year.

Researchers have had difficulty finding out whether smaller classes affect students' test scores because there has never been a national evaluation. Studies have had to rely on scattered samples of class reductions in a few school districts.

But a 1989 Johns Hopkins study that did a larger analysis of 14 different studies from around the country found that even when classes were reduced to 15 students, the effects were minimal. Students in the smaller classes only gained about four points on a 100-point test.

Urban parochial schools have proved that smaller classes may not be necessary. They tend to have large classes, but their students have higher achievement scores than their counterparts at many public schools.

Despite the studies questioning the effectiveness of reducing class sizes, policy makers keep pointing to one study in Tennessee that showed about a 10-point gain in test scores when classes were shrunk from 22 to 25 students to 13 to 17 students.

Granted, the study was well-designed. It followed more than 10,000 students from 75 schools for 10 years. But this was one study in one state and may not apply to schools in urban areas. Tennessee already had ample facilities with licensed teachers, and the students were mostly white and African-American. In California, half the students are either Hispanic or Asian, many of whom speak limited English, so the schools would have difficulty finding enough bilingual teachers. Moreover, the effectiveness of teachers depends on their ability to change instruction styles when moving from a large group to small group.

Cutting class sizes is expensive. In California, it is costing an extra \$800 or so per pupil per school year (not counting the cost of new classrooms). Portable classrooms cost more than \$50,000 each for cities like New York City and Los Angeles. National studies report increasingly tight labor markets for teachers because of rising enrollment and a large number of retirements.

Despite these pressures, politicians are taking advantage of the national economic boom to adopt strict rules on class sizes. In so doing, they are committing their states to one of the most expensive educational reforms possible and neglecting lower cost, effective alternatives like intensive teacher training, expansion of summer school, tutoring and investing in technology.

When the good times end, states won't have the luxury to adopt sweeping, unproven reforms. And parents and politicians alike may discover that reducing class sizes was not the magic bullet they thought it would be.

Caption:

Michael Kirst is a professor at the Stanford University School of Education.

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Access No: 05014819970911 ProQuest - The New York Times (R) Ondisc  
Title: At Fire Island School, the Classes Are Tiny and the Test Scores High  
Authors: Jacques Steinberg  
Source: New York Times, Late Edition (East Coast)  
Date: Sep 11, 1997 Sec: B Metropolitan Desk p: 1  
Length: Long (1469 words) Type: News  
Subjects: Academic achievement; Public schools; Class size; School finance; Property taxes; Education & Schools; Fire Island (NY); Finances

Abstract: Article discusses success of Woodhull School on Fire Island; elementary school, whose 54 students receive individual attention, spends nearly \$30,000 a year on each student; photo (M)

Copyright 1997 The New York Times Company.

Article Text:

CORNEILLE ESTATES, N.Y., Sept. 7 -- Only 40 miles east of the crowded classrooms of New York City, there is a school with just 54 children in seven grades.

That is one teacher for every eight pupils, if you remember your third-grade math, and one Macintosh computer for every two children.

It is an elementary school that spends nearly \$30,000 a year on each student. One that convenes poetry-writing classes a few steps away at the beach, where young students are encouraged to seek inspiration by closing their eyes and listening to the crashing surf.

No surprise then that the Woodhull School is one of the most successful in the state. It is also one of the most remote, the only public school on Fire Island, a 32-mile sliver of sand and gnarled pine off the South Shore of Long Island that is better known for its activities after school lets out for the year.

By Labor Day weekend, most of the seasonal residents have left Fire Island to restart their real lives. But several dozen hearty residents remain -- most of them electricians, plumbers, cooks and others who serve the affluent seasonal population and live here year-round, despite its isolation.

For them, sending their children to this public school is a perk that they enjoy at the expense of other families: those whose luxurious homes they tend and whose property taxes make the school possible. Those homeowners, who effectively pay the school's bills, send their own children to classrooms on the mainland that are far more crowded, be they public or private.

As a New York public school, Woodhull is so striking that it is something of an educational mecca. After touring it this summer, three New York City public school teachers left in tears. 'They said, 'This is wonderful,' ' recalled Ken Lanier, the school principal. ' 'It's a shame that the kids I teach can't have this.' '

The 79-year-old little red-brick schoolhouse is a place where children cannot avoid intense personal attention and rigorous class participation.

In the school's only fourth-grade class one morning last week, Karen McNulty pelted her 9- and 10-year-old pupils with questions about the Judy Blume novel 'Super Fudge.'

'Go through the book and find two nouns,' Ms. McNulty instructed her charges.

'The name 'Peter,' ' answered James Ragusa.

' 'Company,' ' said Kiley Phelan.

'Good, now find two verbs,' Ms. McNulty directed, and the words 'waved' and 'go' quickly came back.

Within a minute, all seven children in the class had answered a question.

Such intimate contact has translated into high achievement, as measured by the standardized reading tests that the state gives to third and sixth graders. At the Fire Island school last year, 100 percent of the students in the third grade could understand passages written on their grade level (compared with 51 percent statewide), and 80 percent of sixth graders were able to comprehend excerpts from books like 'Moby Dick' that are written for a much older audience. (That compares with 40 percent of sixth graders elsewhere.)

But academic excellence comes at a price. During the winter months on this rugged island, all the markets are closed. Staples like eggs or dog food are sold at two restaurants that remain open. For bulk shopping, most people head to the mainland, which is reachable by a bridge on each end of the island. But getting to those bridges is challenging.

That is because only a precious few automobile permits are given out to residents. And because there are no real roads, those residents lucky enough to have a permit must pilot four-wheel-drive vehicles over miles of beach or down narrow sidewalks. (During the summer, when cars are banned, ferries are virtually the only way on or off the island.)

The students, too, pay a price for isolation. Many students at the Fire Island school say they feel detached from life on the mainland. They also notice the lack of diversity in their midst (the school is almost exclusively white). And they feel the absence of boys and girls their own age.

For Brittany Metcalf, age 11, the school can be particularly lonely: on the brink of adolescence, she finds herself to be the only girl in the sixth grade.

'The good thing is you get a lot of attention from the teacher,' Brittany said last week, after a social studies class in which she sat at the head of a short rectangular table, three boys seated on each side. 'The bad thing is, you have no one to talk to who's the same as you.'

It is for this reason that the school ends at the sixth grade. Older students are transported in yellow four-wheel-drive school buses across the dunes and over the Robert Moses Causeway to middle and high schools in the Long Island communities of Islip and Babylon.

'I can't wait to get out of here,' said Glen Roesch, a sixth grader. 'There's barely any people to know.'

Until they reach the age of 12, though, the students have little choice but to make the elementary school here the center of their lives, given that the rural island offers them few other options during the desolate winter.

'The whole community, when you have children, revolves around the school,' said James Ragusa, 40, a general contractor who moved here nine years ago and who, like many parents, was barefoot when he deposited his 9-year-old son, James, at school on Friday morning.

The school has taken steps to compensate for the isolation: frequent trips to Broadway shows and institutions like the Liberty Science Center in New Jersey. And those outings are about more than watching a musical or learning about technology.

'We know, when we go, there will be New York City districts there with a very different population than ours,' Mr. Lanier said. 'It's a very conscious extra effort here.'

The school also fields coed sports teams in basketball and softball that play against teams from other communities, and arranges swimming lessons at the YMCA in Bay Shore. In the winter months, it offers after-school clubs in drama, sewing and model-building.

The school can afford all of this largely because of the high value of Fire Island's 4,000 or so homes -- a total of \$1.5 billion. But because the school's population is so small, the burden on most taxpayers is relatively light.

According to Mr. Lanier, a family living in a house worth \$77,500 on Fire Island pays \$594 in annual school taxes. In Bay Shore or East Islip, the annual school tax for the same home would be more than \$6,000.

Although the average spent per pupil appears steep -- \$29,877, compared with \$9,162 in the rest of the state -- that is mostly because the salary of a teacher must be divided among 7 students here, compared with 32 in New York City, Mr. Lanier said.

What the school gets for its money is an almost familylike atmosphere, where students answer questions as freely as if they were talking at the dinner table and are often on a first-name basis with the children of their teachers -- many of whom live on the island.

A beginning reader might run eagerly into the next classroom to show off her new skills to the older children, or find a supportive listener outside at the school's maintenance shack.

Other schools might be able to reproduce that cozy atmosphere, but few can bring the natural environment into the classroom as comfortably as the Woodhull School.

For science class, Ms. McNulty sometimes arms her students with nets and brown paper bags and sends them on the short walk to the ocean, where they can comb for shrimp, sea horses and other organisms to catalogue.

And every so often, something unexpected happens. During one lunch hour four years ago, teachers told all the children to grab their meals and head for the beach to see a surprise luncheon guest.

It was a whale, lurking just off the shore.

#### Caption:

The Woodhull School's four-wheel-drive bus, above, maneuvers the dunes on Fire Island. The school has only 54 students, so children receive individual attention. Loretta Ferraro, left, taught a class of fifth and sixth graders last week. (Photographs by Vic DeLucia/The New York Times) (pg. B1)

#### 'IN BRIEF: The Little School That Could'

At Fire Island's only elementary school, with 54 students, the spending per pupil is among the highest in the state. So is the achievement. Chart shows average 1996 class sizes, 1994-1995 school year spending per student and percentage of third graders reading at grade levels, for 1996, for Fire Island, New York City and New York State. (Source: New York State Department of Education) (pg. B5)

Map of Fire Island showing location of Corneille Estates: A tiny public school benefits from Fire Island's high property values. (pg. B5)

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Access No: 12303019970916 ProQuest - The New York Times (R) Ondisc  
Title: Special Education Class Sizes Are Linked to a Drop in Scores  
Authors: Anemona Hartocollis  
Source: New York Times, Late Edition (East Coast)  
Date: Sep 16, 1997 Sec: B Metropolitan Desk p: 2  
Length: Medium (531 words) Type: News  
Subjects: Class size; Special education; Academic achievement;  
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Education & Schools; Special Education (Handicapped)  
Names: Gottlieb, Jay; Alter, Mark; Gottlieb, Jay (Prof); Alter,  
Mark (Prof); New York City; New York State

Abstract: Study by New York University Profs Jay Gottlieb and Mark Alter concludes that decision by New York City and state to increase size of some special education classes has led to decline in student achievement; recommends that city reverse its decision to increase number of students to eight from five in so-called resource rooms, which pull children who are lagging behind their peers out of regular classes for increased instruction (M)

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#### Article Text:

A decision by New York City and the state to increase the size of some special education classes has led to a decline in student achievement, according to a study by two New York University professors.

The researchers recommended that the city reverse its decision to increase the number of students to eight from five in so-called resource rooms, which pull children who are lagging behind their peers out of regular classes for increased instruction.

But state officials said the \$75,000 state-financed study had been hampered by its small size and short time span, looking at only 45 schools over a period of just six months. They said that while the study raised troubling questions, more work needed to be done to determine whether class size alone was responsible for the decline in achievement or whether there were other factors, such as poor attendance, insufficient teaching time or the kind of teaching methods being used.

'I think New York City has to start to peel that onion and see what the factors are impeding reading achievement,' said Larry T. Waite, the coordinator of special education policy for the State Education Department. 'Changing one factor alone may not be the answer.'

The authors of the study, Jay Gottlieb and Mark Alter, two education professors at N.Y.U., complained that the city Board of Education had not provided them with system-wide resource room scores, as requested.

The study found a sharp decrease in sixth-grade reading scores in 1995-96, after the class sizes were increased. It found less striking decreases in the third and eighth grades, where there already was a downward trend.

From 1995 to 1996, sixth-grade reading scores dropped 13.2 percentage points, to 15.82 percent of students reading at state minimum competency levels from 29.02 percent. From 1994 to 1995, before the change in class size, scores had dropped less than one percentage point.

In the eighth grade, scores dropped 9.28 points after class size increased to 47.16 percent, the study found, but scores in eighth grade had already declined 6.65 points in 1993-94, the year before the change.

In third grade, scores declined 5.27 points after the change to 14.20

percent. But third-grade scores had declined 8.21 points the year before.

There was no significant change in math scores at any grade.

'When you increase the size, you dilute the instruction, and children appear to fall farther behind,' Dr. Gottlieb said.

But Dr. Gottlieb conceded that the pre-existing downward trend raised questions about the overall effectiveness of resource rooms. 'Is there any evidence that resource room improves children's performance?' he asked. 'In this city I don't know of any data to support that.'

The increase in class size saved \$26 million by cutting the number of teachers needed in resource rooms, which serve about 40,000 children, the study found. It also found that high rates of absenteeism brought the actual number of students below eight per class. Average attendance was 5.9 students in elementary school and 4.1 students in middle and high school.

Francine Goldstein, executive director of student support services for the board, said that the study's findings were being considered as part of an overall drive to reform special education.

**An education reform goes awry.**

# CLASS CONFLICT

By Robyn Gearey

I hadn't been in California twenty-four hours when I began to realize that the schools were experiencing a few technical difficulties implementing Governor Pete Wilson's much hyped class-size reduction initiative. "Do you wanna teach second grade?" called a voice from the teachers' lounge. "I'll pay you fifty bucks myself." Startled, I looked around, then noticed a group of teachers sitting at a long table by the door. One of them was waving, trying to catch my eye. Thinking the offer a joke, I laughed. "I'm a journalist, not a teacher," I protested. "Babysitting is the closest thing I have to teaching experience." The teacher wasn't fazed. "Do you have a college degree?" she asked. "Yes," I replied. "Well, then," she said, satisfied, "you're perfectly qualified. When can you start?"

That was the first clue. The second came a few days later when I read a *Los Angeles Times* letter to the editor written by Lori Borcover, whose daughter's school was so tight on space that it closed the library in order to use it as a classroom. Soon after, the *Times* reported that an elementary school in Costa Mesa had turned its auditorium into classrooms—eliminating school plays and other activities. The school's principal told the *Times*, "This takes away a major part of our educational programs."

Like the teacher-hiring frenzy, the classroom-space crunch was part of a manic attempt by California schools to cash in on the governor's plan, unveiled last July, which promised a \$650 per child subsidy for every classroom in the first and second grades that met the twenty-students-per-teacher standard by February 16. (The program also applied to some kindergarten and third-grade classes.) Most did, in part by holding classes in gyms and teachers' lounges, and hiring unqualified teachers. And how has Wilson responded to this chaos? This year he has decided to expand the program, throwing the schools into another round of turmoil.

Class-size reduction is, at least in theory, a great idea. Dozens of studies have shown it to be one of the most effective ways to raise classroom achievement. Prior to Wilson's initiative, California's classrooms were the most crowded in the nation, averaging about thirty kids. And so when Wilson discovered that, in 1994, 56 percent of the state's fourth-graders were rated "below-basic" on a nationwide reading exam, he made class-size reduction a crusade. The response was overwhelming. "This is the most exciting time in twenty or thirty years," gushed Delaine Eastin, superintendent of public instruction in

California. "I think this is the start of a renaissance," effused Clovis Unified School District Superintendent Walt Buster. A headline in the *Los Angeles Times* declared: "SMALLER CLASSES, BIG IMPROVEMENT."

But, as the saying goes, the devil is in the details. To get results quickly, Wilson set a deadline and offered a financial incentive. The schools began struggling to find space. Many were already overcrowded, with one in seven relying on a year-round academic schedule to accommodate the overflow. And that was before the governor's plan created a need for 20,000 new classrooms.

Wilson's initiative set aside \$200 million for new classroom space, but that space is not easy to come by. Portable classrooms, if the school has the land, are one option, but they are expensive (they cost up to \$54,000; the state is only allotting \$25,000 per new classroom) and rare. California manufactures only 2,500 portable classrooms a year; the 20-1 initiative has generated orders for some 15,000. The state's department of education estimates that the backlog now runs two to three years.

Construction is another option, but it also requires more land, money and time than most schools can spare. So, in the meantime, makeshift classrooms—libraries, cafeterias and music rooms—will have to suffice. Many schools have opted to squeeze two teachers (and forty kids) in one regular-size room, a decision that even the department of education, the initiative's most enthusiastic proponent, calls "inadvisable."

And if school administrators are desperate for space, they're even more desperate for teachers. California accredits fewer than 5,000 new teachers each year; to meet the 20-1 standard the state needs 20,000. Even before Wilson announced his initiative, California had trouble attracting enough qualified teachers—in 1994, 11 percent of its teachers were working with either a temporary or an emergency license, or no license at all, already the highest percentage of non-credentialed teachers in the country. Since the initiative passed, one-third of the teachers hired to fulfill it have lacked traditional credentials. In California today, anyone with a bachelor's degree and a passing score on a basic skills test (which many educators say is on a fifth-grade level) can teach. "We've reached so deep into the pool, we're now taking people we wouldn't have hired a year ago," said Douglas Mitchell, a professor at the University of California-Riverside.

The influx of unqualified teachers makes many people nervous. "I feel better having thirty-two students with an experienced teacher than I do with twenty and a totally inexperienced teacher," says Rebecca Ryan, president of the Pomona district governing board. In a *Los Angeles Times* op-ed, Dennis L. Evans, a professor at UC Irvine, said, "An elementary class of 20 taught by an ill-prepared 'instant' teacher will prove far worse for the students involved than if they were in a class of 40 taught by a highly qualified and dedicated teacher." Some fear that the teacher shortage is exacerbating the inequalities between urban and suburban schools. Wealthy suburban districts can afford to lure experienced teachers from

other parts of the country, even Canada, to fill their classrooms. It is the poorer, urban schools that are forced to rely on inexperienced teachers.

And since Wilson's class-size initiative only applies to younger grades, many school officials admit they have had to shortchange older students to reduce class sizes in the lower grades. James A. Fleming, superintendent of the Capistrano Unified School District, said that his district had to take funds away from a middle-school English program to help pay for the initiative. There are long-range financial concerns as well. The state only provides a fraction of the funds for the new classes and teachers, and, while most communities successfully scrambled to meet this year's deadline, it's likely that they will begin to default in ever increasing numbers. Mike Fine, the chief financial officer of the Newport-Mesa Unified School District, told *The Los Angeles Times*, "I think at least one-third of the districts who instituted the class-size reduction won't be able to sustain it for more than three years."

So it was quite a surprise last January when Pete Wilson announced that his 1997-98 budget proposal allocated an additional \$304 million to *expand* the initiative to fully include both kindergarten and the third grade. Administrators who have spent the past six months struggling to cut first- and second-grade classes were hoping the new budget might provide additional money to help them cope with the financial strain incurred in meeting this year's deadline. But instead, they face the Sisyphean prospect of acquiring another 5,000 teachers and classrooms. No wonder many educators found it hard to share Wilson's enthusiasm. As one L.A. school official put it: "We are too busy trying to recover from the governor's last great idea." •

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## PIGTOWN DISPATCH

# BUSINESS AS USUAL

By Joe Mathews

Three years ago, the police officers who conduct prostitution sweeps in this southwest Baltimore neighborhood noticed a trend. The women they had been arresting for years along Washington Boulevard—Pigtown's main street of Formstone row-houses and half-empty storefronts—no longer gave Pigtown addresses. "A lot of the women had moved to the suburbs," says Officer Van Watson. "They still came into the city to turn tricks, but other than that, they didn't see any hope or opportunity there. There was nothing."

Pigtown's demimondes aren't the only ones disillusioned by life in this integrated slum. Once a flourishing residential and industrial neighborhood anchored by

the B&O Railroad, Pigtown has been sliding downhill for years. The majority of the 6,500 people who live here are high-school dropouts, and nearly one in six adults is unemployed. Although violent crime is low and Pigtown has a small group of new middle-class home buyers, the community consists largely of small-time criminals tethered to the drug trade and older working-class people trapped in their homes by it.

But the spring of 1995 brought the promise of change. Two new residents arrived in Pigtown. PTP Industries, Inc., a battery and computer disk packaging firm, moved into a building on Washington Boulevard. And something called the federal empowerment zone arrived from the nation's capital—part of a massive government effort to bring businesses back to inner cities.

The feds had chosen Baltimore as one of six federal urban revitalization areas. The city's share of the \$3.5 billion empowerment pie (it rivals the War on Poverty in size) was \$100 million in grants, concentrated in six neighborhoods or "villages," of which Pigtown was one. The zone was classic corporate welfare: it offered a \$3,000 rebate on a company's (in this case PTP's) payroll tax for each zone resident hired. And, by targeting the benefits to specific areas, federal officials hoped to create controlled laboratories for economic development. To help with Pigtown's resurrection, Maryland gave PTP a sweetheart lease on 330,000 square feet in one of Pigtown's largest buildings, an old Montgomery Ward warehouse.

In Pigtown, the notion of an empowerment zone, and a company willing to take advantage of it, tapped a powerful nostalgia for the long-ago days of plentiful industrial jobs. Even Pigtown's name suggests a better era, a century ago, when hogs were driven through its streets on their way to the slaughterhouses. "A lot of us spent time talking with the PTP people about poverty and jobs," says Arnold Sherman, a former member of the neighborhood's empowerment board. "I believed PTP was going to be an answer to the unemployed, to some of the prostitution, to many problems." PTP needed to double its workforce, from 250 to 500. The new hires would be for the kind of low-skill, entry-level jobs that Pigtown's poorest residents could do.

Pigtown had the makings of an empowerment zone success story, a model for those who believe government can employ business to fight poverty. Except that it hasn't turned out that way. The fact that both sides in Pigtown—community and company—consider the experience a failure stands as a reminder of an unpleasant truth: too many inner-city residents are unable to adequately perform even the simple assembly-line work that PTP offers.

Certainly, Pigtown residents were eager for work. As the April 1995 opening of the PTP plant approached, neighborhood leaders fanned out, distributing flyers with information about the new jobs. More than 160 people attended a job fair; PTP hired 103. They found about another three dozen workers through a city job-training



America has no greater glory than its cherished tradition of immigration. This tradition should be preserved. I am not advocating an end to, or even a major long-term reduction in, immigration. Indeed, I favor increasing the number of skilled and professional immigrants. And, contrary to the crypto-racist alarmism of right-wingers who call for immigration reform, I think that the best feature of the recent wave of immigration is its wonderful non-white diversity.

Let us hope that the president will have the moral and political courage to resist the strange union of business interests, naive libertarians and misguided left-wing urban advocates that has stymied all past attempts at meaningful immigration reform.

ORLANDO PATTERSON is John Cowles professor of sociology at Harvard and author of the forthcoming *The Ordeal of Integration*.

## Size matters

If any of the president's staff flicked on the tube between stump speeches on the campaign trail, they would have noticed that education is in. Not since the days of "Room 222" and "Welcome Back, Kotter," have there been so many shows about school in prime time: "Mr. Rhodes," "Nick Freno: Licensed Teacher," "Dangerous Minds." There are lessons to be learned here—and not about licensing teachers.

The obvious one is that never, perhaps, in modern American life has education been a hotter issue. The less obvious one has to do with class size. Have you ever noticed, Mr. President, how on all these shows, the viewer gets to know only a few of the students? There's a reason for that. In a thirty-minute sitcom or an hour-long drama, a viewing audience can only get to know a handful of kids. Similarly, a typical teacher can only get to know so many students in a fifty-minute period. On "Welcome Back, Kotter," for instance, the sweatshops monopolized Mr. Kotter's time while the good kids languished in the background. And as it is for the TV audience, so it is for the typical high-school teacher. In fifty minutes she can only get to know so many kids.

In the next four years, Mr. President, you should make reducing class and school sizes, particularly in poorer, overcrowded schools, a top goal. As governor of Tennessee, Lamar Alexander financed a study of the effect of class size on learning in the state's

rural, suburban and urban schools. It showed that smaller classes during the elementary school years produced dramatic boosts in student achievement—regardless of student background—and that these gains held even after students were returned to larger classes in later years. Everyone knows that smaller classes work; they're in large part what affluent parents are paying for when they send their kids to private schools.

The place to start is in the earliest grades, kindergarten through third, in order to give all children the solid educational foundation they need to succeed later. Nothing would do more to help all children to read by the third grade, as President Clinton has proposed, than to reduce all elementary school classes to 20 students or less during these years.

Most people assume that school districts would have to hire lots more teachers if they reduced class size, but they wouldn't. In too many districts across the country, teachers work outside the classroom, in administrative positions created partly to respond to the needs of teachers in overcrowded classes and schools. In New York City, for instance, the student-to-teacher ratio is approximately 16 to 1; classes remain large, however, partly because so many teachers aren't teaching and because of overcrowding.

Instead of giving money to states for special education or other "pull-out" programs, the federal government should give funds to schools exclusively to reduce class size; if every class, particularly in the earliest grades, had 20 students or less, then every child, in essence, would receive a "special" education. And just as every class should have no more than 20 students, every school should have no more than 20 teachers. Teachers get lost in big schools, just as kids do. Smaller schools and classes will create the kind of communities where teachers, parents and students can work together and know each other as individuals. If you can push for school uniforms, Mr. President, you can push for smaller classes. Call it your 20/20 vision for school reform.

SARA MOSLE is a contributing writer for *The New York Times Magazine*.

## Don't ask, don't tell

Intellectuals love to imagine that the people who wield real power are just waiting to be told how to use it. This fantasy of access and influ-

ence is a kind of *déformation professionnelle*, and one with a long, richly ironic history: think of Seneca and Nero, Voltaire and Frederick the Great, Michael Lerner and the First Lady.

For a politician, President Clinton seems to be pretty well-informed. Even his enemies concede that he does his policy homework, and his political instincts are legendary. I would be amazed if, at this late date, a journalist, a pundit, or even a bona fide expert in a genuine field of study could suggest to him a significant course of action he or his handlers have not already considered, focus-grouped and triangulated from here to the moon and back.

But he's not a free man, either: he has constituencies to satisfy, contributors to reward, political debts to pay and, of course, his own career to advance. These considerations matter a lot more than bright ideas, or right ideas. Many eloquent opponents of the welfare bill had the president's ear, including some of the policy experts who'd helped him formulate his own plan. Whatever one thinks of the president's decision to sign the measure into law, I don't think there's much doubt that the only arguments that counted in the end were the ones about his own immediate political fortunes. Does anyone think the president really believes that uniforms and the Internet are the keys to educational progress? Or that what battered women need more than anything else is their own emergency number?

Journalists are supposed to speak truth to power. But I've always wondered what the point of it is. If power were interested in truth, we would be living in a very different world. Why not speak truth to the powerless, who at least have something to gain from listening?

If President Clinton wants to know what I think are the problems and possibilities of contemporary American society, he can always subscribe to *The Nation*, where I've been writing for years. Or he could just call—I work at home, I'm in the book. That he hasn't requested my views on any subject, and communicates with me only indirectly, through Democratic Party junk mail addressed to "Occupant," makes me suspect he's not that curious about my views. I don't blame him a bit. If I were president, I would feel the same way.

KATHA POLLITT is a columnist for *The Nation*.

## LEVEL 1 - 13 OF 201 STORIES

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Time

October 6, 1997

SECTION: EDUCATION; Pg. 85

LENGTH: 577 words

HEADLINE: **CLASS-SIZE WARFARE;**  
SOME NEW YORK PARENTS TRY TO HIRE AN EXTRA FOURTH-GRADE TEACHER. IS THIS UNFAIR  
TO PUBLIC SCHOOLING?

BYLINE: ROMESH RATNESAR, WITH REPORTING BY ELAINE RIVERA/NEW YORK

BODY:

The move seemed routine enough in a **school** system strapped for cash. In late September, New York City **school** officials laid off a fourth-grade teacher at Public **School** 41 in Greenwich Village, dispersing her students into the **school's** four other classes. That pushed the average fourth-grade **class size** from 26 to 32. It also pushed parents over the edge. Within days of hearing the news, a group of parents cobbled together \$ 46,000 to cover the teacher's salary. When city **schools** chancellor Rudy Crew nixed the buyout, saying it would "adversely affect the opportunity for equity" among the city's **schools**, the parents went to court and took to the streets. After a week of rancorous meetings, the two sides struck a deal last Thursday that reinstated the teacher, Lauren Zangara, and returned the parents' money--but barred them from any future attempt to pay faculty salaries. The city "will allow parents to make valuable contributions to their **schools**," Crew said, "within appropriate limits."

The rumble in the Village highlighted a quandary facing middle-class parents across the U.S. With state and local governments slashing public-school budgets, parents often face an unhappy choice: supplement their children's creaky classrooms with their own cash or stick the kids in pricier, more exclusive private schools. While parents have long held bake sales and sold raffle tickets to drum up extra funds for local schools, fund raising today is growing more elaborate and controversial. In Bowie, Md., a nonprofit foundation set up by parents is helping finance a \$ 5 million auditorium. In Winchester, Mass., the Foundation for Educational Excellence dispenses \$ 50,000 a year in grants to enterprising teachers. And public-school boards in most major cities say parents are free to kick in for everything from clean football uniforms to new computers.

So why all the fuss about P.S. 41? Well, buying extra classroom materials is one thing; buying extra teachers is another. When directed toward items like staff salaries, educators say, private funds can widen the disparity between schools in poor neighborhoods that rely on government funds, and those in middle-class communities that can tap off-the-books parental money. Even some parent advocates got uneasy over the New York parents' brazenness. "The running of public schools should be the responsibility of the public through tax monies," said Lois Jean White, president of the national PTA. Other critics weren't so diplomatic. "It's not an 'extra' when you're talking about



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Time, October 6, 1997

subsidizing salary for a teacher," says Jonathan Kozol, author of the 1991 book *Savage Inequalities*. "The moral justification of public education is being ripped apart."

Several parents did threaten to relocate their children to private schools if Crew didn't reinstate Zangara. But the parents refuted the image that they were pampered yuppies with money to burn, pointing out that the school has working-class families too. They also say that the loss of one teacher would make the size of each fourth-grade class 10 students larger than the state average. Said P.S. 41 father Fred Moshary: "Parents anywhere would have done the same thing." Those words were prophetic. At week's end, parents of second-graders in nearby Queens had raised \$ 20,000 toward saving a teacher from the budget ax. They vowed not to rest until they succeeded.

--By Romesh Ratnesar. With reporting by Elaine Rivera/New York

GRAPHIC: COLOR PHOTO: TODD MAISEL, VILLAGE VANGUARDS: P.S. 41 parents like Carrie Bianchi, left, and Sandra Soehngen raised \$ 46,000 to pay a teacher

LANGUAGE: ENGLISH

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LEVEL 2 - 6 OF 22 STORIES

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School Planning and Management

July, 1997

SECTION: No. 7, Vol. 36; Pg. 18

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HEADLINE: A lesson in classroom size reduction; includes related articles; Cover Story

BYLINE: Hymon, Steve

BODY:

Administrators nationwide can learn from California's classroom size reduction plan and how districts implemented it.

In May of 1996, California Governor Pete Wilson found himself in a difficult position. California **schools** were swelling with students, the result of the recent baby boom and the state's continual growth in population. Simultaneously, test scores revealed that reading skills in many of California's **schools**, especially those located in urban areas, lagged behind scores in the rest of the nation. Another publicized study found that California ranked 40th in the nation on spending per pupil.

Fingers were pointed at Wilson, whose approval rating had dropped dramatically since his embarrassing withdrawal from the 1996 presidential election. But Wilson fought back. The state had collected extra tax revenue for 1995, and state law dictated that the money had to go to education.

#### The Plan

Sensing an opportunity, Wilson created a \$ 771 million initiative called classroom size reduction (CSR). Wilson's goal was simple: He wanted all kindergarten, first-, second- and third-grade classrooms to have 20 or fewer students. Wilson said that the would give school districts \$ 650 for each student in a reduced classroom in the 1996-97 school year. An additional fund of \$ 200 million would be created to help those schools facing a critical shortage of facilities. This past May, Wilson proposed expanding the amount to \$ 800 per student in the new state budget (which will be voted on this summer), while allowing schools to use some of that \$ 800 for new facilities.

The CSR program received high praise from parents, teachers and the press. And, in many ways, the results have been extraordinary: By February of this year, 851 of the state's 895 public school districts had qualified for the program, according to the latest figures from the state department of education.



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Although many schools were unable to reduce **class size** in all four grades, many schools were able to reduce first and second grades from more than 30 students per class.

But there are two sides to the story. While few people criticize the legitimacy and effectiveness of smaller classrooms, many school district administrators have found that the \$ 650 Wilson was paying for each student was, in fact, nowhere near the real cost of the program.

Three questions hounded California administrators.

1. Where were all the extra classes created by CSR going to be housed?
2. Who was going to teach those classes?
3. If \$ 650 per student didn't cover the cost, where was the extra money going to come from?

#### Los Angeles' Strategy

The mother of all California school districts, Los Angeles Unified, provided some revealing answers to all three questions. LAUSD is the second-largest school district in the nation (with more than 668,000 students) and its many serious problems - deteriorating buildings, crime and a top-heavy administration - are well chronicled in the press, often on a daily basis.

CSR was asking LAUSD to reduce **class size** at a time when LAUSD was already looking at a record enrollment increase of 18,000 students heading into the 1996-97 school year. Factoring in CSR, it appeared that LAUSD would be short 27,000 seats. This was the problem that faced Gordon Wohlers, LAUSD's assistant superintendent in charge of classroom size reductions.

Wohlers and his colleagues tackled the problem systematically. First, they realized they were dealing with a facility shortage and convinced the LAUSD board to order 1,000 portable classrooms, all of which should be in place by this fall.

Next, they asked the LAUSD board of education to approve various temporary measures that would ease pressure on schools. One measure allowed schools to use any available space for classrooms, including teachers' lounges, auditoriums and libraries. Another measure allowed 40 students to use the same classroom as long as two teachers were present to divide the class in half. Other schools, already stuffed to the gills, were permitted to adopt multitrack, year-round programs.

These measures, along with hiring more than 1,000 teachers, allowed LAUSD to place 98 percent of its first and second graders in the CSR program. "The problem we have now is that we can't go further than this," says Wohlers. "The reason is we have nearly 100 elementary schools that are filled to capacity. Absent of new construction, we cannot expand the CSR program to the third- and fourth-grade level."

The other problem, and one that has become endemic throughout the state, is money. LAUSD, even with the \$ 650 per student received from the state, had to spend approximately \$ 97 million from its own general funds, not including the



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cost of the portables and educational materials. Wohlers estimates that the real cost of implementing CSR was almost \$ 1,000 per student.

The district did receive some good news in early April, when L.A. voters passed a \$ 2.4 billion school bond measure - the same measure that had suffered a narrow defeat at the polls last November. The problem, however, is that the money is specifically earmarked for desperately needed school repairs and to fund construction of much-needed high schools.

Thus, the future of CSR in Los Angeles is already in question shortly after it has begun. Everyone loves the smaller classrooms, but LAUSD faces an enrollment that will continue to grow with the Southern California economy.

"Overall, we are going to have to invest more money into education if we are going to get the results the public is investing in," says Wohlers. Schools.

#### Mammoth Lakes' Strategy

Mammoth Lakes, population 6,000, couldn't be more different from Los Angeles. Located in a remote alpine valley in the Eastern Sierra Nevada Mountains, Mammoth Lakes is a popular year-round destination because of its skiing, fishing and camping.

Mammoth Elementary School serves not only the town of Mammoth Lakes, but much of Mono County, one of the more sparsely populated counties in California. Interestingly, its elementary school has 634 students, whereas its middle school and high school have about 300 each - reflective, again, of the mini-baby boom of the late 1980s.

Before CSR, Mammoth Elementary also had as many as 34 students in some of its first- through third-grade classes. This did not represent the quality of life that many of Mammoth's residents left L.A. to pursue. Any possible way of reducing **class size** was appealing.

"We went into CSR with our eyes open," says Brian McBride, principal of Mammoth Elementary School. "The benefits of smaller classes are obvious, but the downside is that it cost our general fund about \$ 83,000 because [CSR] was not fully funded."

Mammoth Elementary hired seven teachers, all with experience, which wasn't difficult because the town is a desirable place to live. But the school is now using every inch of the building for classrooms and is facing the prospect of changing to a year-round schedule to accommodate CSR. The school also placed an order for a portable classroom, which cost \$ 60,000 because the portable must withstand the sizable snowfalls typical of the area.

The architecture of the school provided common areas in the middle of the classroom area. Two of those areas were converted to classrooms, and a conference room was thrown into the mix as a small-group instruction area. McBride is thankful that, for now, he was spared having to use the cafeteria, but he isn't happy about losing his second grade's common area, which was previously used for art projects and theater activities.

Nevertheless, all 16 of Mammoth's first through third grades now have 20 or



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fewer students. "Most of us who went into this thing knew it wasn't a moneymaker," says McBride. "But we went into it with the thought that we can afford to do it right now and that we should because we have very high **class sizes**."

But McBride offers a warning: "The state is going to have change the funding or this will be a two-year experiment."

#### Oxnard's Strategy

Oxnard is located in a fertile agricultural valley just north of Malibu. The school district has 14,300 students enrolled, many of whom are from low-income families.

"Everyone applauds the concept of CSR," says Sandra Herrera, assistant superintendent of business and fiscal services for the Oxnard School District. "But we were already 100 percent multitrack at all of our schools, and all of our classrooms were in use year-round. We have no place to put the children."

Oxnard, like many other school districts, faced political pressure to implement CSR. But, as of late April, the district had managed to get only the first grade into the program. An elementary school under construction is scheduled to open this summer and, if the second grade is fully implemented into CSR, the new school will open at complete capacity.

One of the problems with CSR in California is that the \$ 650 per pupil funding is not 'meant to cover the cost of building new facilities. Districts that need extra money for facilities can apply for money from a separate \$ 200 million fund - but \$ 200 million represents little money for the most populous state in the nation. One of the results of this, according to Herrera, is that school districts with critical needs, such as Oxnard, are unable to compete with districts that do have space. In other words, a problem that CSR was designed to alleviate - overcrowding in schools - tends to help overcrowding only in wealthier districts, while furthering crowding in poorer districts.

Oxnard added 45 portable classrooms, which it will pay for from its general funds in the next 10 years. A school bond failed to pass by 80 votes on March 4 of this year, but passed on June 3, rising above the two-thirds vote required for passage by just 42 votes. "You try to get the word out in relationship to the need," says Herrera, "but it's hard for people to realize how great the need is."

#### San Diego's Strategy

The San Diego Unified School District, with about 136,000 students, was fortunate. Two years before Governor Wilson's CSR program was implemented, the city school district had begun its own program. Heading into the 1996-97 school year, the average **class size** in first and second grades was already 25.5 students.

"The CSR program wasn't as hard on us because, financially, we made sacrifices earlier," says Jan Hintzman, supervisor of facilities program for the San Diego Unified School District.



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Hintzman and her colleagues solved the most serious problem - lack of facilities - by considering every inch of every school as fair game for use as classrooms. What Hintzman and her colleagues soon found was that most schools were giving up anything to participate in CSR, including lounges, auditoriums and libraries. Hintzman estimates that replacing such facilities will cost the district \$ 14 million.

"As a facility planner, I could never have gone out and done some of these things," says Hintzman. "I think it's a sign that everyone realized we had to do something to improve student performance."

#### Long Beach's Strategy

The Long Beach Unified School District, which has 84,000 students, made similar sacrifices. As soon as the initiative was signed into law, principals and elementary school teachers were called back from summer vacation. The district immediately organized a teacher recruitment fair and put the word out through the local media.

On the day of the fair, candidates for teaching jobs were lined up out the door, and officials from LBUSD were there, serving them soft drinks. Several television and radio stations and newspapers covered the fair, resulting in even more candidates - some who heard about the fair on the radio while commuting to work and decided to stop to apply. The result: Long Beach got the pick of the teaching litter.

"We have the challenge of being a large, urban school district growing by 3,000 students each year," says Richard Van Der Laan, the district's spokesperson. "We could have waited to implement CSR, but we didn't want to. We felt that, with a little ingenuity, we could get a high percentage of primary school kids into the program."

By the end of the first semester of the 1996-97 school year, 100 percent of Long Beach's first graders, 69 percent of the second graders and about 40 percent of the kindergartners were in classes of 20 and under. In total, about 16,000 students are involved in CSR.

How did Long Beach find the space? Like other districts, Long Beach brought in 40 portables and then went about "recapturing" any areas that could be used for classrooms. The district also decided to forgo small classes for subjects such as music and physical education--which freed rooms for other classes. The district even took back an old school it had been leasing to Los Angeles County and, today, the school is operating at 100 percent capacity.

"We had a number of principals and superintendents who were all supportive of making this thing happen," says Van Der Laan. "They were all convinced that our children shouldn't be left behind because of the inconvenience this might cause - we were deeply convinced that urban youngsters should get the same opportunities as children in other areas."

It didn't hurt that Long Beach, according to Van Der Laan, had an adequate reserve of money set aside. In fact, many of the portable classrooms had already been ordered before CSR was signed into law. Still, Van Der Laan insists, attitude was what made Long Beach successful: "Other places decided to wait and



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to think the program through but, in reality, the ones who stuck around the starting gate probably, in hindsight, should have jumped into it wholeheartedly."

#### From a National Perspective

Education has finally become an issue politicians from both parties are embracing. It's no secret that President Clinton is hoping to make improving education the defining issue of his second term. In California, Governor Wilson would like to expand CSR to the fourth grade. He is also talking about putting a \$ 2 billion statewide bond for education on the ballot next year.

If CSR programs prove to have a dramatic impact on reading and math skills in California, it is likely that CSR programs will expand to other states as well. The argument for CSR programs is appealing to politicians, and it's a notion hard to dispute: Our children will need better skills to compete in a global marketplace.

#### RELATED ARTICLE: HOW DO YOU TURN AN ELEMENTARY SCHOOL CAFETERIA AND AUDITORIUM INTO FOUR CLASSROOMS?

Last August, Valencia Park Elementary School in Fullerton quickly learned how. The school has an enrollment of 950 students or so, and the staff wanted to reduce the size of its first-grade classrooms before the school year began. The problem was that four additional classrooms were needed until the middle of the year, when more portable classrooms would be arriving.

As it happened, the school's cafeteria and auditorium occupied the same large room, with a stage at one end and the kitchen at the other. First, the decision was made that the cafeteria could be sacrificed. Lunch tables and benches were moved outside to the playground, which meant students began dining al fresco. When it rained, which wasn't often, "rainy day lunches" were declared, and students ate in their classrooms. To alleviate playground crowding, students were divided into three groups, each eating at a different time.

To convert the cafeteria/auditorium to a classroom, movable walls were used. Carpet was laid over the linoleum floors, and the walls were repainted or covered with murals of such things as schoolhouses and flowers painted on large pieces of paper. Three of the classrooms were used for first graders, and the fourth was used for an English as a second language classroom.

This begs the obvious question: Are these good-quality classrooms?

"We thought it looked very cozy and not sterile - like a cafeteria," says Michele Succar, the school's psychologist. "We were all very pleased, especially the teach-em. It was wonderful to have the 20-to-one."

But were first graders a little alarmed to be attending class in a cafeteria?

"Well, these are first graders," says Succar. "Most of them don't come with preconceived notions about what a classroom should look like, and I doubt it affected them. They were in a school classroom with good teachers and a warm, caring environment. And that's what's most important."



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## RELATED ARTICLE: FIVE LESSONS FROM CALIFORNIA CSR

The following lessons can be learned from California's struggles and successes with CSR.

**THINK AHEAD.** Even if your district has adequate space, survey all buildings to see where and how, in a pinch, classrooms could be added at a later date. Also, view every inch of space as a potential classroom; temporary partitions can do wonders.

**CSR ATTRACTS TEACHERS.** Obviously, teachers love smaller classes. Districts like Long Beach and Mammoth used the promise of CSR to sell themselves to teachers and, as a result, the demand was greater than the supply. Both districts feel they greatly enhanced their staffs by hiring skilled and experienced teachers.

**MONEY OFTEN FOLLOWS RESULTS.** Schools that achieve CSR by any means possible have something to sell to the public when the inevitable bond ends up on the ballot. Jan Hintzman, of the San Diego school district, says that she wanted to wait a year and study the numbers before implementing CSR. The district didn't wait, believing that the facilities the district lost to CSR were a worthwhile sacrifice: Give the community smaller classes, and the community will then pass the next school bond issue.

**BE MEDIA SAVVY.** "If there's something negative going on, all the press comes out," says Sandra Herrera of the Oxford School District. "If it's something good, we can't get them to come out, even if we buy ads in the paper. It's a continuing frustration."

One strategy widely used in dealing with the press is going to the press before it comes to you, which the Long Beach district did to great effects when it held a job fair to recruit new teachers. Keep in mind, too, that reporters at small newspapers often tend to be young and inexperienced. Introduce yourself to them. Invite them to your office to talk about the issues maybe lunch with them once a month. And, hard as it might be, don't take offense when they write something that angers you or, perhaps, is dead wrong. Their readers are the people who vote for bonds and politicians.

**BE A LEADER.** "Hopefully, **class size** reduction will help people see the need for additional facilities," says Van Der Laan. "And there is a growing awareness that, if we are going to get into the 21st century, we still need to finish getting into the 20th century. Our thinking is that, if you decide to do it, find a way. Do it sooner rather than later. Be a leader rather than a follower."

## RELATED ARTICLE: THE "AVERAGE" SCHOOL DISTRICT

A major study conducted in 1995 by McKinsey & Company, Inc. describes the "average" school district in the United States as having:

- \* 5.7 schools per district, (\*)
- \* 533 students per school, (\*)
- \* 25 students per class, (\*) and



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\* 121.4 classes per district. (\*\*)

This means that the "average" school district would have to add 30.4 classrooms in order to bring its **class-size** average down to 20 students. While the "average" school district doesn't exist in most places, some interesting extrapolations can be made from the data when combined with typical **class sizes** in each state.

Assuming that the "average" district does exist in each state, it would have to add the indicated number of classrooms in order to achieve the 20 students per classroom standard set by California (see the third column in the chart below).

Based on these figures, California is in the worst shape, needing to add 48.2 classrooms to the "average" district while Nebraska, Vermont and South Dakota are already at or below the 20 student goal.

Obviously, this simplified analysis leaves out many factors. Dozens of other considerations, including increasing enrollment, differences in student populations in specific grades and the actual size of a district, impact the number of classrooms needed.

- Tim Bete, editor

| State          | Average                 | New Classrooms     |
|----------------|-------------------------|--------------------|
|                | Elementary              | Needed per         |
|                | <b>Class Size (***)</b> | "Average" District |
| California     | 29.3                    | 48.2               |
| Utah           | 27.5                    | 41.4               |
| Michigan       | 27.3                    | 40.6               |
| Maryland       | 26.3                    | 36.4               |
| Florida        | 26.0                    | 35.1               |
| Washington     | 25.9                    | 34.6               |
| Arizona        | 25.8                    | 34.1               |
| Pennsylvania   | 25.2                    | 31.3               |
| Ohio           | 25.0                    | 30.4               |
| Delaware       | 24.8                    | 29.4               |
| North Carolina | 24.8                    | 29.4               |



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## School Planning and Management July, 1997

|                      |      |      |
|----------------------|------|------|
| Colorado             | 24.7 | 28.9 |
| Illinois             | 24.5 | 27.9 |
| Minnesota            | 24.5 | 27.9 |
| Kentucky             | 24.4 | 27.4 |
| Nevada               | 24.4 | 27.4 |
| Oregon               | 24.4 | 27.4 |
| Tennessee            | 24.4 | 27.4 |
| Idaho                | 24.0 | 25.3 |
| New York             | 23.9 | 24.8 |
| Missouri             | 23.7 | 23.7 |
| Hawaii               | 23.6 | 23.2 |
| Mississippi          | 23.6 | 23.2 |
| South Carolina       | 23.3 | 21.5 |
| New Jersey           | 23.2 | 21.0 |
| Rhode Island         | 23.2 | 21.0 |
| Massachusetts        | 23.1 | 20.4 |
| Wisconsin            | 23.1 | 20.4 |
| Louisiana            | 22.9 | 19.2 |
| Alaska               | 22.6 | 17.5 |
| Virginia             | 22.6 | 17.5 |
| Iowa                 | 22.5 | 16.9 |
| Georgia              | 22.2 | 15.1 |
| Indiana              | 21.9 | 13.2 |
| New Mexico           | 21.9 | 13.2 |
| District of Columbia | 21.8 | 12.5 |
| New Hampshire        | 21.8 | 12.5 |
| Alabama              | 21.7 | 11.9 |



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## School Planning and Management July, 1997

|               |      |      |
|---------------|------|------|
| Maine         | 21.5 | 10.6 |
| Connecticut   | 21.4 | 9.9  |
| Montana       | 21.2 | 8.6  |
| Arkansas      | 21.0 | 7.2  |
| Wyoming       | 21.0 | 7.2  |
| West Virginia | 20.9 | 6.5  |
| North Dakota  | 20.7 | 5.1  |
| Kansas        | 20.6 | 4.4  |
| Oklahoma      | 20.5 | 3.7  |
| Texas         | 20.1 | 0.8  |
| Nebraska      | 20.0 | 0.0  |
| Vermont       | 19.7 | n/a  |
| South Dakota  | 19.2 | n/a  |

\* Calculated from data from the National Center for Education Statistics.

\*\* Calculated by Tim Bete from McKinsey data.

\*\*\* U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993-94. Table 39-2: Public school teachers' average **class size**, by teacher level and state: School year 1993-94.

Steve Hyman is a California-based freelance writer.

GRAPHIC: Photograph; Table; Illustration

LANGUAGE: ENGLISH



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## LEVEL 2 - 2 OF 22 STORIES

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October 13, 1997

SECTION: U.S. NEWS; Pg. 22

LENGTH: 3005 words

HEADLINE: Does **Class Size** Matter?

BYLINE: By Thomas Toch; Betsy Streisand; Steven Butler

DATELINE: Tokyo

HIGHLIGHT:

The newest trend can transform **schools**--or waste billions of dollars;

BODY:

There are so many students crammed into P.S. 14 in Queens, N.Y., that lunch is split into three shifts beginning at 10:25 a.m. To manage the traffic of 1,700 students, many of them recent immigrants from Latin America and South Asia, each grade level has its own designated exit door. An art studio and a science lab have been sacrificed for use as regular classrooms. Until two years ago, many students spent exercise periods in their classrooms because the **school's** gym was being used for regular studies. Dancing the macarena at their desks counted as physical education.

Most important, the size of P.S. 14's classes affects the way Rehana Longi teaches and the way her students learn. Angling her body to squeeze between desks, she struggles, unsuccessfully, to give each of her 34 fifth-grade students a few minutes of individual attention. During a 35-minute arithmetic lesson, she gets to check the answers of about 12 students. Creativity is limited. "There's a lot of emphasis on textbooks," she says. "It's got to be that way."

Not for many children in California. In Los Angeles's Hancock Park Elementary School, teacher Sandy Sutton spots one of the 20 students in her second-grade class struggling with a reading task. "Ssstttiiicckk," Sutton says, helping the girl sound out the word. Sutton says the shy kids in her class don't fade into the background as they once did. She can pinpoint slow readers within the first days of school and give them special attention. She can cover more ground during each class period.

In the past, Sutton routinely taught classes of 31 or 32 students and faced difficulties similar to Longi's. But last year the **size** of Sutton's **class** was cut under a wildly popular initiative pushed by Republican Gov. Pete Wilson to reduce the **size of classes** statewide in kindergarten through third grade. Sutton, for one, is thrilled at the change. "If I ever had to go back to that, I'd quit teaching," she declares.

The **class-size** cuts have already changed the look and feel of California's



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schools, where nearly an eighth of the nation's students are enrolled. In slightly over a year, the state has created at least 17,000 new classes and over half of the state's 1.9 million eligible students have been placed in classes of no more than 20 students. (In recent years California has had classes averaging 30 students.) Parents overwhelmingly say that smaller classes have increased their children's reading and writing skills. Perhaps most amazingly, parents in Beverly Hills and other affluent enclaves have begun shifting allegiances to public schools, in part because they are now guaranteed small classes similar to those offered by private schools.

As a result of the **class-size** initiative, Wilson's approval ratings are now the highest he has enjoyed. Democrats in the state legislature are singing the reform's praises. Even the state's teachers' unions have been silenced by surveys showing that over 90 percent of their members believe the class cuts have improved instruction.

"Silver bullet." As President Clinton and Congress fight in Washington over the wisdom of using national exams to spur school improvement, California has found that this bold solution has forged a rare alliance of educators, Democrats, Republicans, unions, and taxpayers. And California's **class-size** trend seems to be spilling into other states. The Wisconsin Senate last month approved a plan to spend up to \$ 50 million to reduce average **class sizes** in poor areas to 18 students or fewer. The move is "a silver bullet, a sure-fire, proven way to improve the quality of education," says Democratic state Sen. Chuck Chvala. New York, North Carolina, and several other states also have passed class-shrinking measures recently, and another half dozen are debating such steps. The issue is expected to be the center of discussion during a special session of the Florida legislature this fall.

But there is one catch: Reducing **class size** is expensive. California is spending \$ 2.5 billion over two years to cut **class size**, and the annual cost of sustaining the reform will start at about \$ 1.5 billion (a 7.5 percent increase in state-level education spending) and rise steadily as new teachers climb salary ladders. To reduce the average **class size** by 10 students nationally would cost on the order of \$ 85 billion for teachers alone. But while the California approach is politically popular, across-the-board cuts in **class size** are not the most cost-effective way to spend education money. As the **class-size** crusade spreads to other states, the question of how the reform is implemented--who benefits and who doesn't--deserves scrutiny. Smaller classes could be one of the most important school reforms of recent years--or a colossal waste of money.

The popularity of the **class-size** initiative stems in part from the perception among parents that increases in education spending over the years haven't found their way into classrooms. On the one hand, public-education spending has increased by at least 61 percent beyond inflation during the past 30 years, and the bulk of the money has been spent on hiring new teachers. Yet the size of regular classrooms has dropped only slightly, largely because the majority of the new teachers work with small groups of disabled students and others with special needs. Wilson rallied support for his expensive initiative by saying he would give subsidies only to those schools that actually succeeded in reducing **class size**. To voters, smaller **classes** are "the single strongest rationale for spending more money on schools," says pollster Celinda Lake of Lake Sosin Snell Perry & Associates. Indeed, nearly 60 percent of parents surveyed in a new U.S. News poll say they'd be more likely to vote for a



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political candidate who wants to raise taxes if the money went to pay for smaller **class sizes** in kindergarten through third grade. The poll was designed for U.S. News by Democrat Lake with Republican pollster Ed Goeas.

In some regions, large classes are a serious problem. While the average elementary **class size** in the nation's public schools has declined from 30 to 25 over the past four decades, poor urban school systems continue to struggle with overflowing classrooms. So do schools in Florida and other booming Sun Belt states. The problem isn't likely to ease: Enrollment is expected to increase by 2 million students nationally during the next decade.

In deciding to invest so heavily in smaller classes, Wilson's advisers relied on the findings of an experiment in Tennessee called Project STAR, the nation's only large, long-term study of **class size**. In 1985, Tennessee put 6,500 kindergartners in 330 **classes** of different **sizes**. A third of the **classes** had between 13 and 17 students; a third had between 22 and 26 students, the typical size of classrooms in the state; and a third had enrollments of 22 to 26 students plus a full-time teacher's aide. The students in small classes stayed in them for four years and then returned to larger ones in the fourth grade. The test scores and behavior of students in the small classes were better than those of kids in the larger classes. For instance, 69 percent of first graders in smaller classes passed the state's reading test, compared with 58 percent of students in larger groups. Teachers said students who had been in the smaller classes also paid closer attention, asked more questions, and had fewer discipline problems. They even participated more in school clubs and generally became more engaged in school life.

But the benefits that the Tennessee study found in smaller classes are easily squandered if implementation isn't handled properly. California, in reducing **class size**, might be lowering the quality of teaching. School districts have had to find teachers for the 18,000 new slots; as a result, nearly two thirds of the new hires have little or no teaching experience. In Los Angeles, new teachers have included Nordstrom clerks, a former clown, and several chiropractors. The state needs to hire 15,000 more teachers in the next 10 months. While some of the new blood may be good, education experts like Michael Kirst of Stanford University believe that the quality of many new hires is suspect--and the schools may be stuck with bad teachers for many years. Urban schools with a lot of tough-to-educate kids are suffering the most. Not only is it difficult to lure new teachers into the inner city but many of their best veterans are departing for openings created by the **class-size** initiative in often higher-paying and less stressful suburbs.

While students may be getting more attention, new teachers may be getting less. The California State University system, which trains 60 percent of the state's teachers, will start offering courses needed for teaching licenses over the Internet in January. Teachers-in-training will be able to earn a semester's course credit using a textbook and a 4 1/2-hour video of classroom techniques.

Some schools have resorted to steps that directly undermine the potential value of the **class-size** initiative. Last year many schools placed 40 students in single rooms with two teachers; in others, two teachers traded off teaching the entire group of 40 students. Some schools have even assigned three classes to two rooms, with each class rotating in and out during the day. "It was a nightmare," says Teri Ortt, a second-grade teacher at Hobart Elementary School



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in Los Angeles who was in such a "troika" system last year. "Teachers were constantly packing up their students and teaching materials, grabbing two hours of class time in the library or outside under a tree."

Breathing room. Smaller classes and more teachers require more classrooms than California schools can currently provide. Hundreds of schools have given up libraries and science labs for class space. Others have discontinued preschool and parent-education programs for lack of room. At Hancock Park, two third-grade classes are set up in the school's auditorium. Statewide, schools are parking portable classrooms on their playgrounds as fast as they can purchase them; more than 7,000 are already on back order. Several thousand of the portables in place are hastily constructed "temporary" structures that state law permits schools to use for only two years.

Many crowded inner-city schools--including 57 schools in Los Angeles--don't have room even for portables, however, and are thus unable to fully reduce **class sizes**. The state's richer suburban school systems, on the other hand, have room to expand and are reducing **class sizes** for a greater percentage of their students, officials say. Once the cost of new construction is considered, the true cost of the **class-size** initiative may be far higher than now projected.

Beyond the practical difficulties of introducing **class-size** cuts on a California-like scale, there is a more fundamental question: Is the effort to make this initiative broadly popular wasting money on students and schools where the impact will be minimal? All parents want their children in small classes, but the Tennessee STAR study found that smaller classes helped disadvantaged students, many of whom were African-American, more than they helped affluent students. Black students in the larger first-grade classes scored 14 percent below whites on a key reading test, but the gap narrowed to 4 percent in the smaller classes. A major study of **class size** to be released this fall by Rand of Santa Monica, Calif., reaches a similar conclusion: Smaller classes benefit students from low-income families most, middle-class kids less, and those from upper-income backgrounds least of all.

Efforts to reduce **class size** are more cost effective if focused on certain subjects. It makes more sense, experts say, to have larger groups during instruction in subjects such as music and to create smaller groupings during the teaching of reading, the most important elementary school subject. Over 700 schools have done just that as part of a reading program called Success for All, and the achievement results have been impressive. Robert Slavin, the Johns Hopkins University professor who developed the approach, says California could have improved instruction in its elementary schools dramatically for a fraction of the money it has spent simply by hiring and carefully training retired teachers and other part-timers as reading instructors to reduce the **size of classes** during the time reading is taught.

States that shrink **class size** by only a few students across the board will probably be throwing their money down the drain. Studies have shown that benefits become measurable only if classes are cut by a third or more--and even then such cuts may make only a marginal difference in affluent areas. Yet the 141,000-student Palm Beach County, Fla., school system just spent nearly \$ 6 million hiring 220 teachers to reduce **class sizes** in kindergarten through 12th grade by about one student per class. Part of the reason Tennessee succeeded was that its schools got STAR classes down to the very low average of 15 (often low-income) students--and even then many researchers considered the actual



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improvements in test scores to be modest, given the reform's cost. The new Rand study also suggests that there's more benefit to reducing **class sizes** in early elementary grades than in middle schools and high schools.

Reducing **class size** seems to be most effective in combination with other reforms. Evidence comes from a study of 16 low-income schools in Austin, Texas. In the late 1980s, each of the schools was awarded an extra \$ 300,000 a year for five years as part of a desegregation case. Fourteen of the schools spent the money to reduce **class size** and yet in five years didn't manage to improve student attendance or test scores. But the other two schools reduced **class size**, set higher standards, provided intensive teacher training, and established health clinics on their grounds to address physical problems that were keeping students from learning. Test scores and attendance both improved significantly at those schools.

Money is also wasted if classes get smaller but teachers don't adjust their styles. Yet teachers in schools that have cut **class sizes** often continue to use large-class techniques like relying on textbooks, instead of working directly with students, says Nikola Filby, a researcher at WestEd, a San Francisco-based think tank.

Japanese style. In fact, schools can get many of the benefits of smaller classes, without the cost, by making classes seem small. In Japan, where classes often include as many as 40 students, teachers involve students without relying on one-on-one contact by frequently asking small groups of students to present their findings to the entire class. They build self-discipline among students by giving them responsibilities like calling the class to order after recess. Japanese schools work hard to build bonds between teachers and students, devoting as many as 30 days a year to hiking excursions, festivals, and other activities, says Catherine Lewis, author of *Educating Hearts and Minds*, a study of Japanese schools. (Japan is, however, concerned that its education system discourages creativity and independent thinking, and a government panel recently recommended that the average **class size** of 29 students be lowered to help teachers nurture students' talents.)

In this country, Catholic schools, which have earned a reputation for doing a good job educating disadvantaged urban students, often have classes of over 30 students. They compensate with high expectations, traditional teacher lecturing, and a strong sense of community that makes kids feel cared about. And P.S. 14 shows that bulging big-city schools can work: A sense of order pervades the school, and teacher morale is surprisingly high.

Educationally, using smaller classes selectively produces the biggest dividends. It frees up money to spend on other reforms that dollar for dollar have produced greater increases in student achievement, such as high-quality teacher training and peer tutoring. Unfortunately, a targeted approach may undermine the political effectiveness of reducing **class size**. An instructive analogy is Social Security. It is arguably an incredibly inefficient way of reducing poverty among the aged because so many middle- and upper-income families benefit. Yet because the program was designed to be universal--helping seniors regardless of background--it has enjoyed broad support for decades. The **class-size** initiative may prove to be similar. California's approach may be an inefficient but reasonable compromise between what's substantively ideal and what's politically possible.



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**Class size**

States with largest and smallest average class sizes in 1993-94

| LARGEST       |                    | SMALLEST     |                    |
|---------------|--------------------|--------------|--------------------|
| state         | students per class | state        | students per class |
| 1. California | 30.1               | 1. Vermont   | 20.4               |
| 2. Maryland   | 28.7               | 2. S. Dakota | 20.7               |
| 3. Utah       | 28.7               | 3. Kansas    | 21.0               |
| 4. Washington | 28.6               | 4. Montana   | 21.5               |
| 5. Florida    | 27.7               | 5. Arkansas  | 21.6               |

Source: U.S. Dept. of Education

**Future shock**

Enrollment in the nation's schools is expected to grow by 2 million students during the next decade, making smaller classes tougher to achieve.

Students K-12

[Data for chart is not available.]

**Number of teachers**

[Data for chart is not available.]

Source: U.S. Dept. of Education

GRAPHIC: Picture, Crowd control. Rehana Longi's fifth-grade class at P.S. 14 in Queens has 34 kids. Giving attention to individuals is difficult. (Photography by Kenneth Jarecke--Contact for USN&WR); Picture, Close encounters. Sandra Kessler teaches her third-grade class at Carpenter Avenue Elementary School in Studio City, Calif. The class now has fewer than 20 students. (Photography by Kenneth Jarecke--Contact for USN&WR); Picture, Teacher school. California has hired 16,700 new teachers, including chiropractors and a former clown. Here, some trainees get instruction at the Lanai Road Elementary School in L.A. (Photography by Kenneth Jarecke--Contact for USN&WR); Picture, A popular reform. Shrinking **class size** has proved wildly popular. But the reform is most effective when targeted to low-income students, and when used for teaching reading. (Photography by Kenneth Jarecke--Contact for USN&WR)

LANGUAGE: ENGLISH

LOAD-DATE: October 9, 1997



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LEVEL 2 - 1 OF 22 STORIES

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U.S. News & World Report

November 17, 1997

SECTION: OUTLOOK; UPDATE; Pg. 5

LENGTH: 430 words

HEADLINE: **Class size:** a cutting edge issue?

BYLINE: By Kent Jenkins Jr.

BODY:

Republican James S. Gilmore was elected governor of Virginia last week after a campaign dominated by his promise to cut an unpopular tax on cars. But a second issue, whose impact went largely unnoticed, also played a key role in the victory: Gilmore's promise to reduce the **size of classes** in elementary **schools**.

It is an idea whose political appeal is growing greater. In California, as reported by U.S. News ("Does **Class Size** Matter?" October 13), Gov. Pete Wilson has already won wide acclaim for a program to reduce **class size**. But Gilmore went even further, turning **class size** into a partisan issue. Don Beyer, the Democrat who lost to Gilmore, had campaigned under the slogan "Education First!" He proposed to improve education by significantly raising teachers' salaries--a notion that Virginians had supported in the past. By contrast, Gilmore promised to give teachers only a cost-of-living raise--and to apply the savings to hiring new teachers.

Virginia Democrats and Republicans both say their polls found that Gilmore's approach proved more popular with voters than Beyer's. This was particularly significant--and surprising--because support for education traditionally has been one of the great political strengths of the Democratic Party.

M. Boyd Marcus, a senior strategist for Gilmore, said he believes that even though the GOP candidate's proposed tax cut was hugely popular, taxes alone would not have turned the election. "[The **class-size** initiative] opened people's eyes and ears and showed them this guy was serious about education," said Marcus.

Gilmore's success could give the issue a big national boost with the GOP, which is seeking new ideas on education. Clinton Key, executive director of the Republican Governors Association, said he is certain that the question of **class size** will surface at the group's annual meeting later this month. The session will focus on education.

In Congress, reducing the **size of classes** may well attract GOP lawmakers who have had little success winning broad public support for such complex proposals as quasi-independent "charter schools" or taxpayer-funded vouchers that subsidize private-school tuition. Several Republican strategists say that class reduction is especially appealing because it is easy to understand and reflects



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common sense. The idea offers extra political appeal for Republicans with its emphasis on limiting teacher raises. That is one political gesture that won't be lost on the National Education Association, which has long been strongly Democratic.

GRAPHIC: Picture, A class issue for voters (Kenneth Jarecke--Contact for USN&WR)

LANGUAGE: ENGLISH

LOAD-DATE: November 14, 1997



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LEVEL 1 - 196 OF 201 STORIES

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January, 1996

SECTION: Vol. 34 ; No. 1 ; Pg. 152; ISSN: 0095-2583

LENGTH: 9439 words

HEADLINE: The influence of classroom characteristics on high school teacher turnover.

BYLINE: Mont, Daniel ; Rees, Daniel I.

BODY:

## I. INTRODUCTION

A number of authors have suggested that the U.S. will face a shortage of qualified teachers in the near future, especially in the areas of math and science. (1) School districts facing such a shortage could respond in a variety of ways. For instance, hiring standards could be lowered, teachers could be asked to teach outside their areas of certification, or, funds permitting, starting salaries could be increased in an effort to attract the most promising candidates.

Still another option would be to raise teaching loads (i.e., average class size or the number of classes taught), thus making do with fewer teachers. This option is particularly alluring in light of the fact that average class size has been falling rapidly in the U.S. over the last twenty years, and yet no strong connection between smaller classes and increased student learning has been established. (2)

There is, however, a possible hidden cost that needs to be investigated before recommending such a course of action. If teachers respond to larger or more frequent classes by quitting, then a district that tries to solve its hiring problems in this fashion could simply be increasing its demand for new teachers.

This paper uses data from the New York State Education Department's Personnel Master File for the years 1979 to 1989 in order to investigate whether an increased teaching load affects the likelihood that a teacher will leave his or her district. In order to obtain an unbiased sample of job lengths, the sample is restricted to full-time high school teachers who were newly hired in 1979. (3) We estimate a discrete-time hazard model in which teaching load is measured as the average class size taught by an individual, the number of classes taught, and the proportion of classes taught in the teacher's certified area. In interpreting our results we pay special attention to whether the behavior of math and science teachers differs from that of other teachers. This is an important issue because shortages of qualified teachers in these two areas



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are predicted to be especially acute.

## II. BACKGROUND

The market for teachers differs from a well-functioning neoclassical labor market in that salaries are determined through a political process involving various levels of government, the public, and often teachers unions.(4) If the demand for teachers increases as retirements and student enrollment increase, then starting salaries cannot be counted on to quickly move to the market-clearing level, and thus a shortage of teachers becomes a possibility.(5) Few observers, however, believe that there will be an actual shortage of warm bodies. The more likely scenario is that there will be a lack of teachers trained in specific areas and of high-quality teachers in general (see Murnane et al. 1991,1-2 ).

Given a limited budget, what are the options available to a school district facing this type of shortage? The district could settle for hiring lower quality teachers, but this might be seen as an unnecessary measure, with long-term implications, taken in response to what could be a temporary situation. Another option that has been suggested is to increase teacher workloads.(6) Whether this option is workable depends, in part, on the exit decisions of teachers.

A large number of empirical studies have investigated the determinants of teacher turnover. However, no work specifically directed toward capturing the effect of increased teaching responsibilities on turnover has been done.(7) Without knowing whether such an effect exists, and what the magnitude of it might be, informed policy decisions at the district level in response to a shortage of qualified teachers becomes impossible.

Past studies have shown that the probability of a teacher leaving his or her job is high in the first few years after entering the profession, falls after the third year,(8) and again increases as the teacher nears retirement age (Murnane et al. 1991, 5963 ; Eberts 1987 ; Greenberg and McCall 1974 ). It is possible that as shortages materialize districts will be more reluctant to fire marginal teachers when they come up for tenure. Certainly the opposite is true: declining student enrollments during the 1970s led to increased terminations of younger teachers (Murnane 1981 ).

Higher salaries are another factor associated with greater retention of teachers (Rees 1991 ; Murnane and Olsen 1989; 1990 ; Baugh and Stone 1982 ). The effect of increased salaries is especially pronounced for beginning teachers (Murnane et al. 1991, 71-75 ).

Studies by Murnane et al. 1991, 67-71 and Murnane and Olsen 1990; 1989 have emphasized the role of outside opportunities in a teacher's decision to leave the profession. They find that higher teacher test-scores are associated with a greater likelihood of leaving, and that high school physics and chemistry teachers are more likely to leave than their colleagues in other areas. These results suggest the possibility that increased teaching responsibilities could drive out those teachers who are the most difficult to replace.(9)

Finally, factors associated with unionization seem to affect teacher exit behavior. Eberts 1987 shows that teacher turnover is reduced by the presence of layoff and **class size** provisions in the collective bargaining agreement. He argues that these provisions acted as guarantees against layoffs, and so are



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viewed as a type of job benefit. Rees 1991 finds that stronger grievance procedures are associated with a lower probability of quitting, and argues that a union "voice effect" on quits is responsible. Both of these lines of research point to the importance of union rules and institutions in the exit decisions of teachers. Indeed, where there exist strong contract provisions with regard to the maximum number of hours in a day or students in a class, it would be difficult for a district to increase teaching loads in response to a shortage of qualified teachers. (10)

### III. THE DATA

Data for this study were primarily drawn from the New York State Education Department's Personnel Master File. (11) Every year the New York Education Department surveys all public school teachers in New York State, asking a wide range of questions having to do with personal characteristics and working conditions. Each teacher is assigned an ID that is constant across years, so it is possible to collect information on a teacher over the course of his or her career.

Our sample consists of 525 individuals, all of whom were newly hired by a district outside of New York City in the fall of 1979. (12) Only full-time academic teachers with pupils in grades 9 through 12 were included in the sample. (13)

A job separation was defined as a teacher leaving his or her district. Teachers were defined as having left their original 1979 school district if they did not appear in the Personnel Master File for two years running, or if their district code changed and did not change back in the next year. It is common for teachers to take a leave of absence or a sabbatic. Therefore an absence of two years instead of one was used to indicate a separation. (14) In fact, many teachers in the sample were absent for one year and then returned to teaching in the same district. Those teachers who were not separated from their original district were followed until 1987, at which time they were right-censored. (15)

### IV. EMPIRICAL ANALYSIS

#### Survival Analysis

A discrete hazard model was estimated to determine the correlates of teacher job turnover. This model provides estimates for the probability of experiencing a job separation conditional on the number of years employed. For example, it estimates the probability of experiencing a job separation in one's third year of job tenure conditional on still being employed in that third year.

More formally, a discrete-time hazard rate at time  $f$  is defined as

$$P_{\text{sub.it}} = \text{Prob} ( T_{\text{sub.i}} = t \mid T_{\text{sub.i}} \geq t, X_{\text{sub.it}} )$$

where  $T_{\text{sub.i}}$  is the period job  $i$  terminates, and  $X_{\text{sub.it}}$  is a vector of explanatory variables. It can be shown that the log likelihood function for estimating a discrete-time hazard rate is simply

Mathematical Expression Omitted



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where  $y_{sub.it}$  equals one if a separation occurs at time  $t$  and zero otherwise, and  $t_{sub.i}$  is the final period in which job  $i$  is observed. (16)

Since the above likelihood function is simply the likelihood function for the ordinary regression analysis of a limited dependent variable, it can be estimated using a standard maximum likelihood logit program. The only difference is that a unit of observation is no longer a job per se, but a job-year. (17)

Survival analysis was used previously to determine teacher job separations by Murnane and Olsen 1989; 1990, Willet and Singer 1988, Mark and Anderson 1978; 1985, and Whitener 1965, but these studies lacked information on class characteristics other than subject specialties.

### Quits vs. Layoffs

There are basically two types of separations--involuntary and voluntary. The determinants of job quits versus job layoffs can be similar or quite different. We expect age to be correlated with fewer quits (as predicted by job-matching models) as well as fewer layoffs (as predicted by models with specific human capital or seniority), at least prior to retirement years. However, there are other variables, for example **class size**, that may act differently on quits than on layoffs. Smaller **class sizes** might be desirable and thus lessen quits. However, smaller **class sizes** might mean a school district's population is shrinking and it requires fewer teachers and so increases layoffs. Unfortunately, as in other studies of teacher turnover (Murnane and Olsen 1989; 1990, Eberts 1987, Grissmer and Kirby 1987, and Murnane 1981) quits and layoffs can not be distinguished. This muddies the analysis, but the issue will be addressed at least partially by taking into account the institution of tenure within the teaching profession.

### The Explanatory Variables

Economic research on quit behavior typically begins with the assumption that workers compare the expected utility from staying at their current job with the expected utility that could be realized at the next best alternative. Ideally, then, one would like to have information on current working conditions and pecuniary rewards, and at least some proxies for these variables at alternative jobs.

Because of data limitations, most empirical studies have employed only broad (school or district level) measures of working conditions at the current job. Our specification, however, includes a number of teacher-specific variables relating to current working conditions. Those of primary interest are average **class size** (CSIZE), number of **classes** taught (CNUMBER), and the proportion of classes taught in the teacher's certified area (CERT). They serve as measures of the amount of stress, preparation time, and grading time involved in class room teaching. Also included in the vector  $X_{sub.it}$  is a variable representing the average quality of students taught by a teacher (AQUAL).

In addition to the above measures, we employ a number of district-level explanatory variables, such as high school enrollment, the dropout rate, the percentage of students who go on to college, the percentage of white students, and the percentage of households in the district with children. These variables



are intended as indirect measures of working conditions at the current job. (18) Other district-level explanatory variables can be thought of as indicators of the availability and/or desirability of alternative employment, as well as influencing conditions at the current job. Median household income and the percentage of residents who live in an urban area fall into this category. (19)

We use starting salary as our measure of the expected pecuniary returns to remaining at the current job. Thus, following Finnie and Mont 1991 and Meitzen 1986, the entire salary projection path is conceptually collapsed into one variable. A number of teacher turnover studies have used current salary to measure the pecuniary returns to remaining on the job. This alternative approach yielded similar results to those reported below. (20)

Finally, previous work has shown that many personal characteristics such as age, sex, and job tenure influence job separations, both for workers in general (Finnie and Mont 1991, Light and Ureta 1990, Meitzen 1986) and teachers in particular (e.g., Jacobsen and Sweet 1982, Greenberg and McCall 1974). A group of personal variables was therefore included in the empirical specification, although race and ethnic background variables were not available. A list of all independent variables employed in this study can be found in Table I. Means and standard deviations are shown in Table II.

TABLE I

## Variable Definitions

From the New York State Education Department's Personnel Master File, 1979-1989

## Time Varying:

CNUMBER number of classes taught

CERT percent of classes taught in area of certification

AQUAL AQUAL is the average of a "quality of students" variable for each class taught.

The "quality of students" variable for each class is coded as follows:

1 = below average

2 = average

3 = above average

Class quality was determined by the teacher.

CSIZE average class size

CSIZESQ CSIZE squared

BELOW a dummy variable equal to one if a teacher's average class size is



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below the

mean **class size** of the sample

ABOVE a dummy variable equal to one if a teacher's average **class size** is above the

mean **class size** of the sample

YR1 dummy equal to one if the first year on this job

YR456 dummy equal to one if the fourth, fifth, or sixth year on the job

YR789 dummy equal to one if the seventh, eighth, or ninth year on the job

(note: the ninth year is the last year observed)

Time Invariant:

FEMALE dummy variable equal to one if female

SALARY starting salary in thousands of \$ 1979

AGE age in years

EXPER years of teaching experience prior to starting the observed job

PHD dummy variable equal to one if teacher holds a Ph.D.

From the NYS Education Department's Institutional Master File, 1979-1987

Time Varying:

ENROLL the high school enrollment of the teacher's school district in thousands

PDROP the percentage of high school students in a teacher's school district that drop

out of school each academic year

P4YEAR the percentage of high school seniors in a teacher's school district that graduate

and go on to attend a four year college

PWHITE percentage of high school students in a teacher's school district that are white



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From the 1980 Census of the Population: School District File

Time Invariant:

PURBAN percentage of residents in a teacher's school district that live in an urban area PHHWC percentage of families in a teacher's school district that have children MHI79 The median household income of residents in a teacher's school district in 1979,

in thousands of 1979 dollars

TABLE II

Sample Means

(standard deviations in parentheses)

|         | Mean   |
|---------|--------|
| FEMALE  | 0.631  |
|         | (0.48) |
| SALARY  | 14.988 |
|         | (4.63) |
| AGE     | 31.966 |
|         | (8.03) |
| CNUMBER | 5.013  |
|         | (0.81) |
| CERT    | 0.983  |
|         | (0.10) |
| PHD     | 0.013  |
|         | (0.11) |
| EXPER   | 7.295  |
|         | (6.43) |
| AQUAL   | 2.035  |
|         | (0.45) |



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CSIZE 20.763

(4.77)

CSIZESQ 453.839

(192.70)

YR1 0.156

(0.36)

YR456 0.215

(0.41)

YR789 0.126

(0.33)

ENROLL 1.285

(3.24)

PDROP 0.027

(0.02)

P4YEAR 0.172

(0.20)

PWHITE 0.742

(0.22)

PURBAN 0.507

(0.47)

PHHWC 0.679

(0.09)

MH179 19.753

(5.86)

n = 1362

## Results



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Initially we divided the sample according to whether an individual taught in the math and sciences or in another discipline. A log-likelihood ratio test indicated that very little is gained in explanatory power by dividing the sample along these lines.<sup>(21)</sup> In other words, it would seem that the exit behavior of math and science teachers is not significantly different from their colleagues specializing in other academic areas. Thus the hazard model estimations, reported in Table III, are for the full sample of teachers. The first specification (column 1), which does not include district variables, is rejected at the 99 percent confidence level in favor of a specification in which district variables are included (column 2). This result indicates the importance of these variables as correlates of teacher attrition.

TABLE III

## Hazard Estimation Results: Full Sample

|          | (1)                 | (2)                 |
|----------|---------------------|---------------------|
| CONSTANT | 1.338<br>(1.33)     | 1.384<br>(1.10)     |
| FEMALE   | -.202<br>(1.57)     | -.324<br>(1.22)     |
| SALARY   | -.077(**)<br>(3.75) | -.069(**)<br>(2.34) |
| AGE      | .032(**)<br>(2.44)  | .051(**)<br>(3.37)  |
| CNUMBER  | -.073<br>(0.87)     | -.061<br>(0.66)     |
| CERT     | -.983(*)<br>(1.76)  | -.982(*)<br>(1.69)  |
| PHD      | .219<br>(.46)       | .137<br>(0.23)      |
| EXPER    | -.020<br>(1.04)     | -.079(*)<br>(1.69)  |
| AQUAL    | -.398(**)<br>(2.79) | -.803(**)<br>(4.97) |



## Economic Inquiry, January, 1996

|                    |            |            |
|--------------------|------------|------------|
| CSIZE              | -.091 (*)  | -.217 (**) |
|                    | (1.81)     | (2.96)     |
| CSIZESQ            | .0025 (**) | .0051 (**) |
|                    | (2.07)     | (2.99)     |
| YR1                | 1.490 (**) | .697       |
|                    | (9.09)     | (2.47)     |
| YR456              | .022       | -.104      |
|                    | (.12)      | (0.52)     |
| YR789              | -.246      | -.067      |
|                    | (1.16)     | (0.27)     |
| ENROLL             |            | -.007      |
|                    |            | (0.27)     |
| PDROP              |            | 5.888      |
|                    |            | (1.15)     |
| P4YEAR             |            | -1.172     |
|                    |            | (1.09)     |
| PWHITE             |            | -.602      |
|                    |            | (1.15)     |
| PURBAN             |            | -.276      |
|                    |            | (1.08)     |
| PHHWC              |            | -2.23 (*)  |
|                    |            | (1.81)     |
| MHI79              |            | .054 (**)  |
|                    |            | (2.11)     |
| -2 Xlog likelihood | 1758.01    | 1418.58    |
| job endings        | 392        | 285        |
| observations       | 2078       | 13262      |



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(\*) significant at 90% confidence level

(\*\*) significant at 95% confidence level  
absolute t-statistics in parentheses

**Student Quality.** Student quality is found to be significantly linked to the probability of observing a separation. As indicated by the negative coefficient, higher levels of student quality lessened the probability of a teacher leaving. No rationale could be developed for why student quality would be linked to layoffs. District characteristics such as income are controlled for, and the sample does not include special education teachers who might experience a different susceptibility to budget cuts than regular teachers. Therefore, it is hypothesized that higher student quality diminished quits. Teaching students with higher abilities might be associated with different amount of flexibility and variability in curriculum, fewer disciplinary problems, or a different level of personal satisfaction.

**Average Class Size.** The estimated coefficients of average class size (CSIZE) and class size squared (CSIZESQ) indicate that at low average class sizes, cutting class size would increase turnover, and at high levels of average class size cutting class size would decrease turnover. The turning point, in fact, occurs at just about the sample mean. (22) One explanation for this could be that the first effect is a result of layoffs and the second effect is the result of quits. In other words, when class sizes shrink to very small levels positions are eliminated, but when class sizes get too big teachers quit because of poor working conditions. Since we are interested in the determinants of teacher retention vis-à-vis quits, this poses a problem.

One way to address this issue is to re-estimate the model separately for teachers with four or more years of experience and for teachers with less than four years of experience. All teachers in New York State who enter their fourth year of full-time permanent employment have tenure. It is very difficult to fire them, and they are less susceptible to layoffs than nontenured teachers. The coefficients for average class size and class size squared obtained using these subsamples (reported in Table IV) show no substantial difference from the results for the full sample. Although the tenured sample is not immune from layoffs, the results provide some support for the hypothesis that the observed effect of average class size is being driven by quits.

TABLE IV

Results from Sample Divided by Length of Job Tenure

|          | 4 or more<br>years (a) | Less than 4<br>years |
|----------|------------------------|----------------------|
| CONSTANT | 1.22<br>(0.81)         | 2.49<br>(0.83)       |
| FEMALE   | -.197                  | -1.01                |



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## Economic Inquiry, January, 1996

|            |                      |                        |
|------------|----------------------|------------------------|
|            | (1.11)               | (1.40)                 |
| SALARY     | -.062 (**)<br>(2.27) | -.073 (*)<br>(1.86)    |
| AGE        | .047 (**)<br>(2.49)  | .087 (**)<br>(2.56)    |
| CNUMBER    | -.031<br>(0.29)      | -.164<br>(0.73)        |
| CERT       | -.350<br>(0.46)      | -2.479 (*)<br>(1.65)   |
| PHD        | .078<br>(0.12)       | 1.48<br>(0.64)         |
| EXPERIENCE | .025<br>(0.65)       | -.851 (*)<br>(3.21)    |
| AQUAL      | -.818<br>(4.20)      | -.627 (*)<br>(1.83)    |
| CSIZE      | -.124 (*)<br>(1.94)  | -.165 (**)<br>(2.82)   |
| CSIZESQ    | .0047 (**)<br>(2.43) | .0046 (**)<br>(2.04) , |
| YR789      | -.012<br>(0.06)      | NA (b)                 |
| ENROLL     | -.012<br>(0.30)      | .002 (**)<br>(2.17)    |
| PDROP      | 8.47<br>(1.36)       | 1.58<br>(0.12)         |
| P4YEAR     | -2.12 (*)<br>(1.87)  | 4.52 (**)<br>(3.62)    |
| PWHITE     | -.333                | -2.495 (**)            |



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|                     |            |           |
|---------------------|------------|-----------|
|                     | (0.46)     | (3.03)    |
| PURBAN              | -.357      | -.541     |
|                     | (1.21)     | (0.86)    |
| PHHWC               | -3.317(**) | 5.376(*)  |
|                     | (2.26)     | (1.83)    |
| MH179               | .089(**)   | -.002(**) |
|                     | (2.90)     | (2.30)    |
| -2 X log likelihood | 556.83     | 626.7     |
| job endings         | 88         | 207       |
| observations        | 761        | 601       |

(\*) significant at 90% confidence level

(\*\*) significant at 95% confidence level

absolute t-statistics in parentheses

(a) The sample for this specification consists of only those teachers who were in the previous sample but did not experience a job separation prior to their fourth year of teaching. This means that all teachers in this sample are tenured. (b) not applicable for this sample.

To further investigate this issue, expected separation probabilities were estimated to examine the magnitude of the average **class size** effect above and below the turning point. Again, it turns out that this point is just below the sample mean in every case. Therefore, expected separation probabilities were computed using actual **class size**, and 60 percent, 80 percent, 120 percent and 140 percent of average **class size**. The expected separation probability estimated using actual **class size**, of course, preserves the sample mean.

The expected separation probabilities were estimated as follows: average **class size** was set equal to .6 x CSIZE and **class size** squared was set equal to the square of .6 x CSIZE for every observation in the sample used to estimate the model in column 2. Then the probability of observing a separation for every observation in the sample was computed using the parameter estimates in column 2. The mean of these probabilities is the predicted separation rate conditional on a 40 percent decrease in average **class size**. The same method was used for the other levels of average **class size**.

These results are presented in Table V. They demonstrate that the practical



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significance of the average **class size** effect is much larger above the mean (when increases in average **class size** are associated with a higher probability of a job separation) than they are below the mean (when increases in average **class size** are associated with a lower probability of a separation). Increasing average **class size** by 40 percent is predicted to increase the separation rate from .209 to .349, an increase of 67 percent. Decreasing average **class size** by 40 percent only increases the separation rate from .209 to .218, an increase of less than 5 percent.

In Table VI, we split average **class size** and average **class size** squared into four variables, allowing for unrelated effects of average **class size** above and below the mean. The results in Table VI suggest that there is no significant relationship between average **class size** and the probability of a job separation when average **class size** is below the sample mean. A positive relationship between job separations and increases in average **class size** is found above the sample mean. Although the coefficient on the above-average **class size** variable is negative, it must be remembered that this variable is equal to zero for every observation where average **class size** is less than the sample mean. When average **class size** is equal to or above the sample mean, the combined effect of above-average **class size** and its square is such that an increase in average **class size** leads to an increase in the probability of a job separation. This supports the hypothesis that small **class sizes** are not associated with layoffs, but large **class sizes** are associated with quits. (23)

Number of Classes. There was no statistically significant correlation between the number of classes taught and turnover. Teachers with smaller class loads might have more administrative duties and thus may be more likely to leave their jobs for administrative positions, whereas teachers with very high class loads might leave their jobs looking for better working conditions. It may be that these two effects counterbalance each other, leading to no relationship between **class size** and turnover.

Proportion of **Classes** Taught in Area of Certification. Although there was not much variance in this variable, it still was found to be significantly correlated with the probability of separation. The probabilities reported in Table V suggest, holding other factors constant, that decreasing the percentage of classes taught in one's area of certification by 10 percent is likely to increase the job separation rate by approximately 3 percent. Once again, teaching out of one's certification area could either be considered a poor working condition that inspires quits, or a sign that one's skills are not those required by a school district, inspiring layoffs. However, very few teachers taught less than 80 percent of their classes in their area of certification, so even in the most extreme case most classes were being taught within a teacher's specialty. This combined with the negative coefficient of CERT in the model using only tenured teachers (see Table IV), seems to suggest that this may be more of a quit effect than a layoff effect.

TABLE VI

Allowing for Different Effects of **Class Size** above and  
below Its Mean.<sup>sup.a</sup>



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|                     |                     |
|---------------------|---------------------|
| BELOW x CSIZE       | -.087<br>(0.92)     |
| BELOW x CSIZESQ     | -.0033<br>(0.79)    |
| ABOVE x CSIZE       | -.217(**)<br>(1.99) |
| ABOVE x CSIZESQ     | .0053(**)<br>(2.06) |
| -2 x log likelihood | 1236.51             |
| job endings         | 285                 |
| observations        | 1362                |

(\*) significant at 90% confidence level

(\*\*) significant at 95% confidence level

absolute t-statistics in parentheses

(a) Other coefficients suppressed

#### TABLE V

Mean Probability of Job Separation<sup>sup.a</sup>

|                           |      |
|---------------------------|------|
| Baseline <sup>sup.b</sup> | .209 |
| Year 1                    | .331 |
| Years 2-3                 | .229 |
| Years 4-6                 | .167 |
| Years 7-9                 | .091 |
| Females                   | .198 |
| Males                     | .230 |



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|                                 |      |
|---------------------------------|------|
| .6 x Average Class Size         | .218 |
| .8 x Average Class Size         | .214 |
| Actual Average Class Size.sup.C | .209 |
| 1.2 x Average Class Size        | .242 |
| 1.4 x Average Class Size        | .349 |

|                     |      |
|---------------------|------|
| .8 x Salary         | .261 |
| .9 x Salary         | .246 |
| Actual Salary.sup.c | .209 |
| 1.1 x Salary        | .196 |
| 1.2 x Salary        | .183 |

|                                        |      |
|----------------------------------------|------|
| .8 x % Classes in Certification Area   | .227 |
| .9 x % Classes in Certification Area   | .216 |
| Actual % Classes in Certification Area | .209 |

(a) The method for computing these mean probabilities is described in section IV.

(b) Baseline is computed by taking the average of the predicted probability of observing a job separation for each observation in the sample. This is equivalent to the percentage of observations experiencing a job separation, i.e.  $285/1362 = .209$ .

(c) Equivalent to the baseline.

**Job Length.** As predicted by standard job-matching models and as found in numerous other job separation studies, the probability of job separations decreases with job length (Finnie and Mont 1991 , Meitzen 1986 ).(24) The expected separation probabilities generated for Table V predict that the turnover rate in the first year is .331. This drops to .229 for the next two years even before the tenure decision occurs. By years seven, eight, and nine, this drops further to .091. These predictions are in keeping with national statistics on teacher quit rates.(25)

**Salary.** As expected, higher salaries were associated with fewer quits. In the past there has been some conflicting evidence on the effect of salaries on



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teacher attrition. At least one study, Eberts 1987 , was unable to find a statistically significant relationship between salary and attrition rates, while other studies have found strong evidence of a negative relationship between salary and the probability that a teacher leaves his or her district (Murnane and Olsen 1989; 1990 ; Baugh and Stone 1982 ). Our estimates suggest that, holding other factors constant, a 10 percent increase in starting salaries would lower attrition rates by approximately 6 percent.

District Variables. Estimates from the full and tenured samples suggest that as median household income in a district rises, teachers are more likely to leave their job. This result might be ascribed to the availability of better non-teaching opportunities in higher-income districts. In the sample of teachers with less than four years of experience, the opposite relationship is found. For these newer teachers it is possible that working conditions associated with the higher-income districts may out weigh the more attractive non-teaching alternatives.

Other results also suggest that teachers with less than four years of experience are quite sensitive to changes in workplace conditions. For these teachers, the relationship between high school enrollment and the probability of separation is positive, a result perhaps indicative of the increased bureaucracy in larger districts. Also, an increase in the percentage of students who are white is associated with a decrease in turnover for these teachers.

The results with regard to the percentage of students entering a four-year college after graduation and the percentage of families with children are somewhat puzzling. In the non-tenured sample the relationship between these variables and the probability of separation is positive, whereas in the tenured sample it is negative. An explanation for this pattern of results may be that tenure standards at the schools with better students and a more supportive public are higher, but after having received tenure these qualities are associated with an easier, more rewarding job.

Personal Characteristics. Age was found to be positively associated with job turnover, although the large bulk of the sample was not near retirement. This result is contrary to what has been found for the population in general, and is even at odds with studies of teachers' turnover.(26) However, upon closer observation these results are in line with prior expectations. The interpretation of the age variable must be made in light of the fact that previous teaching experience is included in the estimation. Given the same previous teaching experience, an older teacher is likely to have more nonteaching experience and thus more nonteaching opportunities.

Previous teaching experience was found to be negatively related to the probability of job separation, as expected. The estimated coefficients for female teachers and Ph.D.s were not statistically significant.

## V. CONCLUSION

We included classroom characteristics in an estimation of the job separation rate of teachers, and found these to be significant correlates of job separation. In particular, average **class size** was found to be positively associated with the job separation of high school teachers, although this effect begins to occur at roughly the mean average **class size** in the sample. Similarly,



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teaching outside one's area of certification was also associated with higher job separation rates. It is reasonable to conclude, therefore, that efforts to reduce education costs by increasing **class size** and asking teachers to teach outside their areas of certification may be undermined by increased teacher turnover. However, controlling for average **class size**, the number of **classes** taught seems to have no effect on teacher separation rates.

Separate estimations were conducted for science and math teachers and for teachers of other academic subjects. Log likelihood ratio tests do not support the hypothesis that science and math teachers' turnover is structurally different from that of other high school teachers.

The population of high school age children in New York State is predicted to rise 6.8 percent from 1995 to the year 2000 (New York State Council on Children and Families 1988 ). Without adjusting the number of teachers accordingly to maintain present average **class sizes**, the hazard function we estimate would predict a corresponding 7.2 percent increase in teacher turnover, from .209 to .224. (27) Our results suggest that to keep turnover rates constant without increasing teaching staff size would require an increase in starting salaries (and the corresponding salary scale for other teachers) by between 5 and 10 percent. In determining a cost-minimizing strategy, school districts will have to balance an increase in turnover costs with potential increases in labor costs.

There is an important caveat, however. Some teacher quits involve teachers moving to other districts, as opposed to leaving the profession. If all school districts raised salaries (or increased average **class size**, for that matter) the effect may not be as large as those predicted above. This is because the effects of higher salaries or **class sizes** estimated here reflect the impact of having a particular salary level or **class size** level relative to other districts. In order to more clearly address policy from a statewide or nationwide perspective, as opposed to a school district perspective, we would need data that enabled us to distinguish between teachers moving from one district to another and those leaving the profession altogether. Unfortunately, this information was not available to us. Therefore these estimates serve as an upper bound on teacher exit effects.

Nevertheless, we can conclude that class load variables, used here for the first time in a study of teacher job turnover, are important correlates of teacher attrition. Any future studies of teacher attrition or policy recommendations in this area should incorporate them into their analysis.

(1.) See, for instance, Murnane et al. 1991, 1-2 or Haggstrom et al. 1988, 2 . Predictions of teacher shortages are typically made on the basis of two facts: (1) the large cohort of teachers hired during the 1950s and 1960s is reaching retirement age, and (2) public school enrollment is rising as the children of the baby boomers enter and advance through the school system. (2.) According to a report by the National Education Association 1987, 34 , the mean number of pupils taught per day by secondary and departmentalized elementary teachers fell from 134 in 1971 to 97 in 1986.

See Hanushek 1989 for a review of the literature in this area. Hanushek identified 152 studies in which the teacher/pupil ratio was used as an explanatory variable in an education production function. Of these 152 studies



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only 14 found a statistically significant positive relationship between the teacher/pupil ratio and student achievement. (3.) The sample was restricted to newly hired teachers in order to assure a random sample of job spells. The unit of analysis in hazard rate estimation is the job spell, not the teacher, *per se* (see Lancaster 1990 , Allison 1984 , Cox and Oakes 1984 , Kalbfleisch and Prentice 1980 ). Selecting a sample consisting of *ar* job spells currently in process in a given year oversamples long spells, and creates a non-random sample of job lengths. This type of sample is sometimes referred to as a stock, as by Lancaster 1990 , or straddled sample, as by Sheps and Menken 1973 . If, for example, job tenure had no effect on termination rates whatsoever (i.e., an exponential distribution), a stock sample would have job lengths on average twice as long as a random sample of job lengths (Lancaster 1990, 95 ). It is for this reason that only new hires were sampled (i.e., a flow sample that is random in job lengths) instead of all teachers employed in 1979. (4.) See Fogel and Lewin 1974 for a general discussion of public sector wage determination. Also see Ehrenberg and Schwarz 1986 . (5.) Weaver 1983, 5-19 identifies two twenty-year periods (1908-1928 and 1950-1970) in which there were general shortages of qualified teachers. Shortages of math and science teachers seem to be more frequent. Avoiding shortages in these areas

will inevitably require some form of

differentiating salary incentives...The resistance

to this solution will likely come from the

teaching profession itself...Merit pay and

other forms of differential compensation,

apart from seniority and credentials, have

had, to say the least, a less than enthusiastic

response from organized teacher groups

(Weaver 1983, 124 ). (6.) For instance, according to Weaver 1983, 80 ,

i n the short term, adjustment m average

**class size** is the most probable policy action

in response to a teacher shortage because

of its direct and immediate effect...budget

savings. (7.) Rees 1991 found a small but positive effect of **class size** on the probability that a teacher left his or her district. His sample, however, included elementary as well as secondary school teachers. Because **class size** could potentially mean quite different levels of stress and effort for these two groups, it is not clear how to interpret his results. Also, Rees did not include a measure of the number of classes taught in his estimations which could have led to biased results. (8.) Tenure decisions are generally made at the end of a teacher's third year. (9.) Our data permit us to test if an increased teaching



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load has a particularly adverse impact on the retention of science teachers. However, because we have no test-score data, we cannot examine whether there is an interaction between "ability" and teaching load. (10.) In addition to the factors discussed in this section, personal and community characteristics have also been shown to be important determinants of teacher attrition. All teachers in this sample are unionized. (11.) Other data sources are detailed in Table 1. (12.) Some teachers arrived with experience from private schools or other public school districts. The rules governing inter-district movement within the New York City school system are unique, and it is for this reason that New York City teachers were excluded from the sample. (13.) Teachers specializing in physical, special, and industrial education, the fine arts, and various types of non-academic fields were excluded from the sample. Full-time was defined as a teacher who taught four or more classes in 1979 and was reported to be working at least 80 percent of a full work load. (14.) Models were estimated using a one-year absence as a job separation as well. The results were not significantly different from those reported below. Since some of these absent teachers re-appeared the following year (e.g., returning from a sabbatic) two-year absences were our preferred definition for a job separation. (15.) Determining if a teacher left his or her district in 1987 actually required examining the 1988 and 1989 Personnel Master Files. (16.) Some observed job spells were still in progress at the end of the sampling frame. That is, the beginning of the job was observed but not its ending. According to Lancaster 1990 these "right censored" observations do not typically lead to bias or consistency problems. (17.) It can be shown that estimates from the discrete-time hazard model are also estimates of the underlying continuous-time proportional hazard model. For the derivation of this log likelihood function and a discussion of its properties, see Allison 1982 . For a good introduction to survival analysis in general see Allison 1984 . For more formal treatments, see Lancaster 1990 , Cox and Oakes 1984 , and Kalbfleisch and Prentice 1980 . (18.) The percentage of households with children may be positively related to the level of support a school system receives from the community it serves. (19.) Of the district variables, the percentage of residents living in an urban area, the percentage of households with children, and median household income are time invariant and refer to 1979. (20.) The estimated coefficient of the salary variable changed from  $-.069$  to  $-.081$ . The estimated coefficients and t-statistics of the other explanatory variables in the model did not change appreciably. (21.) This test was performed at a 95 percent confidence level. (22.) The turning point for the model with district variables is 20.98. The sample mean for **class size** for this sample is 20.76. The turning point for the model without the district variables is slightly below the mean at 18.2. (23.) Another way of trying to disentangle quit from layoff effects would be to split the sample into those districts with growing enrollments and those with declining enrollments. Districts with growing enrollments presumably face fewer layoff pressures. Unfortunately, the large majority of school districts in New York had falling enrollments over this time period and so this strategy was not used. Instead, a variable was constructed equalling the percent change in district enrollments over the time period. This variable was included in the analysis and interacted with **CSIZE** and **CSIZESQ**, (average **class size** and **class size** squared). The estimated coefficients of all three terms were negative, a result consistent with the hypothesis that there are fewer terminations when enrollments increase (or decrease less). However, only the coefficient of the percent change variable was statistically significant. The results with regard to the other explanatory variables in the model did not appreciably change.



Another possible criticism of this basic finding is that **class size** is endogenous. For instance, it may be that popular teachers draw large enrollments and are also more likely to be happy and well liked by administrators. This source of endogeneity would most likely mitigate against finding a positive relationship between **class size** and teacher turnover. (24.) Hazard functions with dummy variables for each year (one through nine) were also estimated. However, a log likelihood test failed to reject the restricted models reported in Table III. (25.) According to Grissmer and Kirby 1987, 38-39, at two years after entry just under 40 percent of all teachers have left their district, as compared to approximately 48 percent in our data. That is,  $.331 + (1.331) .229 = .484$ . (26.) For instance, Eberts 1987, 18 found a negative relationship between turnover and age until a teacher approached his or her fortieth birthday. (27.) A simulation was run similar to those reported in Table V with CSIZE and CSIZESQ being allowed to grow by 6.8 percent.

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# Making BIG SCHOOLS SMALLER

By Timothy B. Berkey  
From *The High School Magazine*

**R**ESearch on the relationship between size of the school population and students' academic performance is inconclusive and fails to establish any clear implication for educators to follow. Public perception, however, appears to be married to the notion that students will be more successful in schools with smaller student populations. With this intuitive hunch unvalidated by research, educational leaders find themselves pressured into making decisions to use scarce financial resources to build smaller or additional school buildings rather than focusing on programs and initiatives that make significant improvements in teaching and learning.

In my five years as Principal and Assistant Superintendent at Adlai E. Stevenson High School, in the Chicago suburb of Lincolnshire, Illinois, we've grown from 2,100 to over 3,000 students and participated in a suc-

cessful referendum campaign that expanded the campus to accommodate future growth to a school of 4,000 by the turn of the century.

My experience is that size of school population has little to do with potential enhancements to be made by investing resources in school programs and initiatives that will have direct impact on academic, personal, and social development of students. Bricks and mortar won't change schools; people and programs will.

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Therefore, to deal with public fear of large schools—and more important, create successful school environments—we must look for ways to make big schools smaller. A cornerstone of making big schools smaller is to design a restructured organization that captures the individual attention provided to students in small schools *while taking advantage of the rich and broad opportunities that present themselves in large school programs.*

We introduced a school-within-a-school arrangement. We organized a 21-member transition task force made up of students, parents, teachers, and administrators to examine other school-within-a-school models and identify key elements that would meet the needs of our organization. Here are some of the features we found important in our design:

- Establish zoned areas of campus called "houses" in which students take the majority of their core subjects while also allowing for movement to other houses for electives or courses not available within one's house.

- Provide additional travel time only for students who need to move to a classroom outside their house. There is no need to put the entire school in the hallways for additional travel time.

- Allow students access to their friends regardless of house assignment. For example, although we have two cafeterias, students can use either one to meet with friends assigned to other houses.

- Give teachers the opportunity to determine their own assignments. Some of our teachers prefer to stay

within a given house while others like to teach in a second location.

- Avoid creating artificial barriers between each house. Students and staff are not looking for separation but for the continuation of a sense of unity. We did not divide our athletic teams, student government, or clubs based on the school-within-a-school arrangement.

- Locate student services within each house. We have assigned counselors, deans, and social workers to students within a given house. Siblings are assigned to the same house to maintain close relationships between families and student services personnel.

## Student Services

A frequent criticism of large schools is that students will go unnoticed and "fall between the cracks," an understandable concern of parents who have watched their child experience difficulty in school and get little or no attention from school personnel. The key to providing effective student services is in the monitoring process.

This process can begin prior to the first day of school for entering freshmen. During the spring, our counselors meet with junior-high and middle-school personnel to identify students who are experiencing academic, social, or personal problems and therefore need to be monitored closely as they enter high school.

As they enroll in our school, each student is assigned to a student support team consisting of a guidance counselor, dean, and social worker. The team meets on a regular basis and

reviews academic, behavioral, and personal/social information about students assigned to them.

Appropriate strategies are discussed and formulated with a lead person within the team designated to carry out the plan and report back at the next meeting. Team members contact parents and, when necessary, involve outside agencies and resources to assist the student. Teachers, support staff members, and administrators are encouraged to report any important information about students to the appropriate student support team.

Drop-in service is available to all students throughout the day. A word of caution, however—make sure the secretarial staff get the name of any student who stops by when everyone is busy or out of the office. It's important to know immediately who may need assistance.

### Academic Support Services

Academic support services are also important. Remember the good old days when grades were reported every six weeks? Somewhere along the line, administrators got the bright idea that nine-week grading periods would be less costly and more efficient. Teachers rallied around this idea as they saw an opportunity to reduce some of the voluminous paperwork that comes with the job. Did anyone think about the impact on students and parents? Probably not.

Several years ago, we made the decision to go back to six-week periods with a progress report at each interim. Every three weeks, parents

get feedback about the academic performance of their students.

Once a problem is identified, be ready to put a series of support services in place. At Stevenson, we have developed a progression of tutorial services to assist students with their studies:

- Resource centers staffed by teachers, peer tutors, and community volunteers who can provide daily tutoring throughout the school day;

- Guided study halls where students can get help in a small group arrangement rather than in a large study hall;

- Mentor programs for students who need instruction in study skills and academic intervention.

If these services fail to bring about improved results, the student is targeted for a full case study for possible special education services.

The results of these services have been outstanding. Not only have we reduced the dropout/failure rate for the entire school population, we have been able to help students by intervening at a much earlier stage of a problem.

As schools become larger, teachers begin to feel isolation from their colleagues as common lunch and preparation times become less frequent. Important sharing among teachers of similar curricula can suffer unless the school pays close attention to the need for people to meet. There are several ways to accomplish this:

- Provide shortened school days for teachers to meet for a couple of hours before the students arrive;

- Arrange for substitute coverage

when a group of teachers needs a large block of time to resolve issues or complete special projects;

- Fund curriculum team proposals that allow teachers to meet on weekends or during summer months.

Although you will never be able to resolve all the concerns teachers express about lack of meeting time, placing designated times in the school calendar is a step toward building a greater sense of teamwork and collegiality in a large school environment.

### Staff Development

This brings us to the area of staff development. For many years, schools have used a menu approach in their staff development programs, allowing teachers to independently select items of interest from a list that is usually determined by some type of needs assessment.

The problem with this approach is that teachers miss the opportunity to work together to integrate their new knowledge and skills in common areas of instruction. In large school environments, it becomes even more problematic with teachers going in so many different directions that staff development becomes an activity rather than a meaningful experience that finds its way back into the classroom.

Three years ago, we decided to provide teachers with the opportunity to select a strand from our staff development as a curriculum team or department instead of as an individual. The vast majority of teachers took us up on the offer and decided to use the team approach.

The results have been amazing. Not only have teachers integrated their new skills in the classroom, our students have set new academic records for virtually every internal and external indicator monitored by the school.

### Cocurricular Offerings

The most frequent complaint you will hear from parents as a school grows is about the cocurricular program. Students who get cut from an athletic team or don't get the lead in the school play can be dramatic examples of the negative aspects of growth unless you plan and prepare for improvements in your cocurricular offerings.

Several years ago, we created a special task force to study our athletic, fine arts, club, and intramural opportunities and devise a plan to at least maintain the percentage of students involved in cocurriculars as the school grows.

Here are some of the strategies that were suggested:

- Create a pyramid of teams for each sport that involves a try-out and cut roster approach. For example, it made sense for us to run multiple levels of soccer, baseball, and basketball in grades 9 and 10.

- Provide more intramural activities and allow the programs to share in the use of athletic facilities.

- Support involvement in community service projects by providing bus transportation and adult supervision after school.

- Identify a process for students to start a new club or organization within the school. ▶

This brings me to the subject of parent partnerships. It has always surprised me how many parents drop off their children at our school but rarely step inside our schoolhouse doors. I don't believe this is a function of apathy but more of lack of familiarity with a large school campus. To overcome this, I recommend inviting them into the school.

I don't mean open house. Ask parents to meet with you while school is in session. Throughout the school year, I invite every ninth-grade parent to join me for a meeting, tour of campus, and lunch in the student cafeteria.

After all, if you want to relieve the anxiety parents may be feeling about the size of the school, show them the busiest place on campus. Not all of my parents come to the luncheons, but those who do walk away as partners of a campus that reflects a calm, organized, and friendly environment conducive to learning.

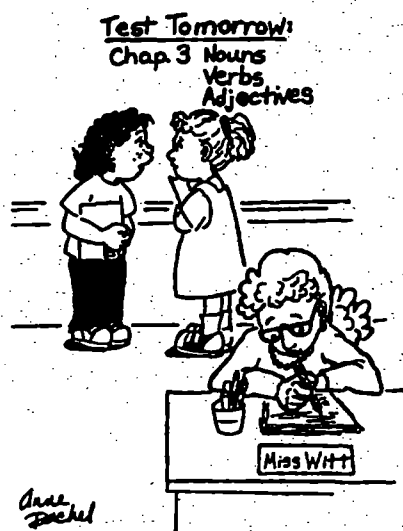
### Defrosting the Look

A final area for consideration is building aesthetics. How many of us have walked into school facilities and immediately felt the cold and impersonal message left by a lack of attention to aesthetics? This problem becomes magnified in large buildings with numerous entrances and hallways that look institutional instead of friendly.

Our students, teachers, and parents have enjoyed working together on projects that have enhanced the physical environment of the school: flags of the United Nations hung in

the student cafeteria, student art galleries, framed art posters of famous works, displays of school memorabilia and historical artifacts, student and professional murals, and enlarged pictures of everyday student life.

You can take decisive action to overcome the potential impact of large school size by focusing district efforts on strategies that will remove school size as a key issue in your restructuring and school improvement efforts. By paying close attention to the needs of students, parents, and staff, you can transform your school into a friendly and nurturing environment where each member of the school family takes ownership in success. **ED**



"It gets worse. In high school, you learn this all over again—in other languages!"

# TOUGHER DISCIPLINE, SAFER SCHOOLS

By Mike Rose  
From *American Teacher*

It should come as no surprise that Corpus Christi, Texas, was one of the first districts to make good use of a new Texas law that gives teachers the right to permanently remove chronically disruptive students from the classroom—a law which the Corpus Christi American Federation of Teachers (CCAFT), the Texas Federation of Teachers, and other AFT locals in the state had lobbied hard for. This district has quietly been building a reputation as a leading-edge system when it comes to student discipline.

Most agree that the process began two years ago, when the district established a task force to study discipline problems in the middle schools. Largely as a result of the task force's recommendations, and the publicity it generated surrounding discipline issues, Corpus Christi has gone on to implement alternative learning centers for violent and disruptive youths and to establish a student code of conduct that is one of the best in the nation.

Corpus Christi became the first district in Texas to formally endorse the AFT's nationwide campaign for

high standards of achievement and conduct, "Responsibility, Respect, Results: Lessons for Life." Perhaps the most important asset the community brings to the fight, explains CCAFT president Linda Bridges, is a willingness to tackle discipline problems head-on and to look for new opportunities to improve.

"It wasn't that long ago that a former superintendent stood up before the school board and said, 'If there is a discipline problem in this district, then it's the teachers who are to blame.' We're clearly beyond that denial stage now," Bridges says. "People are starting to feel that orderly schools are within reach, and the momentum is clearly driving us in that direction."

School board vice president Dot Adkins says her service as board representative on the middle school task

Mike Rose is Assistant Editor, *American Teacher*, published by the American Federation of Teachers, Washington, D.C. Condensed from *American Teacher*, 80 (February 1996), 10-12.

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HEADLINE: What matters most: a competent teacher for every child.

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The report of the National Commission on Teaching and America's Future offers a blueprint for recruiting, preparing, supporting, and rewarding excellent educators in all of America's **schools**, according to Ms. Darling. Hammond. For the details, read on.

We propose an audacious goal . . . by the year 2006, America will provide all students with what should be their educational birthright: access to competent, caring, and qualified teachers. (1)

With these words, the National Commission on Teaching and America's Future summarized its challenge to the American public. After two years of intense study and discussion, the commission - a 26-member bipartisan blue-ribbon panel supported by the Rockefeller Foundation and the Carnegie Corporation of New York - concluded that the reform of elementary and secondary education depends first and foremost on restructuring its foundation, the teaching profession. The restructuring, the commission made clear, must go in two directions: toward increasing teachers' knowledge to meet the demands they face and toward redesigning **schools** to support high-quality teaching and learning.

The commission found a profession that has suffered from decades of neglect. By the standards of other professions and other countries, U.S. teacher education has historically been thin, uneven, and poorly financed. Teacher recruitment is distressingly ad hoc, and teacher salaries lag significantly behind those of other professions. This produces chronic shortages of qualified teachers in fields like mathematics and science and the continual hiring of large numbers of "teachers" who are unprepared for their jobs.

Furthermore, in contrast to other countries that invest most of their education dollars in well-prepared and well-supported teachers, half of the education dollars in the United States are spent on personnel and activities outside the classroom. A lack of standards for students and teachers, coupled with schools that are organized for 19th-century learning, leaves educators without an adequate foundation for constructing good teaching. Under these



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conditions, excellence is hard to achieve.

The commission is clear about what needs to change. No more hiring unqualified teachers on the sly. No more nods and winks at teacher education programs that fail to prepare teachers properly. No more tolerance for incompetence in the classroom. Children are compelled to attend school. Every state guarantees them equal protection under the law, and most promise them a sound education. In the face of these obligations, students have a right to competent, caring teachers who work in schools organized for success.

The commission is also clear about what needs to be done. Like the Flexner report that led to the transformation of the medical profession in 1910, this report, *What Matters Most: Teaching for America's Future*, examines successful practices within and outside the United States to describe what works. The commission concludes that children can reap the benefits of current knowledge about teaching and learning only if schools and schools of education are dramatically redesigned.

The report offers a blueprint for recruiting, preparing, supporting, and rewarding excellent educators in all of America's schools. The plan is aimed at ensuring that all schools have teachers with the knowledge and skills they need to enable all children to learn. If a caring, qualified teacher for every child is the most important ingredient in education reform, then it should no longer be the factor most frequently overlooked.

At the same time, such teachers must have available to them schools and school systems that are well designed to achieve their key academic mission: they must be focused on clear, high standards for students; organized to provide a coherent, high-quality curriculum across the grades; and designed to support teachers' collective work and learning.

We note that this challenge is accompanied by an equally great opportunity: over the next decade we will recruit and hire more than two million teachers for America's schools. More than half of the teachers who will be teaching 10 years from now will be hired during the next decade. If we can focus our energies on providing this generation of teachers with the kinds of knowledge and skills they need to help students succeed, we will have made an enormous contribution to America's future.

#### The Nature of the Problem

The education challenge facing the U.S. is not that its schools are not as good as they once were. It is that schools must help the vast majority of young people reach levels of skill and competence that were once thought to be within the reach of only a few.

After more than a decade of school reform, America is still a very long way from achieving its educational goals. Instead of all children coming to school ready to learn, more are living in poverty and without health care than a decade ago. (2) Graduation rates and student achievement in most subjects have remained flat or have increased only slightly. (3) Fewer than 10% of high school students can read, write, compute, and manage scientific material at the high levels required for today's "knowledge work" jobs. (4)



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This distance between our stated goals and current realities is not due to lack of effort. Many initiatives have been launched in local communities with positive effects. Nonetheless, we have reached an impasse in spreading these promising efforts to the system as a whole. It is now clear that most schools and teachers cannot produce the kind of learning demanded by the new reforms - not because they do not want to, but because they do not know how, and the systems they work in do not support their efforts to do so.

### The Challenge for Teaching

A more complex, knowledge-based, and multicultural society creates new expectations for teaching. To help diverse learners master more challenging content, teachers must go far beyond dispensing information, giving a test, and giving a grade. They must themselves know their subject areas deeply, and they must understand how students think, if they are to create experiences that actually work to produce learning.

Developing the kind of teaching that is needed will require much greater clarity about what students need to learn in order to succeed in the world that awaits them and what teachers need to know and do in order to help students learn it. Standards that reflect these imperatives for student learning and for teaching are largely absent in our nation today. States are just now beginning to establish standards for student learning.

Standards for teaching are equally haphazard. Although most parents might assume that teachers, like other professionals, are educated in similar ways so that they acquire common knowledge before they are admitted to practice, this is not the case. Unlike doctors, lawyers, accountants, or architects, all teachers do not have the same training. Some teachers have very high levels of skills - particularly in states that require a bachelor's degree in the discipline to be taught - along with coursework in teaching, learning, curriculum, and child development; extensive practice teaching; and a master's degree in education. Others learn little about their subject matter or about teaching, learning, and child development - particularly in states that have low requirements for licensing.

And while states have recently begun to require some form of testing for a teaching license, most licensing exams are little more than multiple-choice tests of basic skills and general knowledge, widely criticized by educators and experts as woefully inadequate to measure teaching skill.<sup>(5)</sup> Furthermore, in many states the cutoff scores are so low that there is no effective standard for entry.

These difficulties are barely known to the public. The schools' most closely held secret amounts to a great national shame: roughly one-quarter of newly hired American teachers lack the qualifications for their jobs. More than 12% of new hires enter the classroom without any formal training at all, and another 14% arrive without fully meeting state standards.

Although no state will permit a person to write wills, practice medicine, fix plumbing, or style hair without completing training and passing an examination, more than 40 states allow districts to hire teachers who have not met basic requirements. States pay more attention to the qualifications of the veterinarians treating America's pets than to those of the people educating the



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nation's youngsters. Consider the following facts:

\* In recent years, more than 50,000 people who lack the training required for their jobs have entered teaching annually on emergency or substandard licenses. (6)

\* Nearly one-fourth (23%) of all secondary teachers do not have even a minor in their main teaching field. This is true for more than 30% of mathematics teachers. (7)

\* Among teachers who teach a second subject, 36% are un-licensed in that field, and 50% lack a minor in it. (8)

\* Fifty-six percent of high school students taking physical science are taught by out-of-field teachers, as are 27% of those taking mathematics and 21% of those taking English. (9) The proportions are much greater in high-poverty schools and lower-track classes.

\* In schools with the highest minority enrollments, students have less than a 50% chance of getting a science or mathematics teacher who holds a license and a degree in the field in which he or she teaches. (10)

In the nation's poorest schools, where hiring is most lax and teacher turnover is constant, the results are disastrous. Thousands of children are taught throughout their school careers by a parade of teachers without preparation in the fields in which they teach, inexperienced beginners with little training and no mentoring, and short-term substitutes trying to cope with constant staff disruptions. (11) It is more surprising that some of these children manage to learn than that so many fail to do so.

#### Current Barriers

Unequal resources and inadequate investments in teacher recruitment are major problems. Other industrialized countries fund their schools equally and make sure there are qualified teachers for all of them by underwriting teacher preparation and salaries. However, teachers in the U.S. must go into substantial debt to become prepared for a field that in most states pays less than any other occupation requiring a college degree.

This situation is not necessary or inevitable. The hiring of unprepared teachers was almost eliminated during the 1970s with scholarships and loans for college students preparing to teach, Urban Teacher Corps initiatives, and master of arts in teaching (MAT) programs, coupled with wage increases. However, the cancellation of most of these recruitment incentives in the 1980s led to renewed shortages when student enrollments started to climb once again, especially in cities. Between 1987 and 1991, the proportion of well-qualified new teachers - those entering teaching with a college major or minor and a license in their fields - actually declined from about 74% to 67%. (12)

There is no real system for recruiting, preparing, and developing America's teachers. Major problems include:

Inadequate teacher education. Because accreditation is not required of teacher education programs, their quality varies widely, with excellent programs



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standing alongside shoddy ones that are allowed to operate even when they do an utterly inadequate job. Too many American universities still treat their schools of education as "cash cows" whose excess revenues are spent on the training of doctors, lawyers, accountants, and almost any students other than prospective teachers themselves.

**Slipshod recruitment.** Although the share of academically able young people entering teaching has been increasing, there are still too few in some parts of the country and in critical subjects like mathematics and science. Federal incentives that once existed to induce talented people into high-need fields and locations have largely been eliminated.

**Haphazard hiring and induction.** School districts often lose the best candidates because of inefficient and cumbersome hiring practices, barriers to teacher mobility, and inattention to teacher qualifications. Those who do get hired are typically given the most difficult assignments and left to sink or swim, without the kind of help provided by internships and residencies in other professions. Isolated behind classroom doors with little feedback or help, as many as 30% leave in the first few years, while others learn merely to cope rather than to teach well.

**Lack of professional development and rewards for knowledge and skill.** In addition to the lack of support for beginning teachers, most school districts invest little in ongoing professional development for experienced teachers and spend much of these limited resources on unproductive "hit-and-run" workshops. Furthermore, most U.S. teachers have only three to five hours each week for planning. This leaves them with almost no regular time to consult together or to learn about new teaching strategies, unlike their peers in many European and Asian countries who spend between 15 and 20 hours per week working jointly on refining lessons and learning about new methods.

The teaching career does not encourage teachers to develop or use growing expertise. Evaluation and tenure decisions often lack a tangible connection to a clear vision of high-quality teaching, important skills are rarely rewarded, and - when budgets must be cut - professional development is often the first item sacrificed. Historically, the only route to advancement in teaching has been to leave the classroom for administration.

In contrast, many European and Asian countries hire a greater number of better-paid teachers, provide them with more extensive preparation, give them time to work together, and structure schools so that teachers can focus on teaching and can come to know their students well. Teachers share decision making and take on a range of professional responsibilities without leaving teaching. This is possible because these other countries invest their resources in many more classroom teachers - typically constituting 60% to 80% of staff, as compared to only 43% in the United States - and many fewer nonteaching employees. (13)

**Schools structured for failure.** Today's schools are organized in ways that support neither student learning nor teacher learning well. Teachers are isolated from one another so that they cannot share knowledge or take responsibility for overall student learning. Technologies that could enable alternative uses of personnel and time are not yet readily available in schools, and few staff members are prepared to use them. Moreover, too many people and



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resources are allocated to jobs and activities outside of classrooms, on the sidelines rather than at the front lines of teaching and learning.

High-performance businesses are abandoning the organizational assumptions that led to this way of managing work. They are flattening hierarchies, creating teams, and training employees to take on wider responsibilities using technologies that allow them to perform their work more efficiently. Schools that have restructured their work in these ways have been able to provide more time for teachers to work together and more time for students to work closely with teachers around more clearly defined standards for learning. (14)

#### Goals for the Nation

To address these problems, the commission challenges the nation to embrace a set of goals that will put us on the path to serious, long-term improvements in teaching and learning for America. The commission has six goals for the year 2006.

- \* All children will be taught by teachers who have the knowledge, skills, and commitment to teach children well.
- \* All teacher education programs will meet professional standards, or they will be closed.
- \* All teachers will have access to high-quality professional development, and they will have regularly scheduled time for collegial work and planning.
- \* Both teachers and principals will be hired and retained based on their ability to meet professional standards of practice.
- \* Teachers' salaries will be based on their knowledge and skills.
- \* High-quality teaching will be the central investment of schools. Most education dollars will be spent on classroom teaching.

#### The Commission's Recommendations

The commission's proposals provide a vision and a blueprint for the development of a 21st-century teaching profession that can make good on the nation's educational goals. The recommendations are systemic in scope - not a recipe for more short-lived pilot and demonstration projects. They describe a new infrastructure for professional learning and an accountability system that ensures attention to standards for educators as well as for students at every level: national, state, district, school, and classroom.

The commission urges a complete overhaul in the systems of teacher preparation and professional development to ensure that they reflect current knowledge and practice. This redesign should create a continuum of teacher learning based on compatible standards that operate from recruitment and preservice education through licensing, hiring, and induction into the profession, to advanced certification and ongoing professional development.

The commission also proposes a comprehensive set of changes in school organization and management. And finally, it recommends a set of measures for



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ensuring that only those who are competent to teach or to lead schools are allowed to enter or to continue in the profession - a starting point for creating professional accountability. The specific recommendations are enumerated below.

1. Get serious about standards for both students and teachers. "The Commission recommends that we renew the national promise to bring every American child up to worldclass standards in core academic areas and to develop and enforce rigorous standards for teacher preparation, initial licensing, and continuing development."

With respect to student standards, the commission believes that every state should work on incorporating challenging standards for learning - such as those developed by professional bodies like the National Council of Teachers of Mathematics - into curriculum frameworks and new assessments of student performance. Implementation must go beyond the tautology that "all children can learn" to examine what they should learn and how much they need to know.

Standards should be accompanied by benchmarks of performance - from "acceptable" to "highly accomplished" so that students and teachers know how to direct their efforts toward greater excellence.

Clearly, if students are to achieve high standards, we can expect no less from teachers and other educators. Our highest priority must be to reach agreement on what teachers should know and be able to do in order to help students succeed. Unaddressed for decades, this task has recently been completed by three professional bodies: the National Council for Accreditation of Teacher Education (NCATE), the Interstate New Teacher Assessment and Support Consortium (INTASC), and the National Board for Professional Teaching Standards (the National Board). Their combined efforts to set standards for teacher education, beginning teacher licensing, and advanced certification outline a continuum of teacher development throughout the career and offer the most powerful tools we have for reaching and rejuvenating the soul of the profession.

These standards and the assessments that grow out of them identify what it takes to be an effective teacher: subject-matter expertise coupled with an understanding of how children learn and develop; skill in using a range of teaching strategies and technologies; sensitivity and effectiveness in working with students from diverse backgrounds; the ability to work well with parents and other teachers; and assessment expertise capable of discerning how well children are doing, what they are learning, and what needs to be done next to move them along.

The standards reflect a teaching role in which the teacher is an instructional leader who orchestrates learning experiences in response to curriculum goals and student needs and who coaches students to high levels of independent performance. To advance standards, the commission recommends that states:

- \* establish their own professional standards boards;
- \* insist on professional accreditation for all schools of education;
- \* close inadequate schools of education;



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- \* license teachers based on demonstrated performance, including tests of subject-matter knowledge, teaching knowledge, and teaching skill; and

- \* use National Board standards as the benchmark for accomplished teaching.

2. Reinvent teacher preparation and professional development. "The Commission recommends that colleges and schools work with states to redesign teacher education so that the two million teachers to be hired in the next decade are adequately prepared and so that all teachers have access to high-quality learning opportunities."

For this to occur, states, school districts, and education schools should:

- \* organize teacher education and professional development around standards for students and teachers;

- \* institute extended, graduate-level teacher preparation programs that provide yearlong internships in a professional development school;

- \* create and fund mentoring programs for beginning teachers, along with evaluation of teaching skills;

- \* create stable, high-quality sources of professional development - and then allocate 1% of state and local spending to support them, along with additional matching funds to school districts;

- \* organize new sources of professional development, such as teacher academies, school/university partnerships, and learning networks that transcend school boundaries; and

- \* make professional development an ongoing part of teachers' daily work.

If teachers are to be ready to help their students meet the new standards that are now being set for them, teacher preparation and professional development programs must consciously examine the expectations embodied in new curriculum frameworks and assessments and understand what they imply for teaching and for learning to teach. Then they must develop effective strategies for preparing teachers to teach in these much more demanding ways.

Over the past decade, many schools of education have changed their programs to incorporate new knowledge. More than 300 have developed extended programs that add a fifth (and occasionally a sixth) year of undergraduate training. These programs allow beginning teachers to complete a degree in their subject area as well as to acquire a firmer grounding in teaching skills. They allow coursework to be connected to extended practice teaching in schools - ideally, in professional development schools that, like teaching hospitals in medicine, have a special mission to support research and training. Recent studies show that graduates of extended programs are rated as better-prepared and more effective teachers and are far more likely to enter and remain in teaching than are their peers from traditional four-year programs. (15)

New teachers should have support from an expert mentor during the first year of teaching. Research shows that such support improves both teacher



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effectiveness and retention. (16) In the system we propose, teachers will have completed initial tests of subject-matter and basic teaching knowledge before entry and will be ready to undertake the second stage - a performance assessment of teaching skills - during this first year.

Throughout their careers, teachers should have ongoing opportunities to update their skills. In addition to time for joint planning and problem solving with in-school colleagues, teachers should have access to networks, school/university partnerships, and academies where they can connect with other educators to study subject-matter teaching, new pedagogies, and school change.

The benefit of these opportunities is that they offer sustained work on problems of practice that are directly connected to teachers' work and student learning.

3. Overhaul teacher recruitment and put qualified teachers in every classroom. "The Commission recommends that states and school districts pursue aggressive policies to put qualified teachers in every classroom by providing financial incentives to correct shortages, streamlining hiring procedures, and reducing barriers to teacher mobility."

Although each year the U.S. produces more new teachers than it needs, shortages of qualified candidates in particular fields (e.g., mathematics and science) and particular locations (primarily inner city and rural) are chronic.

In large districts, logistics can overwhelm everything else. It is sometimes the case that central offices cannot find out about classroom vacancies, principals are left in the dark about applicants, and candidates cannot get any information at all.

Finally, it should be stressed that large pools of potential mid-career teacher entrants - former employees of downsizing corporations, military and government retirees, and teacher aides already in the schools - are for the most part untapped.

To remedy these situations, the commission suggests the following actions:

- \* increase the ability of financially disadvantaged districts to pay for qualified teachers and insist that school districts hire only qualified teachers;
- \* redesign and streamline hiring at the district level - principally by creating a central "electronic hiring hall" for all qualified candidates and establishing cooperative relationships with universities to encourage early hiring of teachers;
- \* eliminate barriers to teacher mobility by promoting reciprocal interstate licensing and by working across states to develop portable pensions;
- \* provide incentives (including scholarships and premium pay) to recruit teachers for high-need subjects and locations; and
- \* develop high-quality pathways to teaching for recent graduates, mid-career changers, paraprofessionals already in the classroom, and military and government retirees.



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4. Encourage and reward knowledge and skill. "The Commission recommends that school districts, states, and professional associations cooperate to make teaching a true profession, with a career continuum that places teaching at the top and rewards teachers for their knowledge and skills."

Schools have few ways of encouraging outstanding teaching, supporting teachers who take on the most challenging work, or rewarding increases in knowledge and skill. Newcomers who enter teaching without adequate preparation are paid at the same levels as those who enter with highly developed skills. Novices take on exactly the same kind of work as 30-year veterans, with little differentiation based on expertise. Mediocre teachers receive the same rewards as outstanding ones. And unlicensed "teachers" are placed on the same salary schedule as licensed teachers in high-demand fields such as mathematics and science or as teachers licensed in two or more subjects.

One testament to the inability of the existing system to understand what it is doing is that it rewards experience with easier work instead of encouraging senior teachers to deal with difficult learning problems and tough learning situations. As teachers gain experience, they can look forward to teaching in more affluent schools, working with easier schedules, dealing with "better" classes, or moving out of the classroom into administration. Teachers are rarely rewarded for applying their expertise to the most challenging learning problems or major needs of the system.

To address these issues, the commission recommends that state and local education agencies:

- \* develop a career continuum linked to assessments and compensation systems that reward knowledge and skill (e.g., the ability to teach expertly in two or more subjects, as demonstrated by additional licenses, or the ability to pass examinations of teaching skill, such as those offered by INTASC and the National Board);

- \* remove incompetent teachers through peer review programs that provide necessary assistance and due process; and

- \* set goals and enact incentives for National Board certification in every district, with the aim of certifying 105,000 teachers during the next 10 years.

If teaching is organized as are other professions that have set consistent licensing requirements, standards of practice, and assessment methods, then advancement can be tied to professional growth and development. A career continuum that places teaching at the top and supports growing expertise should 1) recognize accomplishment, 2) anticipate that teachers will continue to teach while taking on other roles that allow them to share their knowledge, and 3) promote continued skill development related to clear standards.

Some districts, such as Cincinnati and Rochester, New York, have already begun to develop career pathways that tie evaluations to salary increments at key stages as teachers move from their initial license to resident teacher (under the supervision of a mentor) to the designation of professional teacher. The major decision to grant tenure is made after rigorous evaluation of performance (including both administrator and peer review) in the first several



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years of teaching. Advanced certification from the National Board for Professional Teaching Standards may qualify teachers for another salary step and/or for the position of lead teacher - a role that is awarded to those who have demonstrated high levels of competence and want to serve as mentors or consulting teachers.

One other feature of a new compensation system is key. The central importance of teaching to the mission of schools should be acknowledged by having the highest-paid professional in a school system be an experienced, National Board-certified teacher. As in other professions, roles should become less distinct. The jobs of teacher, consultant, supervisor, principal, curriculum developer, researcher, mentor, and professor should be hyphenated roles, allowing many ways for individuals to use their talents and expertise without abandoning the core work of the profession.

5. Create schools that are organized for student and teacher success. "The Commission recommends that schools be restructured to become genuine learning organizations for both students and teachers: organizations that respect learning, honor teaching, and teach for understanding."

Many experts have observed that the demands of serious teaching and learning bear little relationship to the organization of the typical American school. Nothing more clearly reveals this problem than how we allocate the principal resources of school - time, money, and people. Far too many people sit in offices on the sidelines of the school's core work, managing routines rather than improving learning. Our schools are bureaucratic inheritances from the 19th century, not the kinds of learning organizations required for the 21st century.

Across the United States, the ratio of school staff to students is 1 to 9 (with "staff" including district employees, school administrators, teachers, instructional aides, guidance counselors, librarians, and support staff). However, actual **class size** averages about 24 and reaches 35 or more in some cities. Teaching loads for high school teachers generally exceed 100 students per day. Yet many schools have proved that it is possible to restructure adults' use of time so that more teachers and administrators actually work in the classroom, face-to-face with students on a daily basis, thus reducing **class sizes** while creating more time for teacher collaboration. They do this by creating teams of teachers who share students; engaging almost all adults in the school in these teaching teams, where they can share expertise directly with one another; and reducing pullouts and nonteaching jobs.

Schools must be freed from the tyrannies of time and tradition to permit more powerful student and teacher learning. To accomplish this the commission recommends that state and local boards work to:

- \* flatten hierarchies and reallocate resources to invest more in teachers and technology and less in nonteaching personnel;
- \* provide venture capital in the form of challenge grants that will promote learning linked to school improvement and will reward effective team efforts; and
- \* select, prepare, and retain principals who understand teaching and learning and who can lead high-performing schools.



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If students have an inalienable right to be taught by a qualified teacher, teachers have a right to be supervised by a highly qualified principal. The job began as that of a "principal teacher," and this conception is ever more relevant as the focus of the school recenters on academic achievement for students. Principals should teach at least part of the time (as do most European, Asian, and private school directors), and they should be well prepared as instructional leaders, with a solid understanding of teaching and learning.

#### Next Steps

Developing recommendations is easy. Implementing them is hard work. The first step is to recognize that these ideas must be pursued together - as an entire tapestry that is tightly interwoven.

The second step is to build on the substantial work of education reform undertaken in the last decade. All across the country, successful programs for recruiting, educating, and mentoring new teachers have sprung up. Professional networks and teacher academies have been launched, many teacher preparation programs have been redesigned, higher standards for licensing teachers and accrediting education schools have been developed, and, of course, the National Board for Professional Teaching Standards is now fully established and beginning to define and reward accomplished teaching.

While much of what the commission proposes can and should be accomplished by reallocating resources that are currently used unproductively, there will be new costs. The estimated additional annual costs of the commission's key recommendations are as follows: scholarships for teaching recruits, \$ 500 million; teacher education reforms, \$ 875 million; mentoring supports and new licensing assessments, \$ 750 million; and state funds for professional development, \$ 2.75 billion. The total is just under \$ 5 billion annually - less than 1% of the amount spent on the federal savings-and-loan bailout. This is not too much, we believe, to bail out our schools and to secure our future.

#### A Call to Action

Setting the commission's agenda in motion and carrying it to completion will demand the best of us all. The commission calls on governors and legislators to create state professional boards to govern teacher licensing standards and to issue annual report cards on the status of teaching. It asks state legislators and governors to set aside at least 1% of funds for standards-based teacher training. It urges Congress to put money behind the professional development programs it has already approved but never funded.

Moreover, the commission asks the profession to take seriously its responsibilities to children and the American future. Among other measures, the commission insists that state educators close the loopholes that permit administrators to put unqualified "teachers" in the classroom. It calls on university officials to take up the hard work of improving the preparation and skills of new and practicing teachers. It asks administrators and teachers to take on the difficult task of guaranteeing teaching competence in the classroom. And it asks local school boards and superintendents to play their vital role by streamlining hiring procedures, upgrading quality, and putting more staff and resources into the front lines of teaching.



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If all of these things are accomplished, the teaching profession of the 21st century will look much different from the one we have today. Indeed, someone entering the profession might expect to advance along a continuum that unfolds much like this:

For as long as she could remember, Elena had wanted to teach. As a peer tutor in middle school, she loved the feeling she got whenever her partner learned something new. In high school, she served as a teacher's aide for her community service project. She linked up with other students through an Internet group started by Future Educators of America.

When she arrived at college she knew she wanted to prepare to teach, so she began taking courses in developmental and cognitive psychology early in her sophomore year. She chose mathematics as a major and applied in her junior year for the university's five-year course of study leading to a master of arts in teaching. After a round of interviews and a review of her record thus far, Elena was admitted into the highly selective teacher education program.

The theories Elena studied in her courses came to life before her eyes as she conducted a case study of John, a 7-year-old whom she tutored in a nearby school. She was struck by John's amazing ability to build things, in contrast with his struggles to learn to read. She carried these puzzles back to her seminar and on into her other courses as she tried to understand learning.

Over time, she examined other cases, some of them available on a multimedia computer system that allowed her to see videotapes of children, samples of their work, and documentation from their teachers about their learning strategies, problems, and progress. From these data, Elena and her classmates developed a concrete sense of different learning approaches. She began to think about how she could use John's strengths to create productive pathways into other areas of learning.

Elena's teachers modeled the kinds of strategies she herself would be using as a teacher. Instead of lecturing from texts, they enabled students to develop and apply knowledge in the context of real teaching situations. These frequently occurred in the professional development school (PDS) where Elena was engaged in a yearlong internship, guided by a faculty of university- and school-based teacher educators.

In the PDS, Elena was placed with a team of student teachers who worked with a team of expert veteran teachers. Her team included teachers of art, language arts, and science, as well as mathematics. They discussed learning within and across these domains in many of their assignments and constructed interdisciplinary curricula together.

Most of the school- and university-based teacher educators who made up the PDS faculty had been certified as accomplished practitioners by the National Board for Professional Teaching Standards, having completed a portfolio of evidence about their teaching along with a set of rigorous performance assessments. The faculty members created courses, internship experiences, and seminars that allowed them to integrate theory and practice, pose fundamental dilemmas of teaching, and address specific aspects of learning to teach.



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Elena's classroom work included observing and documenting the learning and behavior of specific children, evaluating lessons that illustrated important concepts and strategies, tutoring and working with small groups, sitting in on family conferences, engaging in school and team planning meetings, visiting homes and community agencies to learn about their resources, planning field trips and curriculum segments, teaching lessons and short units, and ultimately taking major responsibility for the class for a month at the end of the year. This work was supplemented by readings and discussions grounded in case studies of teaching.

A team of PDS teachers videotaped all their classes over the course of the year to serve as the basis for discussions of teaching decisions and outcomes. These teachers' lesson plans, student work, audiotaped planning journals, and reflections on lessons were also available in a multimedia database. This allowed student teachers to look at practice from many angles, examine how classroom situations arose from things that had happened in the past, see how various strategies turned out, and understand a teacher's thinking about students, subjects, and curriculum goals as he or she made decisions. Because the PDS was also wired for video and computer communication with the school of education, master teachers could hold conversations with student teachers by teleconference or e-mail when on-site visits were impossible.

When Elena finished her rich, exhausting internship year, she was ready to try her hand at what she knew would be a demanding first year of teaching. She submitted her portfolio for review by the state professional standards board and sat for the examination of subject-matter and teaching knowledge that was required for an initial teaching license. She was both exhilarated and anxious when she received a job offer, but she felt she was ready to try her hand at teaching.

Elena spent that summer eagerly developing curriculum ideas for her new class. She had the benefit of advice from the district mentor teacher already assigned to work with her in her first year of teaching, and she had access to an on-line database of teaching materials developed by teachers across the country and organized around the curriculum standards of the National Council of Teachers of Mathematics, of which she had become a member.

Elena's mentor teacher worked with her and several other new middle school mathematics and science teachers throughout the year, meeting with them individually and in groups to examine their teaching and provide support. The mentors and their first-year colleagues also met in groups once a month at the PDS to discuss specific problems of practice.

Elena met weekly with the other math and science teachers in the school to discuss curriculum plans and share demonstration lessons. This extended lunch meeting occurred while her students were in a Project Adventure/physical education course that taught them teamwork and cooperation skills. She also met with the four other members of her teaching team for three hours each week while their students were at community-service placements. The team used this time to discuss cross-disciplinary teaching plans and the progress of the 80 students they shared.

In addition to these built-in opportunities for daily learning, Elena and her



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colleagues benefited from the study groups they had developed at their school and the professional development offerings at the local university and the Teachers Academy.

At the Teachers Academy, school- and university-based faculty members taught extended courses in areas ranging from advances in learning theory to all kinds of teaching methods, from elementary science to advanced calculus. These courses usually featured case studies and teaching demonstrations as well as follow-up work in teachers' own classrooms. The academy provided the technologies needed for multimedia conferencing, which allowed teachers to "meet" with one another across their schools and to see one another's classroom work. They could also connect to courses and study groups at the university, including a popular master's degree program that helped teachers prepare for National Board certification.

With the strength of a preparation that had helped her put theory and practice together and with the support of so many colleagues, Elena felt confident that she could succeed at her life's goal: becoming - and, as she now understood, always becoming - a teacher.

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