Teacher Education and the American Future



U.S. Outcomes in International Perspective

(8th Grade PISA Results in OECD Nations, 2006)

<u>Science</u>

Finland

Canada

Japan

New Zealand

Australia

Netherlands

Korea

Germany

United Kingdom

Math

Finland

Korea

Netherlands

Switzerland

Canada

Japan

New Zealand

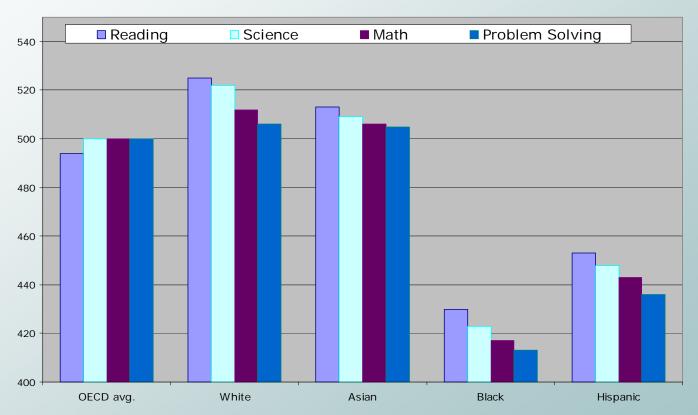
Belgium

Australia

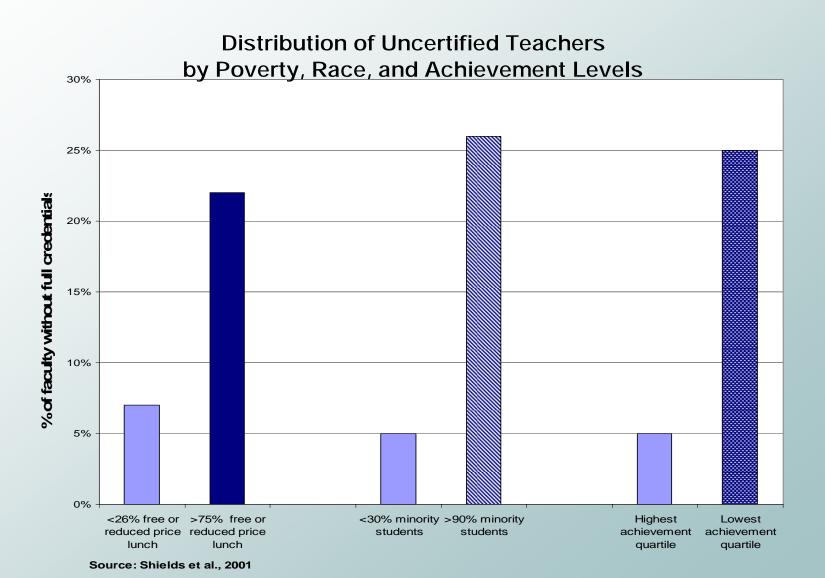
U.S. is # 21 / 30 OECD nations U.S. is #25 / 30 OECD nations #29 / 40 top nations #35 / 40 top nations

Inequality Influences Low US Rankings

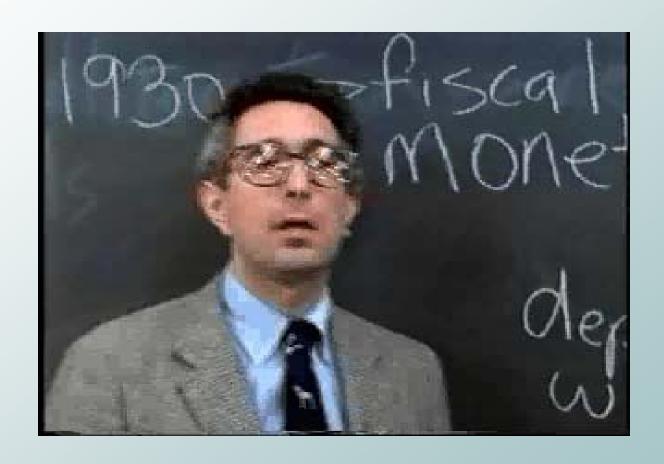
Figure 1
U.S. PISA Results, by Subgroup, Compared to OECD Average



Unequal Access to Qualified Teachers (California)



The Need for More Powerful Teaching



Effective Teachers...

- Engage students in active learning
- Use a wide variety of teaching strategies
- Create ambitious tasks
- Assess student learning continuously and adapt teaching to student needs



- Provide clear standards, constant feedback, and opportunities for revising work
- Work with colleagues to design and refine curriculum, instruction, and assessment

The Critical Importance of Teacher Knowledge & Skills

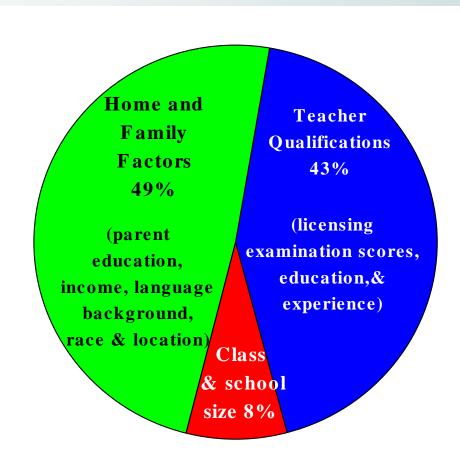
"What the evidence suggests most strongly is that teacher quality matters and should be a major focus of efforts to upgrade the quality of schooling. Skilled teachers are the most critical of all schooling inputs."

- Ronald Ferguson

"Paying for Public Education: New Evidence on How and Why Money Matters." *Harvard Journal of Legislation*, 28 (Summer 1991), pp. 465-498.

Influence of Teacher Qualifications on Student Achievement

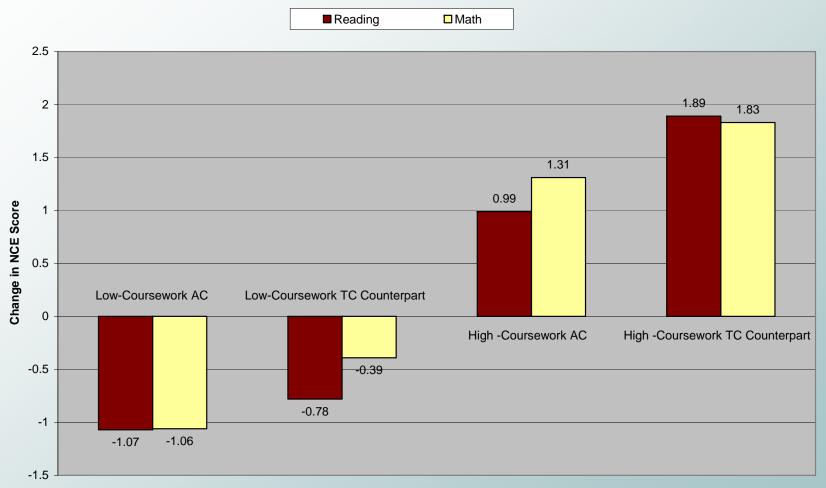
Gains in Math Achievement from 3rd to 5th Grade Due to:



Developed from data presented in Ronald F. Ferguson, Paying for Public Education: New Evidence of How and Why Money Matters, *Harvard Journal on Legislation*. 28 (Summer 1991): pp. 465-498.

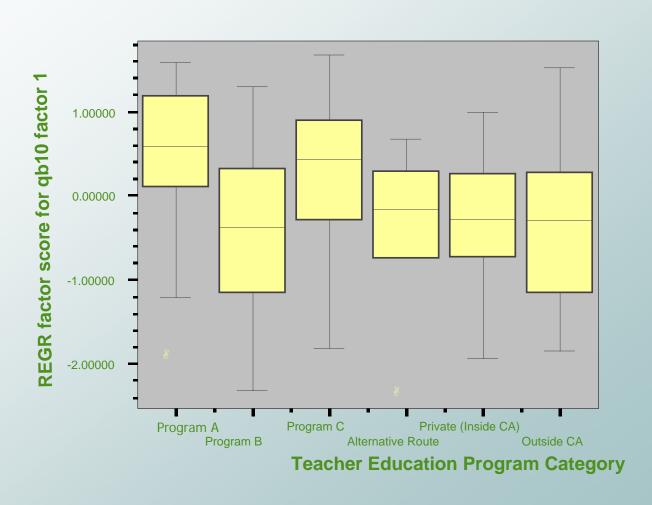
National Commission on Teaching & America's Future, Doing What Matters Most, 1997.

Fall-to-Spring Test Score Gains / Losses of Students Taught by Alternative Route and Traditional Route Teachers

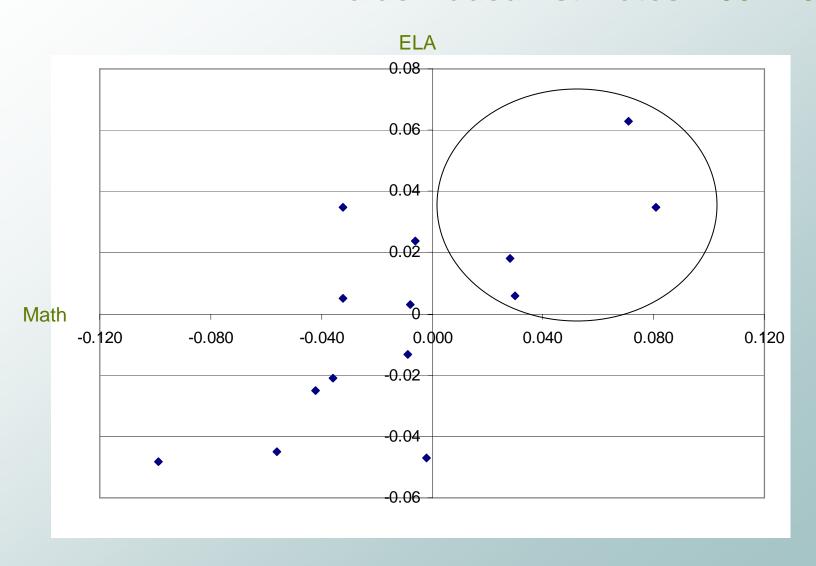


Based on actual (unadjusted) fall and spring scores

Feelings of Preparedness by Program Type



Program Effects on NYC New Teacher Value-Added Estimates 2001-2006

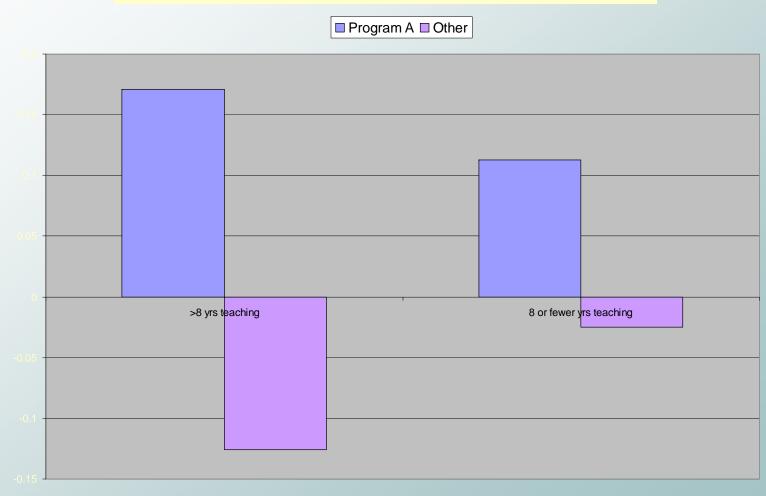


Program Features Influencing Value-Added Estimates of Teacher Effectiveness

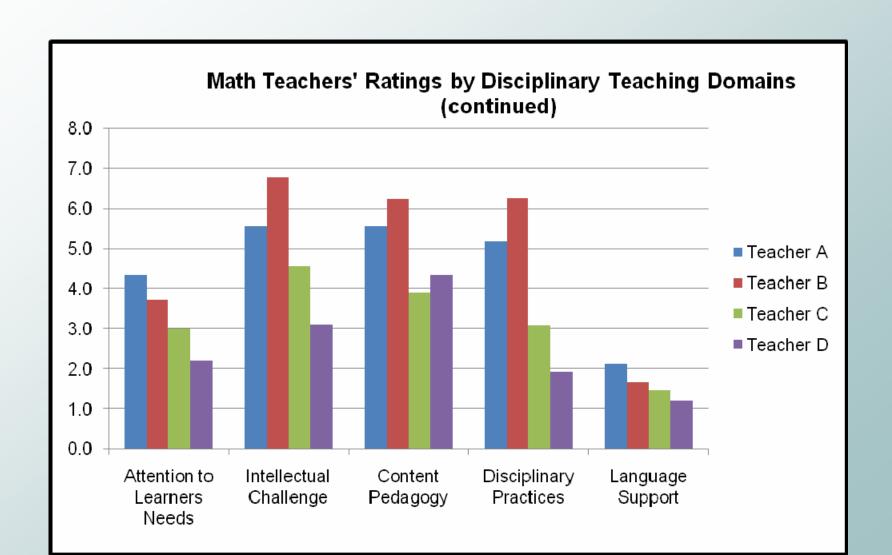
- Student teaching experience and match to 1st teaching assignment
- Control of clinical placements & quality of teaching
- Focus on learning specific practices and applying tools to clinical experience
- Content and content pedagogical courses
- Study of local district curriculum
- Capstone project
- Programs' percentage of tenure-line faculty, a possible proxy for institutional investment and program stability.

Program A Teachers Rank Higher in Value-Added "Effectiveness"

Mean effectiveness ratings, with student demographic controls & school fixed effects



"Effective" Teachers Exhibit Different Practices than Less Effective Teachers



Features of Exemplary Teacher Education Programs

- A tightly knit set of experiences based on a common, clear vision of good teaching
- Well-defined standards of practice and performance;
- A rigorous core curriculum with emphasis on student learning, assessment, and content pedagogy;
- Use of problem-based teaching methods including cases, action research, and portfolios;
- Extended clinical experience (30+ weeks) with expert veterans, linked to coursework, in partnership schools

