

# TECHNICAL REPORT

## 2008-1 SUMMARY



### THE EFFECTS OF NIFDI-SUPPORTED IMPLEMENTATION OF DIRECT INSTRUCTION ON FIRST-GRADE READING

In the mid 1990s, in response to very low reading achievement scores, the Baltimore City Public School System (BCPSS) implemented curricular reforms. Sixteen schools used Direct Instruction. All the Direct Instruction schools used the *Reading Mastery Classic, Language for Learning, Language for Thinking, and Reasoning and Writing* curricula. Eleven of these schools received technical support from the National Institute for Direct Instruction, while the others used an alternative provider. The Comprehensive Test of Basic Skills (CTBS) was administered to all first graders in the spring of 6 school years: 1997-1998 through 2002-2003. Data were obtained from over 40,000 students on reading vocabulary, comprehension, and a composite score.

The study compared students' achievement in 1) schools with NIFDI support, 2) schools that implemented Direct Instruction without NIFDI support (other DI schools), and 3) schools without Direct Instruction (the Control schools). Schools in the three groups had similar demographic characteristics, although one of the Other DI schools had a markedly lower rate of poverty. Key findings are listed below.

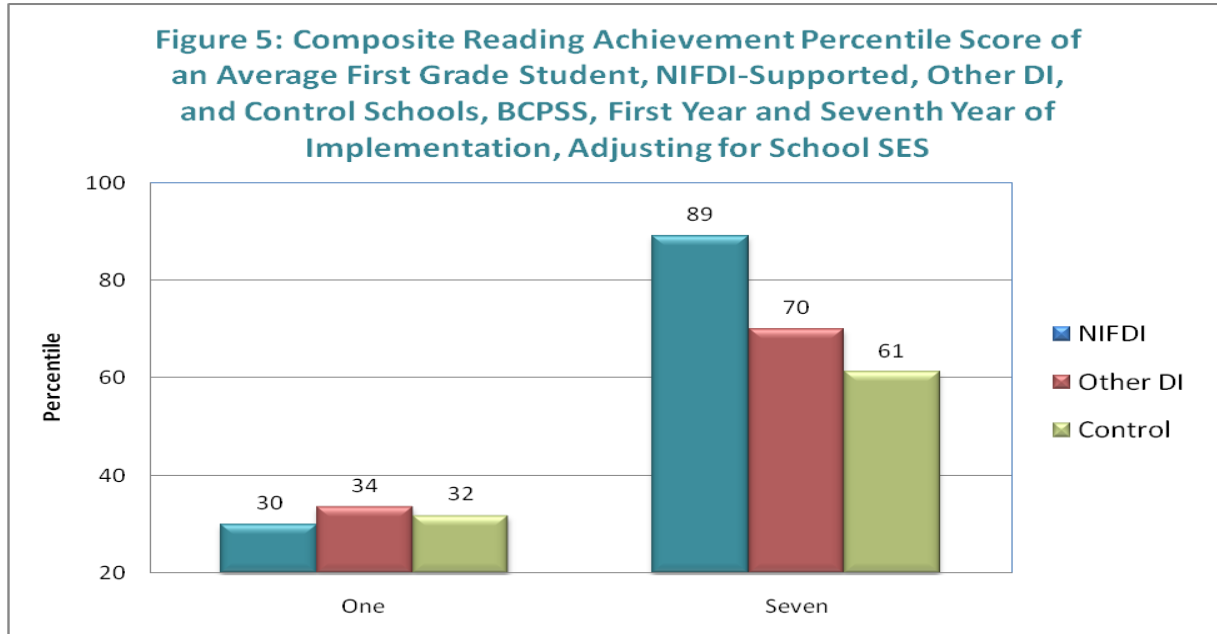
- Combining data across all years (1998-2003) students in schools that implemented Direct Instruction had significantly higher achievement than students in other schools.
- Combining data across all years (1998-2003) students in NIFDI-supported schools had significantly higher achievement than students in the Control schools on all three measures of achievement and significantly higher comprehension scores than students in the Other DI schools.
- When the socio-economic characteristics of the schools were controlled, the students in the NIFDI-supported schools had significantly higher achievement scores than students in both the Other DI schools and the control schools on all measures of achievement.
- First grade students in all 3 groups of schools had higher achievement scores in 2003 than in 1998, but the increase was significantly larger for students in NIFDI-supported schools than for students in the other schools. On average, first grade composite reading achievement scores in the NIFDI-supported schools increased by 113 percent from 1998 to 2003, while scores in the control schools and the Other DI schools increased by 56 percent or less.
- The magnitude of the effect on first grade achievement from attending a NIFDI-supported school was statistically significant and substantively large. An effect size of .25 has traditionally been considered educationally important. At the end of the study period (2003) the effect of attending a NIFDI-supported school versus attending an Other DI school on composite achievement was .63. The effect of attending a NIFDI-supported school versus a Control school was .82.

For a full report see: *Improving First Grade Reading Achievement in a Large Urban District: The Effects of NIFDI-Supported Implementation of Direct Instruction in the Baltimore City Public School System*, Technical Report 2008-1, National Institute for Direct Instruction, <http://www.nifdi.org>

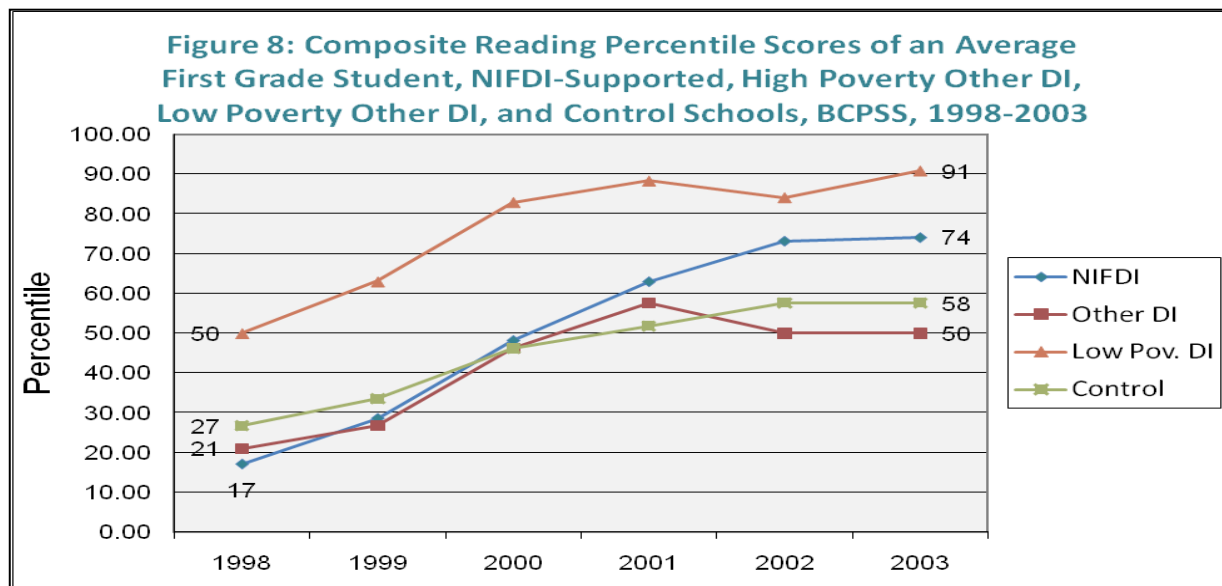


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Note: Scores in this graph represent the percentile score on the composite measure of reading achievement for an average first grade student in each type of school in the first year of implementation of DI and the 7<sup>th</sup> year, controlling for socio-demographic characteristics of the schools.



Note: Scores represent the percentile score of an average first grade student in each type of school for each year in the analysis. Data for students in the low poverty school in the Other DI group are separated from other schools in that group. No other controls for socio-demographic characteristics were used.