

# Teacher Pay Reforms: Political Implications of Recent Research

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University of Washington, or the Urban Institute.

# Why Focus on Teacher Compensation?

- Research shows teacher quality to be the most important schooling factor influencing student achievement
  - Teacher quality can explain more than a full grade-level equivalent in test performance (Hanushek, 1992)
  - Impact of teacher quality is far larger than any other quantifiable schooling input (Goldhaber, 2002)
  - Tremendous variation in the quality of teachers in the workforce (Kane et al., 2006)
- Compensation is a key workforce tool
  - Currently little connection between teacher compensation and teacher quality
  - Single salary schedule is out of step with the way the labor market as a whole functions
  - Compensation reform has the potential to influence *all* teachers in the workforce

# Gateway vs. Workforce Policies

Two empirical arguments for workforce policies:

(Easily quantifiable) teacher characteristics used to determine teachers' employment eligibility and compensation don't strongly predict teacher effectiveness

1. Teachers are more different than alike: the differences between the best and worst teachers who hold a particular credential swamp the differences between those with and without the credential

# Strong Theoretical Arguments for Reform of Single Salary Schedule

No differentials based on expertise, training or job difficulty

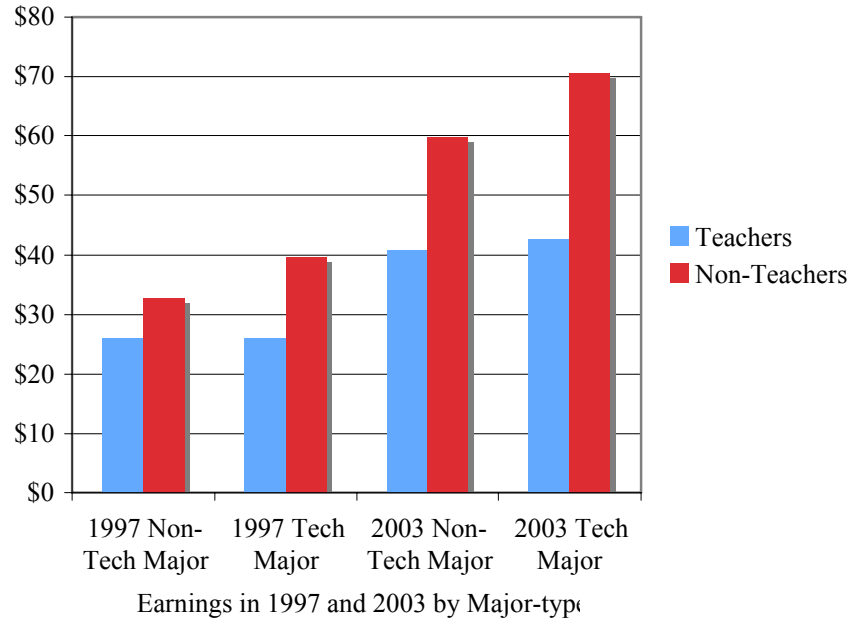
- Limited flexibility to place high-quality teachers in difficult teaching environments
- Limited flexibility to respond to labor market realities
- Little link between pay and performance
  - Might enhance educational productivity through behavioral or role-modeling effects
- Throwing out of the managerial toolbox
  - Limited ability to manage attrition and workforce demographics
  - Loss of high-quality teachers to administration and non-teaching occupations

# Current Salary Structure Isn't Working Well

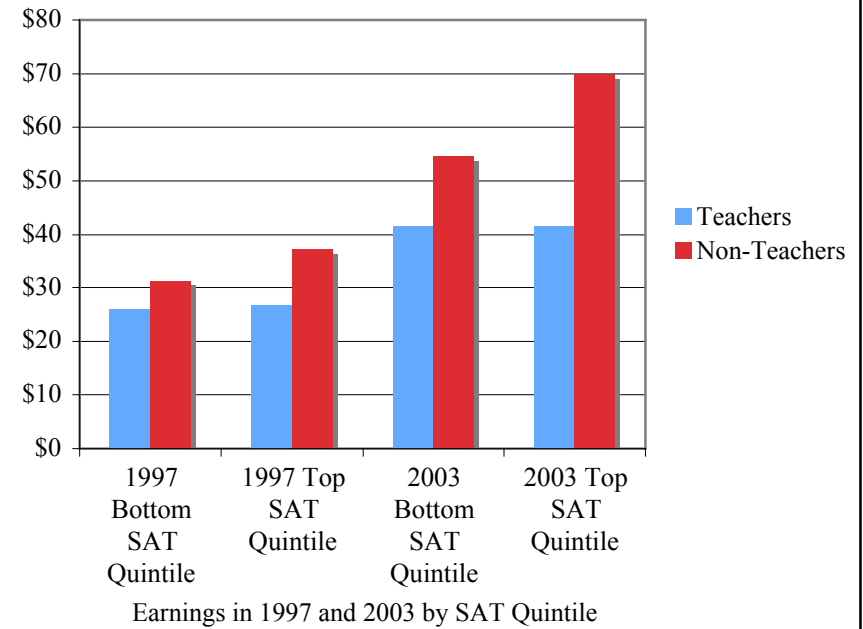
- To bring most academically proficient individuals into teaching
  - On average, teachers have:
    - Graduate from less-selective undergraduate institutions, have lower standardized test scores (Ballou, 1996; [Goldhaber and Liu, 2003](#); Hanushek and Pace, 1995), and require more remediation in college (U.S. Department of Education, 1996)
    - "College graduates with high test scores are less likely to take jobs, employed teachers are less likely to stay, and former teachers with high test scores are less likely to return" (Murnane, et al., 1991)
- To distribute teachers to disadvantaged classrooms
  - By any measure the most needy students generally end up being taught by the least-qualified teachers (Lankford et al., 2002; Loeb, 2000)

# The Financial Incentives Are "Messed Up"

**Figure 1: Returns to Major by**



**Figure 2: Returns to Ability by Occupation**



# Compensation Experiments Do Exist in Teaching

## Knowledge and Skills-Based Pay/Career Ladder

- NBPTS: National voluntary system for certifying teachers who meet high and rigorous standards of what accomplished teachers should know and be able to do

## Bonuses for Hard-to-Staff Subjects and Schools

- NC program for teachers of high-needs subjects (math/science) in high-poverty schools

## School-based Performance Awards

- South Carolina and Tennessee have experimented with awarding schools additional funding based on the performance of their students

## Individual Pay for Performance Awards

- HISD, and states such as Florida, Idaho, Minnesota, Mississippi, and Texas
  - all of which are either currently experimenting with a merit pay program, or about to launch one

## Hybrid Compensation Program

- Denver
- TAP: Teachers are compensated differentially based on the increased demands of the positions they hold, how well they perform in those positions, the quality of their instructional performance and by their students' achievement growth

# Compensation Reform Shows Promise

- Research findings show positive *student achievement* effects of merit pay
  - But, there is far too little empirical evidence to draw strong conclusions about specific designs
    - “[b]y and large, the school districts we examined did not succeed at implementing lasting, effective, monetary or non-monetary incentive plans, ones that had a demonstrated ability to improve student learning.”. Yet the study also acknowledges that “[v]ery few of the participating districts had attempted any systematic evaluation of the effects of their incentive plans on student achievement.” (Hatry et al., 1994)
- One school poverty incentive (“combat pay”) study shows that an \$1800 incentive reduced attrition at high-poverty schools by 12% (Clotfelter et al., 2004)

# But It's Clearly Not Simple

- More costly to administrate
- Technical challenges
  - Many aspects of teaching make it less amenable to salary differentiation, particularly in the form of merit pay, than other private sector occupations
    - Jobs are complex and multi-dimensional
    - Success is hard to measure
    - We don't want to discourage collaboration
  - How is teacher effectiveness judged (data requirements) and who are teachers compared against?
- Political (union and/or teacher) opposition
  - Teachers' unions, particularly the NEA, generally oppose departures from the single salary schedule
- School district politics and institutional inertia
  - When one school wins, another may be losing
  - Capacity to administer complex system
  - Safest thing is to do nothing

# Encouraging Reform & Avoiding Pitfalls

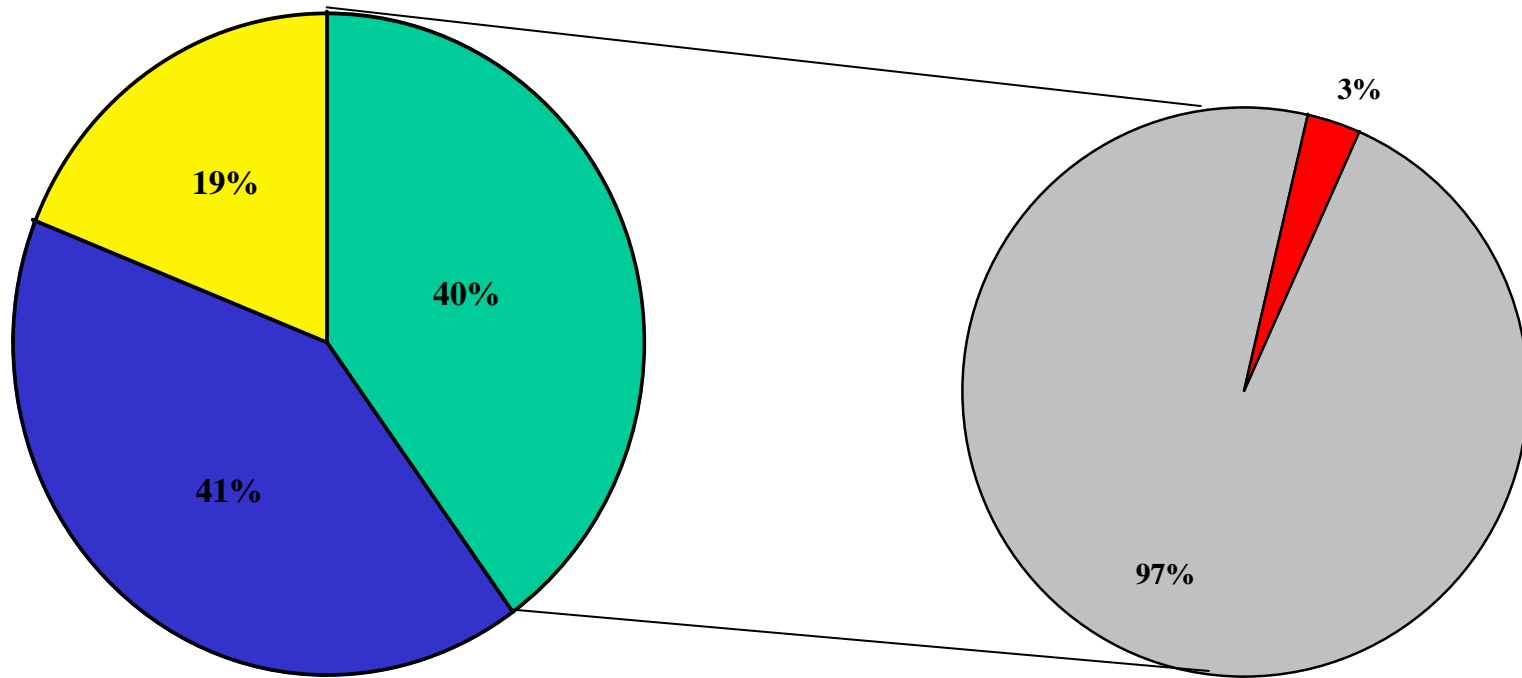
- Teacher pay reform is much more likely to be successful if the reform takes place at the state level
- States must make basic investments in their education data infrastructures
- More basic research is needed on the data and methodological requirements for using student achievement tests as a gauge of teacher effectiveness
- States and localities need to engage in a number of pay experiments

# Conclusions: It's the Devil You Know Versus the One That You Don't

- Strict adherence to the traditional single-salary schedule strips school districts of a key managerial tool
- State-level reform initiatives are more likely to be successful
- Human and data capacity issues are significant barriers to reform in most states
- Pay reform is a high-stakes endeavor
  - Rushing forward with reform is potentially costly, mistakes could greatly undercut the potential for this avenue of reform

# Hyperlink Slides

# Teacher Quality Appears to be Primarily “Unobservable”



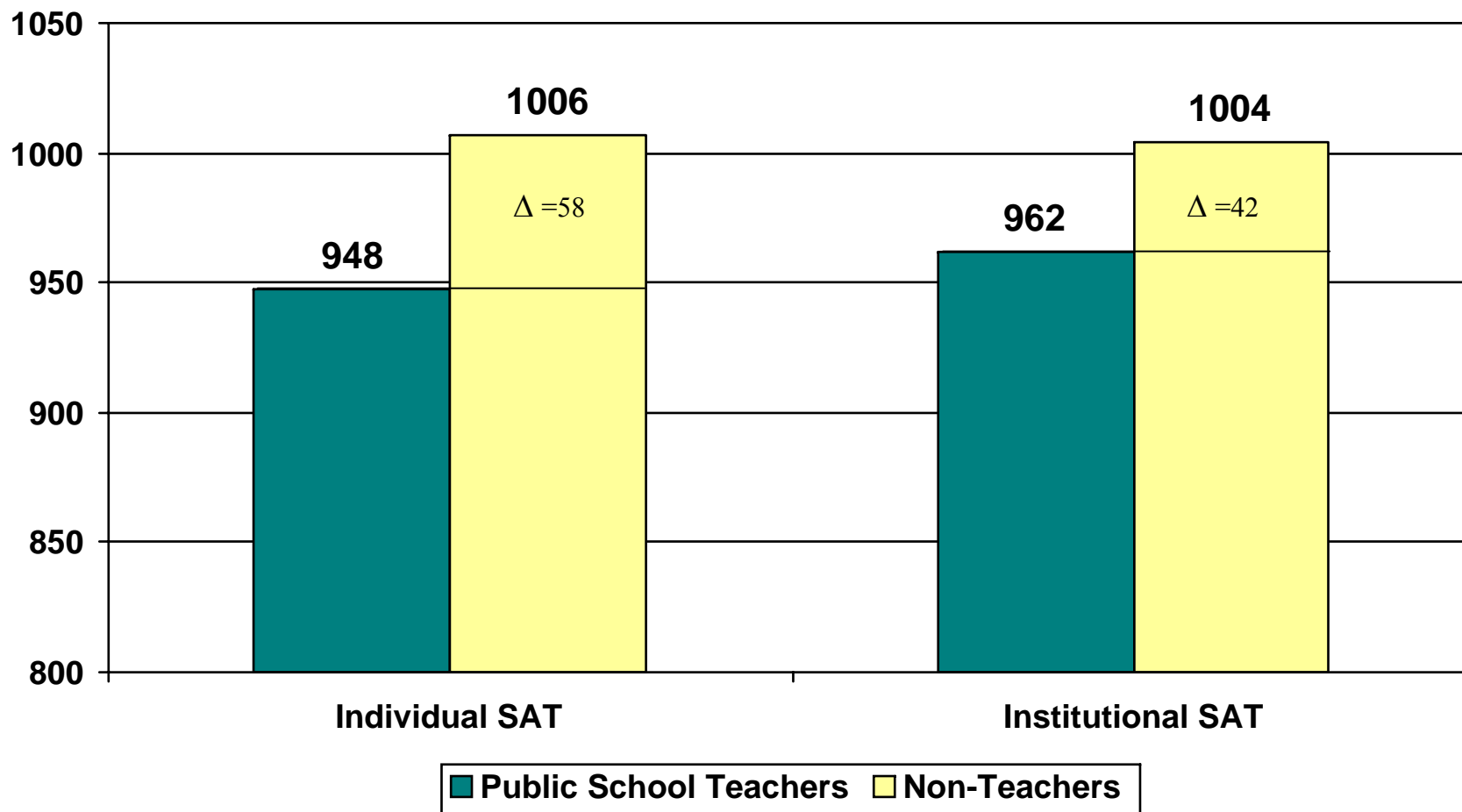
- Teacher-level variables
- School-level variables
- Class-level variables

- Less Tangible Aspects of Teacher Quality
- Easily Measurable Aspects of Teacher Quality

# Comparison of Teacher Effects in Math by Passing Status

QuickTime™ and a  
TIFF (Uncompressed) decompressor  
are needed to see this picture.

# Individual & Institutional SAT Scores



Source: *Baccalaureate and Beyond*

[back](#)

# Backup Slides

# What Would It Cost To Raise Teacher Salaries To That Of Other Professionals?

|                     | 1999<br>Average<br>Annual<br>Salary | % Increase<br>In Teacher<br>Salary | Total Necessary<br>Spending On<br>Education | Needed<br>Spending Per<br>Pupil |
|---------------------|-------------------------------------|------------------------------------|---|---------------------------------|
| Teacher             | \$48,689                            | --                                 | \$355 billion                               | \$6,508                         |
| Family<br>Physician | \$133,900                           | 175%                               | \$597 billion                               | \$12,734                        |
| Full<br>Professor   | \$78,830                            | 62%                                | \$441 billion                               | \$9,412                         |
| Attorney            | \$69,104                            | 42%                                | \$413 billion                               | \$8,826                         |
| Engineer            | \$68,294                            | 40%                                | \$411 billion                               | \$8,777                         |

Source: AFT Salary Survey  
2000

# Hybrid Alternative Salary Programs

## Teacher Advancement Program (TAP)

- Performance-Based Compensation: Teachers are compensated differentially based on the increased demands of the positions they hold, how well they perform in those positions, the quality of their instructional performance, and their students' achievement growth
- Cost: \$400/student (Milken Family Foundation: <http://www.mff.org/tap/tap.taf?page=faqs>)
- Multiple career paths, ongoing applied professional growth, and instructionally focused accountability

### *Participating States*

Arizona, South Carolina, Arkansas, Colorado, Florida, Sumter Co. Florida, Indiana, Louisiana, Minnesota

## Minnesota: Hybrid Program October, 2004

- TAP: Reward teachers for performance
- Higher pay for teachers who work in tough schools
- More power for schools to pick their own teachers and set budgets, easier ways for mid-career professionals to switch to teaching, alternative pathways to teacher licensure, evaluate new teacher preparation and improve coordination with local schools, & improve professional development and mentoring for new teachers

# Structure Outside Education

- Labor market differentially rewards skills and productivity
- Large differences in salary by occupation
- Important “recent” changes under the surface
  - Many occupations once closed off to women and minorities no longer are
  - Returns to college quality and technical college skills (degree major) have increased
    - There is an increasing return to graduating from a top college or university (Brewer et al., 1999)
    - There is an increase in the gap (in entry-level salaries) between education and technical majors (Grogger & Eide, 1995)