

# Fundations® K-3

## Studies of Program Effectiveness

## Introduction

Fundations® provides Structured Literacy instruction grounded in the science of reading. The program covers critical foundational skills, including phonemic awareness, decoding, spelling, and handwriting within the broader knowledge-building ELA block, ensuring that all students develop lifelong literacy.

The Foundations curriculum combines explicit, mastery-based multimodal instruction with engaging materials to make learning to read fun and effective. The power of Foundations is in the way it integrates skill instruction so that a daily lesson teaches and then reinforces many related skills, making it an efficient and effective program. A variety of interactive learning activities fosters students' engagement, so they master the foundational skills necessary to become successful readers and writers.

Fundations is integral to a Multi-tiered System of Supports (MTSS) model, providing evidence-based instruction in the classroom for Tier 1 and early Tier 2 intervention for students at risk. To aid in the successful implementation of an MTSS model, progress monitoring is built into the program. This data informs instructional planning and differentiation; it guides the determination of students who may need Tier 2 support so that they can receive more intensive instruction before experiencing further struggle.

### Summary of Key Findings

To examine the effectiveness of Foundations, several impact and efficacy studies with thousands of students have been performed in schools and districts across the United States and with diverse populations.

The consensus across these studies is that, when implemented as intended, students using Foundations in Tiers 1 and 2 achieve **greater gains in foundational literacy skills** compared to students using programs previously implemented by the schools. These results are consistent for multilingual (ML) / English learners (ELs) as well.

Studies of **kindergarten students** who received Foundations instruction demonstrated:

- Increased letter knowledge.
- Larger gains in phonemic awareness.
- Greater gains in decoding.
- Reduction in risk of later reading difficulties.
- Increased likelihood of reaching higher end-of-year benchmarks.

**First- and second-grade students** who received Foundations instruction demonstrated:

- Larger gains in oral reading fluency.
- Improvement in phonemic awareness (phoneme segmentation).
- Improvement in phonological decoding (reading nonsense words).
- Significant gains in basic reading skills.
- Reduction in risk of later reading difficulties.

Assessment of **Grade 3 students** who received Foundations instruction revealed:

- Improved real word reading to reach grade level expectations.
- Improved reading of irregular words at or above grade level.
- Improved spelling of words at or above grade level.

## ESSA Evidence

The *Every Student Succeeds Act* (ESSA), enacted in 2015, established standards to ensure that educational programs or approaches used for instruction and intervention are supported with valid and reliable research evidence. Criteria based on these standards are associated with different tiers or levels of evidence to indicate the quality of a research study. Four tiers of evidence were established: Tier 1 indicates strong evidence; Tier 2 moderate; Tier 3 promising; and Tier 4 demonstrates a rationale for studying the intervention and is associated more with establishing a theoretical or conceptual framework used in developing the intervention than generating evidence to support effectiveness.

**Four studies of Foundations® met criteria for ESSA evidence:** Two studies qualified for Tier 2 evidence and two studies met Tier 3 criteria.

Key findings from the independent third-party research studies **meeting Tier 2 evidence** are below. One is a retrospective study from 2023-2024 and the second is a replication study of kindergarten outcomes in 2024-2025:

- Using a quasi-experimental design, researchers studied the impact of Foundations on 7,000 students from 27 schools in four districts—two implementing Foundations in Grades K-2 and two comparison districts providing “business as usual” instruction.
- Students in schools using **Foundations had 2.3 times greater odds of reaching end-of-year reading benchmarks** than students in comparison schools.
  - **Fewer Foundations students needed strategic or intensive support** at the end of the year vs. comparison schools.
  - This means that if 40% of comparison students meet benchmark, Foundations schools would be expected to see approximately 60–65% meeting benchmark. This achievement for Foundations students is **roughly 1.5 times the rate** for comparison students.
- Foundations significantly improved early literacy outcomes **across Grades K–2**.
- Outcomes from 1,379 kindergarten students from 27 schools in four districts in three states were compared to kindergarten students in two districts using two other programs.
  - Foundations **substantially improved** kindergarten reading outcomes.
  - Students receiving Foundations were **4.5 times more likely to reach a higher end-of-year benchmark** category than similar students in comparison classrooms.

The following section summarizes studies conducted to determine the evidence of Foundations’ effectiveness, including the studies meeting ESSA Tier 2 and Tier 3 evidence.

## The Effects of WLT's Foundations® Program on Students' Early Literacy Skills Four Districts in Arizona, Massachusetts, and California ESSA Tier 2<sup>1</sup>

This **quasi-experimental, retrospective study** meeting criteria for **Tier 2 (moderate) ESSA evidence** was conducted using data from the 2023-2024 school year to evaluate the impact of Foundations® on early literacy outcomes for students in kindergarten through Grade 2.

The study involved over 7,000 students from 27 schools in four districts representing three states and provides **real-world evidence** of the effectiveness of Foundations. Two districts implemented Foundations as a supplemental foundational skills program and served as the treatment condition. Two districts in the comparison condition implemented business-as-usual.

Propensity score weighting was employed to adjust for pre-existing differences in demographics and beginning-of-year DIBELS scores resulting in comparable groups at the beginning of the study. Mixed-effects modeling was used to account for students nested within classrooms and schools to determine teacher or school effects.

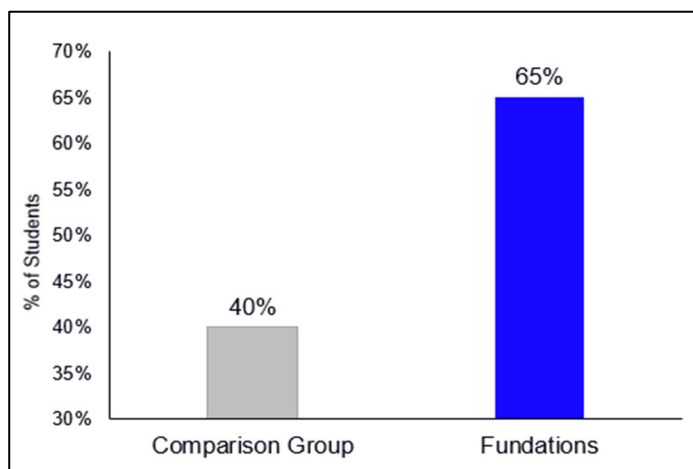
### Key Findings

Results indicate that students across all grades benefited and demonstrated gains, with the strongest gains evident in kindergarten. Kindergarten students showed the greatest improvement, while Grade 1 students had small, but positive gains, and Grade 2 students had moderate, consistent gains.

The overall treatment effect demonstrates two important findings:

- Students receiving Foundations instruction were **2.3 times more likely** to meet end-of-year reading benchmarks than comparison students.
- The **effect size was moderate and meaningful and was considered especially strong** for a multi-grade, real-world implementation.

**Figure 1: End-of-Year Benchmark Levels**



<sup>1</sup> Study conducted and results analyzed by WestEd, 2025.

## Implications

- Foundations® significantly improved early literacy outcomes for students **across K-2**.
- If 40% of comparison students meet benchmarks, Foundations schools would be expected to see approximately 60-65% students meeting benchmarks. This achievement for Foundations students is **roughly 1.5 times the rate** for comparison students. (See Figure 1.)
- Foundations effects remained stable across alternative weighting and analyses; thus, there is greater **confidence that the results reflect true program impact** and not statistical manipulations.
- **Classroom factors matter** more than school-level factors; thus, training, modeling, and coaching are essential supports for teachers.
- **Foundations is effective** as a supplemental program to teach foundational skills.

## **The Impact of Foundations® on Early Literacy Outcomes in Kindergarten** Four Districts in Arizona, Massachusetts, and California **ESSA Tier 2<sup>2</sup>**

A **replication study** meeting **ESSA Tier 2 (moderate) evidence** was conducted in the 2024-2025 school year.

Data for 1,379 kindergarten students in 27 schools in four districts from three states was analyzed to compare the impact of Foundations® to other programs implemented in the comparison schools.

Propensity-score weighting was applied to create balanced comparison groups and cumulative link mixed models to account for students nested within classrooms and schools. The analyses are based on end-of-year DIBELS composite benchmark scores.

### **Key Findings**

- Results indicate that kindergarten students who received Foundations were **4.5 times more likely to reach a higher end-of-year benchmark category** than similar students in comparison classrooms. This is based on the average treatment effect on the treated (ATT) approach that estimates the impact for students who received Foundations. (See Figure 1.)
- The average treatment effect (ATE) estimates the impact for the full population of students if everyone had access to Foundations. In this study, results indicate that **students were 3.8 times more likely** to achieve a higher benchmark category.

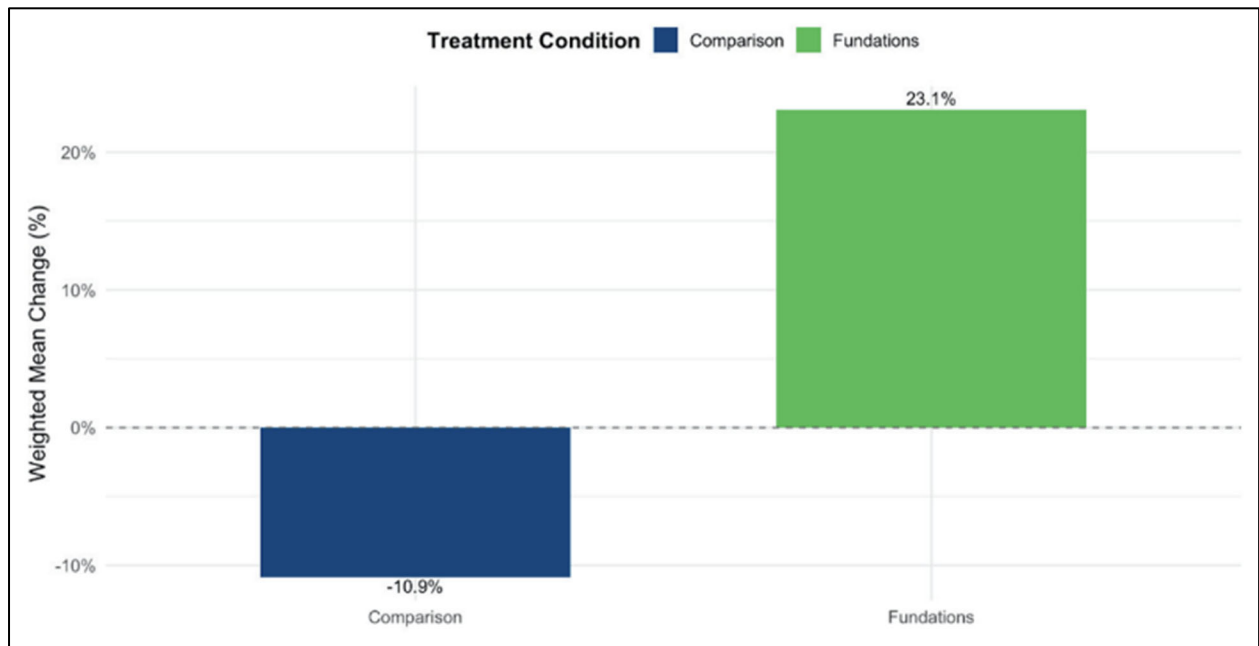
### **Implications**

- **Starting strong in kindergarten is essential** for more students to meet reading benchmarks and fewer students to fall behind and require extra help later.
- **Early implementation in kindergarten matters** most because the impacts are large and meaningful during a time when foundational skills develop rapidly. Prioritization for implementation in kindergarten should be considered even if a full implementation across Grades K-2 needs to phase in gradually.
- The **biggest differences in student outcomes stem from classrooms**, not schools. Teacher-level professional learning and coaching should be paired with curriculum adoption.
- Groups were nearly identical before comparisons were made; thus, educators can realize greater confidence that **Foundations drove the gains**.

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<sup>2</sup> Study conducted and results analyzed by WestEd, 2025.

**Figure 1. Shift in DIBELS Composite Benchmark Levels from BOY to EOY**



*\*Note:* Weighted mean changes in benchmark status indicate that students in comparison classrooms experienced an overall decline (–10.9%), whereas students in Foundations® classrooms demonstrated substantial improvement (+23.1%) from BOY to EOY. Positive values reflect movement to higher benchmark categories.

## Impact of Foundations® on Student Literacy Gains in a Rural District Pennsylvania ESSA Tier 3<sup>3</sup>

A retrospective study **meeting ESSA Tier 3 (promising) evidence** was undertaken in 2022 to explore the effects of the Foundations® program on student literacy gains in a rural public school district in northeastern Pennsylvania.

The district serves more than 500 students in kindergarten through Grade 2. Starting in the 2016–2017 school year, Foundations was implemented in Grades K through 2 in elementary schools.

A control comparison group who did not receive Foundations was created for all elementary students in the district from 2012–2013 through 2015–2016. Data from this treatment group was compared to the control comparison group's data from the 2016–2017 through 2018–2019 school years. Due to compromised data, only the Grade 1 results were evaluated.

The principal analysis included multiple regression models with statistical controls for demographic factors, such as ethnicity and eligibility for free/reduced price meals.

### Key Findings

Foundations implementation in first grade is associated with **statistically significant gains** in the following DIBELS subtests in Grade 1:

- **Nonsense Word Fluency (NWF): Whole Words Read (WWR)**
- **Nonsense Word Fluency: Correct Letter Sounds (CLS)**
- **Oral Reading Fluency (ORF)**

The treatment effect is large enough to be considered **substantively important**.

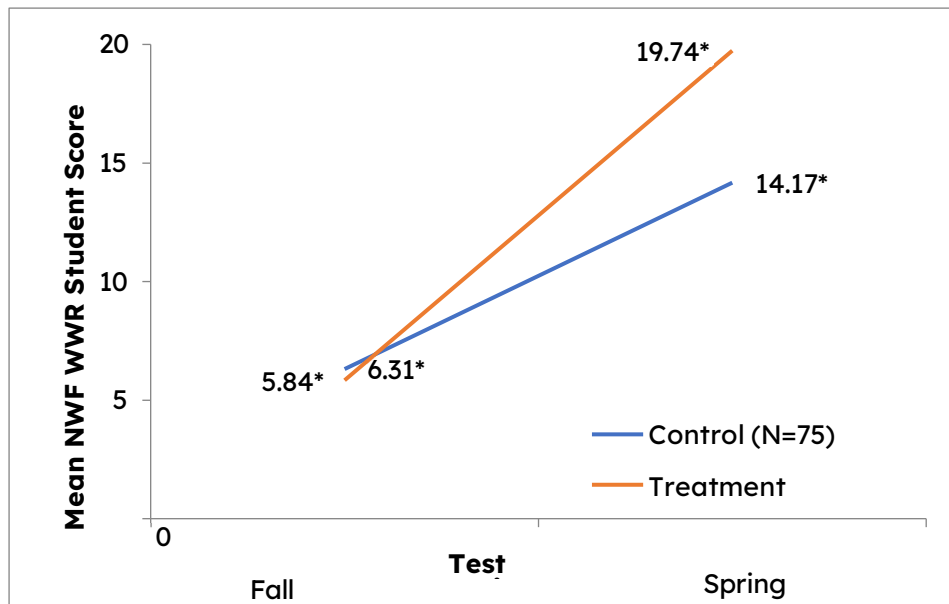
Grade 1, Cohort 1 and Cohort 2 analyses indicated that Foundations treatment had a positive impact on student outcomes.

- Cohort 1 data indicated substantively important effect size for Nonsense Word Fluency Whole Words Read (NWF WWR), but the data quality impacted statistical significance.
- Cohort 2 analyses between the control comparison and the Foundations treatment group's mean scores showed a statistically significant difference for DIBELS NWF WWR between fall and spring (see Figure 1).
- Cohort 2 analyses showed Foundations instruction as a statistically significant predictor with gains in Oral Reading Fluency (ORF) Accuracy, Nonsense Word Fluency Whole Words Read (NWF WWR), and Nonsense Word Fluency Correct Letter Sounds (NWF CLS) (see Table 1).

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<sup>3</sup> Analysis conducted by Metis Associates, 2020.

**Figure 1. DIBELS Nonsense Word Fluency Whole Words Read Grade 1, Cohort 2**



Note: Control comparison group and Foundations® treatment group mean scores Grade 1, fall to spring. NWF WWR = Nonsense Word Fluency Whole Words Read. \* $p < 0.001$ .

**Table 1. Multiple Regression Results for Grade 1, Cohort 2 (Control Comparison vs. Foundations Treatment)**

Predicted	Predictor (Direction)	r2 change	Beta	t	Sig.	Hedges' g
<b>ORF Accuracy*</b> <b>r2=0.477</b> <b>N=149</b>	ORFACC Pre ↑	0.409	0.456	6.611	<0.001	<b>0.290</b>
	Economically Disadvantaged ↓	0.029	-4.142	-2.105	0.037	
	Title I Status ↓	0.020	-7.973	-2.801	0.006	
	<b>Treatment ↑</b>	<b>0.019</b>	<b>4.554</b>	<b>2.304</b>	<b>0.023</b>	
	Constant		51.801			
<b>NWF WWR**</b> <b>r2=0.628</b> <b>N=150</b>	NWF WWR Pre ↑	0.533	1.111	12.089	<0.001	<b>0.502</b>
	<b>Treatment ↑</b>	<b>0.053</b>	<b>6.733</b>	<b>4.888</b>	<b>&lt;0.001</b>	
	Title I Status ↓	0.041	-7.080	-3.999	<0.001	
	Constant		8.378			
<b>NWF CLS***</b> <b>r2=0.664</b> <b>N=150</b>	NWF CLS Pre ↑	0.633	1.105	13.339	<0.001	<b>0.231</b>
	Title I Status ↓	0.018	-13.323	-3.070	0.003	
	<b>Treatment ↑</b>	<b>0.013</b>	<b>7.779</b>	<b>2.373</b>	<b>0.019</b>	
	Constant		26.634			

Note. \*ORF Accuracy = Oral Reading Fluency Accuracy; \*\*NWF WWR = Nonsense Word Fluency Whole Words Read; \*\*\*NWF CLS = Nonsense Word Fluency Correct Letter Sounds.

## Impact Study of Foundations® Implemented in Tier 1 on K-1 Literacy Outcomes Florida ESSA Tier 3<sup>4</sup>

A study conducted meeting **ESSA Tier 3 (promising) evidence** was conducted in 11 elementary schools in one urban school district in Florida. In these schools, Foundations® was implemented as the foundational skills component of the total literacy plan.

To gauge the effect of Foundations on student outcomes, an impact study contrasted the gains in literacy skills made by kindergarten and first-grade students using Foundations to the gains made by kindergarten and first-grade students prior to the implementation of Foundations. Figure 1 exhibits the various treatment and comparison groups among cohorts.

The study included multiple regression analyses with statistical controls for demographic and behavioral factors.

**Figure 1. Foundations Treatment Comparison Groups for Florida District**

	COHORT 1 (3 schools)			COHORT 2 (5 schools)			COHORT 3 (3 schools)		
	K	I	2	K	I	2	K	I	2
2010-2011									
2011-2012									
2012-2013									
2013-2014									

*Pink represents comparison group, green represents treatment group, blue represents Foundations® implementation*

### Key Findings

On average, kindergarten and first-grade students made greater gains in literacy skills when Foundations was being used as the foundational skills program.

**Grade 1:** An independent analysis of data from 2010–2014 determined that the implementation of Foundations is associated with better performance on four of six tested DIBELS scores in first grade and DIBELS Letter Naming Fluency (LNF) subtest in kindergarten. LNF is a critically important and telling factor of the potential for developing literacy in younger students.

<sup>4</sup> Analysis conducted by Metis Associates, 2020.

Alphabetic Knowledge, as measured in this subtest, is a strong predictor of how easily a child will learn to read.

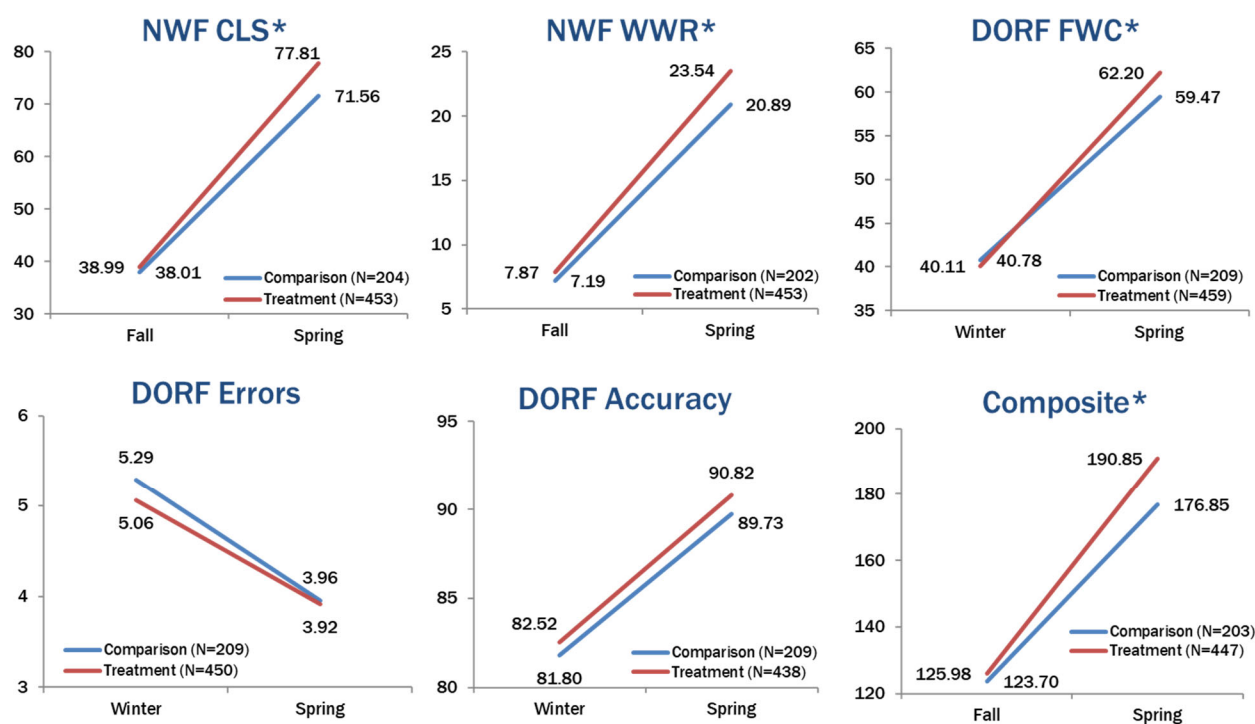
The analyses compared treatment and comparison performance on DIBELS at two points in time based on administration during the school year (i.e., fall to spring, winter to spring, or fall to winter). For first grade, comparative analyses were conducted for several DIBELS scales including:

- Nonsense Word Fluency Correct Letter Sounds (NWF CLS) – fall to spring
- Nonsense Word Fluency Whole Words Read (NWF WWR) – fall to spring
- Oral Reading Fluency Words Correct (DORF FWC) – winter to spring
- Oral Reading Fluency Errors (DORF Errors) – winter to spring
- Oral Reading Fluency Accuracy (DORF Accuracy) – winter to spring
- Composite Score (Composite) – fall to spring

Figure 2 shows the growth in the various DIBELS subtests for Grade 1. The difference in growth between first grade treatment and comparison students was statistically significant on four of the six tests.

Students receiving 1<sup>st</sup> grade Foundations® achieved **higher rates of growth on the DIBELS NWF CLS, NWF WWR, and DORF FWC** subscales, as well as the overall **DIBELS Composite score**.

**Figure 2. Results of Mixed Model ANOVA (Analysis of Variance) Comparisons for Grade 1**



\*Note. Statistically significant: NWF CLS  $p=0.023$ , NWF WWR  $p=0.039$ , DORF FWC  $p=0.006$ , Composite  $p=0.033$

**Kindergarten:** Student outcome data from a total of 3,115 kindergarten students was included in this impact study. Of these students, 1,584 attended kindergarten prior to the implementation of Foundations® and received a different program for foundational literacy skills (i.e., instruction as usual). The remaining 1,700 kindergarten students attended the 11 schools after the adoption of Foundations and received foundational literacy skills instruction using Foundations.

For kindergarten, comparative analyses were conducted for six DIBELS scales including:

- First Sound Fluency (FSF) – fall to winter
- Letter Naming Fluency (LNF) – fall to spring
- Phoneme Segmentation Fluency (PSF) – winter to spring
- Nonsense Word Fluency Correct Letter Sounds (NWF CLS) – fall to winter
- Nonsense Word Fluency (NWF) – winter to spring
- Composite Score (Composite) – fall to spring

The results of the kindergarten comparisons showed that the **difference in growth between treatment and comparison students was statistically significant on four of the six tests.**

Students receiving Foundations Level K (kindergarten) achieved **higher rates of growth on the DIBELS FSF, LNF, and NWF** subscales in addition to the overall **DIBELS Composite score.**

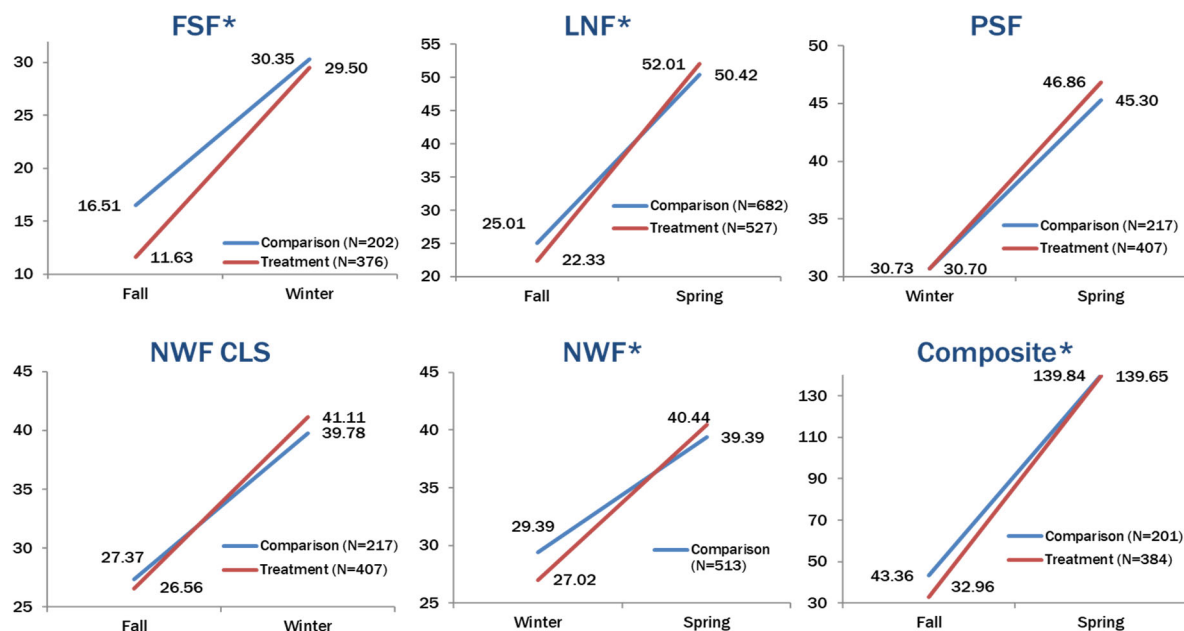
Although the ANOVA results essentially confirm the results of the comparisons, the regression analyses provide a stronger suggestion of the effects of Foundations on student achievement.

While controlling for effects of possible demographic and behavioral (i.e., attendance) confounds, the regression analyses establish that Foundations implementation is associated with better performance on one of six tested DIBELS scores in kindergarten: LNF.

As indicated above, LNF is a critically important and telling factor of the potential for developing literacy in younger students. Alphabetic Knowledge, as measured in this subtest, is a strong predictor of how easily a child will learn to read.

See Figure 3, which shows the growth in the various DIBELS subtests for kindergarten.

**Figure 3. Results of Mixed Model ANOVA Comparisons for Kindergarten**



\*Note. Statistically significant: FSF  $p < 0.001$ , LNF  $p < 0.001$ , NWF  $p = 0.007$ , Composite  $p = 0.002$

## Results of a Multi-Year Foundations® Implementation in an RTI Framework New York

Working closely with the district's Department of Education and Office of Special Education Initiatives, an RTI framework was established at an urban elementary school as a city-wide pilot initiative to improve student outcomes, reduce unnecessary referrals to special education, and to improve data-based decision making to inform instruction.

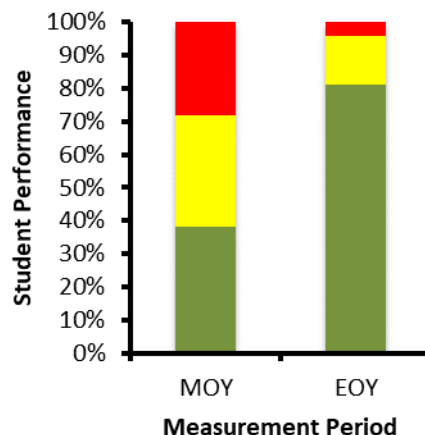
Foundations® was implemented as the evidence-based program in **Tiers 1 and 2**. All students in Grades K–3 received daily instruction in Foundations in the Tier 1 general education classroom. Students identified for Tier 2 instruction received Foundations intervention instruction (at least three sessions weekly in small groups of three to six students).

To ensure successful implementation, all teachers were provided Foundations training that included workshops and coaching by Wilson® Trainers. During the initial year of implementation, the school performed an efficacy study to characterize the gains made by kindergarten and first-grade students who received Foundations.

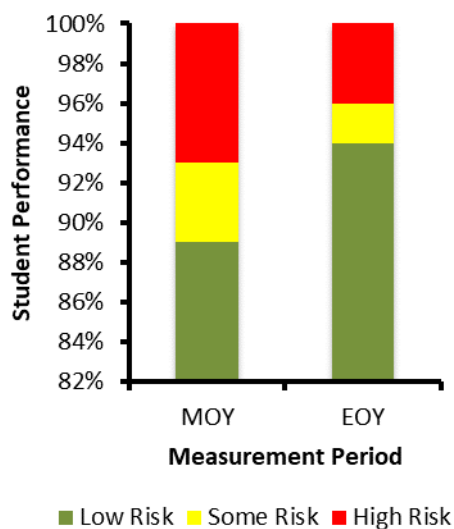
### Key Findings

Figures 1 to 5 present kindergarten and first-grade student performance data on the DIBELS Phoneme Segmentation Fluency (PSF) and Nonsense Word Fluency (NWF) measures obtained during Year 1 of Foundations implementation. From the middle to the end of the year, students who were at risk for future reading deficits made substantial gains; the majority of these students were no longer classified as at risk by the end of the year.

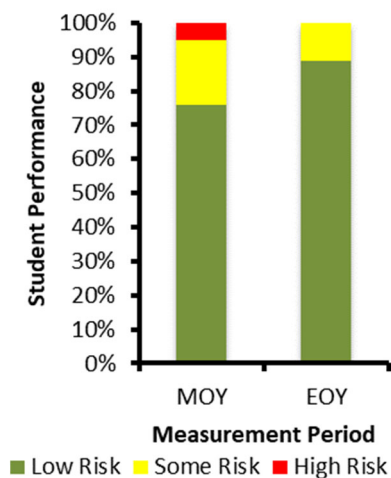
**Figure 1. Kindergarten PSF**



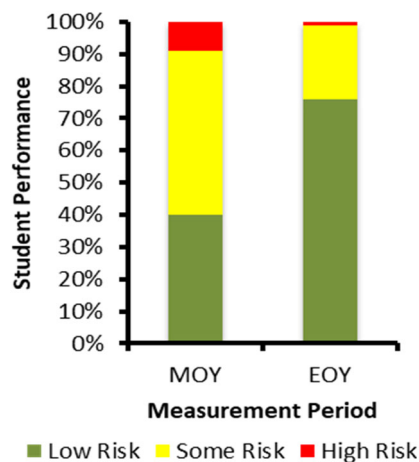
**Figure 2. Kindergarten NWF**



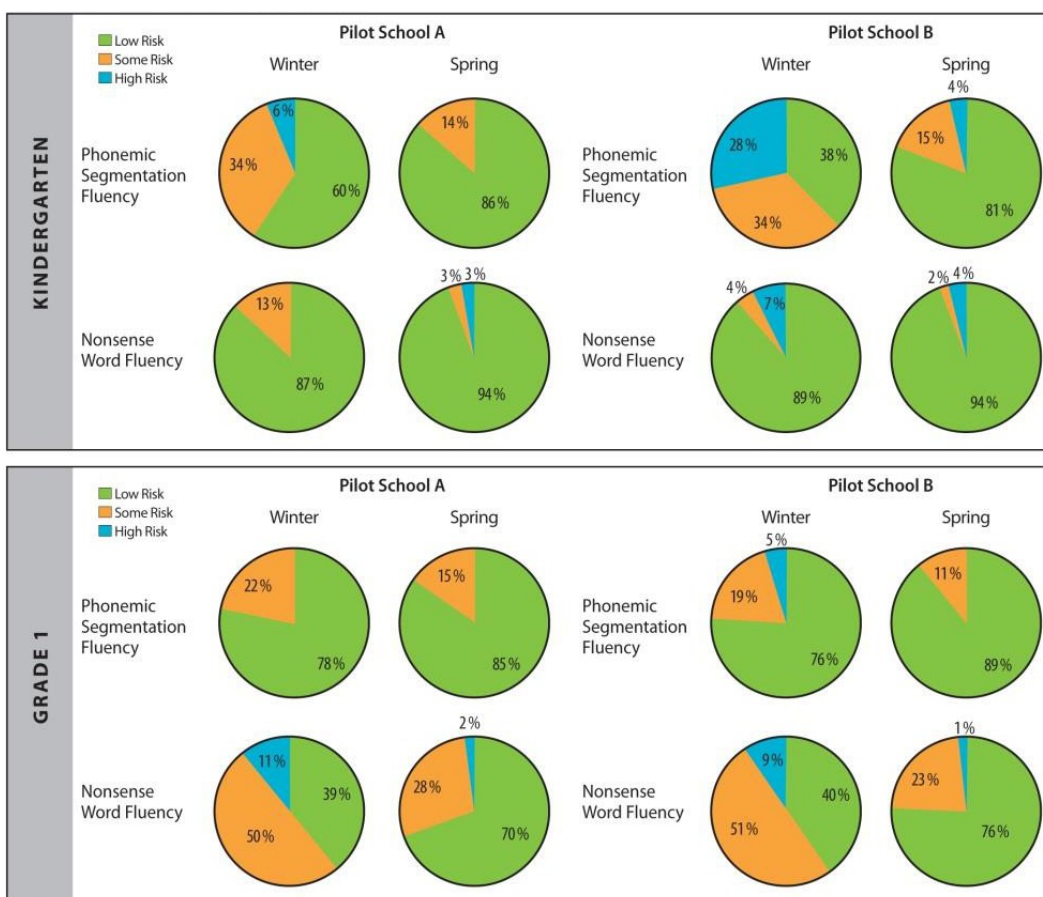
**Figure 3. First Grade PSF**



**Figure 4. First Grade NWF**



**Figure 5. Student Gains in DIBELS Measures by School**



Additionally, the gains achieved by the students during the initial year of implementation were sustained. As evidenced in Table 1, after three years of implementation, there was improvement in student performance in Grade 3 based on the 2008–2009 New York State English Language Arts (ELA) assessment when compared to the year prior to the implementation of Foundations® (i.e., 2005–2006). In 2009, there were no students at Level 1 (not meeting learning standards) compared to 7.8% of third graders in 2005–2006. There was also a 7% increase in the number of students in Grade 3 scoring at Levels 3 and 4 (Level 3 as meeting learning standards and Level 4 as meeting learning standards with distinction).

**Table 1. Student Performance After Three Years of Foundations Implementation**  
Urban Elementary School, Grade 3 End of Year ELA Performance

	Level 1	Level 2	Level 3	Level 4	Level 3 & 4
0 years of Foundations (2005–2006)	7.8	7.8	72.5	11.8	84.3
3 years of Foundations (2008–2009)	0	8.6	72.9	18.6	91.5
Level 1: Not meeting learning standards Level 3: Meeting learning standards	Level 2: Partially meeting learning standards Level 4: Meeting learning standards with distinction				

Due to the success of the pilot schools working with the district’s Department of Education, MTSS (RTI) expanded to 29 more schools throughout the city. In Fall 2009, the school where Foundations was initially implemented was selected as a National Blue Ribbon School.

## Implementing Foundations® in a Multi-Tiered System of Supports in One School Massachusetts

School leadership at a school in Massachusetts was determined and committed to ensuring all students met reading benchmarks. One component of the school's solution was the selection of an evidence-based supplemental reading and spelling program, Wilson Foundations®. The school developed a literacy plan to implement Foundations within an RTI Framework. Foundations was implemented as the evidence-based program in Tiers 1 and 2. All students received standard Foundations daily instruction in the Tier 1 general education classroom. Students identified for Tier 2 instruction received Foundations intervention instruction.

### Professional Development and Support

The school emphasized teaching the core curriculum with fidelity through collaborative work by data coaches and professional development for teachers and reading specialists. Teachers and reading specialists were fully trained in Wilson® Foundations with workshops and received periodic implementation and coaching support and fidelity checks by a Wilson® Literacy Specialist. Foundations facilitator development was included and resulted in school-based support provided by this individual to coach and co-teach with new teachers. Teachers were provided with opportunities for peer observation and observing a more experienced teacher.

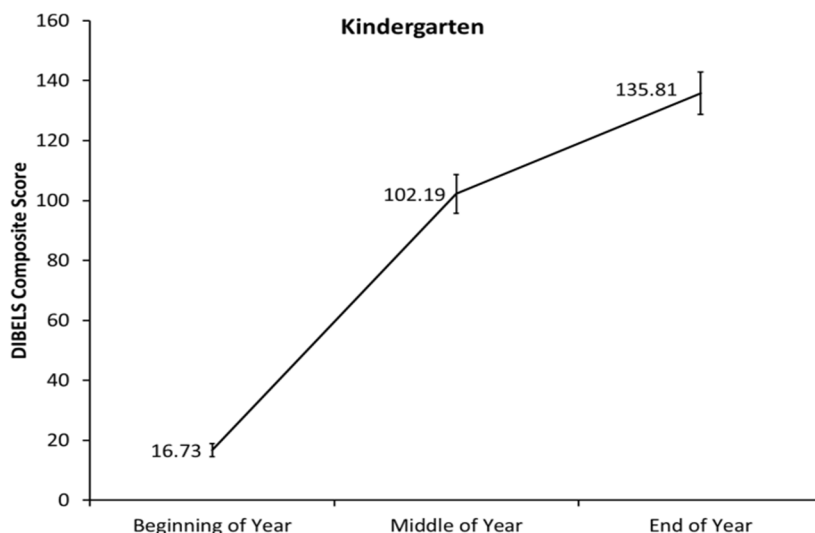
### Key Findings Grade K

Student benchmark data from DIBELS was available for a kindergarten class receiving Foundations instruction.

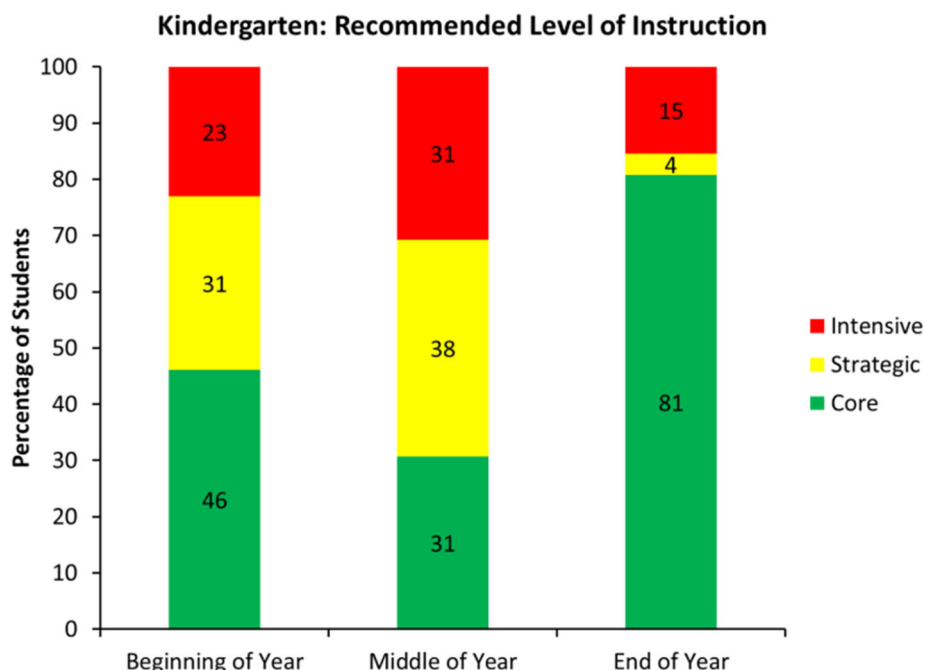
As depicted in Figure 1, the kindergarten students in this class achieved statistically significant growth in their composite DIBELS scores over the course of the year,  $F(2, 50) = 183.29$ ,  $MSE = 534.62$ ,  $p < 0.001$ ,  $\eta^2 = 0.89$ . From the beginning to the end of the year, students' composite DIBELS scores grew over 4 standard deviations,  $d = 4.46$ .

In addition, as depicted in Figure 2, over half of the incoming class of kindergarten students was recommended to receive intensive or strategic instruction based on their DIBELS composite scores, but by the end of the year, 81% of class was recommended to receive core instruction.

**Figure 1. Growth in Kindergarten Achievement**



**Figure 2. Recommended Level of Instruction for Kindergarten Students BOY, MOY, EOY**



### Key Findings Grade 1

Benchmark data were also available for a first-grade class that received Foundations instruction.

As depicted in Figure 3, statistically significant growth was observed in the composite DIBELS scores of these students,  $F(2, 32) = 21.78$ ,  $MSE = 1698.84$ ,  $p < 0.001$ ,  $\eta^2 = 0.58$ . From the beginning to the end of the year, students' composite DIBELS scores grew over two standard deviations,  $d = 2.12$ .

In the middle of the first grade, students were administered the DIBELS Oral Reading Fluency (ORF) subtest. This subtest measures both the number of words read correctly and percent accuracy.

As depicted in Figure 4, students made statistically significant gains from the middle to the end of the year in the number of words they read correctly; this measure increased on average over 1.5 standard deviations,  $t(16) = 9.03$ ,  $p < 0.001$ ,  $d = 1.66$ .

As depicted in Figure 5, the students made significant gains in word reading accuracy, improving on average almost 2 standard deviations,  $t(16) = 9.91$ ,  $p < .001$ ,  $d = 1.82$ .

Figure 6 depicts students' growth in meeting grade level expectations from beginning of the year to the end of the year. At the beginning of the year, over 80% of the incoming first grade class was recommended to receive intensive instruction based on their DIBELS composite scores. By the end of the year, 71 % of the students in this class has improved enough to be recommended for core instruction.

Figure 3. Growth in Grade 1 Achievement

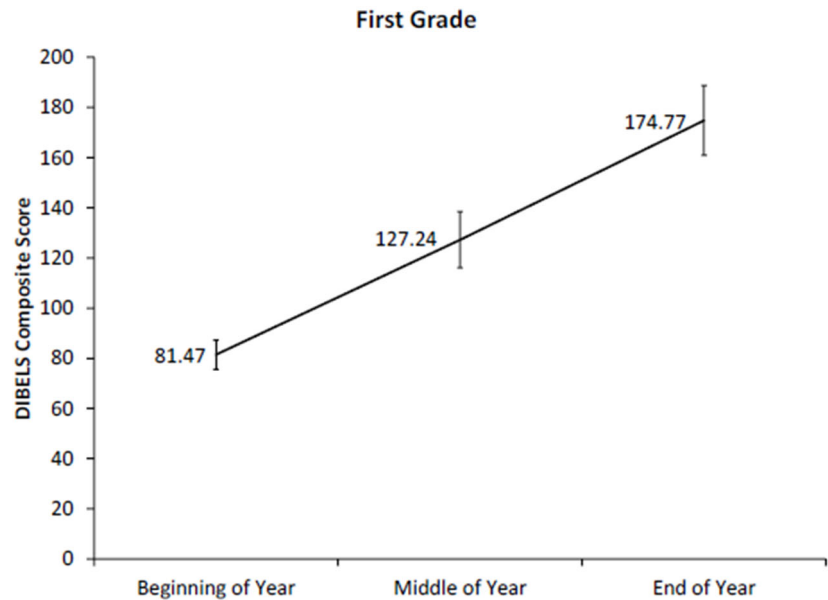


Figure 4. Growth in Grade 1 Achievement in Oral Reading Fluency—Words Correct

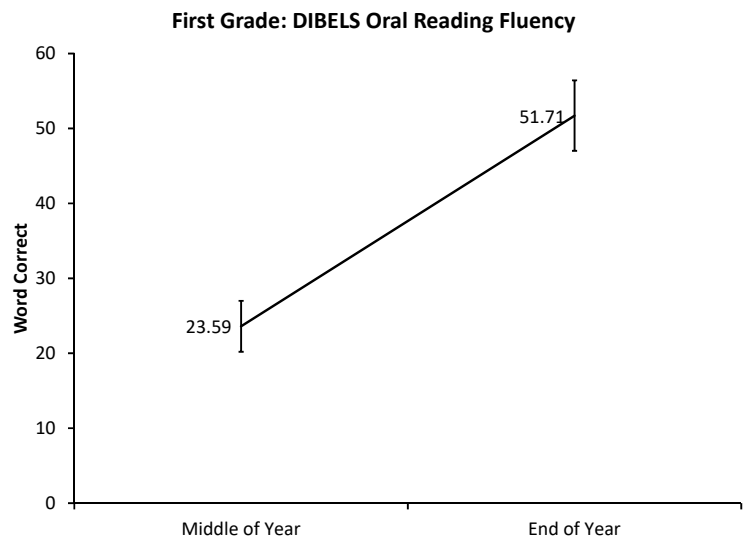


Figure 5. Growth in Grade 1 Achievement in Oral Reading Fluency—Accuracy

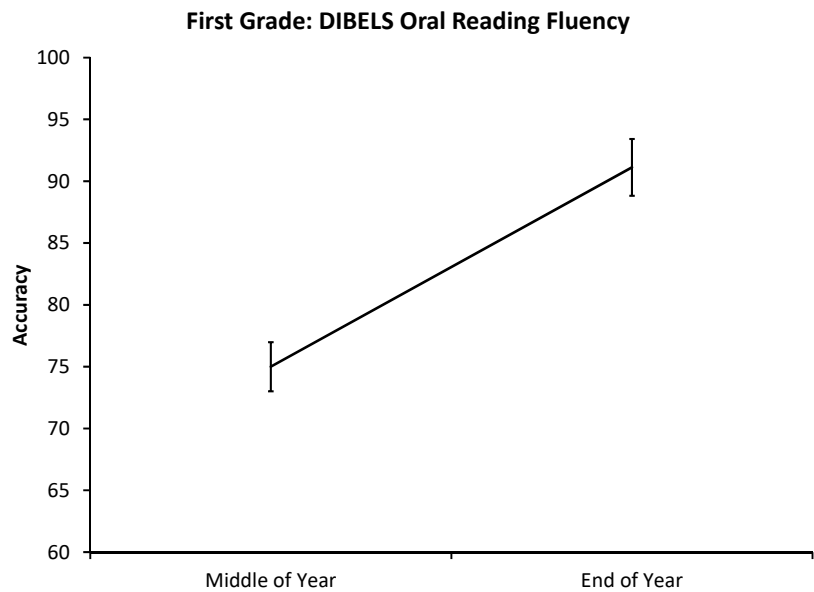
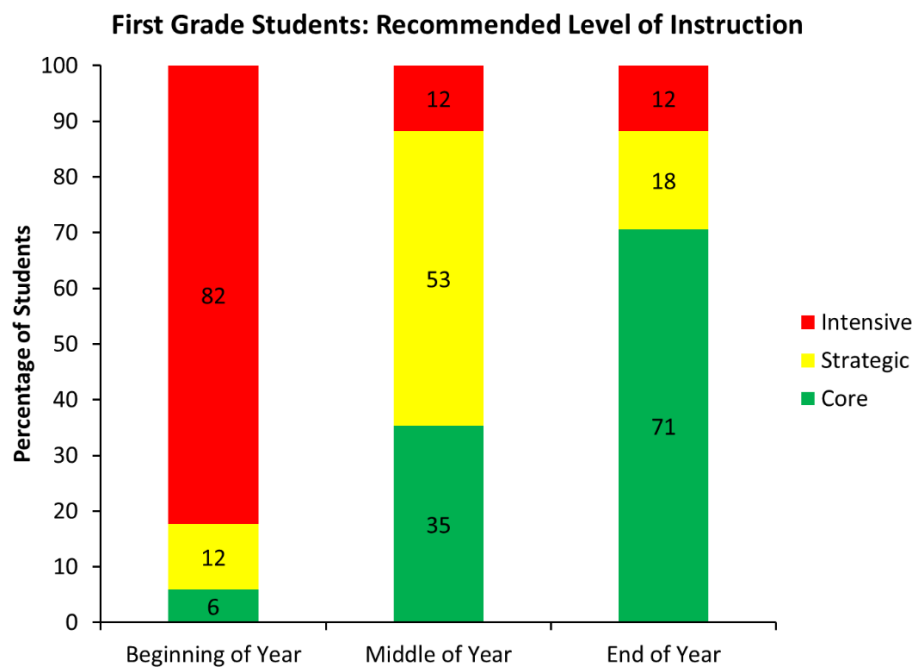


Figure 6. Recommended Level of Instruction for Grade 1 at BOY, MOY, EOY



## Study of Foundations® Implementation at Tiers 1 & 2 Northeast Region of the U.S.

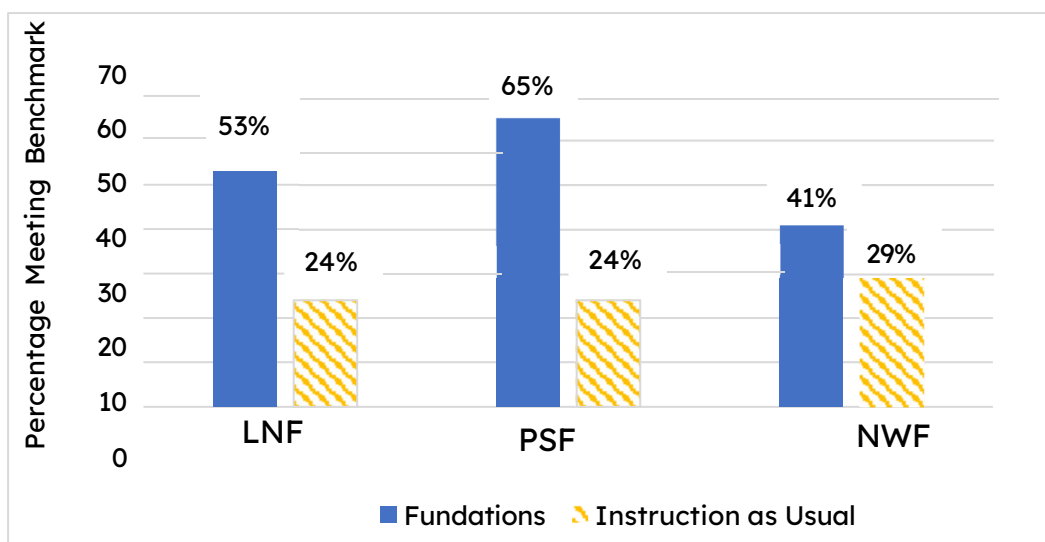
During the 2002-2003 school year, an elementary school located in a small town in the northeastern United States adopted Foundations® as the phonics and spelling component of its ELA block in general education kindergarten classrooms. The implementation was part of an intensive reading and writing project at the school. In addition, the school adopted Foundations for use with first-grade students identified as “at-risk” for reading failure who were placed in an intensive reading and writing classroom. The school assessed the effect of Foundations on the success of these students in a pair of studies.

### Tier 1: Kindergarten

To assess the success of Foundations in meeting the needs of their general education kindergarten students, the school conducted an impact study. A treatment and control group was randomly assigned with 17 kindergarten students receiving Foundations Level K, and 17 kindergarten students receiving instruction as usual.

End-of-year DIBELS scores were compared between the two groups of students. Relative to students in the instruction-as-usual condition, a larger percentage of students in the Foundations condition scored at or above benchmark on the Letter Naming Fluency, Phoneme Segmentation Fluency, and Nonword Fluency measures of DIBELS as illustrated in Figure 1.

**Figure 1.** Kindergarten End-of-Year DIBELS Results



*Note. Percentage of kindergarten students scoring at or above benchmark on end-of-year DIBELS. LNF = Letter Naming Fluency; PSF = Phoneme Segmentation Fluency; NWF = Nonsense Word Fluency.*

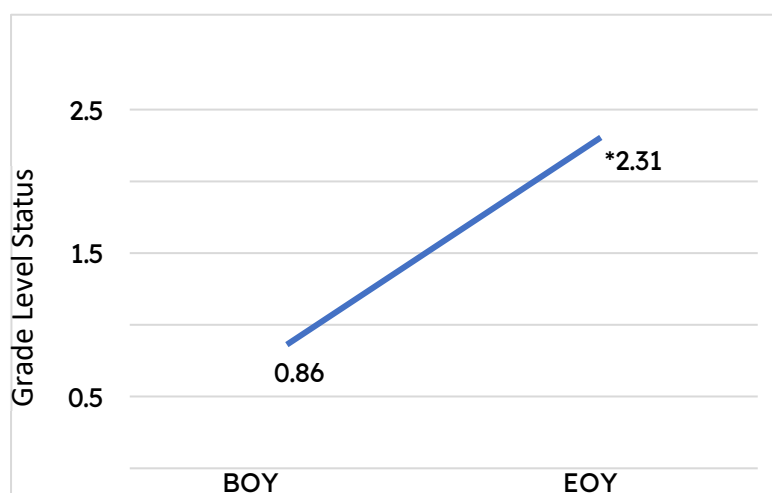
## Tier 2 Intervention: Grade 1

First-grade students identified as “at-risk” for reading failure were placed in an intensive Tier 2 reading and writing classroom; they received Foundations® as their primary decoding and spelling program. An efficacy study of Foundations was performed and student data were collected at the beginning and end of the school year using the Woodcock Johnson III (WJIII) *Basic Reading Skills* subtest. The WJIII Basic Reading Skills subtest is a combination of Letter-Word Identification and Word Attack.

As illustrated in Figure 2, students made significant gains in the Basic Reading Skills subtest from the beginning ( $M = .86$ ,  $SD = .47$ ) to the end ( $M = 2.31$ ,  $SD = .60$ ) of the school year,  $t(17) = 13.41$ , gaining 1.4 grade levels.

At the end of first grade, 16 of 18 students achieved at or above grade level on the Basic Reading subtest (a grade equivalent score of Grade 2 or higher).

**Figure 2. Grade Level Growth in Tier 2 Instruction**

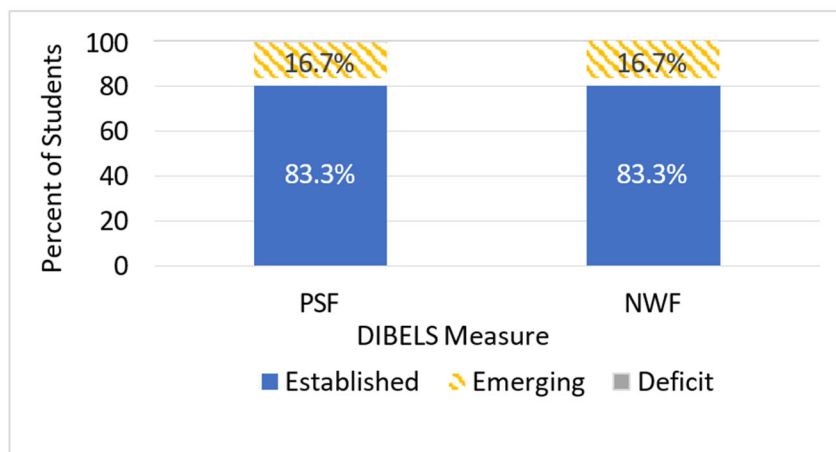


*Note. The mean grade level growth in the Woodcock Johnson III (WJIII) Basic Reading Skills for Grade 1 students at risk.*

\* $p < .001$

Additionally, no Foundations students had deficits; 15 out of 18 students scored at or above benchmark on the end-of-year DIBELS Phoneme Segmentation Fluency and Nonsense Word Fluency measures (see Figure 3).

**Figure 3.** Percent of Grade 1 At-risk Students Meeting Benchmarks on End-of-Year DIBELS Subtests



*Note. The percent of at-risk Grade 1 students' end-of-year status. No student performance indicated a deficit status. Students performed at an established or emerging status.*

*PSF = DIBELS Phoneme Segmentation Fluency; NWF = Nonsense Word Fluency.*

**Impact of Foundations® Tier 1 Implementation on Grade 3 Students' Word Identification and Spelling Skills**  
Massachusetts

A group of students in a Massachusetts school that received Foundations® Levels 1 to 3 in the general education classroom were assessed using the Word Identification and Spelling Test (WIST). This standardized test was administered by school district personnel to determine if students were on grade level for reading and spelling.

Analysis of Grade 3 student data demonstrated that:

- 94% of the students were reading real words at or above grade level (75% at Grade 5 or higher);
- 100% of the students were reading irregular words at or above grade level (94% at Grade 5 or higher);
- 97% of the students were spelling words at or above grade level (94% at Grade 5 or higher); and
- 100% of the students were spelling irregular words at grade level (81% at Grade 5 or higher).

## **Impact of Foundations® Tier 1 Implementation on Grade K Massachusetts**

This elementary school was one of several in an urban city that had received a Level 4 performance rating (lowest) by the State of Massachusetts. Foundations® was implemented in 2010-2011 and achieved the following results in kindergarten by the 2014-2015 school year:

- 82% (103) of the school's Kindergarten students (n=125) had reached benchmark on the DIBELS PSF measure, an increase of 32 percentage points over its pre-Foundations results.
- 65% of kindergarten students (n=81) reached benchmark on the NWF-CLS measure, an increase of 15 percentage points over its previous Foundations results.
- Only 44% of kindergarten students (n=55) were identified as needing intensive intervention based on the DIBELS PSF and DIBELS NWF-CLS; a reduction of 30 percentage points and 11 points respectively after using Foundations.

## Impact of Foundations® on Grades K and 1 in Primary Adaptive Classrooms Maryland

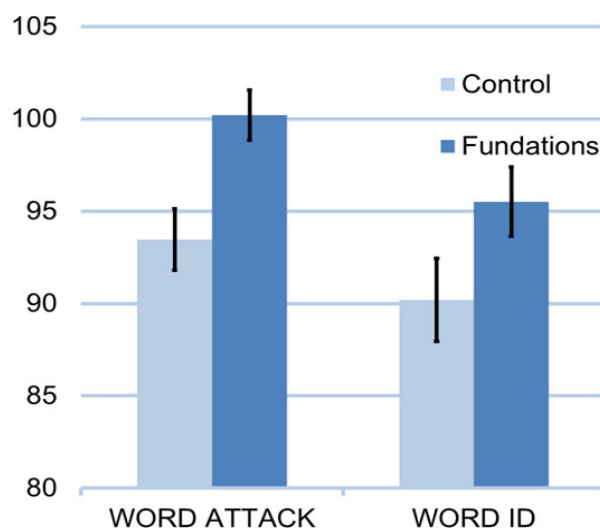
Foundations® Levels K and 1 were piloted in several urban elementary schools across an urban school district in 2002–2003 to supplement the adopted phonics program, which was not meeting the needs of students in the Primary Adaptive programs.

Those in the Primary Adaptive self-contained classrooms with students in Grades 1–3 received Foundations Level 1 instruction. The lessons were delivered daily to the whole class (about 12–15 students). Students were then divided into small groups for an additional 20 minutes of Foundations activities depending on their skill level and needs.

Forty-five students were assigned to the control group; 68 students were in the Foundations experimental group. Data was collected and reported by district and school at the end of the school year.

Relative to the control group, students in the Foundations experimental group had higher Word Attack and Word Identification scores at the end of the year,  $t(111) = 3.14$ ,  $p = 0.001$ ;  $t(111) = 1.81$ ,  $p = 0.04$  (see Figure 1).

**Figure 1. Post-implementation Results for Word Attack and Word Identification**



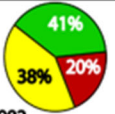
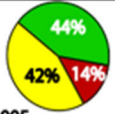
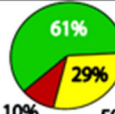
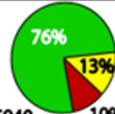
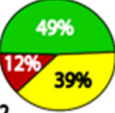
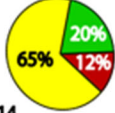
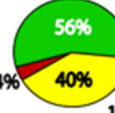
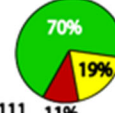
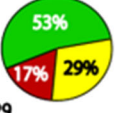
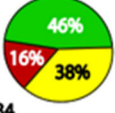
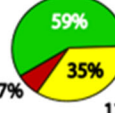
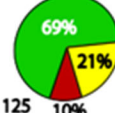
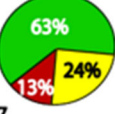
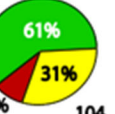
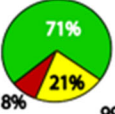
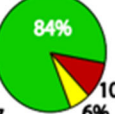
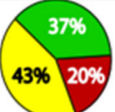
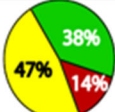
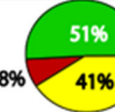
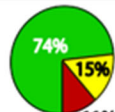
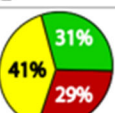
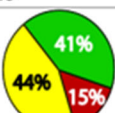
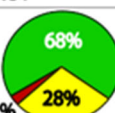
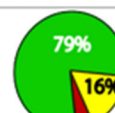
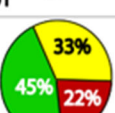
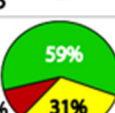
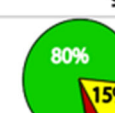
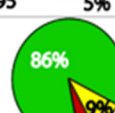
## Impact of Foundations® in Kindergarten Florida

Foundations® was the suggested kindergarten program that could be used in place of the basal phonics component for the 52 Reading First Schools in an urban district in Florida in 2005-2006. The program was delivered during small-group instruction as part of the uninterrupted 90- to 120-minute reading block.

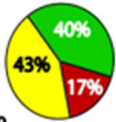
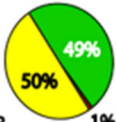
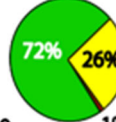
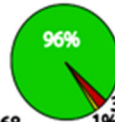
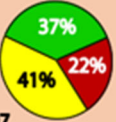
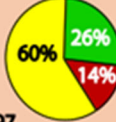
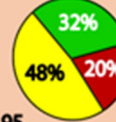
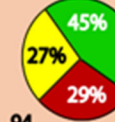
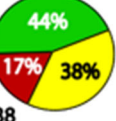
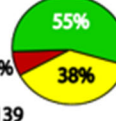
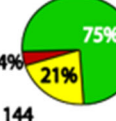
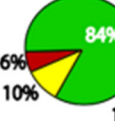
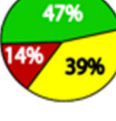
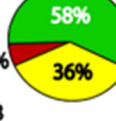
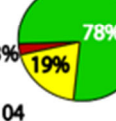
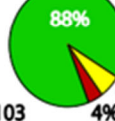
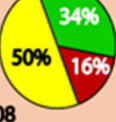
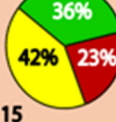
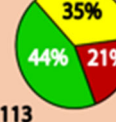
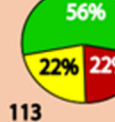
The following samples from the Florida Progress Monitoring and Reporting Network show the quarterly Recommended Level of Instruction for the 2005-2006 school year.

The top row shows the district kindergarten grade summary, with subsequent rows representing individual schools. Schools 8 and 11 were *not* using Foundations with fidelity; these rows are highlighted in the figure that follows. (See Table 1.)

**Table 1. Kindergarten Classes Across 11 Schools Within an Urban District**

District	Assessment 1	Assessment 2	Assessment 3	Assessment 4
Grade Summary	 5982	 6005	 5988	 5940
School 1	 122	 114	 117	 111
School 2	 129	 134	 123	 125
School 3	 107	 104	 99	 97
School 4	 142	 146	 151	 150
School 5	 101	 95	 95	 95
School 6	 118	 118	 118	 123

**Table 1. Kindergarten Classes Across 11 Schools (cont.)**

District	Assessment 1	Assessment 2	Assessment 3	Assessment 4
School 7	 70	 68	 69	 68
School 8	 97	 97	 95	 94
School 9	 138	 139	 144	 139
School 10	 94	 98	 104	 103
School 11	 108	 115	 113	 113