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Variation in *i-Ready* Growth: Is Typical Growth Enough for Students Who Have Fallen Behind?

Reading and Mathematics
Research Brief, August 2023

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Summary

Building on previous work from Rome and Daisher (2023), this study explored corresponding trends in *i-Ready Diagnostic* growth and placement data for students well below grade level and in critical grade cohorts for skill development. It was of particular interest to explore placement levels after two years of Typical Growth to determine if this is sufficient to accelerate students back to grade-level learning. Results indicate Typical Growth is not adequate to accelerate students to grade-level learning for those who begin the school year Two or More Grade Levels behind in reading or mathematics. In the critical grade cohorts, we see, at most, 31% of students reaching grade level after consecutive years of Typical Growth (with most grades demonstrating proportionally far fewer students). Though Typical Growth was inadequate for most students well below grade level to reach grade-level placement, cases in which this did occur highlight a promising practice. Striving toward Stretch Growth® targets, even if not consistently reached, may still help students embark on a path to grade-level proficiency.

Introduction

The COVID-19 pandemic had a profound impact on students' reading and mathematics achievement. The sudden shift to remote or hybrid learning models disrupted the traditional classroom experience, resulting in unfinished learning for many students. Declines in students' reading and mathematics skills led to concerns about long-term academic repercussions. Mitigating the impact of the pandemic on students' achievement requires ongoing, reliable assessments of students' growth to understand and address the learning gaps and provide opportunities for recovery.

Education leaders face numerous challenges when it comes to improving reading and mathematics achievement for students who have fallen behind. A comprehensive assessment of each student's unique strengths and needs, tied to criterion-referenced data on student performance and growth is an essential starting point. Furthermore, it is important to understand the gap between students' current achievement and their grade-level expectations in reading and mathematics. Growth goals based on a valid assessment of the size of this gap, as well as the content of students' unfinished learning, can help put students on a path to grade-level proficiency.

The *i-Ready Diagnostic*, an online Grades K–12 assessment of reading and mathematics, assigns a Typical Growth and Stretch Growth target to each student based on their beginning-of-year assessment. Typical Growth represents the average yearly growth for a student of that grade and initial placement level, while Stretch Growth represents an ambitious but attainable growth target beyond average growth for that student. An *i-Ready* study by Rome and Daisher (2022) provided validity evidence of this approach by examining attainment of Stretch Growth, and how meeting this growth goal in consecutive years changes proficiency status in Reading and Mathematics Diagnostic data.

This paper is one of a multipart series examining variation in *i-Ready* growth over two school years. In this report, we examined the number and percentage of students who achieved grade-level placement after two school years and corresponding trends in yearly growth on the *i-Ready Diagnostic*. In line with previous work by Dawson (2022), the findings in this report demonstrate that Typical Growth is not adequate to accelerate students who begin the school year two or more grade levels behind in Mathematics or Reading. Our findings also highlight the promising practice of striving toward Stretch Growth targets, even if not consistently reached, and how this can help students embark on a path to grade-level proficiency.

Research Methodology

Research Questions

This study addresses the following research questions:

1. For students who begin the year Two or More Grade Levels Below, what does their ending placement level distribution look like for varying growth patterns in two consecutive years? Specifically, what does the ending placement level distribution look like for students who achieve two years of Typical Growth?

2. For students in critical grades for developing prerequisite mathematics and reading skills for later grades, what does their ending placement level distribution look like for varying growth patterns in two consecutive years, regardless of starting placement level?

Sample

This study used data from more than 2.4 million students who completed the *i-Ready Diagnostic* for Reading and more than 3 million students who completed the *i-Ready Diagnostic* for Mathematics. To qualify for inclusion in the study, each student completed a Diagnostic during the fall and spring testing windows of the 2021–2022 and 2022–2023 school years (i.e., between August 1 and November 15 for fall and between March 2 and June 15 for spring). We focused on students who were in Grades K–7 during the 2021–2022 school year and then advanced to Grades 1–8 during the 2022–2023 school year. Students were included if they attended a school with at least five student observations per grade level and if they had completed at least one *i-Ready* online lesson between their fall and spring Diagnostics. Though this report does not utilize the online instruction data, we included the requirement for comparability of findings with the following reports in this series. Students were excluded from the sample if they received a red Rush flag on any Diagnostic, indicating they had proceeded too quickly through the Diagnostic to receive a valid assessment of current achievement. The *i-Ready Diagnostic* for Mathematics has an assessment in Spanish. For this study, only students who completed the *i-Ready Diagnostic* for Mathematics in English were included. Sample size by grade level is provided in Table 1. In the Appendix, Tables A1, A2, and A3 provide student and school-level information on race/ethnicity, locale, and median family income.

Table 1: Number and Percentage of Students in Sample by Grade Level

Grade Level	Reading		Mathematics	
	n	%	n	%
K–1	264,427	11%	327,606	11%
1–2	359,641	14%	438,269	14%
2–3	402,441	16%	481,596	16%
3–4	415,775	17%	497,529	16%
4–5	396,015	16%	480,336	16%
5–6	260,638	10%	325,677	11%
6–7	208,472	8%	258,533	9%
7–8	179,540	7%	218,757	7%
Total	2,486,949		3,028,303	

i-Ready Growth Measures

i-Ready classifies students into criterion-referenced placement levels based on their Diagnostic scale score. Students who place below or above their chronological grade level are classified into a placement grade level (i.e., Levels K–8), while students who place on grade level are assigned a placement of Early, Mid, or Late On Grade Level. For the purpose of assigning growth targets, students' fall Diagnostic placements are categorized into five relative placement levels: Mid or

Above Grade Level, Early On Grade Level, One Grade Level Below, Two Grade Levels Below, or Three or More Grade Levels Below. Students' Typical Growth and Stretch Growth targets are determined by the subject, chronological grade, and fall Diagnostic relative placement level.

i-Ready's Stretch Growth measures are designed to put students on a path toward proficiency. For students who begin the year below grade level, Stretch Growth targets are designed to put students on a path to Mid or Above Grade Level (i.e., proficiency) in one year, two years, or more than two years, depending on the subject, grade, and fall relative placement level. *i-Ready* Typical Growth is the median growth for students at a given grade and fall placement level. It can be used to understand how much a student has grown relative to the average student starting at the same placement level. Stretch Growth targets were determined based on observations of growth of a national sample of students who started at each placement level and achieved grade-level proficiency over time. Stretch Growth measures represent well-above-average growth, but do not exceed the 80th percentile of growth for students in any given placement.

In this study, students were designated as Met Stretch Growth if their observed growth was greater than or equal to their Stretch Growth target. Students who did not meet Stretch Growth but met or exceeded their Typical Growth target are designated as Met Typical Growth. Students who met neither target are designated as Met Neither Growth.

Analyses

Within each grade level, we divided students into three groups based on their initial placement level in fall 2021 or Year 1 (i.e., Y1): Early On Grade Level or Above, One Grade Level Below, or Two or More Grade Levels Below. We further divided each of these three initial placement-level groups into three groups based on the growth target achieved in Year 1 and Year 2 of the study: Met Stretch Growth, Met Typical Growth, and Met Neither Growth. For each initial placement level by growth group, we examined the frequency distribution of Diagnostic placement levels at the end of the second year of the study (i.e., spring 2023 or Y2), as a function of the growth targets achieved in Y1 and Y2. In spring, we used the same three placement-level categories as were used for fall.

Results

Reading

Growth Patterns and Placement Level for Students Two or More Grades Below. Table 2 shows, across Grades 1–8, the percentage of students who began Y1 at Two or More Grade Levels Below in Reading and completed Y2 at Early On Grade Level or Above, based on their patterns of growth in Y1 and Y2. Across all grade cohorts, the percentage of students ending Y2 on grade level was at least three times larger in the group who met Stretch Growth two years in a row than the group who met Typical Growth two years in a row (with a slight exception for Grades 2–3 cohort). In some cohorts, this difference was much greater. Specifically, in the Grades 4–5 cohort, there was only 1% of students who met Typical Growth two years in a row and placed Early On Grade Level or Above at the end of Grade 5 compared to 49% of students who met Stretch Growth year over year. Almost no students across all cohorts finished Y2 at Early On Grade Level or Above in Reading if they met neither growth

target two years in a row. For results by all placements levels and consecutive years of Met Typical Growth, Met Stretch Growth, or Met Neither Growth, see the Appendix for Tables A4–A6.

Interestingly, though there were large differences between students who met Stretch Growth consecutively and Typical Growth consecutively, these differences were much smaller when compared to the group who met Typical Growth and then Stretch Growth. Meeting Stretch Growth in the second year may still be very beneficial for students, as the proportion of students reaching grade level was at least twice as large in the group achieving Typical Growth and then Stretch Growth compared to two years of Typical Growth.

Table 2: Percentage of Students Who Began Two or More Grade Levels Below in Reading and Placed Early, On, or Above Grade Level in Y2 by Growth Achieved in Consecutive Years

Year 1 Fall Placement Level in Reading Is Two or More Grade Levels Below								
Growth Achieved: Year 1 Year 2	Year 2 Spring Placement Level in Reading Is Early On Grade Level or Above							
	GK to G1	G1 to G2	G2 to G3	G3 to G4	G4 to G5	G5 to G6	G6 to G7	G7 to G8
Neither Neither	N/A	0%	1%	0%	0%	0%	0%	1%
Typical Neither	N/A	3%	9%	1%	0%	2%	3%	3%
Neither Typical	N/A	1%	7%	1%	0%	1%	3%	6%
Typical Typical	N/A	7%	31%	4%	1%	5%	10%	15%
Stretch Neither	N/A	33%	30%	9%	4%	6%	8%	10%
Neither Stretch	N/A	25%	53%	17%	11%	18%	22%	27%
Stretch Typical	N/A	40%	52%	18%	8%	15%	22%	28%
Typical Stretch	N/A	56%	78%	34%	25%	38%	45%	49%
Stretch Stretch	N/A	83%	89%	60%	49%	54%	60%	58%

Growth Patterns and Placement Level for Students in Critical Grades. Table 3 displays the spring 2023 placement level distributions in Reading for students in Grades 2–3. We chose to highlight this cohort for several reasons. Grade 3 reading is considered a critical timepoint in elementary education. Multiple studies demonstrate that students who do not read on grade level by Grade 3 experience a host of academic and life course challenges (Annie E. Casey Foundation, 2013). In fact, Grade 3 reading is so important, some states have mandated that students cannot be promoted to the next grade until they demonstrate proficient reading in Grade 3 (Workman, 2014).

Table 3: Percentage of Grades 2–3 Students Achieving **Reading** Placement Level by Beginning Placement Level and Growth Achieved in Consecutive Years

Fall Placement Level Grade 2	Growth Achieved: Grade 2 Grade 3	N	Spring Placement Level in Grade 3		
			Early On Grade Level or Above	One Grade Level Below	Two or More Grade Levels Below
Early On Grade Level or Above	Neither Neither	12,074	95%	4%	1%
	Typical Neither	5,331	98%	2%	0%
	Neither Typical	6,990	99%	1%	0%
	Typical Typical	3,290	100%	0%	0%
	Stretch Neither	13,967	99%	0%	0%
	Neither Stretch	15,359	100%	0%	0%
	Stretch Typical	5,985	100%	0%	0%
	Typical Stretch	7,559	100%	0%	0%
	Stretch Stretch	24,938	100%	0%	0%
One Grade Level Below	Neither Neither	24,801	47%	36%	17%
	Typical Neither	14,192	64%	30%	5%
	Neither Typical	19,864	68%	26%	6%
	Typical Typical	11,291	84%	15%	1%
	Stretch Neither	23,777	77%	20%	3%
	Neither Stretch	19,021	94%	6%	0%
	Stretch Typical	19,155	92%	8%	0%
	Typical Stretch	13,523	98%	2%	0%
	Stretch Stretch	30,015	99%	1%	0%
Two or More Grade Levels Below	Neither Neither	31,346	1%	10%	89%
	Typical Neither	17,912	9%	37%	54%
	Neither Typical	23,168	7%	36%	57%
	Typical Typical	16,900	31%	43%	26%
	Stretch Neither	7,261	30%	36%	33%
	Neither Stretch	10,041	53%	36%	11%
	Stretch Typical	6,647	52%	31%	16%
	Typical Stretch	11,471	78%	18%	4%
	Stretch Stretch	6,563	89%	10%	2%

In fall 2021, 33% of Grade 2 students ($n = 131,309$) began the school year Two or More Grade Levels Below. For the students in this group who met their Stretch Growth targets two years in a row, a full 89% ended the school year at Early On Grade Level or Above. These findings show that Stretch Growth provides a path to grade-level learning for a large majority of students who begin Grade 2 more than one grade level behind in reading. Of the students in this group who met Typical Growth targets two years in a row, only 31% placed on grade level at the end of Grade 3 and a full quarter of those students remained Two or More Grade Levels Below at the end of Grade 3. That is, the

percentage of students ending Y2 Early On Grade Level or Above was nearly three times greater in the group that met Stretch Growth as opposed to Typical Growth two years in a row. Despite the much smaller proportion of students reaching grade-level placement after two years of Typical Growth, 31% of students still improved two placement levels after year-over-year Typical Growth. When examining this specific sample of students, we see, on average, students achieve 82% of their Stretch Growth target, suggesting coming close to—even if not quite reaching—Stretch Growth targets may be enough to get students to grade-level placements.

Mathematics

Growth Patterns and Placement Level for Students Two or More Grade Levels Below. Table 4 illustrates, across Grades 1–8, the percentage of students who began Y1 at Two or More Grade Levels Below in Mathematics and completed Y2 at Early On Grade Level or Above, based on their patterns of growth in Y1 and Y2. (Grades K–1 is excluded as it is not possible to place Two or More Grade Levels Below as a Grade K student). Across all grade cohorts, the percentage of students ending Y2 on grade level was at least three times larger in the group who met Stretch Growth year over year than the group who met Typical Growth year over year. These proportional differences were pronounced in the Grades 6–7 and 7–8 cohorts, due to the very few (3% and 2%, respectively) students reaching grade-level placement after two years of Typical Growth. Almost no students across all grades finished at Early On Grade Level or Above if they met neither growth goal two years in a row. For results by all placements levels and consecutive years of Met Typical Growth, Met Stretch Growth, or Met Neither Growth, see the Appendix for Tables A7–A9.

Though we again see large discrepancies between groups who meet Stretch Growth versus Typical Growth consecutively, the data may indicate meeting Stretch Growth for at least one year is still advantageous for students who meet Typical Growth in the other school year—especially for students who were in Grades 1–4 in Y1. For these younger students, 31%–65% of students completed Y2 at Early On Grade Level or Above if they met Stretch Growth in one year and Typical Growth in the other year.

Table 4: Percentage of Students Who Began Two or More Grade Levels Below in Mathematics and Placed Early, On, or Above Grade Level in Y2 by Growth Achieved in Consecutive Years

Year 1 Fall Placement Level in Mathematics Is Two or More Grade Levels Below								
Growth Achieved: Year 1 Year 2	Year 2 Spring Placement Level in Mathematics Is Early On Grade Level or Above							
	GK to G1	G1 to G2	G2 to G3	G3 to G4	G4 to G5	G5 to G6	G6 to G7	G7 to G8
Neither Neither	N/A	0%	1%	1%	0%	0%	0%	0%
Typical Neither	N/A	1%	5%	6%	3%	1%	0%	0%
Neither Typical	N/A	1%	3%	6%	4%	1%	1%	0%
Typical Typical	N/A	8%	14%	22%	15%	6%	3%	2%

Stretch Neither	N/A	13%	17%	22%	13%	8%	5%	3%
Neither Stretch	N/A	17%	37%	32%	30%	21%	16%	19%
Stretch Typical	N/A	32%	31%	46%	36%	23%	16%	11%
Typical Stretch	N/A	44%	65%	64%	56%	42%	27%	28%
Stretch Stretch	N/A	71%	76%	82%	75%	61%	49%	48%

Growth Patterns and Placement Level for Students in Critical Grades. Table 5 displays the spring 2023 placement level distributions in Mathematics for students in Grades 4–5. We chose to spotlight Grades 4–5 in this report for several reasons. A major focus of Grade 4 standards includes fractions and division, on which students are expected to be proficient by the end of Grade 5. Students are also expected to demonstrate fluency in whole number reasoning by the end of Grade 5 (National Mathematics Advisory Panel, 2008). These skills are necessary to develop as they are key predictors of algebra success in high school, which in turn, is a key predictor of college and career readiness (Siegler et al., 2012).

Table 5: Percentage of Grades 4–5 Students Achieving Mathematics Placement Level by Beginning Placement Level and Growth Achieved in Consecutive Years

Fall Placement Level Grade 4	Growth Achieved: Grade 4 Grade 5	N	Spring Placement Level in Grade 5		
			Early On Grade Level or Above	One Grade Level Below	Two or More Grade Levels Below
Early On Grade Level or Above	Neither Neither	12,101	89%	11%	1%
	Typical Neither	5,202	98%	2%	0%
	Neither Typical	11,459	99%	1%	0%
	Typical Typical	5,300	100%	0%	0%
	Stretch Neither	8,338	99%	1%	0%
	Neither Stretch	12,913	100%	0%	0%
	Stretch Typical	7,890	100%	0%	0%
	Typical Stretch	7,409	100%	0%	0%
	Stretch Stretch	17,355	100%	0%	0%
One Grade Level Below	Neither Neither	41,945	29%	59%	12%
	Typical Neither	26,304	52%	45%	3%
	Neither Typical	31,747	62%	37%	1%
	Typical Typical	22,496	85%	15%	0%
	Stretch Neither	19,837	70%	28%	1%
	Neither Stretch	18,703	93%	7%	0%
	Stretch Typical	18,717	94%	6%	0%
	Typical Stretch	15,986	98%	1%	0%
	Stretch Stretch	17,186	100%	0%	0%

Two or More Grade Levels Below	Neither Neither	44,051	0%	21%	79%
	Typical Neither	3,611	3%	42%	55%
	Neither Typical	26,579	4%	50%	46%
	Typical Typical	24,389	15%	60%	25%
	Stretch Neither	14,307	13%	49%	38%
	Neither Stretch	8,740	30%	40%	30%
	Stretch Typical	10,113	36%	48%	16%
	Typical Stretch	9,332	56%	31%	13%
	Stretch Stretch	5,826	75%	17%	8%

In fall 2021, 37% of Grade 4 students ($n = 179,448$) began the school year Two or More Grade Levels Below. For the students in this group who met their Stretch Growth targets two years in a row, 75% ended the school year at Early On Grade Level or Above. These findings demonstrate that students who begin Grade 4 more than one grade level behind in Mathematics have a path to achieving grade-level understanding. At the same time, of the students in this group who met Typical Growth targets two years in a row, only 15% placed on grade level at the end of Grade 5. That is, the percentage of students who obtained grade-level placement was five times greater in the group who achieved Stretch Growth as opposed to Typical Growth year over year. Though we anticipate few students reaching grade-level understanding with only Typical Growth, we see encouraging trends in those groups who begin Two or More Grade Levels Below demonstrate consecutive years of Typical Growth, and reach grade-level placement at the end of Y2. Among these students, in Mathematics, we see students achieving an average of 81% of their Stretch Growth targets, indicating if even not met, striving toward Stretch Growth targets is a promising practice for remedying gaps in learning and approaching grade-level content.

Conclusion

This study examined corresponding trends in varying growth patterns on the *i-Ready Diagnostic* for two consecutive years and students' placement level at the end of two school years for students Two or More Grade Levels Below and in critical grades for skills development. We used data from more than 2.4 million students. Our analyses found that across elementary and middle school, a substantial percentage of students who are struggling with reading or mathematics can reach grade level if they meet, or even approach, Stretch Growth targets two years in a row. Average growth, however, may not be adequate to accelerate students who begin the school year two or more grade levels behind. The majority of students who begin the school year more than one grade level below and achieve only Typical Growth, will likely remain below grade level at the end of two school years. Proportionally, across all grades and subjects, more students ended Y2 on grade level if they achieved Stretch Growth targets as opposed to Typical Growth targets two years in a row. Striving for Stretch Growth targets, even if not quite attained, can still be a viable path toward grade-level proficiency. When examining the spotlight cohorts (who began Two or More Grade Levels Below), students who made grade-level placement and achieved only Typical Growth for two consecutive years, attained an average of 81% and 82% of their Stretch Growth goals year over year (for Mathematics and Reading, respectively), suggesting that even approaching Stretch Growth targets may be enough to scale students to grade level. It is worth noting though, more than 90% of

this subsample started only two grades below grade level (as opposed to three or more) and only made it to early on grade level (as opposed to on or above grade level).

Across both subjects, we did see varying trends by grade level. Overall, younger students beginning Y1 Two or More Grade Levels Below had a larger proportion of students achieve grade-level placement after two years of Stretch Growth than older students with the comparable starting placement level and growth. This trend appeared to be more pronounced in mathematics. When highlighting specific grade transitions, we saw the impact achieving Stretch Growth can have during these critical time periods of student learning. In both subjects, we saw approximately three times (or greater) the proportion of students reach grade-level placement (when beginning Two or More Grade Levels Below) after year-over-year Stretch Growth compared to Typical Growth.

Students who are struggling in reading and mathematics will continue to fall behind their grade-level expectations if they make only average academic growth annually. Conversely, students who can achieve or even approach ambitious, yet attainable Stretch Growth goals see a greater chance of attaining grade-level proficiency. Education leaders and teachers should consider the implications of this research finding when planning instructional strategies and interventions. The finding suggests that students who are already behind in reading and mathematics are likely to remain behind unless they make accelerated progress. Results underscore the importance of finding effective, feasible strategies for educators to help students achieve ambitious growth, regardless of their starting point.

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Appendix

Table A1: Student-Level Sample Characteristics: Race/Ethnicity

Race/Ethnicity	Mathematics		Reading	
	N	Percentage of Students	N	Percentage of Students
White	932,184	31%	728,280	29%
Hispanic	666,491	22%	590,486	24%
Black	342,410	11%	310,141	12%
Asian	109,601	4%	101,078	4%
Hawaiian/Pacific Islander	15,708	1%	13,724	1%
American Indian/Alaskan	12,831	0%	9,473	0%
Two or More	94,438	3%	82,378	3%
Other	1,569	0%	1,506	0%
Unknown	849,071	28%	649,883	26%
Total	3,028,303		2,486,949	

Table A2: School-Level Sample Characteristics: Locale

Locale	Mathematics		Reading	
	N	Percentage of Schools	N	Percentage of Schools
City	4,521	28%	3,932	28%
Rural	3,337	21%	2,756	20%
Suburban	5,436	34%	4,881	35%
Town	1,686	10%	1,323	10%
Unknown	1,124	7%	977	7%
Total	16,104		13,869	

Table A3: School-Level Sample Characteristics: Median Family Income

Median Income	Mathematics		Reading	
	N	Percentage of Schools	N	Percentage of Schools
Less Than \$50K	4,458	28%	3,969	29%
\$50K to \$75K	6,145	38%	5,228	38%
More Than \$75K	4,377	27%	3,695	27%
Unknown	1,124	7%	977	7%
Total	16,104		13,869	

Table A4: Ending Placement Distribution for Students Who Met Stretch Growth in Both Years by Starting Placement—Reading

Grade Cohort	Starting Placement Level*	N	Ending Placement Level*		
			Early On Grade Level or Above	One Grade Level Below	Two or More Grade Levels Below
K → 1	Early On Grade Level or Above	9,437	100%	0%	0%
	One Grade Level Below	25,672	98%	2%	0%
	Two or More Grade Levels Below	NA	NA	NA	NA
1 → 2	Early On Grade Level or Above	17,565	100%	0%	0%
	One Grade Level Below	34,397	97%	3%	0%
	Two or More Grade Levels Below	1,962	83%	17%	0%
2 → 3	Early On Grade Level or Above	24,938	100%	0%	0%
	One Grade Level Below	30,015	99%	1%	0%
	Two or More Grade Levels Below	6,563	89%	10%	2%
3 → 4	Early On Grade Level or Above	33,646	100%	0%	0%
	One Grade Level Below	14,834	90%	10%	0%
	Two or More Grade Levels Below	10,021	60%	37%	3%
4 → 5	Early On Grade Level or Above	19,848	100%	0%	0%
	One Grade Level Below	19,487	92%	8%	0%
	Two or More Grade Levels Below	6,905	49%	35%	15%
5 → 6	Early On Grade Level or Above	9,564	100%	0%	0%
	One Grade Level Below	8,468	96%	4%	0%
	Two or More Grade Levels Below	5,759	54%	26%	19%
6 → 7	Early On Grade Level or Above	7,179	100%	0%	0%
	One Grade Level Below	4,725	99%	1%	0%
	Two or More Grade Levels Below	4,972	60%	16%	24%
7 → 8	Early On Grade Level or Above	6,312	100%	0%	0%

One Grade Level Below	2,898	98%	1%	0%
Two or More Grade Levels Below	4,209	58%	15%	27%

*Starting placement is fall 2021 placement and ending placement is spring 2023 placement.

Table A5: Ending Placement Distribution for Students Who Met Stretch Growth in Both Years by Starting Placement—Mathematics

Grade Cohort	Starting Placement Level*	N	Ending Placement Level*		
			Early On Grade Level or Above	One Grade Level Below	Two or More Grade Levels Below
K → 1	Early On Grade Level or Above	5,071	100%	0%	0%
	One Grade Level Below	39,123	84%	16%	0%
	Two or More Grade Levels Below	NA	NA	NA	NA
1 → 2	Early On Grade Level or Above	2,144	100%	0%	0%
	One Grade Level Below	29,156	94%	6%	0%
	Two or More Grade Levels Below	4,567	71%	27%	2%
2 → 3	Early On Grade Level or Above	4,184	100%	0%	0%
	One Grade Level Below	21,242	98%	2%	0%
	Two or More Grade Levels Below	8,239	76%	22%	2%
3 → 4	Early On Grade Level or Above	12,107	100%	0%	0%
	One Grade Level Below	22,455	100%	0%	0%
	Two or More Grade Levels Below	7,806	82%	15%	3%
4 → 5	Early On Grade Level or Above	17,355	100%	0%	0%
	One Grade Level Below	17,186	100%	0%	0%
	Two or More Grade Levels Below	5,826	75%	17%	8%
5 → 6	Early On Grade Level or Above	13,555	100%	0%	0%
	One Grade Level Below	10,843	97%	3%	0%
	Two or More Grade Levels Below	4,653	61%	28%	12%

6 → 7	Early On Grade Level or Above	11,109	100%	0%	0%
	One Grade Level Below	7,676	94%	6%	0%
	Two or More Grade Levels Below	5,222	49%	37%	14%
7 → 8	Early On Grade Level or Above	6,435	100%	0%	0%
	One Grade Level Below	7,011	95%	5%	0%
	Two or More Grade Levels Below	5,722	48%	34%	18%

*Starting placement is fall 2021 placement and ending placement is spring 2023 placement.

Table A6: Ending Placement Distribution for Students Who Met Typical Growth in Both Years by Starting Placement—Reading

Grade Cohort	Starting Placement Level*	N	Ending Placement Level*		
			Early On Grade Level or Above	One Grade Level Below	Two or More Grade Levels Below
K → 1	Early On Grade Level or Above	3,756	99%	1%	0%
	One Grade Level Below	12,948	74%	26%	0%
	Two or More Grade Levels Below	NA	NA	NA	NA
1 → 2	Early On Grade Level or Above	1,451	100%	0%	0%
	One Grade Level Below	16,834	61%	39%	1%
	Two or More Grade Levels Below	4,321	7%	82%	11%
2 → 3	Early On Grade Level or Above	3,290	100%	0%	0%
	One Grade Level Below	11,291	84%	15%	1%
	Two or More Grade Levels Below	16,900	31%	43%	26%
3 → 4	Early On Grade Level or Above	8,084	92%	8%	0%
	One Grade Level Below	5,686	40%	60%	0%
	Two or More Grade Levels Below	19,977	4%	71%	25%
4 → 5	Early On Grade Level or Above	5,068	98%	2%	0%
	One Grade Level Below	11,995	42%	53%	5%

	Two or More Grade Levels Below	16,441	1%	34%	64%
5 → 6	Early On Grade Level or Above	4,420	97%	3%	0%
	One Grade Level Below	5,309	54%	42%	4%
	Two or More Grade Levels Below	15,088	5%	38%	58%
6 → 7	Early On Grade Level or Above	4,151	98%	2%	0%
	One Grade Level Below	3,605	64%	32%	4%
	Two or More Grade Levels Below	12,119	9%	34%	56%
7 → 8	Early On Grade Level or Above	4,401	98%	2%	0%
	One Grade Level Below	3,793	65%	32%	4%
	Two or More Grade Levels Below	12,439	10%	35%	55%

*Starting placement is fall 2021 placement and ending placement is spring 2023 placement.

Table A7: Ending Placement Distribution for Students Who Met Typical Growth in Both Years by Starting Placement—Mathematics

Grade Cohort	Starting Placement Level*	N	Ending Placement Level*		
			Early On Grade Level or Above	One Grade Level Below	Two or More Grade Levels Below
K → 1	Early On Grade Level or Above	5,163	99%	1%	0%
	One Grade Level Below	9,015	54%	46%	0%
	Two or More Grade Levels Below	NA	NA	NA	NA
1 → 2	Early On Grade Level or Above	4,804	100%	0%	0%
	One Grade Level Below	20,445	68%	32%	0%
	Two or More Grade Levels Below	6,789	7%	82%	11%
2 → 3	Early On Grade Level or Above	4,473	100%	0%	0%
	One Grade Level Below	20,816	78%	22%	0%
	Two or More Grade Levels Below	18,771	14%	77%	9%

3 → 4	Early On Grade Level or Above	2,768	100%	0%	0%
	One Grade Level Below	19,442	89%	11%	0%
	Two or More Grade Levels Below	24,548	22%	61%	17%
4 → 5	Early On Grade Level or Above	5,300	100%	0%	0%
	One Grade Level Below	22,496	85%	15%	0%
	Two or More Grade Levels Below	24,389	15%	60%	25%
5 → 6	Early On Grade Level or Above	4,873	100%	0%	0%
	One Grade Level Below	13,911	72%	27%	1%
	Two or More Grade Levels Below	16,098	6%	54%	40%
6 → 7	Early On Grade Level or Above	3,936	99%	1%	0%
	One Grade Level Below	7,659	61%	38%	1%
	Two or More Grade Levels Below	12,216	3%	41%	56%
7 → 8	Early On Grade Level or Above	2,956	99%	1%	0%
	One Grade Level Below	6,374	52%	46%	2%
	Two or More Grade Levels Below	10,816	2%	37%	61%

*Starting placement is fall 2021 placement and ending placement is spring 2023 placement.

Table A8: Ending Placement Distribution for Students Who Met Neither Growth Target in Both Years by Starting Placement—Reading

Grade Cohort	Starting Placement Level*	N	Ending Placement Level*		
			Early On Grade Level or Above	One Grade Level Below	Two or More Grade Levels Below
K → 1	Early On Grade Level or Above	13,500	65%	34%	1%
	One Grade Level Below	40,515	12%	81%	7%
	Two or More Grade Levels Below	NA	NA	NA	NA
1 → 2	Early On Grade Level or Above	7,308	94%	5%	1%
	One Grade Level Below	50,694	21%	55%	24%

	Two or More Grade Levels Below	9,609	0%	14%	86%
2 → 3	Early On Grade Level or Above	12,074	95%	4%	1%
	One Grade Level Below	24,801	47%	36%	17%
	Two or More Grade Levels Below	31,346	0%	10%	89%
3 → 4	Early On Grade Level or Above	23,900	64%	35%	1%
	One Grade Level Below	12,981	7%	80%	13%
	Two or More Grade Levels Below	31,204	0%	22%	78%
4 → 5	Early On Grade Level or Above	18,025	73%	24%	3%
	One Grade Level Below	26,154	11%	47%	42%
	Two or More Grade Levels Below	24,247	0%	3%	97%
5 → 6	Early On Grade Level or Above	11,234	69%	24%	6%
	One Grade Level Below	13,383	14%	46%	41%
	Two or More Grade Levels Below	23,847	0%	6%	94%
6 → 7	Early On Grade Level or Above	9,442	68%	22%	10%
	One Grade Level Below	9,471	16%	37%	47%
	Two or More Grade Levels Below	20,774	0%	5%	94%
7 → 8	Early On Grade Level or Above	9,983	69%	22%	9%
	One Grade Level Below	9,820	16%	37%	47%
	Two or More Grade Levels Below	21,074	1%	5%	94%

*Starting placement is fall 2021 placement and ending placement is spring 2023 placement.

Table A9: Ending Placement Distribution for Students Who Met Neither Growth Target in Both Years by Starting Placement—Mathematics

Grade Cohort	Starting Placement Level*	N	Ending Placement Level*		
			Early On Grade Level or Above	One Grade Level Below	Two or More Grade Levels Below
K → 1	Early On Grade Level or Above	11,701	74%	25%	1%

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	One Grade Level Below	51,871	20%	71%	9%
	Two or More Grade Levels Below	NA	NA	NA	NA
1 → 2	Early On Grade Level or Above	11,661	92%	8%	1%
	One Grade Level Below	69,735	22%	66%	12%
	Two or More Grade Levels Below	15,605	0%	30%	70%
2 → 3	Early On Grade Level or Above	11,882	93%	7%	0%
	One Grade Level Below	51,971	37%	56%	7%
	Two or More Grade Levels Below	38,518	1%	34%	65%
3 → 4	Early On Grade Level or Above	10,378	94%	6%	0%
	One Grade Level Below	53,135	47%	47%	6%
	Two or More Grade Levels Below	43,052	1%	27%	72%
4 → 5	Early On Grade Level or Above	12,101	89%	11%	1%
	One Grade Level Below	41,945	29%	59%	12%
	Two or More Grade Levels Below	44,051	0%	21%	79%
5 → 6	Early On Grade Level or Above	8,585	81%	17%	2%
	One Grade Level Below	23,840	17%	58%	25%
	Two or More Grade Levels Below	30,744	0%	12%	88%
6 → 7	Early On Grade Level or Above	8,181	65%	31%	4%
	One Grade Level Below	16,958	10%	55%	35%
	Two or More Grade Levels Below	28,811	0%	7%	93%
7 → 8	Early On Grade Level or Above	5,381	63%	32%	5%
	One Grade Level Below	15,027	8%	55%	37%
	Two or More Grade Levels Below	25,730	0%	5%	95%

*Starting placement is fall 2021 placement and ending placement is spring 2023 placement.