FINDERS KEEPERS:
recruiting, preparing, and retaining
the best teachers for NYC schools

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Leading Matters
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Teachers Matter

- Teachers represent the most important factor in raising student achievement

- Enduring policy question: how do we recruit, prepare, and retain excellent teachers for all children?
Overview of Talk

• Recruiting, preparing, and retaining effective teachers for New York City schools

• Measuring and improving the quality of instruction
The starting place: year 2000
Unequal Distribution

teacher attributes by student test scores
(New York State, in 2000)
Little Enforcement of State Policy

Not Certified in Any Assignment

- State-wide
- Lowest 5%
- Highest 25%
Little Recruitment

- Teacher education programs
  - little outreach
  - rarely selective
- Difficult-to-staff districts
  - recruited certified teachers
  - little school-level control
  - late hiring (July and August)
  - often relied on waivers
a bit of innovation and reform
Direct Recruitment

- Teach for America - 1990
- The New Teacher Project – 1997
- UTeach
- The Boston Residency Program
Change in Accountability

- State requirements no longer based solely on compliance (inputs)
- Standardized tests used for accountability instead of just to inform parents or for student opportunities (e.g. NY regents)
- Started in the states but moved to Federal with NCLB – increased emphasis on subgroups (and teacher quality).
Highly Qualified Teacher

• Intent - all students have a good teachers and equity in teacher quality

• State flexibility

• Weak research base for defining HQ – use professional consensus & State policy process

• defines HQT as: (1) fully State-certified; (2) holding a bachelor’s degree; (3) demonstrating competency in the core academic subject or subjects he or she teaches – multiple options
Highly Qualified Teacher

• 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)
Implications
Certification Exam Failure Rate of Elementary Teachers, 2000-'05

High-poverty schools

Low-poverty schools

Percent of teachers

Low est quartile 2nd quartile 3rd quartile Highest quartile

2000 2001 2002 2003 2004 2005
Certification Exam Failure Rate of Elementary Teachers, 2000-'05

High-poverty schools

Low-poverty schools

Percent of teachers

Lowest quartile 2nd quartile 3rd quartile Highest quartile
Just New Teachers, 2000-’05

- High-poverty schools
- Low-poverty schools

% of new teachers

- Lowest quartile
- 2nd quartile
- 3rd quartile
- Highest quartile
Effect of changes in teacher characteristics on student math scores

- 0.04 - 0.02 0 0.02 0.04 0.06 0.08

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2005</th>
<th>change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most Affluent</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Poorest</td>
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</table>

25% decrease in the predicted gap
Changes in Grades 4th & 5th Math Scores Due to Teacher Qualifications

Average Impact on Students in Standard Deviations

Proportion of Teachers

Rich 2001
Poor 2001
Rich 2005
Poor 2005
Implications

• A dramatic change in who teaches

• A small but meaningful change in student outcomes

• Point to the Importance of direct recruitment, selection, and reasonable qualifications

• Still large variation across teachers from the same pathway or with the same test score in effectiveness
Assuming variation in effectiveness of entrants

- Quality of teacher preparation and support
  - Impact of specific features of teacher education
    - Quality of clinical experiences
    - Opportunities to learn the work of teaching
- Strategic Retention
  - Aim to retain more effective teachers
Teacher Retention

Varies meaningfully across schools

Who leaves?
- teachers with stronger pre-service qualifications
- less effective teachers as measured by value-added

Who do schools hire?
- teachers with stronger pre-service qualifications
- more effective teachers as measured by value-added
Why do teachers leave?

The chart shows the reasons why teachers leave, categorized into three groups: College Recommended (N=156), Teaching Fellows (N=36), and Other (N=114). The reasons include:

- Closer Home
- Place
- Salary
- Prestige
- Benefits
- Job Security
- Pregnancy/Child
- Health
- Family/Personal
- School Actions
- Opportunity
- Dissatisfaction

The percentages for each category are displayed on the y-axis, with the highest reason being Dissatisfaction, followed by Pay and Prestige.
Important Role of Leadership

- College Recommended (N=150)
- Teaching Fellows (N=35)
- Other (N=112)

Bar chart showing the percentage distribution across different categories such as Assignment, Facilities, Safety, Admin, Behavior, Colleagues, Teaching Philosophy, Autonomy, Testing, District Policy, Respect, and Own Ability.
Effective Principals

• Do not necessarily have lower turnover

• Keep the most effective teachers

• Encourage the least effective teachers to leave

• Also support teachers for improvement...
Identifying the components of highly effective teaching

• What do effective teachers know?
• What goes on in the classrooms of effective teachers?
• Use this knowledge both to prepare and support teachers
How has each student come up with this answer? What is the logic underlying the mistake?

<table>
<thead>
<tr>
<th>Student A</th>
<th>Student B</th>
<th>Student C</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>49</td>
<td>49</td>
</tr>
<tr>
<td>x 25</td>
<td>x 25</td>
<td>x 25</td>
</tr>
<tr>
<td>405</td>
<td>225</td>
<td>1250</td>
</tr>
<tr>
<td>108</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>1485</td>
<td>325</td>
<td>25</td>
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<tr>
<td></td>
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<td>1275</td>
</tr>
</tbody>
</table>
What do effective teachers know?

- Teachers as connoisseurs of error
- Measures of teacher knowledge
  - Mathematical Knowledge for Teaching (MKT)
Invest in development of pedagogical skill

- Identify practices of highly effective teachers
- Study of instruction in middle school classrooms in New York city
  - 12 teachers in the 4th quartile
  - 12 teachers in the 2nd quartile
  - Pairs of teachers in the same schools
What does good teaching look like?
How would you describe the teaching in this clip?
Using a tool to rate instruction

• Provides a common technical vocabulary for describing instruction

• Provides consistent lens for looking at instruction

• Allows for rating teachers across different components of instruction

• Allows us to compare quality of instruction across classrooms
PLATO (Protocol for Language Arts Teaching Observation)

- **Purpose**
- Intellectual challenge
- Representations of content
- **Connections to prior knowledge**
- Connections to personal/cultural experience
- **Models/Modeling**

- **Explicit strategy instruction**
- Guided practice
- Classroom discourse
- Text-based instruction
- Accommodations for language learning
- Classroom environment
**EXPlicit STRATEGY INSTRUCTION**

The element of *Explicit Strategy Instruction* focuses on the teacher's ability to teach strategies that are connected to learning to read, write, speak, listen, and engage with literature. ELA strategies include, for example, how to read for meaning, how to generate ideas for writing, and how to figure out the meaning of unfamiliar words. The teacher can use a variety of methods for teaching explicit strategies, including modeling strategies, providing opportunities for guided practice, etc. At the high end students have the opportunity to develop a repertoire of strategies that they can use flexibly and independently, depending on their purpose. At the low end, where strategy instruction is minimal or insufficient, students often appear stuck.

<table>
<thead>
<tr>
<th>1 Provides almost no evidence</th>
<th>2 Provides limited evidence</th>
<th>3 Provides evidence with some weaknesses</th>
<th>4 Provides consistent strong evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explicit Strategy Instruction</td>
<td>Teacher does not provide explicit instruction about strategies.</td>
<td>Teacher introduces a strategy, but provides limited instruction about how, when, and why to use it. The strategy itself is not clearly linked to the goal of the lesson.</td>
<td>Teacher provides explicit instruction about a strategy and how, when, and why to use it. However, either the strategy is not clearly linked to the goal of the lesson, or instruction may be inconsistent or insufficient for students to implement strategies independently.</td>
</tr>
<tr>
<td>Prompting of Strategies and Student Use of Strategies</td>
<td>Teacher does not identify or prompt students to use a strategy. Students do not appear to be using strategies.</td>
<td>Teacher occasionally identifies and/or prompts students to use a single strategy, but the strategy is not clearly linked to the goals of the lesson. Students do not appear to be using strategies.</td>
<td>Teacher consistently identifies and prompts students to use either a single strategy or multiple strategies, but she may not make explicit how the strategy is linked to the goals of the lesson. Students appear to use strategies when prompted.</td>
</tr>
<tr>
<td></td>
<td>Teacher provides instruction about a range of strategies, or detailed instruction about a single strategy, including when and why to use them, and the strategies are clearly linked to the goals of the lesson. The instruction is sufficient for students to implement strategies independently.</td>
<td></td>
<td>Teacher consistently identifies and prompts students to use either a single strategy or range of strategies that clearly facilitate the goals of the lesson. Students appear to use strategies without prompting.</td>
</tr>
</tbody>
</table>
Future of PLATO

• Adopted in large-scale studies of teaching
  • Educational Testing Service
  • Teach for America
  • Gates-funded study

• Development of tools for coaching and professional development
A Quick Summary

- Lots of interesting changes in the past 9 years
- Unlike some changes, these seem to have penetrated into classrooms
- Lots of current reform efforts
  - Emphasis on standardized test scores as sole outcome
  - More emphasis on local decision making
- Need to build capacity both within and outside the classroom
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