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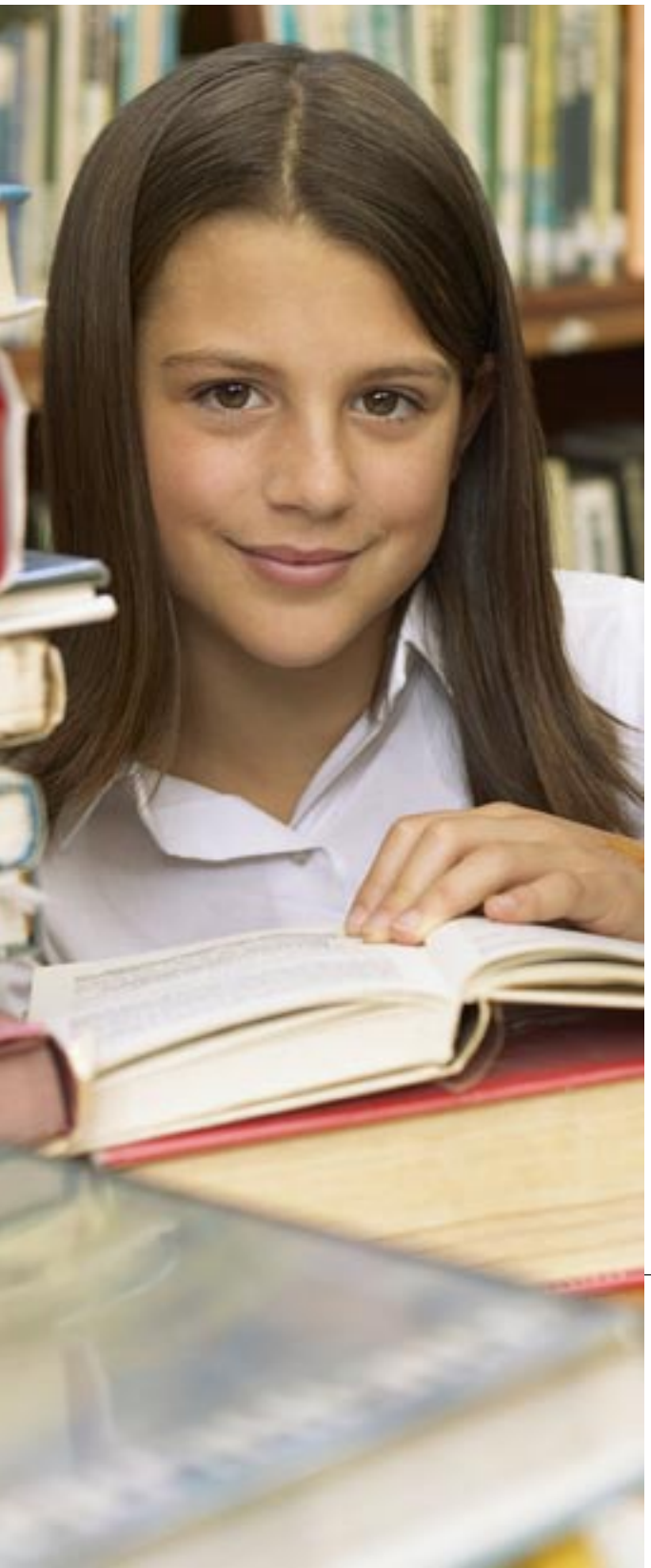

A description of foundation skills interventions for struggling middle-grade readers in four urban Northeast and Islands Region school districts

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February 2008

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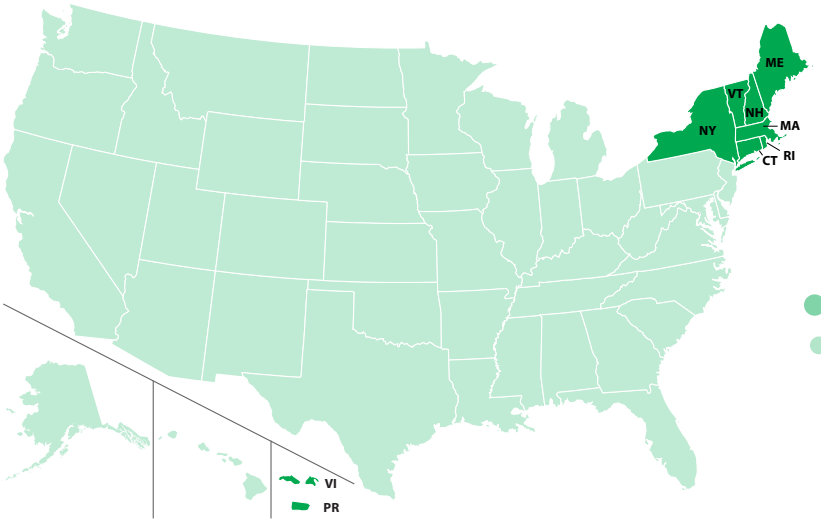

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February 2008

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Summary

REL 2008–No. 042

A description of foundation skills interventions for struggling middle-grade readers in four urban Northeast and Islands Region school districts

This study describes how four midsize urban school districts in the Northeast and Islands Region were providing foundation skills assessments and programs to struggling middle-grade readers. Researchers found variations, but also some similarities, in the districts' use of tests and programs.

This study, conducted during the 2006/07 academic year, describes how four midsize urban school districts in the Northeast and Islands Region—Worcester, Massachusetts; Nashua, New Hampshire; Yonkers, New York; and Providence, Rhode Island—were conducting foundation skills assessments and providing foundation skills programs to struggling middle-grade readers. The information presented here can help state and local education agency decisionmakers plan, implement, and evaluate their own foundation skills testing and intervention programs.

Foundation skills are reading skills that students typically develop in the primary grades. For middle-grade students the lack of these skills can lead to serious reading difficulties (Snow, Burns, & Griffin, 1998). Struggling readers can include students with learning disabilities, English language learners, and others with diverse reading needs who are at risk for failure.

Four research questions informed the study.

- What screening and diagnostic assessments were districts administering to their struggling readers to determine their strengths and needs in foundation skills?
- What intervention programs were districts using to build foundation skills in their struggling readers?
- After enrolling students in intervention programs, what further assessments were districts using to monitor their progress in building foundation skills?
- What factors can promote or hinder a district's efforts to implement effective programs?

For each of the four participating districts, researchers gathered five types of information. They reviewed online articles, books, and journals for general information about assessments and interventions. They collected online district statistics. They read public documents describing literacy programs in the district.

They consulted state literacy plans. Finally, in each district they interviewed four district administrators chosen to represent four areas—special education, English language arts, Title I, and bilingual education.

From the information gathered from the four participating school districts, the researchers concluded that all four districts were in the beginning stages of testing and programming. The tests and programs varied, as did the numbers of students that the districts included.

For initial student screening all four districts were using standards-based state tests. To further diagnose middle-grade students' difficulties with foundation skills, all four districts were using four tests—Dynamic Indicators of Basic Early Literacy Skills (DIBELS), Scholastic Reading Inventory, the Woodcock Reading Mastery Test, and the Woodcock-Johnson III Diagnostic Reading Battery—although many published tests were available. Three districts were also using two other tests. For other diagnostic purposes the districts were using various other tests.

Many reading interventions are available. The four districts were using just eight interventions, however, with two being used in all four districts: Read 180 and the Wilson Reading Program. In addition, all four districts consistently described professional development as an intervention.

Three of the four districts—Worcester, Providence, and Nashua—were offering or planning to offer their reading intervention programs within a three-tier approach, which provides a framework for teaching at different levels throughout a school to meet student needs (as determined through testing). Such an approach is consistent with the goals of the Response to Intervention method for identifying and serving students who have learning disabilities or who might need special help beyond that offered in the general curriculum and for determining which students qualify for special education.

To monitor progress, all four districts were using their state assessments and comparing scores across years. In addition, all four were using informal measures, such as program-embedded assessments and teacher observation. Two districts—Worcester and Providence—were monitoring progress at key points during the school year.

The study further identifies six factors that, according to the district representatives interviewed, can promote or hinder program implementation: building on the federal Reading First initiative by expanding selected aspects of the program to upper elementary and middle grades, using Response to Intervention and three-tier reading models, fostering collaboration among relevant departments and programs, recruiting highly qualified teachers in relevant areas, solving problems of time and scheduling, and ensuring that programs are carried out as designed.

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This study describes how four midsize urban school districts in the Northeast and Islands Region were providing foundation skills assessments and programs to struggling middle-grade readers. Researchers found variations, but also some similarities, in the districts' use of tests and programs.

OVERVIEW

This study, conducted during the 2006/07 academic year, describes how four midsize urban school districts in the Northeast and Islands Region—Worcester, Massachusetts; Nashua, New Hampshire; Yonkers, New York; and Providence, Rhode Island—were conducting foundation skills assessments and providing foundation skills programs to struggling middle-grade readers. The information presented here can help state and local education agency decisionmakers plan, implement, and evaluate their own foundation skills testing and intervention programs.

Foundation skills are reading skills that students typically develop in the primary grades (see box 1). For middle-grade students the lack of these skills can lead to serious reading difficulties (Snow, Burns, & Griffin, 1998). *Struggling readers* can include students with learning disabilities, economically disadvantaged students, English language learners, and others with diverse reading needs who are at risk for failure (see box 1 and appendix A).

State administrators in the region have expressed concern about the poor reading performance of their middle-grade students, as indicated by low reading scores on the National Assessment of Educational Progress (table B1 and table B2 in appendix B). These low scores mirror those of students nationwide.

Recent reports on improving adolescent reading development for struggling readers (such as Biancarosa & Snow, 2004) have recommended that schools:

- Conduct screening and diagnostic testing to identify students who exhibit difficulties with foundation skills.
- Design intervention programs that focus on foundation skills.

BOX 1

Foundation skills and struggling readers

According to the National Institute of Child Health and Human Development (2000), *foundation skills* include three elements:

- Phonemic awareness—the awareness that spoken words are made up of individual sounds (phonemes) and the ability to manipulate these sounds.
- Knowledge of high-frequency sight words—the most common words, which students should be able to read quickly and automatically.
- The ability to decode words—to translate a word from print to speech (for example, by using known sound-symbol correspondences to sound a word out and decipher it).

Struggling readers can include students with learning disabilities, English language learners, economically disadvantaged students in schools receiving funds targeted to high-poverty schools (under Title I, Part A of the No Child Left Behind Act of 2001), or other at-risk students. Many struggling readers have learning disabilities (Fawcett & Nicolson, 1995; Moats, 1998; Shaywitz, Escobar, Shaywitz, Fletcher, & Makuch, 1992; Snow, Burns, & Griffin, 1998). On the National Assessment of Educational Progress, reading scores for students with learning disabilities are much lower than for those without (U.S. Department of Education, National Center for Education Statistics, 2005).

TABLE 1

Percentage of Northeast and Islands Region fourth- and eighth-grade students scoring proficient or above on the 2005 National Assessment of Educational Progress

Grade, group	Massachusetts	New Hampshire	New York	Rhode Island
4	44	39	33	30
4, students with disabilities	17	10	7	12
8	44	38	33	29
8, students with disabilities	13	10	8	6

Source: U.S. Department of Education, National Center for Education Statistics, 2005.

- Conduct ongoing progress monitoring to determine whether students have acquired the targeted skills.

Research questions and method

Based on these recommendations, four research questions informed the present study.

- What screening and diagnostic assessments were districts administering to their struggling readers—such as those who fall below the basic level on standardized tests—to determine their strengths and needs in foundation skills?
- What intervention programs were districts using to build foundation skills in their struggling readers?
- After enrolling students in intervention programs, what further assessments were districts using to monitor their progress in building foundation skills?
- What factors can promote or hinder a district's efforts to implement effective programs?

For each of the four participating districts, researchers gathered five types of information. They reviewed online articles, books, and journals for general information about assessments and interventions. They collected online district statistics. They read public documents describing literacy programs in the district. They consulted state literacy plans. Finally, in each district they interviewed four district administrators chosen to represent four areas—special education, English language arts, Title I, and bilingual education.

Researchers then organized the information by research question, aggregating the answers to each question across all four districts. This created an overview of what was happening across the districts, supplied a broader perspective on tests and interventions, and allowed convenient cross-district comparisons.

In addition, the researchers prepared a profile of each district describing its diagnostic tests, its intervention programs (including professional development), and its progress-monitoring policies and procedures. Each district profile tells a coherent story. It explains how a single district was combining testing and programming to meet the needs of struggling readers, and it discusses other factors that can affect a district's programming.

Summary of findings

The study found that all four districts were testing to screen students, diagnose problems, and monitor student progress. But all were in the beginning stages of testing and programming. Districts varied in the tests that they used and in the numbers of students that they included.

For initial screening and year-to-year progress monitoring all four districts were relying heavily on state-administered standards-based tests. Such tests are an important accountability measure for districts, individual schools, and teachers, and are central to a three-tier reading program (one in which screening tests help to determine whether students need to move to an instructional tier that offers additional or more intensive support; see box 2).

For diagnostic testing, although many tests were available (see appendix C), all four of the participating districts were using the Dynamic Indicators of Basic Early Literacy Skills (DIBELS), Scholastic Reading Inventory, the Woodcock Reading Mastery Test, and the Woodcock-Johnson III Diagnostic Reading Battery. Three districts—Worcester, Nashua, and Yonkers—were using two additional tests: the Developmental Reading Assessment and the Wilson Assessment of Decoding and Encoding. The time needed to administer tests was a factor in their selection.

In addition to the state tests, progress monitoring was being conducted as an ongoing part of the intervention programs. No one measure was being used, either for screening and diagnostic testing to determine placement in a program or for progress monitoring. Representatives from all districts found it important to consider teacher recommendations and anecdotal evidence.

Three of the four districts—Worcester, Providence, and Nashua—were offering or planning to offer their intervention programs within a three-tier approach. As districts explored Response to Intervention (a preidentification strategy) and planned reading programs using the three-tier model as a guide, decisions about assessments became more important. Testing was needed to determine what tier students should be in and how to move students from one tier to another.

The study found that all four districts were in the beginning stages of testing and programming

After initial screening and diagnosis, all four districts were offering at least some students an opportunity to participate in a foundation skills intervention program. Although many such programs were available (see appendix D), districts consistently used a few. A particular program could be used at different levels, depending on the district and the availability of supplemental materials. Several tier-two interventions, and all tier-three interventions, focused on developing foundation reading skills.

Researchers identified six factors that decision-makers outside the participating districts might usefully consider when planning and implementing programs:

- Administrators were interested in building on the existing federal Reading First initiative at the district level—extending relevant aspects of the program into the middle grades. They

BOX 2

The three-tier reading approach

The three-tier reading approach, described by Vaughn and colleagues (Vaughn Gross Center for Reading and Language Arts at The University of Texas at Austin, 2005), provides a framework for teaching reading at different levels throughout a school to meet student needs, as determined by screening, diagnostic, and progress-monitoring testing. It is consistent with the goals of Response to Intervention (Marchland-Martella, Ruby, & Martella, 2007; Vaughn, Linan-Thompson, & Hickman, 2003).

Initially developed for grades K–3, the three-tier approach has been employed in federal Reading First initiatives to teach beginning reading (Cline, 2005). The Striving Readers program, aimed at improving adolescent reading, includes some parts of the three-tier model (see http://www.ed.gov/programs/strivingreaders/applicant.html). Movement through the tiers is dynamic: students enter and leave as needed.

According to Vaughn and colleagues (Vaughn Gross Center for Reading and Language Arts at The University of Texas at Austin, 2005), each of the model's tiers serves a different purpose:

- Tier one—provided to all students in the general education classroom—aims to serve the majority and reduce the number who will be at risk for reading problems. It comprises a core reading program (grounded in scientific research), progress monitoring, and ongoing professional development for teachers.

- Tier two implementation contains two categories. The first, problem solving, recommends consultation among classroom teachers and other school or district staff to develop individualized services for children not succeeding in the tier-one general education curriculum. The second category, standard treatment protocol, relies on scientifically validated strategies to deliver standardized, small group interventions to students not making adequate progress in tier one (Fuchs & Fuchs, 2006). As students progress to grade level, they leave the program and their progress is monitored to ensure on-level reading. Those who do not exit proceed to the third tier.

- Tier three is designed for students who still do not make adequate progress after the earlier interventions. Tutoring at this level is more intensive, with more explicit instruction tailored to meet each student's individual needs (see appendix A), and may lead directly to identification for special education. Group size is smaller; daily instruction lasts longer. Programming in this tier focuses on developing foundation reading skills.

To fully implement the three-tier approach, administrators, specialists, and teachers (general education, special education, bilingual education, and others) must collaborate. Since the Individuals with Disabilities Education Act was reauthorized in 2004, many state and local education agencies have been trying to figure out how they might translate the approach into practice in their settings, especially as it pertains to reading. But it is too early to expect findings of effectiveness (Fuchs & Fuchs, 2005; National Association of State Directors of Special Education, 2005).

reasoned that since the Reading First initiative had often successfully facilitated district dialogue about elementary reading instruction, it could provide a basis for continued planning in the upper elementary and middle grades.

- Within the context of Response to Intervention, a three-tier reading model offered districts a framework for beginning to plan their reading programs.

- Administrators viewed collaboration among English language arts, special education, Title I, and English language learner departments and programs as important for any change in instructional planning. Previously, each of these departments sought its own solutions to reading problems, usually without linking its approach to those of other departments in a coherent way. But districts reported to researchers that they were improving

collaboration through joint professional development, program planning, and even coteaching.

- Districts expressed a need for highly qualified reading teachers, such as program-specific certified reading teachers, reading specialists, Title I teachers, and special educators. To ensure that all teachers were prepared some districts were focusing their professional development for staff (including reading teachers, content-area teachers, special education teachers, and English language learning teachers) on middle-grade reading. This is important for tier-one programming, where reading is taught across the curriculum.

- Administrators noted problems concerning time and scheduling. All four participating districts cited the need to create flexible schedules as a prerequisite to implementing effective tier-two and tier-three interventions for grades 6–8.

Program fidelity is important in early implementation. Teachers must carry out a program as designed—for example, following program guidelines for teacher-student ratios, using designated materials, and instructing for the required number of minutes per day or week.

Finally, the study recommends further research using expanded research questions, different samples, different data-gathering strategies, and a modified research focus (see appendix E).

WHY THIS STUDY

In the 2005 National Assessment of Educational Progress, 69 percent of fourth- and eighth-grade students scored below proficient on reading (U.S. Department of Education, National Center for Education Statistics, 2005), showing that they were unable to understand and analyze challenging texts. Thirty-six percent of fourth-grade students and twenty-seven percent of eighth-grade students nationally were reading below the basic level, showing that they could obtain only a literal, general understanding of the text.

The importance of foundation skills

A lack of foundation skills is a major cause of poor performance in struggling readers. For example, a federally funded in-depth assessment at a Massachusetts middle school found that among sixth graders with reading scores below the 25th percentile on an initial screening test, 35 to 56 percent had weak foundation skills (Kotula & Morocco, 2006). Greenberg (2006) argues more generally that the need for instruction in foundation skills has been underestimated—particularly for fluency, vocabulary, and advanced and multisyllabic decoding (see appendix A for definitions). Indeed, several studies assert that about 10 percent of older adolescents have difficulty decoding words (for example, Biancarosa & Snow, 2004; Curti & Longo, 1999; Kamil, 2003).

A lack of foundation skills is a major cause of poor performance in struggling readers

The situation of such struggling readers does not improve with time. Research confirms that poor decoding can affect comprehension (Beck & Juel, 1995; Lyon, Shaywitz, & Shaywitz, 2003). So, students who do not acquire foundation skills early in elementary school—when the skills are typically taught—cannot identify words or comprehend text as they move up the grades. Those who enter the middle grades (usually defined as grades 6–8) without strong foundation skills will not succeed in content areas that require reading, such as English language arts, social studies, science, and math.

Students who cannot complete assignments in an appropriate amount of time become frustrated, angry, and isolated. Each school day more than 3,000 students drop out of high school (Biancarosa & Snow, 2004)—in part because they lack the literacy skills needed to keep up with a challenging curriculum (Kamil, 2003). Recent reports on

improving adolescent reading development have recommended that schools:

- Conduct screening and diagnostic testing to identify students who exhibit difficulties in foundation skills.
- Design intervention programs that focus on foundation skills.
- Conduct ongoing progress monitoring to determine if students have acquired the targeted skills (Biancarosa & Snow, 2004).

Challenges in the Northeast and Islands Region

In spring 2005 the New England Comprehensive Assistance Center convened a small meeting of state literacy leaders from Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. The participating administrators, who represented their states' literacy, special education, Title I, and bilingual programs, expressed their concerns about poor reading scores among adolescents, including students with disabilities and other students labeled as struggling and at risk for failure.

As the administrators pointed out, poor urban areas had yielded the weakest results for all middle and high school students. The present study concerns urban districts in Massachusetts, New Hampshire, New York, and Rhode Island.

CURRENT APPROACHES TO FOUNDATION SKILLS FOR MIDDLE-GRADE STUDENTS ACROSS FOUR DISTRICTS

In this preliminary study all four participating districts described themselves as being in the beginning stages of developing and implementing foundation skills programs for struggling middle-grade students. One administrator noted, "We are really in a 'big pudding,' just starting to figure out how to build in assessments and provide an environment for students that need intervention."

Each district was using its statewide, standards-based test for screening

What screening and diagnostic assessments were districts administering to struggling readers?

Initial screening. Each district was using its statewide, standards-based test for screening. Worcester was using the Massachusetts Comprehensive Assessment System, Nashua and Providence were using the New England Comprehensive Assessment Program, and Yonkers was using the New York State Testing Program.

All participating districts identified students in need of targeted intervention as students scoring in the lowest two levels on the state exam. In Massachusetts that was a performance classification of warning/failing or needs improvement. For the New England Comprehensive Assessment Program that was a performance classification of level one (substantially below proficient) or level two (partially proficient). In New York that was a performance classification of level one (serious academic deficiencies) or level two (needs extra help to pass Regents examination).

To further evaluate specific skills, Worcester and Providence had added periodic testing designed to closely resemble the annual state tests in content and format. Worcester was administering Measured Academic Progress tests three times a year. Providence was administering its Interim Assessments four times a year. The subskills data from these assessments were used to place students in the appropriate reading tier or provide them with relevant instructional interventions.

Diagnostic assessments. Researchers identified 24 diagnostic reading assessments that are appropriate for middle-grade students and that include subtests on foundation skills. Types of assessment varied, as did the specific skills addressed, administration time, and age or grade range. (Appendix C lists each diagnostic test, indicating its publisher, target grades, skills tested, and administration format.)

In the four participating districts assessments were selected by different departments, and selection criteria varied by district. But four diagnostic assessments were used in all four districts: DIBELS, the Scholastic Reading Inventory, the Woodcock Reading Mastery Test, and the Woodcock-Johnson III Diagnostic Reading Battery.

Districts varied in how much they used DIBELS. The test is intended for use with grades K–3. But districts often extended its use to the upper elementary and middle grades (6–8), especially when these grades were housed in a Title I elementary school and trained staff were available to administer the tests. In addition, DIBELS was frequently being used for monitoring.

Where districts were using the Read 180 program, the assessment most commonly used to place students in the program was the Scholastic Reading Inventory. A computerized assessment for grades K–12, the Scholastic Reading Inventory takes about 20 minutes to administer and provides reports using the Lexile Framework for Reading to measure a student's reading comprehension. The Lexile measure (a reading ability or text difficulty score) can be used to identify appropriately challenging books and curriculum materials, helping teachers to place students at the correct level in Read 180 or other programs.

Districts relied on two comprehensive tests to further understand specific reading deficiencies: the Woodcock Reading Mastery Test and the Woodcock-Johnson III Diagnostic Reading Battery. The Woodcock Reading Mastery Test is norm-referenced and individually administered. The entire test takes about 45 minutes to administer and includes six subtests: visual-auditory learning, letter identification (with a supplementary letter checklist), word identification, word attack, word comprehension (antonyms, synonyms, analogies), and passage comprehension. The Woodcock-Johnson III Diagnostic Reading Battery—another individually administered test—takes about 50–60 minutes and includes six subtests: visual auditory learning, letter identification, word identification, word attack, word comprehension, and passage comprehension.

Yonkers was using the full Woodcock-Johnson III Diagnostic Reading Battery as part of the triennial individualized education program review and was encouraging teachers to use at least one subtest in preparation for the annual individualized education program review. Worcester was using the Woodcock Word Attack Subtest of the Woodcock Reading Mastery Test—to verify that students met the criteria for placement in its Word Study pilot and to measure progress with pre- and post-testing.

In addition, participating districts were using many other assessments (box 3).

The districts were using two types of reading assessments: curriculum-embedded and diagnostic. Curriculum-embedded assessments are based on the curriculum and designed by teachers for ongoing use. Teachers administer the assessments, integrating them into instruction at regular intervals. Diagnostic tests are designed to measure skills and knowledge more precisely, helping teachers plan instruction to meet each student's needs: such assessments measure one or more critical reading skills. Three of the assessments mentioned so far are curriculum-embedded—curriculum-based measurement, the Scholastic Reading Inventory, and the Wilson Assessment of Decoding and Encoding—and the rest are classified as diagnostic reading assessments.

All four participating districts identified the amount of time it took to administer tests as a factor in their selection. For example, Worcester had selected the Test of Silent Word Reading Fluency mostly because it was easy to administer fairly rapidly to all sixth graders and easy to score. "It was quick and efficient because it could be administered in a group, only took three minutes, and did not significantly

All four districts identified the amount of time it took to administer tests as a factor in their selection

BOX 3

Foundation skills diagnostic assessments used by the four Northeast and Islands Region districts

Four diagnostic assessments were being used by all four districts:

- Dynamic Indicators of Basic Early Literacy Skills (DIBELS).
- Scholastic Reading Inventory.
- Woodcock Reading Mastery Test.
- Woodcock-Johnson III Diagnostic Reading Battery.

Other assessments were being used by some districts:

- Curriculum-based measurement (Providence—an approach, not an assessment).
- Degrees of Reading Power–Spelling Inventory (Providence).
- Developmental Reading Assessment (Worcester, Nashua, Yonkers).
- Diagnostic Assessments of Reading (Worcester).
- Diagnostic Online Reading Assessment (Nashua).
- Gray Oral Reading Test–4 (Nashua).
- Group Reading Assessment and Diagnostic Evaluation (Providence).
- Informal Reading Inventory (Yonkers, Providence).
- Phonological Awareness Literacy Screening (Providence).
- Qualitative Reading Inventory (Yonkers).
- Stanford Achievement Test (SAT–10; Providence).
- TerraNova (Yonkers).
- Test of Silent Word Reading Fluency (Worcester).
- Wilson Assessment of Decoding and Encoding (Worcester, Nashua, Yonkers).

Appendix C presents summary information about these and other assessments.

disrupt the classroom instruction," noted one district representative.

Providence representatives remarked that they would like to see the Group Reading Assessment and Diagnostic Evaluation used more widely, but also that such hopes were unrealistic given how long this test takes to administer and score. "Spending 20–30 minutes to test each child individually in middle school will just not happen," commented one administrator. An administrator from another district mentioned that they encouraged teachers to use the Woodcock-Johnson Diagnostic III Reading Battery, but few wanted to use it because it takes too long (especially if most of the subtests are administered). The district had considered the Developmental Reading Assessment—already in place at the elementary level—but time constraints affected the decision: "You can't give an individualized test and expect a middle or high school teacher to test 100 to 125 students. There just isn't enough time during the day or even the year."

What intervention programs were districts using to build foundation skills in struggling readers?

After initial screening and diagnosis, all four districts were offering at least some of their students an opportunity to participate in an intervention program.

Reading intervention programs. Many reading interventions are available. Researchers identified 30 that address foundation reading skills in the middle grades. (Appendix D lists these interventions and presents summary information on their publishers, intended grades, skills, and technology components.)

The four participating districts, however, were using only eight interventions. Two were being used in all four districts consistently, and six were being used in one or more districts.

Administrators cited different reasons for making their selections. Some districts rated interventions against a set of established criteria. In some cases administrators had existing knowledge of a program or past experience with it. Some reported hearing recommendations from other administrators, at conferences, from consultants, and so

forth. The availability of trained staff also influenced the choice of program.

All four participating districts used Read 180 and the Wilson Reading System—two programs that focus on phonics, fluency, vocabulary, and comprehension (though Wilson adds a phonological awareness component).

Decisions about program selection and implementation were made by teachers, school administrators, or district administrators, depending on the district. In Providence the decision to use Read 180 was made by district administrators. In the other three districts policies allowed school-based administrators or teachers to make their own decisions about instruction. One administrator explained: "There are some systemic materials, but we find that schools really like to have some control over the choice of materials." In Yonkers the degree to which teachers felt comfortable with technology was a factor in the selection of Read 180. Some school-based administrators selected the Wilson program partly because teachers and specialists certified in that program were already available.

Box 4 lists considerations that can arise in decisions about intervention programming.

BOX 4

Considerations in decisions about intervention programs

- The developmental appropriateness of materials, depending on a student's grade and ability level.
- The availability of criteria, or a screening process, for placing students at the appropriate level within the program.
- The scope and sequence of the skills and subskills taught.
- The recommended teacher-to-student ratio, which has implications for providing students with intensive, individualized instruction.
- The implications for scheduling (number of hours per day and days per week).
- The type of professional development required to ensure highly qualified teachers.
- The types of materials and resources required (for example, access to computers for programs with a technology component).
- The availability of information about effectiveness for middle-grade students with foundation skills problems.
- The availability of progress-monitoring tests.

Read 180. Read 180 was designed for use with students in grades 4–12 who perform below the proficient level on standards-based tests. Additional materials are geared to students with disabilities and English language learners. Stage B is for middle school students (stage A is for elementary school, and stage C is for high school.) Elements of phonics (not comprehensive phonics instruction), fluency, vocabulary, and comprehension are incorporated to various degrees. Although a self-paced software program is central to the approach, the 90-minute multipart instructional model begins and ends with whole-group direct instruction. It includes 20 minutes of whole-class direct instruction in such skills as word analysis, vocabulary development, and reading comprehension; 20 minutes of diagnostically informed small-group instruction, with the teacher at a "teacher station;" 20 minutes of independent software use, focused on individual skill practice; 20 minutes of modeled and independent reading from paperbacks or audio books; and a 10-minute whole-class wrap-up.

The recommended room setup facilitates student rotations, from computers to small group instruction to independent reading. The computer station sequence has three zones (reading, word, and spelling). Students begin in the reading zone, watching a video to build background knowledge on a topic. Each student then reads a related short text passage, which contains phonics exemplars, sample spelling patterns, high-frequency words, and content words that fit the student's pretested reading level. Certain words (power words) are pronounced, spelled, defined, broken into parts, and translated into Spanish if necessary,

and decoding tips are supplied. Comprehension questions follow. The word zone uses several word-recognition activities intended to target automaticity and fluency. The spelling zone assesses knowledge of words from the text passage and focuses on spelling concepts. The success zone provides comprehension practice in short text activities.

Various skills and elements are integrated throughout the computer activities. For example, phonics elements are presented in some of the direct vocabulary instruction. Students can build fluency by reading along with the computer audio at various rates, then practicing reading at various rates without the audio support. Read 180 recommends that classes be limited to 18 students, who take this as a class instead of or in addition to English language arts.

The Wilson Reading System. The Wilson Reading System, a highly structured reading and writing program for struggling readers in grades 2–12, teaches the structure of words and language by directly instructing students to decode and encode (spell) fluently. It provides an organized, incremental, cumulative 12-step system. Steps one through six provide the basics for decoding and encoding. Steps 7 through 12 focus more on advanced word analysis, vocabulary development, comprehension, and metacognition.

Students learn to hear sounds; manipulate color-coded sound, syllable, and word cards; perform finger-tapping exercises to assist in phonemic awareness; write dictated words and sentences; read aloud; and paraphrase selections that they read. They receive direct reinforcement and instructional feedback based on their individual performances, and—because each step builds on the previous one—they do not proceed to the next step until they have met each step's criteria. There are two implementation models. The intervention model uses small group instruction by a remedial reading teacher or regular classroom teacher, for four or five days each week, during the regular school day. The intensive model provides tutoring, or small group instruction by a Wilson-certified teacher, for students who have been diagnosed with a language learning disability. The fast-paced lessons offer continuous teacher-student interaction. Lessons are 55 to 90 minutes long.

Other programs. Researchers found six other programs being used in one or more districts. Providence had scheduled Language! for implementation in the fall of 2007 and Nashua was considering Reading Advantage (box 5).

Three districts— Nashua, Providence, and Worcester—were offering or planning to offer their intervention programs within a three-tier approach. Nashua was examining Response to Intervention and outlining a process to address reading throughout the district. For several years Providence had used its personal literacy plans to

BOX 5

Foundation skills reading interventions used by four Northeast and Islands Region districts

Two reading interventions were being used by all districts:

- Read 180.
- The Wilson Reading System.

Other interventions were being used—or were scheduled for use—in one or more districts:

- Compass Learning (Yonkers).
- High Point (Providence).
- Lindamood Bell Phonemic Sequencing (Worcester, Nashua).
- NovaNet (Yonkers).
- Power Up! (Yonkers).
- Word Study (a modified version of the Wilson Reading System, developed by Worcester).
- Language! (scheduled for fall 2007 use by Providence).

Information and source references for all interventions appear in appendix D.

plan and monitor interventions for students reading at more than two years below grade level. More recently the district had outlined a more formal Response to Intervention reading initiative, specifically addressing middle-grade reading issues. At the time of the study the district was working toward a fall 2007 launch. Worcester had been using a three-tier model to outline reading assessments and interventions since 2004. Developed to support the district's Reading First initiative, the model was covering interventions through grade 8.

Several interventions in tier two, and all in tier three, focused on foundation reading skills. Depending on the district and the availability of supplemental materials, a particular program could be used at different tiers. For example, Providence was using Read 180 in tier three but had evaluated it for use in tier two during the Response to Intervention planning process. In Providence's 2007/08 planned implementation, Language! (for 50 minutes) was to be the tier-two solution and Language! (for 90 minutes) was the tier-three solution. Across the four districts Wilson had traditionally been implemented as a tier-three solution in a one-to-one setting. But the program had also been implemented as a tier-two supplemental program in small group settings.

Professional development as an intervention. In addition to specific curricula, districts consistently described professional development as an intervention. Often citing the lack of reading teachers, participating districts had concluded that more reading teachers, special education teachers, and content-area teachers must develop the skills needed for explicit middle-grade reading instruction.

Each district was providing professional development to train more staff in one program or both. Both Worcester and Yonkers had invested in helping teachers get certified to use the Wilson Reading System. To prepare for implementation of Language!, Providence was planning to train teachers in this program. Both Providence and Nashua had hired consultants to provide staff development in adolescent literacy and, in particular, foundation skills.

Districts consistently described professional development as an intervention

All four districts not only identified the need for cross-departmental training but had started to develop and implement this kind of program. For example, in Nashua the English language arts and English language learning departments had collaborated to identify opportunities for professional development addressing foundation reading skills in both struggling readers and English language learners. As one administrator explained, "We [the literacy, English language learning, and middle-level curriculum groups] did an alignment around these strategies. We said that these are good strategies for all learners. It's not just about the struggling learner or the English language learner; these are strategies that are effective, and if they're used well, you'll get good results." Similarly, in Yonkers the English language learning and Title I departments were collaborating to ensure that reading instruction services were consistent and to leverage existing resources.

What further assessments were districts using to monitor progress in building foundation skills?

Two of the four participating districts were using some dynamic testing system to benchmark student progress throughout the year. Worcester was using Measured Academic Progress, a dynamic online assessment tool administered three times a year. Providence was using the Interim Assessments, which are given quarterly. Both systems provide teachers with detailed student-level data and subskill analysis to inform instruction. The two districts were working with teachers and school administrators to make their use of available data more effective.

Just as all four districts were using their state assessments to screen and place students, so all were using those state assessments to determine progress by comparing students' scores from year

to year. In addition, each district was using formal measures. All four were using program-embedded assessments and teacher observation.

Each intervention mentioned so far includes assessments for monitoring ongoing student progress. Teachers' interactions with their students, and their examination of student work, drive daily instructional modifications. For example, Read 180's Scholastic Reading Inventory and the Wilson Reading System's Wilson Assessment of Decoding and Encoding are screening and assessment tools built into the interventions to measure success and monitor progress. Monitoring is also integral to the Language! program, which Providence had scheduled for implementation in the fall of 2007.

What factors can promote or hinder effective programming?

In the interviews conducted for this study, administrators identified factors that promote and hinder success. Six emerged that might be important for other decisionmakers to consider.

Some administrators expressed an interest in moving Reading First initiatives, which have successfully facilitated district dialogues about reading instruction at the elementary level, up to the upper elementary school and middle grades. One special education administrator explained, "Frankly, we have much more in place to support reading instruction at the elementary level with Reading First." Another administrator noted that it was possible to build on specific practices already in place in the district's Reading First schools: for example, "[our] reading teachers and English as a second language teachers work in teams at the Reading First schools." Massachusetts was beginning to leverage its Reading First experience for the benefit of secondary students, with a state secondary reading program providing money, networking, and professional development for districts attempting to explicitly address secondary reading issues.

"We realized that we had to align our special education teachers' instructional skills with those of the general education teachers."

Response to Intervention and three-tier reading models offered a framework or starting-point for foundation skills programs. Massachusetts, New Hampshire, and Rhode Island had incorporated Response to Intervention into state policy—which helps to explain why participating districts were investigating, or had adopted, a three-tier reading model (where tier three focuses on foundation skills). Providence was focusing on preparing staff to implement its Response to Intervention programming during the 2007/08 academic year. One administrator explained, "We started off this year with massive professional development on Response to Intervention] and how the teacher support teams are an integral part of the process. We are working with everyone to help them understand the CBM [Curriculum-based measurement] and DIBELS, the intervention, and progress monitoring." Nashua was thinking ahead to the types of tests that it could use for progress monitoring within Response to Intervention.

Administrators viewed collaboration among English language arts, special education, Title I, and English language learner departments and programs as important for any change in instructional planning. Each of these departments used to seek its own solutions to reading problems, usually without linking its approach to those of other departments in a coherent way. One special education administrator observed, "With all of the requirements of No Child Left Behind, we realized that we had to align our special education teachers' instructional skills with those of the general education teachers." Another administrator remarked that a lack of collaboration had hindered program implementation: "It is an issue in the district that there is a level of autonomy that has sometimes worked against us."

Districts reported that they were improving collaboration through joint professional development, program planning, and even coteaching. For example, in both Nashua and Providence, English language arts and English language learning departments had collaborated to select and deliver joint professional development programs. Some districts were trying to align their initiatives. An

English language learning representative from one district explained, "These initiatives cannot be seen as just another ESL [English as a second language] program. There is district fatigue for ESL-specific professional development, so it has been very important for us to work with the literacy team to develop a strategy that could help all students build literacy skills." In Providence collaboration had also resulted in the selection of Language!.

Districts expressed a need for highly qualified reading teachers, such as Wilson-certified reading teachers, reading specialists, Title I teachers, and special educators. As one administrator explained, "In the ideal, it will be reading-certified teachers that will implement the program. But the staff has yet to be hired." Another district confirmed the limitation. An administrator commented, "We have been limited in the number of students for whom we can provide targeted instruction." The district did not have enough staff trained in the method.

One Title I administrator reported adding English teachers who were certified in reading: "The best way to address the needs of the kids is to make sure that we have people who are properly trained in providing the instruction." Another administrator spoke about the district's plan to reduce class size in the reading intervention classrooms, but indicated that English teachers who were certified in reading had not yet been hired. One district pointed out that a lack of money limited its ability to increase staff size in reading for the middle grades.

To ensure that all teachers were prepared some districts were focusing their professional development on middle-grade reading. This is important for tier-one programming, where reading is taught across the curriculum.

Administrators noted problems concerning time and scheduling—an issue particular to the middle grades. In the middle grades (grades 6, 7, and 8) schools use different scheduling arrangements to ensure that students have separate class periods for arts, science, math, social studies, English language arts, physical and health education, and other programs. Most schools group students into teams, but some may divide the day into 45-minute periods or 90-minute block schedules. Some schools have the same schedule each day. Others create rotating or alternating schedules throughout a week to offer students the fullest possible array of programs (Daniel, 2007).

All four participating districts called flexible scheduling a prerequisite to making tier-two and tier-three interventions effective for grades 6–8. "You have to build the flexibility into the schedule to support the 90 minutes required by most of these reading interventions," said one special education administrator. Another administrator echoed: "There is more flexibility in the elementary grades because of schedules . . . You could be locked into a program because of your classes and your schedule. We need to find a way to be more fluid in moving students in and out of these levels." Yonkers had moved to a preK–8 model partly because the schedule would allow time for reading. Worcester wanted to scale up its Word Study program (currently in one school), but scheduling formed a barrier. The administrator observed that "the biggest factor is the scheduling piece"; when one school is readier than others to move forward, the barrier is "just a matter of understanding the implementation and how to schedule students."

"It doesn't matter what program you are using. If you are not using it with fidelity, then how do you really know if it is working?"

Program fidelity is important in early implementation—teachers must carry out a program as designed. One administrator expressed concern about relaxing the selection criteria for programs, explaining: "You have to stand firm in the selection of students for the intervention. If you have the wrong students, or too many students, then the program just won't work." Once a program exists, teachers must carry it out as designed. One literacy administrator noted, "It doesn't matter what program you are using. If you are not using it with fidelity, then how do you really know if it is working?"

BOX 6

Areas to consider when planning foundation skills programs

- *Building on existing programming.* How can a Reading First initiative create a basis for middle-grade programming? What needs to change to meet the needs of middle-grade students and teachers?
- *Response to Intervention.* How are Response to Intervention models being considered at the state or district level? What are the possible implications for three-tier reading programs?
- *Collaboration.* How is collaboration for reading improvement fostered and supported? Do departments duplicate services, and if so can their resources be leveraged to benefit more students? Are some students not being served by any department? Who should be collaborating and why?
- *Qualified staff.* What efforts are under way to ensure that highly qualified reading teachers are included in foundation skills programming? Are enough teachers certified in reading to support the programs being used or considered? Is there enough professional development? What resources are available?
- *Time considerations.* How can a middle school's schedule be modified to provide the time for testing and implementing programs? Are preK–8 schools an option? How much time should be allotted for diagnostic assessment?
- *Program fidelity.* Are teachers implementing foundation skills programs as intended? Who works with them to ensure that this happens? Is formative evaluation of programs planned? Is it possible to maintain student placement, class size, and other program implementation criteria over time?

All interviewees said that ongoing professional development was needed to ensure that programs were being implemented as designed. One district administrator suggested that a newly selected program's prescriptiveness and built-in assessment tools would ensure fidelity: "Before you move on, a child must reach mastery. I think this will bring more fidelity because of the accountability and testing built right into the program."

Based on the factors identified by administrators in these interviews, box 6 presents questions in six areas that decisionmakers might usefully consider when planning foundation skills programs.

PROFILES OF INDIVIDUAL DISTRICTS

Despite significant areas of similarity, each of the four participating districts was pursuing somewhat different strategies in its use of testing, interventions (including professional development), and progress monitoring to develop foundation skills in struggling readers.

Although programs in all four districts were still in the initial stages, each district had made inroads. Worcester was to continue piloting its Word Study program, hoping eventually to bring it to scale across the district. Providence had outlined a process (scheduled for fall 2007 implementation) to screen, place, intervene in, and monitor the progress of its struggling middle-grade readers. Nashua was researching a Response to Intervention model and its implications for district reading initiatives. Meanwhile, the district did not have a prescriptive process but was relying on the expertise of teachers to provide specific interventions based on individual student needs. Yonkers (which does not use the term "three-tier") offered targeted instruction to struggling readers, in which teachers generally selected interventions according to student needs.

Worcester, Massachusetts

Worcester had had a three-tier reading model in place since 1992. Developed to support the district's Reading First initiative, the model had been

expanded to help middle-graders build foundation skills. Because middle-grade students were housed in 33 preK–6 elementary schools, four middle schools (grades 7 and 8), and eight secondary schools (grades 7–12), curriculum initiatives in Worcester were not the exclusive purview of either the elementary education department or the secondary education department.

Assessments. A state policy document, *The Massachusetts Literacy Plan,* recommends that schools use four types of formative and summative assessments (Massachusetts Department of Education, 2006; see appendix A):

- A screening assessment, such as a formal, group-administered assessment given at the beginning of the school year to all students.
- Progress-monitoring formative assessments that include curriculum-based assessments, off-level testing using standardized measures, or benchmark assessments aligned with skills that comprise the standards assessed by the Massachusetts Comprehensive Assessment System.
- In-depth, diagnostic formative assessments that provide substantial information on particular foundation skills (phonics and word study, fluency, vocabulary).
- Outcome assessments—including annual standardized testing, the Massachusetts Comprehensive Assessment System, or both—to determine whether students are progressing toward proficiency.

In Worcester all students were taking the Massachusetts Comprehensive Assessment System. In addition, students in grades 3–10 were taking Measured Academic Progress, a computer-based assessment that is customized to individual students' responses and administered three times during the academic year. The computer program creates individual student reports, including detailed subskill reports. Teachers receive these reports in real time and use them to inform classroom instruction. As the special education administrator explained, the results "are used by teachers to differentiate instruction." A student's Massachusetts Comprehensive Assessment System and Measured Academic Progress results are the first line of screening to identify potential reading issues.

To further understand possible reading deficiencies and determine the most appropriate reading intervention for an individual student, Worcester was using various assessments, including three primary tools: DIBELS, the Developmental Reading Assessment, and the Wilson Assessment of Decoding and Encoding. Though Worcester had formalized the use of DIBELS and the Developmental Reading Assessment under its participation in the K–3 Reading First initiative, these tests were sometimes used with the elementary grades up to grade 6.

Worcester had launched a foundation skills pilot, Word Study, in one school with 14 students. To plan for it the district screened all incoming seventh-grade students (in the spring of the sixth grade) with the Test of Silent Word Reading Fluency. The test gives students a string of letters between which they must insert a slash whenever they recognize a word. The special education administrator called it an easily administered screening tool: "You can administer it in a group setting, and it only takes three minutes. It was something quick and efficient, so we could go into a regular classroom and not significantly disrupt classroom instruction."

Results on this test, combined with student performance on Measured Academic Progress and the Massachusetts Comprehensive Assessment System, identified students most likely to have foundation reading skills deficiencies.

Worcester's special education administrator noted that the "screening process was a key factor, [because] the more tightly the students are grouped, the more quickly they can move together as a group."

The students thus identified then took the Wilson Assessment of Decoding and Encoding and the Woodcock Reading Mastery Test Word Attack Subtest. The results confirmed which students had problems with foundation skills. To further reduce the pool the Word Study team examined each student's larger academic picture, with input from the classroom teacher.

The special education administrator noted that the "screening process was a key factor." The testing goal was to "group students as tightly as you can" because "the more tightly the students are grouped, the more quickly they can move together as a group." For example, "if someone is reading or decoding on a second-grade level and another student is decoding on a fourth-grade level, then that is too much of a gap." If students can be identified as being within a year of each other, "their rate of movement within the program is more likely to be tighter."

Interventions. The Massachusetts Middle and High School Initiative recommends that districts use a three-tier reading model. But it also specifies that some struggling students will require an intervention program or class beyond their content-area courses. The goal is to help students acquire competency in areas of deficit such as word-level knowledge (phonemic awareness, sound and symbol relationships, word attack for multisyllabic words), fluency, background knowledge and related vocabulary, and linguistic knowledge (see appendix A for explanations of technical terms).

In Worcester translating recommendations into practice produced a three-tier reading model, with each tier using different reading programs

These programs can be led by reading specialists, teachers and tutors trained in specific methods (such as Wilson Reading or Soar to Success), Title I teachers, special education teachers, or teachers of English as a second language. They might include individual and small group work, with varied instructional materials, differentiated instruction, and ongoing monitoring of student progress. Overall programming would also require input from schoolwide literacy coordinators, coaches, and principals.

In Worcester translating these recommendations into practice produced a three-tier reading model. Each tier was using different reading programs. Tier one (core instruction) was using Nation's Choice–Houghton Mifflin, Elements of Reading, and Making Meaning. Tier two (supplemental support) was using Lexia Phonics, Read 180, Soar to Success, and Waterford Intervention. Tier three (intensive instruction) was using Lindamood Bell Phonemic Sequencing, Telian, the Wilson Reading System, and Word Study. All but a few of these programs explicitly teach foundation reading skills (those that do not are Elements of Reading, Making Meaning, Waterford Intervention, and Telian).

Worcester had implemented Word Study as a tier-three pilot in one middle school for the 2005/06 year. It addressed—within a Response to Intervention model—a rise in special education referrals related to reading issues.

A multisensory, structured language intervention, Word Study uses a modified version of the Wilson Reading System. Aligned with the Worcester Public Schools English language arts curriculum and the state's curriculum frameworks and benchmarks, it combines explicit instruction of foundation skills with comprehension and meaning-making strategies.

A reading specialist and a special educator (both Wilson level-one certified, with over 85 hours of practicum experience) cotaught the self-contained classroom at the middle school. In a daily 90-minute program they monitored student progress each day through class participation, task performance, and homework assignments. Each week, students were individually assessed through word charting for fluency in decoding and through dictation, spelling, and writing assignments.

In addition, to assess student progress, Worcester was administering the Word Attack subtest of the Woodcock Reading Mastery Test and the Test of

Silent Word Reading Fluency Test as pretests (in August) and posttests (in May). Results indicated that all students made strong progress on both Word Attack and Test of Silent Word Reading Fluency Test. For example, the average standards score on the Test of Silent Word Reading Fluency Test pretest was 87.5; on the posttest, 97.5 (Iandoli-Cole, Daly, & Delano, 2007).

Professional development. After hearing a presentation at a national conference, the English language arts administrator invited the speaker to the district to present three sessions on "the need to teach phonics, word frequency, and vocabulary development before comprehension skills." The English language arts administrator and the consultant followed up by collaborating to provide a teacher group with summer professional development. Supported by the district's middle school task force, it used a syllabus focusing on phonics, the Wilson Reading Program, and metacognitive strategies.

The English language arts administrator and the special education administrator have gone into many reading classes around the district to provide model lessons, observe, debrief, and offer follow-up support. For example, in debriefing they might explain that "this technique might have worked" or "you might want to try this strategy in the future."

The district leader of professional development and curriculum had designed a feedback form to let principals indicate what additional support their teachers might find helpful. Other professional development offerings could be created in response to this feedback. The English language arts administrator explained that a full audit was now under way, to establish an "ongoing communication process" and determine whether current teachers might need more assistance, materials, or support.

Worcester wanted its teachers to be level-one certified in the Wilson Reading Program. Teachers who had achieved this certification had received a year of training—including 85 practicum hours—during which they attended a two-day program overview, picked a focal student for their practicum, and worked one-on-one with that student for at least 60 one-hour sessions. A trainer observed, gave written feedback, modeled instruction as needed, and held monthly seminars.

All teachers in the learning disabilities department—more than 100—had been trained in the Wilson method by the special education administrator, who had previously received training from the developer of the program. The special education administrator had recommended offering Wilson training during the last two weeks of summer so that teachers could "feel equipped to teach a program like this."

In addition, the administrator had recommended that teachers have ongoing support throughout the year, with modeling, direct assistance in the classroom, and monthly meetings. Since the Word Study program was already in one school, it would be easy to implement a plan with observation, modeling, feedback, and frequent meetings. But as the Word Study program expanded, "it might require an after school session for support and collaboration."

Worcester administrators had considered three factors when selecting assessments: the time needed to administer a test, its alignment with state standards, and its ability to identify specific reading issues

Progress monitoring. Worcester was using Measured Academic Progress to monitor student progress throughout the year. In addition, teachers were using program-embedded assessments to guide a student's progress through a particular intervention.

For example, the Scholastic Reading Inventory was used for students in the Read 180 program, and the Wilson Assessment of Decoding and Encoding for those in the Wilson program. The Word Study pilot program was using Test of Silent Word Reading Fluency, the Wilson Assessment of Decoding

and Encoding, and the Group Reading Assessment and Diagnostic Evaluation. The annual state test, the Massachusetts Comprehensive Assessment System, was the summative assessment used to monitor progress over time.

Worcester administrators explained that they had considered three factors when selecting assessments: the time needed to administer a test, its alignment with state standards, and its ability to identify specific reading issues. Finally, teacher observation and student work were used to monitor student progress.

Nashua, New Hampshire

Of Nashua's 19 schools, 4 were middle schools serving grades 6–8. New Hampshire's recently drafted *Literacy Plan* recommends the use of the three-tier reading model aligned with Response to Intervention (New Hampshire Department of Education, 2007). Thus, Nashua was exploring Response to Intervention and its implications for delivering reading services to its struggling readers at the same time that it was undergoing a curriculum mapping initiative.

Students thought to have reading difficulties could be referred to begin a process for determining whether further instructional supports, interventions, or an individualized education program was required

Assessment. New Hampshire recommended using four assessments as part of the three-tier reading model:

- Diagnostic testing informs teachers about students who are not making adequate progress in group intervention—detailing their particular skills, behaviors, or disabilities.
- Achievement tests were recommended for students whose academic reading skill levels were inconsistent. When individually administered, these tests could yield the most reliable data about decoding, word recognition, phonological awareness, and fluency.
- Criterion-referenced tests measure how well a student has learned a specific body of knowledge and skills, which are used to inform individualized education programs for students with disabilities.
- Outcome assessments were recommended to assess the knowledge, skills, and abilities an individual student possesses and can demonstrate after completing a learning experience.

Nashua was using the New England Comprehensive Assessment Program as its state assessment. The results were being used—alongside teacher observation—as a screening tool to identify struggling readers. In addition, Title I elementary schools were administering DIBELS three times each year to all students through grade 6.

Students thought to have reading difficulties could be referred to begin a process for determining whether further instructional supports, interventions, or an individualized education program was required. This process could include tests administered by school staff (such as a classroom teacher, reading specialist, school psychologist, or speech therapist). Tests used could include the Woodcock-Johnson III Diagnostic Reading Battery, the Developmental Reading Assessment, the Gray Oral Reading Test, and the Wilson Assessment of Decoding and Encoding.

The computerized Diagnostic Online Reading Assessment was recently identified for use with students transitioning from eighth to ninth grade and for possible use more generally in the middle grades during the 2007/08 academic year. Test results, teacher observation, and classroom performance were used to place students in classrooms by level.

Interventions. In the middle grades homogeneously grouped students were using the district's core instructional curriculum (tier one). Scott Foresman was used in the sixth grade. Seventh and eighth graders were using a district-developed curriculum that focused on thematic units. Students used several teacher-selected texts at different reading levels.

Students requiring additional reading support (tier two) could receive services in various settings: for example, a special education teacher could come into the classroom, or students could leave it for a resource room where they would get support. In either case support could be offered as small-group or individualized instruction.

Decisions about supplemental reading interventions (tier three) were building- and teacher-based. They varied by school, by teacher, and by student, depending on individual need. EdMark, Lindamood Bell Phonemic Sequencing, and the Wilson Reading System were being used. In addition, Read 180 was being used in one alternative middle school for at-risk students, which had secured alternative funding sources and implemented the program under a grant.

Professional development. Nashua had recently made literacy a professional development priority. Using a consultant, the district was holding summer institutes and sessions throughout the year to develop reading and literacy instruction skills in reading and content-area teachers for the middle grades. The English language arts administrator explained that the goal was to offer teachers "long-term professional development around a few good, specific literacy strategies for adolescents that could be used before, during, and after reading." The district was monitoring these strategies on an ongoing basis and following up by analyzing student work. The result was a "process for sustaining the professional development and the literacy strategies across the curriculum."

Conceived at first as a strategy for supporting English language learners in the general population, the professional development plan emerged as a strategy to align professional development across functions (for example, literacy and English language learning) and to support the teaching of reading skills in classrooms. Another goal of the district's improvement plan was to consolidate functional resources and professional development. According to an administrator this goal was set in response to teachers' expressed needs:

Nashua had recently made literacy a professional development priority

> *For years our teachers have been telling us that there's always a new initiative. English language learning is coming at us. English language arts is coming at us—and special education too. We feel it is important for us to be more convergent in our delivery of professional development to specifically address these concerns.*

Progress monitoring. Curriculum-embedded assessments, teacher observation, classroom performance, and the New England Comprehensive Assessment Program together gave a complete picture of individual student progress. The Nashua special education administrator, however, raised a question about using curriculum-embedded assessment results to improve instruction. Teachers were administering end-of-unit assessments as part of the Scott Foresman Reading Program. But how could these data be used to inform instruction in the next unit? "It's only looking back at what didn't happen, rather than monitoring what's going on right now."

The special education administrator reported that ongoing monitoring is a critical part of the Response to Intervention model, which Nashua was exploring. The model would require testing students more often—even weekly. Staff would need to identify tests to use, "because we want to keep students out of special education."

Yonkers, New York

Although the district's 39 schools included several models for serving its 5,000 middle-grade students (including preK–6 elementary schools, preK–8 elementary schools, and middle schools serving grades 6–8), Yonkers was moving from a middle school structure to preK–8 elementary schools. Ten of the district's 29 elementary schools were preK–8, while five middle schools had yet to make the transition.

The special education administrator explained that one reason for the change in school structure

was the difference between fifth grade and sixth grade test performance: "It's like a horror. We could have 80 percent of students reaching proficiency in fifth grade and then in the middle school, 38 percent." Moreover, "we jump from doing a full literacy program focusing on all of the skills in elementary grades. Then when they go to the middle school eight-period day, it is more of an English language arts program, and the reading instruction gets lost because there is no formalized reading program."

The district was starting to see continuity and carryover when students were in the same building. According to the administrator, schools that had made the transition improved test results. "This is the first year that we have been able to measure performance of our preK–8 buildings against our middle schools on our state assessments. There was at least a 20–25 percent difference in favor of the preK–8 school."

As the Yonkers district continued its transition to a preK–8 structure, administrators were expecting to expand explicit reading instruction into the upper elementary grades

As the district continued its transition to a preK–8 structure, administrators were expecting to expand explicit reading instruction into the upper elementary grades. The elementary school setting would allow for more flexible scheduling of intensive programs for struggling students. During the transition English language arts curriculum initiatives were being covered by both elementary and secondary education departments.

Assessment. Yonkers was using the New York State Testing Program for preliminary screening to identify students at risk. Middle-grade students scoring level one or level two in reading on the state test were identified as struggling or at-risk students and could be referred for additional testing depending on teacher or parent recommendation. In addition, another test—the Test of New York State Standards—was being given locally to all students to identify specific areas where skill development was needed, to measure individual progress in these areas, and to help prepare students for the state tests.

Developed by a private company, the Test of New York State Standards follows the state test format. As the English language arts administrator explained, "It is used the year before [the state test] to get a sense of where kids need work in order to be successful on the state test." It is an early predictor of success or lack of success. Students who score in levels one and two are identified as in need of additional support.

If further diagnostic testing was deemed necessary, Yonkers was using psychological tests, such as the Wechsler Intelligence Scale for Children, as the primary line of testing to assess a student's general learning difficulties. Those identified with reading deficiencies would usually go on to take either the full Woodcock-Johnson III Diagnostic Reading Battery or particular subtests, depending on the Wechsler Intelligence Scale for Children data.

Assessment tools were selected by building or by teacher and could vary across the district depending on the school and the assessment purpose. The assessments that classroom teachers, reading specialists, school psychologists, or special educators could select were: DIBELS, the Diagnostic Assessments of Reading, the Developmental Reading Assessment, the Informal Reading Inventory, the Qualitative Reading Inventory, the Scholastic Reading Inventory, TerraNova, the Woodcock Reading Mastery Test, and the Woodcock-Johnson III Diagnostic Reading Battery.

Yonkers was using a variety of diagnostic instruments, but selecting specific tests was at the discretion of teachers or school-based teams. They were basing their selections on such criteria as the availability of trained staff, the time required to administer tests, and individual student needs. Tests could be administered by a classroom teacher, a reading specialist, a speech clinician, or a school psychologist, depending

on a child's needs. In addition, teacher recommendations and anecdotal evidence could affect decisionmaking.

Interventions. The state mandates that all students scoring at level one or two on the state test receive academic intervention services. Yonkers, however, was providing these services to all district students. For one period each day students were grouped based on their performance on the state test and a combination of the assessments already described. These tools were used to identify a specific subskill in either English language arts or math for which the student or a group of students required targeted instruction. Students were assigned to teachers based on individual and small group needs aligned with their subskill deficits. Foundation reading skills could be one of the subskills for which students were provided targeted instruction.

Interventions being used during academic intervention services in Yonkers were selected by teachers from a range of materials purchased by the district's special education, Title I, English language arts, bilingual, or general education curriculum budgets. Because intervention decisions were made at the building and the classroom levels, schools across the district implemented a range of solutions. For example, one middle school was using Read 180, while another was using the Wilson Reading System. Another intervention being used was Power-up. Students participating in the district's additional Academic Intervention Services programs (after school, Saturday Academy, or Summer Enrichment) could also receive instruction using these teacher-selected materials.

Professional development. Through the Special Education Resource Training Center and the English language arts department, Yonkers was offering professional development focusing on literacy teaching strategies to teachers across the district. The English language arts administrator explained that some professional development was addressing specific reading programs in use.

In Yonkers, assessment tools were selected by building or by teacher and could vary across the district depending on the school and the assessment purpose

In monthly meetings, teachers could focus on skills for which they most needed support. The district was continually investing in Wilson training for teachers, including level-one certification. The special education administrator explained that Yonkers liked prescreened, in-house staff (in addition to consultants) to provide its professional development: "Our teachers relate better to teachers working in the district who have experience and [can show them] something that is working for them." Professional development was being offered after school, on weekends, and during half-day sessions (with substitutes covering classes).

Cross-functional training was a key part of Yonkers' professional development philosophy. General and special education teachers were participating together in training sessions alongside teachers of English as a second language. The importance of collaboration was voiced by the special education administrator—"You know it's side-by-side"—and the English language learning administrator—"They learn from each other." The English language learning administrator explained that since teachers of English as a second language and reading teachers were teamed together, they trained together: "Our English as a second language teachers are trained as our reading teachers are trained." Teachers from different departments jointly examined strategies for improving foundation skills by studying two books: *Words, Words, Words* (Allen, 1999) and *Yellow Brick Roads* (Allen, 2000).

Progress monitoring. Although no specific tests were being used across the district to measure student progress in foundation reading skills, the district had clear goals for improvement on state tests. For example, it intended to move 5 percent of students scoring at level one in reading on the state test to level two, 10 percent of level-two students to level three, and 5 percent of level-three

students to level four (the 5–10–5 rule). To ensure consistent progress toward this goal Yonkers suggested that teachers use program-embedded measures, their own assessments, or other tools to reassess students every six to eight weeks and to regroup students for academic intervention services. Assessment results could prompt some regrouping during an academic year, but most occurred at the end of each year. According to the English language arts administrator, the Test of New York State Standards was being used as a benchmark.

Although no specific tests were being used to measure student progress in foundation reading skills, the Yonkers district had clear goals for improvement on state tests

For middle-grade students who were classified as learning-disabled and on individualized education programs the Woodcock-Johnson III Diagnostic Reading Battery was being readministered by mandate every three years. To support the annual individualized education program review process the district also recommended that teachers use formal or informal assessments annually (to be administered by the teacher, a special educator, or a school psychologist, depending on students' individual needs). Tests, curriculum-embedded assessments, teacher observations, and classroom performance together informed teachers about student progress.

Providence, Rhode Island

In Providence middle-grade students were housed in either the five preK–6 elementary schools or the eight middle schools serving grades 6–8. One K–8 school was being planned for the 2007/08 academic year.

As mandated by the Rhode Island Department of Education, all students reading below grade level must have a personal literacy plan documenting all objectives, strategies, and curriculum supports related to English language arts. Designed as a framework to meet students' individual needs and ultimately to raise students' reading proficiency, the personal literacy plan follows students throughout their academic careers, wherever they go to school. It guides teachers to provide appropriate and focused instruction for struggling readers beyond the core-curriculum context.

Within the context of the Response to Intervention model and personal literacy plans, Providence had been examining its school structures and its English language arts curriculum and instruction. A literacy task force had developed a three-tier reading initiative that was scheduled for implementation in the fall of 2007. The present profile draws both on current practice at the time of writing and on what Providence had planned as part of this reading initiative.

Assessment. The Rhode Island Department of Education recommended that school districts administer screening tests to identify students at risk for reading difficulty and in need of further diagnostic assessments or additional interventions. The tests were to be administered to every student, every year. The district was also using performance on statewide assessments, local assessments, portfolios, student records, and existing personal literacy plans to distinguish those who were succeeding—or would continue to succeed with regular instruction—from those who might need additional assistance.

Providence was using the New England Comprehensive Assessment Program, its annual state assessment, as a first-cut screening tool. To further identify low-performing students, it administered quarterly Interim Assessments, district-level assessments with contents and formats designed to closely resemble those of the state test (the New England Comprehensive Assessment Program). Providence also administered the Stanford Achievement Test Series, Tenth Edition (SAT–10) annually. If needed, a student identified as at risk was given a varied battery of diagnostic tests to gather more detailed information and to determine more specifically which reading components (for example, fluency, phonemic awareness, phonics, or vocabulary) were problematic.

In addition, Providence was using informal testing. As the English language arts administrator explained, teachers who had received professional development for a particular book (Blevins, 2001) used a compiled list of decodable words from that book to test all the middle school students who attended summer school for reading problems (approximately 500).

To diagnose a specific learning deficiency or place a student in a particular program one of the following could be used: DIBELS, Degrees of Reading Power–Spelling Inventory, the Group Reading Assessment and Diagnostic Evaluation, the Informal Reading Inventory, the Phonological Awareness Literacy Screening, the SAT–10, the Scholastic Reading Inventory, or the Woodcock Reading Mastery Test. For example, the Group Reading Assessment and Diagnostic Evaluation was being used to place students in Read 180.

Tests were being administered by a Title I teacher, diagnostic prescriptive teacher, or school psychologist. Data from the test battery were reviewed by the diagnostic prescriptive teacher, school psychologist, social worker, classroom teacher, parent, and any other staff who could help interpret the student's individual strengths and needs. District-established criteria guided test administration and data interpretation. Students scoring in the lowest 5 percent were eligible for special education services. The English language arts administrator explained that no one measure is used either in screening or for progress monitoring, and that "teacher recommendation and anecdotal evidence are always taken into consideration."

Interventions. State policy recommended that schools decide about additional reading instruction or interventions for each student individually. Schools could create literacy programs and services consistent with literacy regulations issued by the Rhode Island Board of Regents for Elementary and Secondary Education and with the students' personal literacy plans.

Two types of interventions were relevant for building foundation skills: targeted literacy instruction and intensive literacy instruction. Targeted literacy instruction (tier two) is designed for students who are reading one to two years below grade level (or as identified by local criteria). This instruction is provided by specially trained, but not necessarily reading-certified, teachers. It can entail strategy-based literacy ramp-up programs for reading and writing in content areas, extended literacy periods, or purposely designed study-skills classes. It requires maintaining individual screening and progress monitoring results but does not require a personal literacy plan. Intensive literacy instruction (tier three) is designed for fewer students—those reading three or more years below grade level (or as identified by local criteria). This intervention provides assistance from a reading specialist who can develop and implement a personal literacy plan and provide direct reading instruction.

As individual needs dictated, reading specialists, Title I teachers, or special educators could use both the general education scope and sequence and a series of modifications and additional supports

Within this state context Providence had been providing a sequence of increasingly intensive services based on a student's response to interventions. The district's version of a tiered reading model had provided struggling students with different levels of increasingly intensive instructional supports in different settings (for example, resource rooms, inclusive classrooms, and self-contained classrooms). As individual needs dictated, reading specialists, Title I teachers, or special educators could use both the general education scope and sequence and a series of modifications and additional supports (for example, the Wilson Reading System).

Providence viewed Read 180 as a critical part of its reading program. In 2006/07—with at least one Read 180 class for every grade in each of the district's eight middle schools—approximately 700

students were using the program. Read 180 teachers had recently added Scholastic's Book units as a supplement to practice applying foundation skills. Administrators had reported that teachers were satisfied with the original program and, in particular, with the new supplemental materials. As class sizes began to approach 26–30 students (higher than the recommended 16–18), the district decided to find other solutions for intensive instruction. The English language arts administrator discussed the need for fidelity: "If you put your own twist on it, there is going to be a problem." She explained that teachers need to implement the program over five days, with the recommended rotations every day, and with the daily scaffolding lesson.

In the fall of 2007, pending approval from the teachers' union, the district was to launch its prescriptive Response to Intervention reading initiative for the middle grades. Each component explicitly addresses the development of foundation reading skills. Students in tier one would participate in the general education curriculum and would follow a balanced literacy approach for 50 minutes of daily instruction. Teachers would engage students in modeled reading, shared reading, guided reading, and independent reading. Students identified as needing additional support (tier two) would be referred to the Language! program for 50 minutes of daily instruction. Students scoring in the bottom quartile on the New England Comprehensive Assessment Program would be placed in a more intensive version of the Language! program for 90 minutes daily (but this decision would be informed by teacher observation).

Professional development. Beyond these interventions, the district was trying to help middle-grade teachers teach foundation reading skills within the Response to Intervention literacy initiative through professional development. The special education administrator said that the school year began with "massive professional development on Response to Intervention"—focusing on the integral role of teacher support teams, the intervention process, the features of curriculum-based measurement, how to use DIBELS, what was involved in progress monitoring, and the referral process. In addition, the English language arts administrator explained that to prepare for introducing Language! there would be "a significant amount of professional development." Training was to be provided by the publishers, in-house staff, and possibly the consultant the district had been employing. The district expected to offer teachers about 18 hours of training before implementation.

Some schools were using their own curriculum-based assessment

The Title I administrator explained that teachers using Read 180 also receive special training: "They have initial training and then they have monthly support training." If the Read 180 program is revised, they get more training. Teachers were using a particular book to help them build phonics fluency in older students (Blevins, 2001).

Progress monitoring. Within the context of Response to Intervention and personal literacy plans, Rhode Island recommended that progress monitoring occur at the district or school, in the classroom, and as part of the intervention. To monitor progress toward students' individual goals, students were taking the district-administered and district-scored interim assessments at the end of each quarter. Although these were not specifically designed to assess foundation reading skills, subskill reports were available to teachers.

Some schools were using their own curriculum-based assessment, which measures students' progress with materials that they are being taught (Fuchs, Fuchs, Hamlett, & Phillips, 2005). Administration of each measure is brief, typically 1–5 minutes. Curriculum-embedded assessments, teacher observation, and classroom performance were also being used to give a complete picture of individual student progress.

Upon implementing the Response to Intervention literacy initiative in the fall of 2007, Providence

was to use the assessments embedded within the interventions to track student progress. Introducing the Language! program was expected to affect progress monitoring. As the English language arts administrator explained, "assessment is critical." Students had to reach mastery before they could move to the next level. This, she said, "will bring a lot more fidelity to the program because of the accountability and testing that is built right into the program." The technology component of each intervention was intended to help collect information and analyze individual student performance.

APPENDIX A
GLOSSARY OF KEY TERMS

Advanced decoding, advanced word analysis. In phonics advanced strategies for decoding multisyllabic words include morphology and information about meaning, pronunciation, and parts of speech (gained from knowledge of prefixes, roots, and suffixes).

Automaticity. Effortless identification of words (accuracy + rate). Reading without conscious effort or attention to decoding.

Core instruction. Instruction provided to all students in a class, usually guided by a comprehensive core reading program. Core instruction is usually provided partly to the whole class and partly to small groups during a period of differentiated instruction. Core program materials and lesson procedures can frequently be used to provide reteaching or additional teaching according to student needs.

Criterion-referenced assessment. Measures a student's success in meeting stated objectives, outcomes, expectations, or benchmarks.

Curriculum-based assessment. Measures students' ongoing progress toward learning what they are being taught in the classroom.

Decodable words. Words that can be recognized on sight or that contain a high proportion of sound-symbol relationships already taught. Used to give practice in specific decoding skills and as a bridge between phonics learning and the application of phonics to independent reading.

Decoding. The ability to translate a word from print to speech, usually by employing knowledge of sound-symbol correspondences. Also, deciphering a new word by sounding it out.

Diagnostic assessment. Assessment designed to determine a student's specific instructional needs.

Direct instruction. The teacher defines and teaches a concept, guides students through its application, and arranges for extended guided practice until mastery is achieved.

Direct vocabulary instruction. Planned instruction to teach new, important, and difficult words to expose students to words that they will encounter in reading.

Dynamic testing, dynamic assessment. See *progress monitoring assessment.*

Explicit instruction. Planning an activity or experience to make students consciously aware of a concept or skill—usually through questioning, reciprocal teaching, modeling, or direct instruction accompanied by exercises and drills. The four steps of explicit instruction are:

- Teacher models and explains.
- Teacher provides guided practice. Students practice what the teacher modeled, and the teacher provides prompts and feedback.
- Teacher provides supported application. Students apply the skill as the teacher scaffolds instruction.
- Independent practice.

Fluency. The ability to read text quickly, accurately, and with proper expression. Even after other foundation skills are brought into the average range, fluency usually lags behind (Torgesen et al., 2001; Torgesen, Rashotte, Alexander, Alexander, & McPhee, 2003; Torgesen et al., 2006). Weak sight vocabularies contribute to poor fluency (Jenkins, Fuchs, van den Broek, Espin, & Deno, 2003; Torgesen, 2005). Torgesen (2006) suggests that it is hard to improve fluency in poor readers because most have read much less than their peers, perhaps for many years, and have been exposed to fewer words. Anderson, Wilson, and Fielding (1988) demonstrated that a fifth-grade

student with average reading ability (as indicated by an achievement test) encounters about 15 times as many written words each year as a fifth grader reading at the 10th percentile. The number of single words that can be read rapidly and automatically affects fluency (LaBerge & Samuels, 1974).

Formative assessment. Formative assessments document what students know and how they learn (Harp & Brewer, 2005). Through ongoing data collection (anecdotal records, checklists, learning logs, portfolios, student-self evaluation, and so on), formative assessments determine if expectations have been achieved; results are used to inform and adjust instruction for current students (Ainsworth & Viegut, 2006). Formative assessment can have a powerful effect on student learning. Its typical effect size on standardized tests is between 0.4 and 0.7, larger than the effect size of most education interventions (Black & William, 1998a). This difference is especially notable for low achievers, including students with learning disabilities (Black & William, 1998b). Many studies indicated greater gains for low achievers and a reduced range of achievement, closing the achievement gap while raising achievement on the whole.

Foundation skills. According to the National Institute of Child Health and Human Development (2000), foundation skills include three elements: phonemic awareness, knowledge of high-frequency sight vocabulary words, and the ability to decode words.

Frustrational reading level. The level at which a reader reads with less than 90 percent accuracy (that is, no more than one error per 10 words read). Frustration-level text is difficult text for the reader.

Guided reading. A small-group, explicit reading instruction method in which homogeneous student groups work with a teacher to build and practice reading strategies while building confidence in student readers. Text is selected to match the group's developmental reading level.

Intensive instruction. Intensive instruction is essential for struggling readers (Foorman & Torgesen, 2001; Lyon, 2003; Snow, Burns, & Griffin, 1998; Torgesen et al., 2001). Intensity can be increased by increasing time for instruction, increasing teacher-to-student ratios, or both. Research studies of intensive foundation skills instruction for late elementary and secondary students have used teacher-to-student ratios ranging from 1:1 to 1:4. It appears that significant growth for these students is not attained in large groups, as it is in an inclusion model where students with disabilities are included in the general education curriculum (Zigmond, 1996). Instruction is generally undertaken daily for 35–133 minutes (Torgesen, 2005). Effective teaching begins with direct instruction, modeling, or both, followed by guided practice and culminating in independent practice (Brophy & Good, 1986; Rosenshine, Meister, & Chapman, 1996; Rosenshine & Stevens, 1984). Without an intensive instructional intervention, poor readers become even poorer readers (Snow, Burns, & Griffin, 1998; Stanovich, 1986).

Intervention program. Provides content for instruction that is intended for flexible use as part of differentiated instruction or more intensive instruction to meet student learning needs in one or more specific areas of reading (phonological awareness, phonics, fluency, vocabulary, and comprehension). These programs are used to provide targeted, intensive intervention for small groups of struggling readers.

Letter-sound correspondence. Matching an oral sound to its corresponding letter or group of letters.

Lexile Framework for Reading. A scientific approach to reading measurement that provides a common scale for matching reader ability and text difficulty, the Lexile Framework uses well established analytic methods to define "reading comprehension." At the heart of the system is the Lexile Analyzer, a Windows-based software program that can evaluate the reading challenge of any text (books, articles, test items) by analyzing

its syntactic complexity and semantic difficulty. The analyzer calibrates the text by studying its characteristics, such as sentence length or word frequency. Unlike other readability formulas, the Lexile Framework allows placing people and texts on a single scale and includes an assessment system that enables educators to determine a student's reading comprehension level precisely (Stenner, 1998).

Literacy. The ability to function socially, academically, and culturally in a language. (In reading instruction the term can refer more strictly to the ability to read and write.)

Norm-referenced assessment. Type of measurement used to evaluate a student's learning in relation to a normed group, such as other students within the class, or across classes, schools, or a segment of a population.

Outcome assessment. See *summative assessment.*

Phonemic awareness. The awareness that spoken words are made up of individual sounds (phonemes) and the ability to manipulate these sounds.

Phonics. The predictable relationship between the phonemes (sounds) of spoken language and the graphemes (letters and spellings) that represent those sounds in written language.

Phonics instruction. A way of teaching reading that focuses on teaching children to understand the relationships between the sounds of spoken words and letters of words they see in print.

Phonological awareness. The ability to segment and analyze spoken words in several different ways (for example, syllables and rhymes).

Progress monitoring assessment. Assessment to ensure that adequate progress in reading is achieved throughout the year (also called dynamic or formative assessment). Results yield a quick sample of critical reading skills to inform teachers whether a student is making adequate progress toward achieving grade-level reading ability by the end of the year.

Program fidelity. The degree to which instruction follows a program's intent and design.

Reading inventory. A checklist or questionnaire for gathering information about a student's reading ability, interests, behaviors, and so forth.

Response to Intervention. The Individuals with Disabilities Education Act of 2004 permits, and in some cases requires, up to 15 percent of Part B funds to be used for early intervening services—before students are identified for special education—with priority given to serving children in kindergarten through grade 3. Many educators view Response to Intervention as a promising means of identifying and serving students who may need assistance beyond that offered in the general education curriculum, and of determining which children qualify for special education.

Scaffolding. Support for learning through instruction, modeling, questioning, or feedback that is adjusted to the learner's needs by providing "just enough" support to encourage independent strategy use. This concept is based on Vygotzsky's (1978) theory of the "zone of proximal development."

Struggling readers. Struggling readers can include students with learning disabilities; English language learners; economically disadvantaged students in schools receiving funds targeted to high-poverty schools under Title I, Part A of the No Child Left Behind Act of 2001; or other at-risk students. Many struggling readers have learning disabilities (Fawcett & Nicolson, 1995; Moats, 1998; Shaywitz, 1992; Snow, Burns, & Griffin, 1998). Reading scores on the National Assessment of Educational Progress are much lower for students with learning disabilities than for those without disabilities. In 2005 fourth-grade students with disabilities attained average reading scores that were 32 points below those of students without disabilities; in eighth grade

the differential was 39 points. Again, among fourth- and eighth-grade students with disabilities, 66 percent attained scores below the basic level. Among students without disabilities, only 33 percent of fourth-graders and 24 percent of eighth-graders scored that low (U.S. Department of Education, National Center for Education Statistics, 2005).

Summative assessment. Summative assessment, or the collection of information at the end of the instruction cycle (also called outcome assessment), can evaluate overall reading outcomes by judging a student's achievements in relation to some standard of excellence or body of knowledge (scoring rubrics with exemplars, content area tests, projects, and so on). The results are used to determine whether the goals for student achievement were reached. They can also be used to inform future instruction (see *formative assessment*).

Three-tier reading approach. The three-tier reading model, described by the Vaughn and colleagues at the Gross Center for Reading and Language at the University of Texas at Austin (2005), provides a framework for teaching reading at different levels throughout a school to meet student needs as determined by screening, diagnostic, and progress-monitoring testing. The model is consistent with the goals of Response to Intervention (Marchland-Martella, Ruby, & Martella, 2007; Vaughn Linan-Thompson, & Hickman, 2003). Initially developed for grades K–3, it has been employed in Reading First initiatives to teach beginning reading (Cline, 2005). The federal Striving Readers initiative, aimed at improving adolescent reading, included some parts of the three-tier model (see http://www.ed.gov/programs/strivingreaders/applicant.html).

Word study. Deliberately investigating words (for example, through vocabulary-building exercises, word-identification practice, and spelling).

APPENDIX B
DEMOGRAPHIC AND ACHIEVEMENT STATISTICS FOR PARTICIPATING DISTRICTS

TABLE B1

Demographic and school data for participating districts, 2006

Statistic	Worcester, Massachusetts	Nashua, New Hampshire	Yonkers, New York	Providence, Rhode Island
Adequate yearly progress status	In need of improvement	In need of improvement	In need of improvement	Corrective action
Total enrollment	23,603	12,713	23,666	25,085
Hispanic students (percent of total)	34	13	48	58
African American students (percent of total)	13	4	29	22
White students (percent of total)	43	77	17	13
Asian students (percent of total)	8	6	6	6
American Indian students (percent of total)	0	0	0	1
Other students (percent of total)	2	—	—	—
Students on free or reduced-price lunch (percent of total)	63	31	72	74
Middle-grade enrollment (defined as grades 6–8)	5,011	3,076	5,150	5,014
School structures for middle grades (grades 6–8)	Middle schools (7 and 8); preK–6; 7–12	Middle schools (6–8); preK–6	Middle schools (6–8; 7–8); preK–6; preK–8	Middle schools (6–8; 7–8); preK–6
District English language learner enrollment (percent of total)	3,603 (16.6)	916 (7.2)	3,981 (17.0)	5,745 (23.0)
District special populations enrollment (percent of total)	4,516 (19.3)	1,909 (15.0)	3,872 (16.0)	4665 (18.6)

— is not available.

Source: Massachusetts Department of Education District Report Card (http://profiles.doe.mass.edu/home.asp?mode=o&so=-&ot=5&o=1906&view=all); New Hampshire State Department of Education (http://www.ed.state.nh.us/education/data/index.htm); New York State Department of Education (https://www.nystart.gov/publicweb-rc/2006/AOR-2006-662300010000.pdf); Rhode Island State Department of Education (http://infoworks.ride.uri.edu/2007/default.asp).

TABLE B2

Share of students scoring below proficient on state reading assessments in participating districts and states, grades 4–8, 2006 (percent)

Group and grade	Worcester	Massachusetts	Nashua	New Hampshire	Yonkers	New York	Providence	Rhode Island
All students								
4	72	53	27	28	31	31	62	36
5	64	40	31	28	27	37	61	35
6	57	36	26	28	55	55	60	36
7	61	35	39	19	63	54	69	41
8	53	26	37	34	68	51	67	42
Students with disabilities								
4	96	84	67	70	na	74	83	69
5	89	75	74	72	na	83	85	71
6	90	74	69	71	89	84	91	87
7	94	75	78	77	88	84	94	78
8	87	66	72	78	96	89	94	81

na is not applicable.

Source: For Worcester and Massachusetts, Massachusetts Department of Education District Report Card (http://profiles.doe.mass.edu/home.asp?mode=o&so=-&ot=5&o=1906&view=all); for Nashua and New Hampshire, New Hampshire State Department of Education (http://www.ed.state.nh.us/education/data/index.htm); for Yonkers and New York, New York State Department of Education (https://www.nystart.gov/publicweb-rc/2006/AOR-2006-662300010000.pdf); for Providence and Rhode Island, Rhode Island State Department of Education (http://infoworks.ride.uri.edu/2007/default.asp).

APPENDIX C
READING ASSESSMENTS

TABLE C1
Descriptive data on reading assessments used in participating districts

Assessment	Publisher	Subtests	Recommended grades	Criterion-referenced
Analytical Reading Inventory	Allyn & Bacon/Merrill Education 445 Hutchinson Ave. Columbus, Ohio 43235 www.allynbaconmerrill.com		4–9	×
Comprehensive Test of Phonological Processing	PRO-ED, Inc. 8700 Shoal Creek Boulevard Austin, Texas 78757-6897 www.proedinc.com	Six core subtests and eight supplemental tests	2–16	
Degrees of Reading Power	Sopris West 4185 Salazar Way Frederick, CO 80504 www.sopriswest.com (303)651-2829 (800)547-6747		4–12	×
Developmental Reading Assessment 2	Pearson Supplemental PK-6 Upper Saddle NY, (800) 321-3106 www.pearsonlearning.com		4–8	×
Diagnostic Assessments of Reading	Riverside Publishing 3800 Golf Road, Suite 100 Rolling Meadows, IL 60008 800.323.9540 www.riverpub.com		K–12	×
Diagnostic Online Reading Assessment	Let's Go Learn, Inc. 705 Wellesley Ave. Kensington, CA 94708 510-525-6755 www. letsgolearn.com		K–12	
Dynamic Indicators of Basic Early Literacy Skills (DIBELS)	Center on Teaching & Learning 5292 University of Oregon Eugene, OR 97403-5292 http://dibels.uoregon.edu		K–3	×
Expressive Vocabulary Test	Pearson Assessments 5601 Green Valley Drive Bloomington, MN 55437-1187 800-627-7271 http://ags. pearsonassessments.com/		K–12	
Gates-MacGinitie Reading Test, 3rd ed.	Riverside Publishing 3800 Golf Road, Suite 100 Rolling Meadows, IL 60008 800.323.9540 www.riverpub.com	Separate sections for vocabulary and comprehension that can be administered at one time in separate session (two components yield one score)	4–12	

Norm-referenced	Individually administered	Group administered	Time to administer	Phonemic awareness	Phonics	Fluency	Vocabulary	Comprehension
	×		Varies		×	×		×
×	×		30 minutes for core subtests	×	×	×		
	×	×	45 minutes				×	×
	×		45 minutes	×	×	×	×	×
	×		40 minutes	×	×	×	×	×
×	×		Varies	×	×	×	×	×
	×		10 minutes	×	×	×		
×	×		15 minutes				Oral	
×	×	×	20 minutes vocabulary; 30 minutes compre-hension				×	×

(CONTINUED)

TABLE C1
Descriptive data on reading assessments used in participating districts (continued)

Assessment	Publisher	Subtests	Recommended grades	Criterion-referenced
Gray Oral Reading Test-4	ProEd Publishing Co. 8700 Shoal Creek Boulevard Austin, Texas 78757-6897 www.proedinc.com		K–12	
Group Reading Assessment and Diagnostic Evaluation	Pearson Learning Group 145 South Mount Zion Road Lebanon, IN 16052 800-321-3106 www.pearsonlearning.com		preK–12	
Informal Reading Inventory	Houghton Mifflin 222 Berkeley Street Boston, MA 02116 617-351-5000 www.eduplace.com		K–12	×
Lindamood Auditory Conceptualization Test	Pearson Assessments 5601 Green Valley Drive Bloomington,MN55437-1187 800-627-7271 www.pearsonassments.com		K–12	
Phonological Awareness Literacy Screening	University of Virginia, (PALS) PO Box 800785 Charlottesville, VA 22908–8785 866-372-7257 http://pals.virginia.edu/		4–6	
Qualitative Reading Inventory	Allyn & Bacon Merrill 445 Hutchinson Ave. Columbus, Ohio 43235 www.allynbaconmerrill.com		4–12	×
Scholastic Reading Inventory	Scholastic Reading Inventory P.O. Box 7502 Jefferson City, MO 65102 1–877-268-6871 www.teacher.scholastic.com		1–12	
Stanford Achievement Test (SAT–10)	Harcourt Assessment, Inc. 19500 Bulverde Road San Antonio, Texas 78259 1–800-211–8378 www.harcourtassessment.com		4–12	
TerraNova	CTB/McGraw-Hill 20 Ryan Ranch Road Monterey, CA 93940 800.538.9547 www.ctb.com		4–12	
Test of Silent Word Reading Fluency	ProEd Publishing Co. 8700 Shoal Creek Blvd. Austin, TX 78757-6897 800.897.3202 512.451.3246 www.proedinc.com		K–12	

Norm-referenced	Individually administered	Group administered	Time to administer	Phonemic awareness	Phonics	Fluency	Vocabulary	Comprehension
×	×		20–30 minutes			×		×
×	×	×	45–90 minutes	×	×		×	×
	×		Varies		×	×	×	×
×	×		20–30 minutes	×	×			
×	×		Varies	×	×	×		
	×		Varies		×	×	×	×
×	×		40–60 minutes					×
×		×	100 minutes	×			Reading	×
×	×	×	95 minutes			×	×	×
×	×	×	5–10 minutes	×	×	×		

(CONTINUED)

TABLE C1

Descriptive data on reading assessments used in participating districts (continued)

Assessment	Publisher	Subtests	Recommended grades	Criterion-referenced
Test of Word Reading Efficiency	ProEd Publishing Co. 8700 Shoal Creek Blvd. Austin, TX 78757-6897 800.897.3202 512.451.3246 www.proedinc.com	Two subtests: • Sight Word Efficiency • Phonetic Decoding Efficiency	K–12	
Wilson Assessment of Decoding and Encoding	Wilson Language 47 Old Webster Road Oxford, MA 800–899–8454 508-368-2399 www.wilsonlanguage.com		4–12	×
Woodcock Reading Mastery Test	Pearson Assessments 5601 Green Valley Drive Bloomington, MN 55437-1187 800-627-7271 http://ags.pearsonassessments.com	Six subtests: • Visual auditory learning • Letter identification • Word identification • Word attack • Word comprehension • Passage comprehension	K–16	
Woodcock-Johnson® III Diagnostic Reading Battery	Riverside Publishing 3800 Golf Road, Suite 100 Rolling Meadows, IL 60008 800.323.9540 www.riverpub.com	Ten subtests from the Woodcock-Johnson III Tests of Achievement, including eight clusters for scoring: • Basic Reading Skills • Reading Comprehension • Phonics Knowledge • Phonemic Awareness • Oral Language Comprehension • Brief Reading • Broad Reading • Total Reading	preK–12	
Yopp-Singer Test of Phoneme Segmentation	International Reading Association 800 Barksdale Rd. PO Box 8139 Newark, DE 19714–8139 1–800-336-READ www.reading.org		4–6	×

Source: Authors' compilation based on data described in the text and appendix E.

Norm-referenced	Individually administered	Group administered	Time to administer	Phonemic awareness	Phonics	Fluency	Vocabulary	Comprehension
×	×		5–10 minutes	×	×	×		
	×			×	×	×		
×	×		45 minutes for full test		×		×	×
×	×		15–20 minutes per subtest	×	×	×	×	×
	×		5–10 minutes	×	×			

APPENDIX D
FOUNDATION SKILLS INTERVENTIONS

TABLE D1
Descriptive data on foundation skills interventions

Intervention	Publisher	Technology component	Recommended grades	Skills
Academy of Reading	AutoSkill International Inc. 555 Legget Drive Suite 600, Tower B Ottawa, Canada K2K 2X3 800-288-6754 or (613) 287-0900 www.autoskill.com	Yes	3–12	Phonological awareness Phonics Fluency Vocabulary Comprehension
AMP Reading Systems	Pearson Education AGS Globe PO Box 2500 Lebanon, IN 46052 800-992-0244 www.agsglobe.com	Yes	6–12	Fluency Vocabulary Comprehension
Benchmark Introductory Word Detectives Program	Benchmark Press Upper Providence Township 2107 North Providence Rd. Media, PA 19063 610.565.3854 www.benchmarkschool.org	No	6–12	Phonological awareness Phonics Fluency Vocabulary Comprehension
Discover Intensive Phonics for Yourself	Reading Horizons 60 North Cutler Drive North Salt Lake, UT 84054 800-333-0054 www.readinghorizons.com	Yes	K–12	Phonological awareness Phonics Vocabulary
EdMark	Riverdeep Inc., LLC 100 Pine Street, Suite 1900 San Francisco, CA 94111 415.659.2000 www.riverdeep.com	Yes	1–12	Phonological awareness Phonics Fluency Vocabulary Comprehension
Fast Forward to Literacy	Scientific Learning 300 Frank H. Ogawa Plaza Suite 600 Oakland, CA 94612-2040 888-665-9707 www.scilearn.com	Yes	6–12	Phonological awareness Phonics Fluency Vocabulary Comprehension
Highpoint Encore Edition	Hampton-Brown National Geographic School Publishing Firestone Business Park 340 El Camino Real South #36 Salinas, CA 93901 800-333-3510 www.hampton-brown.com	Yes (limited)	6–12	Vocabulary Comprehension
HOSTS	HOSTS Learning 222 NE Park Plaza Drive, Suite 230 Vancouver, WA 98684-3402 800–833-4678 www.hosts.com	Yes	K–12	Phonological awareness Phonics Fluency Vocabulary Comprehension

Intervention	Publisher	Technology component	Recommended grades	Skills
Language!	Sopris West 4093 Specialty Place Longmont, CO 80504 (303) 651-2829 or (800) 547-6747 www.sopriswest.com	Yes	3–12	Phonological awareness Phonics Fluency Vocabulary Comprehension
Lindamood Phoneme Sequencing Program for Reading, Spelling, and Speech	Pearson Assessments 5601 Green Valley Drive Bloomington, MN 55437-1187 800-627-7271 www.ags.pearsonassessments.com	Yes	3–12	Phonological awareness Phonics
NovaNet	Pearson Digital Learning 6710 East Camelback Road Scottsdale, Arizona 85251 1.888.977.7900 www.pearsondigital.com	Yes	6–12	Vocabulary Fluency Comprehension
Odyssey Reading/ Language Arts	Compass Learning 203 Colorado Street Austin, TX 78701 512-478-9600 www.compasslearning.com	Yes	3–12	Phonological awareness Phonics Fluency Vocabulary Comprehension
Power Up!	Steck-Vaughn Harcourt Achieve 6277 Sea Harbor Dr. Orlando, FL 32887 1–800-531-5015 www.steckvaughn.harcourtachieve.com	Yes	5–9	Phonics Fluency Vocabulary Comprehension
The REACH System	SRA/McGraw-Hill 220 East Danieldale Road Desoto, TX 75115-2490 1–888-SRA-4543 www.sraonline.com	Yes	4–12	Phonological awareness Phonics Fluency Vocabulary Comprehension
Read 180	Scholastic, Inc 557 Broadway New York, New York 10012 212-343-6100 www.teacher.scholastic.com/products/read180	Yes	6–12	Phonics Fluency Vocabulary Comprehension
Read Naturally	Read Naturally 750 S. Plaza Drive #100 Saint Paul, MN 55120 (651) 452-4085 (800) 788-4085 www.readnaturally.com	Yes	6–12	Phonological awareness Phonics Fluency Vocabulary Comprehension
Read XL	Scholastic, Inc. 1–800-724-6527 557 Broadway New York, New York 10012 212-343-6100 www.teacher.scholastic.com/products/readxl	Yes	6–8	Phonics Fluency Vocabulary Comprehension

(CONTINUED)

TABLE D1
Descriptive data on foundation skills interventions (continued)

Intervention	Publisher	Technology component	Recommended grades	Skills
Reading Advantage	Great Source A Houghton Mifflin Company P.O. Box 7050 Wilmington, MA 01887 800-289-4490 www.greatsource.com	Yes	6–12	Phonics Fluency Vocabulary Comprehension
Spalding Writing Road to Reading	Spalding Education International 2814 W. Bell Road, Suite 1405 Phoenix, AZ 85053 phone: 602–866-7801 fax: 602–866-7488 www.spalding.org	No	K–8	Phonological awareness Phonics Fluency Vocabulary Comprehension
SRA Corrective Reading	SRA/McGraw-Hill 220 East Danieldale Road Desoto, TX 75115-2490 1–888-SRA-4543 www.sraonline.com	No		Phonological awareness Phonics Fluency Vocabulary Comprehension
Strategic Instruction Model (SIM)	The University of Kansas Center for Research on Learning 1122 West Campus Road, Room 521 Lawrence, KS 66045-3101 785–864-4780 www.ku-crl.org	No	4–12	Phonics Vocabulary Comprehension
SuccessMaker Enterprise	Pearson Digital Learning 6710 East Camelback Road Scottsdale, Arizona 85251 1.888.977.7900 www.pearsondigital.com	Yes	K–8	Phonological awareness Phonics Fluency Vocabulary Comprehension
Voyager Passport	Voyager Expanded Learning One Hickory Centre 1800 Valley View, Suite 400 Dallas, TX 75234–8923 1–888-399-1995 www.voyagerlearning.com	No	4–6	Phonics Fluency Vocabulary Comprehension
Wilson Reading System	Wilson Language Training 47 Old Webster Road Oxford, MA 01540 508-368-2399 www.wilsonlanguage.com	No	3–12	Phonological awareness Phonics Fluency Vocabulary Comprehension

Source: Authors' compilation based on data described in text and appendix E.

APPENDIX E
METHODS

This study looked at how four midsize urban districts screened and assessed struggling middle-grade readers to determine whether they required additional help in acquiring foundation skills, how the districts developed intervention programs, and how the districts monitored progress. The study focused on low-income urban school districts, which have disproportionately large populations of students with disabilities (Losen & Orfield, 2002) and students who perform poorly on national and state reading tests.

The researchers' original intent had been to focus on students with learning disabilities. But in gathering information for the study, the researchers found that they needed to focus more broadly on students who struggle with reading—even if they have no identified learning disabilities. For example, the special education departments in Worcester, Yonkers, and Providence estimated that while 70 percent of their students have reading problems, just over half of these students receive special education services to improve reading. The researchers found that programs for English language learners also integrate foundation reading skills into their curriculum as a standard.

Sites included in the project

Researchers began by establishing criteria to identify possible sites. Next, they narrowed this list through outreach.

Establishing criteria for possible sites. The first step was to identify a pool of prospective sites. To identify eligible school districts, researchers established criteria in eight categories:

- *Location.* Located in a Northeast and Islands Region U.S. state (Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, or Vermont).
- *District size.* Midsize, urban, and serving over 10,000 students.
- *Adequate yearly progress status.* Identified as a district in need of improvement (some or all district schools are in need of improvement).
- *Students with disabilities.* Students with disabilities are more than 15 percent of the student population.
- *Socioeconomic status.* Percentage of students eligible for free or reduced-price lunch at or above state average.
- *Racial diversity.* Percentage of racial diversity at or above state average.
- *Reading achievement for students with disabilities.* Percentage of students scoring below proficient at or above the state average.
- *Reading achievement for all students.* Percentage of students scoring below proficient at or above the state average.

Based on these criteria, 40 districts in five Northeast and Islands Region states were identified as candidates for the study. Maine and Vermont lacked urban areas large enough to meet the criteria.

Outreach. To refine the list project staff collaborated with Northeast and Islands Regional Educational Laboratory state liaisons, who made presentations to their state departments of education and key stakeholders and shared descriptions of the project with them. The state liaisons provided researchers with specific site referrals and established priorities for site solicitation and selection.

Project staff also collaborated with two colleagues who directed two projects in the school districts (one was the director of the Urban Special Education Leadership Collaborative; the other

was a leader of the New England and New York Comprehensive Assistance Centers).

These efforts yielded a list of 10 districts in five states:

- Connecticut: Bridgeport, Hartford, New Haven, Waterbury.
- Massachusetts: Springfield, Worcester.
- New Hampshire: Nashua.
- New York: Rochester, Yonkers.
- Rhode Island: Providence.

Project staff contacted these districts.

Final site selection. The researchers shared documents about the project, discussed expectations for participation, secured permission by submitting research applications, and fielded questions. Finally, following all recommended procedures, four sites agreed to participate. Table E1 shows how each district met the researchers' criteria. (Appendix B displays more detailed demographic and achievement information for each district.)

Data collection strategies

The project used five data collection strategies:

- Gathering general information about assessments and interventions from online articles, books, and journals.
- Gathering state literacy plans.
- Gathering online statistics about each district.
- Gathering public documents describing literacy programs at each district.
- Interviewing four district administrators from each district.

Gathering and reviewing information about assessments and interventions. The project collected publicly available information about diagnostic reading assessments and intervention programs from publisher web sites, research and development organizations and associations (for example, Florida Center for Reading Research, 2007), and conference presentations. Researchers consolidated and assessed items on the list for their relevance to foundation reading skills and to the target grade levels.

Gathering information about state literacy plans. Researchers reviewed literacy plans for each state:

- Massachusetts Literacy Plan, preK–12, June 22, 2006, Draft.
- *Guidelines for the development of personal literacy plans,* Rhode Island Department of Education, June 2005, Second Edition.
- New Hampshire preK–16 Literacy Action Plan for the 21st Century, Draft, May 13, 2007.
- *P–16 Education: A Plan for Action*, University of the State of New York, New York State Board of Regents, State Education Department, November, 2006.

Gathering and reviewing online statistics about each district. The project collected the NCLB-mandated report card for each participating district from the state department of education web site. Each report card included demographic and student achievement data, including district enrollment, number of students by grade, ethnic and socioeconomic breakdown, and percentage of students with disabilities, as well as the results of the most recent standards-based tests.

Gathering and reviewing public documents about each district's literacy plans. Researchers gathered public documents that described each district's overall literacy program, its diagnostic tests, the foundation skills programs available

to its students, and the methods or instruments it used to monitor student progress. To gather these documents researchers electronically searched for relevant documents on reading assessments and reading intervention programs; their administration, review, and implementation; and literacy policies and procedures relevant to the study topic. Next, as administrators mentioned public documents during interviews, project staff asked to have these forwarded to them for review.

Interviewing district-level administrators. At the center of data gathering were the interviews with local education agency administrators, including key district administrators representing English language arts, special education, Title I, and bilingual education. Such administrators knew most about district policies and programs for struggling readers in the middle grades. The project did not include interviews with school-level administrators, specialists, or teachers because the focus was on the district's overall plan for middle-grade reading.

Researchers sent the questions for each interview in advance. The interviews were conducted by phone, lasted 30–45 minutes, and (with each administrator's written permission) were tape recorded. Each interview aimed to gather information on the district's overall literacy program and on programs for students with disabilities, Title I students, and English language learners.

Interviews followed a semistructured protocol, or topic agenda:

- Each interview included questions in four categories corresponding to the research questions (screening and diagnostic testing, intervention selection and implementation, progress monitoring, and factors promoting or hindering effective programming).
- Within each category, interviews included questions about roles and responsibilities, professional development, and selection criteria.

(For the questions in each category, see appendix F.)

Researchers tailored the topic agenda, however, to focus strictly on the needs of students served by each administrator's program. For example, when interviewing special education administrators, the researchers focused their questions on students with learning disabilities and programs offered through special education. When interviewing administrators charged with Title I, they focused their questions on Title I students and programs. Four different interview protocols resulted—one for each type of administrator.

Data analysis strategies

For each research question researchers used the interviewees' responses to:

- Develop a list of items identified in response to the question (tests in use, programs in use, and factors identified as promoting or hindering implementation).
- Generate a consolidated table showing items that administrators in each district identified.
- Compile a cross-district list of all items identified by all administrators.
- Categorize items by type (for example, screening test or diagnostic test).

The district profiles presented in the final study vary in length because of variations in current implementation and future planning, and because varying amounts of data were available for each district (published, posted on the district's web sites, or shared during interviews).

APPENDIX F
INTERVIEW QUESTIONS BY CATEGORY

Screening and diagnostic assessment

- What is your role?
- How are learning disabilities identified in your district?
- What tests are used to assess reading skills in students with and without learning disabilities?
- Why were these tests selected?
- Which students are included in the testing?
- When, how, and by whom are the tests administered?
- Who reviews and analyzes the results?
- What criteria are used for making decisions about programming?
- What factors contribute to or hinder the implementation of a diagnostic testing program?

Intervention programs

- What is your role?
- How are foundation reading skills defined in your district?
- What role do these skills play in your district or state's literacy initiatives?
- What interventions/programs are available for students with and without learning disabilities?
- How long have they been in operation?
- Who designed or selected them? Why?
- How do they align to other district or school level literacy initiatives?
- Who supervises and staffs these programs?
- How is staff chosen?
- What credentials are required for staff?
- What professional development is offered to or required of staff?
- What are the criteria for student admission? What data sources are used?
- When and where are the programs held?
- How are these programs funded?
- What resources are required for implementing the programs?
- Which foundation skills are addressed?
- What materials are used?
- What are the core instructional strategies?
- In what ways is instruction differentiated to meet students' needs?
- What methods are used for formative evaluation?
- Do teachers collect data?
- How are the data used to impact instruction?
- What factors contribute to or hinder program success?
- What is used as the summative data source?

Progress monitoring

- What is your role?

- What tests are used?
- Why were these tests selected?
- When, how, and by whom are they administered?
- Are there specific accommodations made for those students with learning disabilities? In what environment?
- Who reviews and analyzes the results?
- What are the next steps if students have or have not mastered the foundation skills?
- What factors contribute to or hinder program success?

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