WHAT YOU SHOULD KNOW ABOUT THE RFIS

Reading First Impact Study (by the USDE and IES)
The Following Slides are Taken Directly From...

- The Evaluation of Reading First and The Reading First Impact Study: What did we learn and where do we go from here?
  
  A presentation to the National Reading First Directors Meeting in Washington, DC, on September 25, 2008, by David Frances of the Texas Institute for Measurement, Evaluation, and Statistics (TIMES)

David Frances (TIMES, 09/2008)
Three Questions:

- What is the impact of Reading First on classroom instruction (compared to non-RF schools)?
- What is the impact of Reading First on student reading achievement (compared to non-RF schools)?
- What is the relationship between the degree of implementation of Reading First instruction and student reading achievement?*

*To be addressed in the final report.

David Frances (TIMES, 09/2008)
Regression Discontinuity Design (RDD)

248 schools (125 RF, 123 non-RF) in 18 sites (17 districts & 1 statewide program) in 13 states

1,400 classrooms observed in grades 1 and 2

30,000 to 40,000 students

Students were tested on SAT-10 Comprehension in Fall 2004 and Spring of 2005, 2006, and 2007.

Two measures of Instructional Practice:
- One focused on instruction
- One focused on student time on task and engagement with print

David Frances (TIMES, 09/2008)
<table>
<thead>
<tr>
<th>RFIS Demographics</th>
<th>RF Schools in Study Sample</th>
<th>RF Schools in Study Districts</th>
<th>RF Schools in Study States</th>
<th>RF Schools in U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (%)</td>
<td>52.3</td>
<td>52</td>
<td>51.7</td>
<td>51.5</td>
</tr>
<tr>
<td>Race (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>3.1</td>
<td>2.5</td>
<td>1.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Black</td>
<td>35.6</td>
<td>41.1</td>
<td>26.4</td>
<td>30.5</td>
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<tr>
<td>Hispanic</td>
<td>26.7</td>
<td>28.6</td>
<td>37.1</td>
<td>34.8</td>
</tr>
<tr>
<td>White</td>
<td>34.2</td>
<td>27.4</td>
<td>34.3</td>
<td>28.6</td>
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<tr>
<td>American Indian/Alaskan</td>
<td>0.5</td>
<td>0.4</td>
<td>0.6</td>
<td>2.5</td>
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<tr>
<td>Free Lunch and Reduced Lunch (%)</td>
<td>74.4</td>
<td>75</td>
<td>67.8</td>
<td>73.2</td>
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<tr>
<td><strong>Schools</strong></td>
<td></td>
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<tr>
<td>Eligible for Title 1(%)</td>
<td>97.6</td>
<td>97.4</td>
<td>96.4</td>
<td>94.8</td>
</tr>
<tr>
<td>Locale (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large City</td>
<td>39.2</td>
<td>39.8</td>
<td>26.7</td>
<td>26.8</td>
</tr>
<tr>
<td>Mid-size City</td>
<td>36.8</td>
<td>36.5</td>
<td>21</td>
<td>19.5</td>
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<tr>
<td>Other a</td>
<td>24</td>
<td>23.7</td>
<td>52.3</td>
<td>53.6</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Number of Students</td>
<td>474.8</td>
<td>487.4</td>
<td>502.4</td>
<td>531.4</td>
</tr>
<tr>
<td>Number of Students in Grade 3</td>
<td>71.6</td>
<td>75.1</td>
<td>80.2</td>
<td>84.9</td>
</tr>
<tr>
<td>Student/Teacher Ratio</td>
<td>15.1</td>
<td>14.8</td>
<td>15.1</td>
<td>16.5</td>
</tr>
<tr>
<td><strong>Third Grade Reading Performance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Deviation from State RF Mean Proficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate (%)b</td>
<td>-1.3</td>
<td>-3.3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Number of Schools</strong>c</td>
<td>125</td>
<td>274</td>
<td>1,728</td>
<td>4,793</td>
</tr>
</tbody>
</table>
RFIS: Effects of RF on the ‘Big 5’

David Frances (TIMES, 09/2008)
RFIS: Effects of RF on Highly Explicit Instruction and Practice

Highly Explicit Instruction

GL 1: Reading First
- 29.8
- 26.1

GL 1: Non-Reading First
- 26.1
- 7.0

GL 2: Reading First
- 31.6
- 3.7

GL 2: Non-Reading First
- 24.6
- 0.9

High-Quality Student Practice

GL 1: Reading First
- 19.2
- 3.7

GL 1: Non-Reading First
- 18.4
- 0.9

Percent of Students Engaged with Print

GL 1: Reading First
- 46.9
- 4.6

GL 1: Non-Reading First
- 42.3
- 8.4

David Frances (TIMES, 09/2008)
The importance of having attempted a rigorous impact evaluation cannot be overlooked
  All too rare in the evaluation of federal policy

Incumbent on us to determine …
  What these results do and do NOT mean
  What other data to bring to bear on the question of program impacts
  What steps to take to achieve the goal of having all children read on grade level

David Frances (TIMES, 09/2008)
RFIS: Effects on Reading Comprehension

- Differences in reading comprehension were not significant when mean scaled scores were compared.
- Between 55% and 61% of students in RF schools scored below the 50th percentile depending on the grade (1-3).
- Between 31% and 33% of students in RF schools scored below the 25th percentile.
- There is some indication that impacts may vary by site (p=0.6).

David Frances (TIMES, 09/2008)
Review and Critique of RFIS

- NCLB has focused attention on our most at-risk students
  - Children growing up in poverty
  - Children with disabilities
  - Children who speak a language other than English
- RF is the most massive, focused and sustained educational intervention ever undertaken
- We should not dismiss the historic significance of the intervention, or the effort to rigorously evaluate its effects

David Frances (TIMES, 09/2008)
What RFIS is not

- Critics of RF cite the RFIS as evidence against scientifically based reading research and scientifically based approaches to instruction
  - RFIS is neither an indictment of the National Reading Panel report, nor of Preventing Reading Difficulties in Young Children
  - Some will even say that the results were predictable and the result of overstated claims in the NRP

David Frances (TIMES, 09/2008)
Efficacy vs. Effectiveness

- Efficacy was not the focus of RF
- RF is about the effectiveness of SBRR, and the RFIS should be thought of as an effectiveness trial
- To see the difference between efficacy and effectiveness, it is instructive to look to medicine

David Frances (TIMES, 09/2008)
Efficacy vs. Effectiveness

David Frances (TIMES, 09/2008)
Efficacy vs. Effectiveness

- 2M Americans a year become infected while patients in hospitals
- Roughly 90K will die from their infection
- The number one reason that patients become infected in hospitals ...
  - Drs. and nurses fail to adequately wash their hands as often as they should
  - Controlling infections is as simple as getting doctors and nurses to wash their hands correctly with antibacterial soap

David Frances (TIMES, 09/2008)
Efficacy vs. Effectiveness

- Hand washing is highly efficacious in stopping the spread of germs.

- But hand washing is ineffective, because doctors and nurses cannot comply with the treatment 100% of the time.
  
  - 70% compliance is not good enough.

David Frances (TIMES, 09/2008)
Was RFIS fundamentally flawed?

- Distinguish internal from external validity
  - [i.e., The design is internally valid, but has problems with external validity.]
- Representativeness of the sample is potentially a problem

David Frances (TIMES, 09/2008)
Concerns about RFIS

- RFIS sample of schools differs in significant ways from the RF population of schools
  - Less rural / More urban and mid-size cities
  - More African American / Less Hispanic
- Study not fundamentally flawed in getting at a measure of impact for these schools [internal validity], but may not reflect the effect of RF more generally [external validity]
- James Salzman, Co-Director, Ohio Reading First Center, has argued that it is the rural schools in Ohio that are producing the largest improvements

David Frances (TIMES, 09/2008)
Which Treatment?

Must also distinguish between two treatments

- Treatment 1 – RF Funding
  - Relatively easy to follow and ensure that there is not diffusion

- Treatment 2 – RF instruction, materials, assessments and professional development
  - More interesting [treatment], but also more difficult to withhold from control [schools]

David Frances (TIMES, 09/2008)
Which Treatment?

- These [two different] treatments are occasionally confused in the RFIS

- Schools that did not receive RF funds may have implemented RF [methods]
  - Consider the context in which RF was introduced
  - Pressure to move all schools forward has been intense
  - There is first hand evidence of diffusion; in fact, the legislation encouraged it

David Frances (TIMES, 09/2008)
How much of a role was played by diffusion will become clearer as the results of the impact and implementation studies are combined.

For now, inferences about treatment impacts require an assumption that the flow of RF dollars to RF schools neither directly nor indirectly affected the instructional practices in the non-RF schools.

David Frances (TIMES, 09/2008)
Diffusion would lead some to suggest that RF funding was thus unnecessary.

This conclusion assumes that RF funding played no role in district decisions to provide training and materials to non-RF schools.

And ignores the role that RF funding played in developing and providing technical assistance and professional development at national and state levels.

We cannot assume that RF would have been provided to the same degree in the absence of RF funding.

David Frances (TIMES, 09/2008)
Improving Implementation of Reading First

- We can improve treatment delivery through science.
- Is there an RF checklist out there for teachers, for principals, for coaches, for students?
- The RFIS data on instructional time clearly indicate shortcomings in the instruction around language development and comprehension.
- Be pre-emptive with our training and technical assistance; we know where many of the pitfalls are for teachers. We don’t have to watch them fall in.

David Frances (TIMES, 09/2008)
Conclusions

- RF is a significant and substantial improvement to our nations' elementary schools serving our most at-risk students.
- We must build on what we have learned to both improve the intervention, and its delivery and evaluation.
- We will succeed if we recognize what has gone wrong, commit to fixing it, seek continuous improvement, and never, ever give up.

David Frances (TIMES, 09/2008)