Texas School Finance Commission

School Finance and School Outcomes:
The Role of Incentives

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February 22, 2018
Overview

• School finance is policy
• If interested in student achievement, need to focus on student achievement
• Outcomes are economically very important
• Teacher and administrator effectiveness is key
• Cannot regulate way to better outcomes

*How money is spent is more important than how much is spent*
Improved schools have a large payoff

- Texas has done well
  - More local decision making
  - Strong and early accountability
  - Less regulation
  - Lower union impediments
- Texas has slipped some in recent years
- Economic gains from improvement very large
Economic growth follows good schools

Growth in GDP/pop over 1970-2010 for states as related to math skills and conditional on income levels in 1970
Texas has room to improve

TX is at 36th Percentile of the MA Distribution on NAEP 8th grade math in 2015
The future of Texas depends on skills of the population

- Texas keeps its students
- Projection: TX to MA means
  - Average 7.3% greater GDP
  - Present value of almost 3.5 times GDP
- Competition is international
  - Texas is ahead of Portugal but behind Poland
  - Gains from reaching Canada much larger
How money is spent is more important than how much is spent
Research shows teacher effectiveness is the most important factor of schools

• Substantial variation in teacher quality
• Observable characteristics of teachers explain little
• Salary and other factors affect teacher transitions
• Limited linkage between salaries and teacher quality
Increasing all salaries is not the answer

- Salaries unrelated to effectiveness
- Teachers do not have excessively high turnover
- Keeping more teachers does not change overall quality
Highly effective teachers yield large gains

(Increase in student earnings compared with average teacher)

![Graph showing the relationship between class size and increase in student earnings for 75th percentile teachers. The graph indicates that as class size increases, the increase in student earnings also increases, with a notable gain of $430,000 at a class size of approximately 30 students.)
Ineffective teachers yield large harm
(decrease in student earnings compared with average teacher)
Personnel policies linked to performance have huge payoffs

- Moving 5-10 percent of least effective teachers to *average* has dramatic effects
- Texas would move to top of international achievement distribution
- Reaching Finland implies average *nine percent* higher GDP
Dallas has radically revised evaluation and pay of personnel

- Sophisticated principal evaluations
  - Supervisor ratings
  - Student achievement gains
  - Parental surveys
  - Reliability of teacher evaluations
- Sophisticated teacher evaluations
  - Supervisor ratings
  - Student achievement gains
  - Student surveys
- Use evaluations in pay and personnel decisions
DISD has focused on student outcomes

- Would ratings suffer in most disadvantaged schools?
- Can we improve the bottom schools?
- DISD links effective personnel with most needy schools
**DISD Accelerating Campus Excellence (ACE) Schools Program**

- Define chronically low-achieving among most disadvantaged (Tier 1) schools
- Program size
  - 7 schools for 2016
  - 13 schools for 2017
- Purposeful placement of effective principals in these campuses
- Existing teaching staff reassigned
Design performance-based incentives to work in an ACE Schools

- $2,000 signing bonuses plus annual stipends depending on position and evaluation rating
  - Principals - $13,000
  - Assistant principals - $11,500
  - Teachers
    - $6,000 for those ranked progressing
    - $8,000 for those ranked proficient
    - $10,000 for those who are distinguished
What is the effect of ACE program?

- ACE goes into effect in 2016
- Consider four categories of DISD schools
  - ACE (7 schools in 2015; 13 in 2016)
  - Near-ACE (18 schools in 2016) – next most disadvantaged
  - Other Tier 1 (53) – other disadvantage schools
  - Non-disadvantaged (165)
- Compare changes over time
ACE schools get much more effective principals

Note: Effective principal is 2015 evaluation of proficient 1 or better.
ACE schools get much more effective teachers

Note: Effective teacher is 2015 evaluation of proficient 1 or better.
Teacher effectiveness is found across all evaluation categories (ACE Schools)

<table>
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<th>Share of teachers proficient 1 and above</th>
<th>Std performance score</th>
<th>Std achievement score</th>
<th>Std survey score score</th>
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<td>0.46</td>
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<td>-0.45</td>
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</tbody>
</table>

Note: Effective teacher is 2015 evaluation of proficient 1 or better (Category A).
Teacher effectiveness is not found elsewhere (Near-ACE Schools)

Share of teachers proficient 1 and above

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<th>Std performance score</th>
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<tr>
<td>2015</td>
<td>0.34</td>
<td>-0.47</td>
<td>-0.18</td>
</tr>
<tr>
<td>2016</td>
<td>0.33</td>
<td>-0.54</td>
<td>-0.23</td>
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</tbody>
</table>

Note: Effective teacher is 2015 evaluation of proficient 1 or better (Category A).
Student reading in ACE schools improves
Student math in ACE schools dramatically improves
Expanding to all of Texas suggests dramatic improvements

- Gains in narrowing achievement gaps could be dramatic for entire state
- Expanding effectiveness-based policies to Texas could bring Texas to top of nation and top of world
Some Conclusions

• Improvement of Texas schools is economically important
• Key is effective teachers and principals
• Cannot regulate effectiveness

*How* money is spent is more important than *how much* is spent
State finance must support good policy

- Schools and personnel respond to incentives
- High value of incentives with accountability and local autonomy
- Reward effectiveness, not experience or credentials

*How money is spent is more important than how much is spent*