What You Should Know About the Reading First Impact Study (RFIS)

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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.

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RFIS Study Design

- 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

RFIS Demographics

<table>
<thead>
<tr>
<th></th>
<th>RF Schools in Study</th>
<th>RF Schools in Districts</th>
<th>RF Schools in U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (%)</td>
<td>52.3</td>
<td>52.0</td>
<td>51.7</td>
</tr>
<tr>
<td>Asian</td>
<td>3.1</td>
<td>3.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Black</td>
<td>35.6</td>
<td>41.1</td>
<td>30.5</td>
</tr>
<tr>
<td>Hispanic</td>
<td>26.7</td>
<td>28.4</td>
<td>37.1</td>
</tr>
<tr>
<td>White</td>
<td>34.9</td>
<td>24.4</td>
<td>39.8</td>
</tr>
<tr>
<td>American Indian/Alaskan</td>
<td>0.5</td>
<td>0.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Free Lunch and Reduced Lunch (%)</td>
<td>74.4</td>
<td>75.0</td>
<td>67.8</td>
</tr>
<tr>
<td>Schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eligible for Title I (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELA</td>
<td>97.6</td>
<td>97.4</td>
<td>96.4</td>
</tr>
<tr>
<td>Math</td>
<td>97.6</td>
<td>97.4</td>
<td>96.4</td>
</tr>
<tr>
<td>Other</td>
<td>94.8</td>
<td>94.8</td>
<td>94.8</td>
</tr>
<tr>
<td>Total Number of Students</td>
<td>468.8</td>
<td>468.4</td>
<td>502.4</td>
</tr>
<tr>
<td>Number of Students in Grade 3</td>
<td>71.9</td>
<td>73.9</td>
<td>80.2</td>
</tr>
<tr>
<td>Student Teacher Ratio</td>
<td>15.1</td>
<td>14.8</td>
<td>16.1</td>
</tr>
</tbody>
</table>

Third Grade Reading Performance

- Deviation from State RF Mean Proficiency Rate: 0%
- Rate 1%: -1.3, -2.3, 0, 0
- Number of Schools: 125, 244, 1,723, 6,793

RFIS: Effects of RF on the ‘Big 5’

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What You Should Know About the Reading First Impact Study (RFIS)

RFIS: Effects of RF on Highly Explicit Instruction and Practice

- 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

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)

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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

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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

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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

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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

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

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]

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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

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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

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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

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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.

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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)