

IDEL®: Indicadores Dinámicos del Éxito in la Lectura
Technical Report #1

Summary of Decision Rules for Intensive, Strategic, and Benchmark Instructional
Recommendations in Kindergarten Through Third Grade

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Introduction

The purpose of this technical report is to explain the decision rules for the intensive, strategic, and benchmark instructional recommendations of the Indicadores Dinámicos del Éxito en la Lectura (IDEL, Baker, Good, Knutson, & Watson, 2006). The IDEL decision rules focus on the longitudinal predictive validity of the following indicators and benchmark goals: Fluidez en el Nombramiento de las Letras (FNL; Letter Naming Fluency) in the beginning of kindergarten, Fluidez en la Segmentación de Fonemas (FSF; Phoneme Segmentation Fluency) in the middle and at the end of kindergarten, Fluidez en las Palabras sin Sentido (FPS; Nonsense Word Fluency) in the middle of first grade, and IDEL Fluidez en la Lectura Oral (FLO; Oral Reading Fluency) at the end of first, second and third grades. Although vocabulary skills (as measured by IDEL®:Fluidez en el Uso de las Palabras) may have a strong impact on the odds of children achieving later outcomes in Spanish, we did not include this measure because of lack of research on the reliability and validity of the measure in Spanish.

Theoretical structure and linkage of beginning reading skills with respect to literacy outcomes.

Learning to read in Spanish can be explained by the same theoretical models as learning to read in English because Spanish, like English, is also an alphabetic language. However, word recognition processes may operate differently depending on the writing system (Ehri, 2005). For example, the depth of the Spanish and English orthography vary. English has a deep orthography with many ambiguities (e.g., *chair* and *choir* have similar spelling but the difference in one vowel changes the pronunciation in all but the final phoneme). Spanish has a shallow orthography where most letters represent one sound, and differences in pronunciation follow conditional rules. For example, the words *cesa* (/s/ /e/ s/ /a/, he/she stops) and *casa* (/k/ /a/ /s/ /a/,

house) are different in only one vowel, but the difference in the pronunciation of the *c* can be explained by a conditional rule (the letter “c” is pronounced as /s/ before /e/ or /i/). Thus, Spanish, unlike English, does not have irregular words where a sound does not encode directly to a letter or a letter combination (De Fior, Matos, & Cary, 2002; Signorini, 1997).

Further, Spanish has 30 letters (including *ch*, *ll*, and *rr*) that represent only 22-24 phonemes. English has 26 letters that represent 42-44 phonemes. Ehri (2005) suggests that word recognition processes may operate similarly across languages, but they take more time to acquire when the writing systems are more complex. When the writing system is more transparent, as it is in Spanish, students tend to get to the full alphabetic phase quicker, i.e., the partial alphabetic phase may have a shorter life because decoding skills emerge sooner. Students do not persist in decoding words because the words are practiced and retained in memory at an earlier stage. Thus, individual differences in word reading may be explained differently depending on whether words are read in Spanish or English and whether the reader is in a partial alphabetic versus a full alphabetic phase. (By partial alphabetic phase we mean the ability to segment parts of the word into individual phonemes. In the full-alphabetic phase students can read words by sight because they have built a mental representation of the word as a whole unit.).

In addition, Spanish has, in general, longer words than English. Therefore, a child may read fewer words in one minute in Spanish than in English, although he/she may have recognized the same number of syllables in words when reading a passage. The IDEL benchmark goals reflect these differences.

Method

Description of Sample

The data used to develop the instructional recommendations came from the DIBELS® official data system (<http://dibels.uoregon.edu>). The final sample included 6893 students in grades K-3 attending 95 schools in 39 districts in the 2003-2004 academic year, and 10942 students attending 170 schools in 61 districts in the 2004-2005 academic year (see Appendix). Approximately 15 percent of students had across year data. We used the data from this group of students to determine the across year instructional recommendations (see Data Analysis).

The majority of the students in the data system attend schools in Washington State, New Mexico, and Oregon. We assumed that the majority of these students are Latino English Learners attending a school that is providing reading instruction in Spanish, but it is also plausible that some of the students in our sample were English native speakers attending a bilingual program. By Latinos we mean students whose native language is Spanish, and who speak Spanish as their home language.

Instructional reading time likely varied among the different schools. Some schools may have provided Spanish reading instruction using a pullout model (i.e., providing reading instruction for 30-45 minutes a day) or a model where Spanish reading instruction lasts for at least 90 minutes a day. Further, the majority of the bilingual schools in the United States have a transitional bilingual program where they provide Spanish instruction during 90 percent of the reading block in kindergarten, and 10 percent of the kindergarten reading block in English. This percent of native language instruction is slowly reduced until students are receiving 100 percent of their reading instruction in English usually by the end of second or third grade (Durgunoglu,

1998). Thus, instructional recommendations are based on a pattern of students' scores on the IDEL measures, irrespective of the amount, intensity, and quality of the instruction.

Measures

The measures used in this report were: IDEL Fluidez en el Nombramiento de las Letras, IDEL Fluidez en la Segmentación de Fonemas, IDEL Fluidez en las Palabras sin Sentido and IDEL Fluidez en la Lectura Oral. Table 1 presents the equivalent measures in English. It is important to note, however, that although the IDEL measures have similar scoring procedures as DIBELS, and they are based on the same scientifically based research, IDEL is not a translation of DIBELS, but a reinvention of DIBELS. In other words, the IDEL measures were carefully designed to take into account the Spanish linguistic and orthographic systems. For example, words in the IDEL Fluidez en la Segmentación de Fonemas measure (Phonemic Segmentation Fluency) were taken from reading books developed by the Secretaría de Educación Pública in Mexico City. The nonsense word fluency measure were based on the frequency of syllable patterns in Spanish words. In Spanish the most frequent syllable pattern is CV, and CVCV words. (In English the most frequent pattern is CVC).

Table 1

Equivalency of Measures in English and Spanish

DIBELS	IDEL
Letter Naming Fluency (LNF)	Fluidez en el Nombramiento de las Letras (FNL)
Phonemic Segmentation Fluency (PSF)	Fluidez en la Segmentación de Fonemas (FSF) TLP: Total different correct parts; Síl: Syllables only
Nonsense Word Fluency (NWF)	Fluidez en las Palabras sin Sentido (FPS) TSL: Total number of correct letter sounds NPC: Number of complete words read correctly
Oral Reading Fluency (ORF)	Fluidez en la Lectura Oral (FLO)

Table 2 presents the alternate-form reliability of the IDEL measures (Watson, Baker, Peyton & Good, unpublished). FNL, FPS, and FLO are moderately to strongly related to alternate forms suggesting that they are highly reliable measures.

Table 2

Alternate-Form Reliability of the IDEL Measures

Measures	Alternate-form Reliability
FNL (Kindergarten)	.86
FSF (Kindergarten)	.65
FSF (First grade)	.87
FPS (First Grade)	.76
FLO (First–Third grade)	Range: .87–.94

Note. All reliability coefficients were significantly different from zero ($p < .001$).

Table 3 presents the concurrent criterion related validity of the IDEL measures with the Woodcock-Muñoz-R reading subtests in first grade, and the Aprenda Achievement Test in second grade. An updated detailed report on the reliability and validity of the IDEL measures is currently being prepared (Baker, Good, Watson & Peyton in preparation).

Table 3

First Grade End of Year Concurrent, Criterion-Related Validity of the IDEL measures with the Woodcock-Muñoz, Batería-R Aprovechamiento en la Lectura Subtests, and Second Grade End of Year Concurrent Criterion Related Validity of the IDEL measures with the Aprenda Subtests

Woodcock-Muñoz, Batería-R Aprovechamiento en la Lectura	FSF n= 48	FPS n=48	FLO n=48
Identificación de letras y palabras (Letter and Word Identification)	.00	.65***	.75***
Análisis de palabras (Word Attack)	.34*	.72***	.80***
Comprensión de texto (Text Comprehension)	.51**	.63***	.73***
Vocabulario de lectura (Vocabulary)	.41**	-.05	-.11
Aprenda Second Grade			FLO n= 78
Aprenda Vocabulario			.56**
Aprenda Comprensión			.62**
Aprenda Total Score			.64**

*p < .05. **p < .01. ***p < .001. Sources: Watson, J. (2005). *Examining the reliability and validity of the Indicadores Dinámicos del Exito en la Lectura: a research study*. Unpublished doctoral dissertation, University of Oregon, Oregon. Baker, D. (2007). *Understanding the relation between oral reading fluency and comprehension for students learning to read in two languages*. Unpublished doctoral dissertation, University of Oregon, Oregon.

Data Analysis

To analyze and explain the instructional recommendation decision rules we used the longitudinal predictive information from students participating in the IDEL Data System during the 2003-2004 and 2004-2005 academic years. For example, to determine the predictive utility of a beginning kindergarten recommendation for an end of first grade goal we included the within year (fall to spring of kindergarten) and across-year (kindergarten and first) predictive information from all students participating in the IDEL Data System for those two years.

However, to determine the predictive utility of the beginning of third grade recommendation, we only included the within-year performance of all students participating in the IDEL data system in 2003-2004, and 2004-2005, because we didn't have any data on IDEL after third grade, or any other criterion measures to guide our prediction. Thus, the decision on the cutscores for third grade was based on theory and estimates of previous rates of progress (i.e., we used the probability of students in the beginning, middle, and end of second grade of reaching third grade benchmark goals).

The IDEL benchmark goals are summarized in the even-numbered tables in this report, beginning with Table 4. The purpose of these goals is to provide educators with standards for gauging the progress of all students. The Benchmark goals represent minimum levels of performance for all students to reach in order to be considered on track for becoming a reader. Benchmark goals for IDEL measures were based on research that examined the longitudinal predictive validity of a score on a measure at a particular point in time, and followed the logic of previous research predicting levels of performance based on early reading measures in English (see Good, Simmons, & Kame'enui, 2001).

Terminology. We use terminology in the IDEL instructional recommendation reports that describes the *probability* of a students' need for additional support based on their pattern of performance relative to the previously established benchmark goals. A description of these terms is provided in Table 3. The first row describes the probability of students in each group reaching a subsequent early literacy goal. Students for whom the odds of achieving a later goal are high are considered to have a low probability of need for additional support. The term used to describe the need for support for this group of students is "benchmark." The descriptor of need for support for students below the cut point, for whom the probability is low (i.e., $< .20$) of

achieving subsequent goals, is “intensive.” The term used to describe the need for support for the middle group of students for whom it is difficult to make a prediction (.50 probability) is “strategic.” The subsequent tables will include these descriptors, framed as “overall probabilities of need for support”. These recommendations are based on students’ patterns of performance across measures.

Table 3

Probabilities of Meeting Goals and Need for Support and Corresponding IDEL Descriptors

Probability of achieving subsequent goals	> .80	.50	< .20
Probability of need for support	Low	Moderate	High
Terminology used to describe need for support	Benchmark; needs continued good instruction	Strategic; needs additional intervention	Intensive; needs substantial intervention

Note. From Kaminski, Good, Cummings, & Powell-Smith (in-press). Best Practices in Using Dynamic Indicators of Basic Early Literacy Skills (DIBELS®) for Formative Assessment and Evaluation. In A. Thomas & J. Grimes (Eds.). *Best Practices in School Psychology V*. Bethesda, MD: NASP. Adapted.

Rules and Principles to Establish Instructional Recommendations. For the purpose of explaining the instructional recommendations in this report, we only included tables with the most relevant across year percentages of students reaching benchmark goals. Appendices 1-3, however, include all of the percentages of students meeting benchmark goals that we used to determine the average percent of students meeting later benchmark goals.

In establishing the IDEL decision rules and instructional recommendations, we considered the following rules and principles: (a) the odds of students achieving subsequent benchmark goals and outcomes on specific early literacy indicators, (b) the theoretical structure and linkage of beginning reading skills to later literacy outcomes, (c) experience working with Spanish-speaking students, and (d) the percent of students in each decision category.

Odds of students achieving subsequent benchmark goals and outcomes. Benchmark goals for each measure and time period were established using a minimum score at which the odds were in favor of a student achieving subsequent early literacy goals. For a score to be considered a benchmark goal, at least 80% of students in the sample with that score at that point in time had

to achieve the next goal. For example, if a child scores at or above the benchmark goal during benchmark assessment time, the probability that s/he will achieve the next benchmark goal is high, and therefore the need for additional instructional support is low. By low instructional support we mean that students still need effective instruction and progress monitoring at the critical benchmark time periods (fall, winter, spring) to ensure that they continue making adequate progress, even if they have reached the benchmark goal.

We also considered scores in the data analysis where the odds were *against* a student achieving subsequent goals. These decision points were placed using scores where students had less than a 20% chance of achieving later goals. To beat these odds, children at this level of need require *intensive* instructional intervention and frequent progress monitoring. Intervention for these students should be intensive, meaning that the focus of instruction should be to increase substantially the child's progress in the core components of beginning reading.

Finally, included in the IDEL decision rules is a zone where a clear prediction is not possible. Scores that fall between the benchmark goal and the cutoff score represent patterns of performance where approximately 50% of students achieved subsequent literacy goals. Students with scores in this category require *strategic* planning and delivery of effective instruction to ensure that the odds will be in their favor to meet subsequent early literacy goals.

It is important to note, however, that in some time periods the probability of achieving later goals was not always 80 or 20 percent probability. Several reasons can account for this finding: (a) IDEL indicators may not have been sensitive enough to determine what exact levels of performance best predicted later outcomes (this issue was especially problematic in kindergarten, where a large percent of students scored zero on the FSF measure); (b) The sample on which our predictions are based includes a large number of participants with very low skills in

Spanish; (c) Our sample size was small relative to the longitudinal predictive analyses we conducted. Thus, to determine the instructional recommendations we also relied heavily on the theoretical structure and linkage of beginning reading skills to later reading outcomes in alphabetic languages, and on our experience working with Spanish-speaking students.

The percent of students in each decision category. The final rule we considered was the percent of students in each decision category. A rough target was that no more than 20 percent of students would be identified as either “intensive” or “strategic”. Adhering to this rule was a challenge, however, for the fact that many students in our two samples fell in these high need categories. As schools begin to evaluate and refine their instructional programs for English Language Learners, it will be important to keep in mind ambitious goals based on the systems effectiveness literature (e.g. Sugai, Horner, & Gresham, 2002). A rough goal of effective reform, would be only 5 percent of students requiring intensive instructional intervention and 15% requiring strategic instructional support so that 100% achieve appropriate early literacy goals.

In addition to considering the students’ levels of performance at each time point, we also took into account how often patterns of performance occurred. Patterns of performance that occurred for more than 2% of the sample were considered “More Common,” patterns of performance between .5% and 2% were considered “Unusual,” and patterns of performance under .5% were considered “Extremely Rare.”

Needless to say, it was seldom possible to establish a decision rule that satisfied all of these factors and considerations equally. A tradeoff of desirable features was frequently required. The overarching priority was to establish instructional recommendations and instructional goals where the odds were in favor of students achieving subsequent literacy outcomes.

Occasionally, students with a low probability of achieving later outcomes based on the cutscore of a single measure, actually *did* achieve subsequent goals. Usually, the level of incidence of these patterns was almost always considered “unusual” or “extremely rare”. However, if the pattern was common, it may have conflicted with what we know to be best practices in early literacy instruction. When this disagreement occurred, our instructional recommendations were based more on the theoretical framework on learning to read in alphabetic languages than on the statistical analysis of the data. This problem becomes particularly apparent in kindergarten, where only 15% of students in our sample knew their letters names at the beginning of the year.

Results and Discussion

Beginning of Kindergarten Instructional Recommendation

The benchmark recommendations for the IDEL measures in the beginning of kindergarten are reported in Table 4. Students with FNL scores that are less than 3 would be considered high probability of need for support, and students with FNL of 6 or more would be considered low probability of need for additional support. Although both the FNL and the FSF measures are highly relevant to the type of support that is planned, the IDEL *predictions* for likelihood of achieving subsequent early literacy goals are based solely on FNL for the beginning of K, because: a) we only have FSF data for the 2004-05 year, and thus don’t have enough information to determine the predictive utility of FSF in the beginning of kindergarten; and b) over half of the sample of students had a score of zero on FSF in the beginning of K. Thus floor effects precluded its use as a predictor. Although scores on FNL are powerful indicators of risk, the content of the measure should not be used for instructional planning purposes. In other words, students identified at the beginning of Kindergarten with a high probability of need for additional support based on FNL only, should receive intensive instruction that maps on to the big ideas of phonemic awareness, phonics, and vocabulary—*not* naming letters more quickly.

The beginning of K predictions are reported in Table 5 as the percent of students scoring at each level of FNL risk who achieve subsequent goals. For each level of performance (e.g. “intensive” on FNL), the *conditional* percent of students who achieve each subsequent early literacy goal is provided. The word conditional means that each subsequent percentage is based on *only* the number of students who met the previous goal. For students with high need on FNL, only 24 percent achieved the FSF goal in the middle of kindergarten. Although a slightly larger percentage (31%) of students met the End of K goal on FSF, this percent is based on a smaller number of students (than the 24 percent who met the mid-K goal). In other words, the overall trend for FNL in kindergarten appears to slightly increase over time, because of the reported cumulative percents, but the actual number of students at each score category is decreasing.

For example, if we were to assume that there were 100 students at each probability level (benchmark, strategic, and intensive) based on FNL in the beginning of kindergarten, then the first row in Table 5 would reflect that 24 of these students achieved the mid K goal on FSF. Seven students of the 24 (31% of 24) met the end of year goal for FSF, and only four students of those seven met the end K goal on FPS. Two students of the four met the mid first goal on FPS, and only one student of these two met the benchmark goal at the end of first grade for FLO. Using FNL as a predictor, only one student out of 100 students in the high need group met the end of first grade goal. Without substantial additional instructional support, high need students at the beginning of kindergarten are extremely unlikely to meet a later reading goal.

Contrast this pattern with what is observed for students in the benchmark category. If we again assume that 100 students had a score in this category, we would expect 46 of them to achieve the middle of K goal on FSF. Twenty-two students of these 46 would achieve the end of K goal on FSF. Seventeen of these twenty-two would meet the end K goal on FPS. Fourteen of the seventeen would meet the first grade middle of the year goal, and 12 of the 14 would meet the end of year goal on FLO.

The average column in Table 5 summarizes the average percent of students who achieve a subsequent literacy goal. Nearly three-fourths of students in the benchmark group met a

subsequent goal, whereas fewer than half of students in *either* the strategic or intensive group met a subsequent literacy goal. This finding is particularly sobering when we consider it in the context of the risk level of the current sample, because only fifteen percent started the year identified at benchmark. Based on a total sample of 100 students, we would expect only nine students (75 percent of 15) to meet a later goal.

Table 4

Descriptive Levels of Performance in Beginning of Kindergarten

Measure	Performance	Descriptor
IDEL Fluidez en el Nombramiento de las Letras (FNL–IDEL Letter Naming Fluency)	FNL < 3	Intensive
	3 <= FNL < 6	Strategic
	FNL >= 6	Benchmark
IDEL Fluidez en la Segmentación de Fonemas (FSF–IDEL Phoneme Segmentation Fluency)	FSF < 5	Intensive
	5 <= FSF < 15	Strategic
	FSF >= 15	Benchmark

Table 5
Instructional Recommendations for IDEL Fluidez en el Nombramiento de las Letras (FNL) Beginning of Kindergarten

FNL	Percent ^a	Percent Meeting Later Goals										Incidence	Overall Probability of Need for Support
		Petite	Mid K FSF	End K FSF	End K FPS	Mid 1 FPS	End 1 FLO	Average ^b					
Intensive	73%	37%	24%	31%	48%	52%	58%	44%				More Common	Intensive—Substantial Support
Strategic	12%	79%	44%	47%	74%	75%	85%	68%				More Common	Strategic—Additional Support
Benchmark	15%	93%	46%	48%	77%	80%	91%	74%				More Common	Benchmark—Continued Good Instruction

Note. Percent meeting goal is the conditional percent of children who meet the (a) middle kindergarten goal of 30 on FSF, (b) end of kindergarten goal of 50 on FSF, (c) end of kindergarten goal of 35 on FPS, (d) middle of first grade goal of 70 on FPS, and (e) end of first grade goal of 40 or more on IDEL FLO. Based on *N* = 637 students.

^aPercent of students at each instructional category in the beginning of kindergarten.

^bThe average percent meeting later goals is based on the percentages from all of the included columns, *plus* the conditional percent meeting goals at End K FPS, Beg 1 FPS, Mid 1 FLO (see Appendix).

The incidence column in Table 5 is intended to provide an indication of how often the pattern of performance occurs. In the beginning of kindergarten, all patterns of performance were “more common” based on the original distribution of scores on FNL.

Middle of Kindergarten Instructional Recommendation

The benchmark goals and cut scores for the middle of kindergarten assessment are reported in Table 6, and the corresponding instructional recommendations for all observed patterns of performance are reported in Table 7. Unlike instructional recommendations in the beginning of kindergarten, those listed in Table 7 are based on the *pattern of performance* on all three measures from the mid-K assessment (FNL, FSF, and FPS).

In Spanish, it appears that a benchmark level of performance on *all three measures* is required for the odds to be in the student’s favor to achieve future goals. For example, the last row of Table 7, describes performance of students who met the benchmark goal on all three measures. Ninety-one percent met a subsequent early literacy goal, and the conditional percent that were readers at the end of first grade was ninety-two. Performance on FPS is highly predictive of later reading success. However, some unusual or extremely rare patterns of performance contradict this statement. For example, in Table 7, row 23, there is an overall recommendation of benchmark for which there is an unusual pattern of performance (benchmark on FNL, benchmark on FSF, Strategic on FPS). This unusual pattern is a reminder that even for students with an overall recommendation of benchmark, continued good instruction and monitoring students’ performance is necessary.

Although benchmark performance on all three measures appears to be a requisite for an overall benchmark recommendation, FPS is a decisive indicator of whether or not students will need intensive support. For example, all of the students in the sample with an overall recommendation of intensive support are considered strategic or intensive on FPS. From an instructional perspective, this finding suggests that phonemic awareness instruction should be tied to instruction on letter sound correspondence.

Table 6

Descriptive Levels of Performance in Middle of Kindergarten

Measure	Performance	Descriptor
IDEL Fluidez en el Nombramiento de las Letras	FNL < 15	Intensive
	15 <= FNL < 25	Strategic
	FNL >= 25	Benchmark
IDEL Fluidez en la Segmentación de Fonemas	FSF < 15	Intensive
	15 <= FSF < 30	Strategic
	FSF >= 30	Benchmark
IDEL Fluidez en las Palabras sin Sentido (FPS–IDEL Nonsense Word Fluency)	FPS < 10	Intensive
	10 <= FPS < 20	Strategic
	FPS >= 20	Benchmark

Table 7

Instructional Recommendations for Individual Patterns of Performance on Middle of Kindergarten IDEL Benchmark Assessment

FNL	Percent Meeting Later Goals										Overall Probability of Need for Support
	FSF	FPS	Percent ^a	Pctile	End K FSF	End K FPS	Mid I FPS	End I FLO	Average ^b	Incidence	
Intensive	Intensive	Intensive	16%	9%	15%	12%	24%	34%	19%	More Common	Intensive—Needs Substantial Intervention
Intensive	Strategic	Intensive	3%	21%	33%	33%	27%	47%	36%	More Common	Intensive—Needs Substantial Intervention
Intensive	Intensive	Strategic	9%	26%	17%	33%	40%	44%	35%	More Common	Intensive—Needs Substantial Intervention
Strategic	Intensive	Intensive	4%	29%	0%	40%	55%	65%	43%	More Common	Intensive—Needs Substantial Intervention
Intensive	Benchmark	Intensive	1%	32%	83%	50%	50%	33%	47%	Unusual	Intensive—Needs Substantial Intervention
Strategic	Strategic	Intensive	1%	34%	0%	33%	100%	67%	61%	Unusual	Intensive—Needs Substantial Intervention
Intensive	Strategic	Strategic	4%	36%	43%	29%	38%	38%	36%	More Common	Strategic—Additional Intervention
Benchmark	Strategic	Intensive	1%	38%	0%	25%	75%	100%	50%	Unusual	Strategic—Additional Intervention
Intensive	Strategic	Benchmark	4%	40%	22%	39%	61%	61%	48%	More Common	Strategic—Additional Intervention
Strategic	Intensive	Strategic	3%	42%	13%	56%	56%	56%	50%	More Common	Strategic—Additional Intervention
Intensive	Intensive	Benchmark	5%	44%	22%	48%	67%	59%	51%	More Common	Strategic—Additional Intervention
Benchmark	Intensive	Intensive	2%	46%	25%	50%	63%	75%	54%	Unusual	Strategic—Additional Intervention
Intensive	Benchmark	Strategic	3%	48%	44%	63%	44%	56%	55%	More Common	Strategic—Additional Intervention
Benchmark	Benchmark	Intensive	<1%	49%	.	.	.	.	.	Extremely Rare ^c	Strategic—Additional Intervention
Benchmark	Intensive	Strategic	2%	51%	22%	56%	78%	67%	63%	Unusual	Strategic—Additional Intervention
Strategic	Benchmark	Strategic	1%	52%	80%	80%	60%	60%	63%	Unusual	Strategic—Additional Intervention
Strategic	Intensive	Benchmark	4%	54%	13%	83%	65%	78%	65%	More Common	Strategic—Additional Intervention
Strategic	Strategic	Strategic	2%	57%	50%	90%	70%	70%	75%	Unusual	Strategic—Additional Intervention
Intensive	Benchmark	Benchmark	5%	59%	46%	57%	71%	79%	67%	More Common	Strategic—Additional Intervention
Benchmark	Strategic	Strategic	<1%	61%	.	.	.	.	.	Extremely Rare ^c	Strategic—Additional Intervention
Strategic	Strategic	Benchmark	2%	63%	60%	90%	70%	80%	75%	Unusual	Strategic—Additional Intervention
Benchmark	Intensive	Benchmark	4%	67%	9%	86%	91%	95%	75%	More Common	Strategic—Additional Intervention
Strategic	Benchmark	Intensive	<1%	69%	.	.	.	.	.	Extremely Rare ^c	Strategic—Additional Intervention
Benchmark	Benchmark	Strategic	1%	70%	80%	80%	40%	80%	70%	Unusual	Benchmark—Continued Good Instruction
Strategic	Benchmark	Benchmark	6%	73%	73%	90%	80%	73%	80%	More Common	Benchmark—Continued Good Instruction
Benchmark	Strategic	Benchmark	4%	79%	61%	100%	74%	87%	84%	More Common	Benchmark—Continued Good Instruction
Benchmark	Benchmark	Benchmark	12%	91%	87%	95%	89%	92%	91%	More Common	Benchmark—Continued Good Instruction

Note. Percent meeting goal is the conditional percent of children who meet the (a) end of kindergarten goal of 50 on FSF, (b) end of kindergarten goal of 35 on FPS, (c) middle of first grade goal of 70 on FPS, and (d) end of first grade goal of 40 or more on IDEL FLO. Based on $N = 523$ students.

^aPercent of students at each pattern of performance in the middle of kindergarten.

^bThe average percent meeting later goals is based on the percentages from all of the included columns, *plus* the conditional percent meeting goals at Beg 1 FPS and Mid 1 FLO (see Appendix).

^cBecause fewer than 1% of students in our sample displayed this pattern of scores, the values for percent meeting later goals would be misleading and therefore are not reported.

End of Kindergarten Instructional Recommendation

The end of kindergarten cut points for risk and established skills are summarized in Table 8, and the instructional recommendations for patterns of IDEL performance at the end of kindergarten are summarized in Table 9. At the end of kindergarten, it is important for students to have established phonemic awareness skills, as evidenced by reaching the benchmark goal of 50 on FSF. However, just like in the mid-year predictions, students also need to be progressing in skills related to the alphabetic principle in order for the odds of achieving later literacy goals to be in their favor. Students who are benchmark on *both* FSF and FPS have the odds in their favor of achieving subsequent literacy goals. Regardless of scores on FNL at this stage, students who achieved 50 on FSF and 35 on FPS, were considered to have low need for additional instructional support. On average 71 – 87 percent of students in these score ranges achieved subsequent benchmark goals.

Table 8

Descriptive Levels of Performance in End of Kindergarten

Measure	Performance	Descriptor
IDEL Fluidez en el Nombramiento de las Letras	FNL < 25	Intensive
	25 <= FNL < 40	Strategic
	FNL >= 40	Benchmark
IDEL Fluidez en la Segmentación de Fonemas	FSF < 35	Intensive
	35 <= FSF < 50	Strategic
	FSF >= 50	Benchmark
IDEL Fluidez en las Palabras sin Sentido	FPS < 25	Intensive
	25 <= FPS < 35	Strategic
	FPS >= 35	Benchmark

Table 9

Overall Probability of Need for Support for Individual Patterns of Performance on End of Kindergarten IDEL Benchmark Assessment

FNL	FSF	FPS	Percent Meeting Later Goals				Average ^b	Incidence	Overall Probability of Need for Support
			Percent ^a	Petile	Mid 1 FPS	End 1 FLO			
Strategic	Strategic	Intensive	1%	1%	17%	33%	17%	Unusual	Intensive—Needs Substantial Intervention
Intensive	Intensive	Intensive	16%	9%	23%	33%	21%	More Common	Intensive—Needs Substantial Intervention
Intensive	Strategic	Intensive	2%	18%	17%	25%	23%	More Common	Intensive—Needs Substantial Intervention
Strategic	Intensive	Intensive	6%	22%	34%	31%	27%	More Common	Intensive—Needs Substantial Intervention
Intensive	Benchmark	Intensive	2%	26%	27%	27%	27%	More Common	Intensive—Needs Substantial Intervention
Strategic	Intensive	Strategic	2%	29%	58%	58%	56%	More Common	Intensive—Needs Substantial Intervention
Intensive	Intensive	Strategic	2%	31%	75%	58%	60%	More Common	Intensive—Needs Substantial Intervention
Strategic	Benchmark	Strategic	2%	33%	31%	23%	29%	More Common	Strategic—Additional Intervention
Benchmark	Benchmark	Strategic	1%	35%	33%	33%	33%	Unusual	Strategic—Additional Intervention
Intensive	Strategic	Strategic	2%	36%	38%	38%	38%	Unusual	Strategic—Additional Intervention
Strategic	Strategic	Strategic	1%	37%	50%	50%	38%	Unusual	Strategic—Additional Intervention
Strategic	Benchmark	Intensive	1%	38%	33%	100%	42%	Unusual	Strategic—Additional Intervention
Intensive	Benchmark	Strategic	1%	39%	43%	43%	43%	Unusual	Strategic—Additional Intervention
Benchmark	Intensive	Intensive	2%	41%	58%	58%	46%	More Common	Strategic—Additional Intervention
Benchmark	Benchmark	Intensive	<1%	42%	.	.	.	Extremely Rare ^c	Strategic—Additional Intervention
Intensive	Strategic	Benchmark	3%	44%	57%	64%	63%	More Common	Strategic—Additional Intervention
Benchmark	Intensive	Strategic	2%	46%	78%	67%	64%	Unusual	Strategic—Additional Intervention
Strategic	Intensive	Benchmark	4%	49%	55%	75%	68%	More Common	Strategic—Additional Intervention
Strategic	Strategic	Benchmark	3%	52%	65%	71%	72%	More Common	Strategic—Additional Intervention
Benchmark	Strategic	Intensive	<1%	54%	.	.	.	Extremely Rare ^c	Strategic—Additional Intervention
Intensive	Intensive	Benchmark	3%	56%	63%	88%	80%	More Common	Strategic—Additional Intervention
Benchmark	Strategic	Strategic	<1%	57%	.	.	.	Extremely Rare ^c	Strategic—Additional Intervention
Intensive	Benchmark	Benchmark	2%	58%	70%	80%	73%	Unusual	Benchmark—Continued Good Instruction
Strategic	Benchmark	Benchmark	5%	62%	79%	71%	74%	More Common	Benchmark—Continued Good Instruction
Benchmark	Intensive	Benchmark	6%	67%	80%	83%	81%	More Common	Benchmark—Continued Good Instruction
Benchmark	Benchmark	Benchmark	23%	81%	80%	87%	86%	More Common	Benchmark—Continued Good Instruction
Benchmark	Strategic	Benchmark	8%	96%	85%	90%	88%	More Common	Benchmark—Continued Good Instruction

Note: Percent meeting goal is the conditional percent of children who meet the (a) middle of first grade goal of 70 on FPS, (b) end of first grade goal of 40 on IDEL FLO. Based on N = 523 students.

^aPercent of students at each pattern of performance in the end of kindergarten.

^bThe average percent meeting later goals is based on the percentages from all of the included columns, *plus* the conditional percent meeting goals at Beg 1 FPS and Mid 1 FLO (see Appendix).

^cBecause fewer than 1% of students in our sample displayed this pattern of scores, the values for percent meeting later goals would be misleading and therefore are not reported

Beginning of First Grade Instructional Recommendation

The cutoff scores for risk and established skills for the beginning of first grade are summarized in Table 10. The instructional recommendation for each pattern of performance at the beginning of first grade is provided in Table 11. Based on our data on the first grade measures (FNL, FSF, and FPS) the odds of students achieving second grade benchmark goals did not appear to comply with the 80 or 20 probability mentioned earlier. For example, students with the pattern of performance of intensive on FNL, but at benchmark on FSF and FPS in the beginning of first grade (row 23), had, on average, only 59 percent odds of achieving the end of second grade benchmark goal. On the other hand, students that were at benchmark on FNL and FPS had, on average, 82 percent probability and above of reaching the end of second grade benchmark goal. Again, it is important to note that, although FNL appears to function well as a predictor of students who will need additional instructional support, it does not map on to a big idea of learning to read and should not be used as a target for instruction.

Table 10

Descriptive Levels of Performance in Beginning of First Grade

Measure	Performance	Descriptor
IDEL Fluidez en el Nombramiento de las Letras	FNL < 20	Intensive
	20 <= FNL < 35	Strategic
	FNL >= 35	Benchmark
IDEL Fluidez en la Segmentación de Fonemas	FSF < 35	Intensive
	35 <= FSF < 50	Strategic
	FSF >= 50	Benchmark
IDEL Fluidez en las Palabras sin Sentido	FPS < 25	Intensive
	25 <= FPS < 35	Strategic
	FPS >= 35	Benchmark

Table 11

Instructional Recommendations for Individual Patterns of Performance on Beginning of First Grade IDEL Benchmark Assessment

FNL	FSF	FPS	Percent Meeting Later Goals					Average ^b	Incidence	Overall Probability of Need for Support
			Percent ^d	Petite	Mid 1	FPS	End 1 FLO				End 2 FLO
Intensive	Benchmark	Intensive	<1%	0%	.	.	.	Extremely Rare ^c	Intensive—Needs Substantial Intervention	
Intensive	Strategic	Intensive	4%	2%	18%	29%	48%	More Common	Intensive—Needs Substantial Intervention	
Intensive	Intensive	Intensive	21%	15%	8%	25%	40%	More Common	Intensive—Needs Substantial Intervention	
Strategic	Intensive	Intensive	8%	29%	30%	59%	67%	More Common	Intensive—Needs Substantial Intervention	
Intensive	Benchmark	Strategic	2%	34%	0%	20%	30%	Unusual	Strategic—Additional Intervention	
Intensive	Strategic	Strategic	<1%	35%	.	.	.	Extremely Rare ^c	Strategic—Additional Intervention	
Strategic	Strategic	Intensive	2%	36%	40%	30%	40%	Unusual	Strategic—Additional Intervention	
Strategic	Benchmark	Strategic	1%	38%	0%	40%	20%	Unusual	Strategic—Additional Intervention	
Strategic	Benchmark	Intensive	2%	39%	40%	75%	38%	Unusual	Strategic—Additional Intervention	
Benchmark	Benchmark	Strategic	1%	39%	17%	33%	33%	Unusual	Strategic—Additional Intervention	
Strategic	Strategic	Strategic	2%	40%	36%	50%	33%	More Common	Strategic—Additional Intervention	
Benchmark	Benchmark	Intensive	<1%	41%	.	.	.	Extremely Rare ^d	Strategic—Additional Intervention	
Intensive	Intensive	Strategic	3%	43%	43%	60%	40%	More Common	Strategic—Additional Intervention	
Intensive	Strategic	Benchmark	2%	45%	38%	63%	38%	Unusual	Strategic—Additional Intervention	
Strategic	Intensive	Strategic	5%	48%	29%	67%	58%	More Common	Strategic—Additional Intervention	
Benchmark	Strategic	Intensive	<1%	51%	.	.	.	Extremely Rare ^d	Strategic—Additional Intervention	
Benchmark	Intensive	Intensive	2%	52%	60%	90%	70%	Unusual	Strategic—Additional Intervention	
Benchmark	Intensive	Strategic	1%	53%	33%	100%	83%	Unusual	Strategic—Additional Intervention	
Strategic	Strategic	Benchmark	3%	55%	53%	61%	61%	More Common	Strategic—Additional Intervention	
Intensive	Intensive	Benchmark	2%	58%	67%	67%	44%	Unusual	Strategic—Additional Intervention	
Strategic	Intensive	Benchmark	6%	62%	67%	67%	67%	More Common	Strategic—Additional Intervention	
Benchmark	Strategic	Strategic	<1%	59%	.	.	.	Extremely Rare ^c	Strategic—Additional Intervention	
Intensive	Benchmark	Benchmark	2%	60%	30%	67%	67%	More Common	Benchmark—Continued Good Instruction	
Strategic	Benchmark	Benchmark	8%	66%	69%	68%	73%	More Common	Benchmark—Continued Good Instruction	
Benchmark	Intensive	Benchmark	4%	72%	73%	96%	74%	More Common	Benchmark—Continued Good Instruction	
Benchmark	Benchmark	Benchmark	16%	82%	90%	88%	87%	More Common	Benchmark—Continued Good Instruction	
Benchmark	Strategic	Benchmark	3%	91%	80%	93%	80%	More Common	Benchmark—Continued Good Instruction	

Note. Percent meeting goal is the conditional percent of children who meet the (a) middle of first grade goal of 70 on FPS, (b) end of first grade goal of 40 on FLO, (c) and end of second grade goal of 65 or more on IDEL FLO. Based on $N = 516$ students.

^aPercent of students at each pattern of performance in the beginning of first grade.

^bThe average percent meeting later goals is based on the percentages from all of the included columns, *plus* the conditional percent meeting goals at Mid 1 FLO, Beg 2 FLO, and Mid 2 FLO (see Appendix).

^c Because fewer than 1% of students in our sample displayed this pattern of scores, the values for percent meeting later goals would be misleading and therefore are not reported.

^d These patterns were observed *within* year only, for fewer than 1% of students.

Middle of First Grade Overall Probability of Need for Support

In the middle of first grade, the cut scores for established skills and descriptors of need for support are summarized in Table 12. The instructional recommendations corresponding to patterns of performance in the middle of first grade are summarized in Table 13. The benchmark goal for the middle of first grade is a score of 70 or more on the FPS measure. For the most part, it is not unusual for a student to have established skills on FPS and less than established skills on FSF. In addition to established skills on FPS, it also appears important that students are beginning to apply those skills in connected text, reading at least 20 correct words per minute on the FLO measure. For students with established skills on FPS and who are reading at least 20 words correct per minute, the odds of achieving the first grade reading outcome are 97 to 100 percent. The importance of students understanding the alphabetic principle, and applying it to reading connected text cannot be overstated. Thus, *any* student with a pattern of strategic and/or intensive recommendations in FPS and/or FLO has high odds of not achieving later reading outcomes, and therefore is likely to require substantial intervention.

Unlike English, students below benchmark on FSF, but at benchmark on FPS and FLO, did achieve future benchmark goals, and therefore the odds of them reaching later goals was very high (between 91 and 95 percent), indicating that phonemic awareness is an important step towards developing an understanding of the alphabetic principle prior to first grade. However, in Spanish, after first grade, the FSF measure does not appear to predict well which students will learn to read connected text.

Table 12

Descriptive Levels of Performance in Middle of First Grade

Measure	Performance	Descriptor
IDEL Fluidez en la Segmentación de Fonemas	FSF < 35	Intensive
	35 <= FSF < 50	Strategic
	FSF >= 50	Benchmark
IDEL Fluidez en las Palabras sin Sentido	FPS < 40	Intensive
	40 <=FPS < 70	Strategic
	FPS >=70	Benchmark
IDEL Fluidez en la Lectura Oral	FLO < 10	Intensive
	10 <= FLO < 20	Strategic
	FLO >= 20	Benchmark

Table 13

Instructional Recommendations for Individual Patterns of Performance on Middle of First Grade IDEL Benchmark Assessment

FSF	FPS	FLO	Percent Meeting Later Goals				Incidence	Overall Probability of Need for Support
			Percent ^a	Petile	End 1 FLO	End 2 FLO		
Strategic	Intensive	Intensive	5%	3%	4%	8%	12%	Intensive—Needs Substantial Intervention
Intensive	Intensive	Intensive	10%	10%	8%	14%	10%	Intensive—Needs Substantial Intervention
Benchmark	Intensive	Intensive	5%	18%	8%	24%	18%	Intensive—Needs Substantial Intervention
Strategic	Intensive	Strategic	<1%	20%	.	.	.	Intensive—Needs Substantial Intervention
Benchmark	Intensive	Strategic	<1%	21%	.	.	.	Intensive—Needs Substantial Intervention
Benchmark	Strategic	Intensive	4%	23%	5%	29%	24%	Intensive—Needs Substantial Intervention
Strategic	Strategic	Intensive	3%	27%	6%	25%	19%	Intensive—Needs Substantial Intervention
Intensive	Strategic	Intensive	3%	30%	19%	50%	36%	Intensive—Needs Substantial Intervention
Benchmark	Benchmark	Intensive	1%	32%	0%	50%	13%	Strategic—Additional Intervention
Strategic	Benchmark	Intensive	<1%	33%	.	.	.	Strategic—Additional Intervention
Benchmark	Strategic	Strategic	5%	35%	44%	32%	39%	Strategic—Additional Intervention
Benchmark	Benchmark	Strategic	3%	39%	33%	67%	48%	Strategic—Additional Intervention
Benchmark	Intensive	Benchmark	<1%	41%	.	.	.	Strategic—Additional Intervention
Strategic	Strategic	Strategic	1%	42%	43%	57%	43%	Strategic—Additional Intervention
Intensive	Intensive	Strategic	2%	43%	60%	50%	58%	Strategic—Additional Intervention
Intensive	Strategic	Strategic	4%	46%	74%	63%	64%	Strategic—Additional Intervention
Intensive	Benchmark	Strategic	2%	49%	63%	63%	63%	Strategic—Additional Intervention
Intensive	Benchmark	Intensive	<1%	50%	.	.	.	Strategic—Additional Intervention
Strategic	Benchmark	Strategic	1%	51%	71%	43%	61%	Strategic—Additional Intervention
Intensive	Intensive	Benchmark	2%	53%	89%	67%	67%	Strategic—Additional Intervention
Benchmark	Strategic	Benchmark	2%	54%	89%	67%	86%	Strategic—Additional Intervention
Intensive	Strategic	Benchmark	3%	57%	86%	71%	84%	Strategic—Additional Intervention
Strategic	Strategic	Benchmark	2%	59%	92%	67%	77%	Strategic—Additional Intervention
Strategic	Intensive	Benchmark	<1%	61%	.	.	.	Strategic—Additional Intervention
Benchmark	Benchmark	Benchmark	22%	72%	97%	88%	91%	Benchmark—Continued Good Instruction
Strategic	Benchmark	Benchmark	9%	88%	96%	87%	91%	Benchmark—Continued Good Instruction
Intensive	Benchmark	Benchmark	8%	96%	100%	95%	95%	Benchmark—Continued Good Instruction

Note. Percent meeting goal is the conditional percent of children who meet the (a) end of first grade goal of 40 on IDEL FLO and (b) end of second grade goal of 65 on IDEL FLO. Based on $N = 495$ students.

^aPercent of students at each pattern of performance in the middle of first grade.

^bThe average percent meeting later goals is based on the percentages from all of the included columns, *plus* the conditional percent meeting goals at Beg and Mid 2 FLO (see Appendix).

^cBecause fewer than 1% of students in our sample displayed this pattern of scores, the values for percent meeting later goals would be misleading and therefore are not reported.

End of First Grade Instructional Recommendation

By the end of first grade, instructional recommendations are based solely on FLO scores. Students who meet the FLO goal of 40 or more words correct per minute are likely to have established FPS skills as well. For students reading 40 or more words correct per minute and displaying a deficit on FPS, the recommended support is strategic as students may need additional support to understand the alphabetic principle in order to use their decoding skills to read unknown words.

Students who meet the end of first grade benchmark goal on FLO and FPS have odds of 79 to 86 percent of achieving the second grade goal. Students who are reading below 25 words correct per minute at the end of first grade are at risk for reading difficulty in second grade with odds of 0 to 24 percent of achieving the second grade reading goal. For students reading less than 25 words correct at the end of first grade, substantial support is needed.

Table 14

Descriptive Levels of Performance in End of First Grade

Measure	Performance	Descriptor
IDEL Fluidez en las Palabras sin Sentido	FPS < 70	Intensive
	70 <= FPS < 90	Strategic
	FPS >= 90	Benchmark
IDEL Fluidez en la Lectura Oral	FLO < 25	Intensive
	25 <= FLO < 40	Strategic
	FLO >= 40	Benchmark

Table 15

Instructional Recommendations for Individual Patterns of Performance on End of First Grade IDEL Benchmark Assessment

FSF	FPS	FLO	Percent Meeting Later Goals			Average	Incidence	Overall Probability of Need for Support
			Percent ^a	Petite	End 2 FLO			
Intensive	Strategic	Intensive	<1%	0%	.	Extremely Rare ^e	Intensive—Needs Substantial Intervention	
Strategic	Strategic	Intensive	<1%	0%	.	Extremely Rare ^e	Intensive—Needs Substantial Intervention	
Benchmark	Intensive	Intensive	6%	4%	3%	More Common	Intensive—Needs Substantial Intervention	
Strategic	Intensive	Intensive	4%	9%	5%	More Common	Intensive—Needs Substantial Intervention	
Intensive	Intensive	Intensive	6%	14%	9%	More Common	Intensive—Needs Substantial Intervention	
Benchmark	Strategic	Intensive	2%	18%	22%	Unusual	Intensive—Needs Substantial Intervention	
Benchmark	Intensive	Strategic	2%	20%	15%	More Common	Intensive—Needs Substantial Intervention	
Strategic	Intensive	Strategic	2%	22%	11%	Unusual	Intensive—Needs Substantial Intervention	
Intensive	Intensive	Strategic	1%	23%	17%	Unusual	Intensive—Needs Substantial Intervention	
Strategic	Strategic	Strategic	1%	24%	14%	Unusual	Intensive—Needs Substantial Intervention	
Benchmark	Strategic	Strategic	5%	27%	33%	More Common	Strategic—Additional Intervention	
Intensive	Strategic	Benchmark	<1%	30%	.	Extremely Rare ^e	Strategic—Additional Intervention	
Benchmark	Benchmark	Strategic	7%	34%	50%	More Common	Strategic—Additional Intervention	
Strategic	Benchmark	Strategic	1%	38%	43%	Unusual	Strategic—Additional Intervention	
Intensive	Benchmark	Strategic	1%	39%	67%	Unusual	Strategic—Additional Intervention	
Intensive	Strategic	Strategic	1%	40%	33%	Unusual	Strategic—Additional Intervention	
Benchmark	Intensive	Benchmark	1%	41%	40%	Unusual	Strategic—Additional Intervention	
Benchmark	Benchmark	Intensive	<1%	42%	.	Extremely Rare ^e	Strategic—Additional Intervention	
Strategic	Intensive	Benchmark	2%	43%	63%	Unusual	Strategic—Additional Intervention	
Strategic	Strategic	Benchmark	1%	44%	86%	Unusual	Strategic—Additional Intervention	
Benchmark	Strategic	Benchmark	3%	46%	80%	More Common	Strategic—Additional Intervention	
Intensive	Intensive	Benchmark	1%	48%	100%	Unusual	Strategic—Additional Intervention	
Strategic	Benchmark	Benchmark	7%	52%	84%	More Common	Benchmark—Continued Good Instruction	
Intensive	Benchmark	Benchmark	7%	59%	89%	More Common	Benchmark—Continued Good Instruction	
Benchmark	Benchmark	Benchmark	37%	81%	87%	More Common	Benchmark—Continued Good Instruction	

Note. Percent meeting goal is the conditional percent of children who meet the end of second grade goal of 65 on IDEL FLO. Based on $N = 521$ students.

^aPercent of students at each pattern of performance in the end of first grade.

^bThe average percent meeting later goals is based on the percentages from the included column, *plus* the conditional percent meeting goals at Beg and Mid 2 FLO (see Appendix).

^cBecause fewer than 1% of students in our sample displayed this pattern of scores, the values for percent meeting later goals would be misleading and therefore are not reported.

Beginning of Second Grade Instructional Recommendation

The recommended beginning of second grade cut scores and levels of risk are reported in Table 16 along with the accompanying instructional recommendation. The odds of students with an intensive need for support at the beginning of second grade achieving subsequent reading goals is very low (the range is between 6 and 10 percent). On the other hand, the odds for benchmark students in the beginning of second grade to stay at benchmark at the end of third grade is between 83 and 91 percent. Students at Strategic on FLO require strategic additional support commensurate with their FPS scores. Strategic support means that teachers will need to look at students' pattern of performance carefully before determining the best strategies to increase students' reading skills. For example, students that have achieved the FPS benchmark goal of 90 at the end of first grade, but are strategic on FLO may require additional support in developing fluency skills. Students that were intensive or strategic on FPS and strategic on FLO may require further instruction on the understanding of the alphabetic principle first (particularly in the decoding of multi-syllabic words), before receiving additional support in developing fluency.

Table 16

Descriptive Levels of Performance in Beginning of Second Grade

Measure	Performance	Descriptor
IDEL Fluidez en las Palabras sin Sentido	FPS < 70	Intensive
	70 <= FPS < 90	Strategic
	FPS >= 90	Benchmark
IDEL Fluidez en la Lectura Oral	FLO < 25	Intensive
	25 <= FLO < 35	Strategic
	FLO >= 35	Benchmark

Table 17

Instructional Recommendations for Individual Patterns of Performance on Beginning of Second Grade IDEL Benchmark Assessment

FPS	FLO	Percent Meeting Later Goals					Average ^b	Incidence	Overall Probability of Need for Support
		Percent ^a	Petile	End 2 FLO	End 3 FLO	End 3 FLO			
Intensive	Intensive	26%	15%	3%	3%	3%	6%	More Common	Intensive—Needs Substantial Intervention
Strategic	Intensive	5%	33%	13%	13%	13%	10%	More Common	Intensive—Needs Substantial Intervention
Benchmark	Intensive	2%	36%	0%	0%	0%	7%	More Common	Intensive—Needs Substantial Intervention
Strategic	Strategic	4%	41%	17%	50%	50%	27%	More Common	Strategic—Additional Intervention
Benchmark	Strategic	9%	48%	36%	29%	29%	30%	More Common	Strategic—Additional Intervention
Intensive	Strategic	7%	55%	36%	36%	36%	44%	More Common	Strategic—Additional Intervention
Intensive	Benchmark	5%	60%	71%	57%	57%	71%	More Common	Strategic—Additional Intervention
Strategic	Benchmark	4%	65%	83%	67%	67%	83%	More Common	Benchmark—Continued Good Instruction
Benchmark	Benchmark	38%	83%	91%	88%	88%	91%	More Common	Benchmark—Continued Good Instruction

Note. Percent meeting goal is the conditional percent of children who meet the end of second grade goal of 65 on IDEL FLO. Based on $N = 152$ students.

^aPercent of students at each pattern of performance in the beginning of second grade.

^bThe average percent meeting later goals is based on the percentages from the included column, *plus* the conditional percent meeting goals at Beg and Mid 2 FLO and Beg and Mid 3 FLO (see Appendix).

Middle of Second Grade Instructional Recommendation

The cutoff scores for levels of risk and corresponding instructional recommendations for the middle of second grade are reported in Table 18. A consistent pattern emerges in second and third grade. When students are on track for successful reading outcomes (i.e., at benchmark or Benchmark status), the odds are strongly in favor of achieving subsequent goals (about 86 percent). The odds are strongly against achieving subsequent goals (less than 1 percent unless they receive substantial additional support) for students identified as needing intensive intervention. Both of these odds are consistent with the primary consideration in establishing cutoffs for IDEL benchmark assessment. However, for the strategic probability of need for support, the intent was for the odds to be about 50 – 50 of achieving subsequent literacy goals, as obtained for earlier grade levels. Beginning at about the end of first grade, the odds of achieving subsequent goals for students identified as needing strategic instructional support fall increasingly below 50 percent. In this case the odds are 24 percent for students falling in the strategic probability of need for support. This means that students in this category actually need substantial intervention in order to achieve third grade goals.

Table 18

Descriptive Levels of Performance in Middle of Second Grade

Measure	Performance	Descriptor
IDEL Fluidez en la Lectura Oral	FLO < 40	Intensive
	40 <= FLO < 50	Strategic
	FLO >= 50	Benchmark

Table 19
Instructional Recommendations for Individual Patterns of Performance on Middle of Second Grade IDEL Benchmark Assessment

FLO	Percent Meeting Later Goals				Average ^b	Incidence	Overall Probability of Need for Support
	Percent ^a	Pctile	End 2 FLO	End 3 FLO			
Intensive	29%	14%	0%	0%	1%	More Common	Intensive—Needs Substantial Intervention
Strategic	15%	36%	12%	24%	24%	More Common	Strategic—Additional Intervention
Benchmark	57%	72%	89%	81%	86%	More Common	Benchmark—Continued Good Instruction

Note. Percent meeting goal is the conditional percent of children who meet the end of second grade goal of 65 on IDEL FLO. Based on $N = 153$ students.

^aPercent of students at each pattern of performance in the middle of second grade.

^bThe average percent meeting later goals is based on the percentages from the included column, *plus* the conditional percent meeting goals at End 2 FLO and Beg and Mid 3 FLO (see Appendix).

End of Second Grade Instructional Recommendation

The cutoff scores for levels of risk and corresponding instructional recommendations for the end of second grade are reported in Table 20. At the end of second grade, the crucial outcome is end of third grade reading skills. With each subsequent grade, the predictive utility becomes stronger – meaning that we can have more confidence in our decisions but also meaning that it becomes increasingly difficult to thwart the predictions of reading success or difficulty.

According to our data, 89 percent of students that achieved the benchmark goal at the end of second grade also achieved the end of third grade benchmark goal. However, only 24 percent of students in the strategic category achieved third grade benchmark goals.

A possible explanation for this low probability of achieving later third grade goals is the fact that most of the bilingual programs in the United States are transitional programs, meaning that they teach students to read in their native language first with the objective of transitioning them to an English only program by the end of second or third grade (August & Shanahan, 2006). Thus, Spanish reading instructional time for many students in our sample may have stopped or may have been drastically reduced at the end of second grade. Further research on this factor needs to be conducted to confirm this hypothesis.

Table 20

Descriptive Levels of Performance in End of Second Grade

Measure	Performance	Descriptor
IDEL Fluidez en la Lectura Oral	FLO < 50	Intensive
	50 <= FLO < 65	Strategic
	FLO >= 65	Benchmark

Table 21
Instructional Recommendations for Individual Patterns of Performance on End of Second Grade IDEL Benchmark Assessment

FLO	Percent Meeting Later Goals			Incidence	Overall Probability of Need for Support
	Percent ^a	Pctile	Average ^b		
Intensive	31%	16%	3%	More Common	Intensive—Needs Substantial Intervention
Strategic	20%	42%	25%	More Common	Strategic—Additional Intervention
Benchmark	48%	76%	89%	More Common	Benchmark—Continued Good Instruction

Note. Percent meeting goal is the conditional percent of children who meet the end of third grade goal of 85 on IDEL FLO. Based on $N = 153$ students.

^aPercent of students at each pattern of performance in the end of second grade.

^bThe average percent meeting later goals is based on the percentages from the included column, *plus* the conditional percent meeting goals at Beg and Mid 3 FLO (see Appendix).

Beginning of Third Grade Instructional Recommendation

The cutoff scores for levels of risk and corresponding instructional recommendations for the beginning of third grade are reported in Table 22. For students identified as intensive at the beginning of third grade, which is about half of the sample used for these analyses, the odds of achieving the end of third grade reading outcome are extremely low; only eight percent of students in this group met the end of the year benchmark goal. On the other hand, for students identified as Benchmark at the beginning of the year (about 38 percent of the current sample) the odds of achieving the end of third grade reading outcome are strongly in their favor (90%).

Table 22

Descriptive Levels of Performance in Beginning of Third Grade

Measure	Performance	Descriptor
IDEL Fluidez en la Lectura Oral	FLO < 50	Intensive
	50 <= FLO < 60	Strategic
	FLO >= 60	Benchmark

Table 23
Instructional Recommendations for Individual Patterns of Performance on Beginning of Third Grade IDEL Benchmark Assessment

FLO	Percent Meeting Later Goals				Incidence	Overall Probability of Need for Support
	Percent ^a	Pctile	End 3 FLO	Average ^b		
Intensive	50%	25%	8%	8%	More Common	Intensive—Needs Substantial Intervention
Strategic	12%	56%	35%	38%	More Common	Strategic—Additional Intervention
Benchmark	38%	81%	86%	90%	More Common	Benchmark—Continued Good Instruction

Note. Percent meeting goal is the conditional percent of children who meet the end of third grade goal of 85 on IDEL FLO. Based on $N = 446$ students.
^aPercent of students at each pattern of performance in the beginning of third grade.

Middle of Third Grade Instructional Recommendation

The cutoff scores for levels of risk and benchmark goals are reported in Table 24. The corresponding instructional recommendations for the middle of third grade are reported in Table 24. The outcomes for students who are identified as intensive in the middle of the year continue to be poor; none of these students met the end of year goal. In contrast, students who meet the middle of the year goal have odds in their favor (.85) of being on track at the end of the school year.

Table 24

Descriptive Levels of Performance in the Middle of Third Grade

Measure	Performance	Descriptor
IDEL Fluidez en la Lectura Oral	FLO < 60	Intensive
	60 <= FLO < 70	Strategic
	FLO >= 70	Benchmark

Table 25

Instructional Recommendations for Individual Patterns of Performance on Middle of Third Grade IDEL Benchmark Assessment

FLO	Percent Meeting Later Goals			Incidence	Overall Probability of Need for Support
	Percent ^a	Pctile	End 3 FLO		
Intensive	37%	19%	0%	More Common	Intensive—Needs Substantial Intervention
Strategic	17%	46%	15%	More Common	Strategic—Additional Intervention
Benchmark	45%	77%	85%	More Common	Benchmark—Continued Good Instruction

Note. Percent meeting goal is the conditional percent of children who meet the end of third grade goal of 85 on IDEL FLO. Based on $N = 446$ students.

^aPercent of students at each pattern of performance in the beginning of third grade.

End of Third Grade Instructional Recommendation

The cutoff scores for levels of risk and corresponding instructional recommendations for the end of third grade are reported in Table 26. Because we currently don't have data on outcome measures at the end of third grade, or oral reading fluency data in fourth and fifth grade that could be compared to the IDEL data, we are not able to calculate specific predictive values or odds ratios for the varying support levels. However, as the IDEL Data System continues to expand, we will have the capability to include an external outcome measure that can be used to evaluate the predictive utility, and criterion related validity of the FLO measure at the end of third grade.

In general, FLO benchmark goals at the end of third grade appear to be ambitious, given that only a small percent of students achieved benchmark goals. However, it is important to keep in mind that the fact that few students scored in this category may also be a function of the sample (which was low performing overall) or the type of reading programs implemented. The goals do appear to be consistent with the few studies that have been conducted in this area and are appropriate based on theory. Future research with a population of students with a wider distribution of scores is required to obtain a clearer understanding of the important milestones in reading in Spanish beyond Grade 3.

Table 26

Descriptive Levels of Performance in the End of Third Grade

Performance	Descriptor	Percent Achieving Subsequent Reading Goal	Instructional Recommendation
FLO < 65	Intensive	?	Intensive - Needs Substantial Intervention
65 <= FLO < 85	Strategic	?	Strategic - Additional Intervention
FLO >= 85	Benchmark	?	Benchmark—Continued Good Instruction

Limitations

Our analysis of the benchmark goals and the instructional recommendations was based on existing data entered in the DIBELS Data System. Thus, we know very little about the quality, amount, and intensity of Spanish instruction for our student population. Moreover, it appears that our sample was skewed, meaning that the majority of our students were low performing readers.

In addition, given that only 15% of our students had across year data, it is plausible that our estimates for the instructional recommendations may not be generalizable to a wider sample of students. Future research should address the longitudinal predictive validity and sensitivity of the IDEL measures particularly with a sample population that is Spanish-speaking and that lives in a Spanish-speaking country.

Summary

This technical report is intended to make public the decision rules used in the IDEL Data System, and to summarize evidence on the predictive utility of the IDEL cutoffs both as indicators of need for support, and as instructional goals. At any benchmark assessment period, students who are intensive at that point in time have the odds seriously against achieving subsequent early literacy goals – unless they are provided with substantial, sustained, and intensive support. But, even more important, for students prior to that point in time, the

benchmark goal represents an instructional target that will establish the odds in their favor of achieving subsequent early literacy goals.

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Appendix

Appendix 1a

Beginning of Kindergarten, Within-Year Data

Beg K LNF	Percent Meeting Later Goals				Total Cases	Avg Pct Meetg Goals	% in Row	Cum %	Pctile	Incidence
	Mid K PSF	Mid K NWF	End K PSF	End K NWF						
(missing)*	22%	11%	33%	20%	10					
Intensive	27%	38%	31%	41%	2349	34%	73%	73%	36%	More Common
Strategic	40%	61%	45%	61%	410	52%	13%	85%	79%	More Common
Benchmark	52%	75%	49%	75%	475	63%	15%	100%	93%	More Common

* Missing values included for your information only, they are not included in calculations.

Appendix 1b

Beginning of Kindergarten, Kindergarten-to-First Cross-Year Data

Beg K LNF	Percent Meeting Later Goals						Total Cases	Avg Pct Meetg Goals	% in Row	Cum %	Pctile	Incidence
	Mid K PSF	Mid K NWF	End K PSF	End K NWF	Beg 1 NWF	End 1 ORF						
Intensive	24%	39%	31%	48%	47%	58%	468	44%	73%	73%	37%	More Common
Strategic	44%	66%	47%	74%	71%	85%	74	68%	12%	85%	79%	More Common
Benchmark	46%	82%	48%	77%	79%	91%	95	74%	15%	100%	93%	More Common

Appendix 1c

Middle of Kindergarten, Within-Year Data

Mid K LNF	Across Year Percent Meeting K1 Goals														K Total Cases	K-1 Total Cases	Avg Pct Meet'g Goals	% in Row	Cum %	Pctile	Incidence	Overall Probability of Need for Support				
	Pct Meeting K Goals		End K PSF		End K NWF		End K PSF		End K NWF		Beg 1 NWF		Mid 1 NWF										Mid 1 ORF		End 1 ORF	
	Mid K PSF	Mid K NWF	End K PSF	End K NWF	End K PSF	End K NWF	Beg 1 NWF	Mid 1 NWF	Mid 1 ORF	End 1 ORF	Mid 1 NWF	Mid 1 ORF	Beg 1 NWF	Mid 1 NWF									Mid 1 ORF	End 1 ORF	End 1 ORF	
Intensive	Intensive	8%	8%	15%	12%	12%	24%	19%	34%	24%	19%	12%	24%	19%	34%	574	86	16%	19%	19%	9%	More Common	Intensive Support			
Intensive	Strategic	22%	12%	33%	33%	33%	27%	40%	47%	27%	40%	33%	27%	40%	47%	145	15	31%	5%	23%	21%	More Common	Intensive Support			
Intensive	Strategic	13%	24%	17%	33%	38%	40%	40%	44%	40%	40%	38%	40%	40%	44%	128	48	31%	4%	28%	26%	More Common	Intensive Support			
Strategic	Intensive	14%	23%	0%	40%	35%	55%	60%	65%	55%	60%	35%	55%	60%	65%	107	20	37%	3%	31%	29%	More Common	Intensive Support			
Intensive	Benchmark	45%	11%	83%	50%	33%	50%	33%	33%	50%	33%	33%	50%	33%	33%	74	6	42%	2%	33%	32%	More Common	Intensive Support			
Strategic	Strategic	12%	20%	0%	33%	67%	100%	100%	67%	100%	100%	67%	100%	100%	67%	41	3	50%	1%	35%	34%	Unusual	Intensive Support			
Intensive	Strategic	24%	32%	43%	29%	29%	38%	38%	38%	38%	38%	29%	38%	38%	38%	92	21	34%	3%	38%	36%	More Common	Strategic Support			
Benchmark	Intensive	21%	33%	0%	25%	75%	75%	25%	100%	75%	25%	75%	75%	100%	100%	24	4	44%	1%	39%	38%	Unusual	Strategic Support			
Intensive	Strategic	25%	51%	22%	39%	48%	61%	57%	61%	61%	57%	48%	61%	61%	61%	59	23	45%	2%	41%	40%	Unusual	Strategic Support			
Strategic	Intensive	20%	45%	13%	56%	50%	56%	69%	56%	56%	69%	50%	56%	56%	56%	74	16	46%	2%	43%	42%	More Common	Strategic Support			
Intensive	Intensive	16%	49%	22%	48%	48%	67%	59%	59%	67%	59%	48%	67%	59%	59%	75	27	46%	2%	45%	44%	More Common	Strategic Support			
Benchmark	Intensive	8%	37%	25%	50%	50%	63%	63%	75%	63%	63%	50%	63%	75%	75%	62	8	46%	2%	47%	46%	More Common	Strategic Support			
Intensive	Benchmark	56%	32%	44%	63%	67%	44%	56%	56%	44%	56%	67%	44%	56%	56%	53	16	52%	2%	49%	48%	Unusual	Strategic Support			
Benchmark	Benchmark	61%	72%	100%	0%	0%	0%	100%	100%	0%	100%	0%	0%	100%	100%	18	1	54%	1%	50%	49%	Unusual	Strategic Support			
Benchmark	Intensive	13%	50%	22%	56%	67%	78%	88%	67%	78%	88%	67%	78%	88%	67%	52	9	55%	2%	51%	51%	Unusual	Strategic Support			
Strategic	Benchmark	49%	41%	80%	80%	40%	60%	60%	60%	60%	60%	40%	60%	60%	60%	51	5	59%	2%	53%	52%	Unusual	Strategic Support			
Strategic	Intensive	27%	52%	13%	83%	78%	65%	74%	78%	65%	74%	78%	65%	78%	78%	73	23	59%	2%	55%	54%	More Common	Strategic Support			
Strategic	Strategic	15%	38%	50%	90%	90%	70%	80%	70%	70%	80%	90%	70%	80%	70%	68	10	63%	2%	58%	57%	More Common	Strategic Support			
Intensive	Benchmark	47%	71%	46%	57%	71%	71%	75%	79%	71%	75%	71%	71%	79%	79%	76	28	65%	2%	60%	59%	More Common	Strategic Support			
Benchmark	Strategic	42%	47%	0%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	38	2	67%	1%	61%	61%	Unusual	Strategic Support			
Strategic	Strategic	28%	67%	60%	90%	90%	70%	60%	80%	70%	60%	90%	70%	80%	80%	109	10	68%	4%	65%	63%	More Common	Strategic Support			
Benchmark	Intensive	35%	81%	9%	86%	73%	91%	95%	95%	91%	95%	73%	91%	95%	95%	118	22	71%	4%	69%	67%	More Common	Strategic Support			
Strategic	Benchmark	65%	47%	100%	100%	100%	0%	100%	100%	0%	100%	100%	0%	100%	100%	17	1	76%	1%	69%	69%	Unusual	Strategic Support			
Benchmark	Benchmark	46%	77%	80%	80%	80%	40%	60%	80%	40%	60%	80%	40%	60%	80%	39	5	68%	1%	71%	70%	Unusual	Benchmark			
Strategic	Benchmark	68%	79%	73%	90%	83%	80%	80%	73%	80%	80%	83%	80%	80%	73%	154	30	78%	5%	76%	73%	More Common	Benchmark			
Benchmark	Strategic	44%	87%	61%	100%	91%	74%	91%	87%	74%	91%	91%	74%	87%	87%	224	23	79%	7%	83%	79%	More Common	Benchmark			
Benchmark	Benchmark	79%	93%	87%	95%	93%	89%	92%	92%	89%	92%	93%	89%	92%	92%	525	61	90%	17%	100%	91%	More Common	Benchmark			

Total Cases: 3070 523

Appendix 1c, cont.

Middle of Kindergarten, First-to-Second Cross-Year Data

Mid K LNF	Mid K PSF	Mid K NWF	Avg Pct Meeting Goals	% in Row	Cum %	Pctile	Incidence
Intensive	Intensive	Intensive	19%	16%	16%	8%	More Common
Intensive	Strategic	Intensive	36%	3%	19%	18%	More Common
Intensive	Intensive	Strategic	35%	9%	28%	24%	More Common
Strategic	Intensive	Intensive	43%	4%	32%	30%	More Common
Intensive	Benchmark	Intensive	47%	1%	33%	33%	Unusual
Strategic	Strategic	Intensive	61%	1%	34%	34%	Unusual
Intensive	Strategic	Strategic	36%	4%	38%	36%	More Common
Benchmark	Strategic	Intensive	50%	1%	39%	38%	Unusual
Intensive	Strategic	Benchmark	48%	4%	43%	41%	More Common
Strategic	Intensive	Strategic	50%	3%	46%	45%	More Common
Intensive	Intensive	Benchmark	51%	5%	51%	49%	More Common
Benchmark	Intensive	Intensive	54%	2%	53%	52%	Unusual
Intensive	Benchmark	Strategic	55%	3%	56%	54%	More Common
Benchmark	Benchmark	Intensive	50%	0%	56%	56%	Extremely Rare
Benchmark	Intensive	Strategic	63%	2%	58%	57%	Unusual
Strategic	Benchmark	Strategic	63%	1%	59%	58%	Unusual
Strategic	Intensive	Benchmark	65%	4%	63%	61%	More Common
Strategic	Strategic	Strategic	75%	2%	65%	64%	Unusual
Intensive	Benchmark	Benchmark	67%	5%	71%	68%	More Common
Benchmark	Strategic	Strategic	75%	0%	71%	71%	Extremely Rare
Strategic	Strategic	Benchmark	75%	2%	73%	72%	Unusual
Benchmark	Intensive	Benchmark	75%	4%	77%	75%	More Common
Strategic	Benchmark	Intensive	83%	0%	77%	77%	Extremely Rare
Benchmark	Benchmark	Strategic	70%	1%	78%	78%	Unusual
Strategic	Benchmark	Benchmark	80%	6%	84%	81%	More Common
Benchmark	Strategic	Benchmark	84%	4%	88%	86%	More Common
Benchmark	Benchmark	Benchmark	91%	12%	100%	94%	More Common

Appendix 1d

End of Kindergarten, Kindergarten-to-First Cross-Year Data

End K LNF	End K PSF	End K NWF	Percent Meeting Later Goals				Total Cases	Avg Pct Meeting Goals	% in Row	Cum %	Pctile	Incidence	Overall Probability of Need for Support
			Beg 1 NWF	Mid 1 NWF	Mid 1 ORF	End 1 ORF							
Strategic	Strategic	Intensive	17%	17%	0%	33%	6	17%	1%	1%	1%	Unusual	Intensive Support
Intensive	Intensive	Intensive	10%	23%	20%	33%	83	21%	16%	17%	9%	More Common	Intensive Support
Intensive	Strategic	Intensive	17%	17%	33%	25%	12	23%	2%	19%	18%	More Common	Intensive Support
Strategic	Intensive	Intensive	9%	34%	31%	31%	32	27%	6%	25%	22%	More Common	Intensive Support
Intensive	Benchmark	Intensive	27%	27%	27%	27%	11	27%	2%	28%	26%	More Common	Intensive Support
Strategic	Intensive	Strategic	42%	58%	67%	58%	12	56%	2%	30%	29%	More Common	Intensive Support
Intensive	Intensive	Strategic	42%	75%	67%	58%	12	60%	2%	32%	31%	More Common	Intensive Support
Strategic	Benchmark	Strategic	31%	31%	31%	23%	13	29%	2%	35%	33%	More Common	Strategic Support
Benchmark	Benchmark	Strategic	33%	33%	33%	33%	3	33%	1%	35%	35%	Unusual	Strategic Support
Intensive	Strategic	Strategic	38%	38%	38%	38%	8	38%	2%	37%	36%	Unusual	Strategic Support
Strategic	Strategic	Strategic	0%	50%	50%	50%	6	38%	1%	38%	37%	Unusual	Strategic Support
Strategic	Benchmark	Intensive	0%	33%	33%	100%	3	42%	1%	38%	38%	Unusual	Strategic Support
Intensive	Benchmark	Strategic	43%	43%	43%	43%	7	43%	1%	40%	39%	Unusual	Strategic Support
Benchmark	Intensive	Intensive	42%	58%	27%	58%	12	46%	2%	42%	41%	More Common	Strategic Support
Benchmark	Benchmark	Intensive	0%	50%	50%	100%	2	50%	0%	42%	42%	Extremely Rare	Strategic Support
Intensive	Strategic	Benchmark	71%	57%	57%	64%	14	63%	3%	45%	44%	More Common	Strategic Support
Benchmark	Intensive	Strategic	44%	78%	67%	67%	9	64%	2%	47%	46%	Unusual	Strategic Support
Strategic	Intensive	Benchmark	75%	55%	65%	75%	20	68%	4%	51%	49%	More Common	Strategic Support
Strategic	Strategic	Benchmark	82%	65%	71%	71%	17	72%	3%	54%	52%	More Common	Strategic Support
Benchmark	Strategic	Intensive	0%	100%	100%	100%	1	75%	0%	54%	54%	Extremely Rare	Strategic Support
Intensive	Intensive	Benchmark	88%	63%	81%	88%	16	80%	3%	57%	56%	More Common	Strategic Support
Benchmark	Strategic	Strategic	100%	100%	100%	100%	1	100%	0%	57%	57%	Extremely Rare	Strategic Support
Intensive	Benchmark	Benchmark	70%	70%	70%	80%	10	73%	2%	59%	58%	Unusual	Benchmark
Strategic	Benchmark	Benchmark	75%	79%	71%	71%	24	74%	5%	64%	62%	More Common	Benchmark
Benchmark	Intensive	Benchmark	73%	80%	87%	83%	30	81%	6%	70%	67%	More Common	Benchmark
Benchmark	Benchmark	Benchmark	89%	80%	87%	87%	119	86%	23%	92%	81%	More Common	Benchmark
Benchmark	Strategic	Benchmark	88%	85%	90%	90%	40	88%	8%	100%	96%	More Common	Benchmark

Total Cases: 523

Appendix 2a

Beginning of First, Within-Year Data

	Percent Meeting Later Goals												1-2 Total Cases	1-2 Avg Pct Meet'g Goals	1-2 Avg Pct Meet'g Goals	Ave %	% in Row	Cum %	Pctile	Incidence	
	Beg 1 LNF	Beg 1 PSF	Beg 1 NWF	Mid 1 NWF	Mid 1 ORF	End 1 ORF	Mid 1 NWF	Mid 1 ORF	End 1 ORF	Beg 2 ORF	Mid 2 ORF	End 2 ORF									1 Total Cases	1 Avg Pct Meet'g Goals
Intensive	Benchmark	Intensive	20%	17%	28%	0%	0%	0%	0%	0%	0%	0%	43	2	21%	0%	11%	3%	3%	1%	More Common
Intensive	Strategic	Intensive	11%	15%	28%	18%	6%	29%	19%	41%	48%	48%	72	21	18%	27%	22%	4%	7%	5%	More Common
Intensive	Intensive	Intensive	14%	16%	30%	8%	15%	25%	22%	40%	40%	40%	437	107	20%	25%	22%	26%	33%	20%	More Common
Strategic	Intensive	Intensive	38%	46%	50%	30%	30%	59%	51%	65%	67%	67%	113	39	45%	50%	47%	7%	40%	37%	More Common
Intensive	Benchmark	Strategic	20%	40%	61%	0%	10%	20%	10%	30%	30%	30%	18	10	40%	17%	29%	1%	41%	41%	Unusual
Intensive	Strategic	Strategic	18%	35%	53%	50%	50%	50%	50%	0%	0%	0%	19	2	35%	33%	34%	1%	42%	42%	Unusual
Strategic	Strategic	Intensive	31%	33%	41%	40%	30%	30%	30%	40%	40%	40%	41	10	35%	35%	35%	2%	45%	44%	More Common
Strategic	Benchmark	Strategic	60%	54%	51%	0%	0%	40%	0%	40%	20%	20%	37	5	55%	17%	36%	2%	47%	46%	More Common
Strategic	Benchmark	Intensive	42%	21%	48%	40%	40%	75%	25%	20%	38%	38%	21	8	37%	40%	38%	1%	48%	48%	Unusual
Benchmark	Benchmark	Strategic	53%	53%	53%	17%	33%	33%	50%	67%	33%	33%	15	6	53%	39%	46%	1%	49%	49%	Unusual
Strategic	Strategic	Strategic	66%	46%	66%	36%	36%	50%	33%	36%	33%	33%	38	12	59%	38%	48%	2%	52%	50%	More Common
Benchmark	Benchmark	Intensive	42%	50%	58%								12	0	50%		50%	1%	52%	52%	Unusual
Intensive	Intensive	Strategic	56%	56%	50%	43%	50%	60%	47%	64%	40%	40%	40	15	54%	51%	52%	2%	55%	54%	More Common
Intensive	Strategic	Benchmark	48%	57%	54%	38%	50%	63%	63%	63%	38%	38%	24	8	53%	52%	52%	1%	56%	56%	Unusual
Strategic	Intensive	Strategic	61%	66%	67%	29%	29%	67%	42%	67%	58%	58%	43	24	65%	49%	57%	3%	59%	58%	More Common
Benchmark	Strategic	Intensive	50%	67%	67%								6	0	61%		61%	0%	59%	59%	Extremely Rare
Benchmark	Intensive	Intensive	53%	44%	61%	60%	60%	90%	80%	80%	70%	70%	18	10	53%	73%	63%	1%	60%	60%	Unusual
Benchmark	Intensive	Strategic	78%	60%	60%	33%	50%	100%	67%	100%	83%	83%	10	6	66%	72%	69%	1%	61%	61%	Unusual
Strategic	Strategic	Benchmark	79%	85%	87%	53%	65%	61%	50%	59%	61%	61%	63	18	84%	58%	71%	4%	65%	63%	More Common
Intensive	Intensive	Benchmark	78%	81%	76%	67%	78%	67%	78%	67%	44%	44%	29	9	78%	67%	73%	2%	66%	66%	Unusual
Strategic	Intensive	Benchmark	69%	83%	89%	67%	63%	67%	60%	73%	67%	67%	63	30	80%	66%	73%	4%	70%	68%	More Common
Benchmark	Strategic	Strategic	50%	63%	75%	100%	100%	100%	100%	100%	100%	100%	8	2	63%	100%	81%	0%	71%	70%	Extremely Rare
Intensive	Benchmark	Benchmark	58%	76%	67%	30%	60%	67%	58%	70%	67%	67%	33	12	67%	59%	63%	2%	73%	72%	Unusual
Strategic	Benchmark	Benchmark	71%	70%	74%	69%	54%	68%	58%	85%	73%	73%	82	40	72%	68%	70%	5%	78%	75%	More Common
Benchmark	Intensive	Benchmark	84%	89%	92%	73%	95%	96%	70%	86%	74%	74%	87	23	88%	82%	85%	5%	83%	80%	More Common
Benchmark	Benchmark	Benchmark	84%	92%	91%	90%	85%	88%	78%	88%	87%	87%	204	82	89%	86%	87%	12%	95%	89%	More Common
Benchmark	Strategic	Benchmark	95%	96%	95%	80%	87%	93%	80%	87%	80%	80%	78	15	95%	84%	90%	5%	100%	98%	More Common

Total Cases: 1654 516

Appendix 2a, cont.

Beginning of First, First-to-Second Cross-Year Data

Beg 1 LNF	Beg 1 PSF	Beg 1 NWF	% in Row	Cum %	Pctile	Incidence	Overall Probability of Need for Support
Intensive	Benchmark	Intensive	0%	0%	0%	Extremely Rare	Intensive Support
Intensive	Strategic	Intensive	4%	4%	2%	More Common	Intensive Support
Intensive	Intensive	Intensive	21%	25%	15%	More Common	Intensive Support
Strategic	Intensive	Intensive	8%	33%	29%	More Common	Intensive Support
Intensive	Benchmark	Strategic	2%	35%	34%	Unusual	Strategic Support
Intensive	Strategic	Strategic	0%	35%	35%	Extremely Rare	Strategic Support
Strategic	Strategic	Intensive	2%	37%	36%	Unusual	Strategic Support
Strategic	Benchmark	Strategic	1%	38%	38%	Unusual	Strategic Support
Strategic	Benchmark	Intensive	2%	40%	39%	Unusual	Strategic Support
Benchmark	Benchmark	Strategic	1%	41%	40%	Unusual	Strategic Support
Strategic	Strategic	Strategic	2%	43%	42%	More Common	Strategic Support
Benchmark	Benchmark	Intensive	0%	43%	43%	Extremely Rare	Strategic Support
Intensive	Intensive	Strategic	3%	46%	44%	More Common	Strategic Support
Intensive	Strategic	Benchmark	2%	47%	47%	Unusual	Strategic Support
Strategic	Intensive	Strategic	5%	52%	50%	More Common	Strategic Support
Benchmark	Strategic	Intensive	0%	52%	52%	Extremely Rare	Strategic Support
Benchmark	Intensive	Intensive	2%	54%	53%	Unusual	Strategic Support
Benchmark	Intensive	Strategic	1%	55%	55%	Unusual	Strategic Support
Strategic	Strategic	Benchmark	3%	59%	57%	More Common	Strategic Support
Intensive	Intensive	Benchmark	2%	60%	60%	Unusual	Strategic Support
Strategic	Intensive	Benchmark	6%	66%	63%	More Common	Strategic Support
Benchmark	Strategic	Strategic	0%	67%	66%	Extremely Rare	Strategic Support
Intensive	Benchmark	Benchmark	2%	69%	68%	More Common	Benchmark
Strategic	Benchmark	Benchmark	8%	77%	73%	More Common	Benchmark
Benchmark	Intensive	Benchmark	4%	81%	79%	More Common	Benchmark
Benchmark	Benchmark	Benchmark	16%	97%	89%	More Common	Benchmark
Benchmark	Strategic	Benchmark	3%	100%	99%	More Common	Benchmark

Appendix 2b

Middle of First, Within-Year Data

	Percent Meeting Later Goals												Total Cases	Total Cases	Avg Pct Meeting Goals	Avg Pct Meeting Goals	Overall Average	% in Row	Cum %	Pctile	Incidence	
	End 1		Mid 1		Mid 2		End 2		Total Cases	Total Cases	Avg Pct Meeting Goals	Avg Pct Meeting Goals										
	ORF	ORF	ORF	ORF	ORF	ORF	ORF	ORF														
Mid 1 PSF																						
Strategic	3%	4%	12%	23%	8%	26	60	3%	12%	7%	4%	4%	2%	More Common								
Intensive	11%	8%	4%	12%	14%	218	218	11%	10%	10%	14%	18%	11%	More Common								
Benchmark	7%	8%	16%	24%	24%	60	60	7%	18%	12%	4%	22%	20%	More Common								
Strategic	25%	0%	0%	0%	0%	4	4	25%	0%	13%	0%	22%	22%	Extremely Rare								
Benchmark	27%	0%	0%	0%	0%	11	11	27%	0%	14%	1%	23%	22%	Unusual								
Benchmark	15%	5%	24%	38%	29%	61	61	15%	24%	19%	4%	26%	25%	More Common								
Strategic	25%	6%	6%	38%	25%	40	40	25%	19%	22%	3%	29%	28%	More Common								
Intensive	21%	19%	25%	50%	50%	61	61	21%	36%	29%	4%	33%	31%	More Common								
Benchmark	30%	0%	0%	0%	50%	10	4	30%	13%	21%	1%	34%	33%	Unusual								
Strategic	40%	0%	0%	50%	100%	5	2	40%	38%	39%	0%	34%	34%	Extremely Rare								
Benchmark	42%	44%	32%	48%	32%	62	25	42%	39%	40%	4%	38%	36%	More Common								
Benchmark	34%	33%	33%	60%	67%	29	15	34%	48%	41%	2%	40%	39%	Unusual								
Benchmark	83%	0%	0%	0%	0%	6	1	83%	0%	42%	0%	40%	40%	Extremely Rare								
Strategic	55%	43%	29%	43%	57%	33	7	55%	43%	49%	2%	42%	41%	More Common								
Intensive	45%	60%	60%	60%	50%	11	10	45%	58%	51%	1%	43%	43%	Unusual								
Strategic	40%	74%	53%	68%	63%	47	19	40%	64%	52%	3%	46%	44%	More Common								
Intensive	53%	63%	50%	75%	63%	17	8	53%	63%	58%	1%	47%	46%	Unusual								
Intensive	43%	100%	50%	100%	50%	7	2	43%	75%	59%	0%	47%	47%	Extremely Rare								
Strategic	62%	71%	71%	57%	43%	13	7	62%	61%	61%	1%	48%	48%	Unusual								
Intensive	89%	89%	33%	78%	67%	9	9	89%	67%	78%	1%	49%	49%	Unusual								
Benchmark	78%	89%	89%	100%	67%	46	9	78%	86%	82%	3%	52%	50%	More Common								
Intensive	81%	86%	86%	93%	71%	32	14	81%	84%	83%	2%	54%	53%	More Common								
Strategic	90%	92%	67%	83%	67%	31	12	90%	77%	84%	2%	56%	55%	Unusual								
Strategic	100%	100%	100%	100%	100%	4	1	100%	100%	100%	0%	56%	56%	Extremely Rare								
Benchmark	93%	97%	85%	95%	88%	381	110	93%	91%	92%	24%	80%	68%	More Common								
Strategic	98%	96%	87%	93%	87%	176	46	98%	91%	95%	11%	92%	86%	More Common								
Intensive	95%	100%	87%	100%	95%	130	38	95%	95%	95%	8%	100%	96%	More Common								
												Total Cases:	1564	495								

Appendix 2b, cont.

Middle of First, First-to-Second Cross-Year Data

Mid 1 PSF	Mid 1 NWF	Mid 1 ORF	% in Row	Cum %	Pctile	Incidence	Overall Probability of Need for Support
Strategic	Intensive	Intensive	5%	5%	3%	More Common	Intensive Support
Intensive	Intensive	Intensive	10%	15%	10%	More Common	Intensive Support
Benchmark	Intensive	Intensive	5%	20%	18%	More Common	Intensive Support
Benchmark	Intensive	Strategic	0%	21%	20%	Extremely Rare	Intensive Support
Benchmark	Intensive	Strategic	0%	21%	21%	Extremely Rare	Intensive Support
Benchmark	Strategic	Intensive	4%	25%	23%	More Common	Intensive Support
Strategic	Strategic	Intensive	3%	28%	27%	More Common	Intensive Support
Intensive	Strategic	Intensive	3%	32%	30%	More Common	Intensive Support
Benchmark	Benchmark	Intensive	1%	32%	32%	Unusual	Strategic Support
Strategic	Benchmark	Intensive	0%	33%	33%	Extremely Rare	Strategic Support
Benchmark	Strategic	Strategic	5%	38%	35%	More Common	Strategic Support
Benchmark	Benchmark	Strategic	3%	41%	39%	More Common	Strategic Support
Benchmark	Intensive	Benchmark	0%	41%	41%	Extremely Rare	Strategic Support
Strategic	Strategic	Strategic	1%	42%	42%	Unusual	Strategic Support
Intensive	Intensive	Strategic	2%	44%	43%	More Common	Strategic Support
Intensive	Strategic	Strategic	4%	48%	46%	More Common	Strategic Support
Intensive	Benchmark	Strategic	2%	50%	49%	Unusual	Strategic Support
Intensive	Benchmark	Intensive	0%	50%	50%	Extremely Rare	Strategic Support
Strategic	Benchmark	Strategic	1%	52%	51%	Unusual	Strategic Support
Intensive	Intensive	Benchmark	2%	54%	53%	Unusual	Strategic Support
Benchmark	Strategic	Benchmark	2%	55%	54%	Unusual	Strategic Support
Intensive	Strategic	Benchmark	3%	58%	57%	More Common	Strategic Support
Strategic	Strategic	Benchmark	2%	61%	59%	More Common	Strategic Support
Strategic	Intensive	Benchmark	0%	61%	61%	Extremely Rare	Strategic Support
Benchmark	Benchmark	Benchmark	22%	83%	72%	More Common	Benchmark
Strategic	Benchmark	Benchmark	9%	92%	88%	More Common	Benchmark
Intensive	Benchmark	Benchmark	8%	100%	96%	More Common	Benchmark

Appendix 2c

End of First, First-to-Second Cross-Year Data

End 1 PSF	End 1 NWF	End 1 ORF	Percent Meeting Later Goals			Total Cases	Avg Pct Meet'g Goals	% in Row	Cum %	Pctile	Incidence	Overall Probability of Need for Support
			Beg 2 ORF	Mid 2 ORF	End 2 ORF							
Intensive	Strategic	Intensive	0%	0%	0%	1	0%	0%	0%	0%	Extremely Rare	Intensive Support
Strategic	Strategic	Intensive	0%	0%	0%	2	0%	1%	0%	0%	Extremely Rare	Intensive Support
Benchmark	Intensive	Intensive	3%	6%	3%	31	4%	7%	4%	4%	More Common	Intensive Support
Strategic	Intensive	Intensive	0%	10%	5%	21	5%	11%	9%	9%	More Common	Intensive Support
Intensive	Intensive	Intensive	13%	13%	9%	32	11%	17%	14%	14%	More Common	Intensive Support
Benchmark	Strategic	Intensive	11%	22%	22%	9	19%	18%	18%	18%	Unusual	Intensive Support
Benchmark	Intensive	Strategic	15%	31%	15%	13	21%	21%	20%	20%	More Common	Intensive Support
Strategic	Intensive	Strategic	22%	33%	11%	9	22%	23%	22%	22%	Unusual	Intensive Support
Intensive	Intensive	Strategic	17%	33%	17%	6	22%	24%	23%	23%	Unusual	Intensive Support
Strategic	Strategic	Strategic	0%	29%	14%	7	14%	25%	24%	24%	Unusual	Strategic Support
Benchmark	Strategic	Strategic	0%	29%	33%	24	21%	30%	27%	27%	More Common	Strategic Support
Intensive	Strategic	Benchmark	0%	100%	0%	1	33%	30%	30%	30%	Extremely Rare	Strategic Support
Benchmark	Benchmark	Strategic	13%	48%	50%	38	37%	37%	34%	34%	More Common	Strategic Support
Strategic	Benchmark	Strategic	43%	29%	43%	7	38%	39%	38%	38%	Unusual	Strategic Support
Intensive	Benchmark	Strategic	0%	50%	67%	6	39%	40%	39%	39%	Unusual	Strategic Support
Intensive	Strategic	Strategic	50%	67%	33%	6	50%	41%	40%	40%	Unusual	Strategic Support
Benchmark	Intensive	Benchmark	80%	60%	40%	5	60%	42%	41%	41%	Unusual	Strategic Support
Benchmark	Benchmark	Intensive	100%	100%	0%	1	67%	42%	42%	42%	Extremely Rare	Strategic Support
Strategic	Intensive	Benchmark	50%	100%	63%	8	71%	44%	43%	43%	Unusual	Strategic Support
Strategic	Strategic	Benchmark	86%	86%	86%	7	86%	45%	44%	44%	Unusual	Strategic Support
Benchmark	Strategic	Benchmark	80%	100%	80%	15	87%	48%	46%	46%	More Common	Strategic Support
Intensive	Intensive	Benchmark	80%	100%	100%	5	93%	49%	48%	48%	Unusual	Strategic Support
Strategic	Benchmark	Benchmark	68%	86%	84%	37	79%	56%	52%	52%	More Common	Benchmark
Intensive	Benchmark	Benchmark	74%	94%	89%	35	86%	63%	59%	59%	More Common	Benchmark
Benchmark	Benchmark	Benchmark	80%	93%	87%	195	86%	100%	81%	81%	More Common	Benchmark

Total Cases: 521

Appendix 3a

Beginning of Second, Within-Year Data

Beg 2 NWF	Beg 2 ORF	Percent Meeting Later Goals												Total Cases	Total Cases	Avg Pct Meet'g Goals	Avg Pct Meet'g Goals	Overall Average	% in Row	Cum %	Pctile	Incidence				
		Mid 2		End 2		Mid 3		End 3		Total Cases	Avg Pct Meet'g Goals	Avg Pct Meet'g Goals	Overall Average										% in Row	Cum %	Pctile	Incidence
		ORF	ORF	ORF	ORF	ORF	ORF	ORF	ORF																	
Intensive	Intensive	8%	8%	3%	5%	10%	3%	353	40	8%	6%	7%	30%	30%	15%	More Common										
Strategic	Intensive	14%	32%	13%	0%	13%	13%	50	8	23%	10%	17%	4%	35%	33%	More Common										
Benchmark	Intensive	28%	29%	0%	0%	33%	0%	38	3	28%	7%	17%	3%	38%	36%	More Common										
Strategic	Strategic	49%	42%	0%	33%	33%	50%	69	6	46%	27%	36%	6%	44%	41%	More Common										
Benchmark	Strategic	56%	40%	36%	21%	29%	29%	97	14	48%	30%	39%	8%	52%	48%	More Common										
Intensive	Strategic	57%	40%	36%	45%	55%	36%	58	11	48%	44%	46%	5%	57%	55%	More Common										
Intensive	Benchmark	92%	73%	86%	57%	86%	57%	64	7	83%	71%	77%	6%	63%	60%	More Common										
Strategic	Benchmark	85%	70%	83%	83%	83%	67%	47	6	77%	83%	80%	4%	67%	65%	More Common										
Benchmark	Benchmark	96%	88%	95%	89%	93%	88%	383	57	92%	91%	91%	33%	100%	83%	More Common										

Appendix 3a, cont.

Beginning of Second, Second-to-Third Cross-Year Data

Beg 2 NWF	Beg 2 ORF	% in Row	Cum %	Pctile	Incidence	Overall Probability of Need for Support
Intensive	Intensive	26%	26%	13%	More Common	Intensive Support
Strategic	Intensive	5%	32%	29%	More Common	Intensive Support
Benchmark	Intensive	2%	34%	33%	Unusual	Intensive Support
Strategic	Strategic	4%	38%	36%	More Common	Strategic Support
Benchmark	Strategic	9%	47%	42%	More Common	Strategic Support
Intensive	Strategic	7%	54%	50%	More Common	Strategic Support
Intensive	Benchmark	5%	59%	56%	More Common	Strategic Support
Strategic	Benchmark	4%	63%	61%	More Common	Benchmark
Benchmark	Benchmark	38%	100%	81%	More Common	Benchmark

Appendix 3b

Middle of Second, Within-Year Data

Mid 2 ORF	Percent Meeting Later Goals						Total Cases	Total Cases	Avg Pct Meet'g Goals	Avg Pct Meet'g Goals	% in Row	Cum %	Pctile	Incidence	
	End 2 ORF	End 2 ORF	Beg 3 ORF	Mid 3 ORF	End 3 ORF	End 3 ORF									
Intensive	3%	0%	0%	2%	0%	345	48	3%	1%	2%	29%	29%	14%	More Common	
Strategic	19%	12%	28%	32%	24%	174	25	19%	24%	21%	15%	43%	36%	More Common	
Benchmark	81%	89%	81%	91%	81%	680	80	81%	86%	83%	57%	100%	72%	More Common	
							Total Cases:	1199							153

Appendix 3b, cont.

Middle of Second, Second-to-Third Cross-Year Data

Mid 2 ORF	% in Row	Cum %	Pctile	Incidence
Intensive	31%	31%	16%	More Common
Strategic	16%	48%	40%	More Common
Benchmark	52%	100%	74%	More Common

Appendix 3c

End of Second, Second-to-Third Cross-Year Data

End 2 ORF	Percent Meeting Later Goals				Total Cases	Avg Pct Meet'g Goals	% in Row	Cum %	Pctile	Incidence	Instructional Recommendations	
	Beg 3 ORF	Mid 3 ORF	End 3 ORF	End 3 ORF								
Intensive	0%	6%	2%	2%	48	3%	31%	31%	16%	More Common	Intensive	
Strategic	23%	29%	23%	23%	31	25%	52%	20%	42%	More Common	Strategic	
Benchmark	88%	95%	85%	85%	74	89%	100%	48%	76%	More Common	Benchmark	
					Total Cases:							153

Appendix 4a

Beginning of Third, Within-Year Data

Beg 3 ORF	Percent Meeting Later Goals		Total Cases	Avg Pct Meetg Goals	% in Row	Cum %	Pctile	Incidence	Instructional Recommendations
	Mid 3 ORF	End 3 ORF							
Intensive	8%	8%	223	8%	50%	50%	25%	More Common	Intensive
Strategic	42%	35%	52	38%	12%	62%	56%	More Common	Strategic
Benchmark	95%	86%	171	90%	38%	100%	81%	More Common	Benchmark
			Total Cases:	446					

Appendix 4b

Middle of Third, Within-Year Data

Mid 3 ORF	Percent Meeting Later Goals		Total Cases	Avg Pct Meetg Goals	% in Row	Cum %	Pctile	Incidence
	End 3 ORF	Total Cases						
Intensive	0%	167	0%	37%	37%	19%	More Common	
Strategic	15%	78	15%	17%	55%	46%	More Common	
Benchmark	85%	201	85%	45%	100%	77%	More Common	
			Total Cases:	446				