

NCLB and the Teacher Workforce

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Introduction

- No study that fully describes effects of NCLB on Teachers
 - Many facets of the law
 - Difficult to assess – implemented everywhere
- Instead
 - Effects of Accountability
 - Overall
 - Differential on teachers in low-performing schools
 - Effects of the Highly Qualified Teacher Provision

Motivation

- Why study teachers?
 - Influence on student learning
 - Large portion of spending
 - May give clues to students' opportunities
- Why study the effects of NCLB?
 - NCLB directly effects who teaches
 - Accountability may indirectly effect who teaches
 - Accountability may effect how teachers teach

The Effect of Accountability

- Surprisingly little research

- Interview and survey research show negatives
 - pressure to deliver high student test scores
 - imposition on professional autonomy
- Yet, some positives
 - opportunities for schools to focus on student learning
 - leverage to get rid of ineffective or distracting teachers
- Two studies to date, plus some available calculations, estimate the effects of accountability on teachers prior to NCLB

New York Study

Boyd, Lankford, Loeb, and Wyckoff (2006)

- Tracks introduction of 4th grade testing in 1998-99
- State administrative data
 - all 1st – 6th grade teachers 1994-2001
- Finds
 - turnover *lower* for 4th grade post reform
 - holds across urban status and student achievement groups
 - especially true for “high-ability” teachers
 - less true for more experienced teachers
- Comparing tested to non-tested grade not ideal
 - accountability could affect all grades
 - systemic effect may differ when all grades are tested

North Carolina Study

Clotfelter, Ladd, Vigdor, and Diaz (2004)

- **Tracks introduction of accountability in 1996-'97**
 - K-8 students tested each year,
 - Schools “exemplary”, “no recognition”, “low-performing” based on standard for growth and 50% at grade level.
 - Teachers in exemplary schools rewarded \$1500.
- **State administrative data**
 - elementary teachers 1994-2001
- **Finds**
 - teachers more likely to quit low-performing schools
 - difference increases post reform
 - no change in relative teachers characteristics
- **Comparing schools before and after reform not ideal**
 - low performing schools experience shocks more strongly

National Calculations

Cuhna and Loeb (2007)

- Schools and Staffing Surveys
 - '93-'94, '99-'00
- Turnover did not differentially grow in states that implemented strong accountability states
- Disagreement with reform does not appear to explain very much attrition
 - of the 14.6% of teachers left their school between '00 and '01, only 1% indicated that disagreement was very or extremely important in decision to leave,
 - rate no higher in states with strong accountability
- Again, not ideal
 - low power for looking at changes

Summary

- Evidence both sparse and mixed
- Accountability appears to have little effect on attrition overall
 - across urban status and student characteristics
- May increase turnover in schools characterized as low-performing schools
- On the other hand, potential positive effect as it draws attention to targeted positions
- Effects likely dependent on the details of the system.

Highly Qualified Teacher Provision

- NCLB required HQT for all students by 2006.
- States had substantial flexibility in defining HQT
- By end of 2006 all but 4 states had acceptable plans (late)
- Has the HQT provision affected teacher quality?

Prior to NCLB

- Vast majority of teachers certified
 - 94%
 - 22 States subject knowledge and subject-specific pedagogy exams
 - substantial differences across States in certification requirements
- Yet some districts had dramatically fewer certified teachers
 - LA had 28% emergency certified
- Using years of experience, test scores, or certification, as measures of qualifications, teachers in high-poverty, low-performing schools less qualified
 - 28% of NYC teachers in highest poverty quartile in first 2 years compared with 15% in lowest poverty quartile

Qualifications \neq Quality

- Weak relationship between teacher effectiveness and the typically-measured characteristics of teachers.
- New data allows “value-added” analyses
 - teachers vary a lot in effectiveness
 - teachers improve during their first few years
 - additional years of education do not appear to add to effectiveness
 - some effects of test performance
 - some effects of certification, but don't know what aspects
 - more variation within categories than between them
- Therefore, don't know whether the distribution on measured characteristics reflects quality
- Likely does reflect appeal (wages, conditions, location or differentially effective hiring)

The Highly Qualified Teacher Provision

- Intent (at least nominally)
 - ensure all students had good teachers
 - encourage equity in teacher quality
 - give states flexibility in determining how to implement the provision.
- Defining Highly Qualified
 - weak research base
 - used professional consensus and State policy process (also use State infrastructure)
 - makes sense
- Defines HQT as:
 - fully State-certified
 - holding a bachelor's degree
 - demonstrating competency in the core academic subject or subjects he or she teaches (multiple options)
 - all teachers have the option of passing a State exam
 - middle and secondary teachers may complete an undergraduate or graduate degree in their field or advanced certification or credential
 - all veteran teachers also have the option of completing a High Objective Uniform State Standard of Evaluation (HOUSSE)

HOUSSE Requirements

- Set by the State for grade appropriate academic subject-matter knowledge and teaching skills;
- Aligned with State academic content and student academic achievement standards and developed in consultation with core content specialists, teachers, principals, and school administrators;
- Able to provide objective, coherent information about the teacher's attainment of core content knowledge;
- Applied uniformly to all teachers in same academic subject and grade;
- Take into consideration, but not be based primarily on, the time the teacher has been teaching in the subject;
- Made available to the public upon request; and
- Involve multiple, objective measures of teacher competency

Flexible and input focused
States took full advantage of flexibility

Great Variation in HQ Definition

- **Example: coursework required for a major.**
 - Middle and secondary school teachers can demonstrate subject-matter competency with either an undergraduate major or coursework equivalent to a major
 - only 12 credit hours in South Dakota to 46 semester hours for composite majors, like elementary education, in Utah.
- **Example: HOUSSE procedures**
 - States differ in the maximum weight for teaching experience from 24% in Ohio to 60% in Illinois
- **Could these variable requirements have had any effect on teachers or teaching?**

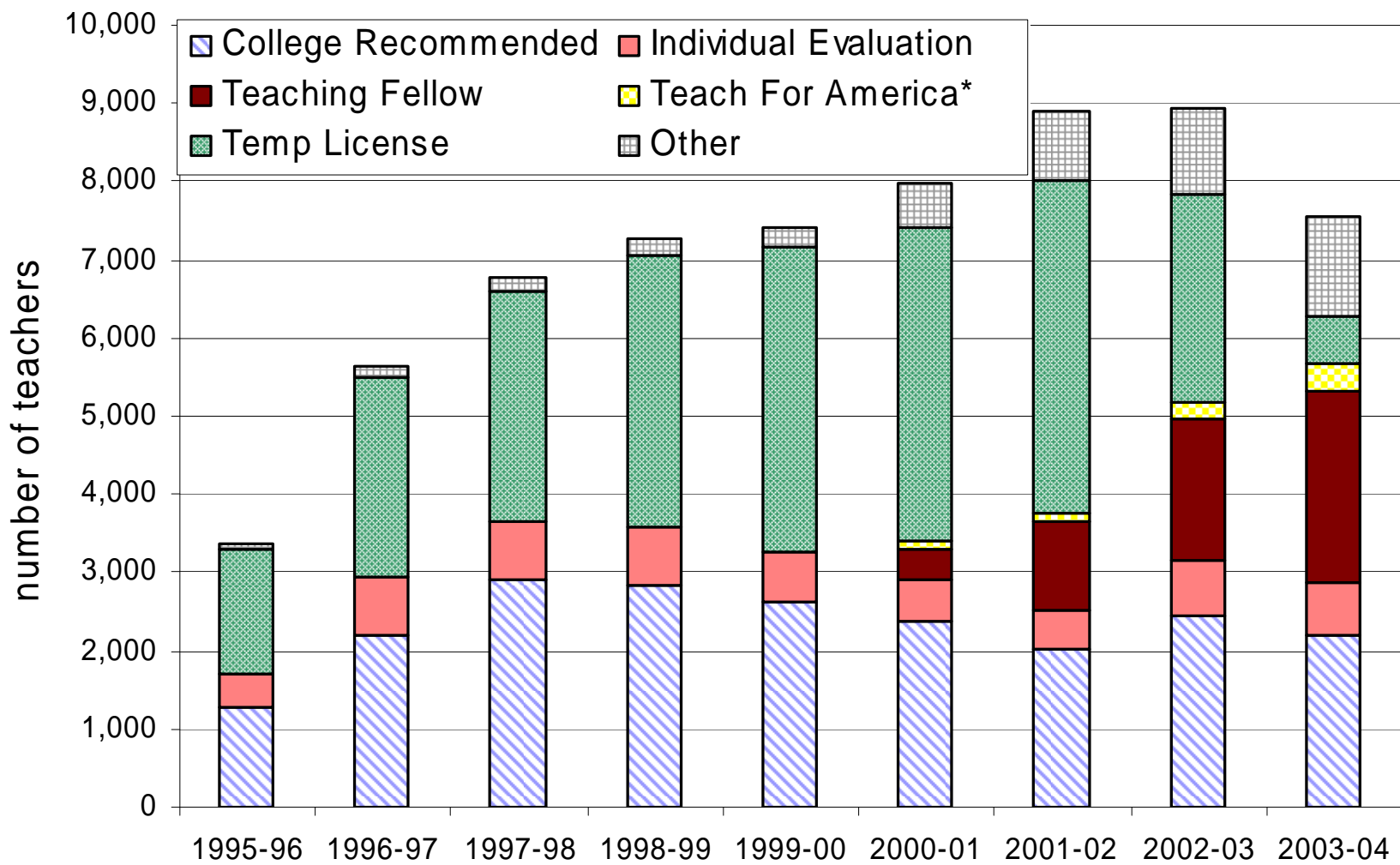
Suggested Evidence of Effects on New Teachers (though may not be causal)

- Shift from emergency permits to alternative-routes
 - California
 - not fully credentialed fell from over 42,000 in 2000-01 to around 20,000 in 2004-05 and eliminated emergency permits altogether in July 2006
 - University Intern Credentials (one of several alternative-route certificates) has increased from roughly 3,700 in 2001-02 to about 6,200 in 2003-04
 - The difference
 - both alternative-routes and emergency credentials have less pre-service training than traditional certification routes
 - alternative-route teachers demonstrate subject-matter competency before entering the classroom
 - NYC
 - alternative route teachers have stronger academic backgrounds. 6% of newly hired alternative-route teachers failed the LAST exam, compared to 16% of newly hired traditional-route and 33% of uncertified teachers
- At least some, indication of changes in the distribution of teachers across schools since the passage of NCLB

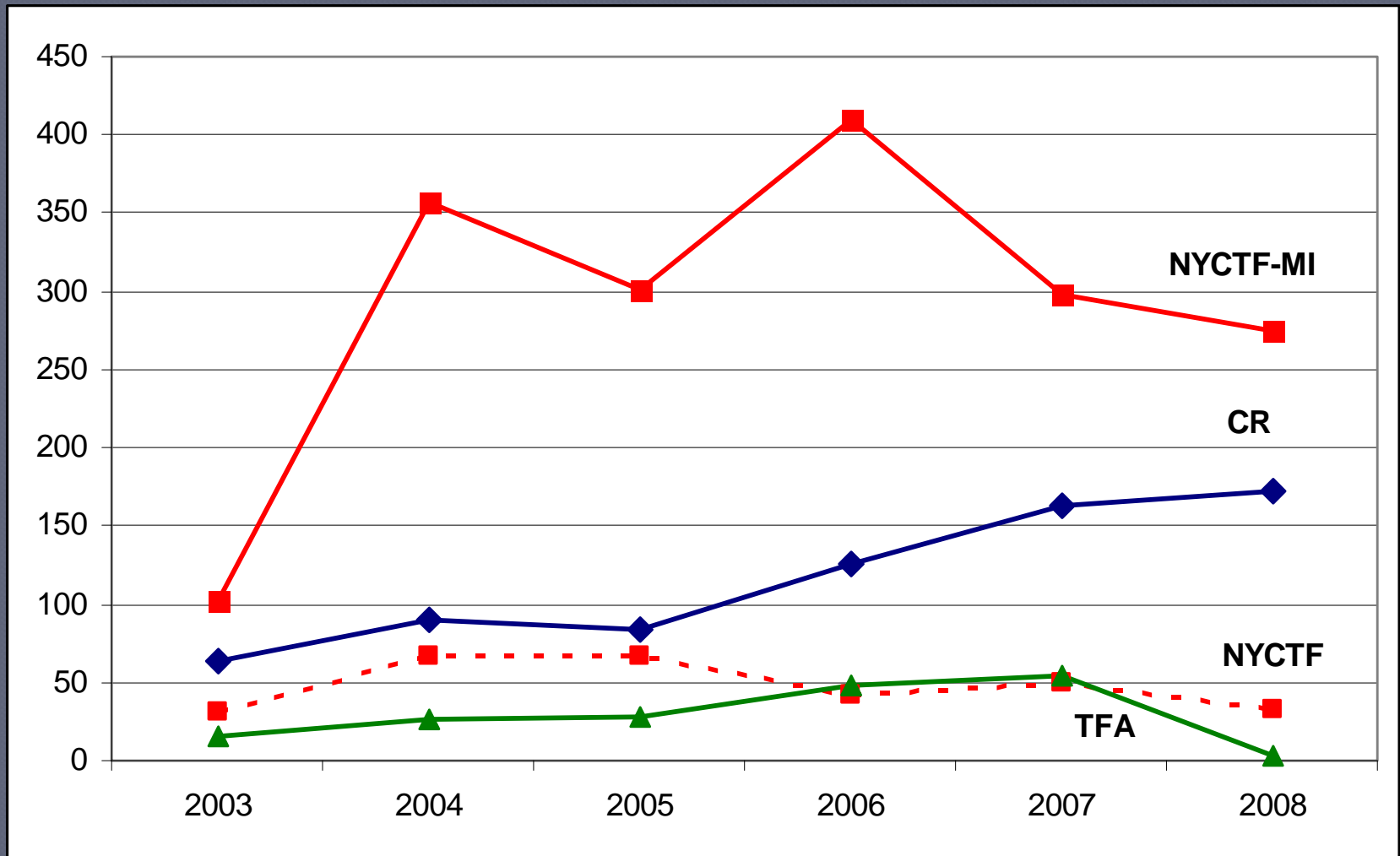
NYC Example

- Multiple policy changes
 - in 2000 the NYS Regents created alternative certification routes
 - in 2000 the NYC Department of Education created its first cohort of Teaching Fellows
 - Highly Qualified Teacher Provision of NCLB 2001
 - effective September 2003, NYS Regents eliminated temporary licenses for uncertified teachers with very limited exceptions
 - between 2000 and 2003 starting salaries in NYC increased from \$33,186 to \$39,000

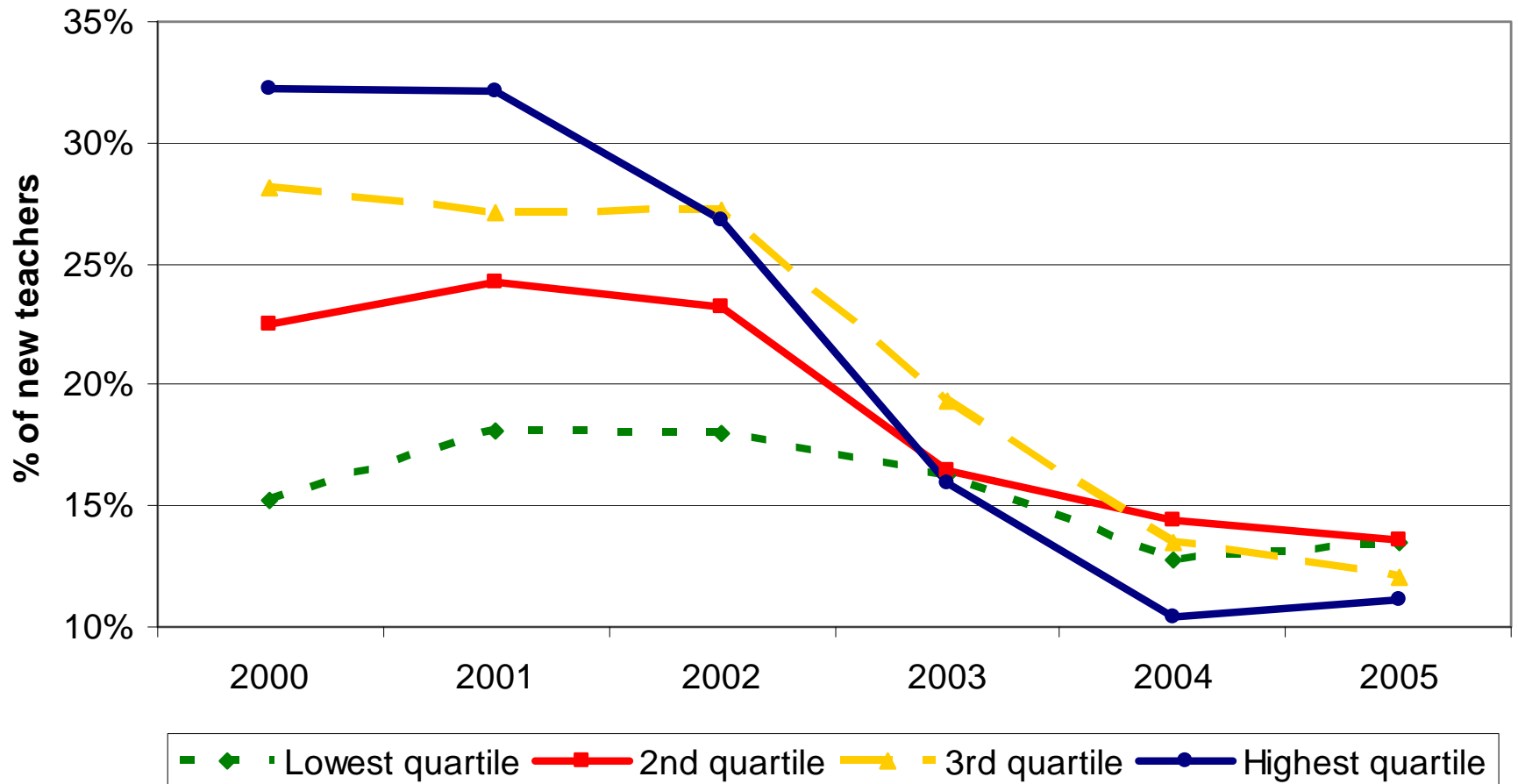
New NYC Teachers by Pathway



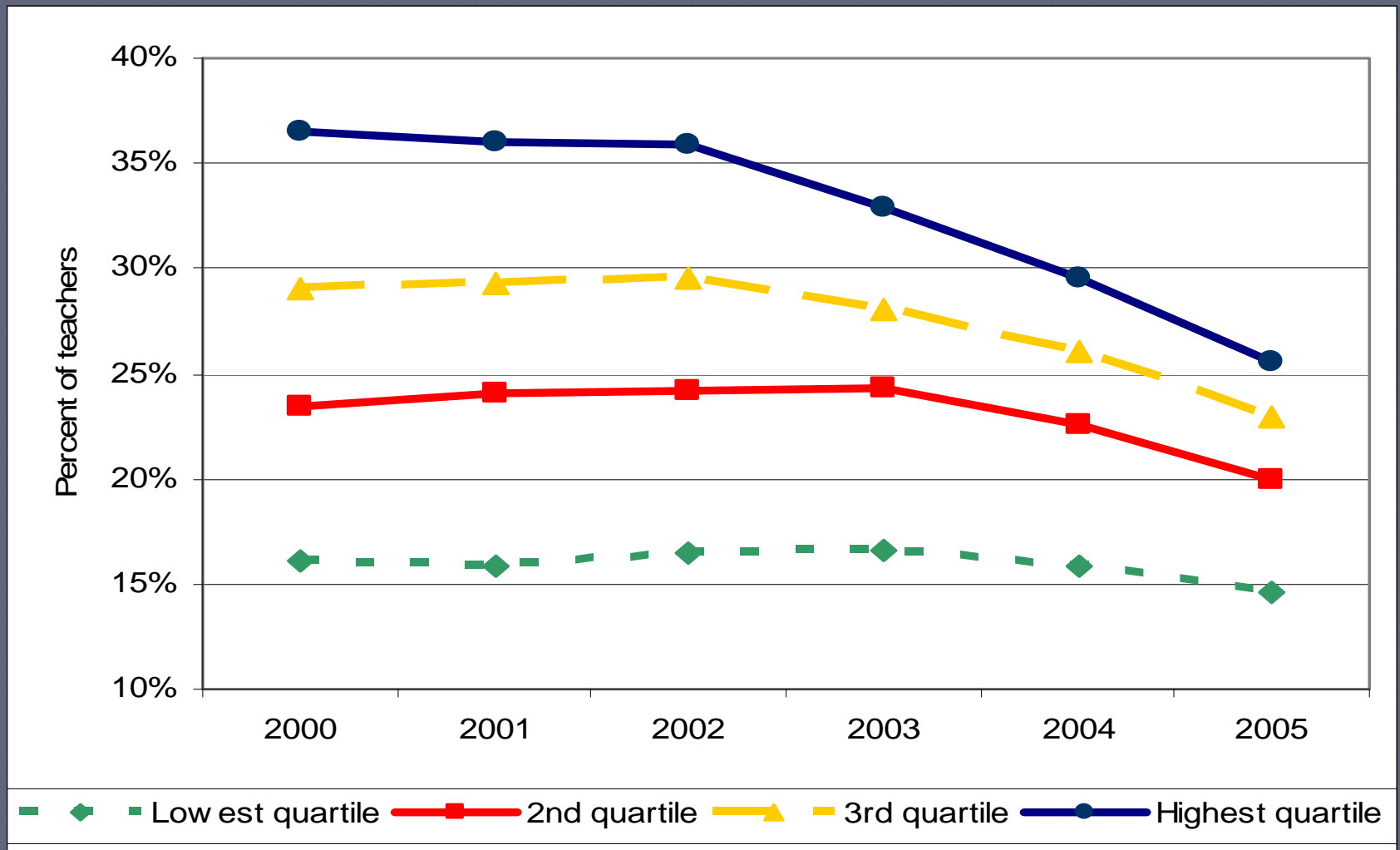
Even More Dramatic for Math Certified Teachers by Pathway, 2002-2008



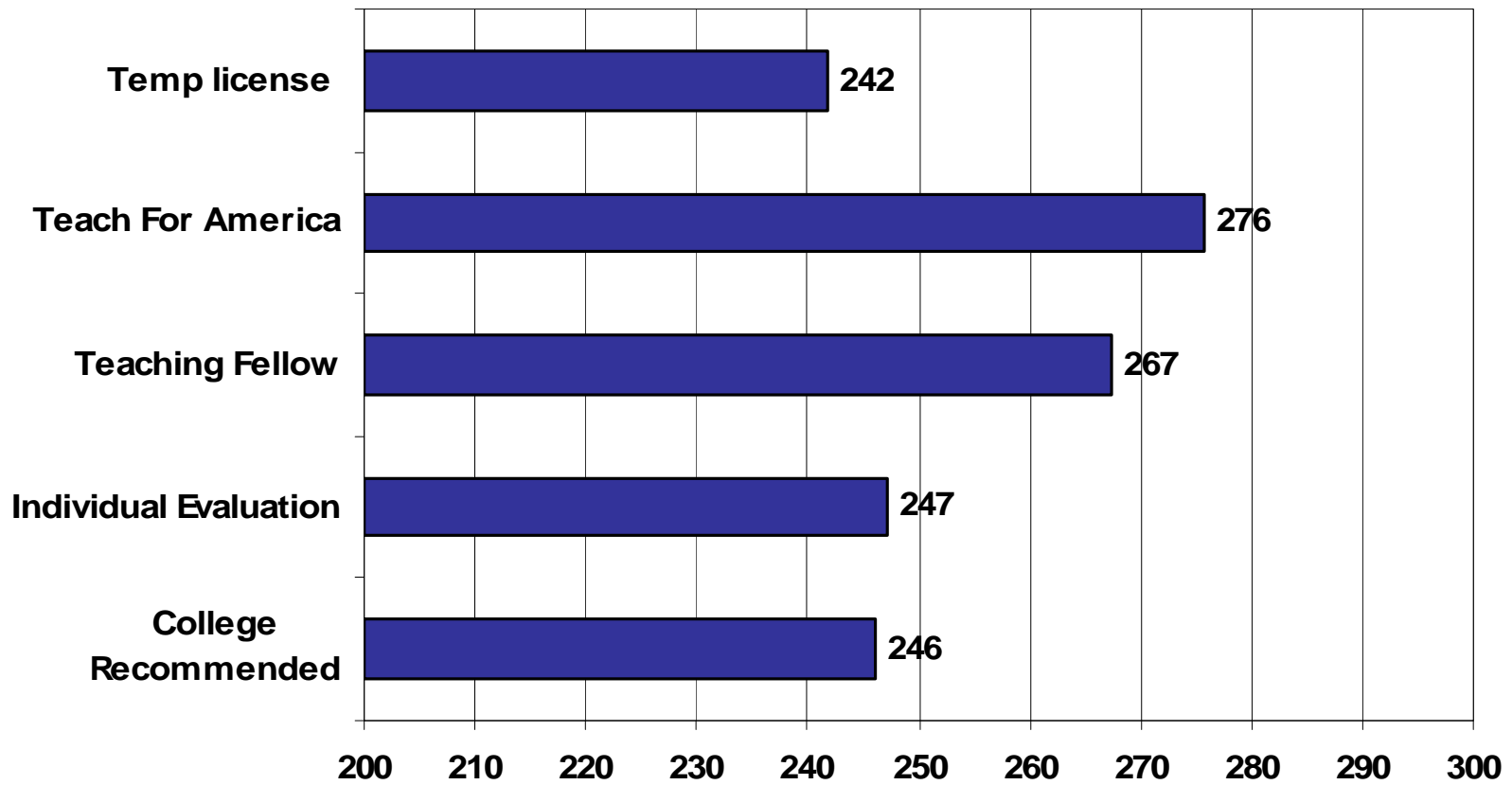
% New Teachers Who Failed the LAST Exam



% Teachers Who Failed the LAST Exam



Average Cert Exam Scores, (2004; Passing= 220,SD=~30)



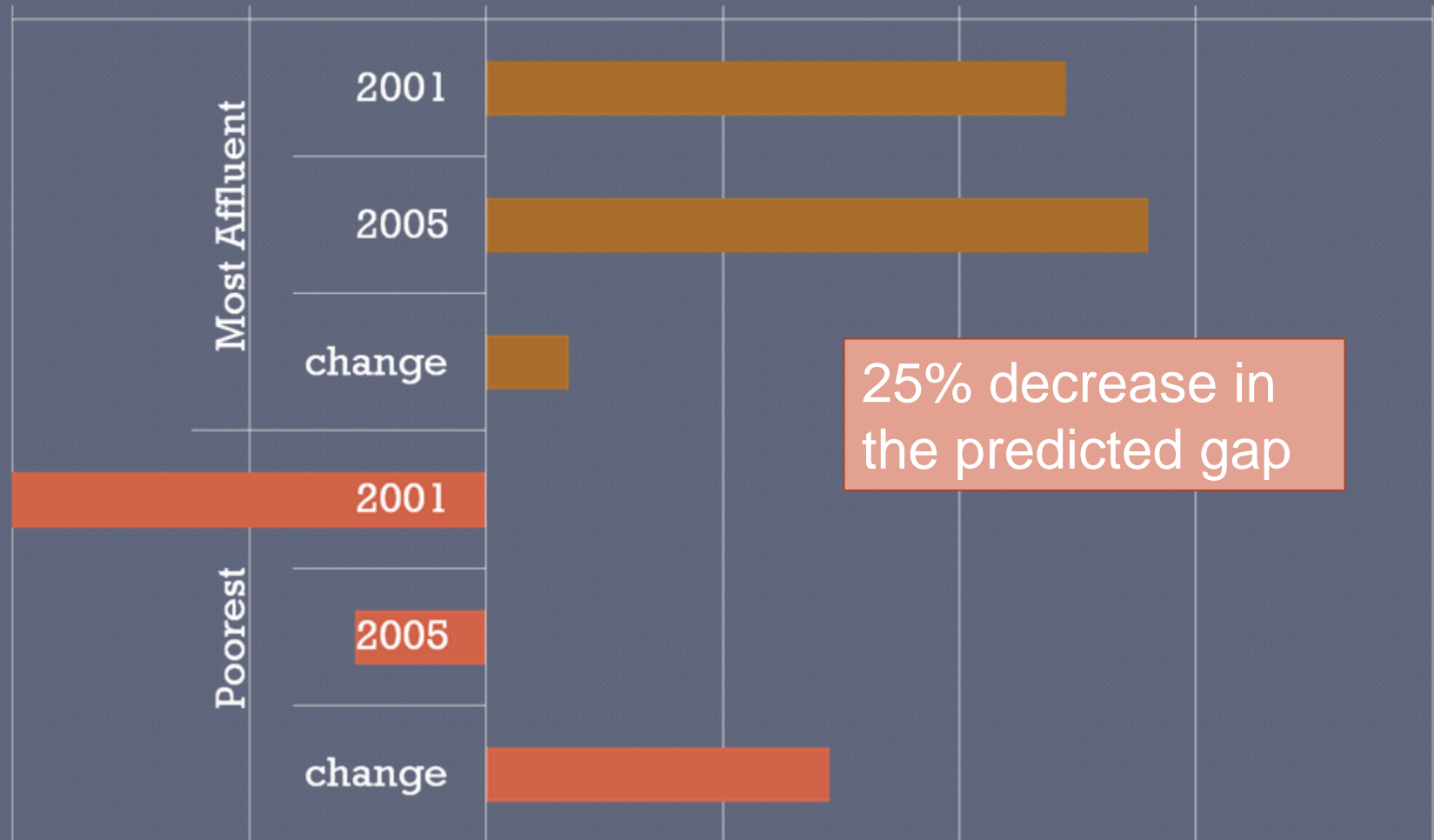
Estimated the Value-Added of Each Teacher from Characteristics

Teachers in Poorest 25% of Schools by Estimated Effectiveness

VA 5th	Mean VA	LAST Pass	No Cert	LAST Score	Math SAT	Verb. SAT	Barrons			
							Most Comp.	Comp.	Less Comp.	Not Comp.
1	-0.068	0.460	0.731	227	355	440	0.036	0.065	0.548	0.351
2	-0.032	0.656	0.141	239	414	467	0.052	0.069	0.539	0.340
3	-0.010	0.779	0.076	245	423	462	0.094	0.130	0.440	0.336
4	0.010	0.851	0.031	252	450	470	0.156	0.196	0.374	0.274
5	0.045	0.908	0.013	254	512	474	0.245	0.249	0.354	0.152
Δ	0.113	0.448	-0.718	27	157	34	0.208	0.184	-0.193	-0.199

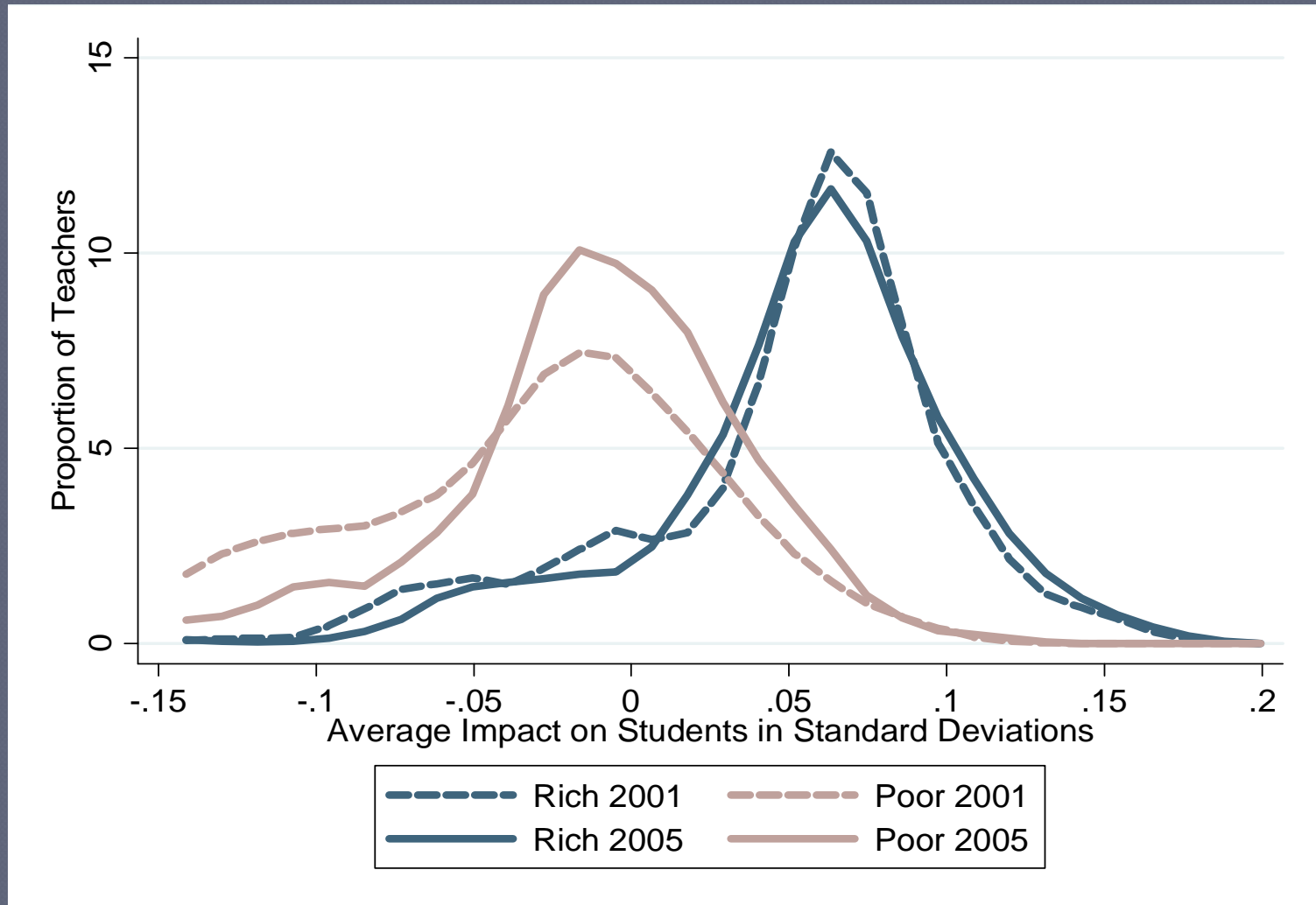
Effect of Observed Characteristics on Math

-0.04 -0.02 0 0.02 0.04 0.06 0.08



25% decrease in the predicted gap

Changes in Grades 4 & 5 Math Attributable to Teacher Qualifications



In Summary, Effects of NCLB Mixed

○ HQTP

- Appears to have affected NEW teachers
 - Replaced temporary/emergency certified teachers with alternatively certified teachers in large urban districts
 - Reduced disparities across schools in urban areas
- Very weak instrument for ensuring quality
 - No discernable effect on experienced teachers
 - Even for new teachers affect limited to removing the most unqualified

○ Accountability more generally

- not across-the-board negative
- low performing schools may loose teachers
- likely most positive if used as lever for improvement and equalizations

Potential for NCLB to Influence Teacher Workforce

- Fed unlikely to have infrastructure to insure quality
 - teaching quality largely in hands of states, districts and schools
 - Fed policy works through incentives
 - recent improvements in information facilitates more effective targeting and learning about how to build capacity.
- HQTP
 - focuses on certification defined by states
 - measured characteristics capture some quality differences and can be used to improve teacher recruitment and selection
 - certification will never capture most of the variation in teacher effectiveness (at best, it is just a floor)
- Improvement (other than at the very low end) requires policies and practices to enhance:
 - the appeal of teaching in traditionally difficult-to-staff schools
 - the recognition of excellence and of need for improvement
 - the development of teaching skills
 - the skills and freedom of schools to select and retain effective teachers
- Accountability may provide leverage for this, if not outweighed by the potential dissatisfaction of recognized school failure