NoChild
LeftBehind

Reading First Implementation Evaluation
Final Report

Reading First Implementation Evaluation

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Executive Summary

The No Child Left Behind Act of 2001 (PL 107-110) established the Reading First Program (Title I, Part B, Subpart 1), a major federal initiative designed to help ensure that all children can read at or above grade level by the end of third grade. Reading First (RF) is predicated on scientifically researched findings that high-quality reading instruction in the primary grades significantly reduces the number of students who experience reading difficulties in later years.

The legislation also mandates the U.S. Department of Education (ED) to contract with an outside entity to evaluate the program's implementation (Section 1205). During the 2004–05 and 2006–07 school years this evaluation collected survey data from principals, teachers and reading coaches in nationally representative samples of RF schools and non-RF Title I schoolwide project (SWP) schools (e.g., schools in which at least 40 percent of the students are eligible for free or reduced price lunches and have elected to implement programs in which all children are eligible for Title I programs and services). Across all respondents (principals, reading coaches and teachers), the overall response rate was over 90 percent for both waves of survey data collection. Additionally, extant data on school-level scores on third- and fourth-grade state reading assessments were analyzed to examine reading achievement trends in these two groups of schools.

Major Findings

- Reading programs implemented in RF schools differ from those in non-RF Title I schools in several ways: RF schools devote more time to reading instruction in K–3 classrooms, and are more likely to: a) have reading coaches who assist teachers in implementing their reading programs; b) use reading materials aligned with scientifically based reading research; c) use assessments to guide instruction; d) place struggling readers into intervention services; and e) have their teachers participate in reading-related professional development.

- Non-RF Title I schools increasingly report activities aligned with the principles of Reading First, including a) providing assistance to struggling readers, b) teacher knowledge and use of materials and strategies aligned with scientifically based reading research, and c) staff participation in professional development in the five dimensions of reading instruction (phonemic awareness, phonics, vocabulary, fluency and comprehension).

- Based on analyses of states' reading assessment scores, there is limited but statistically significant evidence that successive cohorts of third- and fourth-grade students in RF schools improved their reading performance over time more quickly than did their counterparts in non-RF Title I schools. There is a positive and statistically significant relationship between only one of four measures of RF and non-RF Title I schools' implementation of RF-aligned activities, as measured through surveys, and their levels of third-grade reading achievement.

Key Provisions of the Reading First Program

The Reading First program's overarching goal is to improve the quality of reading instruction—and thereby improve the reading skills and achievement of children in kindergarten through third grade—by implementing the use of research-based instruction and materials. Reading First aims to increase both the availability and quality of professional development for all K–3 teachers, including special education teachers, so that they have the necessary skills to teach research-based reading programs effectively An important provision of the RF legislation is that professional development be available to staff in *all* schools, not only those with RF funding. Specifically, K–3 teachers are eligible to participate in professional development paid for by district RF funds, and K–12 Special Education teachers are eligible to participate in professional development paid for by state RF funds.

Reading programs and instruction methods should incorporate the five essential elements of effective primary grade reading instruction, specified in the legislation: 1) phonemic awareness; 2) phonics; 3) vocabulary development; 4) reading fluency, including oral reading skills; and 5) reading comprehension strategies. Reading First also emphasizes the use of assessments, both to monitor progress and to identify and address students' reading problems early, by helping classroom teachers to screen for, identify, and overcome barriers to students' ability to read at grade level by the end of third grade.

All 50 states and jurisdictions except Puerto Rico[1] have been awarded Reading First grants. To date (December, 2007), states have awarded subgrants to approximately 1,800 local school districts and, in turn, these districts have provided funds to approximately 5,100 schools nationwide. Because grants to states were awarded over an extended time period, and states differed in the amount of time they allotted to their competitive subgrant processes, districts and schools are at various stages of implementing their Reading First programs.

Overview of the Evaluation

To address the legislative requirement mandating an evaluation of Reading First, the U.S. Department of Education contracted with Abt Associates in October 2003 to design and conduct the Reading First Implementation Evaluation.[2] The evaluation addresses the following questions:

1. How is the Reading First program implemented in districts and schools?

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[1] All states, the District of Columbia, Puerto Rico, the schools of the Bureau of Indian Education, and the outlying areas were eligible to apply for RF grants. Guam and Northern Mariana Islands received grants through the consolidated grants to insular areas.

[2] Although private schools students and teachers are eligible to receive equitable services under the Reading First Program, this evaluation includes only public schools and does not address RF programs implemented in private schools.

2. How does reading instruction differ between Reading First schools and non-RF Title I schools?

3. How does reading instruction differ between Reading First schools and non-RF Title I schools as RF schools' implementation efforts mature over time?

4. Does student achievement improve over time more quickly in schools with Reading First funds than in non-RF Title I schools not receiving RF funds?

5. Is there any relationship between how schools implement Reading First-aligned practices and changes in reading achievement?

To date, this five-year study has produced The *Reading First Implementation Evaluation: Interim Report* which presented findings that addressed questions 1 and 2. This final report addresses questions 3–5. The data sources used in the current report include:

- Surveys completed in spring 2005 and 2007 by K–3 teachers, principals, and reading coaches in nationally representative samples of Reading First schools and non-RF Title I schools;[3] and

- State and national databases on school-level reading scores on state assessments across all school districts nationwide.

Analysis of Survey Data

The study included two nationally representative samples of RF schools. The first is a group of mature schools[4] that had been implementing RF activities for one or more years, and the other is a group of newly funded schools that were beginning implementation during the 2004–05 school year. In 2007, only the latter sample of RF schools was surveyed again. Collecting survey information at two time periods allowed us to address question 3 about how the reading programs in RF schools mature over time and RF grants had ended in many of the mature schools by 2006–07.

The non-RF Title I school sample was constructed purposefully to provide a context for understanding how reading programs in a sample of Reading First schools differ from those in

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[3] In 2004–05, staff from 1,633 schools completed surveys (1,092 RF and 541 non-RF Title I). In 2006–07, staff from 1,018 schools completed surveys (579 RF and 439 non-RF Title I schools).

[4] For the purpose of recruiting these two types of RF schools, schools were designated as new or mature based on the Reading First program guidelines to states for their annual performance reports; "…for schools receiving grants between July 1 and December 31 of any reporting period, the current school year will be considered in the first year of implementation." Therefore, schools awarded subgrants before Dec. 31, 2003, were designated as mature, because data collection occurred in spring 2005, when those schools were in at least their second year of implementation. All other RF schools were classified as newly funded as of the beginning of the first data collection in 2005.

schools serving similar populations of students.[5] This sample includes only Title I schoolwide project (SWP) schools.[6] This sample of schools was surveyed at both time points. The RF and non-RF Title I schools are similar in staff experience, attendance rates, mobility, and stability of enrollment. RF schools are larger than the non-RF Title I schools, on average, and have larger proportions of K–3 students reading below grade level.

This final report uses the survey data first to describe and compare the reading programs in RF and non-RF Title I schools based on the 2006–07 survey data collection. These data about the status of schools' reading programs represent the primary focus of this final report. Second, the report describes changes in schools' reading programs from 2004–05 to 2006–07, referencing surveys fielded in 2004–05. Taken together, these findings address question 3: How does reading instruction differ between Reading First schools and non-RF Title I schools as RF schools' implementation efforts mature over time?

Analysis of Student Reading Achievement

This report also includes findings from two analyses of reading achievement trends. One examines third- and fourth-grade reading performance on state reading assessments in order to address evaluation question 4: Does student achievement improve over time more quickly in schools with Reading First funds than in non-RF Title I schools not receiving RF funds? The second analysis examines the relationship between teachers' RF-aligned instructional activities and student reading achievement, using 2005 survey data and states' 2005 reading assessment scores; these findings address evaluation question 5: Is there any relationship between how schools implement Reading First-aligned practices and changes in reading achievement?

Reading Performance on Third- and Fourth-Grade State Assessments
Analyses were conducted using annual third- (24 states) and fourth-grade (17 states) test scores on state reading assessments from 12,362 schools (3,000 RF and 9,362 non-RF Title I). Difference-in-difference models were fit to the data to estimate whether changes in reading performance from pre- to post-RF implementation were larger in RF schools than in non-RF Title I schools. These analyses required specifying, for each school, which school years and their corresponding test scores preceded the implementation of RF, and which school years and scores represent post-RF implementation. Because no data provide this information directly, we used four different methods to estimate schools' pre- and post-RF implementation years: 1) initial state award date; 2) district award date; 3) an adjusted district award date to account for

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[5] The most rigorous design option available for this evaluation would have been to identify a group of non-RF schools matched to RF schools on key demographic and achievement characteristics to minimize differences between RF and non-RF schools and thereby attempt to approximate a random assignment experiment. However, because RF schools, by definition, are among the lowest-performing schools in their respective districts matched comparison schools could well have included better-performing schools. Also, RF schools could likely differ from similar non-funded schools because they had to demonstrate motivation in order to participate, which could have influenced any observed instructional differences between RF and comparison schools.

[6] Title I schoolwide project schools are schools in which at least 40 percent of the students are eligible for free or reduced price lunches and have elected to implement programs where all children are eligible for Title I programs and services.

the time between district awards and schools' receipt of funds; and 4) school award dates based on RF principals' survey responses.[7]

For each state, separate analyses were conducted using each of the methods described above, depending on data availability (at least one year of pre- and one year of post-RF implementation scores). In addition, we computed a weighted average effect size across states of the pre-RF to post-RF implementation differences in reading scores in RF and non-RF Title I schools by averaging weighted effect sizes calculated from the difference-in-difference estimate, for each of four methods used to define pre- and post-RF implementation years across both grades.

Relationship of Reading Achievement Analysis to the Reading First Impact Study

The findings summarized below *describe* national trends in reading achievement in RF and non-RF Title I schools nationally; these findings do not, however, represent a measure of the *impact* of Reading First. The Reading First Impact Study,[8] conducted by the U.S. Department of Education's Institute of Education Sciences, is a five-year evaluation that uses a rigorous design (regression discontinuity design) to compare two groups of schools, those that did and did not receive Reading First funding to measure its impact on student reading. The study is conducted in over 240 elementary schools in 18 sites and 13 states, and is collecting information on students and classrooms in grades 1–3 over a three-year period.

RF-Aligned Activities and Student Reading Achievement
We used two data sources to investigate the relationship between student reading achievement and schools' implementation of RF activities: 1) third-grade reading scores on 2005 state assessments; and 2) composite variables based on 2005 survey questions about classroom reading instruction, help for struggling readers, professional development, and use of assessments. Because tests and metrics vary across states, each state's reading scores were standardized by designating schools as either high- or low-performing relative to all other RF and Title I SWP schools in that state.[9] Schools were then selected from the highest and lowest quartiles; the analytic sample included 390 schools from 21 states.

To explore the relationship between teachers' implementation of RF-aligned activities and schools' performance on states' third-grade reading assessments, we fit a logistic regression model using the four composites to predict the probability that a school scored in the top quartile (of all RF and non-RF Title I SWP schools) on their state's third-grade reading assessment. The

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[7] Descriptions of the four methods for assigning start dates and pre- and post-RF implementation years are presented in Chapter 8 and in Appendix C.

[8] Gamse, B.C., Bloom, H.S., Kemple, J.J., Jacob, R.T., (2008). Reading First Impact Study: Interim Report (NCEE 2008-4016). Washington, D.C.: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

[9] For each state, we selected schools in the lowest quartile (at or below the 25th percentile) and the highest quartile (at or above the 75th percentile) on the state's 2005 third-grade reading assessment relative to all RF and Title I SWP schools.

model also included indicator variables for each state, to account for RF status and for state level variation in each school's probability of being in the top quartile on the reading assessment.

The findings from the analyses of student reading achievement should be interpreted with considerable caution. Although the RF and non-RF Title I schools are similar demographically on those characteristics measured in the study, schools were not randomly assigned to receive RF funding, and therefore there could have been preexisting differences between the two groups of schools on unobserved characteristics. We cannot assume that the two groups of schools are equivalent but for the fact that one group received RF funds while the other did not. This means that the findings cannot support causal inferences that attribute observed differences in student reading achievement between RF and non-RF Title I schools to the Reading First program.[10]

Key Findings

In this section, we summarize the three key findings presented in this report: 1) differences in reading programs between RF and non-RF Title I schools; 2) the increasing prevalence of Reading First activities in non-RF Title I schools; and 3) student reading achievement trends in RF and non-RF Title I schools. In general we find reading practices in RF schools and non-RF schools are similar in many ways, and have changed similarly over time in ways that are consistent with RF principles. We also find across a variety of indicators, that reading instructional time, professional development, use of reading resources and supports is more widely available or extensively utilized in RF schools.

Differences in the Reading Programs between RF and Non-RF Title I Schools

Reading First schools spent more time on reading instruction, use reading materials and instructional strategies aligned with scientifically based reading research (SBRR), and are more likely to provide additional supports and interventions for struggling readers than non-RF Title I schools.

Instructional Time. RF schools dedicated more time to reading instruction in their K–3 classrooms than did non-RF Title I schools. Most RF and non-RF Title I schools scheduled designated reading blocks for their K–3 classrooms, although these blocks were longer in RF schools; according to principals and reading coaches, 98 percent of RF schools and 77 percent of non-RF Title I schools scheduled reading blocks for at least 90 minutes. K–3 teachers in RF schools reported spending an average of 103 minutes per day on reading activities, compared to 81 minutes reported by teachers in non-RF Title I schools. This translates to approximately 110 additional minutes per week of reading instruction for K–3 students in RF schools.

Instructional Materials. After making substantial changes to their reading programs during their first year of implementation in 2004–05, mature RF schools were less likely to make many additional changes in 2006–07 than were non-RF Title I schools. Only 3 percent of RF schools

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[10] Additional limitations to the analysis of student reading achievement are presented in Chapter 8.

adopted a new core reading program in 2006–07, compared to 39 percent in 2004–05, and only 14 percent added new materials for English Language Learners (ELLs), compared to 43 percent in the earlier period. However, some RF schools continued to add new intervention programs for struggling readers (40 percent) and add new supplementary materials to their reading programs (42 percent) in 2006–07.

SBRR Alignment. Survey responses indicate that reading instruction in RF schools was more likely to be aligned with SBRR than in non-RF Title I schools. Based on surveys of reading coaches, RF schools were more likely to report that their K–3 teachers are knowledgeable about SBRR (79 percent vs. 58 percent), that core reading programs in RF schools are more likely to be aligned with SBRR than are the programs in non-RF Title I schools (93 percent vs. 76 percent), and that reading intervention materials in their schools are aligned with SBRR (94 percent vs. 79 percent) than were their counterparts in non-RF Title I schools. In addition, more teachers in RF schools rated SBRR-aligned practices central to their instruction than did teachers in non-RF Title I schools (85 percent vs. 75 percent).[11]

Assistance to Struggling Readers. In 2006–07, RF teachers were more likely than teachers in non-RF Title I schools to report placing struggling readers into intervention services (80 percent vs. 63 percent), and to report using diagnostic assessments to determine struggling readers' core deficits (84 percent vs. 67 percent).

Assessment. While assessment plays an important role in reading programs of both RF and non-RF Title I schools, there is evidence that assessment is a more integral element of reading instruction in RF schools than in non-RF Title I schools. Teachers in RF schools were more likely than teachers in non-RF Title I schools to rate the use of assessment results as central to their instruction for such purposes as grouping students (91 percent vs. 78 percent), identifying students in need of interventions (83 percent vs. 69 percent), and measuring student progress (88 percent vs. 80 percent).

In 2006–07, RF teachers were significantly more likely than teachers in non-RF Title I schools to identify standardized tests as the assessment used most often and to administer such tests more often than teachers in non-RF Title I schools. Informal assessments were rarely characterized as the most frequently used assessments, yet they were more likely to be identified by teachers in non-RF Title I schools than teachers in RF schools.

Reading Coaches. RF schools were significantly more likely to have a reading coach than were non-RF Title I schools (99 percent vs. 57 percent). Reading coaches in RF schools reported spending larger proportions of their time as in the role of reading coach than did coaches in non-RF Title I schools; specifically, 75 percent of RF coaches and 19 percent of coaches in non-RF Title I schools reported that they spend all of their time in this role.

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[11] This finding is based on a composite measure of SBRR that reflects the percentage of instructional activities focused on the five dimensions of reading that teachers rated as central to their instruction. (The specific activities included in the SBRR composite are listed in Appendix D).

Professional Development. In 2006–07, a greater percentage of RF teachers reported participating in reading-related professional development activities than did teachers in non-RF Title I schools (90 percent vs. 73 percent). On average, teachers in RF schools reported participating in more than twice the number of workshops (4.9 vs. 2.3) and spending twice the number of hours in reading-related professional development activities (31.3 hours vs. 15.7 hours) than did teachers in non-RF Title I schools. However, the average number of workshops and hours teachers participated in reading-related professional development declined for teachers in both RF and non-RF Title I schools from 2004–05 to 2006–07. For example, the number workshops declined from 7.0 to 4.9 for RF teachers and from 3.3 to 2.3 for teachers in non-RF Title I schools.

Further, in 2006–07 teachers in RF schools were more likely than teachers in non-RF Title I schools to report participating in professional development on the five dimensions of reading including comprehension (88 percent vs. 74 percent), phonics (88 percent vs. 64 percent), phonemic awareness (87 percent vs. 62 percent), vocabulary (82 percent vs. 60 percent) and fluency (91 percent vs. 74 percent). This same pattern of participation in professional development activities on the five dimensions of reading was also evident in 2004–05.

Direct Classroom Support. In addition to formal professional development, RF teachers were more likely to report receiving ongoing direct support and feedback for their classroom reading instruction than were teachers in non-RF Title I schools. A greater proportion of teachers in RF schools than in non-RF Title I schools reported receiving classroom support on: interpretation of assessment data (91 percent vs. 70 percent); assistance from a reading coach or specialist in diagnosing individual student needs (72 percent vs. 48 percent); and intervention service help for individual students (73 percent vs. 52 percent).

Reading First Activities in Non-RF Title I Schools

Although Reading First and non-RF Title I schools' reading programs continue to differ in various ways, RF-aligned activities are increasingly occurring in non-RF Title I schools. The areas of alignment include: a) changes in instructional materials; b) additional practice opportunities and direct instruction to help struggling readers; c) knowledge and use of materials and strategies aligned with scientifically based reading research; and d) participation in professional development in the five dimensions of reading instruction (phonemic awareness, phonics, vocabulary, fluency and comprehension).

Instructional Materials. Substantial numbers of RF and non-RF Title I schools reported making changes to the instructional materials used in their reading programs. In 2006–07, 40 percent or more of RF and non-RF Title I schools reported that they had added new intervention programs for struggling readers during the 2006–07 school year. Further, approximately one-third of both RF non-RF Title I schools added new supplementary materials to their reading programs in 2004–05 and then again in 2006–07 (33 percent and 38 percent, respectively).

Four of the five reading programs cited most frequently by RF schools were also among the five most popular programs in the non-RF Title I schools. At least 10 percent of both RF and non-RF Title I schools reported using Harcourt Trophies, McGraw-Hill Open Court, Scott Foresman Reading and Houghton Mifflin Reading.

SBRR Alignment. The proportion of reading coaches in non-RF Title I schools rating their K–3 teachers as knowledgeable about scientifically based reading instruction increased from 48 percent in 2004–05 to 58 percent in 2006–07 which is about the same level as reading coaches in RF schools reported in 2004–05 (57 percent). In 2006–07 reading coaches in 79 percent of RF schools rated their teachers as knowledgeable about SBRR.

Assistance to Struggling Readers. Materials and activities specifically aimed at helping struggling readers were available in most non-RF Title I schools (85 percent) and RF schools (91 percent). Reading coach and principal surveys indicated that teachers provide struggling readers with additional direct instruction and practice opportunities in more than 95 percent of RF and non-RF Title I schools (with reading coaches); in about 90 percent of both RF and non-RF Title I schools, trained aides or volunteers work with struggling readers during class.

From 2004–05 to 2006–07, the proportion of teachers in both RF non-RF Title I schools who reported that they had placed struggling readers into intervention programs in the last month increased modestly, from 73 to 80 percent in RF schools, and from 56 to 63 percent in non-RF Title I schools. As was the case for teachers in RF schools, the percent of teachers in non-RF Title I schools who reported that time is set aside to coordinate with ELL staff about the reading instruction provided to struggling readers increased from 40 percent in 2004–05 to 70 percent in 2006–07.

Professional Development. In 2006–07, many K–3 teachers in non-RF Title I schools reported that they participated in professional development on the five dimensions of reading: reading comprehension (74 percent); phonics (64 percent); phonemic awareness (62 percent); and fluency (74 percent). Also, the percent of teachers in non-RF Title I schools who reported they participated in professional development on vocabulary increased from 51 percent in 2004–05 to 60 percent in 2006–07.

Student Reading Achievement Trends in RF and Non-RF Title I Schools

Based on analyses of states' reading assessment scores, there is limited but statistically significant evidence that successive cohorts of third- and fourth-grade students in RF schools improved their reading performance over time more quickly than did their counterparts in non-RF Title I SWP schools. There is a positive and statistically significant relationship between only one of four measures of RF and non-RF Title I schools' implementation of RF-aligned activities, as measured through surveys, and their levels of third-grade reading achievement.

Third-Grade Reading Performance
On third-grade state reading assessments, average effect sizes across 24 states indicate that RF schools gained between 2 and 3 percentage points more, on average, from pre- to post-RF

implementation than non-RF Title I schools on the proportion of students meeting standards on states' third-grade reading assessments, a statistically significant yet small difference (p < .001).[12] In 12 of 24 states, the improvement in third-grade reading scores among RF schools was statistically significantly larger than in non-RF Title I schools for at least one of the four methods used to define pre- and post-RF implementation years. In the other 12 states, there were no statistically significant differences between the two groups of schools.

Fourth-Grade Reading Performance
On fourth-grade state reading assessments, average effect sizes across 17 states indicate that RF schools gained between 2 and 3 percentage points more, on average, from pre- to post-RF implementation than non-RF Title I schools on the proportion of students meeting standards on states' fourth-grade reading assessments, a statistically significant yet small difference (p < .001). In six of 17 states, the improvement in fourth-grade reading scores among RF schools was statistically significantly larger than in non-RF Title I schools for at least one of methods (described earlier) used in the analysis. In 11 states there were no significant differences between the two types of schools.

Reading Performance and RF-aligned Practices
There is a positive and statistically significant relationship between only one of four measures of RF-aligned activities, as measured through surveys, and schools' levels of third-grade reading achievement.[13] The study team analyzed the relationship between schools' third-grade reading scores on state assessments and four composite measures constructed from survey data that characterize teachers' RF-aligned activities: classroom reading instruction; strategies to help struggling readers; participation in professional development; and uses of assessment to inform instruction.

Only the composite measure of teachers' use of activities for struggling readers was statistically significantly related to the probability that a school scored in the top quartile (relative to other RF and non-RF Title I schools) on its state's third-grade reading assessment. For every increase of one standard deviation unit in the struggling readers implementation composite score, the probability of being in the top quartile increased by 15.6 percentage points, for the average school (p<.001).[14]

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[12] The results of the pooled analyses were statistically significant at the p < .001 level for each of four analytic methods which are described in more detail in Chapter 8 and Appendix C.

[13] This analysis includes both RF and non-RF Title I schools, since the implementation of activities aligned with Reading First can potentially occur in either type of school.

[14] The analysis of the relationship among RF-aligned activities and reading achievement required fitting a logistic regression model because the dependent variable is dichotomous–inclusion or exclusion from the highest quartile. The four composites were standardized and are best understood in terms of standard deviation units.

Summary

These findings provide some evidence that after several years of implementation, Reading First continues to be implemented in schools and classrooms as intended by the legislation. States continue to provide appropriate supports, including professional development related to reading, and assistance in the selection and use of assessments to inform instruction. Reading First schools continue to provide instructional environments that support SBRR-based instruction. There is also evidence that the reading programs implemented by teachers in Reading First and non-RF Title I schools' K–3 classrooms continue to differ on instructional time, resources, instructional planning and collaboration and use of assessments.

Although reading programs in RF and non-RF Title I schools differ, it is important to note that RF-like activities are increasingly occurring in non-RF Title I schools, which report increasing prevalence of practices aligned with the principles of Reading First. In 2006–07, teachers in non-RF Title I schools rated a higher proportion of scientifically based teaching strategies and materials as central to their instruction than they did in 2004–05. Teachers in these schools reported that they also have increased their level of effort to help struggling readers through use of diagnostic assessments to identify struggling readers and by placing these students in intervention programs. Also, from 2004–05 to 2006–07, an increasing percentage of teachers in non-RF Title I schools reported needing additional professional development in using assessments to guide instruction and to better assist struggling readers.

The primary goal of Reading First is to improve student reading achievement such that all students are reading at or above grade level by the end of third grade. There is limited evidence that third- and fourth-grade students in RF schools improved their reading performance over time more quickly than did their counterparts in non-RF Title I schools. The differences were statistically significant yet small in magnitude, and given the limitations described earlier (and in detail in Chapter 8) these differences should be considered with caution.

Chapter 1: Introduction

The Reading First Implementation Evaluation Study is designed to address the following questions:

1. How is the Reading First program implemented in districts and schools?

2. How does reading instruction differ in RF schools and non-RF Title I schools?

3. How does reading instruction differ in RF schools and non-RF Title I schools as RF schools' implementation efforts mature over time?

4. Does student achievement improve over time more quickly in schools with RF funds than in non-RF Title I schools not receiving RF funds?

5. Is there any relationship between how schools implement RF-aligned practices and changes in reading achievement?

The *Reading First Implementation Evaluation: Interim Report* presented findings that addressed questions 1 and 2 (U.S. Department of Education, July 2006). This final report addresses questions 3 through 5. In this chapter, we review the context for the study, including the background, a description of the scientifically based reading research that informed the legislation, the Reading First legislation itself, the study design, analytic approaches, and limitations. In addition, this chapter summarizes findings from earlier reports. Last, we present the organization for the remainder of the report.

Background

The ability to read and comprehend text well is at the heart of educational attainment and, as such, is central to all children's elementary school success. Unfortunately, success in elementary school (and beyond) disproportionately eludes many minority and economically disadvantaged children. Large numbers of children in high-poverty schools are not developing the reading skills needed for success in school. Results from the 2007 National Assessment of Educational Progress (NAEP) Reading Assessment indicate that 50 percent of fourth-grade students eligible for free or reduced-price lunches read at a Below Basic level compared to only 21 percent of fourth-graders not eligible for the lunch program who perform at that level.[15] Although disappointing, these findings represent an improvement over the 2000 NAEP results, when 62 percent of students eligible for free or reduced price lunches scored at the Below Basic level (U.S. Department of Education, 2007).

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[15] Performance at the Below Basic level means that fourth-grade students are not performing at the Basic level. "Fourth-grade students performing at the *Basic* level should demonstrate an understanding of the overall meaning of what they read. When reading text appropriate for fourth-graders, they should be able to make relatively obvious connections between the text and their own experiences and extend the ideas in the text by making simple inferences." (National Center for Education Statistics, retrieved May 10, 2006, from http://nces.ed.gov/nationsreportcard/reading/achieveall.asp#grade4).

Scientifically Based Reading Research

The fact that substantial numbers of our nation's primary grade students are not developing adequate reading skills occurs at a time when we have made considerable progress in understanding how to teach reading effectively in the early grades, particularly to children who are struggling academically. The National Research Council's 1998 report, *Preventing Reading Difficulties in Young Children*, noted, "The majority of the reading problems faced by today's adolescents and adults could have been avoided or resolved in the early years of childhood." The report noted that for children to learn to read effectively they must "understand how sounds are represented alphabetically, have sufficient practice in reading to achieve fluency with different kinds of texts, the background knowledge and vocabulary to extract meaning from text, and the motivation to read for varied purposes." The report concluded that many elements of effective reading instruction are already known, and that the provision of "excellent instruction is the best intervention for children who demonstrate problems learning to read."

Building on the council's report, the National Reading Panel reviewed the scientific research in key areas of reading development, focusing on skills critical to the acquisition of beginning reading skills.[16] The report found strong evidence that direct, explicit instruction is helpful to primary grade children in the development of their reading skills, particularly in the areas of phonemic awareness, phonics, vocabulary, comprehension, and fluency.

The Reading First Legislation

The No Child Left Behind Act of 2001 (PL 107-110) established the Reading First Program (Title I, Part B, Subpart 1) to address the fact that large numbers of our nation's students do not develop the reading skills necessary to be successful in school. Reading First is a major federal initiative that builds on years of scientific research in reading to ensure that all children can read at or above grade level by the end of third grade. The legislation requires the U.S. Department of Education to contract with an outside entity to conduct an evaluation of, among other things, the Reading First (RF) program's implementation (Section 1205).

Reading First is predicated on research findings that high-quality reading instruction in the primary grades significantly reduces the number of students who experience difficulties in later years. The program's overarching goal is to improve the quality of reading instruction and thereby improve the reading skills and achievement of children in the primary grades. The RF program provides substantial resources at both the state and local levels: 1) to ensure that research-based reading programs and materials are used to teach students in kindergarten through third grade; 2) to increase access to and quality of professional development of all teachers who teach K–3 students, including special education teachers, to ensure that they have the skills necessary to teach these reading programs effectively; and 3) to help prepare classroom teachers

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[16]   The National Reading Panel (NRP) was formed under the joint auspices of the National Institute of Child Health and Human Development and the U.S Department of Education to "assess the status of research-based knowledge, including the effectiveness of various approaches to teaching children to read" (*Report of the National Reading Panel: Teaching Children to Read*, 2000, page 1-1.) The findings from the NRP also were instrumental in the development of the Reading First program (part of the *No Child Left Behind Act*), the current administration's comprehensive effort to improve early reading instruction and student reading achievement.

to screen, identify, and overcome barriers to students' ability to read on grade level by the end of third grade. More specifically, the programs and the professional development provided to school staff must use reading instructional methods and materials that incorporate the five essential elements of effective primary-grade reading instruction, as specified in the legislation: 1) phonemic awareness; 2) phonics; 3) vocabulary development; 4) reading fluency, including oral reading skills; and 5) reading comprehension strategies.

The legislation was informed by prior research, and the guidance translated the legislation and prior research into more specific directions for states and their funded districts to follow. A central requirement of the RF legislation is that all instructional materials, activities and programs should be based on scientifically based reading research (SBRR) that provides evidence of effectiveness in teaching children to read. SBRR is defined in the legislation as:

> "…research that applies rigorous, systematic and objective procedures to obtain valid knowledge relevant to reading development, reading instruction, and reading difficulties. This includes research that:
>
> 1. Employs systematic, empirical methods that draw on observation or experiment;
>
> 2. Involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn;
>
> 3. Relies on measurements or observational methods that provide valid data across evaluators and observers and across multiple measurements and observations; and
>
> 4. Has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective and scientific review (Section 1208)."

In April 2002, the U.S. Department of Education invited state education agencies to apply for Reading First grants. State applications submitted to the U.S. Department of Education went through an expert review process that resulted in six-year awards dependent on demonstration of progress and congressional appropriations. States, in turn, awarded subgrants to local school districts based on a competitive process. All states and jurisdictions except Puerto Rico have been awarded Reading First grants.[17] To date (December, 2007), states have awarded subgrants to approximately 1,800 local school districts and 5,100 schools nationwide.[18]

There are two important aspects of program implementation that influence the findings reported here. First, the amount of time between states' receipt of Reading First funding and districts' and schools' onset of Reading First program implementation varied considerably. Specifically, state-level grants were awarded between June 2002 and September 2003. States also varied in the length of their respective competitive processes, from several months to nearly a year.

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[17] Guam and Northern Mariana Islands received grants through consolidated grants to the insular areas.

[18] The figures are based on current information listed on ED's Reading First Awards Database (December, 2007, from www.sedl.org/readingfirst/reports-awards.html).

Additionally, states awarded subgrants of differing duration; some states funded schools for two or three years, others for up to six years. These factors resulted in district and school implementation of Reading First at different points in time. The study sample was constructed to take that variation into account by sampling from schools that (at that time) had varying amounts of implementation experience.

Evaluations of Reading First

The Implementation Evaluation is one of six complementary studies designed to gather information about Reading First at the federal level. In addition to the Implementation Evaluation, the U.S. Department of Education's Policy and Program Studies Service (PPSS) conducted the *Analyses of State Reading Standards and Assessments*; that study evaluated the alignment of state reading content standards for students in grades K–3 with the five key elements of reading instruction by analyzing: 1) the reading content standards of a random sample of 20 states; and 2) the role of state assessments in measuring Reading First outcomes as presented in state Reading First applications. PPSS also is conducting the study of Reading First and Special Education Participation Rates Study, which uses an interrupted time-series design to: 1) compare rates of learning disabilities in Reading First schools with a comparison group of schools; 2) investigate changes in these rates in RF schools before and after grants were awarded; and 3) examine the relationship between reading achievement and rates of learning disabilities.

In September 2007, PPSS initiated a follow-up evaluation, the Reading First Implementation Evaluation: 2008–09; this study will: 1) describe states' planned responses to reductions of federal funding for the program; 2) describe ongoing implementation of the RF program in a nationally representative sample of RF districts, and comparable information from a nationally representative sample of non-RF Title I districts; 3) conduct case studies of a small and purposively selected sample of schools to understand particular aspects of program implementation under varying contexts and conditions; and 4) describe individual students' reading achievement in RF and non-RF schools as students complete first through sixth grade.

The U.S. Department of Education's Institute of Education Sciences is also conducting two studies related to Reading First. The Reading First Impact Study is a five-year evaluation designed to measure the impact of Reading First on classroom reading instruction and students' reading achievement. That study is conducted in over 240 elementary schools at 18 sites and in 13 states, and is collecting information on students and classrooms in grades 1–3 over a three-year period. The Study of Teacher Preparation in Early Reading Instruction is surveying preservice teachers at 100 schools of education to answer the question: To what extent does the content of teacher preparation programs focus on the essential components of early reading instruction? In addition, the study is directly assessing a random sample of 3,000 graduating preservice elementary teachers to answer the question: To what extent are graduating preservice teachers knowledgeable about the essential components of early reading instruction?

The Study Design

Data Collection

Two data sources were used to address the study's evaluation questions: 1) surveys of teachers, principals and reading coaches in two nationally representative samples of Reading First schools and non-RF Title I schools; and 2) school-level reading scores on state assessments. Exhibit 1.1 summarizes the primary data collection activities, schedules and samples. The study sample included two nationally representative samples of Reading First schools—550 *newly funded* schools that were in their first year of implementation in 2004–05, and 550 *mature* schools that had been implementing RF activities for one or more years in 2004–05—along with 550 Title I (non–Reading First) schools.[19] The principal, reading coach (if applicable), and one teacher (randomly selected) from each of the four target grades of Reading First (K–3) were sent surveys to complete.

Exhibit 1.1

Data Collection Methods, Samples, and Schedule

Type of School	Number of Schools	Estimated Number of Respondents	Schedule 2004–05	Schedule 2006–07
Newly funded Reading First schools	550	550 principals up to 550 reading coaches 2,200 teachers	✔	✔
Mature Reading First schools	550	550 principals up to 550 reading coaches 2,200 teachers	✔	
Non-RF Title I schools	550	550 principals up to 550 reading coaches 2,200 teachers	✔	✔

Exhibit reads: 550 newly funded RF schools were selected for inclusion in the study sample. The expected respondents included 2,200 teachers, 550 principals, and up to 550 reading coaches. There were two waves of data collection, one in spring 2005 and one in spring 2007.

Note: Four teachers per school were sampled by randomly selecting one teacher from each of grades K–3. One principal and one reading coach (if applicable) per school were surveyed.

There were two survey data collections, one in each school year 2004–05 and 2006–07. Data from the 2004–05 data collection were used to address evaluation questions 1 and 2; those data describe the reading programs in mature RF schools and compare them to reading programs in non-RF Title I schools. Findings from analyses of these data were presented in the interim report. As displayed in Exhibit 1.1, the 2006–07 data collection included only the sample of 550 newly funded RF schools and the sample of Title I schools. Information from these respondents

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[19] For the purpose of recruiting these two types of RF schools, schools were designated as new or mature based on the Reading First program guidelines to states for their annual performance reports; "…for schools receiving grants between July 1 and December 31 of any reporting period, the current school year will be considered in the first year of implementation." Therefore, schools awarded subgrants before Dec. 31, 2003, were designated as mature, because data collection occurred in spring 2005, when those schools were in at least their second year of implementation. All other RF schools were classified as newly funded as of the beginning of the first data collection in 2005.

is used to address question 3 about how reading programs in RF and non-RF Title I schools mature over time.

In early 2005, we recruited 1,649 study schools (1,098 RF schools and 551 non-RF Title I schools).[20] In the 2004–05 data collection, the response rate across all types of respondents and all schools was 96 percent. In the 2006–07 data collection, the corresponding response rate was 91 percent. (For additional details about response rates see Appendix A Exhibit A.2.)

The School Sample

The sample of schools included in the 2007 data collection is a subgroup of schools from the original sample of RF and non-RF Title I schools that participated in the first round of data collection in 2005. As shown in Exhibit 1.2, RF schools designated as mature—those that had been implementing for one or more years in 2005, were not surveyed in 2007. The only RF schools surveyed in 2007 were schools that were beginning their implementation of RF activities in 2005 (i.e., referred to as "newly funded" in the Interim Report). The 2005 sample included a total of 1,092 RF schools, 450 mature schools that had been implementing RF activities for one or more years, and 642 newly funded schools that were just beginning implementation during the 2004–05 school year. In 2007, the RF school sample includes 579 schools; these schools have now been implementing RF for approximately two years. The reduction of the sample reflects the fact some schools closed, were no longer were participating in RF, or did not return any 2007 surveys. The 2007 non RF Title I sample is 439 schools, reduced from 541 schools (in 2005) for

Exhibit 1.2

Respondent Samples of RF and Non-RF Title I Schools in 2005 and 2007

2005 Respondent School Sample	RF Mature	RF Newly Funded	Non-RF Title I	Total
	450	642	541	1,633
2007 Respondent Status				
Ineligible		(53)	(65)	(718)
Refused	Not surveyed in 2007	(0)	(6)	(6)
Non-respondent		(10)	(31)	(41)
2007 Respondent Sample		579	439	1,018
Weighted 2007 Respondent Sample		1,555	12,909	14,464

Exhibit Reads: The respondent sample in 2005 included 1,092 RF schools (450 mature and 642 newly funded) and 541 non-RF Title I schools yielding a total school sample of 1,633 schools.
Notes: The description of the sample in this chapter is based on the 2007 data collection.
Source: Abt Associates' Receipt Tracking Files (2005 and 2007).

[20]   Although private schools students and teachers are eligible to receive equitable services under the Reading First Program, this evaluation includes only public schools and does not address RF programs implemented in private schools.

the same set of reasons (See Appendix A, Exhibit A.1, for a summary of the respondent samples based on the 2005 recruitment and data collection).

Analytic Approach

Analysis of Survey Data

This report presents findings based on two survey data collections that describe and compare the reading programs in RF and non-RF Title I schools. The discussion focuses primarily on differences between RF and non-RF Title I schools in 2006–07, although results are displayed for both the 2004–05 and 2006–07 data collections. When possible, the same teachers were surveyed at each time point. It is important to note that there was substantial turnover (approximately 50 percent) in the teacher sample within the study schools between 2005 and 2007, with teachers either leaving the school or teaching at a different grade level. We selected replacement teacher respondents for those teachers who were neither in the same school nor in the same grade as they had been in the 2004–05 data collection. The changes in the teacher sample mean that teachers' reports of instruction and program characteristics reflect both the evolution of the reading programs over time *as well as* teacher turnover. There was also substantial turnover (approximately 30 percent) in reading coaches from 2004–05 to 2006–07.

Multiple Hypothesis Testing
This report presents numerous survey-based findings based on hypothesis tests that compare elements of reading programs in RF and non-RF Title I schools in 2005 and 2007. Multiple hypothesis testing is of concern because, as the number of tests of statistical significance increases so too does the likelihood of falsely claiming there is a difference between two groups when there is none (e.g., referred to as a Type I error). Our strategy for minimizing such errors entails limiting our discussions to only those findings that are large enough to be considered meaningful and policy-relevant. The threshold for identifying such meaningful differences varies depending upon the specific outcomes being measured. For example, many of the outcomes presented in this report are measured in terms percentages. Most often, the report highlights differences of 8–10 percentage points or more because such differences are more likely to be practically meaningful. Smaller percentage point differences, in fact, are statistically significant at the .05 level; however, they are not substantively meaningful and therefore are not discussed in the text of this report.[21]

The analyses of the survey responses, in fact, produced meaningful differences that, for the most part, were statistically significant at a more stringent threshold than the standard .05 level. In general, the meaningful differences presented in this report have a p-value of $\leq$ .001. By limiting the discussion to meaningful and policy-relevant differences between RF and Title I schools, we have, in effect simultaneously reduced the chances of committing a Type I error to 1 in 1,000. Furthermore, it is often the case that findings based on the 2006–07 data collection are consistent (at the p $\leq$ .001 level) with results reported based on the 2004–05 data collection. For these

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[21]   However, all exhibits in this report display statistical significance relying on the standard p-value of p $\leq$ .05). Further, all findings described as 'significant' in the text are statistically significant (p-value $\leq$ .05).

findings, we can have greater confidence that they are not due to chance but represent true differences between RF and non-RF Title I schools.

Analysis of Student Reading Achievement

This report also presents findings based on two analyses of reading achievement trends in RF and non-RF Title I schools. One analysis examines third- and fourth-grade reading performance on states' reading assessments. The second analysis examines the relationship between teachers' RF-aligned instructional activities and student reading achievement, using 2005 survey data and states' reading assessment scores. The methods used to conduct these analyses are briefly summarized below.

Reading Achievement on State Assessments

Analyses were conducted using annual third- (24 states) and fourth-grade (17 states) test scores on state reading assessments from 12,362 schools (3,000 RF and 9,362 non-RF Title I). Difference-in-difference models were fit to the data to estimate whether the changes in reading performance (from pre- to post-RF implementation) were larger in RF schools than in non-RF Title I schools. These analyses required that we specify, for each school, those years (and their corresponding test scores) that preceded then followed the implementation of RF. Because no data provide this information directly, we used four different methods to assign schools' pre- and post-RF implementation years: 1) initial state award date; 2) district award date; 3) an adjusted district award date that accounts for the time between district award dates and schools' receipt of funds date;[22] and 4) school award dates based on RF principals' survey responses.[23] For each of the four analyses, we also assigned pre- and post-RF implementation years for the non-RF Title I schools (See Appendix C for a discussion of the procedures used to assign award dates).

Three or four separate methods were fit to the data for each state, depending on data availability.[24] In most states, we fit baseline mean models that estimated the average reading performance in the pre-RF years in both RF and non-RF Title I schools, compared that to post-RF average performance, and then compared the non-RF Title I pre-post difference to the RF pre-post difference (i.e., the difference-in-difference estimate). In addition, for each method, we computed a weighted average effect size across states of the pre-RF to post-RF implementation differences in reading scores in RF and non-RF Title I schools by averaging weighted effect sizes calculated from the difference-in-difference estimate.

RF-Aligned Activities and Student Reading Achievement

We used two data sources to investigate the relationship between student reading performance and the implementation of RF activities: 1) third-grade reading scores on state assessments (as

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[22] The adjusted district award date added an average number of days to the district award date.

[23] We used these dates to proportionally assign imputed dates to other RF schools in our study sample.

[24] To conduct these analyses, we must be able to accurately specify, for each school, those test scores that represent performance in years *prior to* as well as in years *after* RF implementation. Because data on when each RF schools received funding are not available, we fit statistical models using four different methods to estimate this date. Analyses were run separately for schools within each state; see Appendix C for a detailed discussion.

used above); and 2) composite variables constructed from a subset of 2005 survey questions that characterize classroom reading instruction, help for struggling readers, professional development, and the use of assessments. This analysis included only those schools that had teacher survey responses *and* were located in states with sufficient state test score data, and it includes both RF and non-RF Title I schools, because the implementation of activities aligned with Reading First can potentially occur in either type of school.

Because tests and metrics vary across states, each state's reading scores were standardized by designating schools as either high- or low-performing relative to all other RF and Title I SWP schools in that state.[25] Schools were then selected from the highest and lowest quartiles; the analytic sample included 390 schools from 21 states.

To explore the relationship between teachers' implementation of RF-aligned activities and schools' performance on states' third-grade reading assessments, we fit a logistic regression model using the four composites to predict the probability that a school scored in the top quartile (of all RF and non-RF Title I SWP schools) on their state's third-grade reading assessment. The model also included indicator variables for each state, in order to account for state level variation in the probability of a school's being in the top quartile on the reading assessment and an indicator for Reading First or non-RF Title I status.

Limitations

This report presents findings based on analyses of survey data and students' reading performance on state assessments. Both sets of findings should be interpreted with caution as the analyses face several limitations.

Most importantly, although the RF and non-RF Title I schools are similar demographically on those characteristics measured in the study, (See Chapter 2), schools were not randomly assigned to receive RF funding, and therefore there could have been preexisting differences between the two groups of schools on unobserved characteristics. We cannot assume that the two groups of schools are equivalent but for the fact that one group received RF funds while the other did not. This means that the findings cannot support causal inferences that attribute observed differences in student reading achievement between RF and non-RF Title I schools to the Reading First program.

Additionally, the survey findings are based on respondents' self-reported perceptions and judgments about the implementation of their reading programs. Moreover, the Reading First legislation allows states to provide professional development in scientifically based reading instruction to *all* K–3 teachers, not only the teachers in schools with RF funding; this may reduce the potential to find large differences between the reading programs in RF and non-RF Title I schools.

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[25] For each state, we selected schools in the lowest quartile (at or below the 25th percentile) and the highest quartile (at or above the 75th percentile) on the state's third grade reading assessment relative to all RF and Title I SWP schools.

There are several caveats that apply specifically to the analysis of student reading achievement in RF schools. First, it is based on states' average school-level reading assessment scores, and because the number of schools varies widely from state to state, this poses an analytic problem. California, for example, has approximately 800 RF schools and nearly 100,000 K–3 students, whereas Delaware has eight RF schools and fewer than 1,000 K–3 students. The ability to detect statistically significant differences decreases as the number of schools within a state decreases. Second, year-to-year comparisons of performance are based on different cohorts of children, who may or may not be comparable over time. Therefore, changes in performance could reflect individual student differences, rather than exposure to Reading First.

Third, most states report reading scores in terms of the percent of students meeting a particular cutoff or reference point (i.e., percent at or above basic level), not in terms of each school's average test score. Such proficiency scores mask any student level changes in performance that may have occurred above or below the cutoff point. This is particularly worrisome in low-performing schools and for low-performing students; even substantial changes in student achievement can go undetected when average student performance does not cross a given threshold. Data on the school-level percent meeting a threshold measure may, therefore, underestimate improvements in student performance.

Fourth, we did not have accurate data on when each school began to implement RF. Such data are essential for determining schools' pre- and post-RF implementation years. Absent such information, we used several methods to assign start dates and thereby classify pre- and post-RF implementation years. The extent to which such dates were imputed varied depending on the analytic method. For example, the analysis that used the initial state award date required no imputation because this method defines one start date for the onset of RF and this date is applied to all RF and non-RF Title I schools in the analysis. Also, for the analyses that used the dates RF districts received their funds, there was no imputation for the RF and non-RF Title I schools in those districts because, again, those dates define the onset of RF implementation. However, 60 percent of the non-RF Title I schools are in districts with no RF schools and therefore, no RF district start dates. For those schools, we used dates from RF districts to impute schools' start dates. However, these imputations may have led us to misclassify pre- and post-RF years for some schools, and consequently may have affected the results of these analyses.

There are also two limitations specific to the investigation of the relationship between reading achievement and teachers' implementation of RF-aligned activities. First, the sample of schools included in the analysis is a sample of convenience, despite the fact that it is drawn from nationally representative samples of RF and non-RF Title I schools, because it includes only those schools with survey data and data from their states' third-grade reading assessments. Therefore, we must caution against generalizing any observed findings to larger populations of schools.

Second, the relational analysis uses measures that are differentially sensitive; the teacher survey asks detailed questions about RF activities, and the achievement measure is a blunt assessment of third-grade reading performance. Further, the school sample includes only the extremes (highest

and lowest quartiles) of the reading score distributions. We constructed a dichotomous (1/0) variable to indicate whether a school's score was in the top quartile to try to standardize reading achievement across states as best we could, given the available data. However, this measure of reading achievement may not capture all schools' improved reading achievement.

Summary of Findings from Relevant Reports

To place the current findings in context, below we review the key findings from several other relevant evaluations. First, we describe earlier (interim) findings from this study. Second, we describe other studies of the Reading First Program, and, third, we describe two studies about reading programs and instruction that have clear implications for Reading First.

The Reading First Implementation Evaluation: Interim Report (U.S. Department of Education, 2006)

The Interim Report[26] presented findings that described and compared reading programs implemented in 2004–05 in nationally representative samples of RF and non-RF Title I schools. These findings provide the baseline for understanding how these programs have changed by 2006–07, the focus of this current report.

The main finding from this report is that Reading First schools appear to be implementing the major elements of the program as intended by the legislation, such as providing scientifically based reading instruction in grades K–3, increased amounts of time for reading instruction, interventions for struggling readers, wider use of classroom-based reading assessments, and more professional development activities.

Reading Instruction in K–3 Classrooms

- **Instructional Time.** Significantly more RF schools than non-RF Title I schools reported having a formally scheduled "reading block for teaching reading for each of grades K through three. Teachers in RF schools reported, on average, they spent significantly more time on reading than did teachers in non-RF Title I schools—a difference of about 19 minutes per day, or almost 100 minutes per week. Teachers in newly funded RF schools were also significantly more likely than teachers in non-RF Title I schools to report that they had increased the amount of time spent on reading from the 2003–04 to the 2004–05 school years.

- **Instructional Materials.** Newly funded RF schools reported that they have made substantial changes to their reading programs since they received their RF funds in the 2004–05 school year.

- **Instructional Strategies.** Teachers in RF schools across all grades rated a greater proportion of SBRR-aligned practices as central to their instruction than did teachers in non-RF Title I schools.

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[26]   This report is available at http://www.ed.gov/about/offices/list/opepd/ppss/html.

Interventions for Struggling Readers

- RF teachers in three grades (kindergarten, second, and third) were significantly more likely than teachers in non-RF Title I schools to place their struggling students in intervention programs.

- RF teachers were more likely than teachers in non-RF Title I schools to report increased amounts of time for struggling readers to practice skills in several dimensions of reading

- Across both RF and non-RF Title I schools, there is evidence of increased attention to struggling readers, including, for example, no delay between identification and provision of services. RF and non-RF Title I schools are also similar with respect to coordinating instruction for ELL students

- Although significantly more teachers in RF schools reported receiving professional development in helping struggling readers than did teachers in non-RF Title I schools, teachers in both RF and non-RF Title I schools recognized the challenge of providing effective instruction to struggling readers; 80 percent of teachers in both groups reported that they need additional professional development on this topic.

Assessment

- Teachers in RF schools were more likely than teachers in non-RF Title I schools to report having received professional development assistance on administering and using assessments, interpreting assessment data, and using diagnostic tests to guide instruction.

- Teachers in RF schools were more likely to report applying assessment results for varied instructional purposes (e.g., for planning the grouping of students, progress monitoring and identifying struggling readers) than their non-RF Title I counterparts.

Oversight and Classroom Support Activities

- RF schools were significantly more likely to have a reading coach than were non-RF Title I schools.

- Coaches in RF schools were significantly more likely to provide teachers with various supports for their reading instruction than were coaches in non-RF Title I schools.

Professional Development

- RF staff received significantly more professional development related to reading than did staff in non-RF Title I schools. Teachers in RF schools were more likely to have received professional development in the five dimensions of reading instruction as well as in overall teaching strategies than teachers in non-RF Title I schools. Indeed, teachers in RF schools reported feeling better prepared to teach the five dimensions of reading than teachers in non-RF Title I schools.

- Activities attended by teachers in RF schools were more likely to have characteristics conducive to a successful experience, such as incentives and follow-up activities, than those attended by teachers in non-RF Title I schools.

The Reading First Impact Study: Interim Report (U.S. Department of Education, 2008)

The Reading First Impact Study[27] is designed to answer questions about the impact of the Reading First Program on classroom instruction and student reading achievement as well as about the relationship between instruction and reading achievement. The study collected data in 248 schools located at 18 sites and in 13 states over three school years. This data collection included detailed classroom observations in grades 1 and 2 and reading comprehension assessments in grades 1, 2 and 3. The study uses a regression discontinuity design to compare two groups of schools: those that did and those that did not receive Reading First funding. The study's recently released Interim Report presented findings based on the first two of three years of data collection.

- On average, Reading First increased instructional time spent in the reading block on the five essential components of reading instruction promoted by the program (phonemic awareness, phonics, vocabulary, fluency, and comprehension).

- On average, across the 18 participating sites (17 school districts and one statewide program), estimated impacts on student reading comprehension test scores were not statistically significant.

- Average impacts on reading comprehension and classroom instruction did not change systematically over time as sites gained experience with Reading First.

The Analysis of State K–3 Reading Standards and Assessments (U.S. Department of Education, 2005)

This report[28] presented findings from an analysis of the alignment of state K–3 reading content standards in 2002–03 with the five essential components of reading instruction in a random sample of 20 states. In addition, the study reviewed Reading First applications of all states and the District of Columbia to determine the extent to which state assessments for *NCLB* accountability purposes were used to measure Reading First outcomes.

- Comprehension and, to a lesser extent, vocabulary were more comprehensively addressed by states' K–3 reading standards than were the other three essential components of reading instruction (phonemic awareness, phonics and fluency).
  - Reading comprehension was the most represented of the five essential components in the state K–3 reading standards with an average of 57 standards per state, followed by vocabulary (19), phonics (16), fluency (6), and phonemic awareness (6).
  - Most standards representing each of the essential components were judged to be at the appropriate grade for most states.

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[27] The report available at http://ncee.ed.gov.

[28] The report is available at http://www.ed.gov/about/offices/list/opepd/ppss.html.

- With the possible exception of vocabulary and comprehension in grade 3, statewide reading assessments in 2003–04 did not significantly address expected student outcomes from reading instruction in the five essential components.
  - Twenty states identified their grade 3 reading assessments in 2003–04 as measures of Reading First outcomes, primarily for only vocabulary and comprehension.

Reading First, Locally Appreciated, Nationally Troubled (Center on Education Policy, 2007)

This report[29] was based on survey data from 50 states and 349 Reading First school districts, and case study interviews in nine Reading First districts. It provided information about the perceived effectiveness of Reading First, implementation challenges, coordination between the RF and Title I programs, and the efficacy of the evaluations of Reading First. Key findings include:

- Schools and districts appeared to be implementing Reading First as intended by the legislation.

- Two-thirds of school district respondents reported that reading instruction had changed in RF schools.

- Most states and the majority of school districts reported that Reading First improved student reading achievement. District respondents attributed improved reading achievement to the assessments and instructional programs required by Reading First.

- More than half of the RF districts reported that schools other than those receiving RF funds were modifying their reading programs to align with the key features of Reading First.

Closing the Reading Gap: Findings from a Randomized Trial of Four Reading Interventions for Striving Readers (Torgeson, et al., 2006)

This report[30] described the implementation and impacts of four remedial reading interventions on the skills of third- and fifth-grade struggling readers. The interventions are *Corrective Reading, Failure Free Reading, Spell Read Phonological Auditory Training and Wilson Reading.* These interventions provided explicit and systematic instruction in the component skills of reading. The study design included randomly assigning teachers to one of the four programs, as well as randomly assigning students to one of the programs or to a control group where students received the normal instruction provided by the school. Comparing the combined effects of the four interventions to the control group, the study found that:

- There were positive impacts on third-grade students' skills on decoding, word reading accuracy, fluency and passage comprehension, and on fifth-grade students' decoding skills:

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29 The report is available at http://www.cep-dc.org.

30 The report is available at http://ies.ed.gov/ncee/pubs/20084012/index.asp.

- Both third- and fifth-grade students receiving the interventions improved their performance on a measure of decoding skills (i.e., word attack) relative to the performance of the normative sample of students for that particular test.

Instructional Time in Elementary Schools: A Closer Look at Changes for Specific Subjects (Center on Education Policy, 2008)

This study[31] analyzed data from the surveys of 349 school districts (described in the "Reading First: Locally Appreciated, Nationally Troubled" report) to examine changes in instructional time in elementary schools from the time *NCLB* took effect in 2002 to 2007.

- About 80 percent of districts reported increasing the amount of time devoted to English and language arts in their elementary schools.

- According to district reports, on average, elementary schools have increased by about three hours per week the amount of time spent teaching English, language arts and mathematics.

The Organization of This Report

The report is organized into nine chapters. Chapter 1 reviewed the context for study, the Reading First legislation, the study design and the analytic approaches. Chapter 1 also summarized findings from other relevant studies. Chapter 2 describes the characteristics of RF and non-RF Title I schools. Chapters 3 through 7 present analyses of survey data that investigate changes in reading programs from 2005 to 2007 in RF and non-RF Title I schools. Chapter 8 presents findings about reading achievement trends in RF and non-RF Title I schools based on state-by-state analyses of third- and fourth-grade scores on states' reading assessments. In addition, chapter 8 presents results of an analysis of the relationship between teachers' RF-aligned activities and student reading achievement using 2005 survey data and states' reading assessment scores. Chapter 9 presents conclusions based on the key findings presented in this report.

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[31] The report is available at http://www.cep-dc.org.

Chapter 2: Characteristics of RF and Non-RF Title I Schools

This chapter presents information on school enrollment, staffing, student populations, and external resources targeted to schools' reading programs. Finally, we summarize the proportion of RF schools designated as in need of improvement as defined by the *NCLB* accountability requirements.

School Characteristics

RF and non-RF Title I schools are similar in terms of their average enrollment and location (urbanicity) (Exhibit 2.1). However, there is a modestly greater proportion of very large RF schools than non-RF Title I schools (14 percent vs. 9 percent). There are no significant or substantive differences in the locales of RF and non-RF Title I schools.

Exhibit 2.1

School Enrollment and Urbanicity in RF and Non-RF Title I Schools, 2006–07 School Year

	RF Schools	Non-RF Title I Schools
School Size		
Mean enrollment	484	454
	Percent	**Percent**
Very small (1–99)	4%	3%
Small (100–249)	13	16
Medium (250–499)	41	44
Large (500–749)	29	28
Very large (750+)	14*	9
Urbanicity		
Urban	40%	36%
Suburban	35	35
Rural	25	29

Exhibit reads: In 2006–07, about 4 percent of RF and 3 percent of non-RF Title I schools had very small enrollments (i.e., less than 100 students).

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.2.2 for additional statistics.

Source: Principal Survey, Question A3.

Weight: Principal.

Weighted respondents: Principals in 1,536 RF schools and 12,802 in non-RF Title I schools.

Nonresponse rates across survey items: 0.8 to 6.0 percent.

Enrollment stability is similar for RF and non-RF Title I schools, with approximately 30 percent of the schools in each group experiencing an increase in enrollment; about 40 percent of the schools experienced a decrease in enrollment over the last five years (Exhibit 2.2). Reading First and non-RF Title I schools also have similar attendance rates and mobility rates (93 percent and 17–18 percent, respectively).

Exhibit 2.2

Mobility Rates, Attendance Rates and Changes in Enrollment in RF and Non-RF Title I Schools, 2006–07 School Year

	RF Schools	Non-RF Title I Schools
Change in Enrollment in Last Five Years		
Decreased	40%	39%
Remained stable	31	28
Increased	29	33
Mobility Rate	18%	17%
Attendance Rate	93	93

Exhibit reads: In 2006–07, attendance rates in both RF and non-RF Title I schools were, on average, 93 percent.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.2.2 for additional statistics.

Source: Principal Survey, Questions A3 and A4.

Weight: Principal.

Weighted respondents: Principals in 1,540 RF schools and 12,719 non-RF Title I schools.

Nonresponse rates across survey items: 0 to 13.3 percent.

Staff Experience

Staff reports of their years of experience are, in general, similar in RF and non-RF Title I schools (Exhibit 2.3). Principals in non-RF Title I schools have slightly more experience as principals than do their counterparts in RF schools (8.2 years vs. 7.2 years). Similarly, they have been in their current schools slightly longer than principals in RF schools (5.7 years vs. 4.8 years). About half of the principals, on average, have been in their schools for three years or less (51 percent of the RF principals and 44 percent of the non-RF Title I principals).

While teachers in both RF and non-RF Title I schools are very experienced, teachers in non-RF Title I schools, on average, have slightly more experience than do teachers in RF schools (15.5 years vs. 14.1 years). Nevertheless, about 19 percent of RF teachers and 16 percent of teachers in non-RF Title I schools have taught in their schools for three years or less (See Appendix B.2.3b for details).

Exhibit 2.3

Years of Experience for Staff in RF and Non-RF Title I Schools, 2006–07 School Year

	RF Schools	Non-RF Title I Schools
	Mean	**Mean**
Principals		
Years experience as principal	7.2	8.2*
Years in this school	4.8	5.7*
Teachers		
Years experience	14.1	15.5*
Years in this school	9.3	10.9*
Reading Coaches [a]		
Years experience	17.7	16.8
Years in this school	9.7	9.3
Years as reading coach in this school	3.3	4.5
	Percent	**Percent**
Schools with reading coaches	99*	57
Principals in this school three years or less	51*	44

Exhibit reads: In 2006–07, principals in RF schools have, on average, 7.7 years experience in that position, compared with 8.5 years for principals in non-RF Title I schools. This difference is statistically significant (p ≤ .05).

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I respondents.

[a] reading coaches in non-RF Title I schools were excluded from this analysis because based on their survey responses, they do not appear to meet the definition of "reading coach" used in this evaluation.
See Appendix B, Exhibit B.2.3a for additional statistics.
Source: Principal, and Teacher Surveys, Question A1; Reading Coach Survey, Question A3.
Weight: Principal, Teacher, and Reading coach.
Weighted respondents: 1,555 principals, 5,811 teachers and 1.533 reading coaches in RF schools;12,909 principals, 45,731 teachers and 5,798 reading coaches in non-RF Title I schools;
Nonresponse rates across survey items and respondents: < 1 percent.

Nearly all RF schools have reading coaches (99 percent), compared to 57 percent of non-RF Title I schools. The reading coaches in both RF and non-RF Title I schools are more experienced than teachers in these schools; on average, they have 18 years of combined teaching or coaching experience (Exhibit 2.4).

Preservice Teacher Training in the Five Dimensions of Reading
A cornerstone of the Reading First program is that teachers should be knowledgeable about and well prepared to teach the five essential components of reading instruction—phonemic awareness, phonics, vocabulary, comprehension, and reading fluency. Teachers rated the extent to which their *preservice training* prepared them to teach the five dimensions of reading using a scale of 1 (not at all prepared) to 5 (extremely well-prepared). Generally, across the five dimensions, RF teachers rated themselves in the middle of the range—suggesting that their preservice training left them somewhat prepared to teach these skills. On two dimensions (vocabulary and fluency), teachers in non-RF Title I schools rated themselves significantly higher than did the RF teachers; these differences, while statistically significant, are small (Exhibit 2.4).

Exhibit 2.4

Preservice Training on the Five Dimensions of Reading: Teachers' Ratings on Preparedness, 2006–07 School Year

| | Teachers | |
| | RF Schools | Non-RF Title I Schools |
Dimension	Mean Rating	Mean Rating
Phonemic awareness	3.07	3.11
Phonics	3.19	3.22
Vocabulary	3.34	3.45*
Comprehension	3.41	3.50
Fluency	2.95	3.07*

Exhibit reads: In 2006–07, teachers in non-RF Title I schools rated themselves as better prepared based on their preservice training to teach vocabulary than did RF teachers (3.45 vs. 3.34, $p \le .05$).

Notes: The stars (*) indicate that there is a statistically significant difference (i.e., p-value $\le .05$) between teachers in RF and non-RF Title I schools.

Ratings are on a scale of 1 to 5, where 1 = not at all prepared and 5 = extremely well prepared.

See Appendix B, Exhibit B.2.4 for additional statistics.

Source: Teacher Survey, Question A3.

Weight: Teacher.

Weighted respondents: 23,880 teachers in RF schools; 180,630 teachers in non-RF Title I schools.

Nonresponse rates across survey items: < 1 percent.

Student Population

Principals reported that special education services are provided to the same proportion of students in RF and non-RF Title I schools (8 percent) (Exhibit 2.5). A modestly larger proportion of students receive English as a Second Language (ESL) education services in RF schools than in non-RF Title I schools (18 percent vs. 11 percent). Very small proportions of students in RF and non-RF Title I schools receive instruction in a language other than English (4 percent and 6 percent, respectively). Also, slightly more students in non-RF Title I schools are reportedly reading at or above grade level than their counterparts in RF schools (60 percent vs. 54 percent).

Exhibit 2.5

Student Characteristics in RF and Non-RF Title I Schools, 2006–07 School Year

	RF Schools	Non-RF Title I Schools
	Mean Percent	Mean Percent
Receive Special Education Services	8	8
Receive ESL Instruction	18*	11
Instruction in language other than English	6	4
Reading at or above grade level	54	60*

Exhibit reads: In 2006–07, in RF schools and non-RF Title I schools, 6 percent of kindergarten students receive special education services.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.2.5 for additional statistics.

Source: Principal Survey, Question A5.

Weight: Principal.

Weighted Respondents: Principals in 1,446 RF schools and 11,460 in non-RF Title schools.

Nonresponse rates across survey items and grades: 4.5 to 15.0 percent.

External Resources to Support Schools' Reading Programs

Reading First is the signature reading program of *No Child Left Behind*. As such, it represents a substantial investment aimed at improving the reading achievement of the nation's students. At the same time however, states, school districts, and schools receive support for their reading programs from other sources. As noted in the Interim Report, interviews with state Reading First coordinators, for example, indicated that that 30 states had other reading initiatives based on scientifically based reading research (SBRR), 36 states had major statewide initiatives that provided reading-related professional development to teachers and other educators.[32] Below, we summarize survey results about the array of funding and external support for reading for Reading First schools.

Size of Reading First Grant
The median grant amount for RF schools in 2004–05 was $138,000 (Exhibit 2.6). Based on principal survey responses, newly funded RF schools in their first year of implementation received significantly more RF funds, on average, than more mature schools that had been implementing for one or more years ($168,000 vs. $120,690). These differences are also reflected in the per pupil allocations of RF funds; the median per pupil allocation of RF funds was significantly higher in newly funded schools than in mature schools in 2004–05 ($670 vs. $403).

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[32] Other initiatives include revised reading or language arts standards and accountability or assessment initiatives focused on reading proficiency (29 states), early child education and school readiness initiatives (18 states), and family literacy programs such as Even Start.

Exhibit 2.6

Size of Reading First Grant, Per School and Per Pupil, 2004–05 School Year

Size of RF grant	All Reading First Schools	Newly Funded Reading First Schools	Mature Reading First Schools
Median Reading First school grant	$138,000	$168,000*	$120,690
Median per pupil grant	$496	$670*	$403

Exhibit reads: In 2004–05, the median amount of schools' RF grants was $138,000; for newly funded RF schools, the median grant was $168,000 and for mature RF schools the grant was $120,000.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.2.6 for additional statistics.

Source: Principal Survey (2005), Questions A4 and B6.

Weight: Principal.

Weighted Respondents: Principals in 2,539 RF schools.

Nonresponse rate: 35.1 percent.

Sources of Financial Assistance for K–3 Reading Programs

Principals of RF schools, on average, reported that they received funding from more sources than did principals of non-RF Title I schools (5.2 vs. 4.5) (Appendix B, Exhibit B.2.7a). However, a significantly greater proportion of principals in non-RF Title I schools than RF schools reported receiving funding from non-RF Title I, district general funds, state textbook funds, and private grants than did principals in RF schools.

According to principals, virtually all RF schools (97 percent) received Title I funds in 2006–07. One might ask, therefore, whether schools receiving RF funds receive smaller allocations of Title I funds than similar compared to other non-RF Title I schools. Findings from the *National Longitudinal Study of NCLB* (U.S. Department of Education, 2008) suggest otherwise. Analyzing Title I funding allocations in 39 districts and 458 RF schools indicated that nearly all districts either gave similar or larger Title I allocations per low-income student to their RF schools compared with non-RF Title I schools. Interestingly, schools' Reading First allocations were, on average, *substantially smaller* than their Title I allocations ($269 per low-income student for Reading First vs. $731 for Title I schools). However, there were 79 schools (18 percent) whose Reading First allocations per low-income student were larger than their Title I allocations.

Sources of Nonfinancial Assistance for K–3 Reading Programs

Beyond financial support, RF principals were significantly more likely to report receiving substantially more external, nonfinancial assistance than were principals in non-RF Title I schools in a variety of areas; examples include conducting classroom observations (73 percent vs. 46 percent), reviewing reading program effectiveness (64 percent vs. 42 percent), providing technical assistance for using supplementary reading materials (61 percent vs. 47 percent and planning professional development (76 percent vs. 65 percent) (Exhibit 2.7).

Exhibit 2.7

Nonfinancial External Assistance for K–3 Reading Program Activities in RF and Non-RF Title I Schools, 2006–07 School Year

Type of Assistance	RF Schools	Non-RF Title I Schools
Planning professional development	76%*	65%
Interpreting assessment results	75*	65
Conducting classroom observations	73*	46
Providing technical assistance in implementing core reading programs	65*	45
Selecting professional development providers	63*	49
Selecting assessment instruments	54	54
Selecting instructional programs/materials	52	53
Reviewing reading program effectiveness	64*	42
Conducting demonstration lessons	57*	45
Diagnosing needs of struggling readers	58*	51
Setting up intervention programs for struggling readers	58	52
Providing technical assistance for using supplementary reading materials	61*	47
Conducting needs assessment for professional development	48*	36
Leading teacher study groups	37*	29
Recruiting staff with reading expertise	28	24

Exhibit reads: In 2006–07, 76 percent of principals in RF schools reported receiving external assistance in planning professional development, compared to 65 percent of principals in non-RF Title I schools. This difference is statistically significant (p-value ≤ .05).

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.2.7 for additional statistics.

Source: Principal Survey, Question B2.

Weight: Principal.

Weighted respondents: Principals in 1,523 RF schools and 12,635 non-RF Title schools.

Nonresponse rates across survey items: 0.7 to 1.2 percent.

NCLB Accountability

All schools, including Reading First schools, must also continue to meet the accountability requirements of the *NCLB* legislation. *NCLB* mandates that states develop and implement accountability systems to ensure that districts and schools make adequate yearly progress as measured by the academic achievement of their students (Part A, Sec. 1111, (b), (2)). States develop definitions of Adequate Yearly Progress (AYP) for their respective districts and schools by specifying minimum levels of improvement in student performance to be attained. In 2006–07, principals in 72 percent of RF schools and 78 percent of non-RF Title I schools reported that their schools made AYP in reading or language arts based on 2005-06 test scores.

Schools that do not make AYP for two consecutive years are designated as schools in need of improvement; such schools are required to develop plans for improvement and offer school choice in year 1 of school improvement. If, however, schools fail to make AYP at the end of year 1 or improvement status, districts are required to provide technical assistance to the school and supplemental educational services to the eligible students in those schools. If those schools

fail to make AYP at the end of year 2 of improvement, the district must implement a series of corrective actions such as replacing staff, restructuring the organization of the school, implementing new curricula, or extending the school day.

Schools are in restructuring status after failing to make AYP after five years. In the first restructuring year, the district must develop a plan for schools that do not make AYP in the sixth year to implement at the beginning of the following school year. Schools can: reopen as a charter school; replace all or most of the school staff; contract with a private entity to manage the school; turn over operation of the school to the state; or adopt some other major restructuring of the school's governance (*The No Child Left Behind Act of 2001,* PL 107-110, Section 1116(b)(8)). Findings from a recent study of Title I found that the majority of schools in the restructuring phase are undergoing other major restructuring of their school governance practices and are implementing interventions that are corrective actions rather than restructuring actions (Stullich, Eisner and McCrary, 2007).

Reading First Schools in Need of Improvement
In the 2006–07 school year 32 percent of RF schools were designated as schools in need of improvement (SINI) (Exhibit 2.8), an increase schools from the 22 percent in 2004–05. This proportion is consistent, however, with recent data from the *Final Report on the National Assessment of Title I Final Report* indicating that in 2005–06 about one-third of high-poverty Title I schools were designated as in need of improvement (U.S. Department of Education, 2007).[33]

Exhibit 2.8

Status of Reading First Schools Designated as in Need of Improvement, 2004–05 and 2006–07 School Years

	2004–05		2006–07	
	Number	**Percent**	**Number**	**Percent**
Reading First Schools	4,764	100	5,115	100
Schools in need of improvement	1,014	22	1,632	32
Status:				
School improvement—Year 1	418	41	444	27
School improvement—Year 2	294	29	323	20
Corrective action	189	19	481	29
Restructuring and planning	113	11	384	24

Exhibit Reads: In 2004–05, of the 4.764 RF schools, 1,014 (22 percent) were designated as in need of improvement.
Note: These data are based on the census of Reading First schools rather than the study's sample of RF schools.
Source: Databases provided by the U.S. Department of Education.

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[33]   High poverty schools were defined as schools in which at least 75 percent of the students are eligible for free or reduced price lunches. These schools, although not an ideal comparison with RF schools, represent the most reasonable group for which such data are available.

Summary

The demographic characteristics of RF and non-RF Title I schools are similar in several areas including attendance rates, mobility, and stability of enrollment. However, RF schools are more likely to be very large (i.e., enrollments of 750 or more students) than are non-RF Title I schools (14 percent vs. 9 percent).

The K–3 student populations of RF and non-RF Title I schools are similar in terms of the proportion of students receiving special education services and instruction in a language other than English. However, these schools differ in their proportions of students receiving ESL instruction; about 18 percent of K–3 students in RF schools receive such services, compared to about 11 percent in non-RF Title I schools. Also, slightly more students are reading at or above grade level in non-RF Title I schools than in RF schools (60 percent vs. 54 percent).

In addition to receiving Reading First funds, most RF schools received support for reading programs from several other sources including Title I (91 percent), school district general funds (82 percent), state funds for reading programs (56 percent) and state textbook funds (45 percent). Reading First schools also received many different kinds of nonfinancial support for their K–3 reading programs in the form of assistance with planning professional development, interpreting assessment results, implementing the core reading program, and conducting classroom observations. Finally, across a variety of types of nonfinancial support, Reading First schools were much more likely to receive such assistance than were non-RF Title I schools.

Chapter 3: Reading Instruction

A central objective of Reading First is to improve how reading is taught in K–3 classrooms by aligning instruction with scientifically based reading research (SBRR). Ongoing professional development, the use of assessments, and interventions for struggling readers are all aimed at making reading instruction more effective, thereby increasing the proportion of children who can read at grade level.

This chapter presents findings that describe and compare the specific components of reading programs in RF and non-RF Title I schools, including the amount of instructional time allotted to reading instruction, the types of materials used for reading instruction, and the specific strategies and activities teachers use to teach their students to read.

Key Findings

RF schools reported dedicating more time to reading instruction in their K–3 classrooms than did non-RF Title I schools. According to principals and reading coaches, virtually all schools scheduled reading blocks for their K–3 classrooms. Nearly all (98 percent) of RF schools scheduled these blocks for 90 minutes or more, compared to 75 percent of non-RF Title I schools. Moreover, K–3 teachers in RF schools reported spending an average of 103 minutes per day on reading activities, compared to 81 minutes reported by teachers in non-RF Title I schools. This translates to approximately 110 *additional* minutes per week of reading instruction for students in RF schools.

Reading materials in RF schools were more likely to be aligned with SBRR than in non-RF Title I schools. According to reading coaches, RF schools were more likely to report that their core reading programs are aligned with SBRR (93 percent vs. 76 percent), that K–3 teachers in their schools are knowledgeable about SBRR (79 percent vs. 58 percent) and that reading intervention materials in their schools are aligned with SBRR (94 percent vs. 79 percent) than were their counterparts in non-RF Title I schools. In addition, more teachers in RF schools teachers in non-RF Title I schools rated SBRR-aligned practices as central to their instruction (85 percent vs. 75 percent).

Virtually all RF and non-RF Title I schools implemented at least one core reading program in each of grades K–3. RF schools were more likely than non-RF Title I schools to report that they the used the same program across all of their K–3 classrooms (78 percent vs. 58 percent). The five most frequently used core reading programs in RF schools included Harcourt Trophies (23 percent), McGraw-Hill Open Court (15 percent), Scott Foresman Reading (13 percent), Houghton Mifflin Nation's Choice (11 percent) and Houghton Mifflin's Reading (10 percent). Four of these five programs were also those most commonly reported by non-RF Title I schools (Houghton Mifflin's Nation's Choice was not).

After making substantial changes to their reading programs during their first year of implementation, RF schools were *less likely* than non-RF Title I schools, to make many additional changes in 2006–07. In mature RF schools, 3 percent adopted a new core reading program in 2006–07 compared to 39 percent in 2004–05; similarly, 14 percent added new materials for ELLs, compared to 43 percent earlier. RF schools continued to add new intervention programs for struggling readers (40 percent) and add new supplementary materials to their reading programs (42 percent) in 2006–07. In 2006–07, non-RF Title I schools were more likely than RF schools to report they adopted a new core reading program (17 percent vs. 3 percent) and adopted new materials for ELLs (26 percent vs. 14 percent). In both years, about 60 percent of non-RF Title I schools reported that they added new supplementary materials and more than 40 percent reported adding new interventions for struggling readers.

Instructional Time

Building upon research demonstrating that the amount of time schools spend on reading is a major determinant of reading achievement,[34] the Reading First program guidance encourages schools to "consider the allocation of time, including a protected, uninterrupted block of time for reading instruction of more than 90 minutes per day."[35] Findings from surveys of both administrators and teachers suggest that schools receiving Reading First funds are adhering to the guidance and devoting more classroom time to reading instruction than are non-RF Title I schools.

Reading coaches in both RF and non-RF Title I schools generally agreed that sufficient time during the school day was allotted for reading instruction, however, the actual amount of reading instruction reported was significantly greater in RF schools than non-RF Title I schools (Exhibit 3.1).[36] Virtually all RF schools and most non-RF Title I schools scheduled formal reading blocks for grades K–3 (99 vs. 91 percent for kindergarten, 100 vs. 94 percent for grades 1–3), but the average length of these reading blocks was 12–14 minutes longer in RF schools. In fact, virtually all RF schools reported that their scheduled grade 1–3 reading blocks last 90 minutes or more, whereas 20 percent of non-RF Title I schools reported having reading blocks shorter than 90 minutes for these grades.

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[34] Committee on the Prevention of Reading Difficulties in Young Children, National Research Council, Washington, D.C., 1998.

[35] U.S. Department of Education, Office of Elementary and Secondary Education, *Guidance for the Reading First Program*. Washington, D.C., April 2002, page 6

[36] When asked to indicate on a scale of one to five how accurately the statement "Sufficient time during the school day is allotted for reading instruction" describes their school, 94 percent of the reading coaches in RF schools and 85 percent of the reading coaches in non-RF Title I schools said this statement was "accurate" or "very accurate." This difference is statistically significant ($p \leq .05$).

Exhibit 3.1

Daily Scheduled Reading Block and Mean Length of the Reading Block for RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Grade Level	2004–05		2006–07		2006–07 Difference – 2004–05 Difference
	RF Schools	Non-RF Title I Schools	RF Schools	Non-RF Title I Schools	
Kindergarten					
…Schools with reading block	99%*	88%	99%*	91%	-2.6%
…Schools with a reading block < 90 minutes	9%	32%*	7%	31%*	-0.3%
…Length of reading block (in minutes)	101*	92	102*	93	-1.2
Grades 1–3					
…Schools with reading block	100%*	92%	100%*	94%	-1.6%
…Schools with a reading block < 90 minutes	1%	23%*	0%	20%*	2.2%
…Length of reading block (in minutes)	110*	98	111*	97	1.4

Exhibit reads: In 2004–05, 99 percent of RF schools reported that their school scheduled a reading block for kindergarten, compared to 88 percent of non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 99 percent of RF schools reported scheduling a kindergarten reading block, compared to 91 percent of non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by –2.6 percentage points (right-hand column) reflecting an 8 percentage point difference between RF and non-RF Title I schools in 2006–07 and an 11 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.3.1 for additional statistics.

Source: Reading Coach Survey and Principal Survey (Question D2 in 2004–05 and D1 in 2006–07).

Weight: School.

Weighted respondents: Principals or reading coaches in 1,678 RF schools and 14,316 non-RF Title I schools.

Non-response rates across survey items, years, and respondents: 0 to 3.6 percent.

Teachers in RF schools reported spending significantly more time on daily reading instruction than teachers in non-RF Title I schools. Grade 1–3 teachers in RF schools reported spending an average of 104 minutes per day on reading instruction compared to 83 minutes in non-RF Title I schools; this translates to an additional 21 minutes per day of reading instruction for students in grades 1–3 in RF schools. A similar pattern was found during the 2004–05 school year (Exhibit 3.2).

Exhibit 3.2

Average Minutes Per Day Teachers Reported Devoting to Reading Instruction in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05		2006–07		2006–07 Difference- 2004–05 Difference
	Average Minutes Per Day of Reading Instruction				
Grade Level	**RF**	**Non-RF Title I**	**RF**	**Non-RF Title I**	
Kindergarten	99*	74	101*	77	0.5
Grades 1–3	102*	82	104*	83	1.6

Exhibit reads: In 2004–05, teachers in RF schools reported devoting an average of 99 minutes per day on reading instruction, compared to 74 minutes reported by teachers in non-RF Title I schools. This difference is statistically significant ($p \leq .05$). In 2006–07, an average of 101 minutes per day was reported by teachers in RF schools, compared to an average of 77 minutes reported by teachers in non-RF Title I schools. This difference is statistically significant ($p \leq .05$). The 2004–05 and 2006–07 results differ by –0.5 percentage points (right-hand column) reflecting the fact that there was a 25 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 24 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.3.2 for additional statistics.

Source: Teacher Survey (Question C1 in 2004–05 and B1 in 2006–07).

Weight: Teacher.

Weighted respondents: Teachers in 1,649 RF schools; 13,230 non-RF Title I schools.

Non-response rate: 2.1 to 11.3 percent.

Instructional Materials

The Reading First program guidance outlines strategies for states and districts to use in selecting or developing instructional materials, programs, learning systems and strategies to implement methods that have been proven effective in teaching reading skills.[37] Substantial changes to schools' reading programs may be necessary to implement these activities.

Changing Materials

Survey responses from principals and reading coaches indicate that RF schools made substantial changes in their instructional material in 2004–05, the first school year after they received their RF funds. By 2006–07, however, RF schools were less likely than non-RF Title I schools to make additional changes; 3 percent of RF schools reported adopting a new core reading program compared to 39 percent in 2004–05,[38] and 14 percent added new materials for ELLs, compared to 43 percent in 2004–05. Nonetheless, over 40 percent of both groups of schools reported adding new intervention programs for struggling readers and adding new supplementary materials during the 2006–07 school year (Exhibit 3.3).

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[37] U.S. Department of Education, Office of Elementary and Secondary Education, *Guidance for the Reading First Program*. Washington, D.C., April 2002, page 1.

[38] There were no significant differences in the proportion of RF schools adopting a new core reading program in 2006–07 if they had not done so in 2004–05. Four percent of the RF schools that *had not* adopted a new reading program in 2004–05 reported doing so in 2006–07; 2 percent of the RF schools that reported adopting a new program in 2004–05 also reported adopting a new program in 2006–07.

Exhibit 3.3

Changes to Reading Program Materials in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years
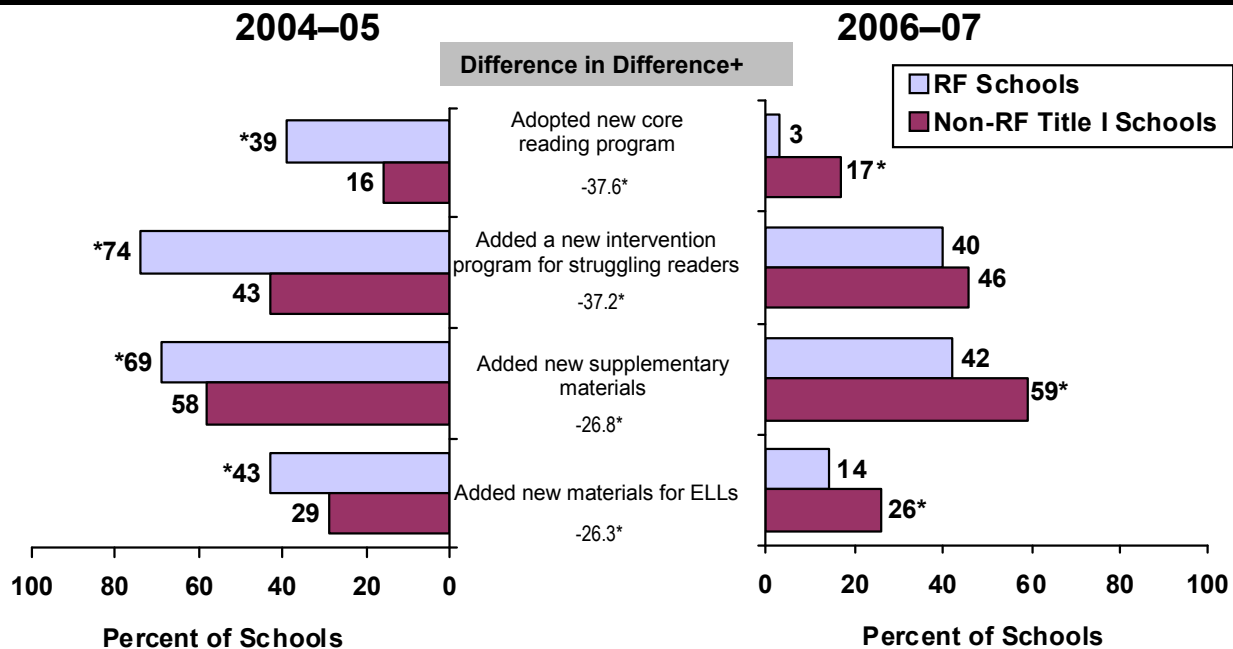
Exhibit reads: In 2004–05, 39 percent of RF schools reported that their schools adopted new core reading programs, compared to 16 percent of non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 3 percent of RF schools reported adopting a new core reading program, compared to 17 percent of non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by –37.6 percentage points (middle column) reflecting the fact that there was a 14 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 23 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

+ The difference in difference model is explained on page C-6.

See Appendix B, Exhibit B.3.3 for additional statistics.

Source: Reading Coach Survey (Question C3 in 2004–05 and C2 in 2006–07); Principal Survey (Question D7 2004–05 and D in 2006–07).

Weight: School.

Weighted respondents: Principals or reading coaches in 1,678 RF schools and 14,341 non-RF Title I schools.

Non-response rates across survey items: 0.1 to 5.4 percent.

In 2006–07, non-RF Title I schools were more likely than RF schools to report that they adopted a new core reading program (17 percent vs. 3 percent) and that they adopted new materials for ELLs (26 percent vs. 14 percent). Further, in both years, nearly 60 percent of non-RF Title I schools reported adding new supplementary materials.

Interestingly, when examining the same schools at two time points, a sizable number of RF and non-RF Title I schools added new intervention programs for struggling readers both in *2004–05 and again in 2006–07* (30 percent and 23 percent, respectively). Similarly, 33 percent of RF schools and 38 percent of non-RF Title I schools added new supplementary materials to their reading programs in both years.

Quality of Materials

RF reading coaches were significantly more likely than coaches in non-RF Title I schools to report that their K–3 classrooms have ample, high quality instructional materials (92 percent vs. 72 percent) and that their reading intervention materials are aligned with scientifically based reading research (94 percent vs. 79 percent). This difference was found in both 2004–05 and 2006–07 (Exhibit 3.4).

Exhibit 3.4

Characteristics of Reading Materials as Reported by Reading Coaches in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years
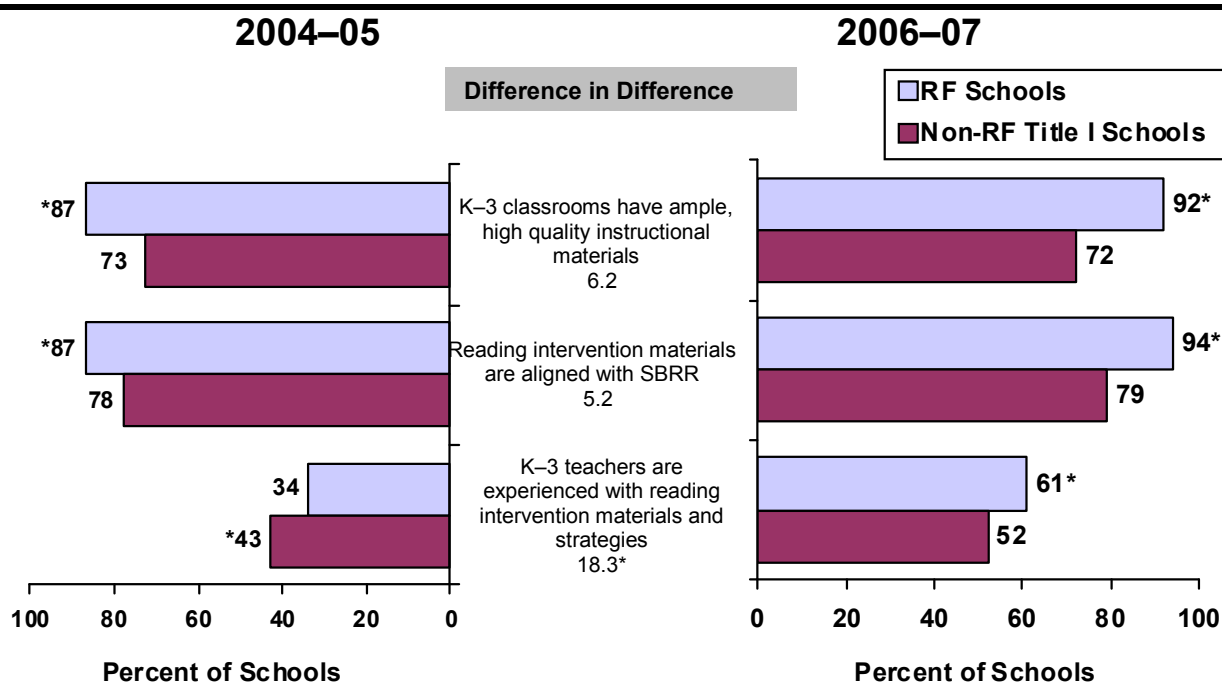
Exhibit reads: In 2004–05, 87 percent of RF reading coaches reported that K–3 classrooms in their schools have ample, high quality instructional materials, compared to 73 percent of reading coaches in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 92 percent of RF reading coaches reported that this statement "accurately" or "very accurately" described their schools, compared to 72 percent of reading coaches in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by 6.2 percentage points (right-hand column) reflecting the fact that there was a 20 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 14 percentage point difference in 2004–05.

Notes The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools

Percentages are based on respondents rating the statements as either "accurate" or "very accurate" descriptions of their schools. See Appendix B, Exhibit B.3.4 for additional statistics.

Source: Reading Coach Survey (Question H1 in 2004–05 and G1 in 2006–07).

Weight: Reading coach.

Weighted respondents: Reading coaches in 1,635 in RF schools and 7,667 non-RF Title I schools.

Non-response rate across survey items: < 1 percent.

Responsibility for Selection of Materials

Through the establishment of state Reading Leadership Teams, the Reading First Program Guidance encourages the involvement of a wide array of state, district and school-level staff in key reading policy decisions in schools.[39] These teams monitor and examine reading instruction strategies in schools and approve reading instruction plans submitted by school districts applying for RF funding. The Program Guidance also encourages the use of reading coaches as a means for ongoing, continuous professional development.[40] RF schools were much more likely than non-RF Title I schools, to report that *state staff* were involved in key reading policy decisions. About one-quarter of the RF schools reported state involvement in the selection of their schools' core reading programs, supplemental reading program materials and materials for use with struggling readers; in comparison, 17 percent of non-RF Title I schools reported that state staff were involved in the selection of a core reading program and 6–7 percent reported state involvement in the selection of supplemental reading materials and materials for struggling readers (Exhibit 3.5).

Districts played an important role in the reading policy decisions of *both* RF and non-RF Title I schools. Despite a small, yet statistically significant, difference in the level of district involvement in the selection of supplemental reading materials, overall, use of district-level staff in key reading policy decisions was similar amongst RF and non-RF Title I schools. Almost 90 percent of RF and non-RF Title I principals reported district involvement in the selection of their school's core reading program (87 percent vs. 88 percent),[41] and over half reported district involvement in the selection of supplemental reading program materials (66 percent vs. 56 percent) and the selection of intervention reading program materials for use with struggling readers (64 percent vs. 58 percent) (Exhibit 3.5).

RF schools were also more likely than non-RF Title I schools to involve reading coaches in key reading policy decisions. More than half (57 percent) of non-RF Title I schools employ reading coaches (compared to 99 percent of RF schools); those that did were significantly less likely than RF schools to report that reading coaches had responsibility for selecting a core reading program (29 percent vs. 41 percent) or supplemental reading program materials (60 percent vs. 70 percent) (Exhibit 3.5).

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[39] U.S. Department of Education, Office of Elementary and Secondary Education, *Guidance for the Reading First Program*. Washington, D.C., April 2002, pages 15–16.

[40] U.S. Department of Education, Office of Elementary and Secondary Education, *Guidance for the Reading First Program*. Washington, D.C., April 2002, page 26.

[41] Fifty-three percent of the RF schools and 59 percent of the non-RF Title I schools reported that responsibility for selecting a specific core reading program rested *solely* with the district or state. For these schools, principals and reading coaches had no responsibility for selecting their school's core reading program.

Exhibit 3.5

Responsibility for Selection of Reading Materials in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Specific Core Reading Program

2004–05   **2006–07**

Difference in Difference

	2004–05 RF	2004–05 Non-RF	Category	Diff	2006–07 RF	2006–07 Non-RF
State	*31	19	State	0.4	30*	17
District	85	87	District	1.3	87	88
Principal	*46	40	Principal	1.2	45*	39
Reading Coach [a]	*37	29	Reading Coach [a]	3.0	41*	29

Percent of Schools (100 80 60 40 20 0) | Percent of Schools (0 20 40 60 80 100)

Supplemental Reading Materials

2004–05   **2006–07**

Difference in Difference

	2004–05 RF	2004–05 Non-RF	Category	Diff	2006–07 RF	2006–07 Non-RF
State	*21	6	State	0.5	22*	7
District	65	60	District	5.8	66*	56
Principal	71	73	Principal	-1.3	68	72
Reading Coach [a]	*72	65	Reading Coach [a]	3.5	70*	60

Percent of Schools (100 80 60 40 20 0) | Percent of Schools (0 20 40 60 80 100)

Intervention Reading Program Materials for Use with Struggling Readers

2004–05   Difference in Difference   **2006–07**

	2004–05 RF	2004–05 Non-RF	Category	Diff	2006–07 RF	2006–07 Non-RF
State	*22	5	State	3.1	25*	6
District	64	60	District	1.7	64	58
Principal	68	*74	Principal	1.6	68	73
Reading Coach [a]	74	69	Reading Coach [a]	-0.9	72	68

Percent of Schools (100 80 60 40 20 0) | Percent of Schools (0 20 40 60 80 100)

Legend:
- ☐ RF Schools
- ■ Non-RF Title I Schools

Exhibit reads: In 2004–05, 31 percent of RF principals reported that state staff were involved in the selection of specific core reading programs in their schools, compared to 19 percent of principals in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 30 percent of RF principals reported that state staff were involved in this selection in their schools, compared to 17 percent of principals in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by 0.4 percentage points (middle column) reflecting the fact that there was a 13 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 12 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools. See Appendix B, Exhibit B.3.5 for additional statistics.

[a] Analysis of reading coach responsibilities is limited to schools with a reading coach.

Source: Principal Survey (Question D4 in 2004–05 and D2 in 2006–07).

Weight: Principal.

Weighted respondents: Principals in 1,678 RF schools and 14,602 non-RF Title I schools.

Non-response rate across survey items: 0 to 7.6 percent.

Corroborating principal reports, reading coaches indicated that there is no significant difference between RF and non-RF Title I schools in the likelihood that the *district* provides direction concerning reading instruction (72 percent vs. 66 percent). Reading coaches also indicated that *states* are more likely to provide direction in RF schools than in non-RF Title I schools (80 percent vs. 61 percent) (Exhibit 3.6). However, it is interesting to note that the percentage of both RF and non-RF school reading coaches reporting that the state provides direction concerning reading instruction is much higher than the percentage of principals indicating that the state was actually involved in key policy decisions.

Exhibit 3.6

State and District Guidance in RF and Non-RF Title I Schools as Reported by Reading Coaches, 2004–05 and 2006–07 School Years
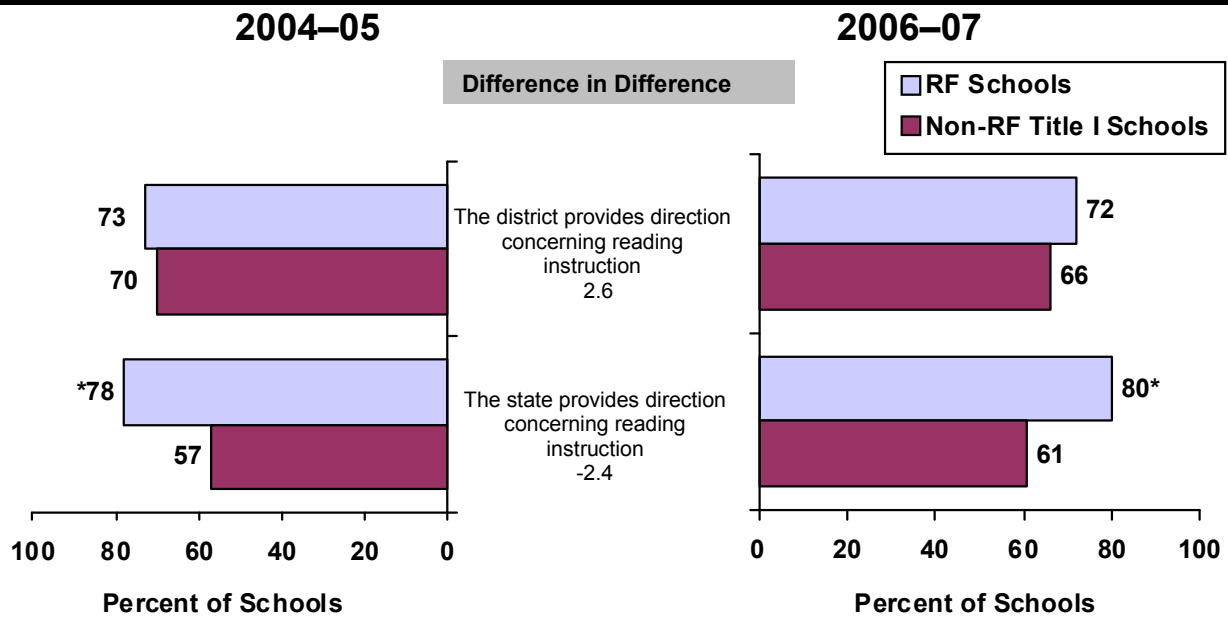
Exhibit reads: In 2004–05, 73 percent of RF reading coaches reported that the district provides direction concerning reading instruction in their schools, compared to 70 percent of reading coaches in non-RF Title I schools. This difference is not statistically significant. In 2006–07, 72 percent of RF reading coaches reported that this statement "accurately" or "very accurately" described their schools, compared to 66 percent of reading coaches in non-RF Title I schools. This difference is not statistically significant. The 2004–05 and 2006–07 results differ by 2.6 percentage points (right-hand column) reflecting the fact that there was a 6 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 3 percentage point difference in 2004–05.

Notes The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

Percentages are based on respondents rating the statements as either "accurate" or "very accurate" descriptions of their schools.

See Appendix B, Exhibit B.3.6 for additional statistics.

Source: Reading Coach Survey (Question H1 in 2004–05 and G1 in 2006–07).

Weight: Reading coach.

Weighted respondents: Reading coaches in 1,626 RF schools and 7,590 non-RF Title I schools.

Non-response rate across survey items: 0 to 3.6 percent.

Core Reading Programs

According to the Reading First Program Guidance, the centerpiece of instruction should be a core reading program aligned with SBRR that provides instruction in the five dimensions of reading.[42] RF schools were significantly more likely to report using a single core reading program for all of their K–3 classrooms than were non-RF Title I schools (78 percent vs. 58 percent) (Exhibit 3.7). Non-RF Title I schools were significantly more likely to report multiple core programs, either *within* or *across* grade levels than were RF schools (42 percent vs. 22 percent).

The use of multiple programs may reflect differentiated instructional needs (i.e., one program for grades K–1, and another for grades 2–3, or one program for native English speaking students and one for ELLs). However, schools using multiple programs presumably must train teachers on more than one reading program, an experience which may lead to increased demands on coaches and principals to monitor their implementation, and perhaps less continuity of instruction across grades or subgroups of students.

Exhibit 3.7

Number of Core Reading Programs Used in Grades K–3 in RF and Non-RF Title I Schools, 2006–07 School Year

Number of Core Reading Programs	RF Schools	Non-RF Title I Schools
One core reading program for each grade served, K–3		
Same program across grades	78%*	58%
Multiple programs *across* grades K–3	3	9*
Multiple core reading programs *within* at least one grade served, K–3	19	33*

Exhibit reads: In 2006–07, 78 percent RF schools reported using a single core reading program for all their K–3 classrooms, compared to 58 percent of non-RF Title I schools,. This difference is statistically significant (p ≤ .05).

Notes: Limited to schools reporting at least one reading program for the specified grade or across grades.

The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B. Exhibit B.3.7 for additional statistics.

Source: Reading Coach Survey (Question C1 in 2006–07); Principal Survey (Question C1 in 2006–07).

Weight: School.

Weighted respondents: Principals or reading coaches in 1,551 RF schools and 11,768 non-RF Title I schools.

Non-response rate: 0.2 to 6.9 percent.

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[42] U.S. Department of Education, Office of Elementary and Secondary Education, *Guidance for the Reading First Program*. Washington, D.C., April 2002, page 6.

Virtually all RF and non-RF Title I schools implemented at least one core reading program in each of grades K–3.[43] In 2006–07, a total of 48 different core reading programs were identified in RF schools and 68 in non-RF Title I schools. Although these counts are higher than those reported identified in 2004–05,[44] the list of most commonly used reading programs remained similar.

The most frequently cited core reading programs in RF schools in 2006–07 included Harcourt Trophies (23 percent), McGraw-Hill Open Court (15 percent), Scott Foresman Reading (13 percent) and Houghton Mifflin Nation's Choice (11 percent); with the exception of the Scott Foresman Reading Program,[45] all of these programs ranked among the top five programs cited in 2004–05 (Exhibit 3.8).

Four of the five reading programs cited most frequently by RF schools were also among the five most popular programs in the non-RF Title I schools. At least 10 percent of both RF and non-RF Title I schools reported using Harcourt Trophies, McGraw-Hill Open Court, Scott Foresman Reading and Houghton Mifflin Reading. The exceptions were Houghton Mifflin Nation's Choice and McGraw-Hill Reading. Houghton Mifflin Nation's Choice was used by almost 11 percent of RF schools, but less than 3 percent of non-RF Title I schools. McGraw-Hill Reading was used by 11 percent of non-RF Title I schools, but only 7 percent of RF schools.

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[43] Only 3 percent of non-RF Title I schools reported that they did not have a core reading program for at least one of grades K–3; *all* RF schools had core reading programs for grades K–3. In 2 percent of RF schools and 7 percent of non-RF Title I schools, staff reported using a program developed by teachers or other school personnel for one or more of their K–3 classrooms.

[44] It is important to note that the structure of this question was revised between the 2004–05 and 2006–07 survey. In 2004–05, principals and reading coaches were asked to give *open-ended* responses to questions about core reading programs used in grades K–3. In 2006–07, a number of *close-ended* response options were added based on high frequency responses to the 2004–05 survey. This resulted in a decrease in the number of "unspecified" responses. Moreover, the non-response rate among non-RF Title I schools dropped from 19 percent in 2004–05 to 4 percent in 2006–07. Therefore, this may explain the increase in diversity in core reading programs listed in 2006–07.

[45] The Scott Foresman Reading program was reported by less than 6 percent of RF schools in 2004–05.

Exhibit 3.8

Core Reading Programs Used by RF and Non-RF Title I Schools as Reported by Principals and Reading Coaches, 2006–07 School Year.

Publisher	Program	Percentage of Schools [a]	
		RF	Non-RF Title I
Harcourt	Collections	0.9	7.6
	Rigby Reading	2.1	4.2
	Signatures	0.0	1.0
	Trophies	**22.5**	**16.0**
Heinemann	Fountas Pinnel units of study	0.0	5.3
Houghton Mifflin	Horizons	1.6	3.1
	Invitation to Literacy	1.6	4.6
	Lectura (Spanish Version of Reading California)	5.7	2.3
	Legacy of Literacy	4.2	4.8
	Nation's Choice	**10.7**	2.5
	Reading	9.8	**10.1**
	State Specific Edition [b]	3.3	2.3
McGraw-Hill	Lectura	1.0	0.0
	Open Court	**15.4**	9.8
	Reading	7.0	**10.5**
	Reading Mastery	5.8	4.1
	Spotlight on Literacy	0.0	2.0
	Treasures/Triumphs	0.0	1.7
Saxon	Saxon Phonics	0.2	6.8
Scholastic	Literacy Place	0.1	2.9
Scott Foresman	Literacy Works	0.3	3.0
	Reading	**13.0**	**12.2**
	State Specific Edition [b]	2.4	4.9
Sopris	Read Well	2.8	1.7
Success for All	Success for All	3.2	4.1
Voyager	Universal Literacy	4.8	2.2
Wright Group	Unspecified	0.6	5.4
Other (Unspecified)		1.6	4.9
Core reading program developed by teachers or other school personnel		1.5	7.3

Exhibit reads: In 2006–07, 22.5 percent of RF schools (reading coaches or principals) reported using the "Trophies" reading program published by Harcourt for at least one of grades K–3.

See Appendix B, Exhibit B.3.8 for additional statistics.

[a] Limited to schools reporting at least one reading program for their K–3 classrooms. The denominator excludes the 2.2 percent of non-RF Title I schools that did not use at least one reading program for their K–3 classrooms. None of the RF schools reported that they did not use a core reading program for these grades.

[b] A number of publishers have developed programs tailored specifically to the needs of individual states, referred to here as "state specific editions."

Source: Reading Coach Survey (Question C1 in 2006–07); Principal Survey (Question C1 in 2006–07).

Weight: School.

Weighted respondents: Principals or reading coaches in 1,552 RF schools and 12,086 non-RF Title I schools.

Non-response rate: 0.1 to 6.4 percent.

According to reading coaches, RF schools' core reading programs are more likely to be aligned with SBRR than are non-RF Title I schools' reading programs (93 percent vs. 76 percent). In 2006–07, reading coaches in RF schools were also significantly more likely than coaches in non-RF Title I schools to report that their K–3 teachers are experienced with this core reading program (88 percent vs. 69 percent). This represents a substantial increase from the 63 percent reported by coaches in 2004–05 (Exhibit 3.9). There was no meaningful change in reading coaches' ratings over this time period in non-RF Title I schools (72 percent and 69 percent, respectively).

Exhibit 3.9

Reading Coach Reports of Teacher Experience with Core Reading Program in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

2004–05   ## 2006–07

| | Difference in Difference | ☐ RF Schools |
| | | ■ Non-RF Title I Schools |

The core reading program is aligned with SBRR
1.2

- *94 (RF, 2004–05)
- 78 (Non-RF, 2004–05)
- 93* (RF, 2006–07)
- 76 (Non-RF, 2006–07)

K–3 teachers are experienced with the core reading program
28.2*

- 63 (RF, 2004–05)
- *72 (Non-RF, 2004–05)
- 88* (RF, 2006–07)
- 69 (Non-RF, 2006–07)

2004–05 axis: 100 80 60 40 20 0

2006–07 axis: 0 20 40 60 80 100

Percent of Schools   **Percent of Schools**
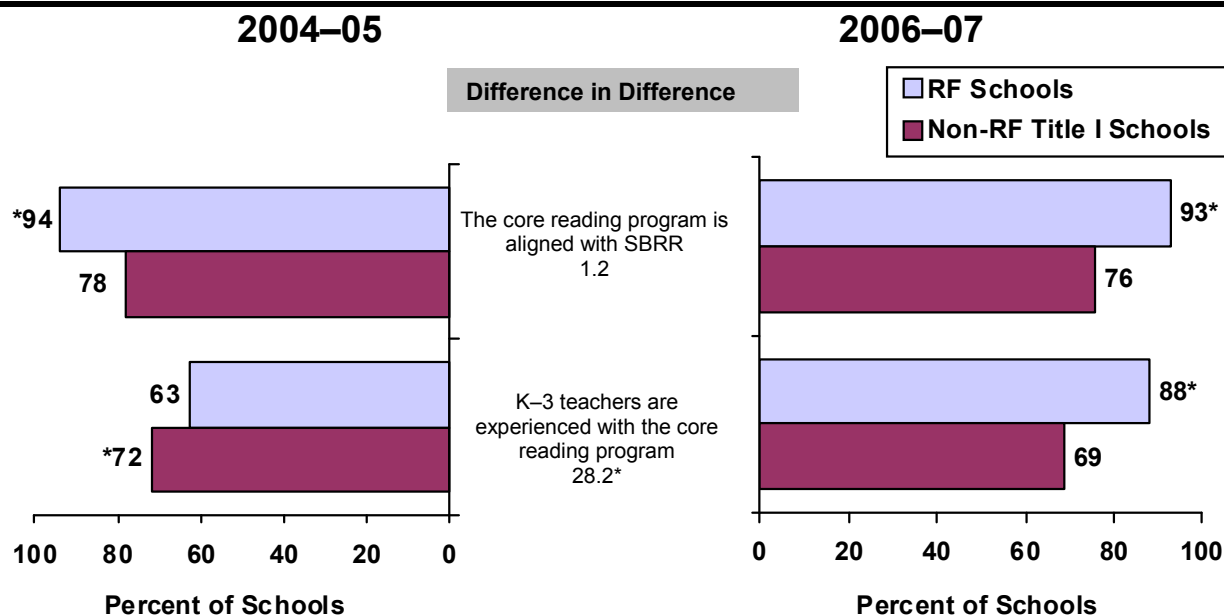
Exhibit reads: In 2004–05, 94 percent of RF reading coaches reported that the core reading program used in their schools is aligned with SBRR, compared to 78 percent of reading coaches in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 93 percent of RF reading coaches reported that this statement "accurately" or "very accurately" described their school, compared to 76 percent of reading coaches in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by 1.2 percentage points (right-hand column) reflecting the fact that there was a 17 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 16-percentage point difference in 2004–05.
Notes The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.
Percentages are based on respondents rating the statements as either "accurate" or "very accurate" descriptions of their schools.
See Appendix B, Exhibit B.3.9 for additional statistics.
Source: Reading Coach Survey (Question in 2004–05 and G1 in 2006–07).
Weight: Reading coach.
Weighted respondents: Reading coaches in 1,626 RF schools and 7,590 non-RF Title I schools.
Non-response rate across survey items: 0 to 3.6 percent.

Supplemental Reading Materials

Supplementary reading materials provide *additional* instruction, as needed, in a targeted area (e.g., phonemic awareness, fluency, vocabulary or comprehension). The use of supplemental materials to support instruction in the five key elements of reading instruction is an important component of Reading First, as is the expectation that these materials be aligned with SBRR. Teachers have become more experienced users of supplemental materials according to reading coaches; 67 percent of RF coaches and 56 percent of coaches in non-RF Title I schools reported that K–3 teachers are experienced with supplemental reading materials (Exhibit 3.10). This represents a significant change for RF teachers from 2004–05 when only 38 percent of reading coaches in RF schools rated their teachers as experienced in using supplemental materials.

Exhibit 3.10

Supplemental Reading Materials in RF and Non-RF Title I Schools as Reported by Reading Coaches, 2004–05 and 2006–07 School Years

2004–05   2006–07

Difference in Difference

☐ RF Schools
■ Non-RF Title I Schools

*81 / 71	Supplemental reading materials are aligned with SBRR 5.0	89* / 74
38 / *51	K–3 teachers are experienced with the supplemental reading materials 24.3*	67* / 56

100 80 60 40 20 0   0 20 40 60 80 100

Percent of Schools   **Percent of Schools**
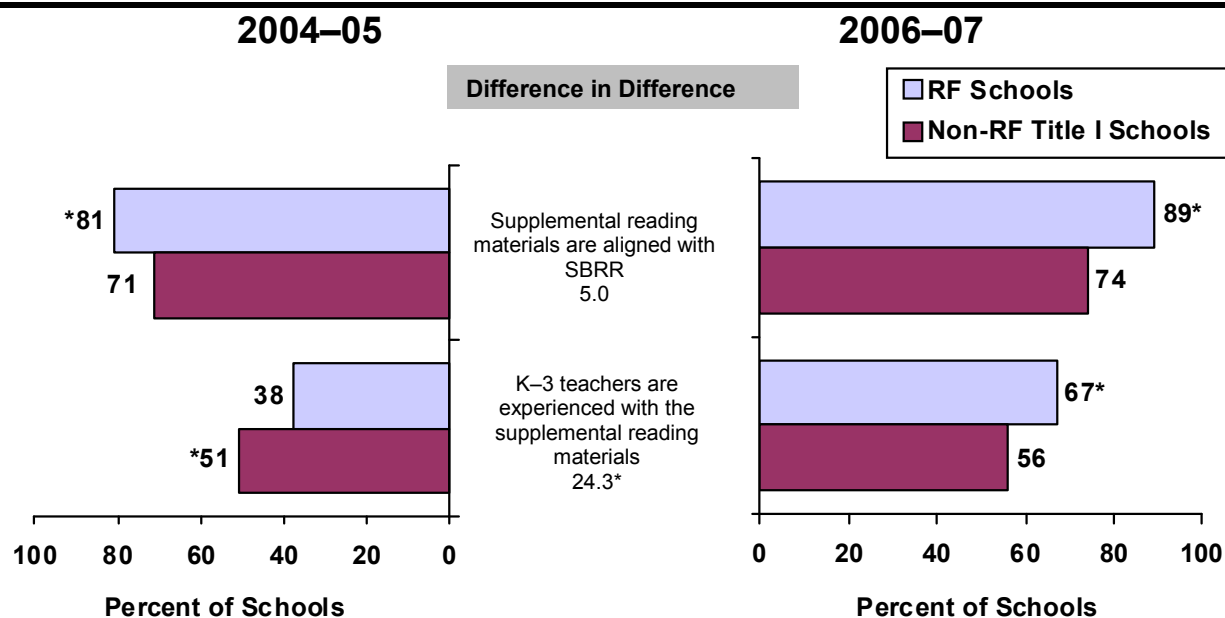
Exhibit reads: In 2004–05, 81 percent of RF reading coaches reported that the supplemental reading materials used in their schools are aligned with SBRR, compared to 71 percent of reading coaches in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 89 percent of RF reading coaches reported that this statement "accurately" or "very accurately" described their school, compared to 74 percent of reading coaches in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by 5 percentage points (right-hand column) reflecting the fact that there was a 15 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 10 percentage point difference in 2004–05.

Notes The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

Percentages are based on respondents rating the statements as either "accurate" or "very accurate" descriptions of their schools. See Appendix B, Exhibit B.3.10 for additional statistics.

Source: Reading Coach Survey (Question H1 in 2004–05 and G1 in 2006–07).

Weight: Reading coach.

Weighted respondents: Reading coaches in 1,626 RF schools and 7,590 non-RF Title I schools.

Non-response rate across survey items: 0 to 3.6 percent.

Additionally, RF teachers were more likely to report using materials that supplement the core reading program with struggling readers than were teachers in non-RF Title I schools (83 percent vs. 71 percent).

Instructional Activities and Strategies

The Reading First program, at its core, is designed to align teachers' instruction with SBRR. In this section, we describe the characteristics of reading instruction, staff collaboration and instructional activities teachers engage in to teach reading.

Teacher Knowledge of SBRR

To be able to align their instruction with SBRR, K–3 teachers must be knowledgeable about SBRR. More reading coaches in RF schools reported that their K–3 teachers in RF schools are knowledgeable about SBRR than did coaches in non-RF Title I schools (79 vs. 58 percent) (Exhibit 3.11).

Exhibit 3.11

Knowledge and Motivation of Teachers in RF and Non-RF Title I Schools as Reported by Reading Coaches, 2004–05 and 2006–07 School Years
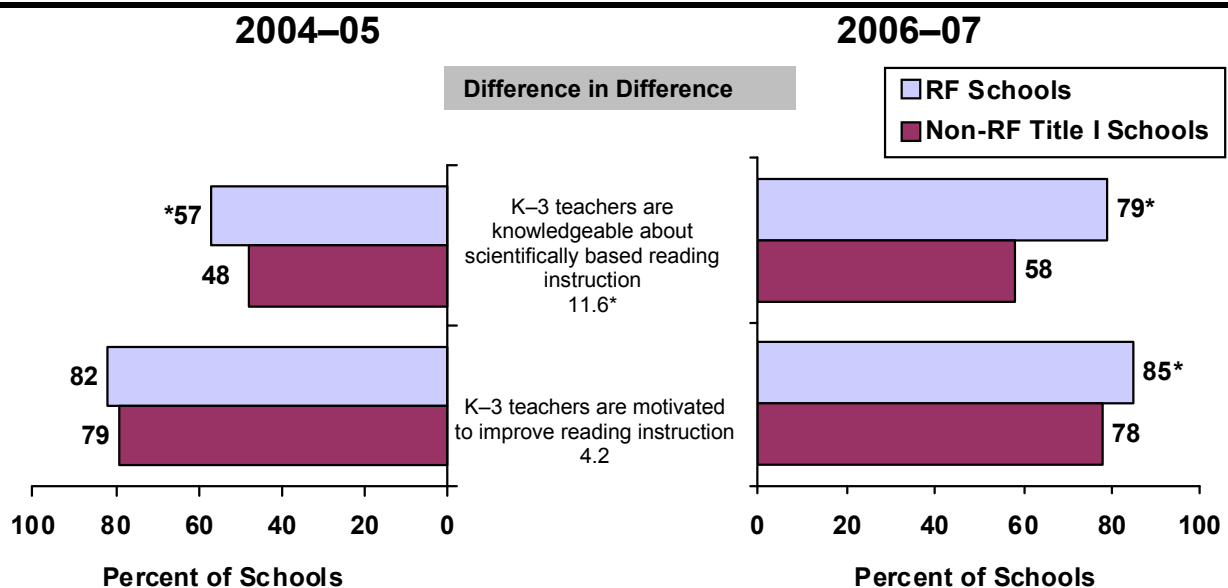
Exhibit reads: In 2004–05, 57 percent of RF reading coaches reported that K–3 teachers in their schools are knowledgeable about scientifically based reading instruction, compared to 48 percent of reading coaches in non-RF Title I schools. This difference is statistically significant ($p \leq .05$). In 2006–07, 79 percent of RF reading coaches reported that this statement "accurately" or "very accurately" described their school, compared to 58 percent of reading coaches in non-RF Title I schools. This difference is statistically significant ($p \leq .05$). The 2004–05 and 2006–07 results differ by 11.6 percentage points (right-hand column) reflecting the fact that there was a 21 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 9 percentage point difference in 2004–05.

Notes The stars (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between teachers in RF and non-RF Title I schools.

Percentages are based on respondents rating the statements as "accurate" or "very accurate" descriptions of their schools.

See Appendix B, Exhibit B.3.11 for additional statistics.

Source: Reading Coach Survey (Question H1 in 2004–05 and G1 in 2006–07).

Weight: Reading coach.

Weighted respondents: Reading coaches in 1,626 schools and 7,590 non-RF Title I schools.

Non-response rate across survey items: 0 to 3.6 percent.

Collaboration on Reading Instruction

According to teacher reports, RF schools were more likely than non-RF Title I schools to formally set aside at least some time for collaboration, observation and teacher-to-teacher coaching on reading instruction. For instance, teachers in non-RF Title I schools were somewhat more likely to report that *no time* was set aside for collaboration on reading lesson planning and instruction (17 percent vs. 10 percent), for observation of reading instruction in other classrooms (64 percent vs. 53 percent) and for teachers to help with coaching or be coached about reading by another teacher (40 percent vs. 22 percent) (Exhibit 3.12).

Exhibit 3.12

Type and Frequency of Collaboration about Reading in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Type of Collaboration/ Frequency of Time Set Aside to:	2004–05 Teachers		2006–07 Teachers		2006–07 Difference- 2004–05 Difference
	RF	Non-RF Title I	RF	Non-RF Title I	
Collaborate on reading lesson planning and instruction					
…Not at all	13%	20%*	10%	17%*	-0.1%
…Monthly or less	35*	32	40*	32	3.8
…Once a week or more	38*	32	42*	38	-2.2
…Informally, as needed	13	16	8	13*	-1.6
Observe reading instruction in other classrooms					
…Not at all	59	65*	53	64*	-5.0*
…Monthly or less	20	18	23*	16	4.7*
…Once a week or more	1*	1	2	2	-0.8
…Informally, as needed	19*	17	23*	19	1.0
Help with coaching or be coached about reading by other teacher					
…Not at all	25	41*	22	40*	-2.1
…Monthly or less	40*	34	46*	33	6.2*
…Once a week or more	15*	8	14*	8	-2.3
…Informally, as needed	19	18	18	19	-1.8

Exhibit reads: In 2004–05, 13 percent of teachers in RF schools reported that they do not collaborate on reading lesson planning and instruction, compared to 20 percent of teachers in non-RF Title I schools. This difference is significantly significant (p ≤ .05). In 2006–07, 10 percent of teachers in RF schools reported no collaboration on this activity compared to 17 percent in non-RF Title I schools. This difference is significantly significant (p ≤ .05). The 2004–05 and 2006–07 results differ by -0.1 (right-hand column) reflecting the fact that there was a 7 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 7 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.3.12 for additional statistics.

Source: Teacher Surveys (Question C3 in 2004–05 and B3 in 2006–07).

Weight: School.

Weighted respondents: Teachers 1,682 RF and 14,656 non-RF Title I schools.

Non-response rate across survey items: < 1 percent.

Instructional Activities

To ensure that children learn to read well, the RF Guidance recommends that explicit and systematic instruction be provided in five essential areas identified by SBRR as necessary for effective reading instruction.[46] The surveys asked teachers to describe how central individual instructional activities are to their teaching, and in order to describe adherence to broader RF principles, we constructed six composite measures from the individual survey items (See Appendix E for details on individual items in each composite). The composites summarize teachers' ratings of instructional activities related to the following reading dimensions and other instructional features:

- phonemic awareness and phonics;
- comprehension;
- vocabulary development;
- reading fluency;
- use of scientifically based instructional strategies and materials in their classroom (SBRR); and
- use of instructional strategies and materials that depart from scientifically based reading research (non-SBRR).[47]

Composite scores were based on the percentage of instructional activities rated as central to teachers' instruction (Exhibit 3.13). For example, if a teacher rated six of the seven activities in the comprehension composite as central, the composite "score" would be 86 percent.

K–3 teachers in RF schools rated a higher proportion of scientifically based teaching strategies and materials (the shaded rows in Exhibit 3.13) as central to their instruction than did teachers in non-RF Title I schools. The few statistically significant differences observed across the other composites were not substantively meaningful. No differences were found between teachers in RF and non-RF Title I schools on their ratings of the centrality of non-SBRR instructional activities.

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[46] U.S. Department of Education, Office of Elementary and Secondary Education, *Guidance for the Reading First Program*. Washington, D.C., April 2002, page 3.

[47] The phonemic awareness and phonics composite, for example, includes the following student activities; isolating first, middle and ending sounds in words, matching sounds and letters, and blending sounds to form words. The SBRR composite is based on teachers' responses to all items included in four composites (phonemic awareness and phonics, comprehension, vocabulary, and fluency) presented in Exhibit 3.13. The non-SBRR composite includes several instructional activities for which there is no scientifically based evidence of effectiveness, including, for example, students reading silently, memorizing sight words, reading unfamiliar texts aloud, and reading texts that are easy to decode.

Exhibit 3.13

Centrality of SBRR-aligned Instructional Activities in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

| | 2004–05 | | 2006–07 | | 2006–07 Difference- 2004–05 Difference |
| | Mean Percent of Teachers' SBRR-aligned Instructional Activities | | | | |
	RF	Non-RF Title I	RF	Non-RF Title I	
Phonemic Awareness and Phonics					
Kindergarten	90%*	85%	92%*	87%	0.0%
1st grade	86*	81	88*	83	0.1
2nd grade	65*	60	68*	59	3.6
3rd grade	58	54	60*	49	7.0*
Comprehension					
Kindergarten	72*	67	73*	68	-0.6
1st grade	75*	71	76	73	-1.1
2nd grade	69	69	67	68	-0.5
3rd grade	73*	69	74*	69	1.8
Vocabulary					
Kindergarten	64*	59	63*	59	-1.1
1st grade	87	87	90	88	2.4
2nd grade	72	72	71	73	-1.2
3rd grade	79*	74	79	76	-1.4
Fluency					
Kindergarten					
1st grade	86	84	87*	84	2.3
2nd grade	56	59	59	56	5.6*
3rd grade	57*	46	57*	47	-1.5
Overall Composite SBRR					
Kindergarten	79*	66	85*	71	1.5
1st grade	82*	76	88*	79	2.4
2nd grade	79*	73	84*	77	-0.1
3rd grade	78*	69	82*	73	-0.7
Overall Composite Non-SBRR					
Kindergarten	67	65	65	65	-2.3
1st grade	69	71	70	71	1.7
2nd grade	67	69*	67	67	1.9
3rd grade	65	64	64	64	-1.1

Exhibit reads: In 2004–05, kindergarten teachers in RF schools rated an average of 90 percent of SBRR-aligned phonemic awareness and phonics activities as central to their instruction, compared to an average of 85 percent reported by teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, kindergarten teachers in RF schools rated an average of 92 percent of SBRR-aligned phonemic awareness and phonics activities as central to their instruction, compared to an average of 87 percent reported by teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by 0 percentage points (right-hand column) reflecting the fact that there was a 5 percentage point difference between teachers in RF and non-RF Title I schools in 2006–07 and a 5 percentage point difference in 2004–05.

Notes: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

Kindergarten teachers were not asked about fluency instruction.

See Appendix B, Exhibit B.3.13 for additional statistics and Appendix D for the specific items included in each composite at each grade level.

Source: Teacher Surveys (Question C4 in 2004–05 and B4 in 2006–07).

Weight: Teacher.

Weighted respondents: Teachers in 1,635 RF and 13,756 non-RF Title I schools.

Non-response rate across survey items: 0.3 to 3.5 percent.

Summary

RF schools consistently reported higher alignment with RF principles than non-RF Title I schools on each component of a reading program; instructional time, materials, knowledge of and experience with SBRR, and collaboration. For the most part, significant differences observed in the first school year after initial receipt of RF funds (2004–05) and continued through subsequent years (2006–07). At the same time, reading instruction in non-RF Title I schools is becoming increasingly aligned with the principles of Reading First.

A majority of RF schools reported making substantive structural changes to their reading programs either in 2004–05. Many changes, including the adoption of a new core reading program, were made only once, during the initial year of RF implementation. However, over 40 percent of RF schools added new supplementary materials or added new intervention programs for struggling readers in 2006–07. Many non-RF Title I schools also reported making changes to their reading programs. In each year (2004–05 and 2006–07), almost 60 percent of these schools reported that they added new supplementary materials and more than 40 percent added new interventions for struggling readers.

Reading First schools were more likely than non-RF Title I schools to involve a wide array of state, district and school-level staff in key reading policy decisions. In particular, RF schools were more likely to have involved state staff and school reading coaches in the selection of appropriate materials for their reading programs.

Virtually all RF schools scheduled reading blocks in K–3 classrooms of 90 minutes or more. Although a majority of non-RF Title I schools scheduled reading blocks, both the prevalence of these blocks and their length were significantly less than in RF schools. Moreover, K–3 teachers in RF schools reported, on average, spending significantly more time on daily reading activities than K–3 teachers in non-RF Title I schools (103 minutes vs. 81 minutes).

The vast majority of RF schools (99 percent) reported having at least one core reading program for each of grades K–3 and almost 80 percent used the same program across all of their K–3 classrooms. The five most frequently used core reading programs in RF schools included Harcourt Trophies (23 percent), McGraw-Hill Open Court (15 percent), Scott Foresman Reading (13 percent), Houghton Mifflin Nation's Choice (11 percent) and Houghton Mifflin's Reading (10 percent). With the exception of Houghton Mifflin Nation's Choice, all of these programs were also the programs most commonly cited by non-RF Title I schools.

Consistent with the tenets of the RF program, reading instruction in RF schools was more likely than instruction in non-RF Title I schools to be aligned with SBRR. This finding is supported by both reading coach perceptions of the characteristics of reading instruction in their schools (e.g., whether teachers are knowledgeable about SBRR and the school's core reading program) and teacher ratings on the importance of SBRR-aligned practices to their reading instruction. Despite these differences, coaches in three-quarters of non-RF schools indicated that their core reading programs were aligned with SBRR. Further, reading coaches in more non-RF Title I schools

were likely to rate their K–3 teachers as knowledgeable about scientifically based reading instruction in 2006–07 than in 2004–05 (58 percent vs. 48 percent).

Chapter 4: Support for Struggling Readers

A core tenet of the Reading First program is to provide additional support to students who are struggling to learn to read. This is especially important for those children in grades K–3 who are English language learners (ELL) or who are in jeopardy of being referred for special education services. RF schools and teachers can offer supports necessary for these students by providing appropriately targeted instruction and interventions.

This chapter presents findings on the methods and activities schools implement to help struggling students learn to read, including a) the use of reading interventions (i.e., programs specifically explicitly for struggling readers in addition, to the core reading program); b) other instructional supports (e.g., struggling students work with a more advanced peer, a reading specialist in small groups, or a one-on-one with a tutor;) and c) coordination of these two (interventions and supports) with other instructional activities provided for special education and ELL students.

Key Findings

Addressing the needs of students who are struggling to read is an important issue for both RF and non-RF Title I schools; according to principals' reports, about 28 percent of K–3 students in both types of schools were participating in interventions to improve their reading skills. RF schools' survey responses at both time points (2004–05 and 2006–07) indicate continued and substantial attention to the needs of struggling readers. Survey information provided by non-RF Title I school staff indicates that their activities to assist struggling readers are increasingly similar to the activities conducted in RF schools.

The vast majority of principals in RF and non-RF Title I schools (91 to 99 percent) reported using various reading test scores (e.g., diagnostic tests, tests built into the core reading program, progress monitoring tests) and teacher recommendations to identify students for reading interventions. In schools that reported having reading coaches, RF schools were much more likely to use reading coach recommendations than were non-RF Title I schools (94 percent vs. 60 percent). In contrast, non-RF Title I schools were reportedly more likely to use requests from parents to identify students for reading interventions than RF schools (76 percent vs. 66 percent).

Materials and activities specifically aimed at helping struggling readers were available in most RF and non-RF Title I schools (91 percent and 85 percent, respectively). Virtually all RF and non-RF Title I schools engage in a variety of activities to meet the needs of struggling readers by providing them with additional practice opportunities, and direct instruction, as well as further help from trained aides or volunteers. However, RF and non-RF Title I schools differ significantly in the content and character of these services. RF teachers were more likely to report placing struggling readers into intervention services in the previous month (80 percent vs. 63 percent) and to report using diagnostic assessments to determine struggling readers' core

deficits in the previous month (84 percent vs. 67 percent) than were teachers in non-RF Title I schools.

Of those schools with ELL students, the percentage of RF teachers who reported setting aside time to coordinate with ELL staff increased dramatically from 44 percent in 2004–05 to 71 percent in 2006–07; a nearly identical increase was reported by teachers in non-RF Title I schools over the same time period (from 40 percent to 70 percent).

Reading Intervention Services

Information Used to Identify Students for Reading Interventions

Principals use a variety of methods to identify students needing reading interventions. In 2006–07, most principals (more than 90 percent) in both RF and non-RF Title I schools reported using various reading test scores (e.g., diagnostic tests, tests that are part of the core reading program, progress monitoring tests) and teacher recommendations to identify students for reading interventions (Exhibit 4.1).

There are some differences between RF and non-RF Title I schools in methods used to identify struggling readers for interventions. In schools that have reading coaches, a significantly greater percentage of principals in RF schools reported using reading coach recommendations to identify students for reading interventions than did principals in non-RF Title I schools (94 percent vs. 60 percent). At the same time, a significantly *smaller* percentage of RF principals reported using parent requests to identify students for reading interventions compared to principals in non-RF Title I schools (66 percent vs. 76 percent).

In general, there were no substantive changes from 2004–05 to 2006–07 in the reported use of methods to identify students for reading interventions. One exception was with the use of standardized achievement scores; from 2004–05 to 2006–07, the percent of RF school principals who reported using standardized scores increased (from 80 percent to 87 percent), while there was little change for non-RF Title I schools (from 91 percent to 89 percent).

Exhibit 4.1

Methods Used to Identify Students for Reading Interventions in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

2004–05

2006–07

Difference in Difference

☐ RF Schools
■ Non-RF Title I Schools

Method	2004–05 RF	2004–05 Non-RF	Difference in Difference	2006–07 RF	2006–07 Non-RF
Progress monitoring test scores in reading	*97	92	-1.1	99*	94
Teacher Recommendations	96	*98	-0.5	95	97
Scores on tests that are part of the reading program	93	94	2.8	93	91
Diagnostic test scores in reading	93	92	-1.0	94	94
Reading coach recommendation	*90	52	-5.0	94*	60
Screening test scores in reading	*90	84	-2.8	89	86
Documented classroom observations	88	84	-3.7	86	87
Standardized achievement scores in reading	80	*91	9.3*	87	89
Other school staff recommendation	70	*77	4.6*	71	73
Requests from parents	64	*78	3.1	66	76*

Percent of Schools (100 80 60 40 20 0)

Percent of Schools (0 20 40 60 80 100)

Exhibit reads: In 2004–05, 97 percent of principals in RF schools reported using progress monitoring tests to identify students for reading interventions, compared to 92 percent of principals in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 99 percent of principals in RF schools reported using progress monitoring compared to 94 percent by principals in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by -1.1 percentage points reflecting that there was a 5 percentage point difference in 2006–07 and a 5 percentage point difference in 2004–05.
Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.
See Appendix B, Exhibit B.4.1 for additional statistics.
Source: Principal Survey (Question E2 in 2004–05 and 2006–07).
Weight: Principal.
Weighted respondents: Principals in 1,684 RF schools and 14,684 non-RF Title I schools.
Non-response rate across items, groups, and years: < 1 percent.

Availability of Reading Intervention Services

Once identified as struggling readers, students can then receive intervention services. According to principal reports, the vast majority of RF and non-RF Title I schools offer intervention services, although RF schools are slightly more likely to do so (91 percent vs. 85 percent) (Exhibit 4.2). It is noteworthy that from 2004–05 to 2006–07, the percentage of principals reporting the availability of intervention services increased in both RF schools (from 87 percent to 91 percent) and non-RF Title I schools (from 78 percent to 85 percent). In both RF and non-RF Title I schools, principals reported that approximately one-third of students were participating in interventions to improve their reading skills. The wait time for students in need of such services was reported to be less than a week, on average, in both RF and non-RF Title I schools.

Exhibit 4.2

Availability of Intervention Services in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05		2006–07		2006–07 Difference - 2004–05 Difference
	RF Schools	Non-RF Title I Schools	RF Schools	Non-RF Title I Schools	
Availability of reading intervention services	87%*	78%	91%*	85%	-2.5%

Exhibit reads: In 2004–05, 87 percent of principals in RF schools reported that reading intervention services were available, compared to 78 percent of principals in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 91 percent of principals in RF schools reported that reading intervention services were available, compared to 85 percent in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by -2.5 percentage points (right-hand column) reflecting that there was a 9 percentage point difference in 2006–07 and a 6 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.4.2 for additional statistics.

Source: Principal Survey (Question E3 in 2004–05 and 2006–07).

Weight: Principal.

Weighted respondents: Principals in 1,645 RF schools and 14,455 non-RF Title I schools.

Non-response rate across items, groups, and years: 0.9 to 2.4 percent.

Use of Reading Intervention Services

A significantly greater percentage of RF teachers than teachers in non-RF Title I schools reported placing their struggling readers into special intervention programs in the previous month (80 percent vs. 63 percent). This is an increase for teachers in both types of schools from 2004–05 to 2006–07 (from 73 percent to 80 percent for RF schools and from 56 percent to 63 percent for non-RF Title I schools).

Supports Schools Use to Meet the Needs of Struggling Readers

Supports as Reported by Teachers

Once students are identified as struggling readers, teachers reported using multiple supports, which may or may not be part of formal reading interventions, to meet their needs, including

conducting diagnostic assessments to determine student core deficits, working with a more advanced peer, a reading specialist in small groups, or working one-on-one with a tutor. In 2006–07, significantly more RF teachers reported using diagnostic assessments to determine students' core deficits within the previous month than did teachers in non-RF Title I schools (84 percent vs. 67 percent) (Exhibit 4.3). Additionally, a significantly greater percentage of RF teachers than teachers in non-RF Title I schools reported placing struggling readers into small groups with a reading specialist within the previous month (59 percent vs. 48 percent), as well as placing them in materials that supplement the core reading program during that time period.

There were no substantive changes from 2004–05 to 2006–07 in teachers' reported use of supports to meet the needs of struggling readers. For example, in both years, approximately three-quarters of teachers in RF and non-RF Title I schools reported that their struggling readers worked with a more advanced peer within the previous month.

Most K–3 teachers in both RF and non-RF Title I schools (88–95 percent) reported providing additional practice in the previous month to struggling readers in phonemic awareness, phonics, and fluency.

Supports as Reported by Principals and Reading Coaches

In addition to intervention services, principals also reported on other methods teachers use to meet the needs of struggling readers (Exhibit 4.4). In 2006–07, principals and reading coaches in both types of schools reported that classroom teachers provided additional practice opportunities (98–99 percent) and direct instruction to struggling readers (97 percent) and have trained aides working with students during class to provide support (88–90 percent). There were no substantive changes from 2004–05 to 2006–07 reported by RF or non-RF Title I schools on these activities.

There were, however, some differences in 2006–07 between RF and non-RF Title I schools in the reported staff activities used to meet the needs of struggling readers. Non-RF Title I schools reportedly were more likely to use untrained aides or volunteers to work with struggling readers than were RF schools (either during the day: 40 percent vs. 23 percent; or after school (18 percent vs. 10 percent).

Exhibit 4.3

Teachers' Use of Supports in the Previous Month for Struggling Readers in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

2004–05 | 2006–07

	Difference in Difference	

□ RF Schools
■ Non-RF Title I Schools

2004–05 RF	2004–05 Non-RF	Support	Diff	2006–07 RF	2006–07 Non-RF
*82	61	Diagnostic assessment to determine core deficits	-3.9	84*	67
*79	66	Placement in materials that supplement the core reading program	-1.6	82*	71
76	75	Work with more advanced peer	0.7	75	73
60	62	Special materials for parents to provide practice	4.2	64	63
*55	48	Work with reading specialist in small group	2.8	59*	48
*55	49	Placement in different level of core reading program	-3.5	56	54
54	*62	Work with tutor on one-to-one basis	0.5	50	57*
33	32	Work with reading specialist on one-to-one basis	3.3	32*	27
25	26	Placement in separate core reading program	1.4	28	27

100 80 60 40 20 0
Percent of Teachers

0 20 40 60 80 100
Percent of Teachers

Exhibit reads: In 2004–05, 82 percent of teachers in RF schools reported using diagnostic assessment to determine core deficits of struggling readers, compared to 61 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 84 percent of teachers in RF schools reported using this activity, compared to 67 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by -4.0 percentage points (center column) reflecting that there was a 17 percentage point difference in 2006–07 and a 21 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF teachers and teachers in non-RF Title I schools.

See Appendix B, Exhibit B.4.3 for additional statistics.

Source: Teacher Survey (Question C9 in 2004–05 and B8 in 2006–07).

Weight: School.

Weighted respondents: Teachers in 1,684 RF schools and 14,656 non-RF Title I schools.

Non-response rate across items, groups, and years 0.0 to 0.2 percent.

Exhibit 4.4

Staff Activities to Meet the Needs of Struggling Readers, as Reported by the Principals or Reading Coaches in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05	**Difference in Difference**	**2006–07**	
	RF Schools / Non-RF Title I Schools		RF Schools / Non-RF Title I Schools	

2004–05 / 2006–07, Percent of Schools

Legend: ☐ RF Schools, ■ Non-RF Title I Schools

- Classroom teacher provides additional practice opportunities: 2004–05: 99 / 98; Difference in Difference: -0.4; 2006–07: 99 / 98
- Classroom teacher provides additional direct instruction: 2004–05: 96 / 97; Difference in Difference: 0.6; 2006–07: 97 / 97
- Trained aides or volunteers work with students during class: 2004–05: *91 / 87; Difference in Difference: -2.2; 2006–07: 90 / 88
- A certified reading specialist works directly with students: 2004–05: 59 / 58; Difference in Difference: -3.6; 2006–07: 61 / 63
- Trained aides or volunteers work with students before or after school: 2004–05: 49 / 51; Difference in Difference: 0.1; 2006–07: 49 / 52
- Untrained aides or volunteers work with students during class: 2004–05: 32 / *43; Difference in Difference: -6.7; 2006–07: 23 / 40*
- Untrained aides or volunteers work with students before or after school: 2004–05: 15 / 18; Difference in Difference: -4.8; 2006–07: 10 / 18*

Exhibit reads: In 2004–05 and 2006–07, 99 percent of RF schools reported that classroom teachers provide additional practice opportunities to meet the needs of struggling readers, compared to 98 percent of non-RF Title I schools over the same time period. These differences are not statistically significant. The 2004–05 and 2006–07 results differ by 0.4 percentage points (right-hand column) reflecting that there was a 1 percentage point difference in 2006–07 and a 1 percentage point difference in 2004–05.
Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.
See Appendix B, Exhibit B.4.4 for additional statistics.
Source: Reading Coach Survey and Principal Survey (Question E1 in 2004–05 and 2006–07).
Weight: School.
Weighted respondents: Principals or reading coaches in 1,682 RF schools and 14,334 non-RF Title I schools.
Non-response rate across items, groups, and years: 0 to 2.6 percent.

Supports for Special Education and ELL Students

To be successful, reading intervention efforts with struggling readers or ELL students must allow time for teachers, ELL staff, or special education teachers to coordinate their instructional activities. Absent such coordination—if teachers and other staff are not working on the same

reading subskills and in the same sequence—the usefulness of the reading intervention is likely to be compromised (National Literacy Panel on Language Minority Children and Youth, 2006).

Approximately 8 percent of K–3 students in both RF and non-RF Title I schools reportedly receive special education services. In 2006–07, more than 70 percent of teachers in RF and non-RF Title I schools reported that time was set aside to coordinate their reading activities with special education staff (Exhibit 4.5). For both groups of teachers, this represents an increase from the earlier data collection (for RF teachers from 63 percent to 74 percent and for teachers in non-RF Title I schools from 65 percent to 70 percent).

Exhibit 4.5

Percent of Teachers Setting Aside Some Time to Coordinate Interventions with Special Education and English Language Learner Staff in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years
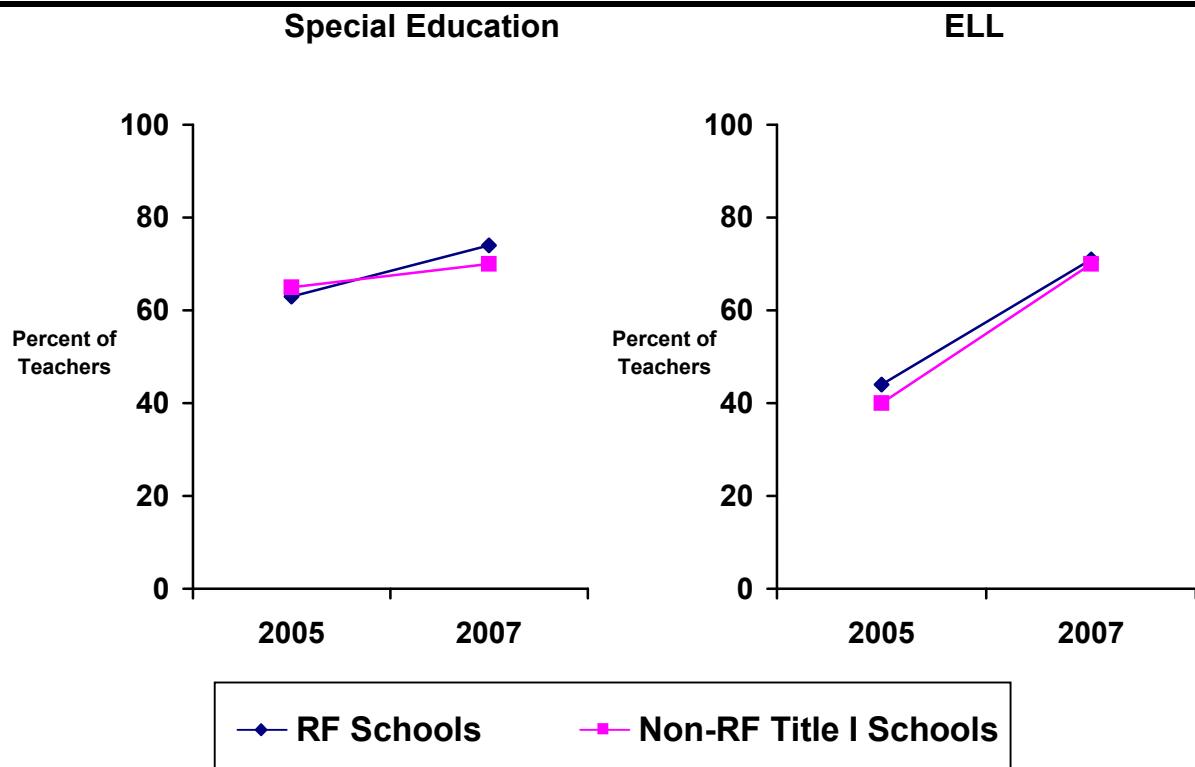
Exhibit reads: In 2004–05, 63 percent of teachers in RF schools reported having some time set aside to coordinate interventions for struggling readers with special education staff, compared to 74 percent in 2006–07. This difference is statistically significant (p ≤ .05). In 2004–05, 65 percent of teachers in non-RF Title I schools reported having some time set aside, compared to 70 percent in 2006–07. This difference is statistically significant (p ≤ .05).

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.4.5 for additional statistics.

Source: Teacher Survey (Question C3 in 2004–05 and B3 in 2006–07).

Weight: School.

Weighted Respondents: Teachers in 1,096 RF and 8,685 non-RF Title I schools

Non-response rate across items, groups, and years: < 1 percent.

More than 70 percent of RF and non-RF Title I schools have at least one ELL student. However, in RF schools the proportion of such students in grades K–3 is higher than in non-RF Title I schools (30 percent vs. 20 percent). In 2006–07, in schools serving ELL students, there were no significant differences in RF and non-RF Title I schools in the percent of teachers reporting coordinating with ELL staff (70 percent). However, this is a significant increase from the 2004–05 findings from the 45 percent of RF teachers and 40 percent of teachers in non-RF Title I schools who reported such coordination.

About three-quarters of teachers in RF and non-RF Title I schools reported that their ELL students received ESL instruction in the previous month (75 percent vs. 77 percent) and about half of these teachers indicated that their ELL students received in-classroom reading help from an ELL teacher in the previous month (54 percent vs. 53 percent) (Exhibit 4.6).

Exhibit 4.6

Teachers' Use of Supports in the Previous Month for English Language Learners to Meet the Needs of Struggling Readers, in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years
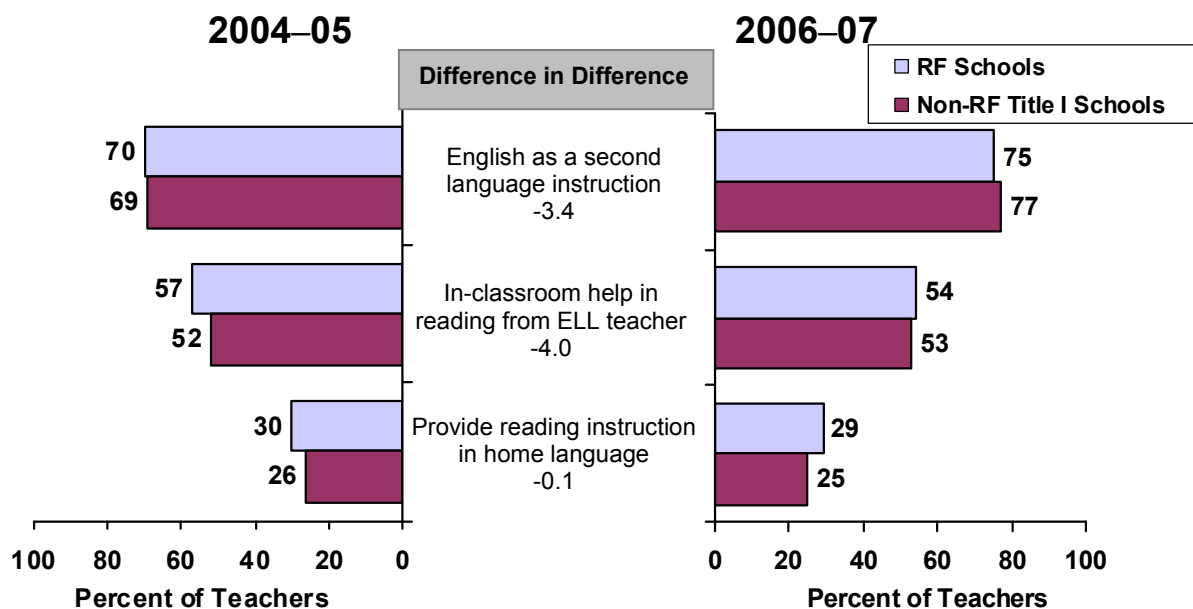
Exhibit reads: In 2004–05, 70 percent of teachers in RF schools reported using ESL instruction to meet the needs of struggling ELL students, compared to 69 percent of teachers in Title I schools. This difference is not statistically significant. In 2006–07, 75 percent of teachers in RF schools reported using this strategy, compared to 77 percent of teachers in non-RF Title I schools. This difference is not statistically significant. The 2004–05 and 2006–07 results differ by -3.3 percentage points (center column) reflecting that there was a 2 percentage point difference in 2006–07 and a 1 percentage point difference in 2004–05.
Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.
See Appendix B, Exhibit B.4.6 for additional statistics.
Source: Teacher Survey (Question C10 in 2004–05 and B9 in 2006–07).
Weight: School.
Weighted respondents: Teachers in 971 RF schools and 7,501 non-RF Title I schools.
Non-response rate across items, groups, and years: < 1 percent.

For both RF and non-RF Title I schools with ELL students, there were no substantive changes from 2004–05 to 2006–07 in teachers' reported use of supports to meet the needs of struggling readers who are ELLs. For example, in both years, approximately one-fourth of teachers in RF and non-RF Title I schools reported that reading instruction was provided in students' home language in the previous month (29 percent vs. 25 percent).

Non-RF Title I schools were somewhat more likely to rely on certified special education teachers to provide recommendations on accommodations for struggling readers than were RF schools (84 percent vs. 77 percent). Additionally, non-RF Title I schools were also more likely to use bilingual or ESL teachers' recommendations than were RF schools (52 percent vs. 43 percent).

Summary

A central feature of Reading First is to identify, support, and coordinate services for K–3 students who are at risk of falling behind their peers in their development of reading skills. Staff in most RF and non-RF Title I schools reported using a variety of tools to identify struggling readers, including reading test scores, teacher or staff recommendations, and classroom observations. However, RF schools were reportedly much more likely to use reading coach recommendations than non-RF Title I schools to identify students for reading interventions, and non-RF Title I schools were more likely to use requests from parents than RF schools.

According to principal reports, intervention services for struggling readers are available in most RF and non-RF Title I schools, with an average wait time of three to four school days. Further, virtually all RF and Title I schools reportedly provide struggling readers with such supports as additional practice opportunities, additional direct instruction, and help from trained aides or volunteers. However, a significantly greater percentage of teachers in RF schools reported using diagnostic assessments to determine struggling readers' core deficits, placing students in materials that supplement the core reading program, and placing students in intervention programs than do teachers in non-RF Title I schools.

In both RF and non-RF Title I schools, across most activities aimed at helping struggling readers there was little change from the 2004–05 to 2006–07 data collections. One exception, however, was teachers' reported coordination of reading interventions with other school staff. From 2004–05 to 2006–07, the percent of teachers reporting that time is set aside to coordinate reading interventions with ELL staff or special education staff increased dramatically in both RF and non-RF Title I schools.

The survey information provided by non-RF Title I school staff suggests that their activities to assist struggling readers are becoming more similar to their RF counterparts. Additionally, responses from RF school staff across both data collection periods indicate continued efforts to meet the needs of struggling readers.

Chapter 5: Assessment

Assessment of students' reading proficiency is a central element of Reading First; the legislation specifically requires that schools assess students for screening and diagnostic, instructional, and outcome purposes (PL 107-110, Title I, Part B, Subpart 1). States and districts are to provide assistance to RF schools in selecting, administering, and interpreting the results of reading assessments; in addition, states and districts are to provide professional development to teachers in the use of reading assessments, particularly with students at risk of reading failure. The Reading First program does not advocate the use of any specific assessment but rather requires that reading assessments selected by states, districts, or schools be psychometrically strong and aligned with instruction (U.S. Department of Education, OESE, *Guidance for the Reading First Program*, April 2002).

Over the past 15 years, the prominence of assessment and accountability in K–12 education has increased greatly, not only for RF schools (Frye, 1999; Goertz & Duffy, 2003). In this section we explore the uses of assessment in Reading First schools and non-RF Title I schools during the 2004–05 and 2006–07 school years. In particular, we describe the selection and interpretation of reading assessments, and teachers' classroom use of reading assessment results. This chapter also describes differences between RF and non-RF Title I schools in the types of reading assessments teachers reported using most often during the 2006–07 school year and their associated administration procedures.

Key Findings

While assessment plays an important role in reading programs of both RF and non-RF Title I schools, there is evidence that RF schools emphasize assessment somewhat more than do non-RF Title I schools.

In Reading First schools, principals were more likely to report that the state shared responsibility for selecting assessments (52 percent vs. 26 percent) and interpreting their results (31 percent vs. 12 percent) than were principals in non-RF Title I schools. Further, in those schools that have reading coaches, RF principals were also more likely to report that the reading coach shared responsibility for selecting assessments (94 percent vs. 59 percent) and interpreting their results (51 percent vs. 35 percent).

There were significant differences in the types of assessments that teachers in RF schools reported using most often compared to teachers in non-RF Title I schools. RF teachers were significantly more likely to identify standardized tests as the test they used more often than were teachers in non-RF Title I schools. Although rarely reported overall, teachers in non-RF Title I schools were significantly more likely to identify informal assessments or report that they do not use any assessment than teachers in RF schools. In addition, there were significant differences between teachers in RF and non-RF Title I schools' reports of the *specific assessments* they use most often. Significantly more teachers in RF schools reported using the Dynamic Indicators of

Basic Early Literacy Skills (DIBELS) than did teachers in non-RF Title I schools for grouping students (43 percent vs. 15 percent), determining student mastery of skills (19 percent vs. 6 percent), and for identifying core deficits of struggling students (31 percent vs. 14 percent).

Teachers in RF schools reported administering the assessment they most commonly use more often than teachers in non-RF Title I schools and reported that these assessments are shorter in length. For example, teachers in RF schools were more likely to report giving the test they used for placing or grouping students three or more times during the year than teachers in non-RF Title I schools (91 percent vs. 75 percent). Across assessment purposes, significantly more RF teachers reported that the assessment they use most often takes 15 minutes or less to administer than teachers in non-RF Title I schools (e.g., 62 percent vs. 42 percent for placing or grouping students).

RF teachers were more likely to report that using a range of assessment results is central to their reading instruction. For example, RF teachers were more likely to report that using test results for organizing instructional groups was central to their teaching than teachers in non-RF Title I schools (91 percent vs. 78 percent).

Selection and Interpretation of Reading Assessments

An effective reading program is expected to have a strong plan for assessing students regularly and teachers are expected to use the results of those assessments to inform their reading instruction. Toward this end, schools needed to select reading assessments to use for a variety of purposes (grouping students, determining student mastery, and identifying core reading deficits) in their classrooms. The following section summarizes findings about the receipt of external assistance selecting and interpreting assessments, responsibility for selecting and interpreting assessments, and the adoption of new reading assessments.

Receipt of External Assistance

About half the principals in both RF and non-RF Title I schools received assistance in *selecting* reading assessments (54 percent) (Exhibit 5.1). The proportion of principals in RF schools reporting receiving this assistance decreased from 79 percent in 2004–05 to 54 percent in 2006–07, while there was no change in the responses of principals in non-RF Title I schools. However, RF principals were significantly more likely to report receiving external assistance *interpreting* assessment results than were principals in non-RF Title I schools (75 percent vs. 65 percent).[48] Fewer principals in RF schools indicated receiving this sort of assistance in 2006–07 than in 2004–05 (75 percent vs. 86 percent).

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[48] "External" is defined as assistance from persons outside of the school, such as from the district or state, from publishers or from university experts.

Exhibit 5.1

Percentage of Principals in RF and Non-RF Title I Schools Reporting Receiving External Assistance for K–3 Reading Assessment Activities, 2004–05 and 2006–07 School Years

2004–05 | Difference in Difference | **2006–07**

RF Schools
Non-RF Title I Schools

*79
56
Selecting assessment instruments
-23.3*
54
54

*86
69
Interpreting assessment results
-5.8
75*
65

100 80 60 40 20 0 | 0 20 40 60 80 100
Percent of Schools | **Percent of Schools**
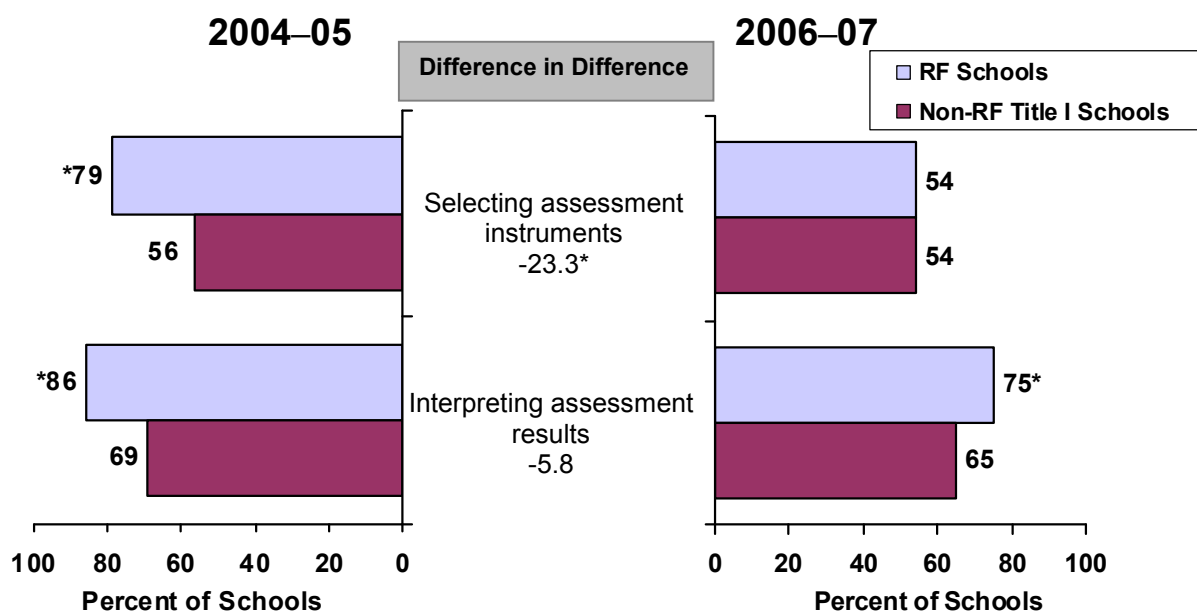
Exhibit reads: In 2004–05, 79 percent of RF principals reported that their schools received assistance selecting K–3 reading assessments, compared to 56 percent of principals in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 54 percent of principals in both RF and Title I schools reported receiving this type of assistance. The 2004–05 and 2006–07 results differ by -23.3 percentage points (right-hand column) reflecting the fact that there was a 0 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 23.3 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.5.1 for additional statistics.

Source: Principal Survey (Question B7 in 2004–05 and B2 in 2006–07).

Weight: Principal.

Weighted respondents: Principals in 1,684 RF schools and 14,652 non-RF Title I schools.

Non-response rate: < 1 percent.

Responsibility for Selection of Reading Assessments and Interpretation of the Results

Significantly more principals in RF than non-RF Title I schools reported that the state had some responsibility for selecting assessment instruments (52 percent vs. 26 percent) (Exhibit 5.2). The larger role of the state in RF schools could be due to the role of the state in the Reading First application process, during which states needed to describe their plan for assessing students' progress. In these plans, states may have identified specific assessments that RF schools in their states would use. In 2006–07, three-quarters of principals in both RF and non-RF Title I schools reported that the district has some responsibility for selecting assessments.

Nearly all principals in RF schools with reading coaches indicated that reading coaches share responsibility for interpreting assessment results, whereas significantly fewer principals in non-RF Title I schools that have reading coaches reported that their coaches had that responsibility (98 percent vs. 77 percent). Further, nearly all principals (94 percent) in both types of schools identified themselves as responsible for interpreting assessment results.

Exhibit 5.2

Responsibility for Reading Assessment Activities in RF and Non-RF Title I Schools as Reported by Principals, 2004–05 and 2006–07 School Years

Selection of Assessment Instruments

2004–05   **2006–07**

Difference in Difference

RF Schools
Non-RF Title I Schools

State -4.7
District 6.5
Principal 2.1
Reading Coach 10.8*

Interpretation of Assessment Results

2004–05   **2006–07**

Difference in Difference

State 4.9
District 6.8
Principal 3.4
Reading Coach -0.1
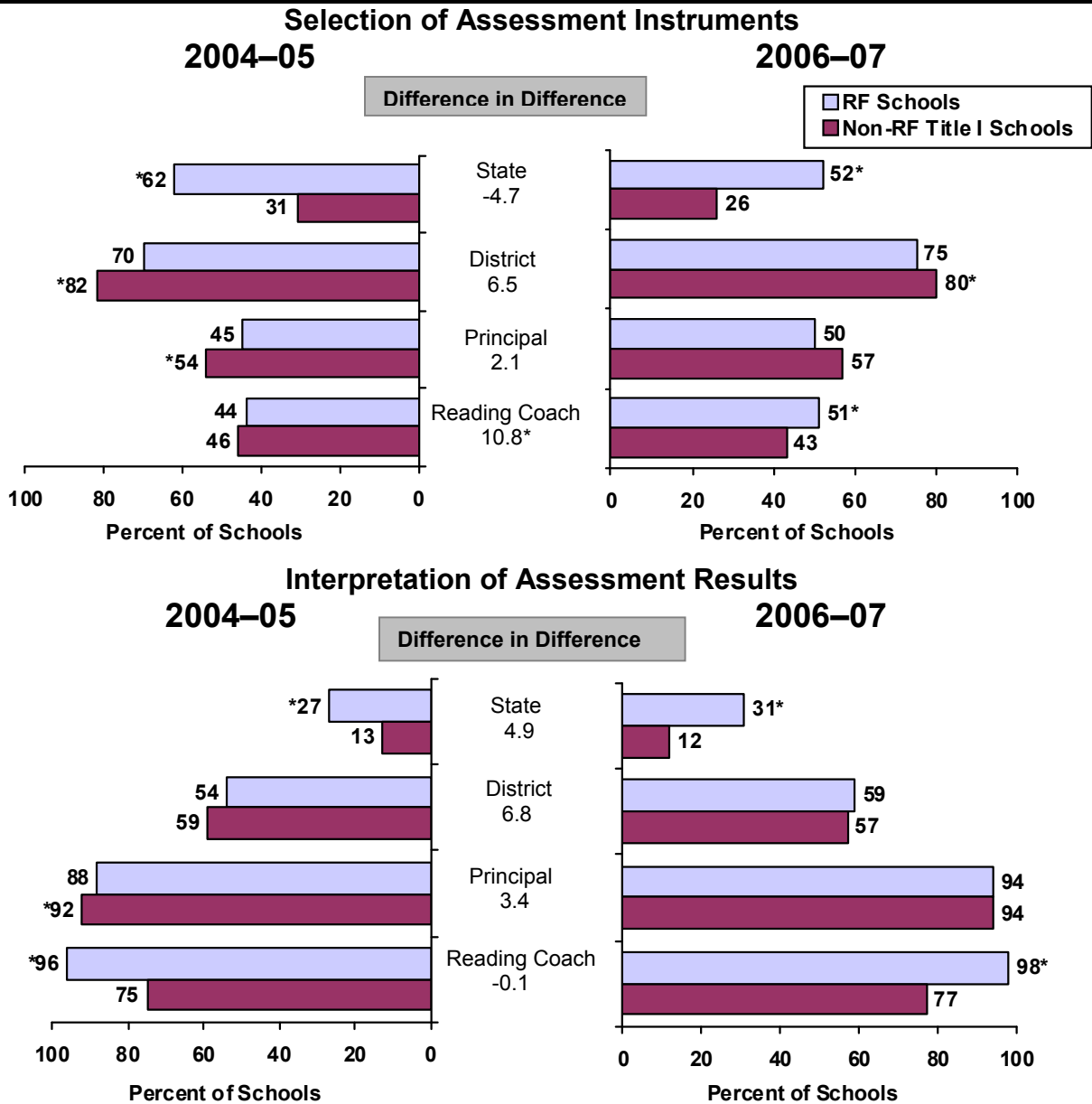
Exhibit reads: In 2004–05, 27 percent of RF principals reported that the state was, in part, responsible for the selection of reading assessments, compared to 13 percent of principals in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 31 percent of RF principals reported that the state was responsible for this activity, compared to 12 percent of principals in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results are not significantly different, as indicated by the non-significant 4.9 percentage point difference-in-difference.

Notes: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools. The reading coach results include only those schools that have coaches.

See Appendix B, Exhibit B.5.2 for additional statistics.

Source: Principal Survey (Question D4 in 2004–05 and D2 in 2006–07).

Weight: Principal.

Weighted respondents: Principals in 1,684 RF schools and 14,656 non-RF Title I schools.

Non-response rates across survey items: < 1 percent.

Adoption of New Assessments

Only a small proportion of RF schools reported adopting new reading assessments in their third year of implementation (2006–07), significantly fewer than in non-RF Title I schools (12 percent vs. 33 percent). This is not surprising, given that the majority of these RF schools (77 percent) reported adopting new reading assessments in 2004–05, when they were in their first year of implementation. Only 9 percent of RF schools reported adopting new assessments in both 2004–05 and 2006–07.

Dedicated Time for Teachers to Use Assessment Data to Plan Instruction

Regular assessment of students' reading skills allows teachers to modify instruction to better meet the needs of their students. Presumably, teachers are more able to meet this goal if they have time regularly set aside to review the results of assessments and plan their instruction accordingly.[49] Significantly more teachers in RF schools reported that time was set aside regularly to use assessment data to plan instruction than teachers in non RF Title I schools (89 percent vs. 79 percent) (Exhibit 5.3).

Exhibit 5.3

Time Set Aside for K–3 Teachers to Use Assessment Data to Plan Instruction in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05		2006–07		
	Teachers		Teachers		2006–07
	RF	Non-RF Title I	RF	Non-RF Title I	Difference vs. 2004–05 Difference
Once a week or more	28%*	23%	33%*	27%	
Once a month	19*	14	24*	16	
5–8 times per year	7	8	11*	7	
1–4 times per year	25	28	21	28*	
Any regular time	80*	73	89*	79	3.5
Not at all	9	13*	3	10*	
Informally, only as needed	11	14*	8	11*	
No regular time	20	27*	11	21*	-3.5

Exhibit reads: In 2004–05, 28 percent of RF teachers reported that time was set aside once a week or more to use assessment data to plan instruction, compared to 23 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 33 percent of RF teachers reported that such time was set aside compared to 27 percent of teachers in non-RF Title I schools; this difference is also statistically significant (p ≤ .05).

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.5.3 for additional statistics.

Source: Teacher Survey (Question C3 in 2004–05 and B3 in 2006–07).

Weight: School.

Weighted respondents: Teachers in 1,684 RF schools and 14,656 non-RF Title I schools.

Non-response rate: < 1 percent.

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[49]   For the purposes of this report, we defined time on a regular basis to mean at least one to four times per year and frequently as once a week or more.

Reading Assessments Used by Teachers

This section compares responses of teachers in RF and non-RF Title I schools with regard to their use of assessments as part of their reading programs.[50] For each purpose listed, teachers identified the one assessment they used most often.[51] In addition, the section describes variation between RF and non-RF Title I schools in the frequency of assessments, their duration, format, and use for accountability purposes.

Types of Assessments

Across assessment purposes, teachers in RF schools were more likely to report that they used a standardized assessment most often than were teachers in non-RF Title I schools (Exhibit 5.4). For example, a significantly higher percentage of RF teachers reported using a standardized assessment most often to place or group students than were teachers in non-RF Title I schools (64 percent vs. 45 percent). Also, across assessment purposes, very few teachers in either RF or non-RF Title I schools reported using district-specific, state-specific, or informal assessments as the test used most often.

Teachers in both RF and non-RF Title I schools reported using assessments from the core, supplementary, or intervention reading program to determine student mastery of skills (31 percent and 30 percent) more so than for placing or grouping students (11 percent and 15 percent) or for identifying the core deficits of struggling students (14 percent and 11 percent, respectively).

The assessments teachers identified using most often were generally consistent across grade levels.[52] We did find, however, that kindergarten teachers in both RF and non-RF Title I schools were more likely to report using informal assessments (structured or unstructured) for determining student mastery than were teachers in grades 1–3 (6 and 23 percent, respectively, for RF and non-RF Title I kindergarten teachers, and 2–4 percent and 7–12 percent, respectively, for RF and non-RF Title I grade 1–3 teachers). In addition, the percentage of teachers in RF and non-RF Title I schools who reported that they most often used assessments from the reading program for determining student mastery *increased* with grade progression from kindergarten (18 percent for RF teachers and 17 percent for teachers in non-RF Title I schools) to second grade (32 percent for RF teachers and 30 percent for teachers in non-RF Title I schools).

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[50] This question changed in structure and content from 2005 to 2007. Therefore, these data cannot be compared across survey years. We revised the question in order to increase our ability to categorize teachers' open-ended responses (approximately 40 percent of responses were not appropriate for analysis in 2005), as well as to decrease the non-response rate (approximately 10 percent in 2005).

[51] On the 2006–07 survey, although we asked teachers to list the *one* assessment they used most often, some teachers listed more than one assessment per purpose. We excluded these cases from the analysis of that purpose. Approximately 20 percent of teachers' responses were excluded from analysis.

[52] See Appendix B, Exhibits B.5.4a-d for additional grade level statistics.

Exhibit 5.4

Types of Assessments Used Most Often by Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year

Assessment Purpose Type of Assessment	Teachers [a] [b]	
	RF	Non-RF Title I
Placing or grouping of students		
Formal assessments		
Core, supplementary, or intervention reading program assessment	11%	15%*
District-specific assessment	2	2
State-specific assessment	2	3
Other standardized assessment	64*	45
Informal assessments		
Structured informal assessments	3	7*
Unstructured informal assessments	2	5*
Assessment is not used for this purpose	2	7*
Determining student mastery of skills		
Formal assessments		
Core, supplementary, or intervention reading program assessment	31	30
District-specific assessment	5	4
State-specific assessment	2	4
Other standardized assessment	35*	22
Informal assessments		
Structured informal assessments	1	5*
Unstructured informal assessments	4	10*
Assessment is not used for this purpose	1	5*
Identifying the core deficits of struggling students		
Formal assessments		
Core, supplementary, or intervention reading program assessment	14	11
District-specific assessment	2	2
State-specific assessment	2	3
Other standardized assessment	51*	34
Informal assessments		
Structured informal assessments	3	8*
Unstructured informal assessments	4	6*
Assessment is not used for this purpose	6	18*

Exhibit reads: In 2006–07, 11 percent of RF teachers reported that they used assessments from the core or supplementary reading program most often for placing or grouping students, compared to 15 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05).

[a] Percentages by grade or assessment purpose will not add up to 100 percent due to non-response, responses that we were not able to categorize, and multiple responses.

[b] We were not able to categorize about 8 percent of teachers' responses. "Not able to categorize" includes responses that were too vague to be coded (e.g., assessment, test, eight-weeks, benchmarks, phonics, rubric, pretest, quarterly test, fluency) and responses that were not discernable (e.g., ELLA stands for Early Learning Literacy in Arkansas or the English Language and Literacy Assessment). In addition, 10 percent of teachers' responses were excluded from analyses because the teacher named two or more assessments that we could categorize; however, we could not identify the one assessment used most often.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibits B.5.4a-d for additional grade level statistics.

Source: Teacher Survey (Questions B6 in 2006–07).

Weight: Teacher.

Weighted respondents: 22,854 teachers in RF schools and 177,157 teachers in non-RF Title I schools.

Nonresponse rates across survey items: 2.3 to 4.7 percent.

Overall, few teachers reported that they do not use an assessment for the purposes listed. However, given that the Reading First program specifically requires testing in reading in the early grades, it is not surprising that teachers in RF schools report this significantly less often than teachers in non-RF Title I schools across assessment purposes. The largest number of teachers across grades reported that they did not use an assessment for identifying the core deficits of struggling students (6 percent in RF schools vs. 18 percent in non-RF Title I schools). These findings are generally consistent across grades.

Specific Assessments

For each assessment purpose, teachers named a myriad of specific formal assessments. The most commonly named assessments were:[53]

- Dynamic Indicators of Basic Early Literacy Skills (DIBELS),
- Developmental Reading Assessment (DRA), and
- Texas Primary Reading Inventory (TPRI).

Across all assessment purposes, significantly more teachers in RF schools reported that they used the DIBELS most frequently for grouping students (43 percent vs. 15 percent), determining student mastery of skills (19 percent vs. 6 percent), and identifying core deficits of struggling students (31 percent vs. 14 percent) than did teachers in non-RF Title I schools (Exhibit 5.5).

The specific assessments teachers identified using most often were also generally consistent across grade levels. However, the percentage of teachers in RF and non-RF Title I schools who reported that the DIBELS was the test they used most often generally decreased with grade progression. As an example, for determining student mastery of skills, 30 percent of RF kindergarten teachers reported the DIBELS as the assessment they use most often, which fell to 23 percent in first grade, to 10 percent in second grade, and to 8 percent in third grade. This same pattern generally holds across assessment purposes in both RF and non-RF Title I schools.[54]

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[53]   No informal assessment was identified by at least 5 percent of all RF and teachers in non-RF Title I schools.

[54]   See Appendix B, Exhibits B.5.5a-d for additional grade level statistics.

Exhibit 5.5

Types of Specific Assessments Reported as Used Most Often by K–3 Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year

Assessment Purpose Type of Assessment	Teachers [a] [b]	
	RF	Non-RF Title I
Placing or grouping of students		
Formal assessments		
DIBELS	43%*	15%
DRA	4	13*
TPRI	11*	4
Determining student mastery of skills		
Formal assessments		
DIBELS	19*	6
DRA	1	4*
TPRI	6*	2
Identifying the core deficits of struggling students		
Formal assessments		
DIBELS	31*	14
DRA	1	4*
TPRI	9*	4

Exhibit reads: In 2006–07, 43 percent of RF teachers identified the DIBELS as the reading assessment they use most often for placing or grouping students, compared to 15 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05).

[a] Only individual assessments that constituted more than 5 percent of responses are included in this exhibit. [b] Percentages by grade or assessment purpose will not add up to 100 percent due to non-response, responses that we were not able to categorize, and multiple responses.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibits B.5.5a-d for additional grade level statistics.

Source: Teacher Survey (Question B6 in 2006–07).

Weight: Teacher.

Weighted respondents: 23,921 teachers in RF schools and 181,283 teachers in non-RF Title I schools.

Nonresponse rates across survey items: < 1 percent.

Administration of Assessments

Number of Assessment Administrations

Frequency of assessment administration varied across RF and non-RF Title I schools as well as by assessment purpose (Exhibit 5.6). Across all three assessment purposes, RF teachers were significantly more likely than were teachers in non-Title I schools to report administering their most useful assessment five or more times per year for placing students into groups (38 percent vs. 21 percent), determining student mastery (60 percent vs. 51 percent), and identifying the core deficits of struggling students (53 percent vs. 39 percent).

In both RF and non-RF Title I schools, teachers reported assessing students most often to determine mastery of skills; the majority of teachers in both types of schools reported assessing students five or more times for this purpose (60 percent and 51 percent). Alternatively, teachers reported testing somewhat less often to place or group students; about half of teachers in both RF and non-RF Title I schools reported testing three to four times per year for this purpose.

Exhibit 5.6

Number of Times Most Frequently Used Assessment is Administered Per Year as Reported by Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year

Legend:
- □ 5 or more times
- ■ 3 or 4 times
- □ 1 or 2 times

Y-axis: Percent of Teachers (0 to 100)

Placing or grouping students
- RF: 9 / 53 / 38*
- Non-RF Title I: 25* / 54 / 21

Determining student mastery of skills
- RF: 8 / 32 / 60*
- Non-RF Title I: 12* / 37* / 51

Identifying the core deficits of struggling readers
- RF: 11 / 36 / 53*
- Non-RF Title I: 17* / 44* / 39
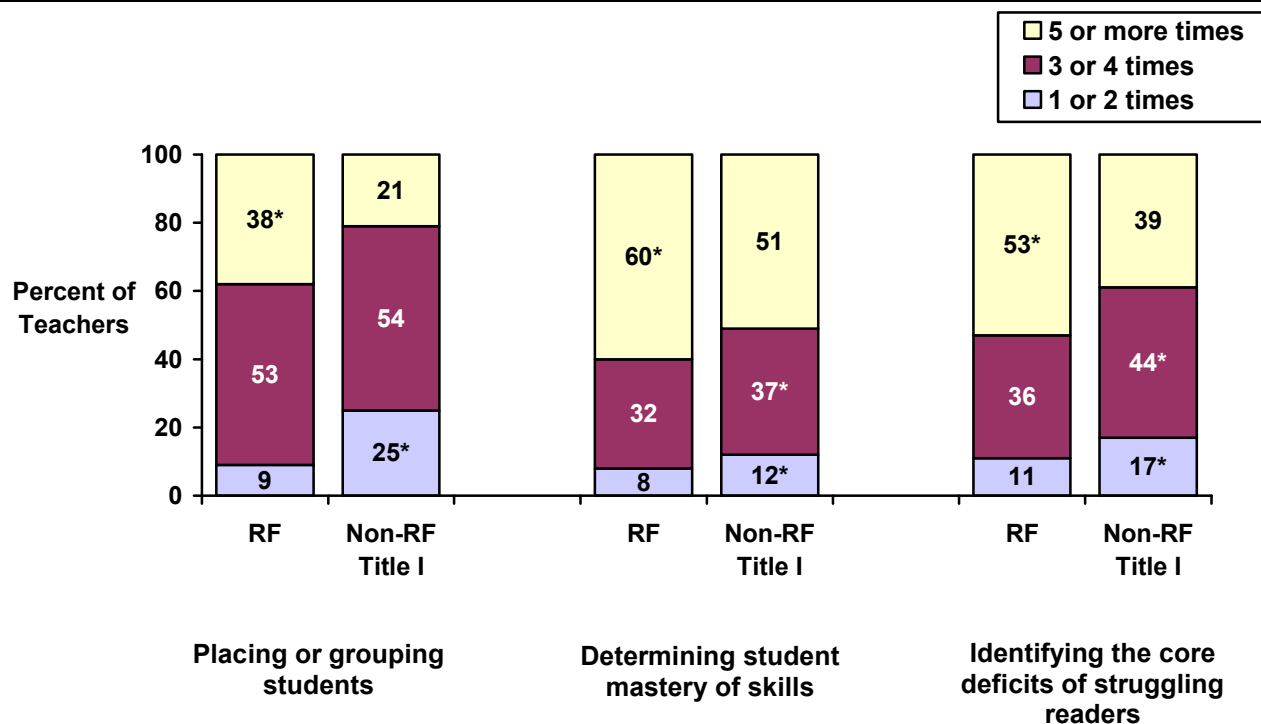
Exhibit reads: In 2006–07, 38 percent of RF teachers reported that they administer the assessment they use most often for placing or grouping students five or more times per year, compared to 21 percent of the teachers in non-RF Title schools. This difference is statistically significant (p ≤ .05).

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.5.6, for additional statistics.

Source: Teacher Survey (Question B6 in 2006–07).

Weight: Teacher.

Weighted respondents: 22,350 teachers in RF schools and 163,268 teachers in non-RF Title I schools.

Non-response rates across survey items: 1.9 to 7.3 percent.

Time Required for Assessments

While teachers in RF schools reported assessing students more frequently, overall, Reading First teachers reported administering assessments that require less time than the assessments teachers administered in non-RF Title I schools (Exhibit 5.7). Across assessments purposes, RF teachers were significantly more likely to report that the assessment they use most often takes 15 minutes or less to administer than were teachers in non-RF Title I schools. For example, 63 percent of RF teachers reported using an assessment to group students that takes 15 minutes or less compared to 42 percent of teachers in non-RF Title I schools.

Exhibit 5.7

Length of Administration for Most Frequently Used Assessment as Reported by Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year
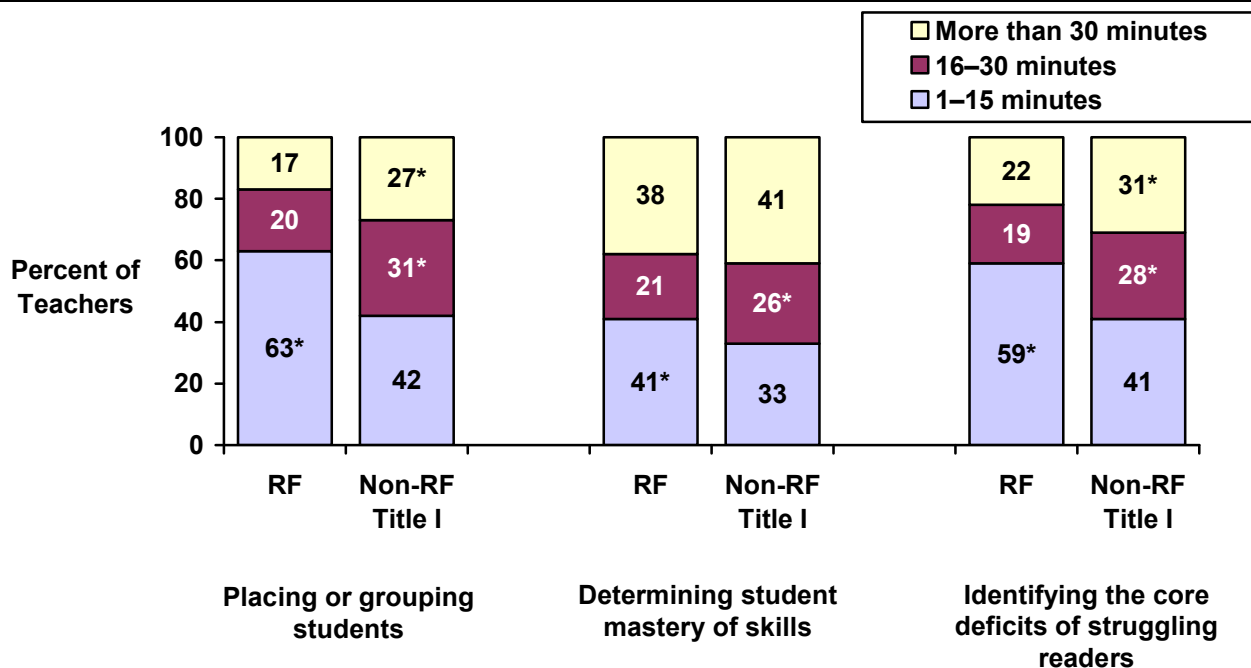
Exhibit reads: In 2006–07, 17 percent of RF teachers reported that they most often use an assessment for placing or grouping students that takes more than 30 minutes to administer, compared to 27 percent of the teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05).

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers RF and non-RF Title I schools.

See Appendix B, Exhibit B.5.7 for additional statistics.

Source: Teacher Survey (Questions B6 in 2006–07).

Weight: Teacher.

Weighted respondents: 21,941 teachers in RF schools and 160,830 teachers in non-RF Title I schools.

Non-response rates across survey items: 3.3 to 14.8 percent.

There was also variation across assessment purposes in the amount of time required for administering assessments, with student mastery tests taking the longest (Exhibit 5.7). About 40 percent of in both RF and non-RF Title I schools were likely to report using assessments requiring more than 30 minutes for this purpose.

Perhaps not surprisingly, given developmental differences in attention span, the length of assessments that teachers administer in RF and non-RF Title I schools increases with grade progression. For example, to assess student mastery, 60 percent of RF and 47 percent of non-RF Title I kindergarten teachers administer tests that require 15 minutes or less, while at third grade, to assess this skill only 24 percent third-grade teachers in RF schools and 16 percent in non-RF Title I schools reported using such short assessments.

Accountability Purposes for Assessments

In addition to providing teachers information for planning and modifying instruction, assessments also provide information relevant for school accountability requirements. Not surprisingly, there are significant differences between teachers in RF and non-RF Title I schools in their reports of whether the assessment they reported administering most often is used for accountability purposes for the Reading First program, *No Child Left Behind* (*NCLB*), or another program (Exhibit 5.8). The vast majority of RF teachers (86 percent) reported that across the three assessment purposes, the assessment they administered most often was used for accountability purposes for the Reading First program. Eighteen percent of the teachers in non-RF Title I schools also reported that the purpose of the test was for accountability for Reading First; it is not clear why teachers in non-RF Title I schools would provide this response.

In contrast, about two-thirds of teachers in non-RF Title I schools reported that their most frequently administered assessment is used to meet other programs' accountability requirements (65 percent) and nearly half indicated that the assessment results were used for *NCLB* accountability purposes (45 percent).

Exhibit 5.8

Accountability Purpose for Most Frequently Used Assessment as Reported by Teachers in RF and Non-RF Title I Schools, 2006–07 School Year

	Teachers	
Accountability Purpose	**RF**	**Non-RF Title I**
Reading First	96%*	19%
NCLB	37	47*
Other Program	41	63*

Exhibit reads: In 2006–07, 86 percent of RF teachers reported administering the assessment they use most often for Reading First accountability purposes, compared to 18 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05).

Notes: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools. Column percent totals exceed 100 percent because respondents could indicate that an assessment was used for multiple accountability purposes.

See Appendix B, Exhibit B.5.8 for additional statistics.

Source: Teacher Survey (Question B6 in 2006–07).

Weight: Teacher.

Weighted respondents: 23,503 teachers in RF schools and 176,247 teachers in non-RF Title I schools.

Non-response rates across survey items: 1.5 to 1.9 percent.

Teachers' Classroom Use of Reading Assessments Results

In 2006–07, teachers in RF schools were more likely to rate the use assessment results as central to their instruction across a variety of purposes than were teachers in non-RF Title I schools (Exhibit 5.9). This is especially the case for several uses of assessment results explicitly described in the Reading First guidance (in bold in Exhibit 5.9); to organize instructional groups (91 percent vs. 78 percent), to determine progress on skills (88 percent vs. 80 percent), and to identify students who are struggling and need intervention services (83 percent vs. 69 percent).

Exhibit 5.9

Teachers Use of Assessments in RF Schools and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

2004–05

Difference in Difference

Use of Assessments

2006–07

☐ RF Schools
■ Non-RF Title I Schools

Use the test results to organize instructional groups
-2.2

- 2004–05: RF *86, Non-RF 71
- 2006–07: RF 91*, Non-RF 78

Use tests to determine progress on skills
0.1

- 2004–05: RF *85, Non-RF 77
- 2006–07: RF 88*, Non-RF 80

Use diagnostic tests to identify students who need reading intervention services
-3.0

- 2004–05: RF *81, Non-RF 64
- 2006–07: RF 83*, Non-RF 69

Use informal reading inventories
1.8

- 2004–05: RF 61, Non-RF 61
- 2006–07: RF 62, Non-RF 60

Use screening test to identify students who need a supplementary reading program
1.0

- 2004–05: RF *58, Non-RF 47
- 2006–07: RF 61*, Non-RF 50

Use test to determine who can benefit from the core reading series
3.5

- 2004–05: RF *56, Non-RF 44
- 2006–07: RF 59*, Non-RF 43

Conduct miscue analysis, analyzing errors students make while reading aloud
3.6

- 2004–05: RF 53, Non-RF 52
- 2006–07: RF 56*, Non-RF 51

100 80 60 40 20 0
Percent of Teachers

0 20 40 60 80 100
Percent of Teachers

Exhibit reads: In 2004–05, 86 percent of RF teachers reported that they used test results to organize instructional groups, compared to 71 percent of teachers in non-RF Title I schools. This difference is statistically significant ($p \leq .05$). In 2006–07, 91 percent of RF teachers reported that they use test results for this purpose, compared to 78 percent of teachers in non-RF Title I schools. This difference is also statistically significant ($p \leq .05$). The 2006–07 and 2004–05 results are not different from each other, as indicated by the small, non-significant difference-in-difference of 2.2 percentage points.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.5.9 for additional statistics.

Source: Teacher Survey (Question C6 in 2004–05 and B5 in 2006–07).

Weight: School.

Weighted respondents: Teachers in 1,684 RF schools and 14,656 non-RF Title I schools.

Non-response rates across survey items: < 1 percent.

Also, RF teachers were more likely to rate several assessment uses that not mentioned in the guidance as central than were teachers in non-RF Title I schools: to determine who can benefit from the core reading series (59 percent vs. 41 percent), and to identify students who need a supplementary reading program (61 percent vs. 50 percent). In general, teachers' uses of assessment results were similar in 2004–05.

Summary

The Reading First program strongly emphasizes the role of assessments in K–3 reading programs. There are some key differences between RF and non-RF Title I schools in their use of assessments to inform their reading programs in 2006–07. However, assessment plays a prominent role in *both* RF and non-RF Title I schools.

RF and non-RF Title I schools differ in who has responsibility for choosing assessments, the types of assessments teachers report using most often, the frequency and length of the assessment used most often, and the extent to which the use of assessment results is central to reading instruction. While there are significant differences between the groups of schools, overall, both groups report engaging in high levels of assessment related practices that are consistent with Reading First.

In 2006–07, when RF schools were in their third year of implementation, few RF principals reported adopting new reading assessments; nonetheless, they were more likely to report that the state and reading coach shared responsibility for selecting assessments than principals in non-RF Title I schools. RF principals were also more likely to report that the state shared responsibility for interpreting assessment results, and that they received external assistance interpreting assessment results than principals in non-RF Title I schools.

The vast majority (over 75 percent) of teachers in both types of schools indicated that regular time was set aside to use assessment results to plan instruction. However, significantly more teachers in RF schools than non-RF Title I schools reported that this was the case in their school. In addition, RF teachers were more likely to report that using assessment results was a central element of their reading instruction than were teachers in non-RF Title I schools. Again, this difference notwithstanding, the majority of non-RF teachers also report using assessment results to inform their reading instruction.

Teachers in RF and non-RF Title I schools differed significantly in the types of assessments they reported using most often to place students, determine student mastery, and identify struggling students' core deficits. RF teachers were significantly more likely than teachers in non-RF Title I schools to report using standardized assessments for these purposes, and teachers in non-RF Title I schools were significantly more likely to report that they do not use an assessment than were RF teachers.

Three specific assessments were identified most often by teachers from both types of schools: the Dynamic Indicators of Basic Early Literacy Skills (DIBELS), Developmental Reading

Assessment (DRA), and the Texas Primary Reading Inventory (TPRI). For each assessment purpose, RF teachers were significantly more likely to report that they used the DIBELS and the TPRI than were teachers in Title I schools. In contrast, across assessment purposes, teachers in non-RF Title I schools were significantly more likely to report that they used the DRA than were RF teachers.

Teachers in RF and non-RF Title I schools also differed significantly in the number and length of the assessments they use most often. RF teachers reported administering their most useful assessments more often than teachers in non-RF Title I schools In addition, RF teachers were more likely to report that these assessments take 15 minutes or less to administer than teachers in non-RF Title I schools. Finally, the virtually all RF teachers (96 percent) reported that the assessment they administer most often is used for Reading First program accountability purposes. In contrast, teachers in non-RF Title I schools were more likely than teachers in RF schools to report that their most frequently administered assessment is used to meet another (unspecified) program's accountability requirements (63 percent vs. 41 percent).

Chapter 6: Oversight and Classroom Support Activities

It is teachers who provide reading instruction directly to their students, yet other educators also support and supervise teachers' reading instruction. One model for supporting teachers' reading instruction involves hiring a reading coach to help teachers develop the skills needed to implement reading instruction aligned with scientifically based reading instruction. Teachers also receive direct classroom support for their instruction either from coaches, their peers or reading specialists. In addition to these types of support, oversight of the reading program typically is provided by school principals, district staff, and state personnel.

In this chapter, we present findings on the support teachers receive for their reading programs, both in terms of the role reading coaches play in providing this support and in terms of other forms of direct classroom support provided to teachers. Second, we present findings about the oversight provided at the principal, district, and state levels.

Key Findings

Reading programs in RF schools are more likely to receive support from reading coaches and oversight from principals and the state than programs in non-RF Title I schools.

RF schools were significantly more likely to have a reading coach than were non-RF Title I schools (99 percent vs. 57 percent), reflecting the fact that nearly all states required RF schools to have a reading coach. Non-RF Title I schools have no such requirement at the federal level.

In many states reading coaches are expected to work primarily with teachers in implementing their reading programs rather than providing direct instruction to students.[55] Responses from reading coaches in RF schools indicate that this expectation is being met. **Reading coaches in RF schools were significantly less likely than coaches in non-RF Title I schools to report that providing direct instruction to students is central to their work (28 percent vs. 49 percent).** Further, reading coaches in RF schools reported spending much more time in the role of a reading coach than did coaches in non-RF Title I schools, with 75 percent reporting that they spend all their time in this role compared to only 19 percent in non-RF Title I schools.

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[55] The Reading First guidance indicates that reading coaches should be included as part of the required professional development strategy that is part of the request for Reading First funding (U.S. Department of Education, 2002, page 26). Many states have defined the role of a reading coach as working with and supporting teachers in their reading instruction. For example, the Idaho State Department of Education states, "The reading coach serves as a resource for teachers to assist them in the implementation of scientifically based programs, data analysis, intervention needs, and differentiating instruction for their students" (http://www.sde.idaho.gov/readingfirst/, retrieved on 4/16/08).

Reading coaches in Reading First schools were significantly more likely than coaches in non-RF Title I schools to rate a variety of *instructional support activities* as central to their work. Significantly more reading coaches in RF schools than in non-RF Title I schools rated as central to their work: assisting teachers in using the core reading program (89 percent vs. 60 percent), forming instructional groups (88 percent vs. 68 percent), and monitoring the effectiveness of strategies for struggling readers (93 percent vs. 77 percent). However, more than half of reading coaches *in non-RF Title I schools* rated most activities as central to their work, and over three-quarters rated designing strategies for struggling readers (83 percent) and monitoring their effectiveness (77 percent) as central to their work.

Teachers in RF schools were more likely to report receiving ongoing, direct support for teaching reading than were teachers in non-RF Title I schools, such as**:** interpretation of assessment data (91 percent vs. 70 percent), assistance from a reading coach or specialist in diagnosing individual student needs (72 percent vs. 48 percent) or intervention service help for individual students (73 percent vs. 52 percent).

Reading coaches in RF schools were significantly more likely than non-RF Title I coaches to rate a variety of *administrative support activities* as central to their work. A greater proportion of reading coaches in RF schools than in non-RF Title I schools rated as central to their work, activities such as compiling reading assessment data (92 percent vs. 73 percent) and ordering or managing reading instruction materials (75 percent vs. 61 percent). Notwithstanding these differences, the majority of reading coaches in *non-RF Title I schools* rated the following activities as central to their work: participation in professional development (85 percent); administering reading assessments (71 percent); and compiling reading assessment data (73 percent).

Principals' survey responses indicate that the state plays a more significant role in the oversight of reading programs in RF schools than in non-RF Title I schools across a variety of activities, including monitoring the implementation of the reading program (43 percent vs. 7 percent), interpretation of assessment results (26 percent vs. 12 percent) and selection of professional development topics (20 percent vs. 5 percent).[56]

Support for Reading Programs

Reading Coaches

Reading First schools in nearly all states are required to have a reading coordinator, often called a reading coach, who is responsible for helping teachers implement activities aligned with SBRR. In 2006–07, virtually all Reading First schools had a designated reading coach (99

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[56]   The Reading First guidance specifically indicates that the state education agency "…must assess and evaluate, on a regular basis, the progress of local educational agencies that receive subgrants in meeting the goals of the Reading First program" (page 19).

percent), compared to 57 percent of non-RF Title I schools.[57] Over 90 percent of reading coaches in both RF and non-RF Title I schools reported working in just one school (Exhibit 6.1).

Although most coaches in RF and non-RF Title I schools reported spending the majority of their time in one school, there are large and consistent differences in the *amount of time* coaches reported spending in the *role* of reading coach. In 2006–07, three-quarters of coaches in RF schools reported spending all of their time in the role of reading coach, compared to only 19 percent of coaches in non-RF Title I school.

Responsibilities of Reading Coaches

Reading coaches rated a series of different activities as central to their roles and responsibilities.[58] As noted earlier, in Reading First schools, reading coaches are expected to work primarily with teachers in implementing their reading programs rather than providing direct instruction to students. Thus, as we might expect, a smaller percentage of reading coaches in RF schools reported that providing *direct reading instruction to students* is central to their work than did coaches in non-RF Title I schools (28 percent vs. 49 percent) (Exhibit 6.2). These differences between RF and non-RF Title I suggest that the role of "reading coach" in non-RF Title I schools may, in some schools, be that of the traditional "reading specialist."

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[57] Because respondents from non-RF Title I schools who completed the Reading Coach Survey reported a multiplicity of job titles, we used their responses to two survey questions to determine their inclusion in the comparison group of reading coaches: How central is each of the following activities? 1) "Coaches staff on a range of topics"; and 2) "Organizes professional development for K–3 teachers." Respondents who answered a 3 ("somewhat central") or above (on a five-point scale) for at least one of these two items were included in the comparison group of reading coaches from non-RF Title I schools for these sets of analyses regarding reading coach responsibilities (Exhibits 6.1, 6.2, 6.3, 6.4). As a result, 50 reading coach respondents from non-RF Title schools were excluded from these analyses.

[58] Respondents rated items on a five point scale ranging from 1 ("Do no do or not at all central"), through 3 ("somewhat central"), to 5 ("absolutely central"). Items rated 4 or 5 were considered "central" in this analysis.

Exhibit 6.1

Responsibilities of Reading Coaches in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

| | 2004–05 | | 2006–07 | | 2006–07 |
Responsibilities	RF Schools	Non-RF Title I Schools	RF Schools	Non-RF Title I Schools	Difference-2004–05 Difference
Average number of schools with which reading coach works	1.2	1.4*	1.1	1.2	0.2
… 1 school	91%*	84%	95%	91%	-3.2%
… 2 schools	6	9	4	5	1.1
… 3 schools	1	1	1	1	-0.1
… 4+ schools	2	6*	0	2	2.1
Average number of teachers with whom reading coach works	19.5	23.3*	19.1	22.1*	0.8
… 1–10 teachers	18%	16%	19%	18%	-0.9%
… 11–20 teachers	45*	34	43*	30	2.3
… 21–30 teachers	24	29	25	32	-1.5
… 31+ teachers	13	22*	12	20*	0.1
Average percentage of time spent as reading coach in this school	87%*	59%	91%*	55%	7.4%*
… 100% time	67%*	19%	75%*	19%	8.2%
… 75–99% time	15	16	11	18	-5.0
… 50–74% time	12	37*	9	37*	-2.9
… 25–49% time	5	17*	4	12*	4.0
… 1–24% time	2	10*	2	14*	-4.3

Exhibit reads: In 2004–05, reading coaches in RF schools reported working with an average of 1.2 schools, compared to 1.4 schools for reading coaches in non-RF Title I schools, a statistically significant difference (p ≤ .05). In 2006–07, reading coaches in RF schools reported working with an average of 1.1 schools, compared to 1.2 schools for reading coaches in non-RF Title I schools. The 2004–05 and 2006–07 results differ by 0.2 schools (right-hand column) reflecting the fact that there was a -0.1 school difference between RF and non-RF Title I schools in 2006–07 and a -0.3 school difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.6.1 for additional statistics.

Source: Reading Coach Survey (Questions B1–B3 in 2004–05 and 2006–07).

Weight: Reading coach.

Weighted respondents: Reading coaches in 1,632 RF schools and 7,303 non-RF Title I schools.

Non-response rate across items, years, and groups: 0 to 15.3 percent.

A greater percentage of reading coaches in RF schools rated several other teacher support activities as central to their work, including coaching staff on a range of topics (95 percent vs. 72 percent), providing training or professional development (94 percent vs. 73 percent), and organizing professional development (86 percent vs. 61 percent), than in non-RF Title I schools (Exhibit 6.2). It is noteworthy that the percentage of coaches in non-RF Title I schools reporting that coaching staff on a variety of topics was central to their work decreased from 83 percent in 2004–05 to 72 percent in 2006–07. A similar decrease occurred for providing professional development in reading materials, from 87 percent in 2004–05 to 73 percent in 2006–07. Over the same time period, there was no change on these activities as reported by coaches in RF schools; in both time periods more than 90 percent rated these teacher support activities as central to their work.

Exhibit 6.2

Percentage of Reading Coaches Rating Various Teacher Support Activities as Central to Their Work in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

2004–05   **2006–07**

Difference in Difference

RF Schools
Non-RF Title I Schools

Facilitate grade level meetings 6.3 — *69, 47 (2004–05); 79*, 51 (2006–07)

Coach staff on a range of topics 15.8* — *91, 83 (2004–05); 95*, 72 (2006–07)

Provide direct reading instruction to students 1.1 — 32, *53 (2004–05); 28, 49* (2006–07)

Organize professional development for K–3 teachers 4.0 — *88, 67 (2004–05); 86*, 61 (2006–07)

Provide training/professional development in reading materials, strategies, and assessments 13.8* — *93, 87 (2004–05); 94*, 73 (2006–07)
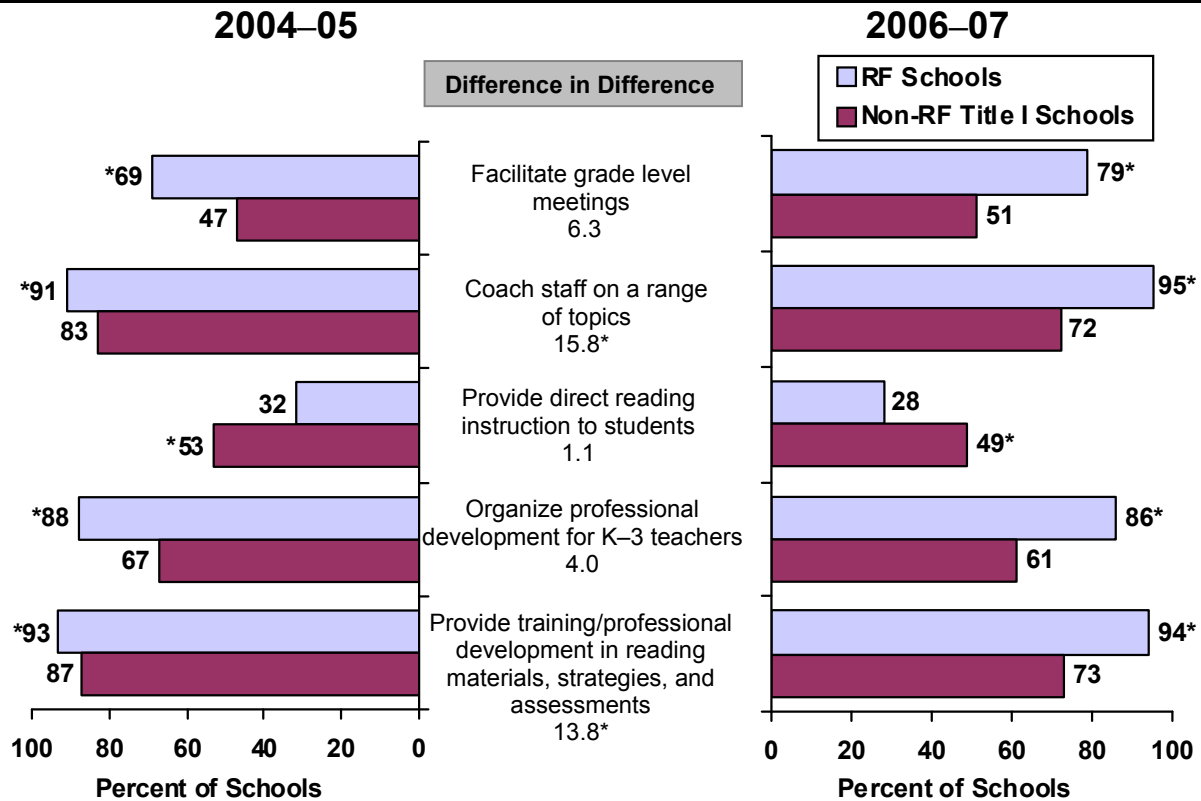
Percent of Schools

Exhibit reads: In 2004–05, 69 percent of reading coaches in RF schools reported that facilitating grade level meetings was central to their work, compared to 47 percent of reading coaches in non-RF Title I schools, a statistically significant difference (p ≤ .05). In 2006–07, 79 percent of reading coaches in RF schools reported that facilitating grade level meetings was central to their work, compared to 51 percent of reading coaches in non-RF Title I schools, a statistically significant difference (p ≤ .05). The 2004–05 and 2006–07 results differ by 6.3 percentage points (right-hand column) reflecting the fact that there was a 28 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 22 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.6.2 for additional statistics.

Source: Reading Coach Survey (Question B4 in 2005 and 2007).

Weight: Reading coach.

Weighted respondents: Reading coaches in 1,635 RF schools and 7,391 non-RF Title I schools.

Non-response rate across items, years, and groups: 0 to 12.3 percent.

Administrative support activities are another key responsibility of reading coaches. Reading coaches in RF schools were significantly more likely to report several administrative support activities as central to their work than were coaches in non-RF Title I schools, including participation in professional development (93 vs. 85 percent), compiling reading assessment data (92 vs. 73 percent), and administering or coordinating reading assessments (88 vs. 71 percent) (Exhibit 6.3). For both RF and non-RF Title I schools, these findings are consistent with reading coach reports in 2004–05.

Exhibit 6.3

Percentage of Reading Coaches' Rating Various Administrative and School Support Activities as Central to Their Work in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

2004–05   **2006–07**

Difference in Difference

RF Schools
Non-RF Title I Schools

Activity	2004–05 RF	2004–05 Non-RF	Difference	2006–07 RF	2006–07 Non-RF
Administer/coordinate reading assessments	*88	67	-3.9	88*	71
Compile reading assessment data	*88	67	-1.8	92*	73
Facilitate or coordinate family literacy activities	34	33	-3.2	34	35
Order/manage reading instruction materials	76	70	7.5	75*	61
Provide sub time for teachers to observe other more experienced teachers	*36	26	11.8*	39*	18
Participate in school leadership team meetings	78	75	8.6	83*	72
Participate in professional development provided by the district, state or other consultants	*96	89	1.1	93*	85

Percent of Schools   **Percent of Schools**

Exhibit reads: In 2004–05, 88 percent of reading coaches in RF schools reported that administering/coordinating reading assessments was central to their work, compared to 67 percent of reading coaches in non-RF Title I schools, a statistically significant difference (p ≤ .05). In 2006–07, 88 percent of reading coaches in RF schools reported that administering/coordinating reading assessments was central to their work, compared to 71 percent of reading coaches in non-RF Title I schools, a statistically significant difference (p ≤ .05). The 2004–05 and 2006–07 results differ by -3.9 percentage points (right-hand column) reflecting the fact that there was a 17 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 21 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.6.3 for additional statistics.

Source: Reading Coach Survey (Question B4 in 2004 –05 and 2006 –07).

Weight: Reading coach.

Weighted respondents: Reading coaches in 1,635 RF schools and 7,391 non-RF Title I schools.

Non-response rate across items, years, and groups: 0 to 12.3 percent.

Activities Supporting Teachers' Instruction Undertaken by Reading Coaches

Reading coaches in RF schools were more likely than coaches in non-RF Title I schools to report a variety of coaching activities that support teachers' reading instruction as central to their work. In 2006–07, 85 percent or more of the reading coaches in RF schools rated six of ten coaching activities as central to their work (Exhibit 6.4), whereas, no coaching activity was rated as such by a comparable proportion of reading coaches in non-RF Title I schools. In particular, RF coaches were more likely than coaches in non-RF Title I schools to rate the following activities as central to their work: assisting teachers in using the core reading program (89 percent vs. 60 percent) and observing and providing feedback to teachers (92 percent vs. 64 percent). Of note, the two activities rated by the greatest proportion of coaches in non-RF Title I schools as central to their work were helping to design strategies for struggling readers (83 percent), and helping to monitor effectiveness of strategies for struggling readers (77 percent). This may be because these coaches are more like reading specialists than the coaches in RF schools.

Fewer coaches in non-RF Title I schools rated providing assistance to teachers in using the core reading program as central to their work in 2006–07 than in 2004–05 (60 percent vs. 77 percent), while in RF schools almost 90 percent of coaches rate this activity as central to their work in both time periods. Across other reading coach activities there is little change from 2004–05 to 2006–07 for both groups.

Exhibit 6.4

Percentage of Reading Coaches Rating Various Activities Supporting Teachers' Instruction as Central to Their Work in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School

2004–05

2006–07

Difference in Difference

☐ RF Schools
■ Non-RF Title I Schools

Materials

Assist teachers in using the core reading program
17.6*

89 / 77 — 89 / 60

Give demonstration lessons with core/supplemental materials
17.1*

72 / 70 — 79* / 60

Assessment

Give demonstrations on assessment administration/scoring
-13.3*

79 / 56 — 72 / 61

Help teachers in interpreting assessment results
2.9

92 / 72 — 97 / 74

Struggling Readers

Help teachers design strategies for struggling readers
7.5*

90 / 86 — 95* / 83

Help teachers monitor the effectiveness of strategies for struggling readers
11.7*

87 / 83 — 93* / 77

Organization/Planning

Plan reading instruction with teachers
11.7*

72 / 64 — 77 / 57

Observe and provide feedback to teachers
9.6*

88 / 69 — 92 / 64

Assist teachers in forming instructional groups
5.5

83 / 68 — 88 / 68

Review teachers' lesson plans & provide feedback
1.6

31 / 22 — 31 / 20

100 80 60 40 20 0
Percent of Schools

0 20 40 60 80 100
Percent of Schools

Exhibit reads: In 2004–05, 72 percent of reading coaches in RF schools reported that giving demonstration lessons with core/supplemental materials was central to their work, compared to 70 percent of reading coaches in non-RF Title I schools. In 2006–07, 79 percent of reading coaches in RF schools reported that giving demonstration lessons with core/supplemental materials was central to their work, compared to 60 percent of reading coaches in non-RF Title I schools, a statistically significant difference (p ≤ .05). The 2004–05 and 2006–07 results differ by 17.1 percentage points (right-hand column) reflecting the fact that there was a 19 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 2 percentage point difference in 2004–05. This difference in differences was statistically significant (p ≤ .05).

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.6.4 for additional statistics.

Source: Reading Coach Survey (Question B5 in 2004 –05 and 2006 –07).

Weight: Reading coach.

Weighted respondents: Reading coaches in 1,635 RF schools and 7,391 non-RF Title I schools.

Non-response rate across items, years, and groups: 0 to 12.3 percent.

Direct Classroom Support to Teachers for Improving Reading Instruction

Principals and teachers answered a series of questions about the support teachers receive, beyond professional development, to improve their reading instruction. This additional support may be in the form of coaching or mentoring by a reading coach or fellow teacher, classroom demonstrations, help from a reading coach on intervention services, or help with interpretation of assessment data.

Teachers in RF schools were more likely report to having direct support for reading instruction across a variety of topics in than were teachers in non-RF Title I schools, including help interpreting assessment data (91 percent vs. 70 percent), using assessment data to determine which topics require additional instruction (92 percent vs. 76 percent), and diagnostic testing help from a reading coach or specialist (72 percent vs. 48 percent) (Exhibit 6.5). It is also worth noting that 50 percent or more of RF teachers reported having the majority of these supports for instruction (eight of ten supports). In contrast, for only four of ten support activities did 50 percent or more of teachers in non-RF Title I schools report having these supports.

The overall reported levels of direct classroom support provided to teachers changed little from 2004–05 to 2006–07.

Exhibit 6.5

Direct Support for Reading Instruction Received by Teachers in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

2004–05

Difference in Difference

2006–07

☐ RF Schools
■ Non-RF Title I Schools

Struggling Readers

Diagnostic testing help from a reading coach or specialist for individual students
-2.8
76 / 49 | 72 / 48

Intervention service help from a reading coach or specialist for individual students
3.2
70 / 52 | 73 / 52

Peer–Peer Assistance

Peer study group for group study
-2.9
52 / 31 | 52 / 34

Coaching from fellow teacher
-0.5
57 / 47 | 50 / 40

Observations of other teachers
2.6
38 / 31 | 34 / 25

Grade level meetings devoted to reading
1.6
87 / 72 | 91 / 74

Assessment

Using assessment data to determine topics that require additional instruction
1.0
89 / 74 | 92 / 76

Interpretation of assessment data
-1.4
90 / 67 | 91 / 70

Coaching

Demonstrations in my classroom
0.0
45 / 28 | 42 / 25

Coaching by reading coach in programs, materials or strategies
3.2
85 / 48 | 85 / 45

Percent of Teachers (left: 100 80 60 40 20 0; right: 0 20 40 60 80 100)

Exhibit reads: In 2004–05, 76 percent of teachers in RF schools reported that diagnostic testing help from a reading coach or specialist was available in their schools, compared to 49 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 72 percent of teachers in RF schools reported that this type of direct support was available, compared to 48 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by -2.8 percentage points reflecting a 24 percentage point difference in 2006–07 and a 27 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.6.5 for additional statistics.

Source: Teacher Survey (Question D2 in 2004–05, Question E2 in 2006–07).

Weight: School

Weighted respondents: Teachers in 1,591 RF schools and 13,926 non-RF Title I schools.

Non-response rate across groups, items, and years: 0.9 to 5.5 percent

Teachers were asked to identify the types of direct classroom support *not available* in their schools. A significantly greater percentage of teachers in non-RF Title I schools reported that direct supports for reading instruction across all the activities listed were *not* available than did teachers in RF schools (Exhibit 6.6). For example, in 2006–07, teachers in non-RF Title I schools were more likely than teachers in RF schools to report that observations of other teachers were not available (40 percent vs. 21 percent), that demonstrations conducted in their classrooms were not available (46 percent vs. 17 percent) and that help in interpreting assessment data was not available (17 percent vs. 2 percent). These same patterns of availability (or lack thereof) were reported in 2004–05.

Exhibit 6.6

Direct Support for Reading Instruction *Not Available* to Teachers in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

2004–05

| Difference in Difference |

2006–07

□ RF Schools
■ Non-RF Title I Schools

Struggling Readers

Diagnostic testing help from a reading coach or specialist for individual students
1.9

8 / *32 | 8 / 30*

Intervention service help from a reading coach or specialist for individual students
-1.4

10 / *29 | 8 / 29*

Peer-Peer Assistance

Peer study group for group study group
2.5

38 / *57 | 36 / 53*

Coaching from fellow teacher
-4.8*

20 / *28 | 19 / 32*

Observations of other teachers
-8.8*

26 / *36 | 21 / 40*

Grade level meetings devoted to reading
-2.7

9 / *21 | 6 / 21*

Assessment

Using assessment data to determine topics that require additional instruction
0.8

5 / *17 | 3 / 16*

Interpretation of assessment data
-0.7

4 / *18 | 2 / 17*

Coaching

Demonstrations in my classroom
-4.5*

20 / *44 | 17 / 46*

Coaching by reading coach in programs, materials or strategies
2.7

4 / *36 | 1 / 31 *

100 80 60 40 20 0
Percent of Teachers

0 20 40 60 80 100
Percent of Teachers

Exhibit reads: In 2004–05, 8 percent of teachers in RF schools reported that diagnostic testing help from a reading coach or specialist was *not available* in their schools, compared to 32 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 8 percent of teachers in RF schools reported that this type of direct support was available, compared to 30 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by 1.98 percentage points reflecting a 22 percentage point difference in 2006–07 and a 24 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.6.6 for additional statistics.

Source: Teacher Survey (Question D2 in 2004–05, Question C2 in 2006–07).

Weight: Teacher

Weighted respondents: Teachers from 1,591 Reading First schools and 13,926 non-RF Title I schools.

Non-response rate across groups, years, and items ranges from 0.9 to 5.5 percent.

Oversight of Reading Programs

Oversight of reading program implementation is provided by not only school but also by district and state personnel. In the classroom, however, the primary oversight comes from schools' principals. In this section, we present findings about oversight provided at the principal, district, and state levels.

Responsibility for Oversight of Reading Programs

Principals in RF and non-RF Title I schools identified those entities responsible for supporting and providing oversight of reading activities (i.e. state, district, principal, or reading coach). According to principals, the states have a greater oversight role in RF schools than in non-RF Title I schools, including monitoring the implementation of the reading program (43 percent vs. 7 percent), interpretation of assessment results (26 percent vs. 12 percent) and selection of professional development topics (20 percent vs. 5 percent) in 2006–07 (Exhibit 6.7).

Exhibit 6.7

Responsibility for Reading Activities in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Responsible Party	2004–05		2006–07		2006–07 Difference - 2004–05 Difference
	RF Schools	Non-RF Title I Schools	RF Schools	Non-RF Title I Schools	
Monitoring implementation of reading program					
…School alone is responsible	33%	50%*	32%	53%*	-4.7%
…School and district are jointly responsible	23	39*	25	39*	1.7
…School, district and state are jointly responsible	43*	8	43*	7	1.8
…Other combinations	1	3*	0	1	1.2
Selection of reading professional development topics and opportunities					
…School alone is responsible	34	34	35	38	-2.5
…School and district are jointly responsible	32	53*	40	50*	11.9*
…School, district and state are jointly responsible	29*	4	20*	5	-10.8*
…Other combinations	5	9*	5	8	1.3
Review of Teachers' reading lesson plans					
…School alone is responsible	93	94	90	93	-1.2
…School and district are jointly responsible	5	6	7	7	1.1
…School, district and state are jointly responsible	3*	0	3*	0	0.1
…Other combinations	0	0	0	0	0.5
Feedback to teachers about reading instruction					
…School alone is responsible	69	72	72	71	3.9
…School and district are jointly responsible	18	23*	17	23*	-0.5
…School, district and state are jointly responsible	13*	4	11*	6	-4.2
…Other combinations	0	1*	0	1	0.7
Interpretation of assessment results					
…School alone is responsible	46	41	41	42	-6.3
…School and district are jointly responsible	31	43*	33	44*	-0.2
…School, district and state are jointly responsible	23*	13	26*	12	4.2
…Other combinations	0	4*	0	2	2.3*
Review individual students' progress in reading					
…School alone is responsible	65	69	60	69*	-4.9
…School and district are jointly responsible	19	23	24	26	1.4
…School, district and state are jointly responsible	15*	6	16*	5	1.8
…Other combinations	0	2*	0	1	1.7*

Exhibit reads: In 2004–05, 33 percent of principals in RF schools reported that the school alone was responsible for monitoring the implementation of the reading program, compared to 50 percent of principals in non-RF Title I schools, a statistically significant difference (p ≤ .05). In 2006–07, 32 percent of principals in RF schools reported that the school alone was responsible for monitoring the implementation of the reading program, compared to 53 percent of principals in non-RF Title I schools, a statistically significant difference (p ≤ .05). The 2004–05 and 2006–07 results differ by -4.7 percentage points (right-hand column) reflecting the fact that there was a -21 percentage point difference between RF and non-RF Title I schools in 2006–07 and a -16 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.6.7 for additional statistics.

Source: Principal Survey (Question D5 in 2004–05 and D3 in 2006–07).

Weight: Principal.

Weighted respondents: Principals in 1,684 RF schools and 14,684 non-RF Title I schools.

Non-response rate across items, years, and groups: < 1 percent.

Role of the School Principal in the Evaluation of K–3 Reading Instruction

Most principals (more than 90 percent) in RF and non-RF Title I schools reported observing their K–3 teachers' reading instruction, either formally or informally (Exhibit 6.8a). However, RF principals were more likely to informally observe teachers more frequently (at least monthly) than were principals in non-RF Title I schools (78 percent vs. 64 percent). Also while almost all principals in both RF and non-RF Title I schools meet with teachers to discuss strategies to improve reading instruction, principals in RF schools reported having such meetings more frequently, either individually (at least monthly, 49 percent vs. 40 percent), or in groups (at least monthly, 59 percent vs. 49 percent) than principals in non-RF Title I schools (Exhibit 6.8b).

Exhibit 6.8a

Percentage of RF and Non-RF Title I Schools in Which K–3 Reading Instruction Was Evaluated by the Principal, by Mode and Frequency of Evaluation, 2004–05 and 2006–07 School Years

Legend:
- ■ …Once a week or more
- □ …Once a month
- □ …5–8 times this year
- ■ …1–4 times this year
- ■ …Not at all
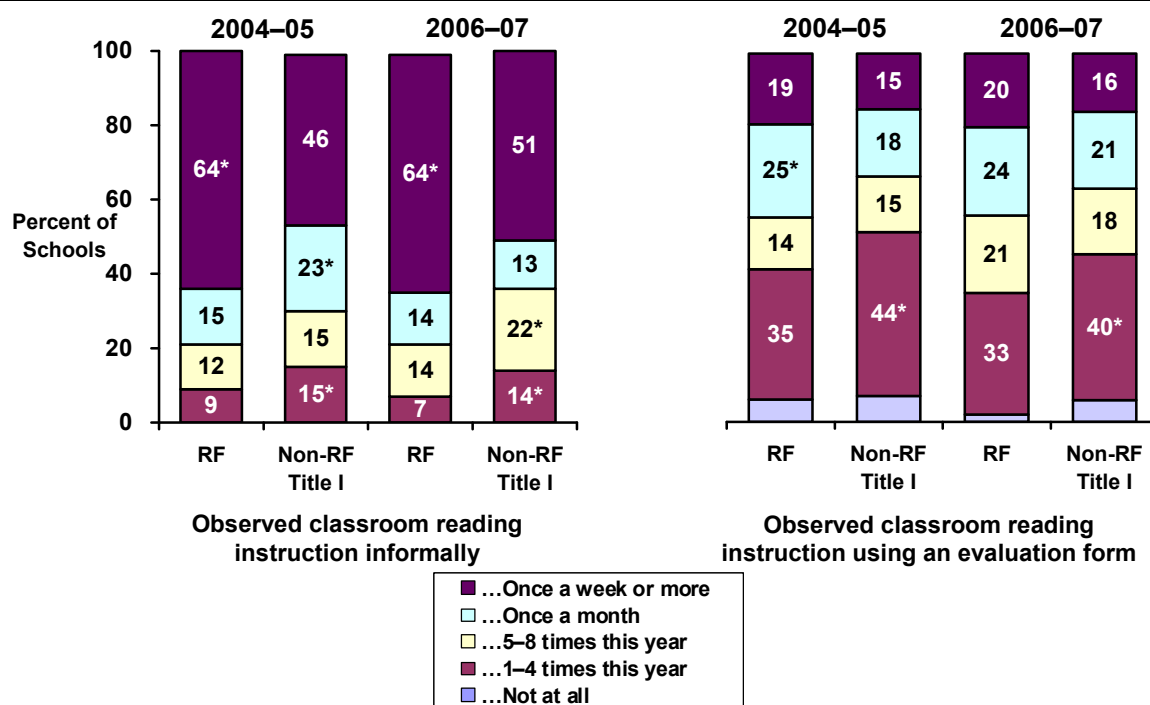
Exhibit reads: In 2004–05, 64 percent of principals in RF schools reported that they observed classroom reading instruction informally (at least weekly), compared to 46 percent of principals coaches in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 64 percent of principals in RF schools reported conducting this activity at least weekly, compared to 51 percent of principals in non-RF Title I schools. The 2004–05 and 2006–07 results differ by 3 percentage points reflecting the fact that there was a 15 percentage point difference between RF and non-RF Title I schools in 2006–07 and an 18 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.6.8 for additional statistics.

Source: Principal Survey (Question D6 in 2004–05 and D4 in 2006–07).

Weight: Principal.

Weighted respondents: Principals in 1,684 RF schools and 14,684 non-RF Title I schools.

Non-response rate across items, years, and groups: < 1 percent.

Exhibit 6.8b

Percentage of RF and Non-RF Title I Schools in Which Principal Met with Teachers to Discuss Strategies to Support Instruction, by Mode and Frequency of Evaluation, 2004–05 and 2006–07 School Years

Met with teachers individually

Met with groups of teachers

Legend:
- ■ …Once a week or more
- ☐ …Once a month
- ☐ …5–8 times this year
- ■ …1–4 times this year
- ☐ …Not at all
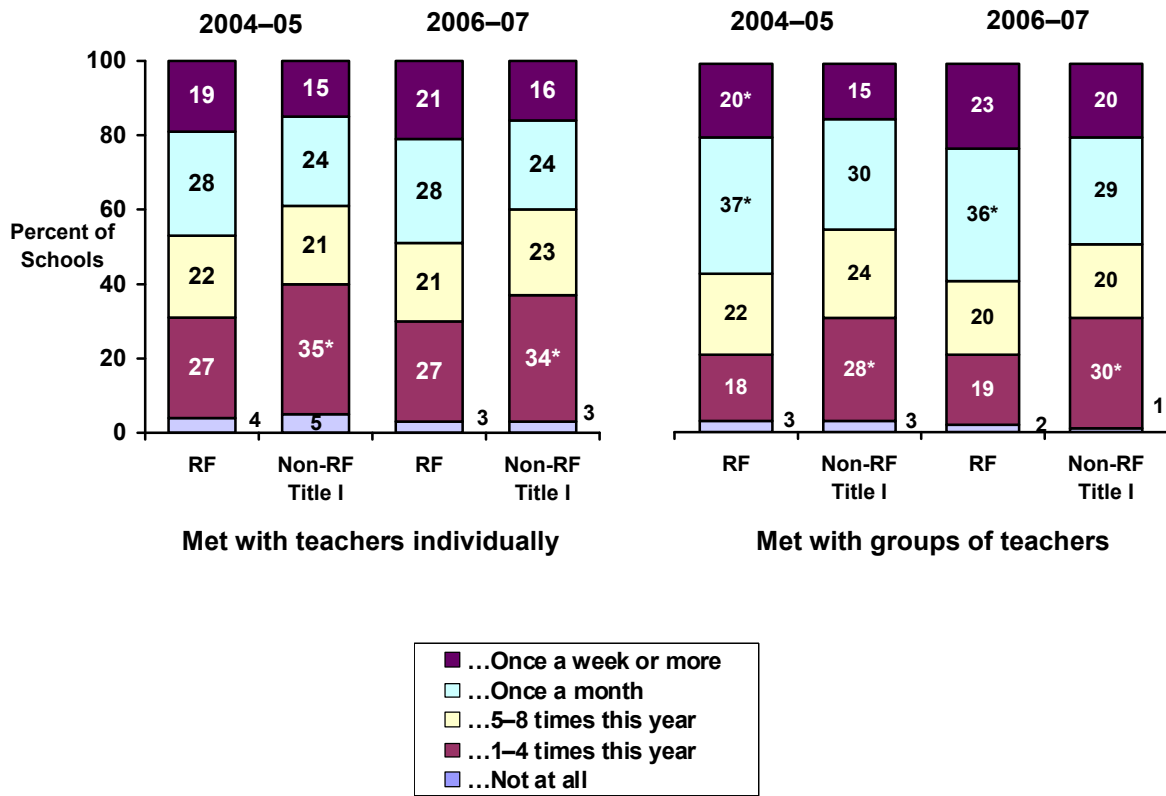
Exhibit reads: In 2004–05, 19 percent of principals in RF schools reported that met with teachers individually (at least weekly) to discuss strategies for improving reading instruction, compared to 46 percent of principals coaches in non-RF Title I schools. This difference is not statistically significant. In 2006–07, 21 percent of principals in RF schools reported conducting this activity at least weekly, compared to 15 percent of principals in non-RF Title I schools. This difference is statistically significant ($p \leq .05$). The 2004–05 and 2006–07 results differ by 1 percentage point reflecting the fact that there was a 5 percentage point difference between RF and non-RF Title I schools in 2006–07 and a 4 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.6.8 for additional statistics.

Source: Principal Survey (Question D6 in 2004–05 and D4 in 2006–07).

Weight: Principal.

Weighted respondents: Principals in 1,684 RF schools and 14,684 non-RF Title I schools.

Non-response rate across items, years, and groups: < 1 percent.

Summary

Both in terms of classroom support and oversight, teachers in RF schools appear to have more support for reading instruction than do teachers in non-RF Title I schools. Reading coaches represent an important source of support for teachers, and RF schools were significantly more likely to have a reading coach than were non-RF Title I schools (99 percent vs. 57 percent). Furthermore, 75 percent of reading coaches in RF schools reported that they are full-time reading coaches, compared to only 19 percent in non-RF Title I schools, which allows teachers in RF schools to benefit from substantially more in-school support.

Reading coaches in RF schools were significantly more likely to rate a variety of *instructional and administrative support activities* as central to their work than were coaches in non-RF Title I schools. The following activities were rated as such by a greater proportion of reading coaches in RF schools than in non-RF Title I schools: assisting teachers in using the core program (89 percent vs. 60 percent); forming instructional groups (88 percent vs. 68 percent); monitoring the effectiveness of strategies for struggling readers (93 percent vs. 77 percent); compiling reading assessment data (92 percent vs. 73 percent); and ordering or managing reading instruction materials (75 percent vs. 61 percent). In addition, RF teachers were more likely to report receiving ongoing, *direct support for teaching reading* than were teachers in non-RF Title I schools, such as**:** interpretation of assessment data (91 percent vs. 70 percent), assistance from a reading coach or specialist in diagnosing individual student needs (72 percent vs. 48 percent) or intervention service help for individual students (73 percent vs. 52 percent).

Principals and district and state personnel also provide support and oversight for reading instruction. States were more likely to be involved in RF schools than in non-RF Title I schools; a greater proportion of RF principals reported state involvement across multiple activities, including monitoring the implementation of the reading program (43 percent vs. 7 percent), interpretation of assessment results (26 percent vs. 12 percent) and selection of professional development topics (20 percent vs. 5 percent). Principals are also important sources of oversight, and virtually all principals (more than 90 percent) in RF and non-RF Title I schools reported that they observe their teachers' reading instruction and hold meetings with teachers. However, principals in RF schools were more likely to report that they evaluate reading instruction informally at least monthly than principals in non-RF Title I schools (78 percent vs. 64 percent).

Chapter 7: Professional Development

One of the aims of the Reading First program is to strengthen teachers' knowledge and understanding about teaching reading such that they can more effectively teach and provide support to their students. Professional development is one of the mechanisms used to provide teachers with the tools they need to do so. An important provision of the RF legislation is that professional development be available to staff in *all* schools, not only those with RF funding. Specifically, K–3 teachers are eligible to participate in professional development paid for by district RF funds, and K–12 Special Education teachers are eligible to participate in professional development paid for by state RF funds.

The Reading First program deliberately funds professional development activities to train teachers on teaching methods that scientifically based reading research has shown to be effective. Professional development that fosters evidence-based teaching practices reinforces teachers' understanding of reading education such that they can effectively support learning in students in the early grades, particularly those children who are struggling academically.

This chapter summarizes findings on three aspects of professional development activities, including: a) their structure and design features (e.g., workshops, conferences, and the availability of stipends, required attendance); b) activities related to the five dimensions of reading instruction emphasized by Reading First; and c) activities related to other features of reading instruction (e.g., instructional strategies for grouping students, using materials and assessments).

Key Findings

A greater percentage of RF teachers reported participating in reading-related professional development activities in the 2006–07 school year than did teachers in non-RF Title I schools (90 percent vs. 73 percent). On average, teachers in RF schools reported participating in twice the number of workshops (4.9 vs. 2.3) and spending twice the number of hours (31.3 hours vs. 15.7 hours) in professional development activities than did teachers in non-RF Title I schools in the previous year. However, the mean number of workshops and number of hours participating in reading-related professional development declined for both teachers in RF and non-RF Title I schools from 2004–05 to 2006–07.

The proportion of teachers in both RF and non-RF Title I schools who reported participating in professional development in three key dimensions of reading (comprehension, phonics and phonemic awareness) was unchanged from 2004–05 to 2006–07. In both years, teachers in RF schools were more likely than teachers in non-RF Title I schools to report participating in professional development activities on these topics. For vocabulary and fluency, however, the percentage of teachers in non-RF Title I schools who reported attending professional development increased from 2004–05 to 2006–07 (from 67 percent to 74 percent on fluency, and from 51 percent to 60 percent on vocabulary). For teachers

in RF schools, there was little change in their reporting of participation in professional development on these two dimensions of reading.

A greater proportion of staff in RF schools than in non-RF Title I schools reported participating in professional development activities addressing other features of reading instruction (i.e., other than the five dimensions of reading) that provided new information about effective teaching strategies to use during reading instruction (e.g., grouping, assessment, struggling readers) in the previous year. RF teachers were more likely to report receiving professional development in providing assistance to struggling readers (85 percent vs. 71 percent), how to use assessment to inform instruction (91 percent vs. 81 percent), and how to group students (84 percent vs. 74 percent) than were teachers in non-RF Title I schools. Even though most teachers in both types of schools had some professional development to help struggling readers, almost three-quarters of teachers in both RF and non-RF Title I schools reported needing additional professional development on this topic.

Professional Development to Improve Reading Instruction

The Reading First legislation specifies that professional development activities should provide teachers with "information on instructional materials, programs and approaches based on scientifically based reading research" (Section 1202). The text below discusses the structure and design features of professional development in the five dimensions of reading emphasized by the Reading First program as well as professional development on other features of reading instruction (i.e., other than the five dimensions of reading) including teaching strategies, grouping, assessment, evaluation), and direct classroom support to improve reading instruction.

The Structure of Professional Development Activities for Teachers

In 2006–07, a greater percentage of teachers in RF schools reported participating in reading-related professional development activities than did teachers in non-RF Title I schools (90 percent vs. 73 percent). For example, they were more likely to attend full-day workshops (63 percent vs. 42 percent) and conferences (66 percent vs. 51 percent) related to reading than were teachers in non-RF Title I schools (Exhibit 7.1). Further, teachers in RF schools reported participating in twice the number of workshops (4.9 vs. 2.3) and spending twice the number of hours in professional development activities (31.3 hours vs. 15.7 hours).

Exhibit 7.1

Types of Reading-Related Professional Development Activities for Teachers in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

| | 2004–05 | | 2006–07 | | 2006–07 Difference - 2004–05 Difference |
| | Teachers | | Teachers | | |
Type of Professional Development Activity	RF	Non-RF Title I	RF	Non-RF Title I	
Half-day workshops	74%*	61%	66%*	51%	1.3%
Full-day workshops	80*	50	63*	42	-8.8*
Any workshop	97*	85	90*	73	5.8*
College courses	19*	14	15*	11	-0.3
Conferences	36*	27	29*	17	2.4
	Mean		**Mean**		
Number of Workshops	7.0*	3.3	4.9*	2.3	-1.1*
Hours attending reading-related professional development activities	41.5*	17.6	31.3*	15.7	-8.4*

Exhibit reads: In 2004–05, 74 percent of teachers in RF schools reported attending a half-day workshop, compared to 61 percent of teachers in non-RF Title I schools. This difference is statistically significant ($p \leq .05$). In 2006–07, 66 percent of teachers in RF schools reported attending a half-day workshop, compared to 51 percent in of teachers in non-RF Title I schools. This difference is statistically significant ($p \leq .05$). The 2004–05 and 2006–07 results differ by 1 percentage point (right-hand column) reflecting a 15 percentage point difference between RF and non-RF Title I teachers in 2006–07 and a 14 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between teachers in RF and non-RF Title I schools.
See Appendix B, Exhibit B.7.1 for additional statistics.
Source: Teacher Survey (Question D1 in 2004–05 and C1 in 2006–07).
Weight: School.
Weighted respondents: Teachers in 1,684 RF schools and 14,656 non-RF Title I schools.
Non-response rate across groups, years, and items ranges from < 1 percent.

However, the mean number of workshops and number of hours participating in reading-related professional development declined for both teachers in RF and non-RF Title I schools from 2004–05 to 2006–07. For RF schools, this could indicate that there was a greater need for professional development at the outset of the grant.

The Reading First program specifically provides funding for states to support professional development activities that include teachers in schools that did not receive RF funding provided those schools serve low-achieving students. Teachers in non-RF Title I schools that are in *RF districts* reported participating in significantly more workshops than their peers in non-RF Title I schools that are in *districts that did not receive RF funds* (3.4 vs. 2.5) and reported participating in significantly more hours of professional development (18.4 hours vs. 14.1 hours). Nevertheless, teachers in RF schools reported, on average, participating in significantly more workshops and participating in more hours of professional development than either group of teachers in non-RF Title I schools, whether in an RF or a non-RF district (5.5 workshops and 31.3 hours). This indicates that while professional development activities might be available to teachers in non-RF Title I schools statewide, those teachers in schools in RF districts (in both RF and non-RF Title I schools) were more likely to attend than their counterparts in districts that did not receive RF funds.

Specific Design Features of Professional Development

In 2006–07, teachers in RF schools were significantly more likely to report that the professional development activities they participated in were led by trainers with well-established reputations (78 percent vs. 64 percent), were held in a convenient location (72 percent vs. 61 percent), used a team-based approach (69 percent vs. 53 percent), and provided follow-up activities (46 percent vs. 34 percent) than their peers in non-RF Title I schools (Exhibit 7.2). Further, teachers in RF schools were significantly more likely to report being offered incentives to participate in professional development, such as release time (44 percent vs. 33 percent) and stipends (37 percent vs. 20 percent) than teachers in non-RF Title I schools. Professional development activities with these characteristics are more likely to be meaningful learning and training opportunities (Corcoran, 1995; Garet et al, 1999; Learning First Alliance, 2003).

Exhibit 7.2

Design Features of the Professional Development Activities for Teachers in RF and in Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05	**Difference in Difference**	**2006–07**

RF Schools
Non-RF Title I Schools

Feature	2004–05 RF	2004–05 Non-RF	DiD	2006–07 RF	2006–07 Non-RF
Are given by trainers or facilitators who have a well-established reputation	*78	63	-0.1	78*	64
Are held in a convenient location (e.g., activities held at school)	*72	59	-2.2	72*	61
Use a team-based approach (joint training of people who work together)	*71	51	-3.7*	69*	53
Were also attended by the principal	*59	45	-5.7*	52*	44
Provide follow-up activities	*49	33	-4.6*	46*	34
Include release time for participating teachers	*47	33	-2.2	44*	33
Provide a stipend	*45	19	-8.6*	37*	20
Provide teachers options among which to choose	29	31	1.9	33	33
Offer graduate college credits	*21	15	-2.6	21*	17

Percent of Activities[a]   Percent of Activities

Exhibit reads: In 2004–05, RF teachers reported that 78 percent of the professional development activities offered to them is given by trainers or facilitators who have a well-established reputation, compared to 63 percent reported by teachers in non-RF Title I schools. This difference is statistically significant ($p \leq .05$). In 2006–07, RF teachers reported that 78 percent of the professional development activities offered to them is given by trainers or facilitators who have a well-established reputation, compared to 64 percent reported by teachers in non-RF Title I schools. This difference is statistically significant ($p \leq .05$). The 2004–05 and 2006–07 results differ by -0.1 percentage points, reflecting a 14 percentage point difference in 2006–07 and a 15 percentage point difference in 2004–05.

[a] Response choices were 'none,' 'one-quarter,' 'one-half,' 'three-quarters' and 'all.' Each response was converted to a corresponding percentage (0, 25, 50, 75 and 100 percent, respectively).

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.7.2 for additional statistics.

Source: Teacher Survey (Question D3 in 2004–05 and C3 in 2006–07).

Weight: School.

Weighted respondents: Teachers in 1,684 RF schools and 14,656 non-RF Title I schools.

Non-response rate across groups, years, and items is < 1 percent.

Professional Development on the Five Dimensions of Reading

Scientifically based reading research focuses attention on phonemic awareness, phonics, vocabulary development, fluency, and comprehension. Successful implementation of the elements of the reading program can be greatly bolstered by the availability of effective professional development opportunities in the five dimensions.

Teachers' Participation in Professional Development on the Five Dimensions of Reading
The proportion of teachers in both RF and non-RF Title I schools who reported participating in professional development on three of the five key dimensions of reading (comprehension, phonics and phonemic awareness) was unchanged from 2004–05 to 2006–07. For example, in both years, over 87 percent of teachers in RF schools and almost 75 percent of teachers in non-RF Title I schools participated in professional development on comprehension (Exhibit 7.3). For vocabulary, however, the percentage of teachers in non-RF Title I schools who reported participating in professional development increased from 51 percent in 2004–05 to 60 percent 2006–07.

As was evident in 2004–05, teachers in RF schools continue to be much more likely than teachers in non-RF Title I schools to report participating in professional development on the five key dimensions of reading in 2006–07: comprehension (88 percent vs. 74 percent), phonics (88 percent vs. 64 percent), phonemic awareness (87 percent vs. 62 percent), vocabulary (82 percent vs. 60 percent), and fluency (91 percent vs. 74 percent).

As mentioned above, teachers in non-RF Title I schools in RF districts were more likely than their peers in non-RF districts to reported having attended professional development workshops. However, there were no differences between these two groups of teachers in non-RF Title I schools on their reports of participating in professional development activities on the five key dimensions of reading.

Exhibit 7.3

Teacher Participation in Professional Development Activities Related to the Five Dimensions of Reading: RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years
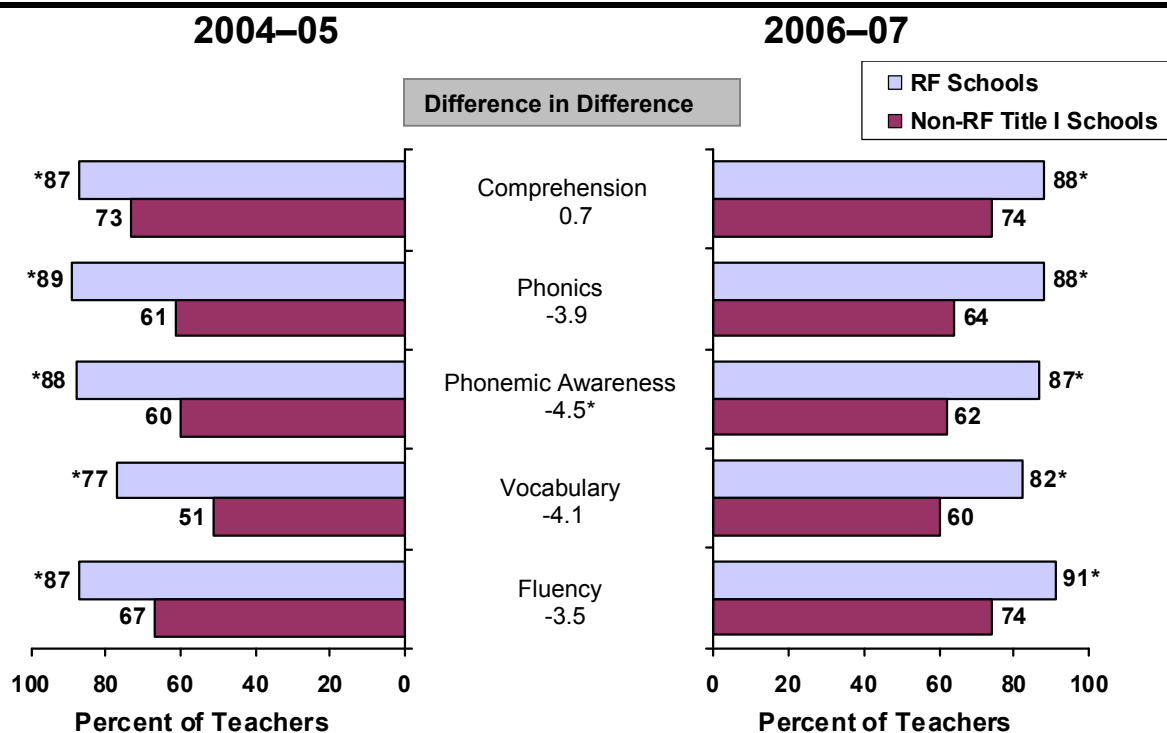
Exhibit reads: In 2004–05, 87 percent of teachers in RF schools reported participating in professional development on comprehension, compared to 73 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 88 percent of teachers in RF schools reported participating in this type of professional development, compared to 74 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by 0.7 percentage points (center column) reflecting a 13.8 percentage point difference in 2006–07 and a 14.5 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.7.3 for additional statistics.

Source: Teacher Survey (Question D4 in 2004–05 and C4 in 2006–07).

Weight: School.

Weighted respondents: Teachers in 1,684 RF schools and 14,629 non-RF Title I schools.

Non-response rate across groups, years, and items: 0.1 to 10.8 percent.

Teachers also reported on their perceived professional development needs in the five dimensions of reading. In 2006–07, teachers in RF schools were less likely than teachers in non-RF Title I schools to report needing additional professional development in phonemic awareness (28 percent vs. 48 percent), phonics (43 percent vs. 56 percent), and fluency (38 percent vs. 49 percent) (Exhibit 7.4). In addition, fewer teachers in both RF and non-RF Title I schools reported the need for professional development in fluency in 2006–07 than in 2004–05. Teachers in RF schools also were less likely to report needing professional development on comprehension, phonics and phonemic awareness in 2006–07 than were their counterparts in 2004–05.

Exhibit 7.4

Teachers' Perceived Professional Development Needs Related to the Five Dimensions of Reading: RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

2004–05   **2006–07**

Difference in Difference

☐ RF Schools
■ Non-RF Title I Schools

	2004–05		2006–07	
	RF	Non-RF	RF	Non-RF
Comprehension -7.6*	73	72	65	71*
Vocabulary -3.2	*62	55	62	58
Phonics -9.4*	52	56	43	56*
Fluency -3.5*	58	57	38	49*
Phonemic Awareness -11.0*	38	*48	28	48*

Percent of Teachers
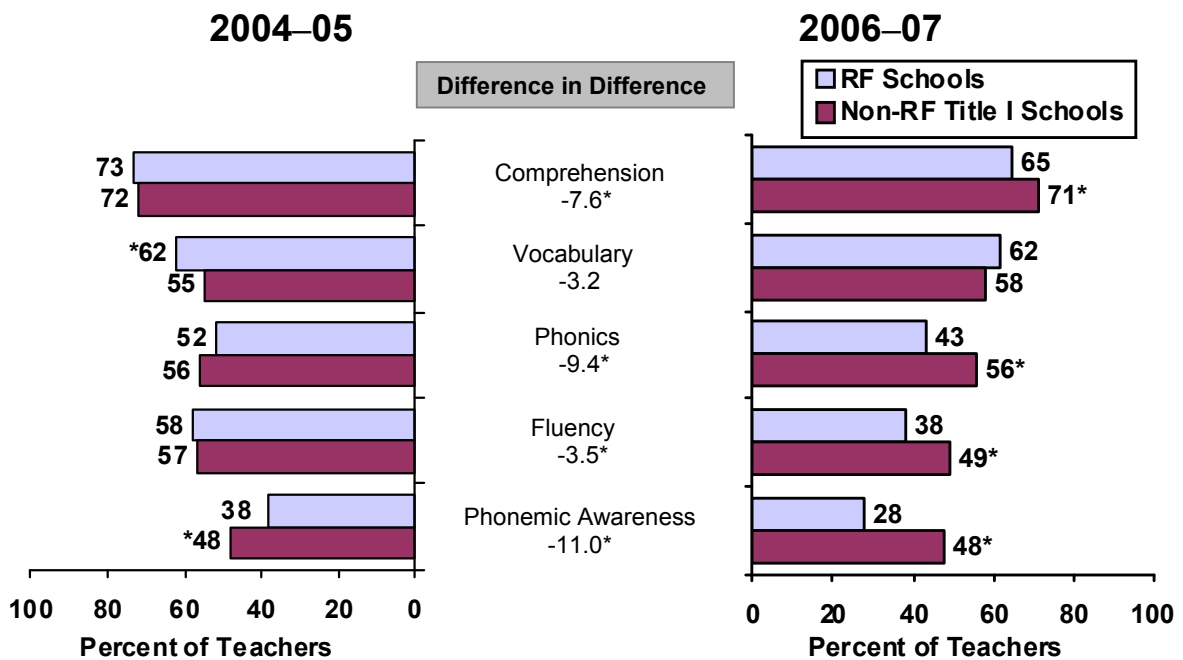
Exhibit reads: In 2004–05, 73 percent of teachers in RF schools reported a perceived need related to comprehension professional development, compared to 72 percent of teachers in non-RF Title I schools. This difference is not statistically significant. In 2006–07, 65 percent of teachers in RF schools reported this perceived need, compared to 71 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by -7.6 percentage points reflecting a 1.2 percentage point difference in 2006–07 and a -6.4 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.7.4 for additional statistics.

Source: Teacher Survey (Question D4 in 2004–05 and C4 in 2006–07).

Weight: School.

Weighted respondents: Teachers in 1,673 RF schools and 14,575 non-RF Title I schools.

Non-response rate across groups, years, and items ranges from 0.5 to 11.1 percent.

Teacher Ratings of Their Preparedness to Teach the Five Dimensions of Reading

The goal of professional development in the five dimensions of reading is to strengthen teachers' knowledge of these component skills, thereby improving their teaching of reading. In 2006–07, RF teachers reported they were better prepared than teachers in non-RF Title I schools to teach

all five dimensions of reading (on a scale of one to five, with five representing extremely well, Exhibit 7.5). For example, in 2006–07, RF teachers, on average, rated their preparedness to teach phonemic awareness a 4.1, while teachers in non-RF Title I schools, on average, rated their preparedness a 3.5. These findings are similar to the 2004–05 findings; on phonemic awareness, for example, RF teachers, on average rated themselves at 3.9 compared to an average of 3.3 for teachers in non-RF Title I schools.

Exhibit 7.5

Preparedness to Teach Five Dimensions of Reading: Teachers in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years
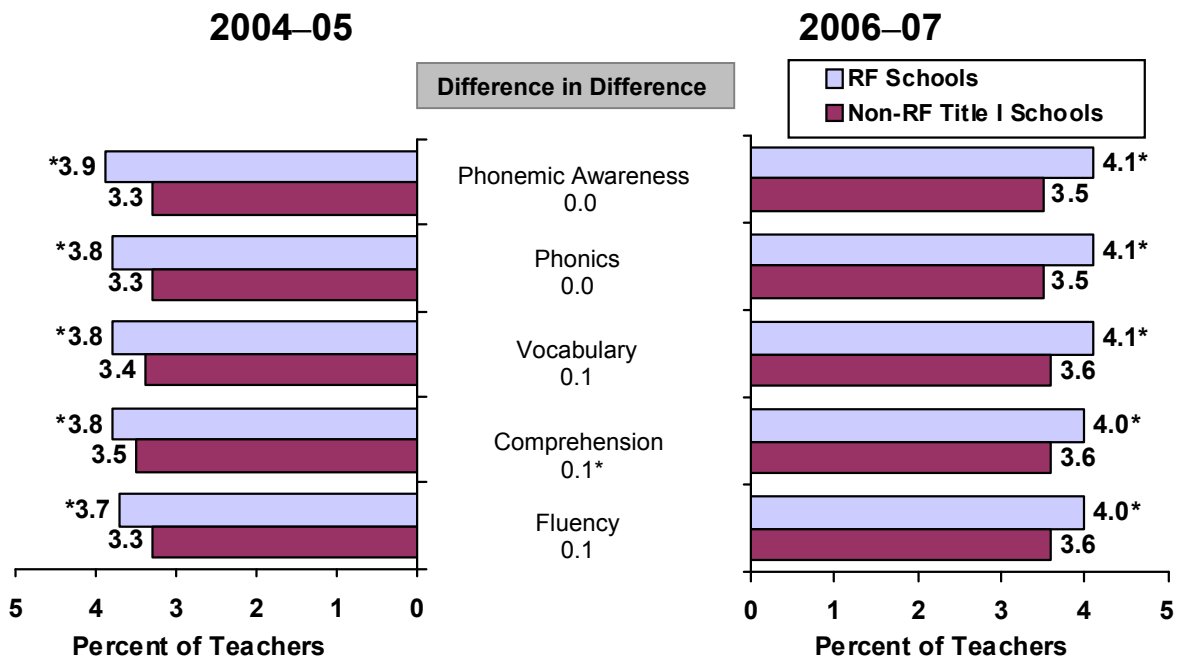
Exhibit reads: In 2004–05, RF teachers reported a mean preparedness score of 3.9 to teach phonemic awareness, compared to 3.3 in teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, teachers in RF schools reported a mean preparedness score of 4.1 to teach phonemic awareness, compared to an average of 3.5 for teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by 0 points (right-hand column), reflecting a 0.6 point difference in 2006–07 and a 0.6 point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.7.5 for additional statistics.

Source: Teacher Survey (Question D6 in 2004–05 and C6 in 2006–07).

Weight: School.

Weighted respondents: Teachers in 1,684 RF schools and 14,656 non-RF Title I schools.

Non-response rate across groups, years, and items ranges from 0 to 0.5 percent.

Principals' and Reading Coaches' Participation in Professional Development in the Five Dimensions of Reading

In 2006–07, a significantly greater percentage of principals in RF schools reported participating in professional development on all five dimensions of reading than principals of non-RF Title I schools (e.g., fluency: 84 percent vs. 65 percent; phonics: 78 percent vs. 57 percent) (Exhibit 7.6). However, from 2004–05 to 2006–07, there were modest decreases in RF principals'

attendance at professional development on these topics (e.g., phonemic awareness from 89 percent to 79 percent). Over the same time period, there was little change reported by principals of non-RF Title I schools' attendance at professional development on these topics.

Exhibit 7.6

Professional Development Related to the Five Dimensions of Reading Attended by for Principals and Reading Coaches in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

2004–05   Difference in Difference   **2006–07**

□ RF Schools
■ Non-RF Title I Schools

Principal Participation

	2004–05		2006–07
Vocabulary -10.5*	*88 / 63		84* / 69
Comprehension -3.4	*89 / 71		84* / 70
Fluency -7.4*	*90 / 64		84* / 65
Phonemic Awareness -11.0*	*89 / 60		79* / 61
Phonics -9.6*	*86 / 55		78* / 57

Reading Coach Participation

Essential Components of Reading -18.7*	*94 / 60		83* / 68

Percent of Schools   Percent of Schools
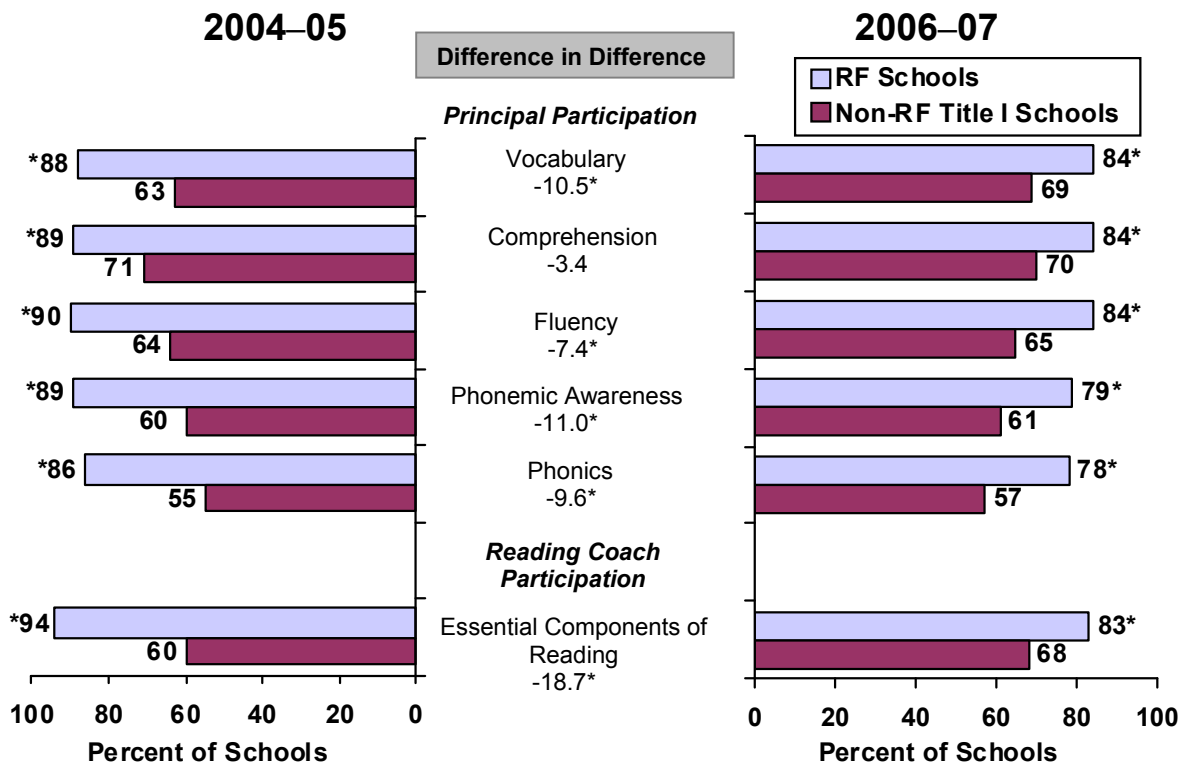
Exhibit reads: In 2004–05, 88 percent of principals in RF schools reported participating in vocabulary professional development, compared to 63 percent of principals in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 84 percent of principals in RF schools reported participating in this type of professional development, compared to 69 percent of principals in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by -10.5 percentage points reflecting a 14.9 percentage point difference in 2006–07 and a 25.4 percentage point difference in 2004–05.
Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.
See Appendix B, Exhibit B.7.6 for additional statistics.
Source: Principal Survey (Questions F2 in 2004–05 and F1 in 2006–07); Reading Coach Survey (Question G in 2004–05 and F1 in 2006–07).
Weight: School.
Weighted respondents: Principals or reading coaches in 1,634 RF schools and 14,456 non-RF Title schools.
Non-response rate across groups, years, and items ranges from 0 to 3.0 percent.

In 2006–07, the percentage of RF reading coaches who reported participating in professional development related to the five dimensions of reading was significantly greater than reading coaches in non-RF Title I schools (83 percent vs. 68 percent). From 2004–05 to 2006–07, the percentage of RF reading coaches who reported participating in such professional development declined from 94 to 83 percent, while the percentage of reading coaches in non-RF Title I schools increased from 60 to 68 percent.

Professional Development on Other Features of Reading Instruction

In addition professional development in the five dimensions of reading, teachers, principals and reading coaches were asked about professional development related to other features of reading instruction. We categorized scientifically based reading instruction (SBRI)-related professional development activities into five areas: 1) using materials and teaching strategies; 2) grouping; 3) assessment of students; 4) how to help struggling readers; and 5) organizing and planning (See Appendix D for the specific activities included in each of these topics).

Teachers' Participation
To summarize teachers' reported professional development, we calculated a score representing the proportion of teachers who reported participating in professional development in any topic in one of the five categories listed above. We then used this summary measure to compare the professional development activities of RF teachers and teachers in non-RF Title I schools in 2004–05 and 2006–07 (Exhibit 7.7). Teachers in RF schools were more likely to report participating in professional development aimed at helping struggling readers (85 percent vs. 71 percent), in teaching strategies (96 percent vs. 90 percent), using assessment to inform instruction (91 percent vs. 81 percent), and grouping students for reading instruction (84 percent vs. 74 percent) than were teachers in non-RF Title I schools. However, it is worth noting that almost three-quarters of teachers in non-RF Title I schools reported participating in all five categories of professional development related to other features of reading instruction.

Exhibit 7.7

Professional Development Related to Other Features of Reading Instruction for Teachers in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Exhibit reads: In 2004–05, 98 percent of teachers in RF schools reported participating in teaching strategies professional development, compared to 90 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 96 percent of teachers in RF schools reported participating in this type of professional development, compared to 90 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by -1.9 percentage points (right-hand column) reflecting a 6.3 percentage point difference in 2006–07 and an 8.2 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.7.7 for additional statistics.

Source: Teacher Survey (Question D5 in 2004–05 and C5 in 2006–07).

Weight: School.

Weighted respondents: Teachers in 1,684 RF schools, and 14,575 non-RF Title I schools.

Non-response rate across groups, years, and items ranges from 0.5 to 1.6 percent.

We also asked teachers about their perceived need for additional professional development related to other features of reading instruction (Exhibit 7.8). In 2006–07, there were few differences between teachers in RF and non-RF Title I schools. The two topics about which most teachers (75 percent or more) in both RF and non-RF Title I schools reported needing more professional development were in general teaching strategies and working with struggling readers. Approximately half (or fewer) teachers reported needing more professional development about other categories.

Exhibit 7.8

Teachers' Perceived Need for Additional Professional Development Related to Other Features of Reading Instruction in RF and non-RF Title I Schools, 2004–05 and 2006–07 School Years
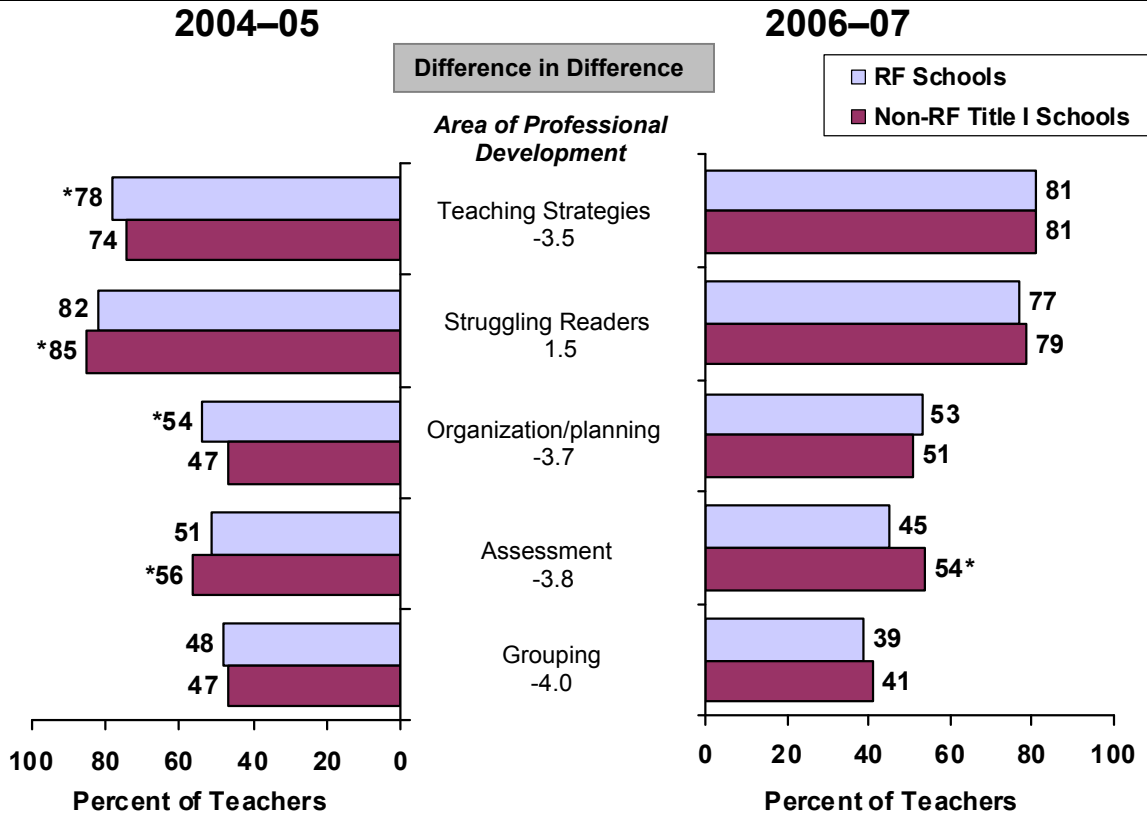
Exhibit reads: In 2004–05, 78 percent of teachers in RF schools reported needing additional professional development in teaching strategies, compared to 74 percent of teachers in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 81 percent of teachers in RF schools and non-RF Title I schools reported needing more of this type of professional development. The 2004–05 and 2006–07 results differ by -3.5 percentage points (center column) reflecting a -0.2 percentage point difference in 2006–07 and a 3.4 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between teachers in RF and non-RF Title I schools.

See Appendix B, Exhibit B.7.8 for additional statistics.

Source: Teacher Survey (Question D5 in 2004–05 and C5 in 2006–07).

Weight: School.

Weighted respondents: Teachers in 1,684 RF schools and 14,629 non-RF Title I schools.

Non-response rate across groups, years, and items ranges from 0.2 to 2.0 percent.

Principals' Participation in Professional Development

Principals were asked to report on the professional development they had received in the previous calendar year as well as on their perceived needs for professional development. In all categories but organization and planning, a significantly greater percentage of RF principals reported participating in professional development about other features of reading instruction than principals in non-RF Title I schools (e.g., evaluation 80 percent vs. 61 percent) (Exhibit 7.9). Principals' reported participation in professional development on these topics have not changed from 2004–05 to 2006–07.

Exhibit 7.9

Professional Development Related to Other Features of Reading Instruction Attended by Principals in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years
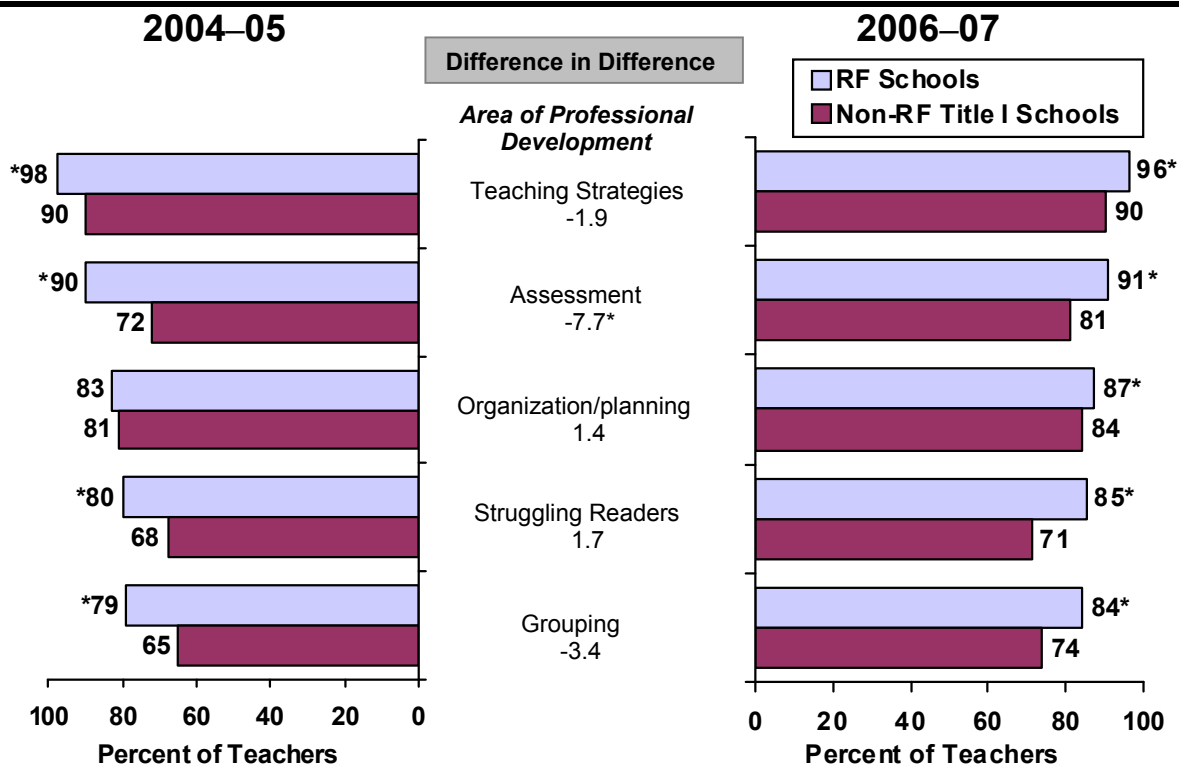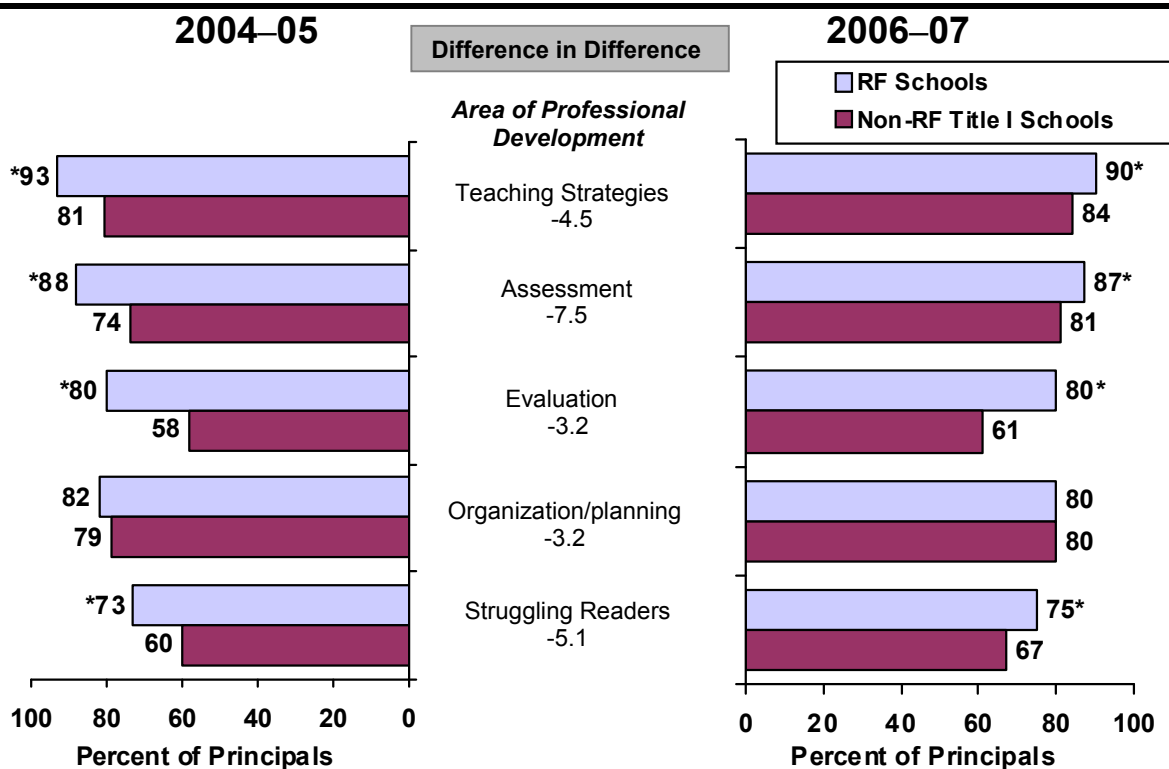

Exhibit reads: In 2004–05, 93 percent of principals in RF schools reported participating in professional development in teaching strategies, compared to 81 percent of principals in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 90 percent of principals in RF schools reported this type of professional development, compared to 84 percent of principals in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by -5 percentage points reflecting a 6 percentage point difference in 2006–07 and a 12 percentage point difference in 2004–05.
Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.
See Appendix B, Exhibit B.7.9 for additional statistics.
Source: Principal Survey (Question F2 in 2004–05 and F1 in 2006–07).
Weight: Principal.
Weighted respondents: Principals in 1,684 RF schools and 14,684 non-RF Title I schools.
Non-response rate across groups, items, and years: 0 to 1.8 percent

Reading Coaches' Participation in Professional Development

Reading coaches provide ongoing professional development to teachers in two ways: by modeling effective instructional practice and by supporting teachers' efforts to implement their reading programs. The guidance for the Reading First Program states that "delivery mechanisms [for professional development] should include the use of coaches and other teachers of reading who provide feedback as instructional strategies are put into practice" (2002, page 26).

Therefore, it is critical that coaches receive the support and training in the tenets if SBRI, how to effectively guide and provide feedback to teachers, and how model high quality classroom teaching.

A significantly greater percentage of RF reading coaches reported participating in professional development across almost all topics than reading coaches in non-RF Title I schools (Exhibit 7.10). For example, RF reading coaches reported participating in more professional development on assessment topics than did coaches in non-RF Title I schools (e.g., types of assessments: 81 percent vs. 63 percent). In addition, coaches in RF schools were more likely to report attending professional development on the essential components of scientifically based reading instruction (83 percent vs. 68 percent), and explicit reading instruction (83 percent vs. 59 percent) than were coaches in non-RF Title I schools.

Reading First coaches reported decreased participation in two professional development topics from 2004–05 to 2006–07: essential components of SBRI (from 94 percent to 83 percent) and the role of the reading coach in fostering change (from 84 percent to 73 percent). These finding may be due to the fact that since these are introductory topics and this sample is composed of mature RF schools, coaches had already participated in professional development on these topics. Reading coaches also reported increased participation over the same time period on how to plan instructional interventions for struggling students (from 73 percent to 83 percent).

From 2004–05 to 2006–07, reading coaches in non-RF Title I schools reported increased participation in professional development on several topics related to teaching strategies including, for example, planning instructional interventions (from 57 percent to 68 percent), helping teachers identify appropriate instructional materials (from 43 percent to 55 percent) using assessment data to form instructional groups (from 68 percent to 77 percent) and classroom management within the literacy block (from 45 percent to 55 percent).

Exhibit 7.10

Professional Development in Teaching Strategies Attended by Reading Coaches in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Topics	2004–05		2006–07		2006–07 Difference - 2004–05 Difference
	RF Schools	**Non-RF Title I Schools**	**RF Schools**	**Non-RF Title I Schools**	
Scientifically Based Reading Instruction					
Essential components of scientifically based reading instruction	94%*	60%	83%*	68%	-18.7%
How to plan instructional interventions for struggling students	73*	57	83*	68	-1.0
How to help teachers make reading instruction systematic and explicit	79*	52	83*	59	-2.9
Assessment					
How to use reading assessment data to guide instruction	95%*	78%	93%*	83%	-6.4
What are the types of assessments: screening, diagnostic, progress monitoring, and outcome	88*	54	81*	63	-15.7*
How to use assessment data to form instructional groups	91*	68	91*	77	-9.0*
How to Provide Effective Support and Feedback to Teachers					
What is the role of the reading coach in fostering change	84*	51	73*	54	-13.6*
How to provide constructive feedback to teachers	81*	60	77*	61	-4.8
How to establish credibility with teachers	73*	41	69*	52	-14.3*
Classroom management within the literacy block time	61*	45	68*	55	-3.1
How to conduct effective grade level meetings	57*	33	66*	46	-3.8
How to help teachers identify appropriate instructional materials	64*	43	67*	55	-8.2
How to provide onsite professional development	70*	50	74*	55	-2.2
Effective Modeling					
How to conduct demonstration lessons	61*	51	63	55	-2.7
How to conduct classroom observations	75*	49	76*	54	-3.0

Exhibit reads: In 2004–05, 94 percent of reading coaches in RF schools reported participating in professional development about essential components of scientifically based reading instruction, compared to 60 percent of reading coaches in non-RF Title I schools. This difference is statistically significant (p ≤ .05). In 2006–07, 83 percent of reading coaches in RF schools reported participating in this type of professional development, compared to 68 percent of reading coaches in non-RF Title I schools. This difference is statistically significant (p ≤ .05). The 2004–05 and 2006–07 results differ by -19 percentage points (right-hand column) reflecting a 15 percentage point difference in 2006–07 and a 34 percentage point difference in 2004–05.

Note: The stars (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between RF and non-RF Title I schools.

See Appendix B, Exhibit B.7.10 for additional statistics.

Source: Reading Coach Survey (Question G1 in 2004–05 and F1 in 2006–07).

Weight: Reading coach.

Weighted respondents: Reading coaches in 1,635 RF school and 7,667 non-RF Title I schools.

Non-response rate across groups, items, and years: < 1 percent.

Summary

Data about professional development for teachers, principals, and reading coaches from the 2006–07 school year, in combination with data from 2004–05, provide some evidence that participation in Reading First-aligned professional development activities continues, and that teachers in both RF and non-RF Title I schools are increasingly prepared to provide sound reading instruction.

A greater percentage of RF teachers reported participating in reading-related professional development than did teachers in non-RF Title I schools in 2006–07. On average, compared to teachers in non-RF Title I schools, RF teachers reported attending twice the number of workshops and spending twice the number of hours in professional development activities. However, the mean number of workshops and number of hours attending reading-related professional development activities declined for both teachers in RF and non-RF Title I schools from 2004–05 to 2006–07.

In 2006–07, teachers in RF schools were significantly more likely to report that the professional development activities they participated in were led by trainers with well-established reputations, were held in a convenient location , used a team-based approach, and provided follow-up activities than their peers in non-RF Title I schools.

The proportion of teachers in both RF and non-RF Title I schools who reported participating in professional development in three of the five key dimensions of reading (comprehension, phonics, phonemic awareness and fluency) was unchanged from 2004–05 to 2006–07. In both years, teachers in RF schools were more likely than teachers in non-RF Title I schools to report attending professional development activities on these topics. For vocabulary and fluency, however, the percentage of teachers in non-RF Title I schools who reported attending professional development increased from 2004–05 to 2006–07.

A greater percentage of teachers in RF schools reported participating in other reading-related professional development directed at helping teachers with teaching strategies grounded in scientifically based reading research (e.g., assistance to struggling readers, interpretation of assessment data, grouping students) compared to their non-RF Title I counterparts. There were few differences, however, in teachers' perceived need for additional professional development on other features of reading instruction with the exception of interpreting assessment results, about which teachers in non-RF Title I schools reported a greater need than RF teachers. In both groups of teachers, at least three-quarters of RF and non-RF Title I teachers reported a need for additional professional development to assist struggling readers. A higher percentage of principals and reading coaches in RF schools also reported participating in professional development related to other features of reading instruction, relative to their counterparts in non-RF Title I schools.

Chapter 8: Reading Achievement Trends in RF and Non-RF Title I Schools

The overarching goal of the RF program is to promote reading skills, such that all students are reading at or above grade level by the end of third grade. RF is predicated on scientifically researched findings that high-quality reading instruction in the primary grades significantly reduces the number of students who experience reading difficulties in later years. Reading proficiency by the end of third grade, in turn, establishes a necessary foundation for successful performance across a broad range of skills and competencies in later grades. The following analyses examine the extent to which reading achievement is improving more quickly in RF schools than in non-RF Title I schools.

This chapter presents findings from two analyses of reading achievement trends in RF and non-RF Title I schools and is organized into two sections: The first presents analyses of third- and fourth-grade students' performance on state reading assessments to address evaluation question 4: Does student achievement improve over time more quickly in schools with Reading First funds than in non-RF Title I schools not receiving RF funds?[59] The second section describes an analysis of the relationship between schools' implementation of RF-aligned activities and student reading achievement to address question 5 of the evaluation: Is there any relationship between how schools implement Reading First-aligned practices and changes in reading achievement?

Key Findings

There is limited but statistically significant evidence that successive cohorts of third- and fourth-grade students in RF schools improved their reading performance over time more quickly than did their counterparts in non-RF Title I schools.[60]

On third-grade state reading assessments, effect sizes averaged across 24 states indicate that RF schools gained more on their state third-grade reading assessments, on average, from pre- to post-RF implementation than non-RF Title I schools, a statistically significant yet small difference ($p < .001$ for all four methods). In addition to calculating average effect sizes, we conducted separate state-by-state analyses of reading performance. In 12 of 24 states, the improvement in third-grade reading scores among RF schools was statistically significantly
The footer should say chapter 8: Reading Achievement Trends in RF and non-RF Title I Schools
larger than in non-RF Title I schools for at least one of four methods; in the other 12 states, there

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[59] This chapter relies on reading assessment data collected from individual states. In general, most states use these state assessments to meet the accountability requirements of *NCLB*. These assessments are not used in most cases to meet RF accountability requirements.

[60] To conduct the state-by-state analyses we had to identify the test scores that represented schools' performance in years *prior to* as well as in years *after* RF implementation. Because the dates when RF schools received funding were not available, we used four different methods to estimate these dates, and in turn, to identify schools' pre- and post-RF implementation years.

were no statistically significant differences between the two groups of schools in any of the methods.

On fourth-grade state reading assessments, effect sizes averaged across 17 states indicate that RF schools gained more on their state fourth-grade reading assessments, on average, from pre- to post-RF implementation than non-RF Title I schools, also a statistically significant yet small difference (p < .01 across all four methods). Across the state-by-state analyses, in six of 17 states the improvement in fourth-grade reading scores among RF schools was statistically significantly larger than in non-RF Title I schools for at least one of the four methods. In 11 of 17 states there were no significant differences in improvement between the two types of schools.

It is important to note the findings about student reading performance should be interpreted with caution. Although the RF and non-RF Title I schools are similar demographically on several characteristics measured in the study, schools were not randomly assigned to receive RF funding, and therefore there could have been preexisting differences between the two groups of schools on unobserved characteristics. We cannot assume that the two groups of schools are equivalent but for the fact that one group received RF funds while the other did not. This means that the findings cannot support causal inferences that attribute observed differences in student reading achievement between RF and non-RF Title I schools to the Reading First program.[61]

There is a positive and statistically significant relationship between only one of four measures of RF-aligned activities and schools' levels of third-grade reading achievement.[62] The study team analyzed the relationship between schools' third-grade reading scores on state assessments and four composite measures constructed from survey data that characterize teachers' RF-aligned activities: classroom reading instruction; strategies to help struggling readers; participation in professional development; and uses of assessment to inform instruction. The four composites were each constructed from selected survey responses of teachers from the spring 2005 survey administration. The analysis was conducted on a group of 390 schools, all part of the original study sample of 1,633 schools; these schools had *both* survey responses and third-grade scores on their states' reading assessments.

Only the composite measure of teachers' use of activities for struggling readers was significantly related to the probability that a school scored in the top quartile (relative to other RF and non-RF Title I schools) on their state's third-grade reading assessment. For every increase of one standard deviation unit in the struggling readers implementation composite score, the probability

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[61]   Additional limitations to the analysis of student reading achievement are presented in the discussion section of this chapter.

[62]   This analysis includes both RF and non-RF Title I schools, since the implementation of activities aligned with Reading First can potentially occur in either type of school.

of being in the top quartile increased by 15.6 percentage points, for the average school ($p <$ .001).[63]

Reading Performance of Third- and Fourth-Grade Students on State Reading Assessments

Overview of Data and Analytic Approach Used in the Analyses

Below, we briefly describe the data and analytic methods used to compare reading performance trends in RF and non-RF Title I schools. More detailed descriptions of the statistical models used in the analyses are provided in Appendix C.

Data

Analyses were conducted using annual third- (24 states) and fourth-grade (17 states) test scores on state reading assessments from 12,362 schools (3,000 RF and 9,362 non-RF Title I). The analyses are based on state reading assessment data from as early as 1997 and as recent as 2006, from RF and non-RF Title I schools, located in 35 states (See Appendix B, Exhibit B.8.1 for details about the number and years of test scores used in each state analysis). The assessments vary widely across states, and school-level scores are reported in a variety of metrics (Exhibit 8.1). The most common metric is the percentage of students meeting some cutoff score, such as "basic" or "proficient" level, as defined by individual states. These data are available in national databases for all schools; schools were included in the present analysis if they were regular schools (private, vocational, alternative, and special education schools were excluded), either an RF or a non-RF Title I school.[64]

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[63]   The analysis of the relationship among RF-aligned activities and reading achievement is based on fitting a logistic regression model because the dependent variable is dichotomous–inclusion or exclusion from the highest quartile. The four composites were standardized and are best understood in terms of standard deviation units.

[64]   The analyses of student reading performance includes Title I schoolwide project (SWP) schools. That is, schools in which at least 40 percent of the students are eligible for free or reduced price lunches and have elected to implement programs where all children are eligible for Title I programs and services.

Exhibit 8.1

Summary of Data Used for Analysis of State Reading Assessment Scores, by State

| State | Grades Included in Analysis | | Assessment | Number of Schools [a] | | Reporting Metric |
	3rd grade	4th grade		RF	Non-RF Title I	
Arizona	✓		Arizona Instrument to Measure Standards	67	290	Percent students approaching standard
Arkansas		✓[b]	Arkansas Criterion-Referenced Test	42	164	Percent students above standard
California	✓[b]		California Achievement Test–version 6	646	1,155	Percent students at or above the 50th percentile
Colorado	✓	✓	Colorado Student Assessment Program	40	150	Percent students at or above partially proficient
Connecticut		✓	Connecticut Mastery Test	20	92	Percent students at level 2 or higher
Delaware	✓		Delaware Students Testing Program	8	11	Mean scaled score
District of Columbia	✓[b]		Stanford Achievement Test (version 9)	19	73	Percent students at or above proficient (40th percentile)
Florida	✓	✓[b]	Florida Comprehensive Assessment Test	378	543	Median percentile rank
Georgia [b]	✓		Criterion Referenced Competency Test	82	395	Percent students at or above standard
Hawaii	✓		Stanford Achievement Test (version 9)	43	64	Percent students scoring 'average' (i.e., stanine 4 or higher)
Idaho		✓	Idaho Standards Achievement Test	29	40	Percent students at or above basic
Illinois	✓		Illinois Standards Achievement Test	247	431	Percent students meeting or exceeding standard
Indiana	✓		Indiana Statewide Testing for Educational Progress Plus	54	115	Percent students passing the test
Iowa		✓	Iowa Test of Basic Skills	44	70	Percent students at or above proficient
Kentucky	✓	✓	Comprehensive Test of Basic Skills (Grade 3), Kentucky Core Content Test (Grade 4)	63	485	CTBS: Median percentile rank; KCCT: Percent of students at apprentice level or above
Louisiana		✓	Louisiana Educational Assessment Program	73	357	Percent students approaching basic or above
Maryland	✓		Maryland School Assessment	36	242	Percent students at or above proficient
Massachusetts	✓		Massachusetts Comprehensive Assessment System	75	232	Percent students at or above proficient
Michigan		✓[b]	Michigan Educational Assessment Program	96	395	Percent students at or above basic
Minnesota	✓		Minnesota Comprehensive Assessment	27	115	Mean scaled score

(Continues)

Exhibit 8.1

Summary of Data Used for Analysis of State Reading Assessment Scores, by State (Continued)

State	Grades Included in Analysis		Assessment	Number of Schools [a]		Reporting Metric
	3rd grade	4th grade		RF	Non-RF Title I	
Mississippi [b]	✓	✓[b]	Mississippi Curriculum Test	31	325	Percent students at or above proficient
Montana		✓	Iowa Test of Basic Skills	16	45	Percent students nearing proficient or above
Nevada	✓		Criterion Referenced Reading Test	26	55	Percent students at or above Level 2 (approaching standard)
New Jersey		✓	N.J. Assessment of Skills and Knowledge	49	178	Percent student at or above proficient
North Carolina	✓		End of Grade Test	87	463	Percent students at or above consistent mastery
North Dakota		✓	North Dakota State Assessment Program	12	17	Percent students meeting or exceeding standard
Ohio		✓[b]	Ohio Achievement Test	75	639	Percent students at or above proficient
Oregon	✓		Oregon Statewide Assessment	34	154	Percent students at or above standard
South Carolina	✓		South Carolina Palmetto Achievement Challenge Test	49	276	Percent students at or above basic level
South Dakota	✓[b]		South Dakota State Test on Educational Progress	14	52	Percent students at or above proficient
Utah		✓	Utah Performance Assessment System of Students	12	49	Percent students at or above basic
Virginia	✓		Virginia Standards of Learning	70	186	Percent students at or above standard
Washington	✓	✓	Iowa Test of Basic Skills (Grade 3), Washington Assessment of Student Learning (Grade 4)	63	223	ITBS: Percent students at or above the 50th percentile; WASL: percent students at or above Level 2 (basic)
West Virginia	✓[b]		West Virginia Educational Standards Test	31	249	Percent students scoring at or above proficient (previously known as mastery)
Wisconsin	✓[b]	✓	Wisconsin Reading Comprehension Test (Grade 3), Wisconsin Knowledge and Concepts Exam (Grade 4)	49	133	Percent students at or above basic level (both WRCT and WKCE)

Exhibit reads: In Arizona, data were available for analysis of third-grade reading achievement based on students' performance on the Arizona Instrument to Measure Standards; scores were reported as the percentage of students reaching the standard. Test score data were available for 67 RF schools and 290 non-RF Title I schools.

[a] Minimum number of schools for any analysis.

[b] There was insufficient pre- or post-RF implementation years (and scores) to conduct analyses using the state modeling strategy.

Source: Databases from 35 states, each of which includes school-level measures of reading performance on the states' third- and fourth-grade reading assessments

To conduct these analyses, we identified, for each school, those years (and their corresponding test scores) that occurred both before and after the implementation of RF. There is no one data source that tells us when each RF school received RF funds. However, using information that tells us when states received their grants, when RF districts received their subgrants, and when the study sample of RF schools reported receiving RF funds (reported on the principal survey), we developed four different methods to assign pre- and post-RF implementation years to all schools included in the analyses. Each of these methods is described below.[65]

- **Initial State Award Date**
  Test scores in years prior to the state award date were designated as pre-RF implementation years. Scores after the last school in the state received funding are designated as post-RF implementation years.[66] This allows sufficient time for the funds to have been distributed to all of the schools. Scores from the intervening years, when some schools may have been funded while others were not yet funded, are excluded from the analysis. In most cases, this method resulted in two years of data being excluded from the analyses.

- **District Award Date**
  This method used the district award dates provided by the U.S. Department of Education to assign award dates to all RF schools. The award dates were then used to specify pre- and post-RF implementation years. One problem with this method is that, based on information from our surveys, there is often a time lag between districts' receipt of funds and schools' receipt of funds.

- **Adjusted District Award Date**
  For this method, we followed the approach described above but added the average number of days between a district award and a school receiving funds to the district award date to account for the time that had elapsed. We used the information reported by principals in their surveys to estimate an average time gap between district and school receipt of funding and adjusted the district award date by adding to it an average number of days to account for this time gap.[67]

- **School Award Date**
  In this approach, we used the school funding dates provided on RF principals' surveys, and proportionally imputed dates to other RF schools and non-RF schools in the RF districts in our study sample. For schools in the remaining districts, we continued to use the adjusted award date described above.

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[65] Procedures used to assign schools' award dates and corresponding pre-and post RF implementation years are presented in Appendix C.

[66] The last school funded was designated using from the Southwest Educational Development Laboratory (SEDL) Reading First Awards Database as of May 2005. Schools that received funds after this date would not have had adequate test score data to be included in these analyses; specifically, their first post-RF implementation year would be the 2006–07 school year. Test score data for that year were not available when we conducted these analyses.

[67] Survey data to compute the average state level time gap were available for all states.

To conduct the four analyses based on the methods described above, in some instances, we imputed start dates in order to identify pre- and post-RF implementation years. The extent to which such dates were imputed varied depending on the analytic method. For instance, the analysis based initial state award dates required no imputation because this method defines one start date for the onset of RF and this date was applied to all RF and non-RF Title I schools in the analysis. Also, for the analyses using RF district award dates, there was no imputation for the RF and non-RF Title I schools *in those districts* since those dates define the onset of RF implementation. However, 60 percent of the non-RF Title I schools included in the analyses are in districts with no RF schools and therefore, no RF district start dates. For those schools, we used dates from RF districts to impute schools' start dates. (A more detailed description of the methods used to assign start dates is presented in Appendix C.)

Analytic Approach

Difference-in-difference models were fit to the data to estimate whether the changes in reading performance in RF schools were larger than in non-RF Title I schools. Depending on data availability, for each state, either three or four separate models were fit to the data. In most states, we fit baseline mean models which estimated the average reading performance in the pre-RF years in both RF and non-RF Title I schools, compared it to the post-RF average performance, and then compared the non-RF Title I pre-post difference to the RF pre-post difference (i.e., the difference-in-difference estimate).

In states that had at least five years of data available during the pre-RF years and at least two years of data during the post-RF years, we fit linear models to the data (i.e., nine states at third grade, none at fourth grade). These model estimated the *expected* average school-level reading performance in the absence of RF in both RF and non-RF Title I schools, given the trajectory of performance in the pre-RF implementation years. The expected reading performance was then compared to the actual performance in RF and non-RF Title I schools to estimate differences within RF and non-RF Title I schools. These models also compared the difference between the actual and expected performance across RF and non-RF Title I schools (i.e., the difference-in-difference estimate).

We combined estimates across states by converting each estimate into an effect size, a standardized measure that describes the magnitude of the original difference in terms of the standard deviation of the original metric.[68] These state level effect sizes were then weighted and averaged across states for each model (Shadish and Haddock, 1994).[69] Describing the findings across states in terms of effect sizes allows us to include all states with appropriate test data even though the metrics used to report reading performance differ. One consequence, however, is that

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[68] We used the standard deviation of Title I schools pre-RF implementation scores in the states' effect size calculations. See Exhibits B.8.2b and B.8.3b in Appendix B for individual state effect sizes.

[69] The weight was inversely proportional to the variance of the effect size resulting in more precise effect sizes carrying more weight than less precise effect sizes.

effect sizes can be somewhat more difficult to interpret than more familiar metrics.[70] Therefore, we converted the average effect sizes for each of the four analytic methods into a percentage point difference, because this is the original metric most often used by states.[71]

Reading Achievement in Third Grade

Analyses of scores on states' third- and fourth-grade state reading assessments provide limited evidence that students in RF schools improved their reading performance more quickly than did their counterparts in non-RF Title I schools.

Results are presented first for third grade, because this is the grade level for which we have data from the most states. It is also at the end of third grade that Reading First aims to have children reading on or above grade level. This is followed by a discussion of findings for fourth grade.

Exhibit 8.2 presents the results of analyses of third-grade test scores in 24 states; each column provides the difference-in-difference estimate converted to an effect size for the four models that represent different definitions of the start of RF implementation. Using the smallest school count across the four methods for each state, these results represent approximately 186,000 students in more than 2,200 RF schools, corresponding to about 55 percent of third-grade RF students, nationwide.

States are listed in roughly descending order based on the magnitude of differences in reading gains between RF and non-RF Title I schools.[72] In 11 states (in order of magnitude from the analysis using state award dates: Mississippi, Virginia, South Dakota, Oregon, West Virginia, Washington, Illinois, North Carolina, California, Arizona, and Maryland), the gains in RF schools were statistically significantly larger than the gains in non-RF Title I schools, for three out of the four methods. Further, in seven of the states, the differences are statistically significant for all four methods. In 12 states, there was no significant difference between the estimated gains in RF and non-RF Title I schools.

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[70]   Research on interpreting effect sizes suggests that it is unwise to rely on universal guidelines to interpret the magnitude of an effect (Hill, Bloom, Black and Lipsey, 2007). More recent thinking advises developing empirical benchmarks of the substantive significance of an effect size, based on the particular field of research and population being studied.

[71]   To convert effect sizes into a percentage point differences, we multiplied them by the pooled standard deviation for non-RF Title I schools across states that use a cut-score as the metric used to report student reading performance. This percentage point difference reflects differences across all states in the analysis, even those that did not originally report reading achievement in this metric.

[72]   In 15 states, we fit baseline mean models *for all four methods* to estimate differences in third-grade performance over time between RF and non-RF Title I schools; in eight states, we fit linear models (shaded in this exhibit) *for all four methods*; and in one state, Illinois, linear models were fit for all but the state award date method, for which the data required us to fit a baseline mean model.

Exhibit 8.2

Difference-in-Difference Effect Size Estimates for Four Analytic Methods, in RF and Non-RF Title I Schools' Third-Grade Reading Scores

	Difference-in-Difference Estimates			
State	**State Award Date**	**District Award Date**	**Adjusted District Award Date**	**School Award Date**
Mississippi	1.07*	1.10*	1.12*	1.12*
Virginia	0.88*	0.87*	0.87*	0.87*
South Dakota		0.41*	0.42*	0.42*
Oregon	0.64*	0.69*	0.48*	0.48*
West Virginia		0.41*	0.42*	0.46*
Washington	0.52*	0.40*	0.34*	0.40*
Illinois	0.16*	0.36*	0.24*	0.24*
North Carolina	0.40*	0.25*	0.23*	0.22*
California [a]		0.27*	0.21*	0.13*
Arizona	0.41*	0.51*	0.40*	0.37*
Maryland	0.32~	0.40*	0.37*	0.38*
South Carolina	0.43*	0.10	0.09	0.09
Georgia	0.12	-0.46	0.50	0.59
Indiana	-0.01	0.10	0.09	0.09
Massachusetts	0.14	0.02	0.03	0.05
Florida	-0.04	-0.02	-0.05	-0.06
Kentucky	0.13	-0.31	-0.28	-0.21
Hawaii	0.02	-0.24~	-0.24~	0.08
Colorado	0.02	-0.16	-0.17	-0.17
Wisconsin		-0.06	-0.06	-0.22
District of Columbia		-0.07	-0.07	-0.07
Nevada	-0.22	-0.18	-0.19	-0.23
Minnesota	-0.06	-0.02	-0.02	-0.02
Delaware	-0.45	-0.44	-0.45	-0.45
Average Effect Size	***.21****	***.18****	***.18****	***.17****

Exhibit reads: In Mississippi, when pre- and post-RF implementation years were defined using the state's award date, the difference in difference analysis produced an effect size of 1.07 standard deviations indicating that from pre- to post-RF implementation the gain in the percentage of students at or above proficient was greater in RF schools than in non-RF Title I schools. This difference is statistically significant ($p \leq .05$).

[a] California had data from the California Standards Test (CST), an English or language arts test that measures students' reading and writing skills. Because the CST measures multiple skills, rather than reading alone, results from this test are not included in this exhibit. However, an analysis of CST generated results that are similar to the results reported above for the CAT-6; third-grade students in RF schools made small but statistically significant greater gains in performance than did students in non-RF Title I schools.

Note: Shaded cells indicate that there were adequate data to support an analysis using a linear model; for all other states the analysis reflects the use of a baseline-mean model. The analysis using the linear analyses compares actual average student achievement to what the linear model predicts we would have expected in the absence of Reading First. The data for Illinois were adequate for fitting linear models in all but the state award date model.

Statistically significant differences between RF and non-RF Title I schools are indicated using the following symbols: p-value < .10 = ~, and p-value ≤ .05 = *.

See Appendix B, Exhibit B.8.2 for more detailed state-level statistics including difference in difference estimates presented in their original metrics.

Averaging effect sizes across the 24 states indicate that RF schools gained more, on average, from pre-to post-RF implementation than non-RF Title I schools on the states' third-grade reading assessments. The average effect size ranged from .17–.21 standard deviations, a statistically significant yet small difference (p < .001 for all four methods). A chi-square test comparing the average effect sizes across the four methods indicate that the findings are not statistically significantly different from one another. These effect sizes are equivalent to small differences, ranging from 2.4 to 3.0 percentage point differences in the percentage of students meeting their states' proficiency standards.

Reading Achievement in Fourth Grade

The analysis of fourth-grade scores allows us to examine whether students' exposure to Reading First in earlier grades leads to gains in their reading performance as they progress into higher grades. Fourth-grade test scores were examined in the 17 states where fourth-grade students were in third grade during the implementation of Reading First.[73] In six states (Florida, Wisconsin, Colorado, Mississippi, New Jersey, and Washington) the gain in reading performance was statistically significantly larger in RF schools than in non-RF Title I schools for at least one of four methods (Exhibit 8.3). In four of these states (Florida, Mississippi, Washington, and Wisconsin), the improvement was statistically significant for all methods. In Colorado and New Jersey only one of the four methods was statistically significant at the 0.05 level. In 11 states, there were no significant differences in gains between RF and non-RF Title I schools in any of the four methods.

To estimate the pre- to post-change in fourth-grade reading performance across states, we pooled the reading scores across states by calculating a weighted average effect size for each of the four methods. RF schools gained statistically significantly more from pre-to post-RF implementation than non-RF Title I schools; the effect size ranged from .17–.24 across the four methods (p < .01 across all four methods). A chi-square test comparing average effect sizes across the four methods indicate that results are not statistically significantly different from each other.

Converting the effect sizes into percentage point differences, they correspond to 2.0–2.9 percentage points, indicating that while statistically significant, these differences are small. That is, across states RF school gains correspond to between two and three percentage points more from pre- to post-RF implementation than non-RF Title I schools in the proportion of students meeting proficiency on their fourth-grade reading assessments.

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[73]   The post-RF implementation years included in the fourth-grade analyses are 2004–05 and 2005–06; these fourth-grade students experienced RF as third-grade students in 2003–04 and 2004–05 respectively. Information from the SEDL database indicates that the RF schools included in these analyses were still participating in RF when these students were in third grade.

Exhibit 8.3

Difference-in-Difference Effect Size Estimates for Four Methods, in RF and Non-RF Title I Schools' Fourth-Grade Reading Scores

| State | Difference-in-Difference Estimates | | | |
	State Award Date	District Award Date	Adjusted District Award Date	School Award Date
Florida		0.48*	0.31*	0.31*
Wisconsin	0.40*	0.28*	0.28*	0.30*
Colorado		0.37*	0.24~	0.21
Mississippi		0.58*	0.59*	0.60*
New Jersey	0.24~	0.15	0.17	0.25*
Washington	0.47*	0.45*	0.34*	0.42*
Connecticut	0.25	0.29~	0.29~	0.16
Montana	0.32	0.27	0.27	0.27
Louisiana	0.18~	0.11	0.16~	0.17~
Utah		0.14	0.14	0.14
North Dakota	0.07	0.01	0.01	0.01
Michigan		0.09	0.07	0.08
Kentucky	0.05	0.06	-0.08	0.00
Idaho	-0.10	0.12	0.12	0.11
Arkansas		-0.03	-0.03	-0.03
Iowa	-0.09	-0.14	-0.14	-0.14
Ohio		-0.12	-0.12	-0.12
Average Effect Size	*.20**	*.24**	*.17**	*.18**

Exhibit reads: In Wisconsin, when pre- and post-RF implementation years were defined using the state's award date, the difference in difference analysis produced an effect size of .40 standard deviations indicating that the gain from pre- to post-RF implementation in the percentage of students at or above basic level was greater in RF schools than in non-RF Title I schools. This difference is statistically significant ($p \le .05$).

Note: Statistically significant differences between RF and non-RF Title I schools are indicated using the following symbols: p-value < .10 = ~, and p-value ≤ .05 = *.

See Appendix B, Exhibit B.8.3 for more detailed state-level statistics including difference in difference estimates presented in their original metrics.

Discussion

In both third- and fourth-grade analyses of student reading performance, the estimates of the differences in reading achievement pre- and post-RF in both RF and non-RF Title I schools are quite consistent across the four analytic methods. That is, the estimates for a state were often very close across methods and the tests for statistical significance portrayed a consistent story. Further, the tests for statistical significance were consistent across methods in 22 states. In fourth grade, the tests for statistical significance were consistent in 13 of 17 states. Finally, the average effect sizes are similar across the four methods. For both the third- and fourth-grade analyses; the findings from the four methods are not statistically significantly different from one another.

Despite the fact that the findings are consistent across the four methods, this analysis of student reading performance should be interpreted with caution in light of several limitations. Although the RF and non-RF Title I schools are similar demographically on several characteristics

measured in the study, schools were not randomly assigned to receive RF funding, and therefore there could have been preexisting differences between the two groups of schools on unobserved characteristics. We cannot assume that the two groups of schools are equivalent but for the fact that one group received RF funds while the other did not. This means that the findings cannot support causal inferences that attribute observed differences in student reading achievement between RF and non-RF Title I schools to the Reading First program.

Second, year-to-year comparisons of performance are based on different cohorts of children, who may or may not be comparable over time. Therefore, changes in performance could reflect individual student differences rather than the exposure to Reading First.

Third, most states report reading scores in terms of the percent of students who meet a particular cutoff or reference point (i.e., percent at or above basic level), not in terms of each school's average test score). Such proficiency scores mask any student level changes in performance that may have occurred above or below the cutoff point. This is particularly worrisome in low-performing schools and for low-performing students; even substantial changes in student achievement can go undetected when average student reading performance does not cross a given threshold. Data on the school-level percentage of students meeting a threshold measure may, therefore, underestimate actual improvements in student performance.

Fourth, because we did not have accurate data on when each school began to implement RF, in some instances, we imputed start dates to order to identify schools' pre- and post-RF implementation years. The analysis that used states' initial award dates required no imputation because this method defines one start date for the onset of RF and this date is applied to all RF and non-RF Title I schools in the analysis. However, the analyses that used the dates RF districts received their funds required imputation for the non-RF Title I schools in districts with no RF schools and therefore, no RF district start dates; this represented 60 percent of the non-RF Title I school sample. Further, for the analysis based on the start dates of RF schools in our sample, we imputed dates for all schools not in RF sample districts; this represented 75 percent of the RF schools and 70 percent of the non-RF Title I schools in the analysis. Because these analyses required a considerable amount of imputation, it may have led us to misclassify pre- and post-RF years for some schools, and consequently may affected the results of these analyses.

Fifth, state tests typically provide global measures of students' overall reading performance, most often through reading comprehension measures. They do not measure such reading sub-skills as phonemic awareness, phonics, or vocabulary that are the focus of evidence-based classroom instruction and Reading First.

Sixth, these analyses are based on states' average school-level reading assessment scores, and because the number of schools varies widely from state to state, this poses an analytic problem. California, for example, has approximately 800 RF schools and nearly 100,000 K–3 students, whereas Delaware has eight RF schools and fewer than 1,000 K–3 students. The ability to detect statistically significant differences decreases as the number of schools within a state decreases.

In addition to these limitations, there are three potential counter-arguments that could be raised about whether these positive findings are indeed genuine. That is, the results could be influenced by 1) regression to the mean, 2) the Pygmalion effect, and 3) ceiling effects in several states. Each is discussed in more detail below.

Regression to the Mean
RF schools in the majority of states (25 of 35) were performing at a lower level than their non-RF Title I counterparts *before* the implementation of Reading First. It is possible, therefore, that the RF schools' gains relative to non-RF Title I schools are simply an artifact of regression to the mean. If the RF schools' performance levels were originally low simply by chance, one would expect their scores to rise in subsequent years not because of Reading First but because higher scores are actually characteristic of their true performance. However, 21 of the 35 states included in these analyses had three or more years of pre-RF low performance, which is not likely to have occurred by chance. In fact, states generally identified RF-eligibility on the basis of historical poor academic performance over one or more years. Therefore, absent the RF program, we would not expect such schools' performance to improve because of regression to the mean but rather to continue unchanged. We tested this assumption empirically, by estimating a correlation between the RF–Title I pre-score difference and the RF gain for each of the four methods in both grades. If regression to the mean had occurred, we would expect that the largest gains in RF schools would be in those states with the largest pre-RF differences between RF and non-RF Title I schools. The estimated correlations in third grade range from .19 to .46 and in fourth grade range from .10 to .31, and they are not significant at the .05 level. These correlations may be large enough to suggest that perhaps some of the observed differences include gains that reflect regression to the mean.

Pygmalion Effect
The results raise the question about whether the observed gains may simply be the result of Reading First being a new program, which may have the effect of energizing and mobilizing staff in their implementation efforts (i.e., the Pygmalion effect). We cannot determine whether this is indeed the case. If positive results are sustained over time, then it less likely that they are being driven by the Pygmalion effect. Until we have additional post-RF data, however, we cannot fully address this question (Rosenthal and Jacobson, 1968).

Ceiling Effect
When scores on a baseline measure are high, there is a potential ceiling effect, because there is little room for gains on that measure posttest. Third-grade baseline scores in 14 of 21 states indicate that 70 percent or more of students in non-RF Title I schools scored at or above their states' proficiency thresholds. In five of the 14 states (Mississippi, Virginia, South Carolina, Washington, and North Carolina), the proportion of RF schools' third-graders who met their states' standard was approximately 10 percentage points lower (See Appendix B, Exhibit B.8.2). In four of the five states (all but South Carolina), there were statistically significant positive findings for the RF schools. For example, in Mississippi, 77 percent of third-grade non-RF Title I students scored at or above proficient at baseline, compared to 61 percent of their RF peers. There was more opportunity for RF schools' students to cross the proficiency threshold

than was the case for their non-RF Title I counterparts. At least in some states then, the gains in student reading achievement observed in RF schools may reflect a ceiling effect rather than schools' participation in Reading First.

Reading Achievement and the Implementation of RF-aligned Activities

The primary mechanism through which the Reading First program is expected to affect positive changes in student achievement is by promoting the use of scientifically based reading instructional practices in the classroom. The program offers support to states (and districts and schools) so that they will provide opportunities for high quality professional development and research-based curricular materials, with the ultimate goal of improving student reading achievement. The analysis presented below examines whether reports of the implementation of research-based practices on surveys is related to differences in student achievement within states.

Overview of Data and Analytic Approach Used in the Analyses

Below, we provide a brief overview of the data and analytic methods used to examine the relationship between reports of Reading First-aligned practices and reading achievement. A more detailed description is presented in Appendix C.

Data
To investigate the relationship between student reading achievement and the implementation of RF activities, we rely on two data sources: 1) third-grade reading scores on state assessments (as used above); and 2) selected responses from the spring 2005 teacher survey administration from which we constructed four composite variables to characterize key aspects of teachers' reading programs: classroom reading instruction, help for struggling readers, professional development, and the use of assessments.

The sample of schools included in the analysis is drawn from the overall study sample of 1,633 schools: It includes both RF and non-RF Title I schools, because the implementation of activities aligned with Reading First can potentially occur in either type of school. Our analysis included only those schools that had teacher survey responses *and* were located in states with sufficient state test score data (n=831). Because tests and metrics vary across states, each state's reading scores were standardized by designating schools as either high- or low-performing relative to all other RF and Title I SWP schools in that state.[74] Selecting schools from only the highest and lowest quartiles yielded a final sample of 390 schools from 21 states.

Analytic Approach
This analysis explores relationships between teachers' implementation of RF- aligned activities and schools' performance on states' third-grade reading assessments. We fit a logistic regression model using the four composites to predict the probability that a school scored in the top quartile

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[74] For each state, we selected schools in the lowest quartile (at or below the 25th percentile) and the highest quartile (at or above the 75th percentile) on the state's third-grade reading assessment relative to all RF and Title I SWP schools.

(of all RF and non-RF Title I schools) on their state's third-grade reading assessment. The model also included indicator variables for each state, in order to account for state level variation in the probability of a school's being in the top quartile on the reading assessment and an indicator for Reading First or non-RF Title I status.

Student Reading Achievement and Implementation of RF-aligned Activities

A logistic regression model was fit to the data to predict a school's probability of scoring in the top quartile (relative to other RF and non-RF Title I schools in their state) using four implementation composites as explanatory variables. Only one composite, *activities for struggling readers*, was statistically significantly related to the probability that a school is in the top quartile on its state reading assessment (.69, $p < .001$) (Exhibit 8.4). This finding can be explained in terms of its marginal effect on the probability that a school would be in the top quartile. The marginal effect of this composite was .156, which means that for the average school in our sample, as the composite score increased by one standard deviation, the probability

Exhibit 8.4

Using Composite Measures of Implementation to Predict the Probability of Schools Scoring in the Top Quartile on States' Reading Tests

Parameter	Estimate	Standard Error	Marginal Effect	P-value
Intercept	1.789	.731		.015
Reading First Status	-2.077	.352	-.473	<.001
Composite Measures of Implementation				
Reading Instruction	-.270	.210	-.061	.202
Struggling Readers	.690	.162	.156	<.001
P D Activities	.180	.166	.041	.278
Uses of Assessment	-.091	.167	-.021	.587

Exhibit reads: The estimated relationship between the composite measure of *reading instruction* and the probability of being in the top quartile on the state reading assessment is -.270, with a standard error of .210. The marginal effect indicates that for the average school in our sample, as the composite score increases by on standard deviation, the probability of being in the top quartile decreases by 6.1 percentage points; this finding is not significant at the .05 level.

Note: The model also included a series of 20 dichotomous state variables (i.e., dummies) to control for state-level variation in the probability of a school's scoring in the top quartile of reading achievement.

See Appendix C, pages C-9-11 for additional details on the variables used to construct the four composite measures.

Sources: Teacher Survey (2004–05); Databases from 21 states that had school-level scores on third-grade reading assessments.

of being in the top quartile increased by 15.6 percentage points.[75] Also, the marginal effect of being an RF school was -.47, meaning that for the average RF school, the probability of being in the highest quartile was 47 percentage points less than for non-RF Title I schools. (See Exhibit 8.5, the vertical line at mean=0; the probabilities are .23 for RF schools and .70 for non-RF Title I schools.)

Exhibit 8.5 illustrates the relationship between the predicted probabilities that schools would score in the top quartile (the y-axis) and their composite scores characterizing their activities for struggling readers (the x-axis). The solid line represents RF, and the dotted line represents non-RF Title I schools. The three vertical lines represent composite scores at the one standard deviation below the mean score (0), the mean score, one and standard deviation above the mean score.

Exhibit 8.5

Using Composite Scores on Activities for Struggling Readers to Predict the Probability of Schools Scoring in the Top Quartile on States' Reading Tests
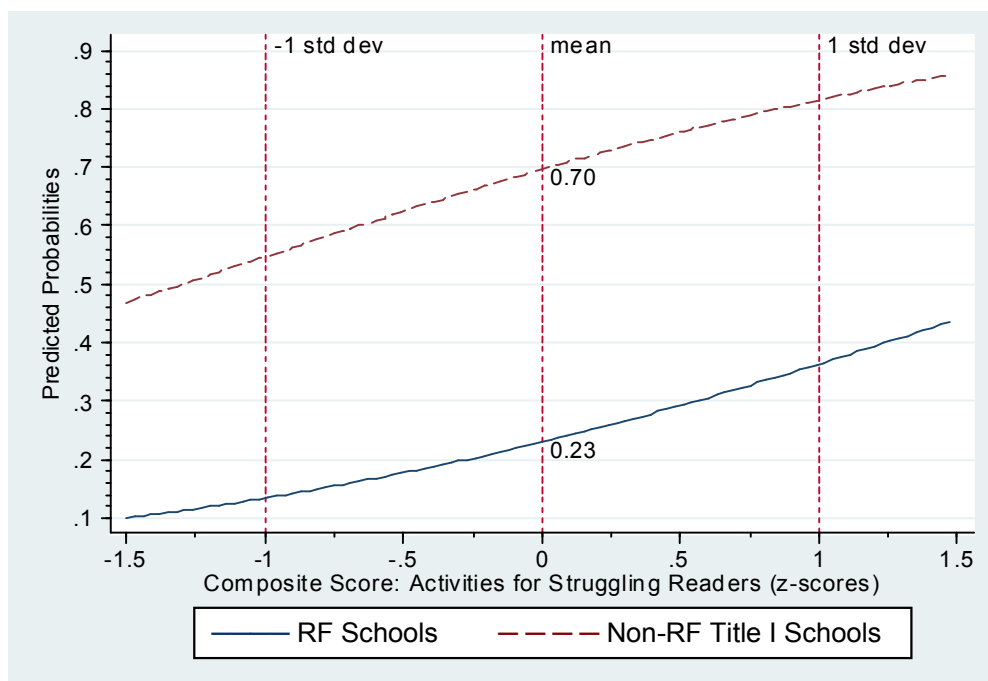

Exhibit Reads: At one standard deviation below the mean score (vertical line=-1) the predicted probability of being in the top quartile is about .12 for RF schools (solid line) and .55 for non-RF Title I schools (dotted line).
Sources: Teacher Survey (2004–05); Databases from 21 states that had school-level scores on third-grade reading assessments.

[75]   In this model, the marginal effect of a specific variable is defined as the instantaneous rate of change in the probability of a school's scoring in the top quartile when all composite measures are held constant at their mean values. Because the relationship between schools' scores on the struggling reader composite and the probability of scoring in the top quartile is curvilinear (See Exhibit 8.5), the marginal effect of 15.6 would be slightly more or less than this amount as schools' scores on this composite deviate from the mean.

There are two findings of note. First, regardless of composite score, RF schools were less likely to be in the top quartile than were non-RF Title I schools. Second, across all schools, those with higher composite scores based on their activities with struggling readers, had higher probabilities of scoring in the top quartile on their states' reading tests. For example, the predicted probability of being in the top quartile for a RF school scoring at the mean on the composite was 23 percent; however the probability increased to 36 percent for RF schools scoring one standard deviation above the mean. Similarly, non-RF Title I schools scoring at one standard deviation above the mean increased their probability of being in the top quartile to 82 percent, compared to 70 percent for schools scoring at the mean.

Only one of four composite measures was statistically significantly related to the probability that a school scored in the top quartile on their state reading assessment. The fact that we did not observe stronger links between implementation of RF-aligned activities and reading achievement may be a result of several factors. It may be that the relationship between reading performance and RF-aligned implementation is stronger than is evident in this analysis, and the measures we used here were insufficiently sensitive to accurately depict the true strength of the relationship. Alternatively, it is possible that the relationship between instruction based on SBRR and student reading achievement is not as strong as some would suggest. Another explanation is that it may be the case that students need to be exposed to more years of instruction aligned with RF before meaningful gains in their reading achievement are manifested.

Discussion

In addition to the limitations to the analysis of student reading achievement described above, there are also two other limitations specific to the investigation of the relationship between reading achievement and RF-aligned activities. First, the sample of schools included in the analysis is a sample of convenience, despite the fact that it is drawn from nationally representative samples of RF and non-RF Title I schools, because it includes only those schools with survey data and data from their states' third-grade reading assessments. Therefore, we must caution against generalizing any observed findings to larger populations of schools.

Second, the relational analysis uses measures that are differentially sensitive; the teacher survey asks detailed questions about RF activities, and the achievement measure is a very blunt assessment of third-grade reading performance. Further, the school sample includes only the extremes (highest and lowest quartiles) of the reading score distributions. We constructed a dichotomous (1/0) variable to indicate whether a school's score was in the top quartile to try to standardize reading achievement across states as best we could, given the available data. However, this coarse measure may not capture schools' improved reading performance.

In light of these limitations, the findings (or lack thereof) about the relationship between RF-aligned instruction and reading achievement should be viewed with caution.

Summary

There is limited evidence that students in RF schools improved their reading performance more quickly than their counterparts in non-RF Title I schools. A pooled analysis across states indicates that RF schools gained more, on average, from pre- to post-RF implementation than non-RF Title I schools on their states' third-grade reading assessments, a statistically significant yet small difference (average effect sizes: .17–.21, p < .001 for all four analytic methods, corresponding to a 2.4 to 3.0 percentage point difference). In 12 of 24 states the improvement in third-grade reading performance among RF schools was statistically significantly larger than in non-RF Title I schools for at least one method. Similarly, for fourth-grade reading performance, a pooled analysis across states showed a statistically significant increase, pre- to post-RF implementation, in RF schools compared to non-RF Title I schools. The improvement in fourth-grade reading performance among RF schools was statistically significant in six of 17 states for at least one of the methods.

There is little evidence of a relationship between schools' implementation of RF-aligned activities and their levels of reading performance. Of all four composite measures related to activities aligned with Reading First strategies (classroom reading instruction, strategies to help struggling readers, participation in professional development and uses of assessment to inform instruction), only one, strategies to help struggling readers, was statistically significantly related to the probability that a school is in the top quartile in its state reading assessment.

Chapter 9: Conclusions

The Reading First Program addresses the national problem of underachievement in literacy in the early elementary grades by promoting the use of research-based reading programs in K–3 classrooms. The central goal of the Reading First Program is to ensure that all students read well by the end of grade three, thereby setting the stage for students to reach their full academic potential in subsequent grades.

The *Reading First Implementation Evaluation: Interim Report* presented initial evidence that the Reading First Program was being implemented in districts and schools as intended by the legislation, based on surveys administered during the 2004–05 school year. Findings from the current analyses of 2006–07 survey data suggest that RF schools continue to implement the program as intended. Specifically, three major conclusions can be drawn from the findings described in this report. First, reading programs implemented in RF schools differ from those in non-RF Title I schools in several important ways. Second, from 2004–05 to 2006–07, reading programs in non-RF Title I schools have changed such that they increasingly aligned with the principles of Reading First. Third, based on pooled analyses of states' reading assessment scores, there is limited evidence that third-and fourth-grade students in RF schools improved their reading performance over time more quickly than did their counterparts in non-RF Title I schools.

The current findings suggest that there are meaningful differences in the reading programs implemented in RF and non-RF Title I schools. Reading First schools' K–3 classrooms devote more time to reading instruction than those in non-RF Title I schools, representing almost two additional hours per week of reading instruction for students in RF schools. Further, RF schools are more likely to use reading materials and instructional practices aligned with scientifically based reading research than their counterparts in non-RF Title I schools. RF schools are more likely to have reading coaches who assist teachers in implementing their reading programs and to have their teachers participating in reading-related professional development. They are also more likely to report using assessments to guide instruction and placing struggling readers in intervention programs.

While there are some notable differences between reading programs in the two types of schools, there is evidence of increased occurrence of RF activities in non-RF Title I schools in that these schools also report activities increasingly aligned with the principles of Reading First. In 2006–07, staff in non-RF Title I schools reported that a higher proportion of scientifically based teaching materials and strategies were central to their instruction than had in 2004–05. This increased use of materials and strategies aligned with scientifically based reading research (SBRR) is coupled with teachers reporting increased participation in professional development in the five dimensions of reading instruction (phonemic awareness, phonics, vocabulary, fluency and comprehension). These findings are consistent with findings reported by the Center on Education Policy on participation of over 3,000 non-Reading First districts in state-led Reading First professional Development (Center on Education Policy, 2007).

In addition, teachers in non-RF Title I schools reportedly have increased their activities to help struggling readers by greater use of diagnostic assessments to identify struggling readers and by increasingly placing these students in intervention programs. Further, from 2004–05 to 2006–07, *both* RF and non-RF Title I schools report significant and substantial increases in the percentages of teachers reporting that time is set aside to coordinate with ELL staff about reading interventions provided to struggling readers. Finally, an increasing percentage of teachers in non-RF Title I schools reported needing additional professional development in using assessments to guide instruction and to better assist struggling readers, which provides some evidence of increased attention to these issues in non-RF Title I schools. These findings provide evidence that while RF may have initially represented a departure from standard practice for teaching reading in the early grades, the principles of RF are increasingly becoming the norm in low achieving schools.

Despite the increasing similarities between RF and non-RF Title I schools' reading programs, there is limited evidence from this study that student reading achievement is improving more rapidly in RF schools than in non-RF Title I schools. However, these analyses have several limitations (described in Chapter 8) most notably a) the non-equivalence of the comparison schools to the RF schools, and b) the bluntness of the reading achievement measure (e.g., the proportion of students at or above a state-specific predetermined criterion). Also, the survey findings indicate that RF-like practices are increasingly reported by staff in non-RF Title I schools. This could, in effect, reduce differences in student reading performance between the two groups of schools.

Further research is necessary to apply more rigorous evaluation designs and analytic techniques to assess the extent to which Reading First improves student reading achievement. The recently released *Reading First Impact Study: Interim Report* presented findings based on a more rigorous design (regression discontinuity) in a sample of over 240 schools; and that report indicated no significant impacts on student reading achievement for students in grades 1, 2 and 3.

The *Reading First Implementation Evaluation* has provided an informative, broad overview of reading programs in a nationally representative sample of RF schools at two points in time, compared to non-RF Title I schools. However, more research is needed to understand the content of these programs more deeply. For example, while we learned that there is increased attention to the needs of struggling readers, and that staff in both RF and non-RF Title I schools increasingly report placing these students in interventions, little is known about the content and features of these interventions. The currently available evidence that these students are being served does not address whether their needs are ultimately being met through use of research-based, high quality materials and instructional strategies. Having a better understanding of the specific interventions used to serve struggling students would add to emerging evidence that some intervention programs hold promise in raising the reading achievement of struggling third- and fifth-graders (Torgeson, et. al., 2006). Further, while we know that school districts play a key role in shaping reading programs and providing professional development, data available to date provide few details about the specific roles played by district staff. The ongoing *Reading*

First Implementation Study: 2008–09 is designed to address these and other in-depth questions that arise from the findings presented in this report.

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Appendix A

The Study Samples and the Sampling Weights

Appendix A: The Study Samples and the Sampling Weights

The School and Respondent Samples

The study's evaluation questions require sampling from three distinct groups of schools: (1) new RF schools (schools funded in January 2004 or later), (2) mature RF schools (schools funded on or before Dec. 31, 2003), and (3) non-RF Title I, schoolwide project (SWP) schools—schools in which at least 40 percent of the students are eligible for free or reduced-price lunches. We limited the non-RF Title I sample to SWP schools because that is the population from which RF schools are typically drawn. To identify the populations of RF and non-RF Title I schools from which to select the study samples, we constructed sampling frames using data provided by the U.S. Department of Education[76] Schools that did not have at least three of the target grades (K–3) were excluded from the sampling frame.

Each of the three populations described above was sampled to yield nationally representative samples of schools. In order to ensure that that the three samples were representative of their respective populations, we stratified each group of schools into four census regions and four levels of school size, in which size represents the number of students in each school; this process created 16 strata for each sample. All RF schools under the jurisdiction of the Bureau of Indian Affairs (BIA) were included in our sample in an additional stratum. We sorted the schools within each stratum by state and urbanicity (four levels) to ensure that each sample would provide a systematic representation on these demographic characteristics. Finally, we selected a systematic sample of schools from each stratum.

Exhibit A.1 summarizes the RF and non-RF Title I samples starting with the population and ending with the respondents in the 2005 data collection. For Reading First, we began with a population of 3,911 schools in the fall of 2004; these schools were identified as RF schools in the U.S. Department of Education's database. To construct samples of newly funded and mature RF schools, we sorted schools into the two groups based on the date when schools' *districts* received their RF subgrants (There was no school-level information indicating when schools received RF funds from their districts.).

Schools were designated as new or mature based on the Reading First program guidelines to states for their annual performance reports; "…for schools receiving grants between July 1 and December 31 of any reporting period, the current school year will be considered in the first year of implementation." Therefore, schools in districts that were awarded subgrants before Dec. 31, 2003 were designated as mature, because data collection occurred in spring 2005, when to the

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[76] The Southwestern Educational Development Laboratory (SEDL) maintained a database for the U.S. Department of Education that tracked awards of Reading First grants and subgrants to states and districts. We obtained this database in October 2004 to identify the then current population of RF schools. To identify the appropriate population of Title I schools, we relied on the Common Core of Data (CCD)—a database that contains relevant demographic information on all schools nationwide. At the time we drew the sample, the CCD included data from the 2002–03 school year.

best of our knowledge those schools were in at least their second year of implementation. All other RF schools were classified as newly funded as of the beginning of the first data collection in 2005. The 1,092 responding schools consisted of 545 mature and 547 newly funded schools. However, after conducting the 2005 data collection, we used principals' survey responses to verify and correct, if necessary, these classifications. Approximately 88 percent of these schools were correctly classified as new or mature. Most classification errors reflected inaccurate designations as mature; principals' survey responses showed that because their schools were in their first year of implementation, they should be classified as "new." The RF sample included 642 newly funded and 450 mature schools. For non-RF Title I schools, we began with a population of 14,684 schools from which staff from 541 schools returned surveys in 2005 (Exhibit A.1).

Exhibit A.1

The RF and Non-RF Title I School and Respondent Samples for the Spring 2005 Data Collection
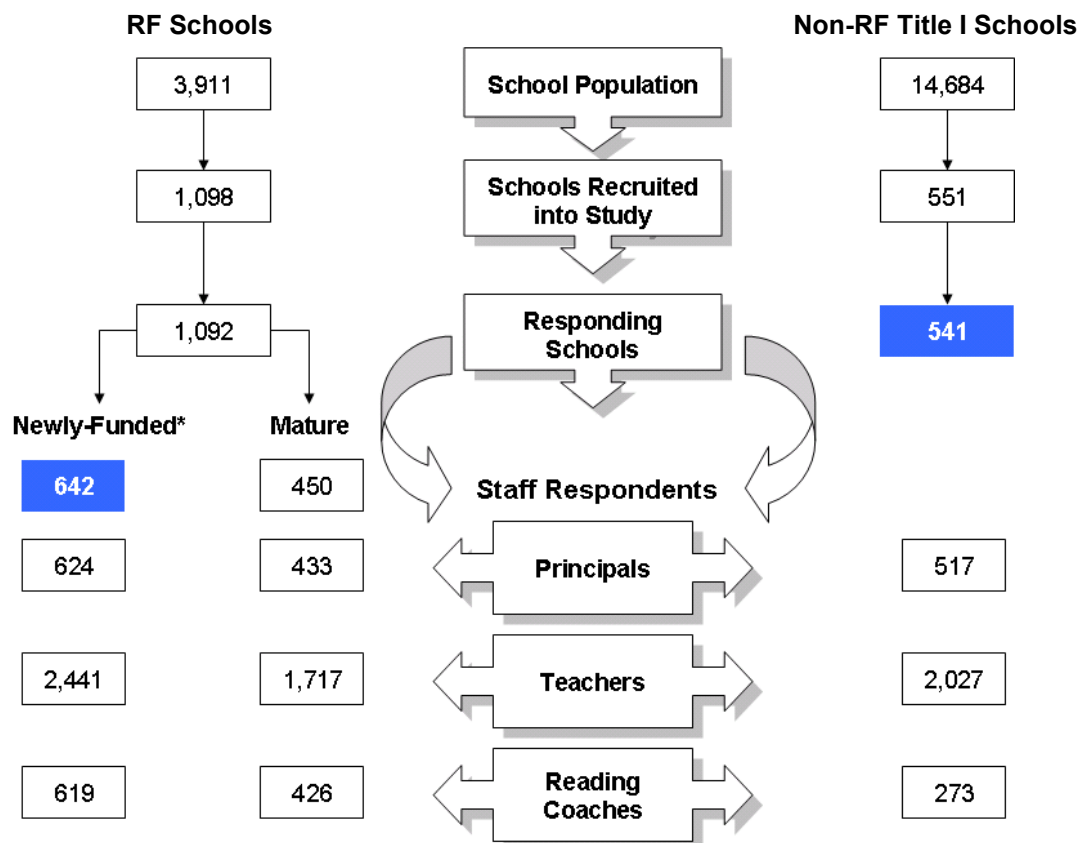
Source: Abt Associates' Receipt Tracking File (2005) and Principal Survey (2005).

The shaded boxes (642 newly-funded RF schools and 541 non-RF Title I schools) represented the potential sample of schools to be surveyed in 2007. The responding sample was reduced to 579 RF and 439 non-RF Title I schools due to refusals, nonresponse, ineligibility (i.e., no longer a Reading First or Title I school). (See Exhibit 1.2 in Chapter 1.)

The Principal, Reading Coach, and Teacher Samples

In preparation for the 2005 survey data collection, we obtained complete teacher rosters (grades K–3) from each school successfully recruited into the study. Each school's principal was included in the evaluation. Similarly, all reading coaches, typically one per school, were included in the evaluation sample. Staff roster information was updated prior to the 2007 data collection. The teacher sample included one randomly selected teacher from each grade K–3. Some study schools had fewer than four teachers in the sample because the school only had three of the four target grades (i.e., a K–2 school), or because the school has only combined classrooms (i.e., K–1, 1–2, 2–3). When possible, teachers completing surveys in 2005 were included as potential respondents again in the 2007 data collection. Approximately half of the teachers surveyed in 2007 were respondents in 2005.

Response Rates

Exhibit A.2 presents response rates at the school and individual respondent levels for the 2007 survey data collection. About 78 percent of the schools returned completed surveys from all of the selected respondents within their schools; another 12 percent of schools completed all but one of the surveys and only 41 schools, or four percent, were nonrespondents, returning no surveys. Response rates were somewhat higher for RF schools compared to non-RF Title I schools; 90 percent of RF schools were either complete or missing only one survey, compared to 84 percent for non-RF Title I schools. It is important to note here that RF schools are required as part of their acceptance of a subgrant to participate in a national evaluation. In addition, non-RF Title I schools in districts that received RF subgrants are also required to participate in such an evaluation. However, participation is not required of non-RF Title I schools that are in districts that have not received RF subgrants.

Exhibit A.2

Survey Data Collection Response Rates for RF and Non-RF Title I Schools, 2006–07 School Year

	Total		RF Schools		Non-RF Title I Schools	
	Response Rate		Response Rate		Response Rate	
	Number	Percent	Number	Percent	Number	Percent
Response Status						
Complete	826	78%	492	83%	334	70%
Almost complete	130	12	62	10	68	14
Partial	62	6	21	5	41	9
Nonrespondents	41	4	10	2	31	7
Total	1,059	100	585	100	474	100
Type of Respondent						
Principal	974	91%	554	94%	420	88%
Teachers (K–3)	3,793	91	2,190	94	1,603	86
Reading coach	813	95	571	97	242	89
Total	5,580	91	3,315	95	2,265	87

Source: Abt Associates' Receipt Tracking File (2007).

The response rate across all types of respondents and all schools was 91 percent; of 6,108 potential respondents, 5,580 individuals returned completed surveys. For teachers in RF schools response rates were approximately 94 percent across the four grade levels, compared to 86 percent for teachers in non-RF Title I schools.

Sampling Weights

School-level Weights

The construction of the school weights is based on the original recruitment sample of 1,861 schools (1,143 RF and 718 non-RF Title I schools). Based on the stratification described above, schools from each stratum were weighted to represent that stratum's population of schools and then adjusted for nonresponse and ineligibility. This school-level weight was constructed for the 1,633 schools (1,092 RF and 541 non-RF Title I) that returned at least one survey in 2005. The same method was used to construct weights for principals and for reading coaches. Because, in 2005, we had principal surveys from 1,574 rather than 1,633 schools, and reading coach surveys from 1,318 schools rather than 1,633 schools, these weights were adjusted for nonresponse at the principal and reading coach levels. In 2007, these three sets of weights were adjusted to account for refusals, ineligibility and nonresponse.

Exhibit A.3 displays the unweighted respondent samples of schools, principals and reading coaches, based on the 2007 data collection. There were 1,018 schools that completed surveys in 2007; these schools represent national populations of 1,555 RF schools and 12,909 non-RF Title I schools. Note that the principal respondent sample is adjusted to represent the same national populations of schools (since all schools have principals). Not all schools, particularly non-RF Title I schools, have reading coaches, this is reflected in the smaller population estimates for reading coaches.

Exhibit A.3

Unweighted and Weighted 2007 Sample Counts for RF and Non-RF Title I Schools, Principals and Reading Coaches

Respondent	Unweighted Sample	Weighted Population
School		
RF	579	1,555
Non-RF Title I	439	12,909
Total	1,018	14,464
Principal		
RF	552	1,555
Non-RF Title I	413	12,909
Total	965	14,464
Reading. Coach		
RF	569	1,540
Non-RF Title I	236	7,391
Total	805	8,931
Source: Abt Associates SAS Analytic datasets (2007).		

Teacher-level Weights

As part of the analysis of the 2005 survey data, we constructed teacher weights for two reasons. First, some questions on the teacher surveys ask about *classroom rather than school* activities, and because we have a national sample of classrooms in RF and non-RF Title I schools, we wanted to be able to generalize to this *classroom population*. Second, by design, we had only one teacher respondent per grade per school; this teacher represents the population of teachers in that school at that grade. That population can vary substantially—from one teacher to 10 or 12 teachers. If we applied the school weights to teacher responses, all teachers' responses would have equal weight, regardless of the actual numbers of teachers at that grade level. For these reasons, we constructed a set of teacher weights that allowed us to generate estimates for the population of teachers in RF and non-RF Title I schools at each of the four target grades (K–3).

The teacher weights were constructed to represent the number of teachers in their school at their grade levels. These weights were also adjusted to include teachers who teach multiple grades in their school. The "within-school" teacher weights are multiplied by the school-level weight in order to represent the population of teachers across all RF and non RF Title I schools. For example, if a first-grade teacher in our sample was in a school with three other first-grade teachers, her 'within-school' weight would be four. If the school-level weight for this school were five, then teacher-level weight would be 20 (five * four). The teacher weights were recomputed after the 2007 data collection to account for refusals, nonresponse and ineligibility. Exhibit A.4 presents the sums of both the teacher weights *and* the within-school teacher weights.

Exhibit A.4

Weighted Estimates of the Population of Teachers in RF and Non-RF Title I Schools, by Grade

	Weighted Number of Teachers			
	RF Schools		Non-RF Title I Schools	
Grade Level	Teacher Weight	Within-school Teacher Weight	Teacher Weight	Within-school Teacher Weight
Kindergarten	5,937	2,152	45,207	1,515
1st grade	6,328	2,286	47,963	1,605
2nd grade	6,114	2,205	45,125	1,512
3rd grade	5,605	2,027	42,988	1,438
Total	23,984	8,670	181,283	6,070

Source: Abt Associates' SAS analytic datasets (2007).

Within-school weights were used in all *teacher-level* analyses comparing 2005 and 2007 responses; as reported in Chapter 1, there was a high level of attrition (approximately 50 percent) in the teacher sample from 2005 to 2007. Consequently, we are unable to link individual teachers from year to year.[77] This makes fitting a multilevel model (where survey time point is nested within teachers, which are then nested within schools) that accounts for a combined within-school teacher/school weight infeasible (as was done in the Interim Report). Therefore,

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[77]   Because the sample is drawn at the school level, this does not undermine our ability to generate nationally representative estimates of characteristics of reading programs in RF and non-RF Title I schools.

individual teacher responses were first weighted using within-school teacher weight. For example if, in a particular school there are eight first-grade teachers, the first-grade teacher respondent would have a within-school weight of eight. Second, school-level averages were computed based on the weighted sum of teacher responses within each school. Last, we fit statistical models to estimate comparative differences using the school-level averages and weighting them using school-level weights (See Appendix C). This means that, for teachers in non-RF Title I schools, the findings presented in the Interim Report, do not necessarily match the 2005 findings presented in the Final Report, even though the underlying samples are equivalent.

Appendix B

Back-up Exhibits

Exhibit B.2.1

School Enrollment and Urbanicity in RF and Non-RF Title I Schools, 2006–07 School Year

	RF Schools		Non-RF Title I Schools		
	Mean	**Standard Error**	**Mean**	**Standard Error**	**p-value**
Enrollment	484	12.0	453	11.5	0.068
	Percent	**Standard Error**	**Percent**	**Standard Error**	**p-value**
Very small (1–99)	4%	0.78%	3%	0.84%	0.825
Small (100–249)	13	1.40	16	1.72	0.194
Medium (250–499)	41	2.25	44	2.44	0.448
Large (500–749)	28	2.16	28	2.24	0.926
Very large (750+)	14	1.73	9	1.46	0.036
Locale					
Urban	40	2.35	36	2.47	0.365
Suburban	35	2.42	35	2.23	0.900
Rural	25	1.87	29	2.24	0.231

Source: Principal Survey (2007); Question A3a.

Exhibit B.2.2

Mobility Rates, Attendance Rates and Changes in Enrollment in RF and Non-RF Title I Schools, 2006–07 School Year

	RF Schools		Non-RF Title I Schools		
Change in Enrollment in Last Five Years	**Percent**	**Standard Error**	**Percent**	**Standard Error**	**p-value**
Decreased	39%	2.43%	40%	2.24%	0.806
Remained Stable	31	2.10	28	2.22	0.322
Increased	29	2.10	32	2.30	0.298
Mobility Rate	18	0.69	17	0.86	0.612
Attendance Rate	93	0.55	93	0.59	0.801

Source: Principal Survey (2007); Questions A3c, A3b, and A4

Exhibit B.2.3a

Years of Experience for Staff in RF and Non-RF Title I Schools, 2006–07 School Year

	RF Schools		Non-RF Title I Schools		
	Mean	Standard Error	Mean	Standard Error	p-value
Principals					
Years experience as principal	7.2	0.27	8.2	0.32	0.019
Years in this school	4.8	0.19	5.7	0.25	0.007
Teachers					
Years experience	14.1	0.29	15.5	0.34	0.001
Years in this school	9.3	0.20	10.9	0.27	0.000
Reading Coaches					
Years experience as a teacher	17.7	0.64	16.8	0.67	0.335
Years in this school	9.7	0.52	9.3	0.57	0.661
Years as reading coach in this school	3.3	0.40	4.5	0.66	0.107
	Percent	Standard Error	Percent	Standard Error	p-value
Schools with Reading Coaches [a]	99%	--	57%	--	---
Principals in this school three years or less	51*	2.30	44	2.40	0.036

[a] These estimates are computed by dividing the weighted N of schools with reading coaches by the total weighted N of schools (for each group of schools, RF and non-RF Title I).
Source: Principal Survey (2007); Questions A1and A2; Teacher Survey (2007); Question A1; Reading Coach Survey (2007); Questions A1, A2, and A3.

Exhibit B.2.3b

Percent of Staff that Are in Their Current RF and Non-RF Title I Schools for Three Years or Less, 2006–07 School Year
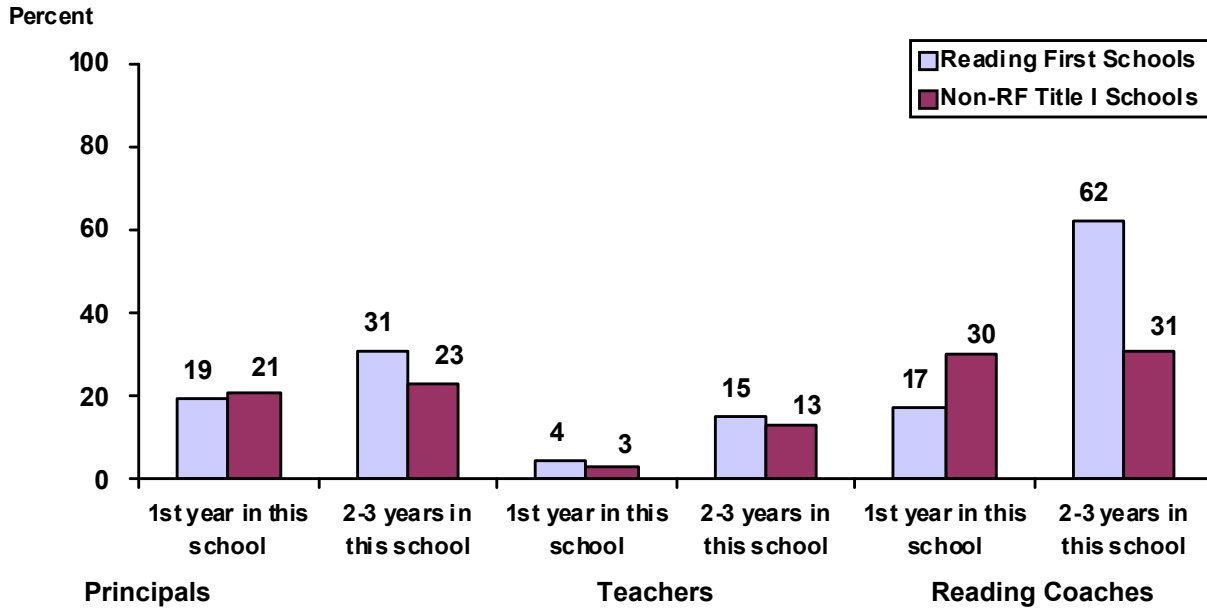
Source: Principal Survey (2007); Questions A1and A2; Teacher Survey (2007); Question A1; Reading Coach Survey (2007); Questions A1, A2, and A3.

Exhibit B.2.4

Preservice Training on the Five Dimensions of Reading: Teachers' Ratings on Preparedness, 2006–07 School Year

| | Teachers | | | | |
| | RF Schools | | Non-RF Title I Schools | | |
Dimension	Mean Self-Rating	Standard Error	Mean Self-Rating	Standard Error	p-value
Phonemic Awareness	3.1	0.04	3.1	0.04	0.397
Decoding	3.2	0.03	3.2	0.04	0.571
Vocabulary	3.3	0.03	3.4	0.03	0.028
Comprehension	3.4	0.03	3.5	0.03	0.074
Fluency	3.0	0.04	3.1	0.04	0.020

Source: Teacher Survey (2007); Question A3.

Exhibit B.2.5

Student Characteristics in RF and Non-RF Title I Schools, 2006–07 School Year

	RF Schools		Non-RF Title I Schools		
	Percent	Standard Error	Percent	Standard Error	p-value
Receive Special Education Services	8%	0.28%	8%	0.33%	0.861
Receive ESL Instruction	18	1.11	11	0.88	0.000
Instruction in Language Other than English	6	0.68	4	0.71	0.095
Reading at or above grade level	54	1.01	60	1.12	0.000

Source: Principal Survey (2007); Question A5b-A5e.

Exhibit B.2.6

Size of Reading First Grant, Per School and Per Pupil, 2004–05 School Year

	Newly Funded Reading First Schools		Mature Reading First Schools		
	Mean	Standard Error	Mean	Standard Error	p-value
RF Grant Amount					
Per School	$179,136	$5295	$127,175	$4507	0.000
Per Pupil (K–3)	903	43	607	50	0.000

Source: Principal Survey (2005); Questions A4 and B6.

Exhibit B.2.7

Nonfinancial External Assistance for K−3 Reading Program Activities in RF and Non-RF Title I Schools, 2006–07 School Year

| Type of Assistance | RF Schools | | Non-RF Title I Schools | | |
	Percent	Standard Error	Percent	Standard Error	p-value
Planning professional development	76%	1.99%	65%	2.38%	0.000
Interpreting assessment results	75	1.98	65	2.35	0.001
Conducting classroom observation	73	2.08	46	2.51	0.000
Providing technical assistance in implementing core reading programs	65	2.19	45	2.50	0.000
Selecting professional development providers	63	2.29	49	2.54	0.000
Selecting assessment instruments	54	2.33	54	2.48	0.898
Selecting instructional programs/materials	52	2.33	53	2.50	0.794
Reviewing reading program effectiveness	64	2.23	42	2.50	0.000
Conducting demonstration lessons	57	2.31	45	2.52	0.001
Diagnosing needs of struggling readers	58	2.30	51	2.52	0.027
Setting up intervention programs for struggling readers	58	2.32	52	2.51	0.111
Providing technical assistance for using supplementary reading materials	61	2.31	47	2.52	0.000
Conducting needs assessment for professional development	48	2.33	36	2.40	0.000
Leading teacher study groups	37	2.20	29	2.33	0.011
Recruiting staff with reading expertise	28	2.15	24	2.16	0.126

Source: Principal Survey (2007); Question B2.

Exhibit B.2.7a

Sources of Funding for K–3 Reading Programs in RF and Non-RF Title I Schools, 2006–07 School Year

Source of Funding	RF Schools		Non-RF Title I Schools		
	Percent	**Standard Error**	**Percent**	**Standard Error**	**p-value**
District general funds	82%	1.8%	91%	1.4%	0.000
State funds for reading programs	56	2.3	54	2.5	0.461
State textbook funds	45	2.3	53	2.5	0.021
Title I	91	1.3	98	0.8	0.000
Title II	40	2.2	47	2.5	0.033
Title III	23	2.0	25	2.1	0.371
Comprehensive School Reform	9	1.4	6	1.2	0.165
21st-Century Community Learning Centers	17	1.7	13	1.7	0.071
Reading First	99	0.1	0	0.3	0.000
Professional dev. funds	49	2.3	52	0.3	0.391
Private grants	9	1.3	17	0.2	0.001

School Size (Enrollment)	Mean N of Sources	Standard Error	Mean N of Sources	Standard Error	p-value
1–249 students	4.7	0.22	4.5	0.17	0.663
250–499	5.2	0.14	4.3	0.13	0.000
500–749	5.5	0.18	4.7	0.16	0.002
750+	5.2	0.26	5.0	0.37	0.785
Total	5.2	0.09	4.5	0.09	0.000

Source: Principal Survey (2007), Question B1.

Exhibit B.3.1

Daily Scheduled Reading Block and Mean Length of the Reading Block for RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	Grades	2004–05			2006–07			2006–07 – 2004–05		
		RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Schools with a reading block	K	11%	1.41%	0.000	9%	1.30%	0.000	-2.6%	1.30%	0.130
	1-3	7	1.06	0.000	6	1.03	0.000	-1.6	1.31	0.229
Schools with reading blocks < 90 minutes	K	-24	2.28	0.000	-25	2.34	0.000	-0.3	3.10	0.930
	1-3	-22	1.64	0.000	-20	1.65	0.000	2.2	2.26	0.340
Mean length of reading block (in minutes)	K	8.8	1.85	0.000	7.6	1.90	0.000	-1.2	2.41	0.621
	1-3	12.2	1.76	0.000	13.6	1.87	0.000	1.4	2.02	0.501

Source: Reading Coach Survey and Principal Survey (Question D2 in 2005, Question D1 in 2007)

Exhibit B.3.2

Average Minutes Per Day of Reading Instruction in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Kindergarten	24.2	2.14	0.000	24.6	2.15	0.000	0.5	2.61	0.863
Grades 1–3	19.9	1.42	0.000	21.4	1.50	0.000	1.6	1.82	0.389

Source: Teacher Survey (Question C1 in 2005, Question B1 in 2007)

Exhibit B.3.3

Changes to Reading Program Materials for RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Changes to Reading Programs	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Adopted a new core reading program	24%	2.59%	0.000	-14%	1.79%	0.000	-37.6%	3.17%	0.000
Added a new intervention program for struggling readers	31	2.71	0.000	-6	3.16	0.124	-37.2	4.15	0.000
Added new supplementary materials	11	2.79	0.000	-16	3.16	0.000	-26.8	4.05	0.000
Added new materials for ELLs	14	2.81	0.000	-12	2.48	0.000	-26.3	3.78	0.000

Source: Reading Coach Survey (Question C3 in 2005, C2 in 2007) and Principal Survey (Question D7 in 2005, D5 in 2007).

Exhibit B.3.4

Characteristics of Reading Materials as Reported by Reading Coaches in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Characteristics of Reading Materials	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
K–3 classrooms have ample, high quality instructional materials	14%	3.08%	0.000	20%	3.23%	0.000	6.2%	4.22%	0.144
K–3 teachers are experiences with reading intervention materials and strategies	-9	3.65	0.010	9	3.91	0.016	18.3	4.83	0.000
Reading intervention materials are aligned with SBRR	9	2.82	0.002	14	2.83	0.000	5.2	3.96	0.191

Source: Reading Coach Survey (Question H1 in 2005, Question G1 in 2007).

Exhibit B.3.5

Responsibility for Selection of Reading Materials in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Selection of a specific core reading program									
State	12%	2.61%	0.000	13%	2.78%	0.000	0.3%	3.48%	0.940
District	-2	2.19	0.065	-1	2.21	0.369	1.3	2.66	0.625
Principal	5	3.02	0.006	6	3.28	0.007	1.1	3.61	0.756
Reading Coach	9	3.60	0.001	12	3.87	0.000	3.0	4.40	0.494
Selection of Supplemental Reading Program Materials									
State	14	2.10	0.000	15	2.37	0.000	0.3	2.81	0.908
District	5	3.01	0.339	11	3.22	0.003	5.8	4.09	0.156
Principal	-2	2.78	0.334	-4	3.05	0.294	-1.5	3.86	0.706
Reading Coach	7	3.44	0.030	11	3.67	0.000	3.5	4.73	0.466
Selection of Intervention Reading Program Materials for use with Struggling Readers									
State	16	2.07	0.000	19	2.37	0.000	2.9	2.70	0.277
District	5	2.97	0.462	6	3.21	0.086	1.9	3.74	0.607
Principal	-6	2.77	0.016	-5	3.00	0.191	1.3	3.80	0.740
Reading Coach	4	3.32	0.158	4	3.54	0.073	-0.9	4.46	0.841

Source: Principal Survey (Question D4 in 2005, D2 in 2007).

Exhibit B.3.6

State and District Guidance in RF and Non-RF Title I Schools as Reported by Reading Coaches, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
The district provides direction concerning reading instruction	3%	3.33%	0.538	6%	3.75%	0.126	2.6%	4.58%	0.570
The state provides direction concerning reading instruction	21	3.52	0.000	19	3.33	0.000	-2.4	4.44	0.594

Source: Reading Coach Survey (Question H1 in 2005, Question G1 in 2007).

Exhibit B.3.7

Number of Core Reading Programs Used in Grades K–3 in RF and Non-RF Title I Schools, 2006–07 School Year

	2006–07		
Number of Core Reading Programs	**RF-Title I Difference**	**Standard Error**	**p-value**
One core reading program for each grade served, K–3			
Same program across grades	20%	3.11%	0.000
Multiple programs across grades	-6	1.67	0.000
Multiple core reading programs for at least one grade served, K–3	-14	2.94	0.000

Source: Reading Coach Survey and Principal Survey, Question C1

Exhibit B.3.8

Core Reading Programs Used by RF and Non-RF Title I Schools, 2006–07 School Year

Publisher	Program	Percent of Schools	
		RF	Non-RF Title I
American Reading Company	100 Book Challenge	0.0	0.2
Benchmark Education Co.	Phonetic Connections	0.0	0.2
Developmental Studies Center	Making Meaning	0.0	0.8
Elsa Hagan	Esperanza: Multisensory Spanish Language Program	0.3	0.0
Sarah Hawthorne	Read With Sarah	0.0	0.3
Great Books Foundation	Jr. Great Books	0.0	0.2
Hampton Brown	Avenues Leveled Books +	0.3	0.0
	Phonics and Friends	0.2	0.0
	Reading Basics	0.2	0.0
Harcourt	Collections	0.9	7.6
	Rigby Reading	2.1	4.2
	Signatures	0.0	1.0
	Trofeos (Spanish version of Trophies)	0.2	0.0
	Trophies	22.5	16.0
	Unspecified	0.5	0.3
Heinemann	Balanced Literacy (for ELL students)	0.0	0.3
	Fountas Pinnel units of study	0.0	5.3
	Guided Reading	0.0	0.3
	Unspecified	0.0	0.3
Houghton Mifflin	Early Success/Soar 2 Success/ Si Puedo	0.0	0.3
	Horizons	1.6	3.1
	Invitation to Literacy	1.6	4.6
	Lectura (Spanish Version of Reading California)	5.7	2.3
	Legacy of Literacy	4.2	4.8
	Nation's Choice	10.7	2.5
	Reading	9.8	10.1
	Reading In Progress	0.0	0.2
	State Specific Edition	3.3	2.3
	Unspecified	0.3	0.5
Language Circle Enterprises	Project Read	0.0	0.5
McGraw-Hill	Foro Abierto (Spanish version of Open Court)	0.8	0.0
	Kaleidoscope	0.3	0.0
	Lectura	1.0	0.0
	Open Court	15.4	9.8
	Reading	7.0	10.5
	Reading Mastery	5.8	4.1
	Spotlight on Literacy	0.0	2.0
	Treasures/Triumphs	0.0	1.7
	Unspecified	0.3	0.2
McGraw-Hill/SRA	Corrective Reading	0.3	0.0
McGraw-Hill/Wright Group	Breakthrough to Literacy	0.3	0.2
Metropolitan Teaching & Learning Company	Metro/Reading Central/other reading programs	0.0	0.2
Mondo	Guided Reading	0.0	0.2
	Mondo Book Shop	0.2	0.0
National Geographic	Windows on Literacy	0.0	0.2
NCEE	America's Choice	0.0	0.5
Orton and Gillingham	Various	0.0	0.3
Owens	The Learning Network	0.0	0.2
Pearson Learning	Words Their Way	0.0	0.2
Renaissance Learning Inc.	Accelerated Reading	0.0	0.3
Saxon	Saxon Phonics	0.2	6.8

(Continues)

Exhibit B.3.8

Core Reading Programs Used by RF and Non-RF Title I Schools, 2006–07 School Year (Continued)

Publisher	Program	Percent of Schools	
		RF	**Non-RF Title I**
Saxon (Continued)	Unspecified	0.0	0.4
Scholastic	Guided Reading	0.2	0.8
	Literacy Place	0.1	2.9
	Reading Counts	0.0	0.2
	Storyworks	0.0	0.2
	Unspecified	0.0	0.7
Scott Foresman	Celebrate Reading!	0.0	0.5
	Early Reading Intervention	0.2	0.5
	Lectura (Spanish version of Reading)	0.8	0.2
	Leveled Readers	0.2	0.0
	Literacy Works	0.3	3.0
	Reading	13.0	12.2
	Reading Street	0.3	0.5
	State Specific Edition	2.4	4.9
	Unspecified	0.2	0.7
Silver Burdett Ginn	Literature Works	0.0	0.6
Sopris	Language!	0.3	0.3
	Read Well	2.8	1.7
	Unspecified	0.3	0.0
Spalding Education International	Spalding	0.0	0.3
Success for All	Success for All	3.2	4.1
Teachers College	Reading and Writing Project/Workshop	0.0	0.5
Voyager	Passport	0.5	0.5
	Universal Literacy	4.8	2.2
	Unspecified	0.1	0.3
Waterford Institute	Waterford	0.0	0.2
Wright Group	Early On-the-Mark Kit	0.1	0.0
	Guided Reading	0.0	0.7
	Unspecified	0.6	5.4
Other	Unspecified	1.6	4.9
Core reading program developed by teachers or other school personnel		1.5	7.3

Source: Reading Coach Survey and Principal Survey, Question C1

Exhibit B.3.9

Reading Coach Reports of Teacher Experience with Core Reading Program in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
The core reading program is aligned with SBRR	16%	2.60%	0.000	17%	3.04%	0.000	1.2%	3.68%	0.748
K–3 teachers are experienced with the core reading program	-9	3.41	0.001	19	3.34	0.000	28.2	4.49	0.000

Source: Reading Coach Survey (Question H1 in 2005, Question G1 in 2007).

Exhibit B.3.10

Supplemental Reading Materials in RF and Non-RF Title I Schools as Reported by Reading Coaches, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Supplemental reading materials are aligned with SBRR	10%	3.17%	0.001	15%	3.23%	0.000	5.0%	4.57%	0.271
K–3 teachers are experienced with the supplemental reading materials	-13	3.75	0.000	11	3.89	0.002	24.3	5.09	0.000

Source: Reading Coach Survey (Question H1 in 2005, Question G1 in 2007).

Exhibit B.3.11

Knowledge and Motivation of Teachers in RF and Non-RF Title I Schools as Reported by Reading Coaches, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
K–3 teachers are knowledgeable about scientifically based reading instruction	9%	3.67%	0.014	21%	3.66%	0.000	11.6%	4.76%	0.015
K–3 teachers are motivated to improve reading instruction	3	2.87	0.388	8	3.13	0.017	4.2	3.96	0.290

Source: Reading Coach Survey (Question H1 in 2005, Question G1 in 2007).

Exhibit B.3.12

Type and Frequency of Collaboration about Reading in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Collaborate on reading lesson planning and instruction									
Not at all	-7%	1.45%	0.000	-7%	1.39%	0.000	-0.1%	1.62%	0.974
Monthly or less	4	1.69	0.039	7	1.92	0.000	3.9	2.21	0.080
Once a week or more	7	1.86	0.001	4	2.16	0.033	-2.2	2.29	0.330
Informally, as needed	-3	1.15	0.005	-5	1.16	0.000	-1.6	1.54	0.307
Observe reading instruction in other classrooms									
Not at all	-5	1.85	0.001	-10	1.99	0.000	-5.0	2.31	0.032
Monthly or less	2	1.49	0.144	7	1.58	0.000	4.7	1.96	0.016
Once a week or more	1	0.34	0.050	0	0.47	0.890	-0.8	0.58	0.177
Informally, as needed	3	1.33	0.011	4	1.50	0.005	1.0	1.84	0.582
Help with coaching or be coached about reading by other teacher									
Not at all	-16	1.68	0.000	-18	1.79	0.000	-2.1	2.19	0.340
Monthly or less	6	1.64	0.000	12	1.85	0.000	6.2	2.25	0.006
Once a week or more	8	1.16	0.000	6	1.32	0.000	-2.3	1.51	0.127
Informally, as needed	1	1.24	0.759	-0	1.41	0.757	-1.8	1.91	0.358

Source: Teacher Surveys (Question C3 in 2005, Question B3 in 2007).

Exhibit B.3.13

Centrality of SBRR-aligned Instructional Activities in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Grade Level	Grade	2004–05			2006–07			2006–07 – 2004–05		
		RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Phonemic Awareness and Decoding	K	5%	1.2%	0.000	5%	1.2%	0.000	0%	1.57%	0.980
	1	5	1.5	0.002	4	1.6	0.012	0	2.15	0.981
	2	4	2.1	0.030	9	2.1	0.000	4	2.76	0.187
	3	3	2.0	0.098	10	2.2	0.000	7	2.80	0.013
Comprehension	K	5	1.3	0.000	5	1.4	0.001	-1	1.68	0.741
	1	3	1.5	0.025	2	1.6	0.159	-1	1.83	0.546
	2	0	1.4	0.831	1	1.6	0.636	-1	1.87	0.769
	3	3	1.4	0.030	5	1.6	0.001	2	1.92	0.346
Vocabulary	K	5	2.0	0.024	5	2.1	0.034	-1	2.59	0.705
	1	0	2.0	0.982	3	2.1	0.196	2	2.73	0.379
	2	-1	1.8	0.429	-1	2.0	0.678	-1	2.47	0.619
	3	4	1.8	0.024	3	2.0	0.130	-1	2.46	0.578
Fluency	K									
	1	-2	1.9	0.324	4	1.9	0.062	2	2.15	0.295
	2	11	2.1	0.000	10	2.2	0.000	6	2.63	0.033
	3	13	1.4	0.000	14	1.4	0.000	-2	2.93	0.604
Overall Composite SBRR	K	6	1.2	0.000	9	1.2	0.000	2	1.72	0.368
	1	7	1.3	0.000	7	1.3	0.000	2	1.47	0.099
	2	10	1.3	0.000	10	1.4	0.000	0	1.75	0.970
	3	2	1.1	0.156	-1	1.3	0.587	-1	1.88	0.702
Overall Composite Non-SBRR	K	-2	1.5	0.251	-1	1.7	0.546	-2	1.45	0.122
	1	-3	1.3	0.032	-1	1.5	0.588	2	2.00	0.407
	2	1	1.4	0.522	-1	1.6	0.620	2	1.81	0.304
	3	5	1.2	0.000	5	1.2	0.000	-1	1.95	0.562

Source: Teacher Surveys (Question C4 in 2005, Question B4 in 2007).

Exhibit B.4.1

Methods Used to Identify Students for Reading Interventions in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Method	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Progress monitoring test scores in reading	5.5%	1.57%	0.000	4.4%	1.27%	0.001	-1.1%	2.32%	0.640
Teacher recommendations	-1.5	1.10	0.009	-2.0	1.31	0.125	-0.5	1.89	0.808
Scores on tests that are part of the reading program	-1.4	1.67	0.624	1.4	1.91	0.490	2.8	2.54	0.275
Diagnostic test scores in reading	1.4	1.64	0.256	0.5	1.59	0.792	-1.0	2.64	0.713
Reading coach recommendation	38.8	2.56	0.000	33.8	2.75	0.000	-5.0	4.37	0.251
Screening test scores in reading	6.3	2.19	0.003	3.5	2.23	0.126	-2.8	3.60	0.438
Documented classroom observations	3.3	2.19	0.429	-0.4	2.36	0.835	-3.7	3.63	0.308
Standardized achievement scores in reading	-11.6	2.22	0.001	-2.3	2.17	0.280	9.3	3.03	0.002
Other school staff recommendation	-7.0	2.72	0.007	-2.4	3.15	0.427	4.6	4.64	0.325
Requests from parents	-13.9	2.73	0.000	-10.8	3.11	0.000	3.1	4.57	0.501

Source: Principal Survey (Question E2 in 2004.

Exhibit B.4.2

Availability of Intervention Services in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Availability of reading intervention services	9.1%	2.37%	0.002	6.7%	2.23%	0.003	-2.5%	3.77%	0.513

Source: Principal Survey (Question E3 in 2004–05, Question E3 in 2006–07).

Exhibit B.4.3

Teachers' Use of Supports in the Previous Month for Struggling Readers, in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Supports in the Previous Month	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Diagnostic assessment to determine core deficits	20.6%	1.60%	0.000	16.7%	1.73%	0.000	-3.9%	2.18%	0.074
Placement in materials that supplement the core reading program	13.0	1.53	0.000	11.4	1.63	0.000	-1.6	1.97	0.413
Work with more advanced peer	0.8	1.50	0.582	1.6	1.73	0.370	0.7	2.06	0.720
Work with reading specialist in small group	7.8	1.98	0.000	10.6	2.24	0.000	2.8	2.32	0.234
Work with tutor on one-to-one basis	-7.8	1.78	0.000	-7.2	1.97	0.000	0.5	2.31	0.818
Work with reading specialist on one-to-one basis	1.5	1.66	0.372	4.7	1.74	0.006	3.3	2.08	0.118
Special materials for parents to provide practice	-2.6	1.67	0.120	1.6	1.85	0.371	4.2	2.24	0.060
Placement in different level of core reading program	5.9	1.75	0.001	2.5	1.94	0.175	-3.5	2.27	0.128
Placement in separate core reading program	-0.2	1.44	0.881	1.2	1.74	0.510	1.4	2.01	0.500

Source: Teacher Survey (Question C9 a, g, j, k, l, m, n in 2004–05, Question B8 a, g, j, k, l, m, n in 2006–07).

Exhibit B.4.4

Staff Activities to Meet the Needs of Struggling Readers, as Reported by the Principals or Reading Coaches in RF and Non-RF Title I Schools, 2005–06 and 2006–07 School Years

Staff Activity	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Classroom teacher provides additional practice opportunities	0.9%	0.67%	0.163	0.5%	0.78%	0.484	-0.4%	0.98%	0.693
Classroom teacher provides additional direct instruction	-0.6	1.07	0.556	0.0	1.08	0.998	0.6	1.46	0.660
Trained aides or volunteers work with students during class	3.7	1.87	0.048	1.5	2.10	0.505	-2.2	2.49	0.366
A certified reading specialist works directly with students	1.8	2.96	0.548	-1.9	3.15	0.579	-3.6	3.57	0.310
Trained aides or volunteers work with students before or after school	-2.7	3.03	0.381	-2.7	3.29	0.382	-0.1%	3.88	0.998
Untrained aides or volunteers work with students during class	-10.3	2.89	0.000	-16.6	2.94	0.000	-6.3%	3.78	0.094
Untrained aides or volunteers work with students before or after school	-3.3	2.28	0.150	-7.7	2.31	0.001	-4.4%	2.98	0.141

Source: Reading Coach Survey and Principal Survey (Question E1 in 2004–05, Question E1 in 2006–07).

Exhibit B.4.5

Percent of Teachers Setting Aside Some Time to Coordinate Interventions with Special Education and English Language Learner Staff in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Coordinate reading interventions for struggling readers with special education staff	-2.2%	1.71%	0.197	4.0%	1.76%	0.027	6.2%	2.14%	0.004
Coordinate reading interventions for struggling readers with English Language Learners (ELL) staff	4.5	3.43	0.163	1.0	2.48	0.630	-3.5	4.17	0.396

Source: Teacher Survey (Question C3f and g in 2004–05, Question B3f and g in 2006–07).

Exhibit B.4.6

Teachers' Use of Supports in the Previous Month for English Language Learners to Meet the Needs of Struggling Readers, in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Supports Used in the Previous Month	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
English as a second language instruction	1.1%	2.73%	0.720	-2.2%	2.93%	0.451	-3.4%	3.74%	0.370
In classroom help in reading from ELL teacher	5.0	2.82	0.075	1.1	3.29	0.747	-4.0	3.85	0.301
Provide reading instruction in home language	3.9	2.66	0.150	3.7	2.95	0.209	-0.1	3.24	0970

Source: Teacher Survey (Composite Question C10 a-c in 2004–05, Question B9 a-c in 2006–07).

Exhibit B.4.7

Use of Certified Bilingual and ESL Teachers to Provide Recommendations on Accommodations as Reported by RF and Non-RF Title I Principals and Reading Coaches, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value
A certified special education teacher provides recommendations on accommodations	-5.5%	2.47%	0.027	-6.3%	2.65%	0.016	-0.8%	3.32%	0.805
A certified bilingual/ESL teacher provides recommendations on accommodations	-1.0	3.03	0.737	-9.3	3.49	0.010	-8.2%	3.79	0.030

Source: Reading Coach Survey and Principal Survey (Question E1 in 2004–05, Question E1 in 2006–07).

Exhibit B.5.1

Percentage of Principals in RF and Non-RF Title I Schools Reporting Receiving Assistance for K–3 Reading Assessment Activities, 2004–05 and 2006–07 School Years

Type of Assistance	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Selecting assessment instruments	23.0%	2.87%	0.000	-0.3%	3.43%	.930	-23.3%	4.20%	0.000
Interpreting assessment results	16.1	2.56	0.000	10.3	3.13	.001	-5.8	3.91	0.137

Source: Principal Survey (Questions B7b and B7f in 2005, and Questions B2b and B2f in 2007).

Exhibit B.5.2

Responsibility for Reading Assessment Activities in RF and Non-RF Title I Schools, as Reported by Principals, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Selecting assessment instruments									
State	30.8%	2.93%	0.000	26.3%	3.17%	0.000	-4.7%	4.02%	0.239
District	-12.0	2.51	0.000	-5.4	2.77	0.050	6.5	3.44	0.061
Principal	-8.5	3.11	0.006	-6.1	3.41	0.075	2.1	4.08	0.603
School's reading coach	11.7	3.00	0.000	15.9	3.28	0.000	4.2	3.95	0.290
Interpreting assessment results									
State	13.8	2.41	0.000	18.8	2.61	0.000	4.9	3.23	0.128
District	-4.8	3.04	0.114	2.1	3.30	0.517	6.8	4.03	0.094
Principal	-3.5	1.78	0.049	0.0	1.52	0.998	3.4	2.10	0.103
School's reading coach	43.7	2.37	0.000	39.0	2.46	0.000	-4.7	2.94	0.108

Source: Principal Survey (Questions D4d-D5d in 2005, Questions D2d-D3d in 2007).

Exhibit B.5.3

Time Set Aside for K–3 Teachers to Use Assessment Data to Plan Instruction in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Once a week or more	4.4%	1.61%	0.007	6.1%	1.80%	0.001	1.7%	2.23%	0.449
Once a month	5.6	1.29	0.000	7.8	1.55	0.000	2.2	1.89	0.241
5–8 times	-0.8	0.90	0.401	3.7	1.07	0.001	4.4	1.37	0.001
1–4 times	-2.9	1.52	0.057	-7.6	1.62	0.000	-4.8	2.11	0.024
Any regular time	6.3	1.50	0.000	10.0	1.38	0.000	3.5	1.88	0.062
Not at all	-3.5	1.09	0.002	-6.7	0.89	0.000	-3.1	1.25	0.012
Informally, only as needed	-2.8	1.09	0.009	-3.0	1.09	0.006	-0.1	1.49	0.957
No regular time	-6.3	1.50	0.000	-10.0	1.38	0.000	-3.5	1.88	0.062

Source: Teacher Survey (Question C3c in 2005, Question B3c in 2007).

Types of Assessments Used Most Often by Kindergarten Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year

Assessment Purpose/ Type of Assessment	Kindergarten Teachers [a][b]				
	RF		Non-RF Title I		
	Percent	Standard Error	Percent	Standard Error	p-value
Placing or grouping of students					
Formal assessments					
Core, supplementary, or intervention reading program assessment	9.2%	1.30%	12.4%	1.74%	0.136
District-specific assessment	3.1	0.91	2.7	0.84	0.702
State-specific assessment	2.0	0.79	2.4	0.79	0.717
Other standardized assessment	64.2	2.03	37.9	2.52	0.000
Informal assessments					
Structured informal assessments	1.2	0.44	5.4	1.18	0.001
Unstructured informal assessments	2.9	0.85	7.5	1.39	0.004
Assessment is not used for this purpose	1.9	0.62	11.5	1.63	0.000
Determining student mastery of skills					
Formal assessments					
Core, supplementary, or intervention reading program assessment	21.2	1.83	21.1	2.13	0.973
District-specific assessment	5.2	1.07	5.0	1.09	0.914
State-specific assessment	2.4	0.80	4.1	1.02	0.181
Other standardized assessment	44.1	2.29	24.9	2.26	0.000
Informal assessments					
Structured informal assessments	2.2	0.78	6.8	1.33	0.003
Unstructured informal assessments	7.2	1.27	18.9	2.07	0.000
Assessment is not used for this purpose	0.9	0.48	2.3	0.75	0.116
Identifying the core deficits of struggling students					
Formal assessments					
Core, supplementary, or intervention reading program assessment	11.5	1.54	9.8	1.61	0.453
District-specific assessment	3.3	0.96	2.9	0.91	0.781
State-specific assessment	2.0	0.84	2.6	0.86	0.589
Other standardized assessment	55.6	2.39	35.8	2.55	0.000
Informal assessments					
Structured informal assessments	1.7	0.70	3.8	1.04	0.101
Unstructured informal assessments	5.4	1.15	10.7	1.66	0.009
Assessment is not used for this purpose	4.2	0.96	17.5	2.05	0.000

[a] Percentages by grade or assessment purpose will not add up to 100 percent due to nonresponse, responses that we were not able to categorize, and multiple responses.

[b] We were not able to categorize about 10 percent of teachers' responses. "Not able to categorize" includes responses that were too vague to be coded (e.g., assessment, test, eight-weeks, benchmarks, decoding, rubric, pretest, quarterly test, fluency) and responses that were not discernable (e.g., ELLA stands for Early Learning Literacy in Arkansas or the English Language and Literacy Assessment). In addition, about 20 percent of teachers' responses were excluded from analyses because the teacher named more than one assessment that we were able to categorize and, thus, we did now know which to select as one assessment used most often.

Source: Teacher Survey (Questions B6aa, B6ab, and B6ac in 2007).

Types of Assessments Used Most Often by First-Grade Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year

Assessment Purpose/ Type of Assessment	First-Grade Teachers [a] [b]				
	RF		Non-RF Title I		
	Percent	Standard Error	Percent	Standard Error	p-value
Placing or grouping of students					
Formal assessments					
Core, supplementary, or intervention reading program assessment	11.2%	1.52%	16.6%	1.92%	0.026
District-specific assessment	3.2	0.78	1.1	0.57	0.032
State-specific assessment	2.9	0.92	2.4	0.78	0.682
Other standardized assessment	62.4	2.13	44.0	2.67	0.000
Informal assessments					
Structured informal assessments	4.6	0.94	9.5	1.52	0.005
Unstructured informal assessments	1.2	0.44	5.4	1.16	0.001
Assessment is not used for this purpose	0.8	0.37	4.1	1.02	0.002
Determining student mastery of skills					
Formal assessments					
Core, supplementary, or intervention reading program assessment	31.0	2.10	31.1	2.41	0.978
District-specific assessment	3.8	0.83	4.3	1.05	0.718
State-specific assessment	1.4	0.67	2.4	0.78	0.360
Other standardized assessment	38.9	2.19	21.3	2.08	0.000
Informal assessments					
Structured informal assessments	1.6	0.51	6.5	1.27	0.000
Unstructured informal assessments	1.9	0.60	6.8	1.29	0.001
Assessment is not used for this purpose	0.7	0.42	4.5	1.09	0.001
Identifying the core deficits of struggling students					
Formal assessments					
Core, supplementary, or intervention reading program assessment	14.0	1.62	10.1	1.58	0.089
District-specific assessment	2.7	0.77	1.1	0.54	0.083
State-specific assessment	2.0	0.83	1.9	0.71	0.945
Other standardized assessment	54.7	2.33	36.3	2.48	0.000
Informal assessments					
Structured informal assessments	2.6	0.66	11.2	1.67	0.000
Unstructured informal assessments	2.7	0.81	5.7	1.21	0.044
Assessment is not used for this purpose	3.4	0.90	13.6	1.82	0.000

[a] Percentages by grade or assessment purpose will not add up to 100 percent due to nonresponse, responses that we were not able to categorize, and multiple responses.

[b] We were not able to categorize about 10 percent of teachers' responses. "Not able to categorize" includes responses that were too vague to be coded (e.g., assessment, test, eight-weeks, benchmarks, decoding, rubric, pretest, quarterly test, fluency) and responses that were not discernable (e.g., ELLA stands for Early Learning Literacy in Arkansas or the English Language and Literacy Assessment). In addition, about 20 percent of teachers' responses were excluded from analyses because the teacher named more than one assessment that we were able to categorize and, thus, we did now know which to select as one assessment used most often.

Source: Teacher Survey (Questions B6aa, B6ab, and B6ac in 2007).

Exhibit B.5.4c

Types of Assessments Used Most Often by Second-Grade Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year

Assessment Purpose/ Type of Assessment	Second-Grade Teachers [a] [b]				
	RF		Non-RF Title I		
	Percent	Standard Error	Percent	Standard Error	p-value
Placing or grouping of students					
Formal assessments					
Core, supplementary, or intervention reading program assessment	9.2%	1.39%	17.4%	1.93%	0.001
District-specific assessment	1.5	0.56	1.3	0.61	0.896
State-specific assessment	0.7	0.52	1.6	0.66	0.283
Other standardized assessment	71.2	2.05	50.3	2.55	0.000
Informal assessments					
Structured informal assessments	2.6	0.71	7.3	1.37	0.002
Unstructured informal assessments	0.4	0.37	1.6	0.68	0.098
Assessment is not used for this purpose	1.0	0.41	4.7	1.09	0.001
Determining student mastery of skills					
Formal assessments					
Core, supplementary, or intervention reading program assessment	36.4	2.27	37.6	2.56	0.741
District-specific assessment	5.0	0.88	4.0	1.04	0.480
State-specific assessment	1.2	0.60	1.4	0.61	0.822
Other standardized assessment	31.1	0.22	21.7	2.15	0.002
Informal assessments					
Structured informal assessments	0.9	0.38	5.1	1.17	0.001
Unstructured informal assessments	4.0	0.94	7.1	1.35	0.057
Assessment is not used for this purpose	1.2	0.62	5.7	1.27	0.001
Identifying the core deficits of struggling students					
Formal assessments					
Core, supplementary, or intervention reading program assessment	14.9	1.70	13.2	1.88	0.505
District-specific assessment	1.6	0.62	1.8	0.72	0.882
State-specific assessment	0.9	0.50	1.9	0.72	0.248
Other standardized assessment	49.9	2.33	34.9	2.58	0.000
Informal assessments					
Structured informal assessments	2.9	0.78	9.5	1.65	0.000
Unstructured informal assessments	3.8	1.02	2.5	0.85	0.322
Assessment is not used for this purpose	6.3	1.30	16.7	2.07	0.000

[a] Percentages by grade or assessment purpose will not add up to 100 percent due to nonresponse, responses that we were not able to categorize, and multiple responses.

[b] We were not able to categorize about 10 percent of teachers' responses. "Not able to categorize" includes responses that were too vague to be coded (e.g., assessment, test, eight-weeks, benchmarks, decoding, rubric, pretest, quarterly test, fluency) and responses that were not discernable (e.g., ELLA stands for Early Learning Literacy in Arkansas or the English Language and Literacy Assessment). In addition, about 20 percent of teachers' responses were excluded from analyses because the teacher named more than one assessment that we were able to categorize and, thus, we did now know which to select as one assessment used most often.

Source: Teacher Survey (Questions B6aa, B6ab, and B6ac in 2007).

Exhibit B.5.4d

Types of Assessments Used Most Often by Third-Grade Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year

Assessment Purpose/ Type of Assessment	Third-Grade Teachers [a][b]				
	RF		Non-RF Title I		
	Percent	Standard Error	Percent	Standard Error	p-value
Placing or grouping of students					
Formal assessments					
Core, supplementary, or intervention reading program assessment	12.5%	1.59%	13.4%	1.82%	0.705
District-specific assessment	1.9	0.70	2.0	0.74	0.865
State-specific assessment	2.8	0.87	4.3	1.08	0.267
Other standardized assessment	63.5	2.22	47.7	2.66	0.000
Informal assessments					
Structured informal assessments	3.4	0.86	5.2	1.21	0.230
Unstructured informal assessments	1.4	0.65	1.31	0.58	0.964
Assessment is not used for this purpose	1.9	0.72	9.0	1.49	0.000
Determining student mastery of skills					
Formal assessments					
Core, supplementary, or intervention reading program assessment	35.2	2.24	28.4	2.42	0.039
District-specific assessment	6.6	1.26	4.1	1.05	0.118
State-specific assessment	3.7	1.01	7.6	1.44	0.027
Other standardized assessment	26.0	2.02	21.1	2.24	0.106
Informal assessments					
Structured informal assessments	1.1	0.43	2.2	0.85	0.218
Unstructured informal assessments	3.6	0.83	6.5	1.29	0.058
Assessment is not used for this purpose	2.6	0.82	5.9	1.28	0.031
Identifying the core deficits of struggling students					
Formal assessments					
Core, supplementary, or intervention reading program assessment	14.4	1.61	12.0	1.75	0.302
District-specific assessment	2.9	0.95	2.5	0.86	0.763
State-specific assessment	2.2	0.88	4.2	1.11	0.157
Other standardized assessment	43.1	2.35	28.6	2.52	0.000
Informal assessments					
Structured informal assessments	3.4	0.91	5.6	1.29	0.166
Unstructured informal assessments	3.2	0.92	5.4	1.24	0.162
Assessment is not used for this purpose	7.6	1.34	22.4	2.31	0.000

[a] Percentages by grade or assessment purpose will not add up to 100 percent due to nonresponse, responses that we were not able to categorize, and multiple responses.

[b] We were not able to categorize about 10 percent of teachers' responses. "Not able to categorize" includes responses that were too vague to be coded (e.g., assessment, test, eight-weeks, benchmarks, decoding, rubric, pretest, quarterly test, fluency) and responses that were not discernable (e.g., ELLA stands for Early Learning Literacy in Arkansas or the English Language and Literacy Assessment). In addition, about 20 percent of teachers' responses were excluded from analyses because the teacher named more than one assessment that we were able to categorize and, thus, we did now know which to select as one assessment used most often.

Source: Teacher Survey (Questions B6aa, B6ab, and B6ac in 2007).

Exhibit B.5.5a

Types of Specific Assessments Reported Used Most Often by Kindergarten Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year

Assessment Purpose/ Type of Assessment	Kindergarten Teachers [a][b]				
	RF		Non-RF Title I		
	Percent	Standard Error	Percent	Standard Error	p-value
Placing or grouping of students					
Formal assessments					
DIBELS	50.4%	2.43%	19.2%	2.17%	0.000
DRA	1.8	0.73	6.5	1.35	0.002
TPRI	11.2	1.56	4.9	1.13	0.001
Determining student mastery of skills					
Formal assessments					
DIBELS	31.2	2.34	11.6	1.80	0.000
DRA	0.0	0.00	2.9	0.92	0.002
TPRI	6.9	1.34	3.6	0.98	0.046
Identifying the core deficits of struggling students					
Formal assessments					
DIBELS	38.1	2.41	18.8	2.15	0.000
DRA	0.4	0.43	1.5	0.65	0.186
TPRI	8.3	1.52	6.1	1.27	0.282

[a] Percentages by grade or assessment purpose will not add up to 100 percent due to nonresponse, responses that we were not able to categorize, and multiple responses.

[b] We were not able to categorize about 10 percent of teachers' responses. "Not able to categorize" includes responses that were too vague to be coded (e.g., assessment, test, eight-weeks, benchmarks, decoding, rubric, pretest, quarterly test, fluency) and responses that were not discernable (e.g., ELLA stands for Early Learning Literacy in Arkansas or the English Language and Literacy Assessment). In addition, about 20 percent of teachers' responses were excluded from analyses because the teacher named more than one assessment that we were able to categorize and, thus, we did now know which to select as the one assessment used most often.

Source: Teacher Survey (Questions B6aa, B6ab, and B6ac in 2007).

Exhibit B.5.5b

Types of Specific Formal Assessments Reported as Used Most Often by First-Grade Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year

Assessment Purpose/ Type of Assessment	First-Grade Teachers [a] [b]				
	RF		Non-RF Title I		
	Percent	Standard Error	Percent	Standard Error	p-value
Placing or grouping of students					
Formal assessments					
DIBELS	43.9%	2.20%	19.3%	2.31%	0.000
DRA	3.8	1.03	17.3	2.21	0.000
TPRI	11.2	1.58	4.6	1.19	0.001
Determining student mastery of skills					
Formal assessments					
DIBELS	24.3	2.08	8.6	1.72	0.000
DRA	0.8	0.52	4.4	1.30	0.011
TPRI	8.1	1.41	2.5	0.91	0.001
Identifying the core deficits of struggling students					
Formal assessments					
DIBELS	37.3	2.33	20.7	2.35	0.000
DRA	0.4	0.27	3.2	1.05	0.010
TPRI	8.3	1.41	5.2	1.24	0.105

[a] Percentages by grade or assessment purpose will not add up to 100 percent due to nonresponse, responses that we were not able to categorize, and multiple responses.

[b] We were not able to categorize about 10 percent of teachers' responses. "Not able to categorize" includes responses that were too vague to be coded (e.g., assessment, test, eight-weeks, benchmarks, decoding, rubric, pretest, quarterly test, fluency) and responses that were not discernable (e.g., ELLA stands for Early Learning Literacy in Arkansas or the English Language and Literacy Assessment). In addition, about 20 percent of teachers' responses were excluded from analyses because the teacher named more than one assessment that we were able to categorize and, thus, we did now know which to select as one assessment used most often.

Source: Teacher Survey (Questions B6aa, B6ab, and B6ac in 2007).

Exhibit B.5.5c

Types of Specific Formal Assessments Reported as Used Most Often by Second-Grade Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year

Assessment Purpose/ Type of Assessment	Second-Grade Teachers [a][b]				
	RF		Non-RF Title I		
	Percent	Standard Error	Percent	Standard Error	p-value
Placing or grouping of students					
Formal assessments					
DIBELS	43.8%	2.29%	15.0%	1.96%	0.000
DRA	5.8	1.25	17.4	2.09	0.000
TPRI	12.3	1.60	5.0	1.16	0.000
Determining student mastery of skills					
Formal assessments					
DIBELS	11.1	1.52	4.8	1.17	0.001
DRA	1.4	0.50	2.4	0.85	0.285
TPRI	7.1	1.38	2.3	0.80	0.003
Identifying the core deficits of struggling students					
Formal assessments					
DIBELS	23.3	2.07	12.7	1.74	0.000
DRA	1.3	0.60	4.5	1.14	0.012
TPRI	11.1	1.61	4.8	1.12	0.002

[a] Percentages by grade or assessment purpose will not add up to 100 percent due to nonresponse, responses that we were not able to categorize, and multiple responses.

[b] We were not able to categorize about 10 percent of teachers' responses. "Not able to categorize" includes responses that were too vague to be coded (e.g., assessment, test, eight-weeks, benchmarks, decoding, rubric, pretest, quarterly test, fluency) and responses that were not discernable (e.g., ELLA stands for Early Learning Literacy in Arkansas or the English Language and Literacy Assessment). In addition, about 20 percent of teachers' responses were excluded from analyses because the teacher named more than one assessment that we were able to categorize and, thus, we did now know which to select as one assessment used most often.

Source: Teacher Survey (Questions B6aa, B6ab, and B6ac in 2007).

Exhibit B.5.5d

Types of Specific Formal Assessments Reported as Used Most Often by Third-Grade Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year

Assessment Purpose/ Type of Assessment	Third-Grade Teachers [a][b]				
	RF		Non-RF Title I		
	Percent	Standard Error	Percent	Standard Error	p-value
Placing or grouping of students					
Formal assessments					
DIBELS	42.1%	2.29%	8.1%	1.55%	0.000
DRA	3.6	0.98	12.8	1.86	0.000
TPRI	9.9	1.51	0.3	0.32	0.000
Determining student mastery of skills					
Formal assessments					
DIBELS	9.4	1.39	2.5	0.86	0.000
DRA	0.7	0.37	5.4	1.29	0.001
TPRI	3.5	0.97	0.0	0.00	0.000
Identifying the core deficits of struggling students					
Formal assessments					
DIBELS	20.4	1.98	7.0	1.43	0.000
DRA	1.8	0.68	5.9	1.30	0.006
TPRI	5.3	1.06	0.3	0.28	0.000

[a] Percentages by grade or assessment purpose will not add up to 100 percent due to nonresponse, responses that we were not able to categorize, and multiple responses.

[b] We were not able to categorize about 10 percent of teachers' responses. "Not able to categorize" includes responses that were too vague to be coded (e.g., assessment, test, eight-weeks, benchmarks, decoding, rubric, pretest, quarterly test, fluency) and responses that were not discernable (e.g., ELLA stands for Early Learning Literacy in Arkansas or the English Language and Literacy Assessment). In addition, about 20 percent of teachers' responses were excluded from analyses because the teacher named more than one assessment that we were able to categorize and, thus, we did now know which to select as one assessment used most often.

Source: Teacher Survey (Questions B6aa, B6ab, and B6ac in 2007).

Exhibit B.5.6

Number of Times Most Frequently Used Assessment Is Administered Per Year as Reported by Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year

| | Teachers | | | | |
| | RF Schools | | Non-RF Title I Schools | | |
Frequency	**Percent**	**Standard Error**	**Percent**	**Standard Error**	**p-value**
Placing or grouping students					
1 or 2 times	8.7%	0.83%	24.7%	1.42%	0.000
3 or 4 times	53.6	1.45	53.7	1.67	0.952
5 or more times	37.7	1.38	21.6	1.37	0.000
Determining student mastery of skills					
1 or 2 times	7.9	0.73	11.7	1.05	0.003
3 or 4 times	32.3	1.35	36.9	1.53	0.024
5 or more times	59.8	1.38	51.4	1.61	0.000
Identifying the core deficits of struggling students					
1 or 2 times	11.1	0.95	17.1	1.35	0.000
3 or 4 times	36.1	1.41	44.3	1.81	0.000
5 or more times	52.7	1.54	38.5	1.72	0.000

Source: Teacher Survey (Questions B6ba, B6bb, and B6bc in 2007).

Exhibit B.5.7

Length of Administration for Most Frequently Used Assessment, as Reported by Teachers in RF and Non-RF Title I Schools by Assessment Purpose, 2006–07 School Year

| | Teachers | | | | |
| | RF Schools | | Non-RF Title I Schools | | |
Length of Administration	**Percent**	**Standard Error**	**Percent**	**Standard Error**	**p-value**
Placing or grouping students					
1–15 minutes	63.2%	1.48%	41.8%	1.61%	0.000
16–30 minutes	19.7	1.12	30.8	1.45	0.000
More than 30 minutes	17.1	1.12	27.3	1.44	0.000
Determining student mastery of skills					
1–15 minutes	41.0	1.43	33.1	1.53	0.000
16–30 minutes	20.9	1.10	25.9	1.35	0.004
More than 30 minutes	38.1	1.39	41.0	1.57	0.161
Identifying the core deficits of struggling students					
1–15 minutes	59.0	1.58	40.9	1.77	0.000
16–30 minutes	19.0	1.18	27.9	1.58	0.000
More than 30 minutes	22.0	1.29	31.3	1.68	0.000

Source: Teacher Survey (Questions B6da, B6db, and B6dc in 2007).

Exhibit B.5.8

Accountability Purposes for Most Frequently Used Assessment, as Reported by Teachers in RF and Non-RF Title I Schools, by Assessment Purpose, 2006–07 School Year

	Teachers				
	RF Schools		Non-RF Title I Schools		
Accountability Purpose	**Percent**	**Standard Error**	**Percent**	**Standard Error**	**p-value**
Reading First	95.5%	5.85%	18.6%	1.31%	0.000
No Child Left Behind	37.3	1.44	47.1	1.55	0.000
Other program	40.1	1.43	62.3	1.55	0.000

Source: Teacher Survey (Questions B6ea, B6eb, and B6ec in 2007).

Exhibit B.5.9

Teachers' Use of Assessments in RF Schools and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
Use of Assessments	**RF-Title I Difference**	**Standard Error**	**p-value**	**RF-Title I Difference**	**Standard Error**	**p-value**	**Difference in Difference**	**Standard Error**	**p-value**
Use test results to organize instructional groups	15.2%	1.43%	0.000	13.0%	1.55%	0.000	-2.2%	1.73%	0.206
Use informal reading inventories	-0.1	1.61	0.947	1.8	1.90	0.354	1.8	2.26	0.430
Use tests to determine progress on skills	7.8	1.32	0.000	7.9	1.45	0.000	0.1	1.76	0.968
Use tests to determine who can benefit from the core reading series	12.4	1.67	0.000	16.0	1.93	0.000	3.5	2.22	0.116
Use diagnostic tests to identify students who need reading intervention services	17.1	1.52	0.000	14.1	1.67	0.000	-3.0	1.98	0.129
Use screening tests to identify students who need a supplementary reading program	11.8	1.69	0.000	11.0	1.91	0.000	-1.0	2.17	0.643
Conduct miscue analysis, analyzing errors students make while reading aloud	1.3	1.66	0.433	5.0	1.87	0.008	3.6	2.17	0.100

Source: Teacher Survey (Questions C6u-C6aa in 2005, Questions B5u-B5aa in 2007).

Exhibit B.6.1

Responsibilities of the Reading Coach in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Responsibilities of Reading Coach	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Average number of schools with which reading coach works	-0.3	0.10	0.009	-0.1	0.09	0.30	0.2	0.11	0.162
… 1 school	6.9%	2.52%	0.006	3.7%	2.35%	0.12	-3.2%	2.77%	0.250
… 2 schools	-2.6	2.05	0.208	-1.5	1.85	0.44	1.1	2.44	0.645
… 3 schools	-0.1	0.83	0.892	-0.2	0.97	0.86	-0.1	1.02	0.945
… 4+ schools	-4.2	1.70	0.014	-2.1	1.22	0.09	2.1	2.00	0.289
Average number of teachers with whom reading coach works	-3.8	0.99	0.000	-2.9	1.08	0.01	0.8	1.14	0.465
… 1–10 teachers	1.9%	2.68%	0.486	1.0%	3.17%	0.72	-0.9%	3.61%	0.812
… 11–20 teachers	11.3	3.62	0.002	13.5	4.16	0.00	2.3	4.85	0.639
… 21–30 teachers	-4.7	3.49	0.179	-6.2	4.17	0.15	-1.5	4.77	0.756
… 31+ teachers	-8.4	2.97	0.005	-8.4	3.26	0.01	0.1	3.51	0.985
Average percentage of time spent as reading coach in this school	28.5	2.05	0.000	35.9	2.64	0.00	7.4	2.69	0.006
… 100% time	48.2%	3.28%	0.000	56.4%	3.59%	0.00	8.2%	4.26%	0.055
… 75–99% time	-1.7	2.90	0.568	-6.7	3.41	0.05	-5.0	4.11	0.224
… 50–74% time	-25.4	3.51	0.000	-28.4	3.99	0.00	-2.9	4.64	0.529
… 25–49% time	-12.8	2.73	0.000	-8.7	2.79	0.00	4.0	3.42	0.241
… 1–24% time	-8.4	2.05	0.000	-12.7	2.94	0.00	-4.3	3.21	0.181

Source: Reading Coach Survey (2005); Questions B1, B2, and B3; Reading Coach Survey (2007); Questions B1, B2, and B3.

Exhibit B.6.2

Percentage of Reading Coaches Rating Various Teacher Support Activities as Absolutely Central to Their Work in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Activity	2004–05			2006–07			2006–07 – 2004–05		
	RF-Non-RF Title I Difference	Standard Error	p-value	RF-Non-RF Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Facilitate grade-level meetings	22.2%	3.72%	0.000	28.4%	4.28%	0.000	6.3%	4.57%	0.192
Coach staff on a range of topics	7.2	2.74	0.009	23.0	3.58	0.000	15.8	3.94	0.000
Provide direct reading instruction to students	-21.6	3.82	0.000	-20.6	4.28	0.000	1.1	4.69	0.822
Organize professional development for K–3 teachers	21.1	3.35	0.000	25.1	4.04	0.000	4.0	4.32	0.356
Provide training/professional development in reading materials, strategies, and assessments	6.9	2.44	0.005	20.7	3.67	0.000	13.8	3.83	0.000

Source: Reading Coach Survey (2005); Question B4; Reading Coach Survey (2007); Question B4.

Exhibit B.6.3

Percentage of Reading Coaches' Rating Various Administrative and School Support Activities as Central to Their Work in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Activity	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Administer/coordinate reading assessments	21.0%	3.33%	0.000	17.1%	3.80%	0.000	-3.9%	4.82%	0.422
Compile reading assessment data	20.7	3.44	0.000	18.9	3.69	0.000	-1.8	4.21	0.668
Facilitate or coordinate family literacy activities	1.7	3.69	0.645	-1.5	4.31	0.767	-3.2	4.99	0.525
Order/manage reading instruction materials	6.2	3.43	0.069	13.8	4.17	0.001	7.5	4.60	0.102
Provide sub time for teachers to observe other more experienced teachers	9.4	3.53	0.008	21.2	3.62	0.000	11.8	4.46	0.008
Participate in school leadership team meetings	2.3	3.32	0.451	10.8	3.84	0.005	8.6	4.57	0.062
Participate in professional development provided by the district, state or other consultants	7.0	2.14	0.001	8.1	3.02	0.007	1.1	3.61	0.751

Source: Reading Coach Survey (2005); Question B4; Reading Coach Survey (2007); Question B4.

Percentage of Reading Coaches Rating Various Activities Supporting Teachers' Instruction as Central to Their Work in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Activity	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Give demonstration lessons with core/supplemental materials	2.2%	3.49%	0.527	19.3%	4.22%	0.000	17.1%	4.76%	0.000
Assist teachers in using the core reading program	11.6	3.05	0.000	29.2	3.93	0.000	17.6	4.48	0.000
Observe and provide feedback to teachers	18.4	3.37	0.000	27.9	3.96	0.000	9.6	4.31	0.026
Assist teachers in forming instructional groups	15.4	3.42	0.000	20.9	4.01	0.000	5.5	4.80	0.249
Help teachers design strategies for struggling readers	4.6	2.59	0.077	12.1	3.13	0.000	7.5	3.72	0.045
Help teachers monitor the effectiveness of strategies for struggling readers	4.2	2.84	0.136	15.9	3.54	0.000	11.7	4.35	0.007
Give demonstrations on assessment administration/scoring	23.4	3.62	0.000	10.1	4.21	0.019	-13.3	5.10	0.009
Plan reading instruction with teachers	8.4	3.71	0.024	20.1	4.30	0.000	11.7	4.76	0.014
Review teachers' lesson plans & provide feedback	9.0	3.33	0.007	10.7	3.71	0.004	1.6	4.50	0.714
Help teachers in interpreting assessment results	19.8	3.13	0.000	22.8	3.51	0.000	2.9	4.24	0.487

Source: Reading Coach Survey (2005); Question B5; Reading Coach Survey (2007); Question B5.

Exhibit B.6.5

Direct Support for Reading Instruction Received by Teachers in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Topics	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Coaching by reading coach in programs, materials or strategies	36.9%	1.76%	0.000	40.1%	1.94%	0.000	3.2%	2.16%	0.141
Coaching from fellow teacher	10.7	1.70	0.000	10.2	1.90	0.000	-0.5	2.24	0.838
Peer study group for group study	20.8	1.86	0.000	18.0	2.06	0.000	-2.9	2.28	0.208
Demonstrations in my classroom	17.2	1.97	0.000	17.2	2.12	0.000	0.0	2.41	0.990
Observations of other teachers	6.1	1.81	0.001	8.7	1.93	0.000	2.6	2.26	0.251
Diagnostic testing help from a reading coach or specialist for individual students	27.5	1.73	0.000	24.7	2.02	0.000	-2.8	2.28	0.225
Intervention service help from a reading coach or specialist for individual students	17.8	1.74	0.000	21.0	1.98	0.000	3.2	2.30	0.169
Interpretation of assessment data	22.4	1.46	0.000	21.0	1.51	0.000	-1.4	1.88	0.471
Grade level meetings devoted to reading	15.4	1.58	0.000	17.0	1.61	0.000	1.6	1.93	0.402
Using assessment data to determine topics that require additional instruction	14.7	1.35	0.000	15.7	1.41	0.000	1.0	1.76	0.584

Source: Teacher Survey (Question D2 in 2004–05, Question C2 in 2006–07).

Exhibit B.6.6

Direct Support for Reading Instruction *Not Available* to Teachers in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Topics	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Coaching by reading coach in programs, materials or strategies	-32.8%	1.62%	0.000	-30.1%	1.89%	0.000	2.7%	2.08%	0.202
Coaching from fellow teacher	-8.8	1.53	0.000	-13.7	1.74	0.000	-4.8	1.98	0.014
Peer study group for group study	-19.7	1.96	0.000	-17.1	2.09	0.000	2.5	2.36	0.280
Demonstrations in my classroom	-24.7	1.94	0.000	-29.2	2.01	0.000	-4.5	2.15	0.037
Observations of other teachers	-10.0	1.77	0.000	-18.8	1.93	0.000	-8.8	2.19	0.000
Diagnostic testing help from a reading coach or specialist for individual students	-24.0	1.49	0.000	-22.1	1.66	0.000	1.9	1.86	0.307
Intervention service help from a reading coach or specialist for individual students	-19.4	1.47	0.000	-20.9	1.59	0.000	-1.4	1.85	0.437
Interpretation of assessment data	-14.0	1.08	0.000	-14.7	1.19	0.000	-0.7	1.38	0.636
Grade level meetings devoted to reading	-12.1	1.40	0.000	-14.8	1.45	0.000	-2.7	1.71	0.109
Using assessment data to determine topics that require additional instruction	-11.9	1.14	0.000	-12.7	1.14	0.000	-0.8	1.46	0.583

Source: Teacher Survey (Question D2 in 2004–05, Question C2 in 2006–07).

Responsibility for Oversight of Reading Activities in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Reading Oversight Activity/ Responsible Party	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Monitoring implementation of reading program									
…School alone is responsible	-16.3%	2.99%	0.000	-21.1%	3.27%	0.000	-4.7%	3.97%	0.234
…School and district are jointly responsible	-16.2	2.87	0.000	-14.5	3.20	0.000	1.7	3.89	0.661
…School, district and state are jointly responsible	34.5	2.32	0.000	36.3	2.55	0.000	1.8	3.17	0.575
…Other combinations	-2.0	0.90	0.025	-0.8	0.58	0.178	1.2	1.08	0.248
Selection of reading professional development topics and opportunities									
…School alone is responsible	0.0	2.94	0.988	-2.5	3.29	0.442	-2.5	4.03	0.534
…School and district are jointly responsible	-21.5	3.04	0.000	-9.6	2.29	0.006	11.9	4.12	0.004
…School, district and state are jointly responsible	25.5	2.07	0.000	14.7	1.98	0.000	-10.8	2.61	0.000
…Other combinations	-4.0	1.55	0.011	-2.6	1.71	0.087	1.3	2.13	0.532
Review of Teachers' reading lesson plans									
…School alone is responsible	-1.2	1.48	0.418	-2.4	1.87	0.197	-1.2	2.01	0.563
…School and district are jointly responsible	-1.2	1.35	0.362	-0.2	1.76	0.942	1.1	1.78	0.569
…School, district and state are jointly responsible	2.5	0.62	0.000	2.5	0.70	0.000	0.1	0.86	0.953
…Other combinations	0.0	0.23	0.842	0.0	0.00	0.000	0.5	0.23	0.841
Feedback to teachers about reading instruction									
…School alone is responsible	-2.6	2.80	0.345	1.3	3.06	0.703	3.9	3.64	0.279
…School and district are jointly responsible	-5.1	2.50	0.041	-5.6	2.78	0.048	-0.5	3.37	0.886
…School, district and state are jointly responsible	9.1	1.59	0.000	4.9	1.74	0.004	-4.2	2.17	0.054
…Other combinations	-1.4	0.51	0.005	-0.6	0.37	0.082	0.7	0.58	0.213
Interpretation of assessment results									
…School alone is responsible	5.1	3.04	0.082	-1.2	3.33	0.709	-6.3	4.03	0.116
…School and district are jointly responsible	-11.3	2.98	0.000	-11.5	3.34	0.001	-0.2	4.23	0.964
…School, district and state are jointly responsible	9.8	2.31	0.000	14.1	2.59	0.000	4.2	3.17	0.184
…Other combinations	-3.6	0.85	0.000	-1.3	0.70	0.060	2.3	1.04	0.025
Review individual students' progress in reading									
…School alone is responsible	-3.2	2.90	0.277	-8.2	3.26	0.014	-4.9	4.08	0.226
…School and district are jointly responsible	-3.4	2.54	0.201	-2.0	3.03	0.468	1.4	3.80	0.717
…School, district and state are jointly responsible	8.8	1.85	0.000	11.1	1.92	0.000	1.8	2.56	0.475
…Other combinations	-2.2	0.69	0.001	0.5	0.36	0.159	1.7	0.73	0.017

Source: Principal Survey (2005); Question D5; Principal Survey (2007); Question D3.

Percentage of RF and Non-RF Title I Schools in Which K–3 Reading Instruction Was Evaluated by the Principal, by Mode and Frequency of Evaluation, 2004–05 and 2006–07 School Years

Mode of Evaluation / Frequency of Evaluation	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Observed classroom reading instruction informally									
…Not at all	-0.1%	0.00%	0.003	0.2%	0.00%	0.318	0.4%	0.00%	0.281
…1–4 times this year	-6.4	-0.06	0.020	-6.7	0.02	0.001	-0.2	0.03	0.950
…5–8 times this year	-3.5	-0.04	0.021	-7.4	0.03	0.005	-4.0	0.03	0.213
…Once a month	-7.9	-0.08	0.024	1.2	0.02	0.621	9.0	0.03	0.005
…Once a week or more	18.0	0.18	0.030	12.7	0.03	0.000	-5.3	0.04	0.181
Observed classroom reading instruction using an evaluation form									
…Not at all	-1.6	-0.02	0.014	-3.8	0.01	0.003	-2.0	0.02	0.232
…1–4 times this year	-8.6	-0.09	0.030	-7.6	0.03	0.020	1.2	0.04	0.752
…5–8 times this year	-1.3	-0.01	0.022	3.8	0.03	0.178	4.8	0.03	0.158
…Once a month	7.4	0.07	0.025	3.5	0.03	0.222	-4.0	0.03	0.254
…Once a week or more	4.1	0.04	0.023	4.1	0.03	0.121	-0.1	0.03	0.976
Met with teachers individually to discuss strategies for improving reading instruction									
…Not at all	-1.7	-0.02	0.013	-0.9	0.01	0.450	0.9	0.01	0.529
…1–4 times this year	-7.4	-0.07	0.029	-7.2	0.03	0.024	0.3	0.04	0.929
…5–8 times this year	1.0	0.01	0.026	-1.5	0.03	0.612	-2.6	0.04	0.501
…Once a month	4.3	0.04	0.027	4.8	0.03	0.109	0.5	0.04	0.892
…Once a week or more	3.8	0.04	0.023	4.7	0.03	0.082	0.8	0.03	0.809
Met with groups of teachers to discuss strategies for improving reading instruction									
…Not at all	0.3	0.00	0.010	0.2	0.01	0.805	0.0	0.01	0.985
…1–4 times this year	-9.6	-0.10	0.025	-11.2	0.03	0.000	-1.4	0.03	0.696
…5–8 times this year	-2.4	-0.02	0.026	0.4	0.03	0.891	2.6	0.04	0.497
…Once a month	6.7	0.07	0.029	6.7	0.03	0.037	0.0	0.04	0.997
…Once a week or more	5.1	0.05	0.023	3.9	0.03	0.167	-1.3	0.03	0.702

Source: Principal Survey (2005); Question D6; Principal Survey (2007); Question D4.

Exhibit B.7.1

Types of Reading-Related Professional Development Activities Attended by Teachers in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Type of Professional Development Activity	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Half-day workshops	13.6%	1.78%	0.000	15.0%	2.36%	0.000	1.3%	2.74%	0.625
Full-day workshops	29.7	1.71	0.000	20.9	2.36	0.000	-8.8	2.74	0.001
Any workshop	12.3	1.05	0.000	17.1	1.83	0.000	4.8	1.99	0.016
College courses	4.5	1.37	0.001	4.1	1.60	0.009	-0.3	1.98	0.862
Conferences	9.8	1.68	0.000	12.2	2.00	0.000	2.4	2.31	0.302
	Mean			**Mean**			**Mean**		
	3.7	0.22	0.000	2.6	0.21	0.000	-1.1	0.26	0.000
Number of total hours in attendance across all activities	24.0	1.37	0.000	15.6	1.50	0.000	-8.4	1.86	0.000

Source: Teacher Survey (Question D1 in 2004–05, Question C1 in 2006–07).

Exhibit B.7.2

Design Features of the Professional Development Activities Attended by Teachers in RF and in Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Professional development activities that:	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Are given by trainers or facilitators who have a well-established reputation	14.6%	1.31%	0.000	14.5%	1.51%	0.000	-0.1%	1.66%	0.959
Are held in a convenient location (e.g., activities held at school)	12.9	1.40	0.000	10.7	1.61	0.000	-2.2	1.83	0.227
Use a team-based approach (joint training of people who work together)	20.1	1.37	0.000	16.4	1.52	0.000	-3.7	1.78	0.038
Were also attended by the principal	13.9	1.58	0.000	8.2	1.78	0.000	-5.7	1.97	0.004
Provide follow-up activities	16.1	1.44	0.000	11.5	1.55	0.000	-4.6	1.80	0.011
Include release time for participating teachers	13.5	1.54	0.000	11.3	1.67	0.000	-2.2	1.97	0.263
Provide a stipend?	25.9	1.47	0.000	17.4	1.69	0.000	-8.6	1.77	0.000
Provide teachers options among which to choose	-1.8	1.29	0.172	0.2	1.62	0.948	1.9	1.84	0.290
Offer graduate college credits	6.3	1.23	0.000	3.6	1.35	0.009	-2.6	1.56	0.093

Source: Teacher Survey (Question D3 in 2004–05, Question C3 in 2006–07).

Exhibit B.7.3

Teacher Participation in Professional Development Activities Related to the Five Dimensions of Reading: RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Dimension	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Phonemic Awareness	28.7%	1.48%	0.000	24.2%	1.63%	0.000	-4.5%	2.02%	0.027
Phonics	27.8	1.51	0.000	23.9	1.61	0.000	-3.9	2.01	0.054
Vocabulary	26.3	1.66	0.000	22.3	1.75	0.000	-4.1	2.20	0.064
Fluency	20.4	1.60	0.000	16.9	1.76	0.000	-3.5	2.10	0.238
Comprehension	13.8	1.46	0.000	14.5	1.59	0.000	-0.7	1.94	0.727

Source: Teacher Survey (Question D4 in 2004–05, Question C4 in 2006–07).

Exhibit B.7.4

Teachers' Perceived Professional Development Needs Related to the Five Dimensions of Reading: RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Dimension	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Phonemic Awareness	-9.9%	1.82%	0.000	-19.1%	2.35%	0.000	-9.2%	2.86%	0.001
Phonics	-3.5	1.79	0.052	-12.9	2.54	0.000	-9.4	3.04	0.002
Vocabulary	7.4	1.79	0.000	4.2	2.46	0.094	-3.2	2.98	0.286
Fluency	0.6	2.19	0.793	-10.5	2.71	0.000	-11.0	3.38	0.001
Comprehension	1.2	1.58	0.434	-6.4	2.25	0.005	-7.6	2.66	0.004

Source: Teacher Survey (Question D4 in 2004–05, Question C4 in 2006–07).

Exhibit B.7.5

Preparedness to Teach Five Dimensions of Reading: Teachers in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Dimension	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Phonemic Awareness	0.5	0.05	0.000	0.5	0.05	0.000	0.0	0.06	0.848
Phonics	0.5	0.04	0.000	0.6	0.05	0.000	0.0	0.06	0.463
Vocabulary	0.4	0.04	0.000	0.5	0.05	0.000	0.1	0.06	0.126
Fluency	0.3	0.04	0.000	0.4	0.05	0.000	0.1	0.06	0.082
Comprehension	0.4	0.04	0.000	0.5	0.05	0.000	0.1	0.05	0.022

Source: Teacher Survey (Question D6 in 2004–05, Question C6 in 2006–07).

Exhibit B.7.6

Professional Development Related to the Five Dimensions of Reading Attended by Principals and Reading Coaches in RF and non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Principal Participation									
Phonemic Awareness	28.8%	2.56%	0.000	18.1%	3.06%	0.000	-11.0%	3.61%	0.003
Phonics	30.5	2.68	0.000	20.9	3.11	0.000	-9.6	3.80	0.012
Vocabulary	25.4	2.55	0.000	14.9	2.80	0.000	-10.5	3.55	0.003
Comprehension	17.3	2.43	0.000	13.8	2.80	0.000	-3.4	3.59	0.340
Fluency	26.7	2.47	0.000	19.3	2.91	0.000	-7.4	3.57	0.038
Reading Coach Participation									
Essential Components of Reading	33.7	3.08	0.000	14.9	3.46	0.000	-18.7	4.53	0.000

Source: Principal survey (Question F2 a-e in 2004–05, Question F1 a-e in 2006–07), Reading Coach Survey (Question G1f in 2004–05, F1f in 2006–07).

Exhibit B.7.7

Professional Development Related to Other Features of Reading Instruction for Teachers in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

	2004–05			2006–07			2006–07 – 2004–05		
Area of Professional Development	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Teaching strategies	8.2%	0.89%	0.000	6.3%	1.15%	0.000	-1.9%	1.39%	0.167
Grouping	13.4	1.67	0.000	10.0	1.72	0.000	-3.4	2.20	0.123
Assessment	18.1	1.49	0.000	10.3	1.50	0.000	-7.7	2.03	0.000
Struggling readers	12.1	1.60	0.000	13.8	1.66	0.000	1.7	2.14	0.438
Organization/planning	2.1	1.40	0.127	3.5	1.48	0.019	1.4	1.87	0.452
Number of Professional Development Activities									
Teaching strategies	1.1	0.08	0.000	0.8	0.11	0.000	-0.3	0.12	0.010
Grouping	0.2	0.03	0.000	0.2	0.04	0.000	0.0	0.04	0.365
Assessment	0.6	0.04	0.000	0.4	0.05	0.000	-0.2	0.06	0.000
Struggling readers	0.8	0.07	0.000	0.8	0.09	0.000	0.0	0.11	0.914
Organization/planning	0.2	0.05	0.000	0.2	0.07	0.001	0.0	0.08	0.975

Source: Teacher Survey (Question D5 in 2004–05, Question C5 in 2006–07).

Exhibit B.7.8

Teachers' Perceived Need for Additional Professional Development Related to Other Features of Reading Instruction in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Area of Professional Development	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Teaching strategies	3.4%	1.45%	0.020	-0.2	1.63%	0.885	-3.5%	2.10%	0.092
Grouping	1.7	1.70	0.319	-2.3	2.13	0.266	-4.0	2.60	0.122
Assessment	-5.1	1.69	0.002	-8.9	2.12	0.000	-3.8	2.56	0.139
Struggling readers	-3.6	1.25	0.004	-2.1	1.79	0.232	1.5	2.14	0.484
Organization/planning	6.3	1.74	0.000	2.6	2.15	0.236	-3.7	2.62	0.159

Source: Teacher Survey (Question D5 in 2004–05, Question C5 in 2006–07).

Exhibit B.7.9

Professional Development Related to Other Features of Reading Instruction Attended by Principals in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Area of Professional Development	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
Teaching strategies	11.4%	2.08%	0.000	6.9%	2.25%	0.002	-4.5%	2.89%	0.121
Grouping	22.0	2.78	0.000	18.9	3.03	0.000	-3.2	3.90	0.415
Assessment	13.6	2.42	0.000	6.1	2.48	0.015	-7.5	3.21	0.019
Struggling readers	12.4	2.86	0.000	7.3	3.07	0.016	-5.1	4.01	0.206
Organization/planning	2.9	2.44	0.239	-0.3	2.67	0.916	-3.2	3.43	0.349
Number of Professional Development Activities									
Teaching strategies	1.2	0.14	0.000	0.6	0.15	0.000	-0.6	0.18	0.002
Grouping	0.8	0.09	0.000	0.6	0.10	0.000	-0.2	0.12	0.053
Assessment	0.5	0.07	0.000	0.2	0.08	0.018	-0.3	0.10	0.000
Struggling readers	0.8	0.12	0.000	0.3	0.14	0.038	-0.5	0.16	0.002
Organization/planning	0.4	0.12	0.006	0.2	0.15	0.101	-0.1	0.17	0.545

Source: Principal Survey (Question F2 in 2004–05, Question F1 in 2006–07).

Professional Development in Teaching Strategies Attended by Reading Coaches in RF and Non-RF Title I Schools, 2004–05 and 2006–07 School Years

Topics	2004–05			2006–07			2006–07 – 2004–05		
	RF-Title I Difference	Standard Error	p-value	RF-Title I Difference	Standard Error	p-value	Difference in Difference	Standard Error	p-value
How to use reading assessment data to guide instruction	16.9%	2.70%	0.000	10.5%	2.75%	0.000	-6.4%	3.66%	0.080
What are the types of assessments: screening, diagnostic, progress monitoring, and outcome	34.4	3.36	0.000	18.6	3.60	0.000	-15.7	4.86	0.001
How to use assessment data to form instructional groups	23.1	3.09	0.000	14.0	3.08	0.000	-9.0	4.17	0.030
How to provide constructive feedback to teachers	20.9	3.33	0.000	16.1	3.68	0.000	-4.8	4.59	0.293
How to establish credibility with teachers	31.4	3.50	0.000	17.1	3.86	0.000	-14.3	4.72	0.003
Essential components of scientifically based reading instruction	33.7	3.08	0.000	14.9	3.46	0.000	-18.7	4.53	0.000
What is the role of the reading coach in fostering change	33.1	3.32	0.000	19.5	3.83	0.000	-13.6	4.50	0.003
How to plan instructional interventions for struggling students	15.7	3.49	0.000	14.8	3.47	0.000	-1.0	4.64	0.836
Classroom management within the literacy block time	16.0	3.71	0.000	12.9	3.91	0.001	-3.1	5.15	0.547
How to conduct effective grade level meetings	23.5	3.53	0.000	19.7	3.85	0.000	-3.8	4.65	0.412
How to help teachers identify appropriate instructional materials	21.0	3.67	0.000	12.8	3.91	0.001	-8.2	5.14	0.110
How to help teachers make reading instruction systematic and explicit	26.6	3.48	0.000	23.7	3.60	0.000	-2.9	4.78	0.543
How to conduct demonstration lessons	10.1	3.67	0.007	7.4	3.93	0.061	-2.7	4.81	0.579
How to conduct classroom observations	25.6	3.56	0.000	22.6	3.75	0.000	-3.0	4.59	0.516
How to provide onsite professional development	20.4	3.61	0.000	18.2	3.69	0.000	-2.2	4.54	0.635

Source: Reading Coach Survey (Question G1 in 2004–05, Question F1 in 2006–07).

Exhibit B.8.1

Years of State Test Score Data Included in Achievement Analyses, by State

State	Third Grade			Fourth Grade		
	Number of years of test data	First year of test data	Last year of test data	Number of years of test data	First year of test data	Last year of test data
Arkansas				3	2004	2006
Arizona	7	2000	2006			
California	4	2003	2006			
Colorado	9	1998	2006	3	2004	2006
Connecticut				6	2001	2006
District of Columbia	3	2004	2006			
Delaware	9	1998	2006			
Florida	7	2000	2006	3	2004	2006
Georgia	4	2002	2005			
Hawaii	10	1997	2006			
Iowa				4	2003	2006
Idaho				4	2003	2006
Illinois	8	1999	2006			
Indiana	8	1999	2006			
Kentucky	8	1999	2006	8	1999	2006
Louisiana				7	2000	2006
Massachusetts	6	2001	2006			
Maryland	4	2003	2006			
Michigan				3	2003	2005
Minnesota	8	1998	2005			
Mississippi	6	2001	2006	3	2004	2006
Montana				6	2001	2006
North Carolina	9	1998	2006			
North Dakota				4	2003	2006
New Jersey				4	2003	2006
Nevada	5	2002	2006			
Ohio				3	2004	2006
Oregon	9	1998	2006			
South Carolina	8	1999	2006			
South Dakota	3	2004	2006			
Utah				2	2004	2005
Virginia	9	1998	2006			
Washington	6	2000	2005	9	1998	2006
Wisconsin	2	2004	2005	3	2004	2006
West Virginia	3	2004	2006			

Source: State Databases.

Exhibit B.8.2

Estimated Pre- and Post-RF Third-Grade Reading Scores and Model Statistics Using Four Methods to Assign Award Dates

State	Award Date Method	RF Mean Scores		Non-RF Title I Mean Scores		Difference in Difference	Standard Error	p-value
		Pre-RF	Post-RF	Pre-RF	Post-RF			
Panel 1: States Reporting Scores as the Percent of Students Meeting a Proficiency Standard								
Arizona	state	80.1%	87.6%	83.9%	86.2%	5.05%	1.01%	0.000
Arizona	district	81.7	88.5	84.4	84.9	6.30	1.12	0.000
Arizona	adj. district	82.0	87.6	84.4	85.0	5.01	1.06	0.000
Arizona	school	82.0	87.2	84.5	85.0	4.61	1.05	0.000
California	district	16.3	20.8	25.7	26.9	3.25	0.41	0.000
California	adj. district	16.5	20.4	25.6	27.0	2.60	0.38	0.000
California	school	16.5	19.5	25.7	27.0	1.60	0.34	0.000
Colorado	*state*	*87.7*	*83.8*	*89.0*	*84.8*	*0.28*	*2.67*	*0.918*
Colorado	*district*	*88.0*	*82.6*	*89.8*	*86.3*	*-1.82*	*2.20*	*0.409*
Colorado	*adj. district*	*88.0*	*82.6*	*89.8*	*86.3*	*-1.83*	*2.20*	*0.405*
Colorado	*school*	*88.0*	*82.6*	*89.8*	*86.3*	*-1.83*	*2.20*	*0.406*
D.C.	district	37.9	31.0	51.5	46.2	-1.46	5.74	0.799
D.C.	adj. district	37.9	31.0	51.5	46.2	-1.46	5.74	0.799
D.C.	school	37.9	31.0	51.5	46.2	-1.46	5.74	0.799
Georgia	state	74.8	85.7	79.1	88.7	1.23	1.04	0.239
Georgia	district	79.5	80.4	83.2	88.7	-4.68	9.51	0.623
Georgia	adj. district	79.5	90.1	83.2	88.7	5.04	7.30	0.491
Georgia	school	79.4	91.0	83.2	88.7	6.00	4.22	0.115
Hawaii	*state*	*97.4*	*82.2*	*94.6*	*79.0*	*0.36*	*3.27*	*0.913*
Hawaii	*district*	*90.6*	*78.9*	*87.3*	*79.3*	*-3.70*	*2.20*	*0.094*
Hawaii	*adj. district*	*90.6*	*78.9*	*87.3*	*79.3*	*-3.70*	*2.20*	*0.094*
Hawaii	*school*	*89.2*	*82.1*	*87.4*	*79.0*	*1.27*	*1.99*	*0.522*
Illinois	state	34.3	46.0	43.5	52.0	3.18	0.90	0.000
Illinois	*district*	*38.0*	*47.7*	*48.9*	*51.2*	*7.35*	*1.46*	*0.000*
Illinois	*adj. district*	*39.9*	*46.9*	*49.1*	*51.2*	*4.86*	*1.30*	*0.000*
Illinois	*school*	*40.0*	*46.9*	*49.2*	*51.2*	*4.83*	*1.31*	*0.000*
Indiana	*state*	*58.2*	*65.0*	*54.6*	*61.6*	*-0.11*	*2.81*	*0.970*
Indiana	*district*	*57.0*	*65.0*	*54.7*	*61.3*	*1.42*	*2.89*	*0.623*
Indiana	*adj. district*	*57.1*	*65.0*	*54.7*	*61.3*	*1.29*	*2.89*	*0.654*
Indiana	*school*	*57.1*	*65.0*	*54.7*	*61.3*	*1.29*	*2.89*	*0.654*
Maryland	state	34.7	62.7	42.0	65.8	4.24	2.29	0.064
Maryland	district	44.0	65.6	49.6	65.8	5.33	2.42	0.028
Maryland	adj. district	44.0	65.1	49.6	65.8	4.90	2.42	0.043
Maryland	school	44.0	65.2	49.6	65.8	5.00	2.42	0.039
Massachusetts	state	37.9	37.0	44.2	40.7	2.53	1.57	0.108
Massachusetts	district	38.1	35.1	44.3	41.0	0.43	1.54	0.781
Massachusetts	adj. district	38.1	35.2	44.3	41.0	0.53	1.54	0.730
Massachusetts	school	37.9	35.8	44.2	41.3	0.80	1.47	0.587
Mississippi	state	57.8	81.9	75.0	83.3	15.84	1.74	0.000
Mississippi	district	61.3	84.2	76.7	83.2	16.43	1.84	0.000
Mississippi	adj. district	61.3	84.3	76.7	83.2	16.60	1.84	0.000
Mississippi	school	61.3	84.4	76.7	83.2	16.62	1.84	0.000

(Continues)

Exhibit B.8.2

Estimated Pre- and Post-RF Third-Grade Reading Scores and Model Statistics Using Four Methods to Assign Award Dates (Continued)

State	Award Date Method	RF Mean Scores		Non-RF Title I Mean Scores		Difference in Difference	Standard Error	p-value
		Pre-RF	Post-RF	Pre-RF	Post-RF			
Panel 1: States Reporting Scores as the Percent of Students Meeting a Proficiency Standard								
Nevada	state	87.1%	86.1%	80.3%	81.5%	-2.24%	1.71%	0.191
Nevada	district	87.7	86.5	81.4	81.9	-1.82	1.68	0.279
Nevada	adj. district	87.7	86.3	81.4	81.9	-1.97	1.70	0.248
Nevada	school	87.8	86.2	81.3	82.1	-2.38	1.58	0.132
North Carolina	*state*	*69.2*	*71.0*	*82.9*	*79.5*	*5.14*	*1.39*	*0.000*
North Carolina	*district*	*71.8*	*71.7*	*82.9*	*79.5*	*3.25*	*1.32*	*0.014*
North Carolina	*adj. district*	*71.9*	*71.4*	*82.9*	*79.5*	*2.89*	*1.31*	*0.028*
North Carolina	*school*	*71.9*	*71.4*	*82.9*	*79.5*	*2.89*	*1.31*	*0.028*
Oregon	*state*	*81.8*	*83.1*	*92.1*	*85.2*	*8.18*	*3.38*	*0.016*
Oregon	*district*	*78.7*	*84.6*	*86.7*	*83.8*	*8.77*	*2.94*	*0.003*
Oregon	*adj. district*	*79.7*	*83.8*	*85.8*	*83.8*	*6.17*	*2.48*	*0.013*
Oregon	*school*	*79.7*	*83.8*	*85.8*	*83.8*	*6.10*	*2.47*	*0.014*
South Carolina	*state*	*79.1*	*77.7*	*93.5*	*86.1*	*5.95*	*2.20*	*0.007*
South Carolina	*district*	*80.7*	*75.9*	*92.2*	*85.9*	*1.38*	*1.94*	*0.478*
South Carolina	*adj. district*	*80.8*	*75.7*	*92.2*	*85.9*	*1.24*	*1.93*	*0.522*
South Carolina	*school*	*80.8*	*75.7*	*92.2*	*85.9*	*1.24*	*1.93*	*0.520*
South Dakota	district	72.3	87.6	73.4	79.1	9.57	4.66	0.042
South Dakota	adj. district	72.3	87.7	73.4	79.1	9.70	4.64	0.039
South Dakota	school	72.3	87.7	73.4	79.1	9.68	4.64	0.039
Virginia	*state*	*58.3*	*75.4*	*76.2*	*78.0*	*15.22*	*2.98*	*0.000*
Virginia	*district*	*65.1*	*78.4*	*78.1*	*76.3*	*15.15*	*2.52*	*0.000*
Virginia	*adj. district*	*65.1*	*78.4*	*78.1*	*76.3*	*15.14*	*2.52*	*0.000*
Virginia	*school*	*65.1*	*78.4*	*78.1*	*76.3*	*15.14*	*2.52*	*0.000*
Washington	state	58.3	65.6	75.2	76.9	5.60	1.30	0.000
Washington	district	59.2	64.6	75.7	76.8	4.36	1.13	0.000
Washington	adj. district	59.3	64.1	75.6	76.8	3.69	1.11	0.001
Washington	school	59.1	64.6	75.6	76.9	4.21	1.05	0.000
West Virginia	district	71.2	77.7	74.3	76.1	4.64	2.35	0.049
West Virginia	adj. district	71.2	77.8	74.3	76.1	4.76	2.34	0.043
West Virginia	school	71.2	78.1	74.5	76.2	5.17	2.44	0.035
Wisconsin	district	91.0	91.5	90.6	91.7	-0.50	1.13	0.659
Wisconsin	adj. district	91.0	91.5	90.6	91.7	-0.49	1.12	0.661
Wisconsin	school	91.3	90.4	90.8	91.9	-1.93	1.66	0.246
Panel 2: States Reporting Scores in Median Percentiles or Mean Scaled Scores								
Delaware	state	421.5	432.7	420.7	439.7	-7.75	4.91	0.118
Delaware	district	421.5	433.2	420.7	440.0	-7.51	5.39	0.166
Delaware	adj. district	421.5	433.1	420.7	440.0	-7.65	5.40	0.160
Delaware	school	421.5	433.1	420.7	440.0	-7.65	5.40	0.160
Florida	state	44.2	45.4	45.4	47.0	-0.49	0.46	0.295
Florida	district	44.5	46.9	45.9	48.6	-0.29	0.50	0.559
Florida	adj. district	44.6	46.6	45.9	48.6	-0.66	0.48	0.167

(Continues)

Exhibit B.8.2

Estimated Pre- and Post-RF Third-Grade Reading Scores and Model Statistics Using Four Methods to Assign Award Dates (Continued)

State	Award Date Method	RF Mean Scores Pre-RF	RF Mean Scores Post-RF	Non-RF Title I Mean Scores Pre-RF	Non-RF Title I Mean Scores Post-RF	Difference in Difference	Standard Error	p-value
Panel 2: States Reporting Scores in Median Percentiles or Mean Scaled Scores								
Florida	school	44.7	46.5	46.0	48.6	-0.81	0.47	0.116
Kentucky	*state*	*57.4*	*54.3*	*65.4*	*60.6*	*1.64*	*1.71*	*0.338*
Kentucky	*district*	*59.3*	*50.7*	*65.3*	*60.6*	*-3.93*	*1.59*	*0.013*
Kentucky	*adj. district*	*59.2*	*51.0*	*65.3*	*60.6*	*-3.51*	*1.58*	*0.027*
Kentucky	*school*	*59.0*	*51.7*	*65.3*	*60.6*	*-2.64*	*1.52*	*0.082*
Minnesota	state	1352	1449	1326	1427	-4.98	12.06	0.680
Minnesota	district	1371	1449	1345	1426	-1.89	14.66	0.898
Minnesota	adj. district	1371	1449	1345	1426	-1.89	14.66	0.898
Minnesota	school	1371	1449	1345	1426	-1.89	14.66	0.898

Note: Shaded cells indicate that data were fit using a linear model, all other analyses used a baseline mean model.
In Panel 2, the scores in Florida and Kentucky are reported as median percentile ranks; in Delaware and Minnesota, the scores are mean scaled scores.
Source: State databases.

Exhibit B.8.3

Estimated Pre- and Post-RF Fourth-Grade Reading Scores and Model Statistics Using Four Different Methods to Assign Award Dates

State	Award Date Method	RF Mean Scores		Non-RF Title I Mean Scores		Difference in Difference	Standard Error	p-value
		Pre-RF	Post-RF	Pre-RF	Post-RF			
Panel 1: States Reporting Scores as the Percent of Students Meeting a Proficiency Standard								
Arkansas	district	81.0%	79.0%	86.4%	84.7%	-0.33%	1.66%	0.842
Arkansas	adj. district	80.8	79.2	86.2	84.8	-0.27	1.60	0.865
Arkansas	school	80.8	79.2	86.2	84.8	-0.28	1.59	0.863
Colorado	district	76.8	81.6	81.0	81.4	4.32	1.79	0.016
Colorado	adj. district	76.6	81.7	80.1	82.4	2.78	1.58	0.078
Colorado	school	76.8	80.2	80.7	81.7	2.43	1.71	0.157
Connecticut	state	57.5	63.5	54.4	56.5	3.97	2.58	0.124
Connecticut	district	57.3	63.5	54.7	56.5	4.56	2.47	0.065
Connecticut	adj. district	57.3	63.5	54.7	56.5	4.56	2.47	0.065
Connecticut	school	57.6	61.8	54.7	56.5	2.48	2.52	0.325
Idaho	state	92.1	96.3	92.2	97.1	-0.64	1.31	0.628
Idaho	district	93.3	96.6	93.6	96.2	0.71	0.96	0.462
Idaho	adj. district	93.3	96.6	93.6	96.2	0.72	0.96	0.454
Idaho	school	93.3	96.6	93.6	96.2	0.69	0.97	0.473
Iowa	state	61.6	64.5	63.3	67.4	-1.16	2.16	0.594
Iowa	district	63.0	65.6	64.3	68.6	-1.75	1.77	0.324
Iowa	adj. district	63.0	65.5	64.3	68.6	-1.76	1.77	0.321
Iowa	school	63.0	65.6	64.3	68.6	-1.74	1.77	0.328
Kentucky	state	78.0	83.9	84.0	89.4	0.57	1.09	0.602
Kentucky	district	78.7	84.0	84.7	89.4	0.60	1.09	0.578
Kentucky	adj. district	79.2	83.0	84.9	89.5	-0.80	1.25	0.523
Kentucky	school	79.2	83.9	84.8	89.5	-0.05	1.11	0.967
Louisiana	state	78.4	79.9	82.4	81.6	2.32	1.31	0.076
Louisiana	district	79.2	80.2	82.8	82.4	1.37	1.20	0.257
Louisiana	adj. district	79.2	79.9	82.9	81.6	2.07	1.23	0.091
Louisiana	school	79.1	80.1	82.9	81.6	2.14	1.21	0.077
Michigan	district	87.6	92.1	88.4	92.0	0.91	0.85	0.281
Michigan	adj. district	88.0	92.3	88.8	92.4	0.75	0.84	0.374
Michigan	school	87.9	92.2	88.8	92.4	0.77	0.84	0.357
Mississippi	district	89.3	92.4	94.1	93.8	3.41	1.23	0.005
Mississippi	adj. district	89.3	92.5	94.1	93.8	3.45	1.23	0.005
Mississippi	school	89.3	92.5	94.1	93.8	3.49	1.22	0.005
Montana	state	82.0	85.4	87.3	87.0	3.56	2.90	0.221
Montana	district	82.2	85.3	87.1	87.0	3.08	2.80	0.273
Montana	adj. district	82.2	85.3	87.1	87.0	3.08	2.80	0.273
Montana	school	82.2	85.3	87.1	87.0	3.09	2.80	0.271
New Jersey	state	53.5	60.5	57.1	60.0	4.05	2.19	0.065
New Jersey	district	59.6	60.8	61.7	60.3	2.56	1.70	0.134
New Jersey	adj. district	58.9	60.1	61.7	60.1	2.88	1.79	0.107
New Jersey	school	58.2	61.3	61.6	60.5	4.21	1.67	0.012

(Continues)

Exhibit B.8.3

Estimated Pre- and Post-RF Fourth-Grade Reading Scores and Model Statistics Using Four Different Methods to Assign Award Dates (Continued)

State	Award Date Method	RF Mean Scores		Non-RF Title I Mean Scores		Difference in Difference	Standard Error	p-value
		Pre-RF	Post-RF	Pre-RF	Post-RF			
Panel 1: States Reporting Scores as the Percent of Students Meeting a Proficiency Standard								
North Dakota	state	70.1%	71.2%	66.9%	66.6%	1.41%	4.60%	0.760
North Dakota	district	71.2	70.1	64.2	62.8	0.30	4.43	0.946
North Dakota	adj. district	71.2	70.1	64.2	62.8	0.29	4.43	0.948
North Dakota	school	71.2	69.9	64.2	62.8	0.17	4.42	0.969
Ohio	district	50.9	52.5	65.8	69.7	-2.24	1.56	0.153
Ohio	adj. district	50.9	52.5	65.8	69.7	-2.22	1.56	0.156
Ohio	school	51.0	52.6	65.8	69.8	-2.33	1.55	0.133
Utah	district	69.5	74.6	78.3	82.0	1.32	2.91	0.653
Utah	adj. district	69.5	74.6	78.3	82.0	1.32	2.91	0.653
Utah	school	69.5	74.6	78.3	82.0	1.32	2.91	0.653
Washington	state	83.0	92.0	88.8	94.2	3.66	0.97	0.000
Washington	district	84.1	91.3	89.2	93.0	3.48	0.86	0.000
Washington	adj. district	84.1	90.5	89.2	93.0	2.66	0.83	0.001
Washington	school	84.1	91.1	89.3	93.0	3.29	0.79	0.000
Wisconsin	state	86.0	88.6	90.0	88.1	4.51	1.54	0.004
Wisconsin	district	86.6	88.7	89.2	88.1	3.17	1.37	0.021
Wisconsin	adj. district	86.6	88.8	89.2	88.1	3.21	1.36	0.019
Wisconsin	school	86.6	88.6	89.4	88.0	3.44	1.29	0.008
Panel 2: States Reporting Scores in Median Percentiles or Mean Scaled Scores								
Florida	district	51.6	59.6	54.4	56.8	5.55	0.67	0.000
Florida	adj. district	52.0	58.7	54.2	57.2	3.63	0.64	0.000
Florida	school	52.1	58.5	54.1	57.0	3.56	0.66	0.000

Note: In Panel 2, Florida's scores are reported as median percentile ranks.
Source: State databases.

Appendix C
Specification of Statistical Models

Appendix C presents the statistical models that were used in the analyses that produced the findings presented in this report. First, we specify the statistical model used to analyze the survey data collected from principals, teachers and reading coaches in the 2004–05 and 2006–07 school years. The model provides a set of estimates that allows us to a) compare the *status* of reading programs in RF and non-RF Title I schools, either in 2005 or in 2007, b) examine *longitudinal change* from 2005 to 2007 in RF and non-RF Title I schools, and c) compare the *differential change* between the two groups of schools. The results of these analyses are presented in Chapters 3 through 7.

Second, we specify the statistical models used to conduct two analyses of student reading achievement. The first set of models are used to investigate trends in student reading achievement in RF and non-RF Title I schools using scores on third- and fourth-grade state reading assessments. The second model uses third-grade reading scores on 2005 state assessments (as used above); and selected responses from the spring 2005 teacher survey to investigate the relationship between student reading achievement and the implementation of RF activities.

Analysis of 2004–05 and 2006–07 Survey Data

The following model produces a series of parameter estimates that allow us to examine the status, the longitudinal change, and the differential change in reading programs in RF and non-RF Title I schools in 2005 and 2007.

The model is specified as follows:

$$Y_{it} = \beta_0 + \beta_1 RF_i + \beta_2 Year_t + \beta_3 RF_i * Year_t + \varepsilon_{it}$$

Where
> i denotes a particular school; and
> t denotes the year that the survey measure belongs to (t=2005, 2007).

> Y_{it} is a survey measure of school i in year t,
> RF_i is an indicator variable for RF school status. It is set to one if the ith school is a RF school and zero otherwise.
> $Time_t$ is an indicator variable for year 2007. It is set to one if t equals 2007 and zero otherwise.
> ε_{it} : Usual error term.

The coefficients in this model, alone and in combination, provide the estimates necessary for addressing the three research questions specified above. They are interpreted as follows:

Status (Means) of RF or non-RF Title I schools in 2005 and 2007:
> β_0 :   Mean of the survey measure Y_{it} in non-RF Title I schools in 2005.

$\beta_0 + \beta_1$:   Mean of the survey measure Y_{it} in RF schools in 2005.

$\beta_0 + \beta_2$:   Mean of the survey measure Y_{it} in non-RF Title I schools in 2007.

$\beta_0 + \beta_1 + \beta_2$: Mean of the survey measure Y_{it} in RF schools in 2007.

Longitudinal Change in RF and non-RF Title I Schools:

β_2:   The change of Y_{it} in non-RF Title I schools between 2005 and 2007.

$\beta_2 + \beta_3$:   The change of Y_{it} in RF schools between 2005 and 2007.

Differential Change Between the Two Groups of Schools:

β_3:   This is the difference-in-differences estimate. It is equal to the difference between the change of Y_{it} in RF and non-RF Title I schools between 2005 and 2007.

Analysis of Student Reading Achievement

Reading Achievement on State Reading Tests

To investigate the relationship between Reading First and reading achievement, we analyzed grade-level scores on state reading assessments, as they appear in national databases for all schools nationwide. These analyses included reading scores from 12,362 schools, 3,000 RF and 9,362 non-RF Title I schools. As described in Chapter 8, to conduct these analyses we had to be able to identify, for each school, those years (and their corresponding test scores) that occurred both before and after the implementation of RF. Because there is no one data source that tells us when each RF school received RF funds, we applied four different methods to define schools' pre- and post years of RF implementation (state-level, district level using award date, district-level using an adjusted award date, and a school-level using a school award date). This means that we assigned dates for some RF schools (depending on the method) and all non-RF Title I schools. Below, we describe the procedures used to assign start dates for each of the four methods.

Initial State Award Date Test scores in years prior to the initial state award date were designated as pre-RF implementation years. Scores after the last school in the state received funding are designated as post-RF implementation years.[78] This allows sufficient time for the funds to have been distributed to all of the schools. Scores from the intervening years, when some schools may have been funded while others were not yet funded, are excluded from the analysis. In most cases, this strategy resulted in two years of data being excluded from the analyses. There was no imputation here for either RF or non-RF Title I schools because we had initial state award dates for all states and the dates were used to specify the onset of RF. All non-RF Title I schools were assigned the same initial state award date. This means that for this method all schools (both RF and non-RF Title I) in the analysis had the same initial start date and the same designations for pre- and post-RF implementation years.

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[78]   The last school funded was designated using from the Southwest Educational Development Laboratory (SEDL) Reading First Awards Database as of May 2005.

District Award Date District award dates provided by the U.S. Department of Education for all RF schools allowed us to identify RF schools' pre- and post-RF implementation years. Non-RF Title I schools *in RF districts,* about 40 percent of the non-RF Title I school sample, were given start dates proportional to the distribution of RF schools' award dates within each RF district. For the non-RF Title I schools *in districts with no RF schools,* 60 percent of the non-RF Title I school sample, start dates were imputed proportional to the distribution of RF schools' district award dates within each state.

Adjusted District Award Date Analysis of 2005 survey responses from RF principals indicated that there is often a time lag between district-level and school-level receipt of RF funding. For this method, we used RF schools' survey data to compute average district- and state-level number of days to account for the lag. The district award dates for all RF and non-RF Title I schools *in RF districts* were adjusted by adding the average district-level time lag. For all RF and non-RF Title I schools *not in RF districts* were adjusted by adding the average state-level time lag. As was the case for the analysis using the district award date, or the non-RF Title I schools *in districts with no RF schools,* start dates were imputed proportional to the distribution of RF schools' district award dates within each state.

School Award Date Dates indicating when the sample of RF schools received funding were provided by principals on their surveys. RF and non-RF Title I schools *in RF districts that are represented in our study sample* dates were assigned proportional to the school dates within those districts. All other RF and non-RF schools, (both in RF and non-RF districts), we assigned the adjusted award date described above for RF schools. As a result, for this analysis, school award dates were imputed for all schools not in RF sample districts, about 75 percent of RF schools and 70 percent of non-RF Title I schools.

For each state, we conducted analyses when we had at least one year of pre- and one year of post-RF implementation third- or fourth-grade test scores. Because we used multiple criteria to define pre- and post-implementation years, in some states we could not conduct all four analyses. Third-grade analyses were conducted in 24 states; in 19 we conducted all four analyses. In five states, we conducted only the district and school-level analyses because the state pre-post strategy left these states without both a pre- and post-implementation year with test scores. Analyses of fourth-grade scores were conducted in 17 states; in 10 we conducted four analyses, and in seven we conducted only the district and school-level analyses.

Fitting Statistical Models

For each state, we applied one of two related estimation techniques to model the statistical relationship between RF and student reading achievement: 1) a linear model, or 2) a baseline-mean model, both of which are described below.

Linear Model. We fit statistical models that compared RF schools' *expected* reading achievement scores to their *actual* scores. These models also estimated pre- and post-RF achievement in non-RF Title I schools to control for any secular changes that may have occurred in the state. In

addition, the number of months between the award date specified in the model and the test score is included as a time-varying predictor at level one to control for differences in the amount of time schools could have been implementing the program prior to students being tested.

To ensure that our analyses produce stable estimates, we imposed several conditions on using the linear model. First, in order to generate stable estimates of schools' reading achievement prior to the implementation of Reading First, we required **five or more** years of pre-Reading First reading scores and **two or more** years of post-Reading First reading scores. Second, the trajectory of reading scores must be more accurately estimated using a linear model than by averaging the annual scores to estimate a mean.[79] At third grade, nine states met both of these conditions (Colorado, Hawaii, Illinois,[80] Indiana, Kentucky, North Carolina, Oregon, South Carolina, and Virginia). At fourth grade, across all states, the data available could only support fitting baseline-mean models.

The following two-level model was used to compare RF and non-RF Title I schools' *expected* reading achievement scores to their *actual* scores:

Level one (time):
$$Y_{ij} = \pi_{0j} + \pi_{1j}TIME_{ij} + \pi_{2j}POST_{ij} + \pi_{3j}months_{ij} + \varepsilon_{ij}$$

Level two (school):
$$\pi_{0j} = \gamma_{00} + \gamma_{01}RF_j + \zeta_{0j}$$
$$\pi_{1j} = \gamma_{10} + \gamma_{11}RF_j + \zeta_{1j}$$
$$\pi_{2j} = \gamma_{20} + \gamma_{21}RF_j + \zeta_{21j}$$

where:

Y_{ij} is the reading achievement score for school j at time i,

π_{0j} is the predicted initial (e.g., when time is 0) *baseline* reading achievement for school j,

$TIME_{ij}$ is a counter for time, for school j at time i, as it increases by 1 for each school year in which we have test score data,

$POST_{ij}$ is an indicator that defines, for school j at time i, a time period *prior* to a state's having received RF funds (POST=0), or a time period after a state has received RF funds (POST=1),

$months_{ij}$ is a time-varying predictor indicating the number of months between the award date and test year i in school j,

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[79] More specifically, the relationship between reading scores and time (year) would have to have a slope greater than zero.

[80] For Illinois, linear models were fit for all but the state model where a baseline mean model was used due to insufficient data to fit a linear model.

π_{1j} is the baseline linear slope describing changes in student achievement in school *j* over the baseline years,

π_{2j} is the mean difference in school *j* 's reading scores pre- and post-RF implementation, and

ε_{ij} is a random error term for school j at time i.

γ_{00} is the mean initial baseline reading achievement across schools,

RF_j is an indicator that for school j equals 1 in RF schools and 0 in non-RF Title I schools,

γ_{01} is the difference in initial baseline achievement between RF and non-RF Title I schools,

γ_{10} is the average slope describing linear change over time in student achievement in non-RF Title I schools,

γ_{11} is the difference in slope describing linear change over time between RF and non-RF Title I schools,

γ_{21} is the difference in difference between expected and actual scores between RF and non-RF Title I schools, and

ζ_{0j} and ζ_{1j} are random error terms for school *j*.

In the level-one model, model, π_{1j} is an estimate describing whether each school's average student achievement changes over time. In the level-two model, γ_{21} provides an estimate of the extent to which these differences are different, on average, in RF schools and non-RF Title I schools, allowing us to determine if RF schools experienced a larger increase in student achievement than the non-RF Title I schools*, after the implementation of RF.* If this estimate is positive and statistically significant, we would have evidence that student achievement in Reading First schools is higher than would have been expected given RF prior achievement and current achievement in non-RF Title I schools.

Baseline-mean Model. This model is appropriate when there are too few data points to estimate a line, which was the case for 28 states. Instead, for these 28 states, we estimated a baseline mean model that averages the pre-RF student achievement scores. This technique is a traditional "difference-in-difference" model; it allows us to describe and compare the average performance of RF schools and non-RF Title I schools both prior and subsequent to RF implementation.[81] Again, the number of months between the award date specified in the model and the test score is included as a time-varying predictor at level one to control for differences in the amount of time schools could have been implementing the program prior to students being tested.

It is important to note that the models we fit to estimate changes in student reading achievement deliberately have no additional covariates because these are purely descriptive analyses. We do not assume that we have created two equivalent groups of schools, either by design or by

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[81] The difference in difference approach estimates the pre-to-post change in average reading achievement scores for both RF and non-RF Title I schools, and then compares the two change scores.

statistical adjustment with covariates. These descriptive analyses examine outcomes in Reading First schools in the context of the non-RF Title I schools they are not impact analyses from which we would make causal attributions.[82]

The following two-level model used data in each state, first to estimate mean student achievement *before* the state received RF funds, for both RF schools and non-RF Title I schools, and then, to compare the mean student achievement of the two groups of schools *after* RF implementation:

Level one (time):
$$Y_{ij} = \pi_{0j} + \pi_{1j}POST_{ij} + \pi_{2j}months_{ij} + \varepsilon_{ij}$$

Level two (school):
$$\pi_{0j} = \gamma_{00} + \gamma_{01}RF_j + \zeta_{0j}$$
$$\pi_{1j} = \gamma_{10} + \gamma_{11}RF_j + \zeta_{1j}$$

where:

Y_{ij} is the reading achievement score for school j at time i,

π_{0j} is the mean *baseline* reading achievement for school j,

$POST_{ij}$ is an indicator for school j that defines a time period *prior* to a state's having received RF funds (POST=0), or as a time period after a state has received RF funds (POST=1),

$months_{ij}$ is a time-varying predictor indicating the number of months between the award date and test year i in school j,

π_{1j} is the difference between the baseline mean and the follow-up mean for school j, and

ε_{ij} is a random error term for school j at time i,

γ_{00} is the mean reading achievement before the state received RF funding (*baseline)* for non-RF Title I schools,

RF_j is an indicator for school j that equals 1 in RF schools and 0 in non-RF Title I schools,

γ_{01} is the difference in achievement between RF and non-RF Title I schools at *baseline*,

γ_{10} is the average difference between the baseline mean and the follow-up mean for non-RF Title I schools,

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[82] It should be noted that omitting covariates from the statistical models that might be correlated with reading achievement could affect the interpretation of the differences in achievement gains of RF and non-RF Title I schools.

γ_{11} is the difference in the difference between the baseline mean and the follow-up mean between RF and non-RF Title I schools, and

ζ_{0j} and ζ_{1j} are random error terms for school j.

In the level-one model, π_{1i} is an estimate of each school's difference between its baseline mean achievement score and its follow-up mean achievement score. In the second equation of the level-two model, γ_{11} provides an estimate of the extent to which these differences are different, on average, in Reading First schools and non-RF Title I schools, allowing us to determine if RF schools experienced a larger increase in student achievement than the non-RF Title I schools, *after the implementation of RF.* If this estimate is positive and statistically significant, we would have evidence that student achievement in Reading First schools is higher than would have been expected given RF prior achievement and current achievement in non-RF Title I schools.

Calculating Effect Sizes

In order to draw conclusions about schools' reading performance across states and to benefit from the statistical power gained by combining data, we conducted a pooled analysis (separately for third- and fourth-grade) across all states included in these analyses. Because states reported on their students' reading performance using different metrics, we converted each state's difference-in-difference estimate into an effect size by dividing it by the standard deviation of scores of the non-RF Title I schools during pre-RF implementation years.[83] Next, the state effect sizes were weighted using the inverse of the variance of the effect size. In this way, effect sizes from states that provided more precise difference-in-difference estimates were weighted more heavily than effect sizes estimated with less precision. Finally, these weighted effect sizes were averaged to obtain a pooled estimate of the difference in pre- to post-RF implementation gains in reading performance between RF and non-RF Title I schools.

Reading Achievement and the Implementation of Reading First Activities
To investigate the relationship between student reading achievement and the implementation of RF activities, we rely on two data sources: 1) third-grade reading scores on state assessments (as used above); and 2) selected responses from the spring 2005 teacher survey administration, from which we constructed four composite variables to characterize key aspects of teachers' reading programs (described below).

Because state tests and metrics vary from state to state, we standardized the reading achievement scores as follows.[84] We designated schools as either high- or low-performing on the basis of their reading scores *relative to other RF and non-RF Title I schools in their state.* For these analyses, within each state, we defined high-performing schools as those with average

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[83] Using the standard deviation from the 'pre' scores of non-RF Title I schools ensures that it is not affected by the Reading First program.

[84] We cannot conduct state-by-state analyses on these data; our school samples are *nationally* representative, however, they are not representative of individual states.

achievement scores in the top quartile, and low-performing schools as those with average scores in the lowest quartile.[85] We excluded schools that had reading scores in the middle 50 percent of the distribution resulting in a sample of 390 schools from 21 states.

Fitting a Statistical Model

We fit a logistic regression model using the four composites to predict the probability that a school scored in the top quartile (of all RF and non-RF Title I schools) on their state's third-grade reading assessment. The model also included a) 20 dichotomous state indicator variables in order to account for state level variation in the probability of a school's being in the top quartile on the reading assessment; and b) an indicator for RF or non-RF Title I status.

$$P(HQ_j = 1) = \frac{1}{1 + \exp\left[-\left(\beta_0 + \beta_1 \, RF_j + \beta_2 \, ST_j + \beta_3 \, PD_j + \beta_4 \, AS_j + \beta_5 \, RI_j + \sum_{s=1}^{20} \beta_{6s} \, SDV_{sj}\right)\right]}$$

where:

HQ_j is the highest quartile on a state's third-grade state reading assessment; 1 indicates that a school scored in the top quartile (relative to other RF and non-RF Title I schools in their state),

RF_j is an indicator for school j that equals 1 in RF schools and 0 in non-RF Title I schools,

ST_j is the score on the composite based on activities for struggling readers for school j,

PD_j is the score on the composite based on participation in professional development activities for school j,

AS_j is the score on the composite based on teachers' uses of assessment to inform their instruction for school j,

RI_j is the score on the composite based on activities for struggling readers for school j, and

SDV_{sj} is a series of 20 dichotomous state dummy variables for school j in s state s.

The Composite Variables

Selected responses from the spring 2005 teacher survey administration were used to construct four composite variables to characterize key aspects of teachers' reading programs:

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[85] Reading achievement levels are calculated using schools' average scores in those states with more than one post-RF score because the average represents a more stable estimate of schools' true average student achievement than would scores only for the most recent year available.

- *Classroom reading instruction:* the amount of time for reading instruction, alignment of instruction with scientifically based reading research (SBRR), and the types of direct support teachers receive for their reading instruction.

- *Help for struggling readers:* placement of struggling readers in intervention programs, provision of extra instructional time; and use of materials that supplement the core reading program.

- *Professional development:* the amount of hours teachers attended professional development activities focused on reading: professional development in (a) the five dimensions of reading instruction; (b) assisting in the instruction provided to struggling readers; and (c) using assessments to inform instruction; (3) teachers' perceived level of preparedness to teach the five dimensions of reading.

- *Assessment:* the use of test results to organize instructional groups or to determine students' progress on skills: use of diagnostic tests to identify students who need reading intervention services; and use of screening tests to identify students who need a supplementary reading program.

Exhibit C.1 presents the specific variables included in each of the four composites.

Each composite includes variables based upon different metrics. For example, the *classroom reading instruction* composite includes one item based upon minutes of reading instruction, and another based upon the percentage SBRR activities teachers rated as 'central to their instruction.' One commonly used strategy for interpreting and reporting on composite measures is to standardize the scores of the component items, so that the results can be presented on a common metric. For the composites described above, teachers' responses to individual items were converted to z-scores (with a mean of 0 and a standard deviation of 1), and then averaged to generate a single score for each composite. The teacher-level scores were then aggregated to school-level z-scores for each composite. The use of z-scores enhances our capacity to characterize the results. For example, a one-point increase on the composite score is equivalent to an increase of one standard deviation, allowing us to describe a given score in terms of its distance from the mean score.

Exhibit C.1

Composite Descriptions

Teacher Survey Variables	Survey Question	Description
Reading Instruction		
Instructional Time–length of reading block	QC1	Teacher average across five days. This average was then standardized.[a]
Alignment of instruction with **SBRR**	QC6 (various items)	Teacher scores computed based on the percent of RF-aligned activities teachers indicated were central to their instruction (scale=1 to 100%); scores were then standardized.
Teachers' receipt of direct support for reading instruction	QD2a, d, h, I, j	Teacher scores computed based on the percent of the types of direct assistance they received (scale=1 to 100%); scores were then standardized.
Struggling Readers		
Placement of struggling readers in intervention programs	QC9j	Teacher response to whether or not such support was received.
Extra instructional time for struggling readers	QC9f	Teacher response to whether or not such support was received.
Struggling readers–placement in materials that supplement core reading programs	QC9g	Teacher response to whether or not such support was received.
Professional Development		
Number of hours attended PD in reading	QD1	Teacher responses were standardized.
PD in a) five dimensions of reading instruction, b) assisting in instructing struggling readers, c) using assessments to inform instruction	QD4 (various items); QD5j, k, l, m, n, o, q	Teacher scores based on the percent of topic items in which they received PD (Scale= 1 to 100%); scores were then standardized.

Teacher Survey Variables	Survey Question	Description
Perceived level of preparedness to teach five dimensions	QD6	An average level of preparedness across the five dimensions was computed (Scale=1 to 5); scores were then standardized.
Assessment		
Use of test results to organize instructional groups	QC6U	Teacher response to whether or not teachers engaged in this activity.
Use of test results to determine progress on skills	QC6W	Teacher response to whether or not teachers engaged in this activity.
Use of diagnostic tests to identify students who need reading intervention services	QC6Y	Teacher response to whether or not teachers engaged in this activity.
For each teacher, we computed the percent of these three activities in which they engaged. Teacher scores were then averaged within school to yield a school-level composite score on teacher use of assessment.		

[a] To standardize we subtracted a teacher's value from the mean value (based on our analytic sample) and divided by the standard deviation for that variable, thereby converting the scores to z-scores.

The composites are more efficient at representing multiple individual variables potentially related to student reading achievement than are the individual variables themselves. Further, as described in below, analyses of the individual and composite variables indicate that the each of the composites accurately represent their component variables (Exhibit C.2).

Exhibit C.2

Using Composite Components to Predict the Probability of Schools Scoring in the Top Quartile on States' Reading Tests

Variable	Estimate	Marginal Effect	Standard Error	P-value
Struggling Readers–Composite	*.691*	*.156*	*.162*	*.001*
Placement of struggling readers in intervention program	.190	.010	.033	.002
Extra instructional time for struggling readers	.166	.087	.033	.007
Struggling readers–placement in materials that supplement core reading program	.193	.101	.030	.001
Uses of Assessment–Composite	*-.091*	*-021*	*.167*	*.587*
Use of test results to organize instructional groups	-.011	-.005	.028	.846
Use of test results to determine progress on skills	.006	.003	.029	.904
Use of diagnostic tests to identify students who need reading intervention services	.003	.002	.028	.953
Reading Instruction –Composite	*-.268*	*-.061*	*.210*	*.202*
Instructional Time–length of reading block	.021	.011	.034	.746
Alignment of instruction with **SBRR**	.004	.002	.032	.946
Teachers' receipt of direct support for reading instruction	-.086	-.045	.031	.148
Professional Development –Composite	*.180*	*.040*	*.167*	*.278*
Number of hours attended PD in reading	.063	.034	.033	.310
PD in phonemic awareness	.045	.024	.037	.511
PD in decoding	.052	.027	.036	.448
PD in vocabulary	.098	.052	.031	.095
PD in fluency	.054	.029	.033	.381
PD in comprehension	-.003	-.002	.029	.952
PD in using assessments to inform instruction	.020	.010	.032	.750
PD in assisting in instructing struggling readers	.003	.001	.031	.962
Teachers' perceived level of preparedness to teach the five dimensions of reading	.099	.052	.029	.077

Appendix D
Survey Instruments

Reading First Implementation Study

Grade 1 Teacher Survey

The U.S. Department of Education's Policy and Program Studies Service has contracted with Abt Associates Inc. to conduct a national evaluation of K-3 reading instruction in Reading First and Title I schools. The study's data collection includes two rounds of survey administration (2005 and 2007) from both Reading First schools and Title I schools. Survey results from the 2005 administration involved over 9,000 school-based respondents, and they have been summarized in a recent report, The *Reading First Evaluation: Interim Report* (July 2006).

In each survey administration, we ask the principal, reading coach, and a sample of K-3 teachers from each participating school to complete a questionnaire. Participants will help inform the U.S. Department of Education, Congress, policymakers, practitioners, and researchers about how K-3 reading instruction is implemented in schools and what strategies teachers use to provide high-quality, evidence-based reading instruction in grades K-3.

Additional Information

The survey will take you approximately 30 minutes to complete. All responses to the survey will be kept confidential. All individual identifying information will be used only by persons on the research team. Information such as school location (state), participants' general job titles, grades they teach, and gender will be included in the study data files to be submitted to the Department of Education. However, participants' names will be stripped from all analysis data files and data files to be submitted to the Department of Education. We will not report any data about individual classrooms—all information will be reported at the grade and school levels. Neither your school nor your district will have access to any of the completed surveys at any time.

Thank you for your cooperation with this survey!

Instructions

Unless otherwise noted, your responses should reflect your experiences during the <u>2006-2007 school year</u> in the school to which this survey was sent.

- Please complete all questions; each question includes directions for recording your answer.

- You are sometimes told to skip over some questions in the survey. When this happens, you will see an arrow with a note that tells you what question to answer like this:

  ❏₁ Yes
  ❏₂ No → Skip to E4

- If you have any questions about how to complete the survey, please call: 1-xxx-xxx-xxxx. This is a free call and will connect you with our expert interviewers who can assist you.

A. Your Background and Experience

A1. Including this year, how long have you been a teacher? If less than one year, please enter '1'

	Enter # of years below…
a. Total number of years as a teacher	_____ **Years** 10-11/
b. Number of years teaching at this school	_____ **Years** 12-13/

A2. What grade(s) are you currently teaching? (Check all that apply)

- ❑₁ Kindergarten   14/
- ❑₂ First grade   15/
- ❑₃ Second grade   16/
- ❑₄ Third grade   17/
- ❑₉₅ Other (Please specify): _____   18-19/ 20-21/
22-23/ 24-25/

A3. How well do you feel your **pre-service teacher training** prepared you to teach each of the following dimensions of reading?

> **Pre-service teacher training** refers to training you received before you became certified and began teaching. For those who began their teacher career through an alternative certification or emergency certification program, and began teaching before they were certified, pre-service teacher training refers to the training you received to become fully certified.

Please choose a '1' if you were 'not at all prepared' to teach the dimension and a '5' if you were 'extremely well prepared.'

	Check only one box for each item…				
	Not at all prepared		**Somewhat well prepared**		**Extremely well prepared**
a. Phonemic awareness	❑₁	❑₂	❑₃	❑₄	❑₅ 26/
b. Decoding	❑₁	❑₂	❑₃	❑₄	❑₅ 27/
c. Vocabulary	❑₁	❑₂	❑₃	❑₄	❑₅ 28/
d. Comprehension	❑₁	❑₂	❑₃	❑₄	❑₅ 29/
e. Fluency building	❑₁	❑₂	❑₃	❑₄	❑₅ 30/

B.   Instruction and Assessment in Reading

B1.   **Last week**, approximately how many minutes per day did you devote to reading instruction? Include only reading instruction and not other language arts such as writing, spelling. Fill in the chart for each day last week with your best estimate of the number of minutes…

Monday	Tuesday	Wednesday	Thursday	Friday
# _____ min. / day	# _____ min. / day	# _____ min. / day	# _____ min. / day	# _____ min. / day
31-33/	34-36/	37-39/	40-42/	43-45/
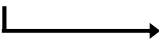
B2.   Has the average number of minutes you spend each day this year teaching reading decreased, remained the same, or increased from last year (2005-2006)? (Please check one)

- $\square_1$ **I did not teach reading last year**   46/
- $\square_2$ Decreased
- $\square_3$ Remained the same
- $\square_4$ Increased

B3.   How often **during this school year** is time regularly scheduled and formally set aside during the school day for Grade 1 teachers to:

	Check only one box for each item …					
	Not at all	1-4 times	5-8 times	Once a month	Once a week or more	Occurs only informally, as needed
a. Collaborate on reading lesson planning and instruction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_6$ 47/
b. Observe reading instruction in other classrooms.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_6$ 48/
c. Use assessment data to plan instruction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_6$ 49/
d. Participate in coaching with or be coached about reading by other teachers.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_6$ 50/
e. Be coached about my reading instruction by a reading coach (see below).	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_6$ 51/
f. Coordinate reading interventions for struggling readers with special education staff.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_6$ 52/
g. Coordinate reading interventions for struggling readers with English language learner (ELL) staff (see below).	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_6$ 53/
						54/

Check if no ELLs $\square_1$

A **reading coach** is a staff member whose primary role is to **provide ongoing training and support to classroom teachers** in the delivery of effective reading instruction. This assistance may include planning instruction, providing demonstration lessons, observing and providing feedback, using assessment results to guide instruction, etc.

English language learner (ELL) indicates a student who is in the process of acquiring English and **has a first language other than English**. Other common related terms include language minority or limited English proficient (LEP) students, students in English as a second language (ESL), or students in classes for English for speakers of other languages (ESOL).

B4. Please describe your use of the following <u>reading instructional activities</u> **this year**.

- **Check column A ONLY** if the instructional activity is one that you use frequently when you teach reading or one on which you rely heavily in your reading instruction.
- **Check column B** if you use the instructional activity, but it is a small part of your teaching, and not one you use frequently. It might be an activity that you use if there is time, but it is not one on which you rely heavily for your reading instruction.
- **Check column C** if the activity is not one you use in your reading instruction.

		Check only one box for each item…		
		A <u>Central</u> to my reading instruction	**B** <u>Small</u> part of my reading instruction	**C** <u>Not</u> Part of my reading instruction
Reading text	a. I provide feedback on errors as students read orally.	☐₁	☐₂	☐₃ 68/
	b. Students read texts that are easy to decode.	☐₁	☐₂	☐₃ 55/
	c. Students read silently.	☐₁	☐₂	☐₃ 60/
	d. Students reread familiar stories.	☐₁	☐₂	☐₃ 58/
	e. Students select books from the library for independent reading.	☐₁	☐₂	☐₃ 117/
	f. I develop language experience stories with my class.	☐₁	☐₂	☐₃ 70/
	g. Pairs of students read aloud together.	☐₁	☐₂	☐₃ 71/
	h. Students read aloud with expression and proper phrasing.	☐₁	☐₂	☐₃ 72/
	i. Students reread to find facts to answer questions.	☐₁	☐₂	☐₃ 73/
	j. Class creates story maps.	☐₁	☐₂	☐₃ 74/
	k. I listen to students read aloud without correcting errors.	☐₁	☐₂	☐₃ 61/
Work with sounds and words	l. Students isolate sounds in words that I say.	☐₁	☐₂	☐₃ 94/
	m. Students practice naming letters.	☐₁	☐₂	☐₃ 95/
	n. Students blend phonemes to form words.	☐₁	☐₂	☐₃ 96/
	o. Students practice reading high frequency words for automaticity.	☐₁	☐₂	☐₃ 88/
	p. Students use knowledge of root words, prefixes, and suffixes to decode new words.	☐₁	☐₂	☐₃ 89/
	q. I stop students while reading and have them self-correct misidentified words.	☐₁	☐₂	☐₃ 91/
	r. Students use pictures to identify unknown words.	☐₁	☐₂	☐₃ 97/
	s. I teach decoding skills while reading stories.	☐₁	☐₂	☐₃ 85/
	t. Students practice writing words as separate syllables.	☐₁	☐₂	☐₃ 93/
	u. I teach decoding skills with word families.	☐₁	☐₂	☐₃ 98/

56/BLANK   84/BLANK
57/BLANK   86/BLANK
59/BLANK   87/BLANK
62-67/BLANK   90/BLANK
69/BLANK   92/BLANK
75-83/BLANK   99-107/BLANK

B4. CONTINUED. Please describe your use of the following <u>reading instructional activities</u> **this year**.

- **Check column A ONLY** if the instructional activity is one that you use frequently when you teach reading or one on which you rely heavily in your reading instruction.
- **Check column B** if you use the instructional activity, but it is a small part of your teaching, and not one you use frequently. It might be an activity that you use if there is time, but it is not one on which you rely heavily for your reading instruction.
- **Check column C** if the activity is not one you use in your reading instruction.

		Check only one box for each item…		
		A <u>Central</u> to my reading instruction	**B** <u>Small</u> part of my reading instruction	**C** <u>Not</u> Part of my reading instruction
Other Techniques	v. I engage students in rhyming games and songs.	☐₁	☐₂	☐₃ 120/
	w. Students retell stories in sequence and identify characters and main events.	☐₁	☐₂	☐₃ 121/
	x. I read stories aloud to students.	☐₁	☐₂	☐₃ 122/
	y. Students write stories using invented spelling.	☐₁	☐₂	☐₃ 123/
	z. I discuss new and unusual words before reading.	☐₁	☐₂	☐₃ 112/
	aa. Students write vocabulary words in sentences.	☐₁	☐₂	☐₃ 110/
	bb. Students read stories they have written to others.	☐₁	☐₂	☐₃ 115/
	cc. Students make predictions while reading stories.	☐₁	☐₂	☐₃ 124/
	dd. Students use dictionaries to find word meanings.	☐₁	☐₂	☐₃ 111/
	ee. Students are given time to read on their own for enjoyment.	☐₁	☐₂	☐₃ 118/
	ff. Students develop questions about text material.	☐₁	☐₂	☐₃ 125/
	gg. Students act out story as a play.	☐₁	☐₂	☐₃ 126/

108/BLANK
109/BLANK
113/BLANK
114/BLANK
116/BLANK
119/BLANK
127-134/BLANK

B5. Please describe your use of the following teaching strategies and materials **this year**.
- **Check column A ONLY** if the item is one that you use frequently or one on which you rely heavily in your reading instruction.
- **Check column B** if you use the item, but it is a small part of your teaching, and not one you use frequently. It may be an approach you use if there is time, but it is not one on which you rely heavily.
- **Check column C** if the item is not one you use in your reading instruction.

		Check only one box for each item…		
		A Central to my reading instruction	**B** Small part of my reading instruction	**C** Not Part of my reading instruction
Instruction	a. Provide time in reading block for skill practice on own.	☐₁	☐₂	☐₃ 135/
	b. Provide materials for at-home practice of skills introduced in class.	☐₁	☐₂	☐₃ 136/
	c. Provide extra reading instructional time for struggling students.	☐₁	☐₂	☐₃ 137/
	d. Include writing opportunities in reading instruction.	☐₁	☐₂	☐₃ 138/
	e. Build spelling practice into reading instruction.	☐₁	☐₂	☐₃ 139/
	f. Develop reading skills through science and social studies.	☐₁	☐₂	☐₃ 140/
Grouping	g. Teach whole class reading lessons.	☐₁	☐₂	☐₃ 141/
	h. Work one-to-one with students on reading.	☐₁	☐₂	☐₃ 142/
	i. Work with small groups of students.	☐₁	☐₂	☐₃ 143/
	j. Group students based on skill levels.	☐₁	☐₂	☐₃ 144/
	k. Group students based on mixed abilities (cooperative groups).	☐₁	☐₂	☐₃ 145/
	l. Pair strong readers with those with weaker skills.	☐₁	☐₂	☐₃ 146/
Reading materials	m. Use core reading series.	☐₁	☐₂	☐₃ 147/
	n. Use supplementary reading materials for instruction in the following areas:			
	1. Phonemic awareness	☐₁	☐₂	☐₃ 148/
	2. Phonics	☐₁	☐₂	☐₃ 149/
	3. Fluency	☐₁	☐₂	☐₃ 150/
	4. Vocabulary	☐₁	☐₂	☐₃ 151/
	5. Comprehension	☐₁	☐₂	☐₃ 152/
	o. Use children's trade books.	☐₁	☐₂	☐₃ 153/
	p. Use books that are easy to decode.	☐₁	☐₂	☐₃ 154/
	q. Use books with patterned predictable language.	☐₁	☐₂	☐₃ 155/
	r. Use separate intervention materials for some students.	☐₁	☐₂	☐₃ 156/
	s. Use reading software/technology.	☐₁	☐₂	☐₃ 157/
	t. Use teacher-made materials.	☐₁	☐₂	☐₃ 158/

Supplementary Reading Materials provide additional instruction in a targeted area of reading to **all** students. **Do not** include materials that are used only with struggling readers. Include teacher-made materials, if applicable.

B5.   CONTINUED. Please describe your use of the following teaching strategies and materials **this year**.

- **Check column A ONLY** if the item is one that you use frequently or one on which you rely heavily in your reading instruction.
- **Check column B** if you use the item, but it is a small part of your teaching, and not one you use frequently. It may be an approach you use if there is time, but it is not one on which you rely heavily.
- **Check column C** if the item is not one you use in your reading instruction.

| | | Check only one box for each item… | | |
		A **Central** to my reading instruction	B **Small** part of my reading instruction	C **Not** Part of my reading instruction
Assessments	u. Use test results to organize instructional groups.	☐1	☐2	☐3 159/
	v. Use informal reading inventories.	☐1	☐2	☐3 160/
	w. Use tests to determine progress on skills.	☐1	☐2	☐3 161/
	x. Use tests to determine who can benefit from the core reading series.	☐1	☐2	☐3 162/
	y. Use diagnostic tests to identify students who need reading intervention services.	☐1	☐2	☐3 163/
	z. Use screening tests to identify students who need a supplementary reading program.	☐1	☐2	☐3 164/
	aa. Conduct miscue analysis, analyzing errors students make while reading aloud.	☐1	☐2	☐3 165/

B6. What specific formal or informal assessments do you primarily use for placing and /or grouping students, determining student mastery of skills, and identifying core deficits of struggling students? If you use more than one assessment, please report only on the one that you use the most often. Please be as specific as possible when naming or describing the assessment(s).
- In <u>column A</u> enter the name of the primary assessment used for each purpose.
- In <u>column B</u> check the number of times the assessment is given during the school year.
- In <u>column C</u> check whether students are usually assessed individually, in small groups, or in a whole class.
- In <u>column D</u> check the average time that it takes to administer the assessment.
- In <u>column E</u> check whether the assessment is used for accountability purposes for the Reading First program, No Child Left Behind (NCLB), or another program. Please check all that apply in this column only.

A. *Primary purposes and names of assessments*	Check only one box per column for each item…			Check all that apply…
	B. Number of times given per school year *(Check one)*	C. Students are assessed… *(Check one)*	D. Average time it takes to administer assessment *(Check one)*	E. Accountability purposes *(Check all that apply)*
a. Placement and/or grouping students *(Check one):* 166/ ₁☐ Assessment: _____ _____ 167-168/ 169-170/ 171-172/ ₂☐ I do not use an assessment for this purpose	₁☐ 1 ₂☐ 2 ₃☐ 3 ₄☐ 4 ₅☐ 5 or more 173/	₁☐ Individually ₂☐ In small groups ₃☐ In whole class 174/	₁☐ 1-15 *minutes* ₂☐ 16-30 ₃☐ 31-45 ₄☐ 46-60 ₅☐ 61 or more 175/	₁☐ Reading First 176/ ₂☐ NCLB 177/ ₃☐ Other 178/
b. Determining student mastery of skills *(Check one):* 179/ ₁☐ Assessment: _____ _____ 180-181/ 182-183/ 184-185/ ₂☐ I do not use an assessment for this purpose	₁☐ 1 ₂☐ 2 ₃☐ 3 ₄☐ 4 ₅☐ 5 or more 186/	₁☐ Individually ₂☐ In small groups ₃☐ In whole class 187/	₁☐ 1-15 *minutes* ₂☐ 16-30 ₃☐ 31-45 ₄☐ 46-60 ₅☐ 61 or more 188/	₁☐ Reading First 189/ ₂☐ NCLB 190/ ₃☐ Other 191/
c. Identifying the core deficits of struggling students *(Check one):* 192/ ₁☐ Assessment: _____ _____ 193-194/ 195-196/ 197-198/ ₂☐ I do not use an assessment for this purpose	₁☐ 1 ₂☐ 2 ₃☐ 3 ₄☐ 4 ₅☐ 5 or more 199/	₁☐ Individually ₂☐ In small groups ₃☐ In whole class 200/	₁☐ 1-15 *minutes* ₂☐ 16-30 ₃☐ 31-45 ₄☐ 46-60 ₅☐ 61 or more 201/	₁☐ Reading First 202/ ₂☐ NCLB 203/ ₃☐ Other 204/

B7. **What materials are used with** English Language Learners (ELLs) **to whom you teach reading (see definition of ELL on page 2)?**
(Check all that apply)

❑₁ **Do not teach ELLs →Skip to B8** 205/

❑₂ Core reading program materials in the native language of the ELL 206/

❑₃ ELL students use the same materials as other students 207/

❑₄ Core reading program materials, plus supplementary/intervention resources written in the ELL's native language 208/

❑₅ Core reading program materials, plus supplementary/intervention resources written in English especially for ELLs 209/

❑₆ Alternative core reading program materials in English geared toward the instructional level of the ELL 210/

B8. What additional supports have students who are struggling readers received **in the last month**? Check whether or not your students who are struggling readers received each of the supports during the past month.

Supports for Struggling Readers	Check only one box for each item…		
	Received	Did not receive	
a. Diagnostic assessment to determine core deficits.	$\square_1$	$\square_2$	211/
b. Extra practice in the classroom with phonemic awareness.	$\square_1$	$\square_2$	212/
c. Extra practice in the classroom with decoding.	$\square_1$	$\square_2$	213/
d. Extra practice in the classroom with fluency.	$\square_1$	$\square_2$	214/
e. Extra practice in the classroom with comprehension.	$\square_1$	$\square_2$	215/
f. Extra instructional time.	$\square_1$	$\square_2$	216/
g. Placement in materials that supplement the core reading program.	$\square_1$	$\square_2$	217/
h. Placement in different level of core reading program.	$\square_1$	$\square_2$	218/
i. Placement in separate core reading program.	$\square_1$	$\square_2$	219/
j. Placement in special intervention program.	$\square_1$	$\square_2$	220/
k. Work with tutor on one-to-one basis.	$\square_1$	$\square_2$	221/
l. Work with reading specialist on one-to-one basis.	$\square_1$	$\square_2$	222/
m. Work with reading specialist in small group.	$\square_1$	$\square_2$	223/
n. Work with more advanced peer.	$\square_1$	$\square_2$	224/
o. Special materials for parents to provide practice.	$\square_1$	$\square_2$	225/

B9. What additional supports have students who are struggling readers *and* ELLs received **in the last month**? Check whether or not your students who are struggling readers and ELLs received each of the supports during the past month (see definition of ELL on page 2).

Check if no ELLs $\longrightarrow$ $\square_1$ Skip to C1

226/

Supports for Struggling Readers who are ELLs	Check only one box for each item …		
	Received	Did not receive	
a. English as a Second Language instruction.	$\square_1$	$\square_2$	227/
b. Provide reading instruction in home language.	$\square_1$	$\square_2$	228/
c. In classroom help in reading from ELL teacher.	$\square_1$	$\square_2$	229/

C. Professional Development in Reading for K-3 Teachers

C1. During the current school year, including summer 2006, did you participate in any professional development activities in reading?

Yes □₁
No □₂ ⟶ Skip to C2

If yes, in how many of each of the following types of professional development activities **in reading** have you participated? Please count each activity only once. What is the total number of hours you spent in these activities?

First, write in the <u>number</u> of activities of each type in which you have been engaged. Then, write the total number of <u>hours</u> you spent in these activities. Mark 0 if you participated in none.

	Enter # and hours below…	
	# of Different workshops	**Total hours**
a. Attended short, stand-alone training or workshop in reading (half-day or less)	#_____ 231-232/	_____**Hours** 233-235/
b. Attended longer institute or workshop in reading (more than half-day)	#_____ 236-237/	_____**Hours** 238-240/
c. Attended a college course in reading (include any courses you are currently attending)	#_____ 241-242/	_____**Hours** 243-245/
d. Attended a conference about reading (might include multiple short offerings)	#_____ 246-247/	_____**Hours** 248-250/

C2. Below is a list of professional development activities that are often used to provide ongoing, direct support to teachers for teaching reading.
- In the first column, please indicate whether you have received any of the following types of assistance/support for teaching **during the current school year, including summer 2006**.
- If you did not receive that type of support, please indicate whether the support was available, but you did not receive it (column 2), or if it was not available at your school (column 3).

	Check only one box for each item …		
	Types of assistance I received this year	**Available, but I did not receive**	**Not available at my school**
a. Coaching or mentoring by reading coach in programs, materials, or strategies.	$\Box_1$	$\Box_2$	$\Box_3$ 251/
b. Coaching or mentoring from fellow teacher.	$\Box_1$	$\Box_2$	$\Box_3$ 252/
c. Peer study group or collegial circle for group study.	$\Box_1$	$\Box_2$	$\Box_3$ 253/
d. Demonstrations in my classroom.	$\Box_1$	$\Box_2$	$\Box_3$ 254/
e. Observations of other teachers.	$\Box_1$	$\Box_2$	$\Box_3$ 255/
f. Diagnostic testing help from a reading coach or specialist for individual students.	$\Box_1$	$\Box_2$	$\Box_3$ 256/
g. Intervention service help from a reading coach or specialist for individual students.	$\Box_1$	$\Box_2$	$\Box_3$ 257/
h. Interpretation of assessment data.	$\Box_1$	$\Box_2$	$\Box_3$ 258/
i. Grade level meetings devoted to reading.	$\Box_1$	$\Box_2$	$\Box_3$ 259/
j. Using assessment data to determine topics that require additional instruction or practice.	$\Box_1$	$\Box_2$	$\Box_3$ 260/

C3. During the current school year, including summer 2006, **approximately** how many of the **reading professional development activities** for **K-3 teachers**: (Please choose the category that most closely describes your professional development.)

	Check only one box for each item…				
	None	**One-Quarter**	**One-Half**	**Three-Quarters**	**All**
a. were also attended by the principal?	$\Box_1$	$\Box_2$	$\Box_3$	$\Box_4$	$\Box_5$ 261/
b. provide teachers options among which to choose?	$\Box_1$	$\Box_2$	$\Box_3$	$\Box_4$	$\Box_5$ 262/
c. provide a stipend?	$\Box_1$	$\Box_2$	$\Box_3$	$\Box_4$	$\Box_5$ 263/
d. provide follow-up activities?	$\Box_1$	$\Box_2$	$\Box_3$	$\Box_4$	$\Box_5$ 264/
e. include release time for participating teachers?	$\Box_1$	$\Box_2$	$\Box_3$	$\Box_4$	$\Box_5$ 265/
f. offer graduate college credits?	$\Box_1$	$\Box_2$	$\Box_3$	$\Box_4$	$\Box_5$ 266/
g. are held in a convenient location (e.g., activities held at school)?	$\Box_1$	$\Box_2$	$\Box_3$	$\Box_4$	$\Box_5$ 267/
h. use a team-based approach (joint training of people who work together)?	$\Box_1$	$\Box_2$	$\Box_3$	$\Box_4$	$\Box_5$ 268/
i. are given by trainers or facilitators who have a well-established reputation?	$\Box_1$	$\Box_2$	$\Box_3$	$\Box_4$	$\Box_5$ 269/

C4. Below is a list of topics that are often covered in professional development activities designed to provide   teachers with new information about the **content of reading instruction**.

- In column A, identify the topics that were addressed in professional development activities in which you participated **during the current school year, including summer 2006**.
- In column B, please identify the topics in which you need more professional development, whether or not this school's professional development activities have covered these topics.
- Please check all that apply in columns A and B.

Professional development **is defined as any activity in which a teacher has learned about reading or reading instruction. This includes school-based workshops, meetings with reading coaches, and meetings with a study group of other teachers.**

		CHECK ALL THAT APPLY	
		A. Topics addressed in professional development	**B. Topics in which I need more professional development**
Phonemic Awareness	a. Building phonological awareness, e.g. rhymes, dividing spoken language into sentences, words, syllables	☐₁ 270/	☐₂ 271/
	b. Identifying, adding, deleting sounds in spoken words	☐₃ 272/	☐₄ 273/
	c. Blending phonemes to form words	☐₁ 274/	☐₂ 275/
Decoding	d. Teaching letter-sound correspondence	☐₃ 276/	☐₄ 277/
	e. Teaching letter patterns (blends, digraphs, diphthongs)	☐₁ 278/	☐₂ 279/
	f. Using syllable patterns to read words	☐₃ 280/	☐₄ 281/
	g. Teaching component parts: roots, prefixes, suffixes	☐₁ 282/	☐₂ 283/
Vocabulary	h. Teaching use of dictionary, thesaurus	☐₃ 284/	☐₄ 285/
	i. Direct teaching of vocabulary words and their meaning	☐₁ 286/	☐₂ 287/
	j. Antonyms and synonyms	☐₃ 288/	☐₄ 289/
Fluency	k. Teaching sight words	☐₁ 290/	☐₂ 291/
	l. Guided oral reading	☐₃ 292/	☐₄ 293/
	m. Encouraging expression while reading	☐₁ 294/	☐₂ 295/
Comprehension	n. Setting motivation/asking prediction/preview questions	☐₃ 296/	☐₄ 297/
	o. Constructing information about character, setting, and main events	☐₁ 298/	☐₂ 299/
	p. Summarizing main ideas in narrative and informational text	☐₃ 300/	☐₄ 301/
	q. Self-monitoring strategies	☐₁ 302/	☐₂ 303/
	r. Asking questions at different levels (literal, inferential)	☐₃ 304/	☐₄ 305/
	s. Strategies for organizing text structure, e.g. story maps	☐₁ 306/	☐₂ 307/

308-309/BLANK

C5. Below is a list of topics that are often covered in professional development activities that are designed to provide teachers with new information about **teaching strategies used during reading instruction**.

- In column A, identify the topics that were addressed in professional development activities in which you participated **during the current school year, including summer 2006**.
- In column B, please identify the topics in which you need more professional development, whether or not this school's professional development activities have covered these topics.
- Please check all that apply in columns A and B.

		CHECK ALL THAT APPLY	
Topic		**A. Topics addressed in professional development**	**B. Topics in which I need more professional development**
Teaching Strategies	a. How to use the core reading program	☐₁ 310/	☐₂ 311/
	b. How to use children's literature to teach reading	☐₃ 312/	☐₄ 313/
	c. How to use reading research to guide content of instruction	☐₁ 314/	☐₂ 315/
	d. How the core reading program incorporates research principles	☐₃ 316/	☐₄ 317/
	e. How to use the supplemental reading program(s)	☐₁ 318/	☐₂ 319/
	f. How to integrate reading and writing instruction	☐₃ 320/	☐₄ 321/
	g. Strategies for teaching reading to ELLs (See definition of ELL on page 2)	☐₁ 322/	☐₂ 323/
Grouping	h. Learning styles	☐₃ 324/	☐₄ 325/
	i. How to organize small group instruction	☐₁ 326/	☐₂ 327/
Assessment	j. How to diagnose reading problems	☐₃ 328/	☐₄ 329/
	k. How to administer assessments	☐₁ 330/	☐₂ 331/
	l. How to interpret and use assessment data to guide instruction	☐₃ 332/	☐₄ 333/
Struggling Readers	m. How to help struggling readers with decoding	☐₁ 334/	☐₂ 335/
	n. How to help struggling readers with vocabulary	☐₃ 336/	☐₄ 337/
	o. How to help struggling readers with comprehension	☐₁ 338/	☐₂ 339/
	p. How to motivate readers	☐₃ 340/	☐₄ 341/
	q. Strategies for teaching reading to students with diagnosed learning disabilities	☐₁ 342/	☐₂ 343/
Organization/ planning	r. How to use state/district content standards for curriculum planning and teaching	☐₃ 344/	☐₄ 345/
	s. How to align reading curriculum and instruction with state/district assessments	☐₁ 346/	☐₂ 347/
	t. How to work with parents	☐₃ 348/	☐₄ 349/
	u. Classroom management	☐₁ 350/	☐₂ 351/

C6. **How well do you feel the** professional development activities in which you participated during the current school year (including summer, 2006) **prepared you to teach each of the following dimensions of reading? Please choose a '1' if you were 'not at all prepared' to teach the dimension and a '5' if you were 'extremely well prepared.'**

	Check only one box for each item …					
	Not at all prepared		Somewhat well prepared		Extremely well prepared	
a. Phonemic awareness	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	352/
b. Decoding	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	353/
c. Vocabulary	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	354/
d. Comprehension	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	355/
e. Fluency building	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	356/

D.   Support for Teaching Reading

D1.   The next set of statements is about your reading program. Please indicate the extent to which you agree or disagree with each statement.

	Check only one box for each item …				
	Strongly Agree	Agree	Disagree	Strongly Disagree	
a. I feel I need to make changes in the methods I use to teach children to read.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	357/
b. Other faculty/staff members have helped me to understand the difficulties that some children have in learning to read.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	358/
c. I have benefited from opportunities to learn more about methods for teaching reading.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	359/
d. The children in my class are making satisfactory progress in learning to read.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	360/
e. I do not have sufficient materials to teach reading effectively.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	361/
f. I do not understand why some children learn to read easily while other children struggle to learn basic reading skills.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	362/
g. The reading coach supports my efforts to teach reading effectively.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	363/
h. I have a good understanding of how children acquire language and literacy skills.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	364/
i. I wish I had more opportunities to discuss how to teach reading with other teachers.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	365/
j. I know the current reading skill levels of all my students.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	366/
k. I know how to assess the progress of my students in reading.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	367/
l. I have changed my methods of teaching reading as a result of professional development in reading.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	368/

Thank you for your cooperation and for taking time to answer these questions. Please place the completed survey in the enclosed envelope, seal the envelope and return it to your evaluation liaison.

If you have any questions about the survey, please call 1-xxx-xxx-xxxx.

This is a placeholder for your back cover of the booklet – it should be blank!

Abt ID / barcode here
Rf version

1-6/

BATCH: 7-9/

OMB Number: 1875-0232
Expiration Date: 10/31/07

Reading First Implementation Study

Principal Survey

The U.S. Department of Education's Policy and Program Studies Service has contracted with Abt Associates Inc. to conduct a national evaluation of K-3 reading instruction in Reading First and Title I schools. The study's data collection includes two rounds of survey administration (2005 and 2007) from both Reading First schools and Title I schools. Survey results from the 2005 administration involved over 9,000 school-based respondents, and they have been summarized in a recent report, The *Reading First Evaluation: Interim Report* (July 2006).

In each survey administration, we ask the principal, reading coach, and a sample of K-3 teachers from each participating school to complete a questionnaire. Participants will help inform the U.S. Department of Education, Congress, policymakers, practitioners, and researchers about how K-3 reading instruction is implemented in schools and what strategies teachers use to provide high-quality, evidence-based reading instruction in grades K-3.

Additional Information

The survey will take you approximately 30 minutes to complete. All responses to the survey will be kept confidential. All individual identifying information will be used only by persons on the research team. Information such as school location (state), participants' general job titles, grades they teach, and gender will be included in the study data files to be submitted to the Department of Education. However, participants' names will be stripped from all analysis data files and data files to be submitted to the Department of Education. We will not report any data about individual classrooms—all information will be reported at the grade and school levels. Neither your school nor your district will have access to any of the completed surveys at any time.

Thank you for your cooperation with this survey!

Instructions

Unless otherwise noted, your responses should reflect your experiences during the <u>2006-2007 school year</u> in the school to which this survey was sent.

- Please complete all questions; each question includes directions for recording your answer.

- You are sometimes told to skip over some questions in the survey. When this happens, you will see an arrow with a note that tells you what question to answer like this:

  ❑₁ Yes
  ❑₂ No → Skip to E4

- If you have any questions about how to complete the survey, please call: x-xxx-xxx-xxxx. This is a free call and will connect you with our expert interviewers who can assist you.

A. Background Information on You and Your School

A1. Including this year, how many years have you been at this school in this position? (If less than one year, please enter '1')	_____**Years** **10-11/**
A2. Including this year, what is the total number of years you have served as a principal? (If less than one year, please enter '1')	_____Years 12-13/
A3. Please provide the following information about students in your school for the current year (2006-2007):	
a. Total number of students currently enrolled	_____ Students 14-17/
b. Percentage of students who have left the school at any point during the year, including the summers between school years, excluding those who have left having completed the highest grade available at your school (i.e., mobility rate)	_____ % **18-20/**
c. Average attendance rate	_____ % 21-23/
d. Percentage of students in your school who are English Language Learners (ELLs)	_____ % 24-26/
Check if no ELLs	☐₁ 27/

> **English language learner (ELL)** indicates a student who is in the process of acquiring English and **has a first language other than English**. Other common related terms include language minority or limited English proficient (LEP) students, students in English as a second language (ESL), or students in classes for English for speakers of other languages (ESOL).

A4. Compared to 5 years ago, has student enrollment in your school decreased, remained stable, or increased? 28/

☐₁ Decreased
☐₂ Remained stable
☐₃ Increased
☐₄ Not applicable (school is new)

A5. Please indicate the approximate percentage of students in each grade who:

In 2006-2007, the percentage of students who…	Enter % below for each grade level …			
	K	**1**	**2**	**3**
a. participate in interventions for struggling readers	_____ % 29-31/	_____ % 32-34/	_____ % 35-37/	_____ % 38-40/
b. receive special education services	_____ % 41-43/	_____ % 44-46/	_____ % 47-49/	_____ % 50-52/
c. receive ESL instruction	_____ % 53-55/	_____ % 56-58/	_____ % 59-61/	_____ % 62-64/
d. receive reading instruction in a language other than English	_____ % 65-67/	_____ % 68-70/	_____ % 71-73/	_____ % 74-76/
e. read at or above grade level	_____ % 77-79/	_____ % 80-82/	_____ % 83-85/	_____ % 86-88/

A6. How many **classroom teachers** are assigned to **grades K-3** this year (2006-07)? How many of them are considered to be **highly qualified**? Please include regular education classes only.
- In <u>column A</u>, enter the total number of teachers in each grade.
- In <u>column B</u>, enter the percentage of those teachers listed in each grade who are **highly qualified**.

> **Highly qualified teachers** have full state certification, at least a bachelor's degree, **and** proven knowledge in the subject that they teach.

Grade Level	A. Enter # of classroom teachers below:	B. Enter % who are highly qualified below:
K	#_____ 89-90/	_____ % 91-93/
1	#_____ 94-95/	_____ % 96-98/
2	#_____ 99-100/	_____ % 101-103/
3	#_____ 104-105/	_____ % 106-108/
Other K-3 teachers (e.g., combination classrooms):	#_____ 109-110/	_____ % 111-113/

A7. How many **special education teachers** are assigned to students in grades K-3?

114-115/

_____ Teachers

A8. How many teachers who specialize in working with ELLs or teaching English for speakers of other languages (ESOL) are assigned to students in grades K-3 (see definition of ELL on page 1)?

_____ Teachers

116-117/

→ Check if no ELLs in grades K-3. ☐₁

118/

A9. How many of each type of reading support personnel does your school have for grades K-3?

Type	Insert # below …
a. Certified non-classroom teachers, including special education teachers, Title I teachers, and reading coaches or specialists	#_____ 119-120/
b. Instructional aides or assistants (during school day)	#_____ 121-122/
c. Tutors (before or after school)	#_____ 123-124/

> A **reading coach** is a staff member whose primary role is to **provide ongoing training and support to classroom teachers** in the delivery of effective reading instruction. This assistance may include planning instruction, providing demonstration lessons, observing and providing feedback, using assessment results to guide instruction, etc.

A10.   How many certified staff positions has your school added **this year** (such as a reading coach) to support reading instruction in Grades K-3? If no positions were added, write 0.

Number of staff positions added: # _____

A11.   Did your school make "adequate yearly progress" in reading/language arts on the basis of 2005-06 test scores, according to NCLB accountability provisions? (Please check only one.)

> **"Adequate yearly progress" (AYP)** is the amount of yearly improvement each school is expected to make. Each state is responsible for defining AYP and for determining the methods used to measure AYP.

❏₁   Yes

❏₂   No

❏₈   Not sure/don't know

B. Resources and Support for Your School's Reading Program

B1. What **sources of funding** are being or have been used to support your school's reading program this year **(2006–2007)**? (Check all that apply)

☐ 1	District general funds	128/
☐ 2	State funds for reading programs	129/
☐ 3	State textbook funds	130/
☐ 4	Title I	131/
☐ 5	Title II (Professional development to improve teacher quality)	132/
☐ 6	Title III (Professional development for ELL teachers)	133/
☐ 7	Comprehensive School Reform	134/
☐ 8	21st Century Community Learning Centers	135/
☐ 9	Reading First	136/
☐ 10	Professional development funds	137-138/
☐ 11	Private grants	139-140/

B2.   Beyond financial support, has your school received <u>external</u> assistance this year (from district, state, publisher, university expert, etc.) implementing any of the following K-3 reading program activities?

	Check one box for each item…	
	YES	**NO**
a. Selecting instructional programs/materials	☐1	☐2 141/
b. Selecting assessment instruments	☐1 142/	☐2
c. Selecting professional development providers	☐1 143/	☐2
d. Conducting classroom observation	☐1 144/	☐2
e. Conducting demonstration lessons	☐1	☐2
f. Interpreting assessment results	☐1	☐2
g. Recruiting staff with reading expertise, e.g. teachers, coaches	☐1	☐2
h. Setting up intervention programs for struggling readers	☐1	☐2
i. Planning professional development	☐1	☐2
j. Providing technical assistance in implementing core reading program	☐1	☐2
k. Providing technical assistance for using supplementary reading materials	☐1	☐2
l. Conducting needs assessment for professional development	☐1	☐2
m. Diagnosing needs of struggling readers	☐1	☐2
n. Reviewing reading program effectiveness	☐1	☐2
o. Leading teacher study groups	☐1	☐2

C. Reading Instructional Materials

C1. Which **core reading program** is being used to teach reading in each of grades K-3 **at this school**? We have provided a partial list of core reading programs below. Please check the core reading program used in each grade. If the core reading program you use is **not** included below, please check "other," and write in the name of the program and the publisher and/or developer (if applicable).

> A **core reading program** is one that provides a comprehensive program of instruction on a daily basis in all aspects of reading.

Note: Inclusion of a core reading program on the list below does not constitute an endorsement by the U.S. Department of Education.

Publisher/ Developer	Core reading program	Check one per grade			
		K 156-157/	1 158-159/	2 160-161/	3 162-163/
Addison Wesley	Unspecified or other (Please specify): _____ 164-165/	$\square_1$	$\square_1$	$\square_1$	$\square_1$
Harcourt	Collections	$\square_2$	$\square_2$	$\square_2$	$\square_2$
	Rigby Reading	$\square_3$	$\square_3$	$\square_3$	$\square_3$
	Signatures	$\square_4$	$\square_4$	$\square_4$	$\square_4$
	Trophies	$\square_5$	$\square_5$	$\square_5$	$\square_5$
	Unspecified or other (Please specify): _____ 166-167/	$\square_6$	$\square_6$	$\square_6$	$\square_6$
Heinemann	Fountas Pinnel units of study	$\square_7$	$\square_7$	$\square_7$	$\square_7$
	Unspecified or other (Please specify): _____ 168-169/	$\square_8$	$\square_8$	$\square_8$	$\square_8$
Houghton Mifflin	Horizons	$\square_9$	$\square_9$	$\square_9$	$\square_9$
	Invitation to Literacy	$\square_{10}$	$\square_{10}$	$\square_{10}$	$\square_{10}$
	Lectura	$\square_{11}$	$\square_{11}$	$\square_{11}$	$\square_{11}$
	Legacy of Literacy	$\square_{12}$	$\square_{12}$	$\square_{12}$	$\square_{12}$
	Nation's Choice	$\square_{13}$	$\square_{13}$	$\square_{13}$	$\square_{13}$
	Reading	$\square_{14}$	$\square_{14}$	$\square_{14}$	$\square_{14}$
	State Specific Edition	$\square_{15}$	$\square_{15}$	$\square_{15}$	$\square_{15}$
	Unspecified or other (Please specify): _____ 170-171/	$\square_{16}$	$\square_{16}$	$\square_{16}$	$\square_{16}$
McGraw-Hill	Open Court	$\square_{17}$	$\square_{17}$	$\square_{17}$	$\square_{17}$
	Reading	$\square_{18}$	$\square_{18}$	$\square_{18}$	$\square_{18}$
	Reading Mastery	$\square_{19}$	$\square_{19}$	$\square_{19}$	$\square_{19}$
	Spotlight on Literacy	$\square_{20}$	$\square_{20}$	$\square_{20}$	$\square_{20}$
	Unspecified or other (Please specify): _____ 172-173/	$\square_{21}$	$\square_{21}$	$\square_{21}$	$\square_{21}$
Saxon	Saxon Phonics	$\square_{22}$	$\square_{22}$	$\square_{22}$	$\square_{22}$
	Unspecified or other (Please specify): _____ 174-175/	$\square_{23}$	$\square_{23}$	$\square_{23}$	$\square_{23}$

C1. CONTINUED. Which **core reading program** is being used to teach reading in each of grades K-3 **at this school**? We have provided a partial list of core reading programs below. Please check the core reading program used in each grade. If the core reading program you use is **not** included below, please check "other," and write in the name of the program and the publisher and/or developer (if applicable).

Note: Inclusion of a core reading program on the list below does not constitute an endorsement by

the U.S. Department of Education.

Publisher/ Developer	Core reading program	Check one per grade			
		K 156-157/	1 158-159/	2 160-161/	3 162-163/
Scholastic	Literacy Place	☐24	☐24	☐24	☐24
	Unspecified or other (Please specify): _____ 176-177/	☐25	☐25	☐25	☐25
Scott Foresman	Literacy Works	☐26	☐26	☐26	☐26
	Reading	☐27	☐27	☐27	☐27
	State Specific Edition	☐28	☐28	☐28	☐28
	Unspecified or other (Please specify): _____ 178-179/	☐29	☐29	☐29	☐29
Sopris	Read Well	☐30	☐30	☐30	☐30
	Unspecified or other (Please specify): _____ 180-181/	☐31	☐31	☐31	☐31
Success for All	Success for All	☐32	☐32	☐32	☐32
	Unspecified or other (Please specify): _____ 182-183/	☐33	☐33	☐33	☐33
Voyager	Universal Literacy	☐34	☐34	☐34	☐34
	Unspecified or other (Please specify): _____ 184-185/	☐35	☐35	☐35	☐35
Wright Group	Unspecified or other (Please specify): _____ 186-187/	☐36	☐36	☐36	☐36
Other	Publisher/Developer:_____ 188-189/ Program Title:_____ 190-191/	☐37	☐37	☐37	☐37
	Publisher/Developer:_____ 192-193/ Program Title:_____ 194-195/	☐38	☐38	☐38	☐38
I use a core reading program developed by teachers or other school personnel		☐39	☐39	☐39	☐39
I do not use a core reading program		☐40	☐40	☐40	☐40

D. Instructional Time

D1. Please indicate for which grades your school has a **scheduled reading block**.

> A **reading block** is the time period that is formally scheduled for teaching reading.

If yes, please indicate for how many minutes the reading block is scheduled.
Does your school have a reading block in:

	Yes	Scheduled number of minutes	No		
a. Kindergarten	☐ 1 ⟶ ☐		☐ 2	196/	197-199/
b. First grade	☐ 1 ⟶ ☐		☐ 2	200/	201-203/
c. Second grade	☐ 1 ⟶ ☐		☐ 2	204/	205-207/
d. Third grade	☐ 1 ⟶ ☐		☐ 2	208/	209-211/

D2. For which of the following activities are state staff, district staff, the principal, and the school reading coach responsible?

	For each activity, check all that apply…				
	State	**District**	**Principal**	**School's reading coach**	**N/A**
a. Selection of a specific core reading program	☐₁ 212/	☐₂ 213/	☐₃ 214/	☐₄ 215/	☐₅ 216/
b. Selection of supplemental reading program materials (for use with the whole class)	☐₁ 217/	☐₂ 218/	☐₃ 219/	☐₄ 220/	☐₅ 221/
c. Selection of intervention reading program materials (for use with struggling readers)	☐₁ 222/	☐₂ 223/	☐₃ 224/	☐₄ 225/	☐₅ 226/
d. Selection of reading assessment instruments	☐₁ 227/	☐₂ 228/	☐₃ 229/	☐₄ 230/	☐₅ 231/
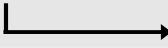
D3.   **This year**, for which of the following activities are state staff, district staff, the principal, and the school reading coach responsible?

Activities	For each activity, check all that apply…				
	State	District	Principal	School's reading coach	N/A
a. Monitoring implementation of reading program	☐₁ 232/	☐₂ 233/	☐₃ 234/	☐₄ 235/	☐₅ 236/
b. Review of teachers' reading lesson plans	☐₁ 237/	☐₂ 238/	☐₃ 239/	☐₄ 240/	☐₅ 241/
c. Review individual students' progress in reading	☐₁ 242/	☐₂ 243/	☐₃ 244/	☐₄ 245/	☐₅ 246/
d. Interpretation of assessment results	☐₁ 247/	☐₂ 248/	☐₃ 249/	☐₄ 250/	☐₅ 251/
e. Feedback to teachers about reading instruction	☐₁ 252/	☐₂ 253/	☐₃ 254/	☐₄ 255/	☐₅ 256/
f. Selection of reading professional development topics and opportunities	☐₁ 257/	☐₂ 258/	☐₃ 259/	☐₄ 260/	☐₅ 261/

D4.   This school year, how often have you, as principal, evaluated K–3 reading instruction using the following methods?

	Check only one box for each item …				
	Not at all	1-4 times this school year	5-8 times this school year	Once a month	Once a week or more
a. Observed classroom reading instruction informally	☐₁	☐₂	☐₃	☐₄	☐₅ 262/
b. Observed classroom reading instruction using an evaluation form	☐₁	☐₂	☐₃	☐₄	☐₅ 263/
c. Met with teachers individually to discuss strategies for improving reading instruction	☐₁	☐₂	☐₃	☐₄	☐₅ 264/
d. Met with groups of teachers to discuss strategies for improving reading instruction	☐₁	☐₂	☐₃	☐₄	☐₅ 265/

D5. Has your school made any of the following *changes* to your reading program that took effect at the beginning of the current school year (2006-2007)?

	Check only one box for each item …		
	YES	NO	
a. Adopted a new core reading program	☐₁	☐₂	266/
b. Added a new intervention program for struggling readers	☐₁	☐₂	267/
c. Added new supplementary materials	☐₁	☐₂	268/
d. Added new materials for ELLs (see definition of ELL on page 1)	☐₁	☐₂	269/
└────────→ Check if no ELLs ☐₁ 270/			
e. Adopted new reading assessments	☐₁	☐₂	271/

E. Reading Interventions for Struggling Readers

E1. What methods has your school used to meet the needs of at-risk or **struggling readers**? For each method listed below, please check whether or not you use the method at your school.

> **Reading intervention** is a program designed **for struggling readers** to be used only with struggling readers in addition to the core-reading program.

	Methods of meeting needs of struggling readers	Use this method	Not used	
Materials	a. Use separate program materials in interventions	☐₁	☐₂	272/
	b. Use core reading program with supplemental materials	☐₁	☐₂	273/
	c. Use core reading program only	☐₁	☐₂	274/
	d. Use reading materials written in ELLs' home language (see definition of ELL on page 1)	☐₁	☐₂	275/
	e. Use alternative materials designed for ELLs	☐₁	☐₂	276/
	⌐→ Check if no ELLs ☐₁ 277/			
Staff activities	f. A certified reading specialist provides additional direct instruction to struggling readers, individually or in small groups.	☐₁	☐₂	278/
	g. The classroom teacher provides additional direct instruction to struggling readers, individually or in small groups.	☐₁	☐₂	279/
	h. The classroom teacher provides additional opportunities for reading skill practice for struggling readers (e.g., partner reading, peer tutors, audio tapes, computer programs).	☐₁	☐₂	280/
	i. A certified specialist provides recommendations to classroom teachers on accommodations for struggling readers. (Indicate which type of specialist.)			
	A special education teacher	☐₁	☐₂	281/
	A bilingual/ESL teacher	☐₁	☐₂	282/
	Other (Please specify): _____ 284-285/	☐₁	☐₂	283/
	j. Trained aides or volunteers work with students under the direction of the classroom teacher during the school day.	☐₁	☐₂	286/
	k. Trained aides or volunteers work with students in a before or after school program.	☐₁	☐₂	287/
	l. Untrained aides or volunteers work with students under the direction of the classroom teacher during the school day.	☐₁	☐₂	288/
	m. Untrained aides or volunteers work with students in a before or after school program.	☐₁	☐₂	289/

E2.   Which of the following methods has your school used <u>this year</u> to identify students for reading interventions in Grades K-3?

Method of identifying students	Check one box for each item…	
	Use this method	Not used
a. Standardized achievement test scores in reading	☐₁	☐₂
b. Scores on tests that are part of the reading program	☐₁	☐₂ 291/
c. Screening test scores in reading	☐₁	☐₂ 292/
d. Diagnostic test scores in reading	☐₁	☐₂ 293/
e. Progress monitoring test scores in reading	☐₁	☐₂ 294/
f. Documented classroom observations	☐₁	☐₂ 295/
g. Teacher recommendations	☐₁	☐₂ 296/
h. Other school staff recommendations	☐₁	☐₂ 297/
i. Requests from parents	☐₁	☐₂ 298/
j. Reading coach recommendation	☐₁	☐₂ 299/

E3.   Are reading intervention services (e.g., a reading specialist) available **this year** to children who need them? (Check 'no' if there are no children who need intervention services)

300/

☐₁   Yes

☐₂   No

E3a. If yes, What was the average wait for reading intervention services?

301-303/

_____ school days. (Please enter 'zero' if there is no wait for services)

F. Professional Development in Reading

F1. Below is a list of topics that are often covered in professional development activities that are designed for **building administrators.**

- In column A, identify the topics that were addressed in professional development activities in which you participated **since July 1st of the current school year**.
- In column B, please identify the topics in which you need more professional development, whether or not your school's professional development activities have covered these topics.
- Please check all that apply in columns A and B.

Topic		A. Topics addressed in professional development	B. Topics in which I need more professional development
Content of Reading Instruction	a. Phonemic Awareness	☐₁ 304/	☐₂ 305/
	b. Decoding	☐₃ 306/	☐₄ 307/
	c. Vocabulary	☐₁ 308/	☐₂ 309/
	d. Fluency	☐₃ 310/	☐₄ 311/
	e. Comprehension	☐₁ 312/	☐₂ 313/
Teaching Strategies	f. How to use the core reading program	☐₁ 314/	☐₂ 315/
	g. How to use children's literature to teach reading	☐₃ 316/	☐₄ 317/
	h. How to use reading research to guide content of instruction	☐₁ 318/	☐₂ 319/
	i. How the core reading program incorporates research principles	☐₃ 320/	☐₄ 321/
	j. How to use the supplemental reading program	☐₁ 322/	☐₂ 323/
	k. How to integrate reading and writing instruction	☐₁ 324/	☐₂ 325/
	l. Strategies for teaching reading to ELLs	☐₃ 326/	☐₄ 327/
Evaluation	m. How to evaluate a core reading program	☐₁ 328/	☐₂ 329/
	n. How to evaluate reading instruction	☐₃ 330/	☐₄ 331/
	o. How to coach teachers in reading instruction	☐₁ 332/	☐₂ 333/
	p. How to manage reading personnel	☐₁ 334/	☐₂ 335/
Assessment	q. How to diagnose reading problems	☐₃ 336/	☐₄ 337/
	r. How to administer assessments	☐₁ 338/	☐₂ 339/
	s. How to interpret and use assessment data to guide instruction	☐₃ 340/	☐₄ 341/

CHECK ALL THAT APPLY …

F1. CONTINUED. Below is a list of topics that are often covered in professional development activities that are designed for **building administrators.**

- In column A, identify the topics that were addressed in professional development activities in which you participated **since July 1st of the current school year**.
- In column B, please identify the topics in which you need more professional development, whether or not your school's professional development activities have covered these topics.
- Please check all that apply in columns A and B.

		CHECK ALL THAT APPLY …	
(CONTINUED FROM PREVIOUS PAGE)		**A.** Topics addressed in professional development	**B.** Topics in which I need more professional development.
Topic			
Struggling Readers	t. How to help struggling readers with decoding	☐3 342/	☐4 343/
	u. How to help struggling readers with vocabulary	☐1 344/	☐2 345/
	v. How to help struggling readers with comprehension	☐3 346/	☐4 347/
	w. How to motivate readers	☐1 348/	☐2 349/
	x. Strategies for teaching reading to students with diagnosed learning disabilities	☐3 350/	☐4 351/
Organization, Management and Support	y. How to select reading materials	☐1 352/	☐2 353/
	z. How to use content standards for curriculum planning and teaching	☐3 354/	☐4 355/
	aa. How to select reading assessments	☐1 356/	☐2 357/
	bb. Alignment of reading curriculum and instruction with state/district assessments	☐3 358/	☐4 359/
	cc. How to work with parents	☐1 360/	☐2 361/
	dd. Classroom management	☐3 362/	☐4 363/

Thank you for your cooperation and for taking time to answer these questions. Please place the completed survey in the enclosed envelope, seal the envelope and return it to your evaluation liaison.

If you have any questions about the survey, please call x-xxx-xxx-xxxx.

PAGE MARKER ---

THIS IS YOUR BACK OUTERCOVER SHEET (SHOULD BE LEFT BLANK)

Reading First Implementation Study
Reading Coach Survey

The U.S. Department of Education's Policy and Program Studies Service has contracted with Abt Associates Inc. to conduct a national evaluation of K-3 reading instruction in Reading First and Title I schools. The study's data collection includes two rounds of survey administration (2005 and 2007) from both Reading First schools and Title I schools. Survey results from the 2005 administration involved over 9,000 school-based respondents, and they have been summarized in a recent report, The *Reading First Evaluation: Interim Report* (July 2006).

In each survey administration, we ask the principal, reading coach, and a sample of K-3 teachers from each participating school to complete a questionnaire. Participants will help inform the U.S. Department of Education, Congress, policymakers, practitioners, and researchers about how K-3 reading instruction is implemented in schools and what strategies teachers use to provide high-quality, evidence-based reading instruction in grades K-3.

Additional Information

The survey will take you approximately 30 minutes to complete. All responses to the survey will be kept confidential. All individual identifying information will be used only by persons on the research team. Information such as school location (state), participants' general job titles, grades they teach, and gender will be included in the study data files to be submitted to the Department of Education. However, participants' names will be stripped from all analysis data files and data files to be submitted to the Department of Education. We will not report any data about individual classrooms—all information will be reported at the grade and school levels. Neither your school nor your district will have access to any of the completed surveys at any time.

Thank you for your cooperation with this survey!

Instructions

Unless otherwise noted, your responses should reflect your experiences during the <u>2006-2007 school year</u> in the school to which this survey was sent.

- Please complete all questions; each question includes directions for recording your answer.

- You are sometimes told to skip over some questions in the survey. When this happens, you will see an arrow with a note that tells you what question to answer like this:

    ❑₁ Yes
    ❑₂ No → Skip to E4

- If you have any questions about how to complete the survey, please call: x-xxx-xxx-xxxx. This is a free call and will connect you with our expert interviewers who can assist you.

A. Your Background and Experience

> A **reading coach** is a staff member whose primary role is to provide ongoing training and support to school staff in the delivery of effective reading instruction.

	Enter # below…
A1. Including this year, for how many years have you been the K–3 reading coach for this school? (If less than one year, enter 1.)	_____ years 10-11/
A2. Including this year, for how many years have you worked at this school in any capacity? (If less than one year, enter 1.)	_____ years 12-13/
A3. Including this year, how many years of classroom experience do you have, as either a teacher and/or reading coach? (If less than one year, enter 1.)	
a. Number of years experience as a reading coach	_____ years 14-15/
b. Number of years experience as a teacher	_____ years 16-17/

B. Coach Responsibilities

	Enter number below…
B1. This school year, for how many schools do you serve as the reading coach (including this school)?	_____ Schools 18-19/
B2. This school year, for how many teachers do you serve as the reading coach (include all teachers in all schools)?	_____ Teachers 20-21/
B3. Approximately what percentage of your time do you spend as the K–3 reading coach for this school?	_____ % 22-24/

B4.   How central is each of the following activities to your work this year (since July 1st) at this
       school?

Please rate the activity a "1" if you do not do the activity or if it is not at all central to your role as the literacy coach.
Rate the activity a "5" if it is absolutely central or critical to your work.

Activity	Do not do or not at all central		Somewhat central		Absolutely central	
a. Administering/coordinating reading assessments	□₁	□₂	□₃	□₄	□₅	25/
b. Compiling reading assessment data for teachers	□₁	□₂	□₃	□₄	□₅	26/
c. Facilitating grade level meetings	□₁	□₂	□₃	□₄	□₅	27/
d. Participating in school leadership team meetings	□₁	□₂	□₃	□₄	□₅	28/
e. Facilitating or coordinating family literacy activities	□₁	□₂	□₃	□₄	□₅	29/
f. Ordering/managing reading instruction materials	□₁	□₂	□₃	□₄	□₅	30/
g. Participating in professional development provided by the district, state or other consultants	□₁	□₂	□₃	□₄	□₅	31/
h. Providing sub time for teachers to observe other more experienced teachers	□₁	□₂	□₃	□₄	□₅	32/
i. Providing direct reading instruction to students	□₁	□₂	□₃	□₄	□₅	33/
j. Providing training/professional development in reading materials, strategies, and assessments	□₁	□₂	□₃	□₄	□₅	34/
k. Coaching staff on a range of topics (note: specific coaching activities are asked about in the next item)	□₁	□₂	□₃	□₄	□₅	35/
l. Organizing professional development for K-3 teachers	□₁	□₂	□₃	□₄	□₅	36/
m. Coordinating activities and meetings between classroom and special education teachers	□₁	□₂	□₃	□₄	□₅	37/
n. Coordinating activities and meetings between classroom teachers and English Language Learner (ELL) staff	□₁	□₂	□₃	□₄	□₅	38/
⟶ Check if no ELLs □₁ 39/						
o. Other (Please specify): _____ 41-42/	□₁	□₂	□₃	□₄	□₅	40/

> **English language learner (ELL)** indicates a student who is in the process of acquiring English and **has a first language other than English**. Other common related terms include language minority or limited English proficient (LEP) students, students in English as a second language (ESL), or students in classes for English for speakers of other languages (ESOL).

B5.   When you **coach** K-3 staff, how central has each of the following activities been to your work this year (since July 1st)?

Please rate the activity a "1" if you do not do the activity or if it is not at all central to your role as the literacy coach. Rate the activity a "5" if it is absolutely central or critical to your work.

Coaching Activity	Check only one box for each item…				
	Do not do or not at all central		Somewhat central		Absolutely central
a. Giving demonstration lessons using core or supplemental materials	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 43/
b. Assisting teachers in using the core program	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 44/
c. Observing and providing feedback to teachers	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 45/
d. Assisting teachers in forming instructional groups	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 46/
e. Assisting teachers in designing strategies for addressing the needs of struggling readers	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 47/
f. Assisting teachers with monitoring the effectiveness of strategies addressing the needs of struggling readers	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 48/
g. Giving demonstrations on assessment administration and scoring	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 49/
h. Planning reading instruction with teachers	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 50/
i. Reviewing teachers' lesson plans and providing feedback	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 51/
j. Assisting teachers in interpreting assessment results	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 52/
k. Assisting teachers in designing strategies for addressing the needs of special education students	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 53/
l. Assisting teachers in designing strategies for addressing the needs of ELLs (see page 2 for definition of ELL)	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 54/
Check if no ELLs $\square_1$ 55/					

C. Reading Instructional Materials

C1. Which **core reading program** is being used to teach reading in each of grades K-3 **at this school**? We have provided a partial list of core reading programs below. Please check the core reading program used in each grade. If the core reading program you use is **not** included below, please check "other," and write in the name of the program and the publisher and/or developer (if applicable).

Note: Inclusion of a core reading program on the list below does not constitute an endorsement by the U.S. Department of Education.

A **core reading program** is one that provides a comprehensive program of instruction on a daily basis in all aspects of reading.

Publisher/ Developer	Core reading program	Check one per grade			
		K $56\text{-}57/$	1 $58\text{-}59/$	2 $60\text{-}61/$	3 $62\text{-}63/$
Addison Wesley	Unspecified or other (Please specify): _____ $64\text{-}65/$	$\square_1$	$\square_1$	$\square_1$	$\square_1$
Harcourt	Collections	$\square_2$	$\square_2$	$\square_2$	$\square_2$
	Rigby Reading	$\square_3$	$\square_3$	$\square_3$	$\square_3$
	Signatures	$\square_4$	$\square_4$	$\square_4$	$\square_4$
	Trophies	$\square_5$	$\square_5$	$\square_5$	$\square_5$
	Unspecified or other (Please specify): _____ $66\text{-}67/$	$\square_6$	$\square_6$	$\square_6$	$\square_6$
Heinemann	Fountas Pinnel units of study	$\square_7$	$\square_7$	$\square_7$	$\square_7$
	Unspecified or other (Please specify): _____ $68\text{-}69/$	$\square_8$	$\square_8$	$\square_8$	$\square_8$
Houghton Mifflin	Horizons	$\square_9$	$\square_9$	$\square_9$	$\square_9$
	Invitation to Literacy	$\square_{10}$	$\square_{10}$	$\square_{10}$	$\square_{10}$
	Lectura	$\square_{11}$	$\square_{11}$	$\square_{11}$	$\square_{11}$
	Legacy of Literacy	$\square_{12}$	$\square_{12}$	$\square_{12}$	$\square_{12}$
	Nation's Choice	$\square_{13}$	$\square_{13}$	$\square_{13}$	$\square_{13}$
	Reading	$\square_{14}$	$\square_{14}$	$\square_{14}$	$\square_{14}$
	State Specific Edition	$\square_{15}$	$\square_{15}$	$\square_{15}$	$\square_{15}$
	Unspecified or other (Please specify): _____ $70\text{-}71/$	$\square_{16}$	$\square_{16}$	$\square_{16}$	$\square_{16}$
McGraw-Hill	Open Court	$\square_{17}$	$\square_{17}$	$\square_{17}$	$\square_{17}$
	Reading	$\square_{18}$	$\square_{18}$	$\square_{18}$	$\square_{18}$
	Reading Mastery	$\square_{19}$	$\square_{19}$	$\square_{19}$	$\square_{19}$
	Spotlight on Literacy	$\square_{20}$	$\square_{20}$	$\square_{20}$	$\square_{20}$
	Unspecified or other (Please specify): _____ $72\text{-}73/$	$\square_{21}$	$\square_{21}$	$\square_{21}$	$\square_{21}$
Saxon	Saxon Phonics	$\square_{22}$	$\square_{22}$	$\square_{22}$	$\square_{22}$
	Unspecified or other (Please specify): _____ $74\text{-}75/$	$\square_{23}$	$\square_{23}$	$\square_{23}$	$\square_{23}$

C1. CONTINUED. Which **core reading program** is being used to teach reading in each of grades K-3 **at this school**? We have provided a partial list of core reading programs below. Please check the core reading program used in each grade. If the core reading program you use is **not** included below, please check "other," and write in the name of the program and the publisher and/or developer (if applicable).

Note: Inclusion of a core reading program on the list below does not constitute an endorsement by the U.S. Department of Education.

Publisher/ Developer	Core reading program	Check one per grade			
		K	1	2	3
Scholastic	Literacy Place	$\square_{24}$	$\square_{24}$	$\square_{24}$	$\square_{24}$
	Unspecified or other (Please specify): _____ 76-77/	$\square_{25}$	$\square_{25}$	$\square_{25}$	$\square_{25}$
Scott Foresman	Literacy Works	$\square_{26}$	$\square_{26}$	$\square_{26}$	$\square_{26}$
	Reading	$\square_{27}$	$\square_{27}$	$\square_{27}$	$\square_{27}$
	State Specific Edition	$\square_{28}$	$\square_{28}$	$\square_{28}$	$\square_{28}$
	Unspecified or other (Please specify): _____ 78-79/	$\square_{29}$	$\square_{29}$	$\square_{29}$	$\square_{29}$
Sopris	Read Well	$\square_{30}$	$\square_{30}$	$\square_{30}$	$\square_{30}$
	Unspecified or other (Please specify): _____ 80-81/	$\square_{31}$	$\square_{31}$	$\square_{31}$	$\square_{31}$
Success for All	Success for All	$\square_{32}$	$\square_{32}$	$\square_{32}$	$\square_{32}$
	Unspecified or other (Please specify): _____ 82-83/	$\square_{33}$	$\square_{33}$	$\square_{33}$	$\square_{33}$
Voyager	Universal Literacy	$\square_{34}$	$\square_{34}$	$\square_{34}$	$\square_{34}$
	Unspecified or other (Please specify): _____ 84-85/	$\square_{35}$	$\square_{35}$	$\square_{35}$	$\square_{35}$
Wright Group	Unspecified or other (Please specify): _____ 86-87/	$\square_{36}$	$\square_{36}$	$\square_{36}$	$\square_{36}$
Other	Publisher/Developer: _____ 88-89/ Program Title: _____ 90-91/	$\square_{37}$	$\square_{37}$	$\square_{37}$	$\square_{37}$
	Publisher/Developer: _____ 92-93/ Program Title: _____ 94-95/	$\square_{38}$	$\square_{38}$	$\square_{38}$	$\square_{38}$
I use a core reading program developed by teachers or other school personnel		$\square_{39}$	$\square_{39}$	$\square_{39}$	$\square_{39}$
I do not use a core reading program		$\square_{40}$	$\square_{40}$	$\square_{40}$	$\square_{40}$

C2. Has your school made any of the following **changes** to your reading program that took effect at the beginning of the current school year (2006-2007)?

	Indicate 'yes' or 'no' for each item …		
	Yes	No	
a. Adopted a new core reading program	☐₁	☐₂	96/
b. Added a new intervention program for struggling readers	☐₁	☐₂	97/
c. Added new supplementary materials	☐₁	☐₂	98/
d. Added new materials for ELLs (see definition of ELL on page 2)	☐₁	☐₂	99/
└──────→ Check if no ELLs ☐₁ 100/			
e. Adopted new reading assessments	☐₁	☐₂	101/

D. Instructional Time

D1. Please indicate for which grades your school has a scheduled reading block.

> A **reading block** is the time period that is formally scheduled for teaching reading.

If yes, please indicate for how many minutes the reading block is scheduled.
Does your school have a reading block in:

	Yes	Scheduled number of minutes	No		
a. Kindergarten	☐₁ ──────→ ☐		☐₂	102/	103-105/
b. First grade	☐₁ ──────→ ☐		☐₂	106/	107-109/
c. Second grade	☐₁ ──────→ ☐		☐₂	110/	111-113/
d. Third grade	☐₁ ──────→ ☐		☐₂	114/	115-117/

E.   Reading Interventions for Struggling Readers

E1.   What methods has your school used to meet the needs of at-risk or **struggling readers**? For each method listed below, please check whether or not you use the method at your school.

> A **reading intervention** is a program designed **for struggling readers** to be used only with struggling readers in addition to the core-reading program.

Methods for meeting needs of struggling readers		Check one for each item …		
		Use this method	Not used	
Materials	a. Use separate program materials in interventions	$\square_1$	$\square_2$	118/
	b. Use core reading program with supplemental materials	$\square_1$	$\square_2$	119/
	c. Use core reading program only	$\square_1$	$\square_2$	120/
	d. Use reading materials written in ELLs' home language (see definition of ELL on page 2)	$\square_1$	$\square_2$	121/
	e. Use alternative materials designed for ELLs	$\square_1$	$\square_2$	122/
	└→Check if no ELLs $\square_1$ 123/			
Staff activities	f. A certified reading specialist provides additional direct instruction to struggling readers, individually or in small groups.	$\square_1$	$\square_2$	124/
	g. The classroom teacher provides additional direct instruction to struggling readers, individually or in small groups.	$\square_1$	$\square_2$	125/
	h. The classroom teacher provides additional opportunities for reading skill practice for struggling readers (e.g., partner reading, peer tutors, audio tapes, computer programs).	$\square_1$	$\square_2$	126/
	i. A certified specialist provides recommendations to classroom teachers on accommodations for struggling readers. (Indicate which type of specialist.)			
	A special education teacher	$\square_1$	$\square_2$	127/
	A bilingual/ESL teacher	$\square_1$	$\square_2$	128/
	Other (Please specify): _____130-131/	$\square_1$	$\square_2$	129/
	j. Trained aides or volunteers work with students under the direction of the classroom teacher during the school day.	$\square_1$	$\square_2$	132/
	k. Trained aides or volunteers work with students in a before or after school program.	$\square_1$	$\square_2$	133/
	l. Untrained aides or volunteers work with students under the direction of the classroom teacher during the school day.	$\square_1$	$\square_2$	134/
	m. Untrained aides or volunteers work with students in a before or after school program.	$\square_1$	$\square_2$	135/

F. Professional Development for Reading Coaches

F1. Below is a list of professional development topics for **reading coaches** in which you may have participated.
- In column A, identify any topics that were addressed in **reading coaches'** professional development activities **during the current school year, including summer 2006**.
- In column B, please identify the topics in which you need more professional development, whether or not this school's professional development activities have covered these topics.
- Please check all that apply in columns A and B.

	CHECK ALL THAT APPLY	
Topics	**A. Topics addressed in professional development for reading coaches**	**B. Topics in which you need more professional development**
a. How to use reading assessment data to guide instruction.	☐₁ 136/	☐₂ 137/
b. What are the types of assessments: screening, diagnostic, progress monitoring, and outcome?	☐₃ 138/	☐₄ 139/
c. How to use assessment data to form instructional groups.	☐₁ 140/	☐₂ 141/
d. How to provide constructive feedback to teachers.	☐₃ 142/	☐₄ 143/
e. How to establish credibility with teachers.	☐₁ 144/	☐₂ 145/
f. Essential components of scientifically based reading instruction.	☐₃ 146/	☐₄ 147/
g. What is the role of the reading coach in fostering change?	☐₁ 148/	☐₂ 149/
h. How to plan instructional interventions for struggling students.	☐₃ 150/	☐₄ 151/
i. Classroom management within the literacy block time.	☐₁ 152/	☐₂ 153/
j. How to conduct effective grade level meetings.	☐₃ 154/	☐₄ 155/
k. How to help teachers identify appropriate instructional materials.	☐₁ 156/	☐₂ 157/
l. How to help teachers make reading instruction systematic and explicit.	☐₃ 158/	☐₄ 159/
m. How to conduct demonstration lessons.	☐₁ 160/	☐₂ 161/
n. How to conduct classroom observations.	☐₃ 162/	☐₄ 163/
o. How to provide onsite professional development.	☐₁ 164/	☐₂ 165/
p. How to provide instructional supports for ELL students learning to read (see definition of ELL on page 2).	☐₃ 166/	☐₄ 167/
⟶ Check if no ELLs ☐₁ 168/		

G. Reading Instruction

G1.	This item asks you to describe your school using the statements below. Please read each statement, and indicate whether the statement is a good description of your school on a scale from a "Very inaccurate" description of your school to a "Very accurate" description of your school.

In this school …	Check one box for each item…				
	Very inaccurate				Very accurate
a. K-3 teachers are knowledgeable about scientifically based reading instruction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 169/
b. K-3 teachers are motivated to improve reading instruction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 170/
c. Reading instruction in K-3 classrooms is aligned with the state reading/language arts content standards.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 171/
d. There is a school-wide focus on reading and language arts.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 172/
e. K-3 teachers are experienced with the core reading program.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 173/
f. K-3 teachers are experienced with supplemental reading materials.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 174/
g. K-3 teachers are experienced with reading intervention materials and strategies.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 175/
h. K-3 classrooms have ample, high quality instructional materials.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 176/
i. Teachers use a variety of instructional materials to fill in gaps in the core program.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 177/
j. The core reading program is aligned with scientifically based reading research.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 178/
k. Supplemental reading materials are aligned with scientifically based reading research.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 179/
l. Reading intervention materials are aligned with scientifically based reading research.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 180/
m. The reading coach has the support of the school principal.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 181/
n. K-3 teachers seek the assistance of the reading coach to improve their reading instruction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 182/
o. Sufficient time during the school day is allotted for reading instruction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 183/
p. Sufficient time during the school day is allotted for teacher planning.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 184/
q. K-3 teachers collaborate and plan for reading instruction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 185/
r. Sufficient time during the school day is allotted for professional development.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 186/
s. Reading assessments are used to screen students for reading difficulties.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 187/
t. Diagnostic assessments are used to identify strengths and weaknesses of struggling readers.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 188/
u. Reading assessments are used to monitor student progress.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 189/
v. Assessment data are used to group students for instruction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 190/
w. Assessment data are used to guide and/or modify instruction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 191/
x. The district provides direction concerning reading instruction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 192/
y. The state provides direction concerning reading instruction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 193/
z. K-3 teachers make an effort to involve parents in their children's reading instruction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$ 194/

Thank you for your cooperation and for taking time to answer these questions. Please place the completed survey in the enclosed envelope, seal the envelope and return it to your evaluation liaison.

If you have any questions about the survey, please call x-xxx-xxx-xxxx.

PAGE MARKER –
THIS IS YOUR BACK COVER OF OUTER PORTION OF THE BOOKLET
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Appendix E
The Construct Matrix

Exhibit E.1

Construct Variables for Analysis of Survey Data

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
Support for Struggling Readers							
Support for Struggling Readers[86]	Grade 1 Teacher Survey, C9	b	Grade 1 Teacher Survey, B8	b	Extra practice with phonemic awareness	Dichotomous 1 = "Received" 0 = "Did not receive"	Score 1 for each Survey Item checked as "Received." Sum Survey Item scores (Range: 0-3)
		c		c	Extra practice with decoding/phonics		
		d		d	Extra practice with fluency		
High Fidelity (SBRR) Reading Instruction—KINDERGARTEN (K)							
KINDERGARTEN High Fidelity Vocabulary Instruction	K Teacher Survey, C4	bb.	K Teacher Survey, B4	bb.	I discuss meaning of new and unusual words	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 if Survey Item checked "Central to my instruction." Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		dd.		dd.	Students give definitions for words		
		ee.		ee.	Students tell opposites of words		

(Continues)

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[86] We created two versions of several constructs: a 'strict' version and a more 'relaxed' version. Our hope is to use the 'strict' version of the construct, as we believe these represent the highest quality activities. However, it could be the case that we find little variation across these strict constructs, especially in our sample of new RF schools. Therefore, the more relaxed versions may be more appropriate for analysis as they allow for more variation across respondents.

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
High Fidelity (SBRR) Reading Instruction—KINDERGARTEN (K) (continued)							
KINDERGARTEN High Fidelity Comprehension Instruction	K Teacher Survey, C4	b.	K Teacher Survey, B4	b.	I conduct story discussions with small groups of students	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		c.		c.	I read stories to small groups of students		
		g.		g.	Students orally answer questions about stories they have heard		
		h		h	Students read texts that are easy to decode		
		k		k	Students create story maps based on stories read aloud		
		y.		y.	Students retell stories in sequence and identify characters and main events		
		gg		gg	Students make predictions while reading stories		
KINDERGARTEN Non-SBRR Instruction	K Teacher Survey, C4	a.	K Teacher Survey, B4	a.	I read stories aloud to the whole class	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Sum Survey Item scores (Range: 0 to 9)
		e.		e.	I develop language experience stories with my class		
		f.		f.	Students read aloud their own written dictation		
		l.		l.	I teach phonemic awareness skills while reading stories		
		q.		q.	Students practice naming letters		
		v.		v.	I teach sight words		
		cc.		cc.	Students tell opposites of words		
		hh.		hh.	Students use dictionaries to find word meanings		

(Continues)

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
High Fidelity (SBRR) Reading Instruction—KINDERGARTEN (K) (continued)							
KINDERGARTEN High Fidelity Phonemic Awareness/Phonics Instruction	K Teacher Survey, C4	m.	K Teacher Survey, B4	m.	Students isolate first sounds in words that I say	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Sum Survey Item scores Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		n.		n.	Students isolate final sounds in words that I say		
		o.		o.	Students isolate middle sounds in words that I say		
		p.		p.	Students blend sounds with rhyming words		
		r.		r.	Students match sounds with letters		
		s.		s.	Students blend sounds to form words		
		t.		t.	I practice identifying sounds and syllables in spoken words by clapping and counting		
KINDERGARTEN High Fidelity Teaching Strategies	K Teacher Survey, C6	a.	K Teacher Survey, B4	a.	Provide time in reading block for skill practice on own	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		c.		c.	Provide extra reading instructional time for struggling readers		
		i.		i.	Work with small groups of students		
		j.		j.	Group students based on skill levels		
		m.		m.	Use core reading series		
		n.		n.	Use supplementary reading materials		
		r.		r.	Use separate intervention materials for some students		
		u.		u.	Use test results to organize instructional groups		
		w.		w.	Use tests to determine progress on skills		
		y.		y.	Use diagnostic tests to identify students who need reading intervention services		

(Continues)

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
High Fidelity (SBRR) Reading Instruction—GRADE 1							
GRADE 1 High Fidelity Fluency Instruction	Grade 1 Teacher Survey, C4	d.	Grade 1 Teacher Survey, B4	d.	Students reread familiar stories	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Sum Survey Item scores Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		h.		h.	Students read aloud with expression and proper phrasing		
GRADE 1 High Fidelity Vocabulary Instruction (No construct—only individual item)	Grade 1 Teacher Survey, C4	z.	Grade 1 Teacher Survey, B4	z.	I discuss new and unusual words before reading	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction	Score 100% if Survey Item checked "Central to my instruction." Score 0% if item scored 2 or 3. (Range: 0 to 100%)
GRADE 1 Non-SBRR Instruction	Grade 1 Teacher Survey, C4	c.	Grade 1 Teacher Survey, B4	c.	Students read silently	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Sum Survey Item scores Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		m.		m.	Students practice naming letters		
		p.		p.	Students use knowledge of root words, prefixes, and suffices to decode new words		
		r.		r.	Students use pictures to identify unknown words		
		s.		s.	I teach decoding skills while reading stories		

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey	2007 Survey	Survey Description	Item Scale	Scoring Metric
					(Continues)

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey	2007 Survey		Survey Description	Item Scale	Scoring Metric
High Fidelity (SBRR) Reading Instruction—GRADE 1 (continued)						
GRADE 1 High Fidelity Comprehension Instruction	Grade 1 Teacher Survey, C4	i.	Grade 1 Teacher Survey, B4	i.	Students reread to find facts to answer questions	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Sum Survey Item scores Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		w.		w.	Students retell stories in sequence and identify characters and main events		
		cc.		cc.	Students make predictions while reading stories		
		ff.		ff.	Students develop questions about text material		
GRADE 1 High Fidelity Phonemic Awareness/Phonics Instruction	Grade 1 Teacher Survey, C4	l.	Grade 1 Teacher Survey, B4	l.	Students isolate sounds in words that teachers say	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Sum Survey Item scores Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		n.		n.	Students blend phonemes to form words		
		u.		u.	Teaches decoding/phonics skills with word families		
GRADE 1 High Fidelity Teaching Strategies	Grade 1 Teacher Survey, C6	a.	Grade 1 Teacher Survey, B4	a.	Provide time in reading block for skill practice on own	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Sum Survey Item scores Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		c.		c.	Provide extra reading instructional time for struggling readers		
		i.		i.	Work with small groups of students		
		j.		j.	Group students based on skill levels		
		m.		m.	Use core reading series		
		n.		n.	Use supplementary reading materials		
		r.		r.	Use separate intervention materials for some students		
		u.		u.	Use test results to organize instructional groups		
		w.		w.	Use tests to determine progress on skills		
		y.		y.	Use diagnostic tests to identify students who need reading intervention services		

(Continues)

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
High Fidelity (SBRR) Reading Instruction—GRADE 2/3							
GRADE 2/3 High Fidelity Fluency Instruction	Grade 2/3 Teacher Survey, C4	d.	Grade 2/3 Teacher Survey, B4	d.	Students reread familiar stories	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Sum Survey Item scores Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		g.		g.	I listen to students read aloud without correcting errors		
GRADE 2/3 High Fidelity Vocabulary Instruction	Grade 2/3 Teacher Survey, C4	t.	Grade 2/3 Teacher Survey, B4	t.	Students work with prefixes and suffixes to change the meaning of words	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 if Survey Item checked "Central to my instruction." Sum Survey Item scores Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		x.		x.	Students learn vocabulary through study of antonyms, synonyms, and homonyms		
		bb.		bb.	I discuss new and unusual words before reading		

(Continues)

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
High Fidelity (SBRR) Reading Instruction—GRADE 2/3 (continued)							
GRADE 2/3 Non-SBRR Instruction	Grade 2/3 Teacher Survey, C4	a.	Grade 2/3 Teacher Survey, B4	a.	Students read texts that are easy to decode	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Sum Survey Item scores (Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		c.		c.	Students read aloud unfamiliar texts		
		f.		f.	Students read silently		
		o.		o.	I teach decoding skills while reading stories		
		p.		p.	Students memorize sight words		
		v.		v.	Students use context clues to identify unknown words		
		z.		z.	Students write vocabulary words in sentences		
		aa.		aa.	Students use dictionaries to find word meanings		
GRADE 2/3 High Fidelity Comprehension Instruction	Grade 2/3 Teacher Survey, C4	b.	Grade 2/3 Teacher Survey, B4	b.	Students reread to locate information	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Sum Survey Item scores Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		i.		i.	Students confirm or revise predictions after reading		
		j.		j.	Students generate their own questions about text material		
		k.		k.	Students identify their comprehension break-downs and use fix-up strategies with a partner		
		l.		l.	Students orally summarize main events in stories and informational texts		
		bb.		bb.	I discuss new and unusual words before reading		
		dd.		dd.	Students identify story structure and elements		

Exhibit E.1

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
High Fidelity (SBRR) Reading Instruction—GRADE 2/3 (continued)							
GRADE 2/3 High Fidelity Phonemic Awareness/Phonics Instruction	Grade 2/3 Teacher Survey, C4	n.	Grade 2/3 Teacher Survey, B4	n.	Students decode multi-syllabic words in isolation	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Score –1 for each distractor checked "Central to my instruction." Sum Survey Item scores Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		q.		q.	Students read irregularly spelled words and non-words		
		s.		s.	Students use knowledge of root woods, prefixes, and suffixes to decode new words		
GRADE 2/3 High Fidelity Teaching Strategies	Grade 2/3 Teacher Survey, C6	a.	Grade 2/3 Teacher Survey, B4	a.	Provide time in reading block for skill practice on own	Three-level ordinal 1 = "Central to my reading instruction" 2 = "Small part of reading instruction" 3 = "Not part of my reading instruction"	Score 1 for each Survey Item checked "Central to my instruction." Sum Survey Item scores Compute percent of items in construct rated as "central." (Range: 0 to 100%)
		c.		c.	Provide extra reading instructional time for struggling readers		
		i.		i.	Work with small groups of students		
		j.		j.	Group students based on skill levels		
		m.		m.	Use core reading series		
		n.		n.	Use supplementary reading materials		
		r.		r.	Use separate intervention materials for some students		
		u.		u.	Use test results to organize instructional groups		
		w.		w.	Use tests to determine progress on skills		
		y.		y.	Use diagnostic tests to identify students who need reading intervention services		

(Continues)

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
Professional Development (PD) for Teachers (Applies to all grade levels)							
Received/Need More PD in Phonemic Awareness	Teacher Survey, D, D4	a.	Teacher Survey, C4	a	Building phonological awareness	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed" OR 1 = "Topic in which I need more Professional Development" 0 = "Topic in which I do not need more PD"	Score 1 if *any* of Survey Items a – c are checked "Topic addressed in PD." OR "Topic in which I need more PD" (Range: 0 to 1)
		b.		b	Identifying, adding, deleting sounds in spoken words		
		c.		c	Blending phonemes to form words		
Received/Need More PD in Decoding	Teacher Survey, D, D4	d.	Teacher Survey, C4	d	Teaching letter-sound correspondence	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed" OR 1= "Topic in which I need more Professional Development" 0= "Topic in which I do not need more PD"	Score 1 if *any* of Survey Items d – g are checked "Topic addressed in PD." OR "Topic in which I need more PD" (Range: 0 to 1)
		e.		e	Teaching letter patterns		
		f.		f	Using syllable patterns to read words		
		g.		g	Teaching component parts		
Received/Need More PD in Vocabulary	Teacher Survey, D4	h.	Teacher Survey, C4	h	Teaching use of dictionary, thesaurus	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed" OR 1 = "Topic in which I need more Professional Development" 0 = "Topic in which I do not need more PD"	Score 1 if *any* of Survey Items h – j are checked "Topic addressed in PD." OR "Topic in which I need more PD" (Range: 0 to 1)
		i.		i	Direct teaching of vocabulary words and meaning		
		j.		j	Antonyms and synonyms		
							(Continues)

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
Professional Development (PD) for Teachers (continued)							
Received/Need More PD in Fluency	Teacher Survey, D4	k.	Teacher Survey, C4	k	Teaching sight words	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed" OR 1 = "Topic in which I need more Professional Development" 0 = "Topic in which I do not need more PD"	Score 1 if *any* of Survey Items k – m are checked "Topic addressed in PD." OR "Topic in which I need more PD" (Range: 0 to 1)
		l.		l	Guided oral reading		
		m.		m	Encouraging expression while reading		
Received/Need More PD in Comprehension	Teacher Survey, D4	n.	Teacher Survey, C4	n	Setting motivation/asking prediction/preview questions	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed" OR 1 = "Topic in which I need more Professional Development" 0 = "Topic in which I do not need more PD"	Score 1 if *any* of Survey Items n – s are checked "Topic addressed in PD." OR "Topic in which I need more PD" (Range: 0 to 1)
		o.		o	Constructing information about character, setting, and main events		
		p.		p	Summarizing main ideas in narrative and informational text		
		q.		q	Self-monitoring strategies		
		r.		r	Asking questions at different levels (literal, inferential)		
		s.		s	Strategies for organizing text structure, e.g. story maps		

(Continues)

Exhibit E.1

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
Professional Development (PD) for Teachers (continued)							
Received/Would Like More PD in Teaching Strategies	Teacher Survey, D5	a.	Teacher Survey, C5	a	How to use the core reading program	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed" OR 1 = "Topics in which I'd like more Professional Development" 0 = "Topic in which I would not like more PD"	Score 1 if *any* of Survey Items a – g are checked "Topic addressed in PD." OR "Topic in which I'd like more PD" (Range: 0 to 1)
		b.		b	How to use children's literature to teach reading		
		c.		c	How to use reading research to guide content of instruction		
		d.		d	How the core reading program incorporates research principles		
		e.		e	How to use the supplemental reading program(s)		
		f.		f	How to integrate reading and writing instruction		
		g.		g	Strategies for teaching reading to ELLs		
Received/Would Like More PD in Grouping	Teacher Survey, D5	h.	Teacher Survey, C5	h	Learning styles	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed" OR 1 = "Topics in which I'd like more Professional Development" 0 = "Topic in which I would not like more PD"	Score 1 if *any* of Survey Items h – i are checked "Topic addressed in PD." OR "Topic in which I'd like more PD" (Range: 0 to 1)
		i.		i	How to organize small group instruction		
Received/Would Like More PD in Assessment	Teacher Survey, D5	j.	Teacher Survey, C5	j.	How to diagnose reading problems	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed" OR 1 = "Topics in which I'd like more Professional Development" 0 = "Topic in which I would not like more PD"	Score 1 if *any* of Survey Items j – l are checked "Topic addressed in PD." OR "Topic in which I'd like more PD" (Range: 0 to 1)
		k.		k.	How to administer assessments		
		l.		l.	How to interpret and use assessment data to guide instruction		

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
Professional Development (PD) for Teachers (continued)							
Received/Would Like More PD in Struggling Readers	Teacher Survey, D5	m.	Teacher Survey, C5	m.	How to help struggling readers with decoding	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed" OR 1 = "Topics in which I'd like more Professional Development" 0 = "Topic in which I would not like more PD"	Score 1 if *any* of Survey Items m – q are checked "Topic addressed in PD." OR "Topic in which I'd like more PD" (Range: 0 to 1)
		n.		n.	How to help struggling readers with vocabulary		
		o.		o.	How to help struggling readers with comprehension		
		p.		p.	How to motivate readers		
		q.		q.	Strategies for teaching reading to students with diagnosed learning disabilities		
Received/Would Like More PD in Organization/ Planning	Teacher Survey, D5	r.	Teacher Survey, C5	r.	How to use state/district content standards for curriculum planning and teaching.	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed" OR 1 = "Topics in which I'd like more Professional Development" 0 = "Topic in which I would not like more PD"	Score 1 if *any* of Survey Items r– u are checked "Topic addressed in PD." OR "Topic in which I'd like more PD" (Range: 0 to 1)
		s.		s.	How to align reading curriculum and instruction with state/district assessments		
		t.		t.	How to work with parents		
		u.		u.	Classroom management		
Number of PD items received in Teaching Strategies	Teacher Survey, D5	a.	Teacher Survey, C5	a	How to use the core reading program	Each construct is scored as 0 or 1, "Received PD" or "Did not Receive PD."	Score 1 for each Survey Item checked as "Received." Sum Survey Item scores (Range: 0-7)
		b.		b	How to use children's literature to teach reading		
		c.		c	How to use reading research to guide content of instruction		
		d.		d	How the core reading program incorporates research principles		
		e.		e	How to use the supplemental reading program(s)		
		f.		f	How to integrate reading and writing instruction		
		g.		g	Strategies for teaching reading to ELLs		

(Continues)

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
Professional Development (PD) for Teachers (continued)							
Number of PD items received in Grouping	Teacher Survey, D5	h.	Teacher Survey, C5	h	Learning styles	Each construct is scored as 0 or 1, "Received PD" or "Did not Receive PD."	Score 1 for each Survey Item checked as "Received." Sum Survey Item scores (Range: 0-2)
		i.		i	How to organize small group instruction		
Number of PD items received in Assessment	Teacher Survey, D5	j.	Teacher Survey, C5	j.	How to diagnose reading problems	Each construct is scored as 0 or 1, "Received PD" or "Did not Receive PD."	Score 1 for each Survey Item checked as "Received." Sum Survey Item scores (Range: 0-3)
		k.		k.	How to administer assessments		
		l.		l.	How to interpret and use assessment data to guide instruction		
Number of PD items received in Struggling Readers	Teacher Survey, D5	m.	Teacher Survey, C5	m.	How to help struggling readers with decoding	Each construct is scored as 0 or 1, "Received PD" or "Did not Receive PD."	Score 1 for each Survey Item checked as "Received." Sum Survey Item scores (Range: 0-5)
		n.		n.	How to help struggling readers with vocabulary		
		o.		o.	How to help struggling readers with comprehension		
		p.		p.	How to motivate readers		
		q.		q.	Strategies for teaching reading to students with diagnosed learning disabilities		
Number of PD items received in Organization/Planning	Teacher Survey, D5	r.	Teacher Survey, C5	r.	How to use state/district content standards for curriculum planning and teaching.	Each construct is scored as 0 or 1, "Received PD" or "Did not Receive PD."	Score 1 for each Survey Item checked as "Received." Sum Survey Item scores (Range: 0-4)
		s.		s.	How to align reading curriculum and instruction with state/district assessments		
		t.		t.	How to work with parents		
		u.		u.	Classroom management		

(Continues)

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
Professional Development (PD) for Building Administrators							
Received PD in Teaching Strategies	Principal Survey, F2	f.	Principal Survey, F1	f	How to use the core reading program	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed"	Score 1 if *any* of Survey Items f – l are checked "Topic addressed in PD." (Range: 0 to 1)
		g.		g.	How to use children's literature to teach reading		
		h.		h.	How to use reading research to guide content of instruction		
		i.		i.	How the core reading program incorporates research principals		
		j.		j.	How to use the supplemental reading program		
		k.		k.	How to integrate reading and writing instruction		
		l.		l.	Strategies for teaching reading to ELLs		
Received PD in Evaluation	Principal Survey, F2	m.	Principal Survey, F1	m.	How to evaluate a core reading program	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed"	Score 1 if *any* of Survey Items m – p are checked "Topic addressed in PD." (Range: 0 to 1)
		n.		n.	How to evaluate reading instruction		
		o.		o.	How to coach teachers in reading instruction		
		p.		p.	How to manage reading personnel		
Received PD in Assessment	Principal Survey, F2	q.	Principal Survey, F1	q.	How to diagnose reading problems	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed"	Score 1 if *any* of Survey Items q – s are checked "Topic addressed in PD." (Range: 0 to 1)
		r.		r.	How to administer assessments		
		s.		s.	How to interpret and use assessment data to guide instruction		

(Continues)

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Exhibit E.1

Construct Variables for Analysis of Survey Data (Continued)

Construct	2005 Survey		2007 Survey		Survey Description	Item Scale	Scoring Metric
Professional Development for Building Administrators (continued)							
Received PD for Struggling Readers	Principal Survey, F2	t.	Principal Survey, F1	t.	How to help struggling readers with decoding/phonics	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed"	Score 1 if any of Survey Items t – x are checked "Topic addressed in PD." (Range: 0 to 1)
		u.		u.	How to help struggling readers with vocabulary		
		v.		v.	How to help struggling readers with comprehension		
		w.		w.	How to motivate readers		
		x.		x.	Strategies for teaching reading to students with diagnosed learning disabilities		
Received PD in Organization, Management, and Support	Principal Survey, F2	y.	Principal Survey, F1	y.	How to select reading materials	Dichotomous 1 = "Topic addressed in Professional Development" 0 = "Topic not addressed"	Score 1 if any of Survey Items y – dd are checked "Topic addressed in PD." (Range: 0 to 1)
		z.		z.	How to use content standards for curriculum planning and teaching		
		aa.		aa.	How to select reading assessments		
		bb.		bb.	Alignment of reading curriculum and instruction with state/district assessments		
		cc.		cc.	How to work with parents		
		dd.		dd.	Classroom management		

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