

A Penny Saved

How Schools and Districts Can Tighten
Their Belts While Serving Students Better

American Enterprise Institute

Thomas B. Fordham Institute

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The Efficient Use of Teachers

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Ascend Learning

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Teachers—the single largest district expense

- Teacher expense is 45% of districts' total spending
- Declining productivity
 - From 1980 to 2006, student enrollment grew 17.9% while total school employment grew by 47.9%.
 - In 1955, one teacher for ever 27 students; by 1997, 1 for 16.
 - Yet achievement results remain flat
- Could teachers be deployed more effectively, boosting achievement while lowering costs?
- What specific, practicable initiatives would decrease teacher compensation costs while improving outcomes?

Bellevue Public Schools*

- Mid-sized urban school district in the Northwest
- 29,500 students
- 37 elementary schools, 11 middle schools, 5 high schools, 6 alternative programs
- 59% of students from low-income families
- 1,944 teachers, representing 74% of its 2,637 employees
- Total salaries and benefits are 84% of district's \$326 million spend.
- Faces state and local spending cuts of 8 percent, or \$26.1 million

* Name has been changed

Initiative categories

- Staff deployment and instructional technology initiatives
- Teacher quality and compensation initiatives
- Program initiatives

Staff deployment and instructional technology initiatives

Staff deployment and instructional technology initiatives

1. Increase class size

- Increase student-teacher ratios from 15.3 to 17.3
 - 13.2 to 15.2, on average, in kindergarten through grade 5
 - 17.5 to 19.5, on average, in grade 6-12
- Gain additional (unaccounted) savings from facility costs, utilities, maintenance, and other non-compensation costs

Reduction of 234 teachers at \$63,355 salary

Benefits at 18.8% of salary

\$17.6 million savings

Class size

- STAR experiment of Tennessee
 - Modest benefits (from 50th percentile to 58th percentile over 3 years) from small classes
 - But these were 13-15 students, far smaller than practicable
- California CSR initiative of 1996
 - Created classes of 20 in grades K-3; 99% of districts participated at cost of \$1.6 billion/year.
 - CA DOE's study over four years found "limited evidence" of student achievement gains
- Caroline Hoxby estimate of costs
 - Cost of a 10% reduction in class size: \$615 per pupil nationally.
 - To reach STAR class sizes: A 37.5% decrease, or \$2,306/pupil, or 30% of educational spending
- Highest-performing nations have large class sizes
- Capable teachers can manage large classes

Class formation and program

- Far greater gains are available from class formation and program reforms—while *saving* money
- Class size increases must be accompanied by investment in comprehensive IP and teacher quality initiatives
- If all students have prerequisite knowledge and know how to behave, teachers can succeed readily with large classes
- Comparison to college presumption of readiness
- “Differentiated instruction” is a fool’s errand
- Essentials
 - Assignment to classes based on skill mastery, not age
 - Prevent learning gaps from forming
 - Explicit, mastery-based K-12 curriculum, with essential concepts identified
 - Weekly objectives identified, weekly electronic assessment as feedback loop to teachers on their students’ mastery of what they’ve just taught
 - Immediate remediation—before gaps impede future learning

SABIS: One such program

- SABIS Springfield—K-12, 1,574 students. Low-income students 50 percentage points higher on MCAS than Springfield districts; racial achievement gap closed; every graduate to college for last nine years; Newsweek identified as “top US high school.”
- SABIS New Orleans—K-8, 336 students. Top-performing school in ELA of 49 charter schools in Orleans parish; higher than KIPP. 5th place in Math. Above state average, despite 96% FRPL
- 30% *less* expensive than district schools
- Delivering far more for far less

Staff deployment and instructional technology initiatives

2. Eliminate teacher aides above first grade

- Retain kindergarten and first grade aides
- Retain special education aides

Reduction of 254 aides
Average salary of \$20,914
Benefits at 19.8% of salary
\$6.4 million savings

Staff deployment and instructional technology initiatives

3. Complement teacher-led instruction with technology

- Allocate one-quarter of instructional time to independent learning with instructional technology
- Establish learning labs in each school with state-of-art technology

53 schools

25% reduction in teachers, or 427 FTE

Addition of 2 FTE learning lab specialist teachers per school

Net 6 FTE average reduction per school

\$99,436 annual debt service on capital investment for each lab

\$306,535 average annual savings per school

\$16.2 million savings

Independent learning and instructional technology

- Rocketship Education, San Jose, CA
 - Hybrid education model
 - 100 minutes a day in learning lab
 - \$500,000 per school savings
 - Rocketship Elementary posted 3rd-highest scores in state among schools serving low-income students

Teacher quality and compensation initiatives

4. Terminate chronically ineffective teachers

- Let go of teachers no school wants (5% of district's faculty)
- End practice of rotating these teachers systematically across the schools

85 teachers

\$63,355 annual average salary plus benefits at 18.8% of salary

\$6.4 million savings

Underperforming teachers

- \$100,000 - \$200,000 in termination costs
- “Rubber rooms”
- Education system or employment system?
- Recent lurid accounts of these practices have alienated even longstanding union advocates
- Reform begins with meaningful performance evaluations
- Chicago: 0.3 percent of teachers are rated “unsatisfactory”
 - No benefit to principals from doing so
- Devise thoughtful, modern evaluation systems

Teacher quality and compensation initiatives

Teacher quality and compensation initiatives

5. Revamp professional development

- Districts spends 3 percent, or \$9.8 million on PD
- Trainings are scattershot and of little or no demonstrable value in raising teacher skill or student outcomes
- Reduce legacy spending by 50%
- Reinvest \$3 million of these savings in new, centrally coordinating program to provide all teaches with codified, demonstrable practices in classroom culture and instruction
- Model on pathbreaking Teacher U program of Hunter College

\$9.7 million current PD spend

50% reduction in legacy spend

Train 1,389 teachers over 4 years year at cost of \$3,688 per teacher in effective practices

\$5,000 teacher stipend

\$1.9 million savings

Professional development

- Tightly link to district-wide IP initiative
- Devote to core skills development
 - Teach classroom procedures, build an effective culture, minimize lost time, devise well-crafted lessons, deliver effective and engaging lessons
- Teacher U program at Hunter College
 - Teach routines explicitly
 - “Least invasive interventions”
 - “Right is right” and “Stretch it”
 - “Narrating the positive”
 - These are the practices of gap-closing “No Excuses” schools and they can be tapped by reform superintendents

Teacher quality and compensation initiatives

6. Establish a Teaching Fellows program

- Improve new hire quality
- Contract with The New Teachers Project
- Source one-third of new hires
- Highly selective, drawn from selective undergraduate institutions and career professionals
- Nine weeks of preservice training in the summer in partnership with local university
- Ongoing training and mentoring in first two years, during which fellow earns a master's degree
- Modeled on programs in New York, Chicago, and Boston

\$5.0 million cost

Teacher sourcing

- Can we continue to source our teachers from our least successful students?
- Countries that score at top of TIMSS and PISA draw their teachers not from the bottom third of their high school classes but top 5 - 30 percent
- Superintendents must call for radical reform of teacher preparation programs
- Until then ... emulate by establishing Teaching Fellows programs like that of NYC
 - 70% of fellows attended selective colleges and universities
 - Fellows accounted for 1/3 of new math teachers
 - 17,000 applicants last year

Teacher quality and compensation initiatives

7. Raise teacher pay; institute differential and merit pay

- Award teachers in top quintile of effectiveness who agree to extend their reach to more students a 50% salary premium (“3X plan”)
- \$5 million additional invested in a differential and merit pay plans
 - Pay more for teachers in short supply, such as high school math and science, teachers with distinguished academic backgrounds, and those who commit to work in the most challenging schools
 - Forgo traditional job protections in exchange for substantial merit pay

1/5 of 1,389 teachers, or 278

50% salary premium, or \$31,678

\$8.8 million cost for 3X teachers

\$5.0 million pool for differential compensation for 3 categories

\$13.8 million cost

Teacher compensation

- Stop paying for what doesn't matter
 - Seniority (beyond 3 years)
 - Master's degrees ("step and lane" compensation)
- Start paying for what does
 - Teaches who get great results
 - Teachers in scarce supply (e.g. high school science)
 - Teachers willing to take the toughest assignments
 - Teachers from distinguished academic backgrounds
- Increase starting salaries, and ...
 - Align with top-performing nations (20-74% higher)
 - Lengthen day and year, increase planning time, summer PD
 - Reform work rules

Teacher quality and compensation initiatives

8. Align employee benefits with private sector standards

- Control pension costs
 - Create option for defined contribution, rather than defined benefit, plan participation
 - Align total costs with private sector employee averages
- Control medical costs
 - Districts are locked into unsustainably lavish plans
 - Curb benefits
 - Require employees to pay 15% of coverage, as in private sector

Applicable employee benefits as percent of payroll: 14.6%

Average employer's benefits as percent of payroll: 10.4%

Differential on district's payroll: \$7.57 million

\$7.6 million savings

Employee benefits

- Increase employer contributions
- End or trim health benefits for recent retirees
- Investigate and litigate, where appropriate, worker's compensation claims
- Consider self-insuring for certain medical insurance claims
- End costly early retirement programs
- It can be done: See June Kronholz's paper, "What's happening in the states."
 - Palo Alto, CA
 - Pittsburgh, PA
 - Richmond, VA
 - Ann Arbor, MI

Teacher quality and compensation initiatives

9. Reduce teacher absenteeism

- Professional and managerial employees in private sector are absent 1.7 percent of annual hours
- In 2001, teachers were out of NYC schools 11.2 days a year, or 6.3%
- Reduce discretionary absences through changes in policy and financial incentives
 - Require teachers to report absences directly to their principal
 - Offer financial incentives, such as buy-back of unused time or rewards for exceptional attendance
- Close 75% of gap to private sector rates

Sector differential rate of absenteeism: 4.6%

Total district personnel expense after initiatives: \$113 million

Cost of excess absenteeism: \$5.2 million

Close gap by 75%: \$3.9 million savings

Net cost of incentives: \$985K

\$2.9 million savings

Program initiatives

Program initiatives

10. Establish a robust pre-referral program to SPED

- By bolstering pre-referral programs to special education, strengthening regular education, and improving pre-evaluation remediation, reduce SPED enrollment from 13.3% to 11.3%
- Weak school culture and poor instruction, especially in early grades, cause some students to be labeled “learning disabled” or “emotionally disturbed” when their failure to progress is not the result of an innate disability
- African-American students are overrepresented in these categories
- Offer effective instruction to “at risk” students and manage behavior explicitly in the early grades

Total special education spend: \$40.6 million

SPED spend average premium per student: \$4,214

Students retained in regular education: 593

\$2.5 million savings

Summary of Belleview savings initiatives

Initiative		Savings/(Cost)
	Target Savings (7% of district spend)	\$22,835,600
1	Increase Class Size	\$17,607,483
2	Eliminate Teacher Aides above First Grade	\$6,369,644
3	Complement Teacher-Led Instruction with Instructional Technology	\$16,246,348
4	Terminate Chronically Ineffective Teachers	\$6,437,322
5	Invest in Skill-Based Professional Development	\$1,883,289
6	Establish a Teaching Fellowship Program	(\$5,000,000)
7	Raise Teacher Pay and Institute Differential and Merit Pay	(\$13,800,814)
8	Align Employee Benefits with Industry Averages	\$7,573,641
9	Reduce Faculty Absenteeism	\$2,924,313
10	Establish Robust Pre-referral Programs to Special Education	\$2,501,106
	Total	\$42,742,331

Summary

- Consider disinvesting in class size reduction, the primary and staggeringly expensive reform of the last decades
 - Benefits of CSR will prove chimerical
 - We know that strong teachers can manage large classes, provided the tools
- Invest in measures that improve teacher quality and capacity
 - Hybrid models of traditional teaching and instructional technology
 - Teaching Fellows program to create an alternative sourcing strategy
 - Replace hodgepodge district PD with cohesive Teacher U-style skills development
 - Extend reach of most effective (3X) teachers
 - Raise teacher pay and institute differential and merit pay
 - Trim compensation costs for absenteeism and benefits
- Invest in intellectual property that boosts teacher productivity
 - Coherent, mastery-based curricula; student placement and class formation tools, integrated curriculum assessment; culture building tools

How the philanthropic community can help

- Assist and embolden districts in undertaking these urgent productivity reforms
- Establish a national center for specialized legal and technical support to district leaders.
 - Districts assume that labor contracts are more restrictive than they are
 - Help districts overcome apparent constraints in law or contract and prevail in administrative hearing and the courts when challenged on productivity initiatives
 - Counter misinformation and ideological assumptions about CSR, teacher effectiveness characteristics, structured curricula and other IP, and other domains that impede radical productivity reforms
 - Offer clearinghouse for districts to share their expertise and successes as they deploy staff and boost productivity

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