# An Evaluation of North Dakota Reading Corps

2021-2022

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# Table of Contents

# Executive Summary

Reading Corps is an AmeriCorps program that provides schools with trained literacy tutors to support reading development for students in Kindergarten through grade 3. Reading Corps tutors are trained to implement evidence-based literacy instruction and assessment protocols. Tutors are supported by a multi-level coaching model that includes site-based and external coaches. Full-time tutors work with approximately 15-18 students for 20 minutes each day. The research-based tutoring interventions are supplemental to the core reading instruction provided at each school. The goal of the tutoring is to raise individual students' literacy levels so that they are on track to meet or exceed the next program-specified literacy benchmark.

The Reading Corps evaluation addresses four broad questions with data collected during the 2021-22 school year.

## 1. What is the scope of the Reading Corps program?

47 Reading Corps tutors served a total of 732 students across 44 schools. The largest racial/ethnic category for participating students was white and 6% of students were English Language Learners.

## 2. To what extent was the Reading Corps program implemented as intended?

Reading Corps coaches observed tutors administering assessments and delivering interventions throughout the school year. These observations allow for coaches to build on the tutor's formal training and to help tutors improve their implementation of the Reading Corps model. The results of the observations show that assessments and interventions were conducted with high levels of mean fidelity (>95% accuracy) and in accordance with their established evidence base.

On average, students received 69 minutes of tutoring per week across 17 weeks. White students tended to receive both more tutoring sessions and more minutes of tutoring per week than non-white students.

## 3. To what extent did participating students improve their literacy skills?

Tutors administer measures of elementary literacy to identify eligible students and track student progress during intervention. The measures assess phonics skills (i.e., knowing sounds and simple word-level phonetic relationships) and reading fluency skills (i.e., how well the student reads connected text).

Weekly progress monitoring scores on these assessments for participating students demonstrated that 75% of students had a weekly growth rate exceeding the target growth, which means these students were closing their individual achievement gap and catching up to their grade level targets. A greater percentage of non-white students

exceeded target growth compared to white students on three of the five grades and measures.

When asked in a survey about the impact of the program on students, 100% of tutor respondents indicated their service in Reading Corps had a positive impact on students and increased students' confidence in reading.

## 4. How did serving as a tutor impact their skills and knowledge related to education and their future career goals?

95% of tutor respondents to an end-of-year survey from the evaluation team indicated Reading Corps had a positive impact on them personally, and 98% of respondents said their service increased their knowledge and skills related to education. Additionally, 30% of respondents answered that they are likely or very likely to pursue a career in education as a result of their service. These results indicate Reading Corps likely contributes to the education career pipeline in the communities where tutors serve.

# Introduction

## Reading Corps Overview

Reading Corps is an AmeriCorps program that provides schools with trained literacy tutors to support reading development for students in Kindergarten through grade 3. Reading Corps tutors are trained to implement evidence-based literacy instruction and assessment protocols.

The Reading Corps model aligns with Response-to-Intervention (RTI) or Multi-Tier System of Supports (MTSS), which are two descriptions of a framework for delivering educational services effectively and efficiently (Burns et al., 2016). The key aspects of that alignment include the following:

- Clear literacy targets at each grade level
- Benchmark assessment three times a year to identify students eligible for individualized interventions
- Evidence-based interventions
- Frequent progress monitoring during intervention delivery
- High-quality training in program procedures, coaching, and observations to support fidelity of implementation

In the RTI, or MTSS framework, data play the key roles of screening student eligibility for additional services and monitoring student progress towards achieving academic goals (i.e., benchmarks). Reading Corps screens students for program eligibility three times a year (i.e., fall, winter, spring) using empirically-derived grade- and content-specific performance benchmarks. Eligible students (defined as students scoring below target scores) are determined potential candidates to receive supplemental Reading Corps support.

Reading Corps is focused on intervention in the "Big Five Ideas in Literacy" as identified by the National Reading Panel, including phonological awareness, phonics, fluency, vocabulary, and comprehension (Snow et al., 1998). The program is particularly strong at developing Word Recognition within the Science of Reading. Tutoring interventions promote development of these skills, and are supplemental to the core reading instruction provided at each school. The goal of the tutoring is to raise



individual students' literacy levels so that they are on track to meet or exceed the next program-specified literacy benchmark.

## Overview of the Evaluation

The Reading Corps evaluation addresses four broad questions. The evaluation report is organized around each of these questions using data that are collected throughout the school year and are recorded by the implementers of Reading Corps. Program administrators collect data about tutors and schools, including survey responses. Tutors collect data about student dosage and literacy outcomes. Coaches collect specific details about tutor implementation of interventions and assessments. These data are used to answer the following questions:

1. What is the scope of the Reading Corps program?
2. To what extent was the Reading Corps program implemented as intended?
3. To what extent did participating students improve their literacy skills?
4. How did serving as a tutor impact their skills and knowledge related to education and their future career goals?

# 1. What is the scope of the Reading Corps program?

## Schools and Tutors

Reading Corps partners with elementary schools and districts to implement the program. Reading Corps program staff and participating elementary schools recruit community members to serve as Reading Corps tutors through AmeriCorps. Tutors commit to serving a set number of hours per week (i.e. full-time AmeriCorps members commit to complete 1,200 hours of service). Tutors receive a living allowance as well as other benefits and are provided coaching by school staff and a program "Coaching Specialist" throughout their service term. Upon completion of their service, members receive a Segal AmeriCorps Education Award that can be used to pay education costs at qualified institutions of higher education, for educational training, or to repay qualified student loans.

Table 1 displays the number of participating schools, Coaching Specialists, and tutors that served during the 2021-22 program year.

## Table 1. Schools, Coaches, and Tutors

| Schools | Coaching Specialists | Tutors* |
|---|---|---|
| 44 | 4 | 47 |

*Defined as having entered tutoring minutes for at least one student in the Reading Corps data management system.

Reading Corps tutors receive training through an online Learning Management System (LMS). The intensive, information-filled courses on the LMS provide foundational training in the research-based literacy interventions employed by Reading Corps. Throughout the courses tutors learn the skills, knowledge, and tools needed to serve as literacy interventionists. Tutors are provided with detailed literacy manuals as well as online resources that mirror and supplement the contents of the manual (e.g., videos of model interventions and best practices). Both the manuals and online resources are intended to provide tutors with just-in-time support and opportunities for continued professional development and skill refinement. Additional training is provided throughout the tutors' year of service.

In addition to extensive training, Reading Corps provides tutors with multiple layers of supervision to ensure integrity of program implementation. Schools identity a staff member to serve as an Internal Coach, who is typically a literacy specialist, teacher, or curriculum director, to serve as immediate on-site supervisor, mentor, and advocate for tutors. The Internal Coach's role is to monitor tutors and provide guidance in the implementation of Reading Corps's assessments and interventions. As the front-line supervisor, the Internal Coach is a critical component of the supervisory structure.

Coaching Specialists, who are either program staff or contracted consultants for Reading Corps, provide both tutors and Internal Coaches with expert support on literacy instruction and

ensure implementation integrity of Reading Corps program elements. In addition to these two coaching layers, a third layer consisting of AmeriCorps program support helps ensure a successful year of AmeriCorps service. Program support staff are Reading Corps employees who provide administrative oversight for program implementation to schools participating in Reading Corps.

The number of tutors serving varies by program year based on a number of factors including tutor recruitment, tutor types (i.e. full-time or part-time tutors), school interest, tutor retention, and available public and private funding. Figure 1 displays the number of tutors who served each year of the program.

## Figure 1. Number of Tutors by Year
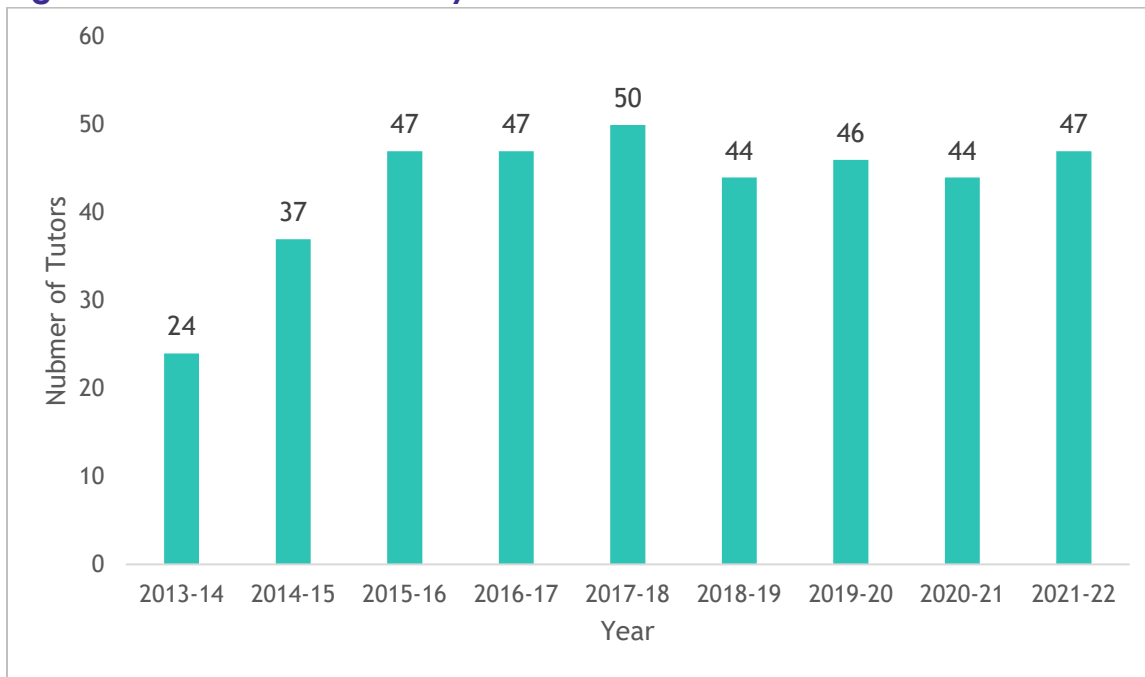


## School Characteristics

Reading Corps strives to serve students and schools that would benefit the most from additional resources, for which the percentage of students at the school who are eligible for the federal free and reduced-price lunch (FRPL) program can be a useful indicator. Students from families with incomes at or below 185 percent of the Federal poverty level are eligible for free or reduced-price meals. Figure 2 shows the distribution of Reading Corps schools based on their school level FRPL percentage. 86% of participating schools have a Free or Reduced-Price Lunch percentage at or below 50%, while 5% of participating schools have a Free or Reduced Price-Lunch rate greater than 75%.

**Figure 2. Distribution of Schools by Student Eligibility for Free or Reduced Price-Lunch Program**
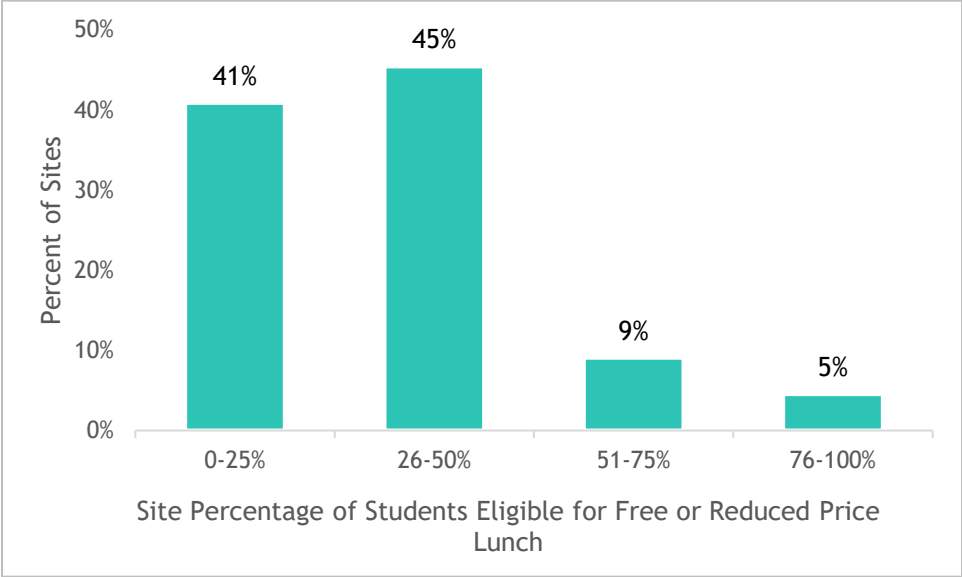


## Students Tutored

Students are identified as good candidates for Reading Corps participation through a two-step process. First, teachers or other school staff recommend students for Reading Corps based on student performance or previous service. Second, tutors administer 1-minute benchmark assessments to recommended students. Students who score below benchmark targets that are linked to future academic success are eligible to receive Reading Corps tutoring (see Appendix A for more information on the benchmark targets).

After identifying eligible students, the tutor works with their Internal Coach to select which students will be served, called the tutor's "caseload". Coaches set the caseload using a number of factors such as the school's schedule and other services available to eligible students.

The number of students on a caseload depends on the tutor's service commitment. If delivering one-on-one interventions, full-time tutors aim to serve 15 or more students at a time while part-time tutors serve 10 students. Some interventions can be delivered to two students at the same time, increasing the number of students served per tutor.

Table 2 displays the number of students served by grade across all schools. Some schools choose to serve more students in certain grades which can lead to an uneven distribution of students served across grades.

### Table 2. Number of Students Tutored

| Grade | Number of Students |
|---|---|
| Kindergarten | 170 |
| First | 207 |
| Second | 220 |
| Third | 135 |
| **Total** | **732** |

The number of students served varies by program year based on many factors including tutor recruitment and retention, the types of tutors serving (i.e. full-time or part-time), whether students are receiving one-on-one or paired intervention, and the frequency of students exiting or graduating from the program. Figure 3 displays the number of students who were tutored each year of the program. Note the number of students served in 2019-20, 2020-21, and 2021-22 were significantly impacted by the COVID-19 pandemic.

## Figure 3. Number of Students Tutored by Year
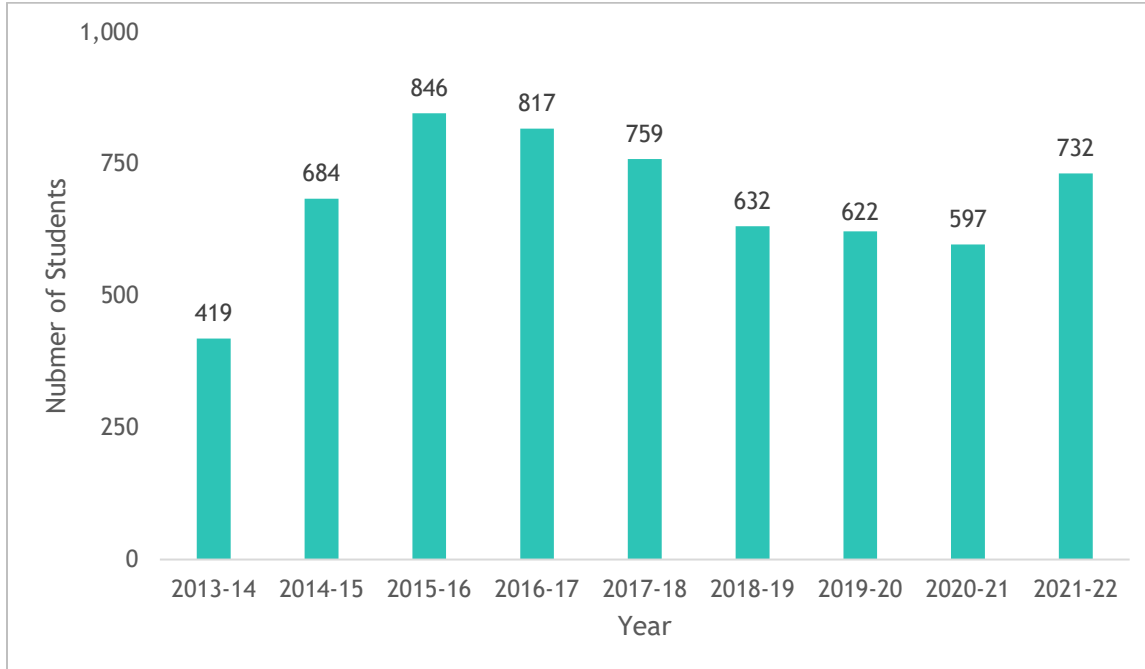


Reading Corps tutors record demographic information of students they tutor, which allows evaluators to disaggregate student outputs and outcomes by important demographics to ensure the program is having an equitable impact. The information is also used in various reports to describe the students participating in the program. Figure 4 shows students who identify as White was the largest racial/ethnic group, and 6% of students were identified as English Learners.

## Figure 4. Student Demographics

| Category | Percentage |
|---|---|
| Female | 51.8% |
| Male | 48.2% |
| White | 73.2% |
| Black or African American | 12.4% |
| American Indian or Alaska Native | 3.6% |
| Multi-Racial | 3.1% |
| Hispanic/Latino | 2.7% |
| Asian | 1.0% |
| Native Hawaiian or Other Pacific Islander | 0.7% |
| Unknown | 3.3% |
| ELL Yes | 6% |
| ELL No | 93% |
| Unknown | 1% |
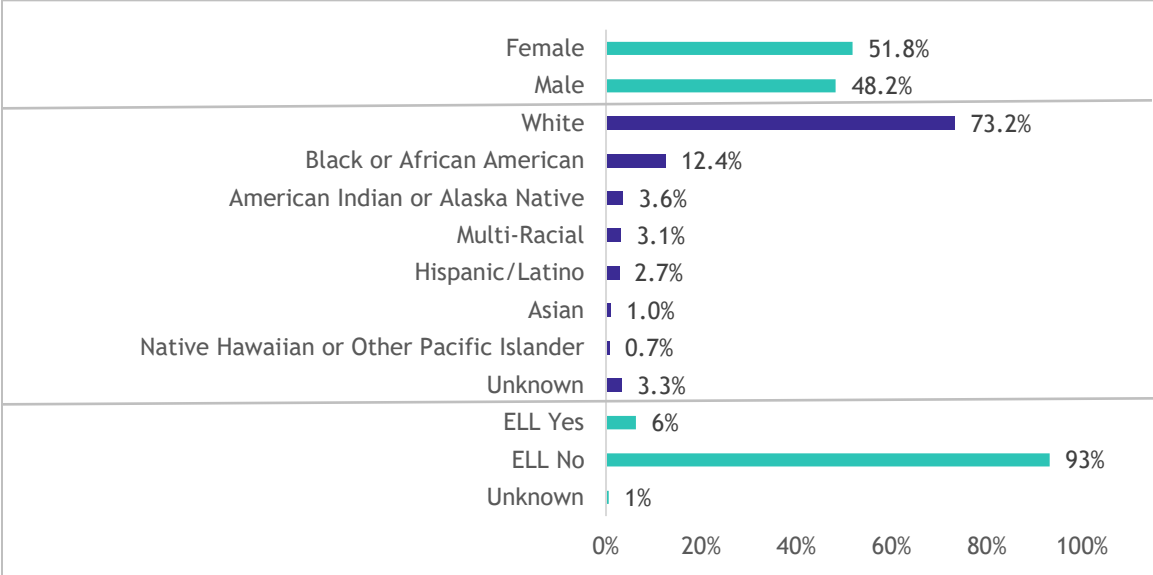
# 2. To what extent was the Reading Corps program implemented as intended?

## Coaching Observations

Ensuring accurate, effective implementation is a core principle of Reading Corps. Both types of coaches—Internal Coaches and Coaching Specialists— provide tutors with expert support on literacy instruction and ensure implementation integrity of Reading Corps program elements through ongoing monitoring and observation.

During coaching sessions Reading Corps Coaching Specialists and Internal Coaches discuss student selection for service, track student progress for data-based decisions, and observe tutors administering assessments and delivering interventions. The observations allow coaches to build on a tutor's formal training and to help tutors improve their implementation of the Reading Corps model.

Coaches are expected to observe tutors administering each assessment throughout the year to ensure seasonal benchmark data are collected accurately. These observations usually occur before each seasonal benchmark window. Coaches are also expected to observe tutors delivering interventions at least once per month to ensure fidelity to each intervention's effective instructional processes. Table 3 displays the percent of Coaching Specialists and Internal Coaches who observed tutors administering assessments and delivering interventions at least one time during the school year. The table also shows the percentage of coaches who met the program's expectation for observations throughout the school year. Both Coaching Specialists and Internal Coaches observed nearly all tutors at least once and provided observations throughout the year to most tutors.

### Table 3. Assessment and Intervention Coaching Observations by Coach Role

| Observation Type | Coaching Specialist | | Internal Coach | |
|---|---|---|---|---|
| | Percent of Tutors Observed at Least Once | Percent of Tutors Observed in Accordance with Expectations* | Percent of Tutors Observed at Least Once | Percent of Tutors Observed in Accordance with Expectations* |
| Assessment | 81.8% | 34.1% | 93.2% | 45.5% |
| Intervention | 97.7% | 47.7% | 95.5% | 75.0% |

*Note: Table includes tutors that served for a minimum of two months.*
*\*Coaches are expected to conduct assessment observations before each benchmark window and intervention observations each month.*

## Tutor Fidelity

During coaching sessions, coaches complete a fidelity checklist for each assessment or intervention they observe Each checklist lists the important steps for accurate completion such as starting the timer immediately when child says the first word or letter during an assessment or the tutor using appropriate pacing during a reading fluency intervention. After completing each assessment or intervention fidelity observation, coaches enter the number of checklist items that the tutor delivered correctly into the online Reading Corps Data Management System. The percent fidelity is then calculated by dividing the number of items delivered correctly by the total number of items.

If tutors do not properly administer an assessment, coaches will provide targeted training and observe the tutor delivering the assessment again. Ongoing observation and coaching continue until the tutor achieves at least 90% accuracy. This process helps to ensure assessment data are properly collected and that the results accurately measure each student's literacy skills. Table 4 displays the total number of fidelity checks completed and the average fidelity from assessment and intervention observations.

### Table 4. Assessment and Intervention Fidelity

| Fidelity Type | Total Checks Collected | Average Fidelity |
|---|---|---|
| Assessment | 775 | 98.2% |
| Intervention | 718 | 95.8% |
| **Total** | **1,493** | **97.0%** |

For each tutor, all observations are combined to calculate their overall assessment and intervention fidelity. A tutor's average fidelity can vary throughout the year, with lower scores being more common at the beginning of the year. Figure 5 shows the distribution of tutors by their average fidelity. Fidelity tends to be very high for most tutors, suggesting training and coaching helps tutors implement key components of the program accurately.

### Figure 5. Distribution of Tutors by Assessment and Intervention Fidelity Range
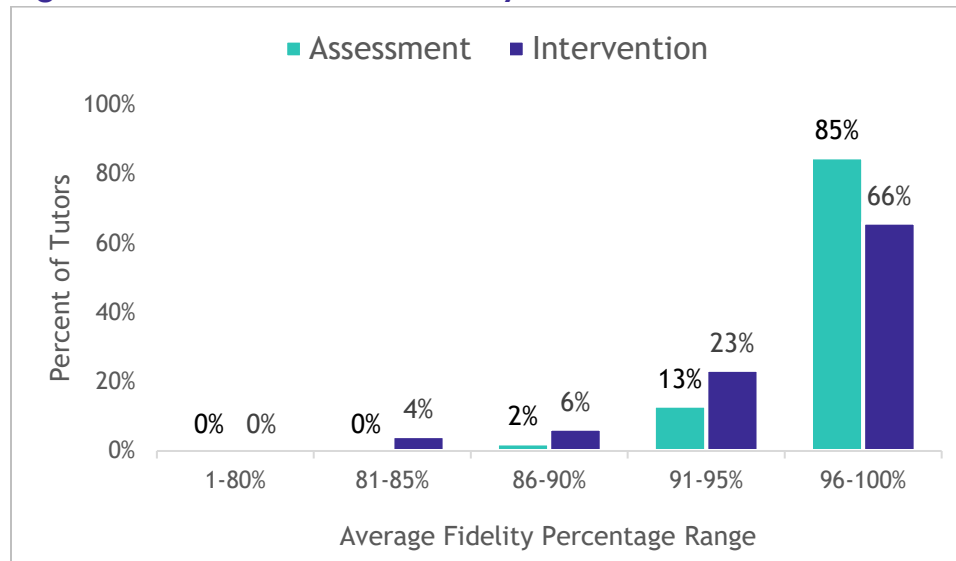
Figures 6 also shows the distribution of tutors by their assessment and intervention average fidelity, but the data are disaggregated between tutors at schools where 50% or fewer students are eligible for the free or reduced-price lunch program and tutors at schools with 51% or more students eligible. Both the assessment and intervention fidelity data are similarly high in both groups of schools, indicating the program is being implemented with fidelity in various contexts.

**Figure 6. Distribution of Tutor Fidelity at Schools with Less Than (left panel) or More Than (right panel) 50% of Students Eligible for Free-Reduced Price Lunch**
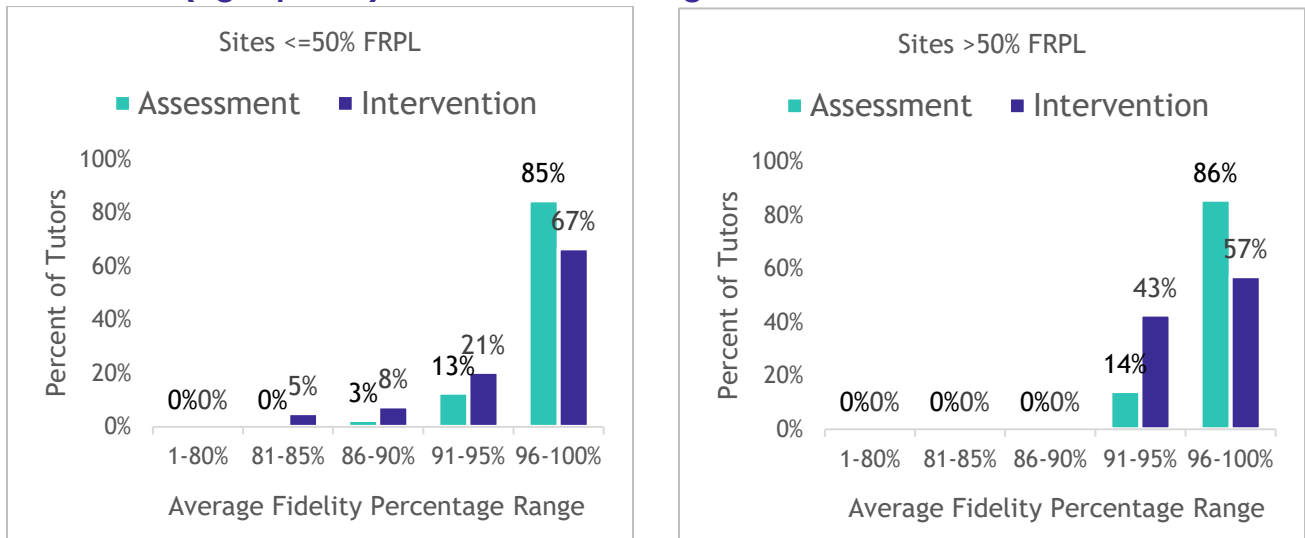


## Tutor Caseloads

Tutors work with their coaches to determine which students they will serve based on student eligibility, teacher recommendations, other services offered at the school, and general school priorities for students to serve.

Table 5 shows the average number of students served per tutor based on their minimum caseload expectation. The last column of the table shows the percentage of tutors who met or exceeded their caseload expectations for at least 80% of the weeks they served in the program. A low percentage of tutors at all caseload levels met their caseload expectation, highlighting a potential opportunity for the program to serve more students by ensuring tutors have full caseloads.

## Table 5. Tutor Caseloads

| Minimum Caseload Expectation | Number of Tutors | Average Total Students Served per Tutor | Percentage of Tutors Meeting Caseload Expectation |
|---|---|---|---|
| 8 students | 3 | 12.7 | 33% |
| 10 students | 38 | 15.2 | 16% |
| 15 students | 6 | 19.0 | 0% |

## Student Dosage

Tutors work with students on their caseload every day for 20 minutes. Most tutoring is completed one-to-one, but a subset of interventions can be delivered in groups of two students. Tutors record each student's daily minutes in the online Reading Corps Data Management System. Table 6 shows the total number of tutoring sessions and the average number of sessions, weeks, and minutes per week students received in each grade. The table also disaggregates the data for white and non-white students. Students received a substantial number of tutoring sessions with over an hour of tutoring each week across multiple months. White students tended to receive both more tutoring sessions and more minutes of tutoring per week.

## Table 6. Tutoring Dosage by Grade and Race

| Student Race | Students Tutored | Total Tutoring Sessions | Average Tutoring Sessions per Student | Average Tutoring Weeks per Student | Average Tutoring Minutes per Week per Student |
|---|---|---|---|---|---|
| **Grade K** | **170** | **7,288** | **42.9** | **12.5** | **66.9** |
| White | 117 | 5,354 | 45.8 | 13.3 | 66.9 |
| Non-White | 48 | 1,735 | 36.1 | 10.6 | 66.9 |
| **Grade 1** | **207** | **13,172** | **63.6** | **17.9** | **69.8** |
| White | 153 | 10,180 | 66.5 | 18.3 | 71.0 |
| Non-White | 44 | 2,428 | 55.2 | 16.1 | 67.3 |
| **Grade 2** | **220** | **15,256** | **69.3** | **19.4** | **69.5** |
| White | 175 | 12,836 | 73.3 | 20.5 | 69.5 |
| Non-White | 39 | 2,243 | 57.5 | 16.0 | 70.2 |
| **Grade 3** | **135** | **8,343** | **61.8** | **17.9** | **67.2** |
| White | 91 | 5,939 | 65.3 | 18.6 | 68.9 |
| Non-White | 41 | 2,164 | 52.8 | 16.0 | 63.5 |
| **Total** | **732** | **44,059** | **60.2** | **17.1** | **68.7** |
| White | 536 | 34,309 | 64.0 | 18.0 | 69.4 |
| Non-White | 172 | 8,570 | 49.8 | 14.5 | 67.0 |

*Note: The subtotals do not equal the totals as they exclude students with an Unknown race/ethnicity in the program database.*

In additional to recording the number of tutoring minutes, tutors also record the reason a scheduled tutoring session was not delivered. Tutors are able to indicate if a session was missed for each of the following reasons: student absence from

school, tutor absence from school, tutor receiving training, tutor administering an assessment to the student instead of delivering an intervention, or other for any reason not provided.

Table 7 displays the percentage of days tutoring sessions were delivered along with the rate of each missed tutoring session reason. The table also disaggregates the data for white and non-white students. Student and tutor absences along with "other" were the most common reasons for missed sessions. White students had a greater percentage of sessions delivered than non-white students, with student absences being the most substantial difference between the two groups.

## Table 7. Tutoring Attendance by Grade and Race

| Student Race | Session Attended | Tutor Absent | Student Absent | Assessing Student | Tutor Training | Other |
|---|---|---|---|---|---|---|
| **Grade K** | **81%** | **7%** | **7%** | **1%** | **1%** | **5%** |
| White | 82% | 7% | 5% | 1% | 1% | 4% |
| Non-White | 78% | 5% | 10% | 1% | 1% | 6% |
| **Grade 1** | **79%** | **8%** | **6%** | **1%** | **1%** | **5%** |
| White | 80% | 7% | 6% | 1% | 1% | 5% |
| Non-White | 75% | 9% | 9% | 0% | 2% | 5% |
| **Grade 2** | **81%** | **7%** | **5%** | **1%** | **1%** | **5%** |
| White | 81% | 7% | 6% | 1% | 1% | 5% |
| Non-White | 81% | 9% | 5% | 0% | 1% | 4% |
| **Grade 3** | **78%** | **7%** | **7%** | **0%** | **1%** | **6%** |
| White | 80% | 7% | 6% | 0% | 1% | 5% |
| Non-White | 74% | 7% | 10% | 0% | 1% | 8% |
| **Total** | **80%** | **7%** | **6%** | **1%** | **1%** | **5%** |
| White | 81% | 7% | 6% | 1% | 1% | 5% |
| Non-White | 77% | 8% | 9% | 0% | 1% | 6% |

Table 8 displays the percentage of days tutoring sessions were delivered along with the rate of each missed tutoring session reason disaggregated by site level Free-Reduced Price Lunch rate. Students at sites with the lowest and highest percentage of students eligible for Free-Reduced Price Lunch had a greater percentage of sessions delivered. Students at sites with 51-75% of students eligible for FRPL tended to have more missed sessions due to tutor absences and sessions missed for "Other" reasons.
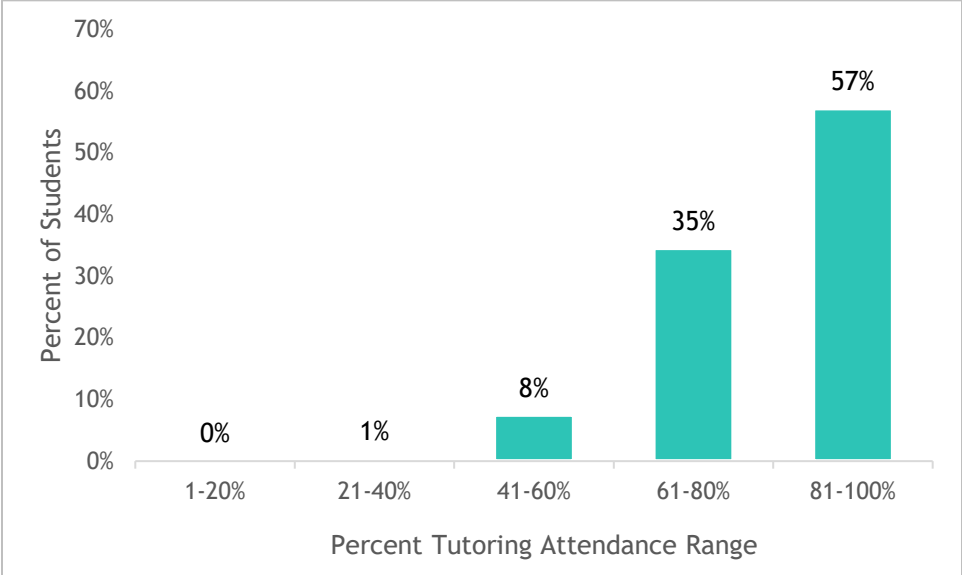
## Table 8. Tutoring Attendance by Grade and Site Free-Reduced Price Lunch

| Site FRPL Percent | Session Attended | Tutor Absent | Student Absent | Assessing Student | Tutor Training | Other |
|---|---|---|---|---|---|---|
| **Grade K** | **81%** | **7%** | **7%** | **1%** | **1%** | **5%** |
| 0-25% | 85% | 4% | 4% | 1% | 0% | 6% |
| 26-50% | 78% | 8% | 9% | 1% | 1% | 4% |
| 51-75% | 69% | 10% | 12% | 0% | 2% | 7% |
| 76-100% | 87% | 5% | 5% | 1% | 0% | 2% |
| **Grade 1** | **79%** | **8%** | **6%** | **1%** | **1%** | **5%** |
| 0-25% | 81% | 7% | 5% | 1% | 1% | 5% |
| 26-50% | 76% | 9% | 9% | 0% | 1% | 5% |
| 51-75% | 75% | 10% | 6% | 0% | 2% | 7% |
| 76-100% | 82% | 7% | 6% | 1% | 0% | 4% |
| **Grade 2** | **81%** | **7%** | **5%** | **1%** | **1%** | **5%** |
| 0-25% | 83% | 5% | 5% | 1% | 1% | 5% |
| 26-50% | 79% | 9% | 6% | 0% | 1% | 5% |
| 51-75% | 74% | 10% | 7% | 1% | 2% | 6% |
| 76-100% | 88% | 6% | 2% | 1% | 0% | 3% |
| **Grade 3** | **78%** | **7%** | **7%** | **0%** | **1%** | **6%** |
| 0-25% | 82% | 5% | 6% | 0% | 1% | 6% |
| 26-50% | 75% | 10% | 9% | 0% | 1% | 5% |
| 51-75% | 72% | 8% | 9% | 1% | 2% | 8% |
| 76-100% | 81% | 3% | 4% | 0% | 0% | 12% |
| **Total** | **80%** | **7%** | **6%** | **1%** | **1%** | **5%** |
| 0-25% | 83% | 6% | 5% | 1% | 1% | 5% |
| 26-50% | 77% | 9% | 8% | 0% | 1% | 5% |
| 51-75% | 73% | 10% | 8% | 0% | 2% | 7% |
| 76-100% | 85% | 5% | 5% | 1% | 0% | 4% |

Reading Corps tracks tutoring attendance for each student throughout the school year using a 'percent tutoring' metric. A student's percent tutoring is equal to the number of tutoring sessions delivered divided by the number of days tutoring was scheduled to happen (i.e. the metric ignores days there is not school). The program also tracks a tutor's percent tutoring by combining all of their individual student's percent tutoring into a tutor average.

The program strives for each student and tutor to achieve at least 80% tutoring. Tutors falling below this target are provided extra support to improve the frequency of tutoring delivery wherever possible. Figure 7 displays the distribution of students by their percent tutoring range. 57% of students received tutoring between 81-100% of their scheduled days, indicating most students met the program goal of receiving at least 80% of scheduled tutoring sessions.

**Figure 7. Distribution of Students by Percent Tutoring Range**



Figure 7. Distribution of Students by Percent Tutoring Range. Bar chart showing Percent of Students on the y-axis (0% to 70%) and Percent Tutoring Attendance Range on the x-axis. Values: 1-20% = 0%, 21-40% = 1%, 41-60% = 8%, 61-80% = 35%, 81-100% = 57%.

# 3. To what extent did participating students improve their literacy skills?

## Measures of Elementary Literacy

Data for literacy outcomes are reported from student performance on measures of early literacy that are designed for students in Kindergarten through grade 3. The measures assess phonics skills (i.e., knowing sounds and simple word-level phonetic relationships) and reading fluency skills (i.e., how well the student reads connected text). The specific measures are listed below (see Appendix B for the research base):

- Test of Letter Sounds
- Test of Nonsense Words (English)
- CBMReading

The measures are administered by Reading Corps tutors at each screening period or "benchmark window" (fall, winter, and spring). Tutors assess students who were previously tutored by Reading Corps and students identified by classroom teachers as potential candidates for tutoring. Benchmark scores are compared to seasonal grade level targets that predict future reading success. Students who score below target are eligible to receive Reading Corps tutoring (see Appendix A for more information).

The literacy assessments are also used to measure the progress of students while they are receiving tutoring. Tutors "progress monitor" each student they are tutoring one time per week and track their progress toward the proficiency targets. Students' weekly scores are used by coaches to determine if students have made enough progress to "exit" the program and no longer receive tutoring.

## Student Performance During Tutoring

A student's weekly progress monitoring score allows the program to measure their growth while receiving tutoring. This growth can be compared to "target growth", the amount of weekly growth a student who is on target in the fall would need to maintain throughout the year to remain on target in the spring. Students who are eligible for Reading Corps need growth rates above target growth if they are going to meet future grade level targets. In other words, these students need to make more than a year's worth of growth if they are going to "catch up" and close their individual achievement gap.

Table 9 displays the number and percentage of students with above target growth for each grade and measure. 75% of all students tutored were catching up to their grade level targets, with Kindergarten and Grade 3 having the highest percentage of students above target growth.

## Table 9. Student Growth

| | Grade K | Grade 1 | Grade 1* | Grade 2 | Grade 3 | Total*** |
|---|---|---|---|---|---|---|
| | **Test of Letter Sounds** | **Test of Nonsense Words (Eng.)** | **CBMReading** | | | |
| Number of Students** | 144 | 160 | 142 | 200 | 121 | 654 |
| Number of Students Above Target Growth | 122 | 94 | 71 | 136 | 97 | 488 |
| Percentage of Students Above Target Growth | 84.7% | 58.8% | 50.0% | 68.0% | 80.2% | 74.6% |

\* Students in this group may have also participated in Grade 1 Test of Nonsense Words (Eng.).
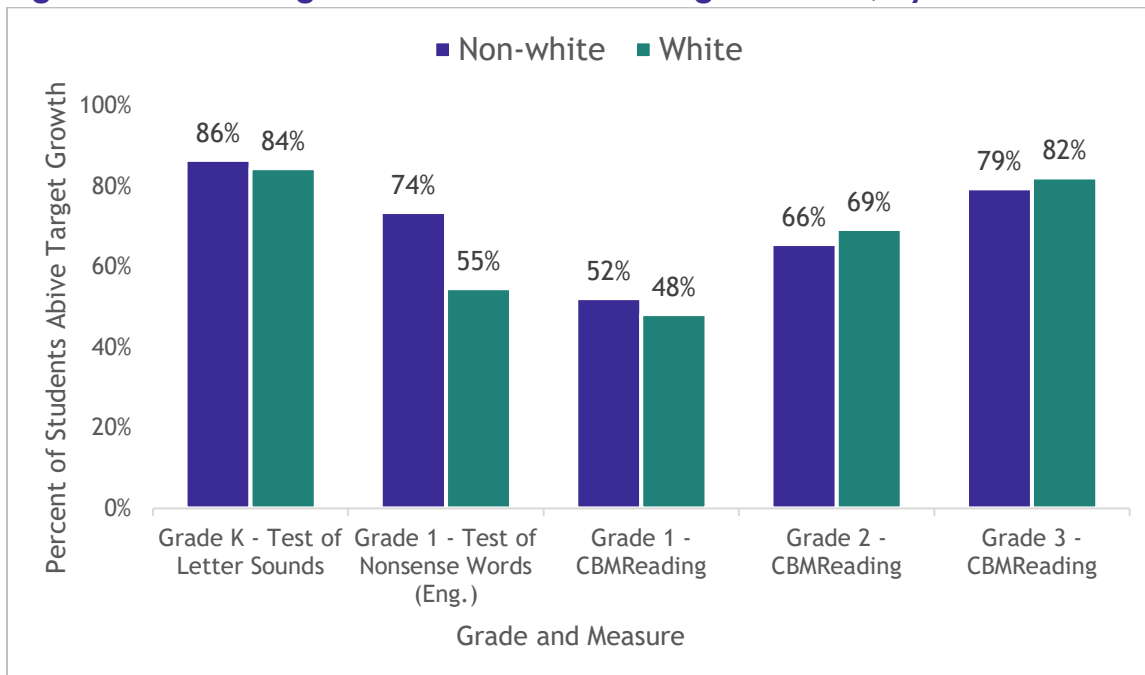
\*\* Students must have at least 6 progress monitoring data points to be included in the growth rate calculations.

\*\*\* Students counted in both the Grade 1 Test of Nonsense Words (Eng). and Grade 1 CBMReading columns are counted in the total number of students one time and in the number of students above target total if they exceeded the target on at least one of the two measures.
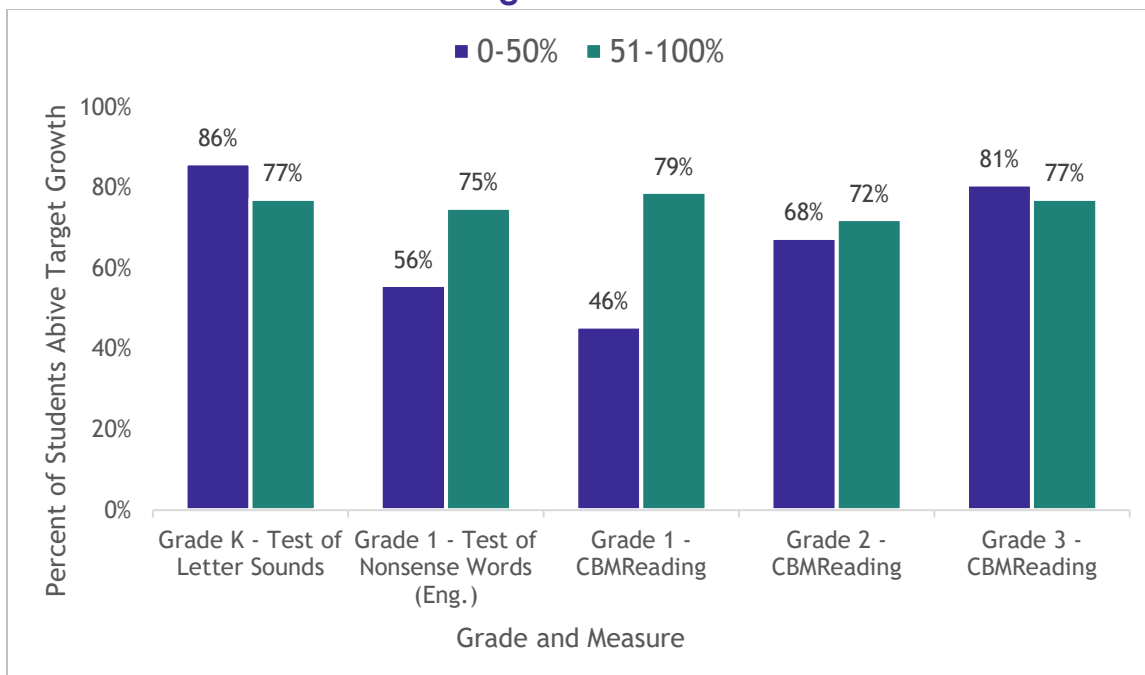
Figure 8 disaggregates the above student outcome data into non-white and white students in order to better understand program impact across key demographic considerations. For three of the five grades and measures, a greater percentage of non-white students exceeded target growth compared to white students. The differences between the two groups ranged from 2 percentage points to 19 percentage points. Similarly, Figure 9 disaggregates student outcome data by the school level percentage of students eligible for the free-reduced price lunch program. Students at schools with a higher percentage of students eligible for the FRPL program had a greater percentage exceeding target growth than students at schools with a lower percentage of students eligible for the FRPL program for three of the five grades and measures. Rigorous comparative research shows that students from various backgrounds make marked improvements during Reading Corps tutoring, as compared to randomly identified peers who do not access the program (Markovitz et al., 2014, 2018, 2018), but Figure 8 and Figure 9 highlight a need to ensure students *across* demographic backgrounds benefit to the greatest possible extent.

**Figure 8. Percentage of Students Above Target Growth, By Race**



Figure 8. Percentage of Students Above Target Growth, By Race. Vertical bar chart comparing Non-white and White students. Y-axis: Percent of Students Above Target Growth (0%–100%). X-axis: Grade and Measure.
- Grade K - Test of Letter Sounds: Non-white 86%, White 84%
- Grade 1 - Test of Nonsense Words (Eng.): Non-white 74%, White 55%
- Grade 1 - CBMReading: Non-white 52%, White 48%
- Grade 2 - CBMReading: Non-white 66%, White 69%
- Grade 3 - CBMReading: Non-white 79%, White 82%

**Figure 9. Percentage of Students Above Target Growth, By School Free-Reduced Price Lunch Percentage**



Figure 9. Percentage of Students Above Target Growth, By School Free-Reduced Price Lunch Percentage. Vertical bar chart comparing 0-50% and 51-100%. Y-axis: Percent of Students Above Target Growth (0%–100%). X-axis: Grade and Measure.
- Grade K - Test of Letter Sounds: 0-50% 86%, 51-100% 77%
- Grade 1 - Test of Nonsense Words (Eng.): 0-50% 56%, 51-100% 75%
- Grade 1 - CBMReading: 0-50% 46%, 51-100% 79%
- Grade 2 - CBMReading: 0-50% 68%, 51-100% 72%
- Grade 3 - CBMReading: 0-50% 81%, 51-100% 77%

Comparing the percentage of students exceeding target growth across program years is an effective way to track overall program effectiveness and identify potential needs for program improvement. Figure 10 displays the percentage of students above target growth for the past five years. For two of

the five measures, the percentage of students exceeding target growth in

2021-22 was greater than the previous year.

## Figure 10. Percentage of Students Above Target Growth, by Year
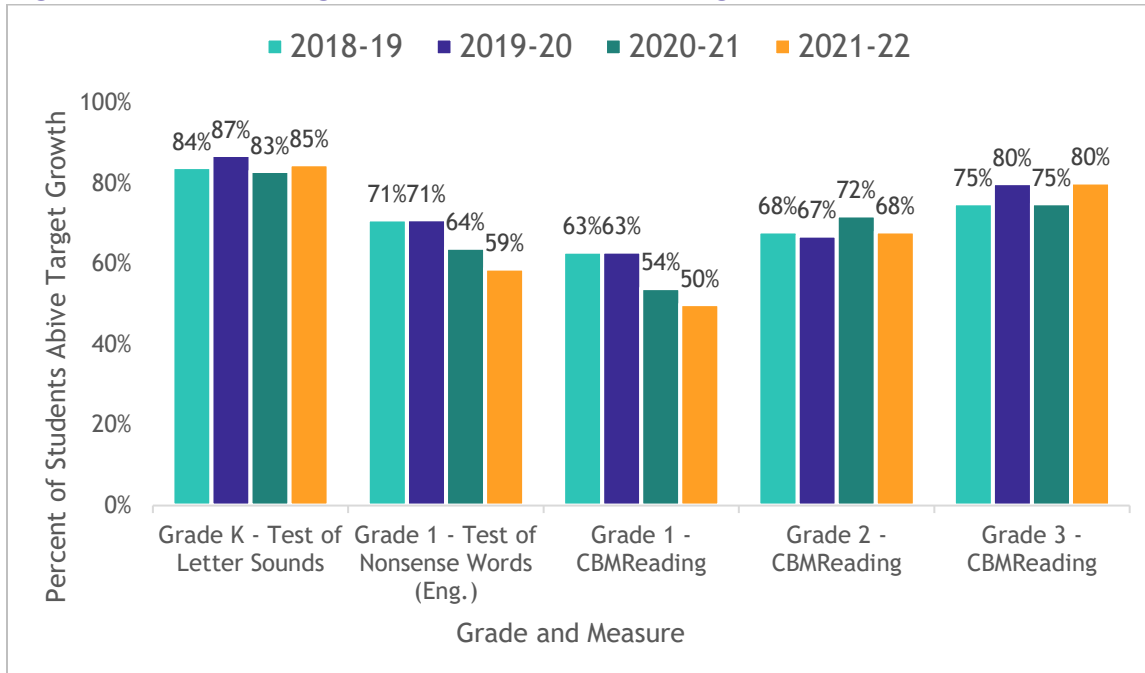


*Note: Use caution when comparing outcome data across years as the program was significantly disrupted by the COVID-19 pandemic.*

## Student Performance After Tutoring

Students who consistently meet grade level targets during tutoring graduate or "exit" from the program, allowing another eligible student at the school to receive tutoring. Reading Corps continues to assess exited students both weekly and at benchmark windows to track the maintenance of their skills and determine if students would benefit from resuming tutoring.

Table 10 displays the percentage of students who exit the Reading Corps

program by meeting grade level targets who then later meet the spring benchmark near the end of the school year (see Appendix A for more information on the Reading Corps targets). In total, 61% of students who exited the program also met the spring benchmark target score. Kindergarten and grade 1 had the greatest percentage of students who exited and later met the spring benchmark.

## Table 10. End-of-Year Performance of Exited Students

| Grade | Number of Students | Number Exited* | Exited and Have a Spring Benchmark | Exited and Met Spring Benchmark | Percentage Exited and Met Spring Benchmark |
|---|---|---|---|---|---|
| Kindergarten | 170 | 84 | 78 | 61 | 78.2% |
| Grade 1 | 207 | 52 | 49 | 28 | 57.1% |
| Grade 2 | 220 | 54 | 52 | 27 | 51.9% |
| Grade 3 | 135 | 51 | 48 | 22 | 45.8% |
| **Total** | **732** | **241** | **227** | **138** | **60.8%** |

*\* "Exited" indicates student progress was at or above expected grade-level trajectories for skill improvement. Reading Corps defines at or above grade-level trajectory as having 3-5 consecutive weekly points above a target growth line plus 2 points above an upcoming seasonal benchmark target score.*

## Tutor Perception of Student Performance

In the spring of each program year, Reading Corps evaluators distribute an online survey to tutors. The survey asks a wide-range of questions regarding their service in Reading Corps and potential impact of the program. Figure 11 displays the percentage of tutors who indicated they agreed or strongly agreed that their service in Reading Corps had a positive impact on students and increased students' confidence in reading. The results from these survey questions are presented for each of the previous four program years.

The survey results are notably positive with nearly all respondents in 2021-22 indicating their service in Reading Corps had a positive impact on students and increased students' confidence in reading. The positive results are stable across the past four years, indicating tutors tend to see a clear and consistent positive impact of their daily support on students.

## Figure 11. Tutor Survey Results on Student Impact
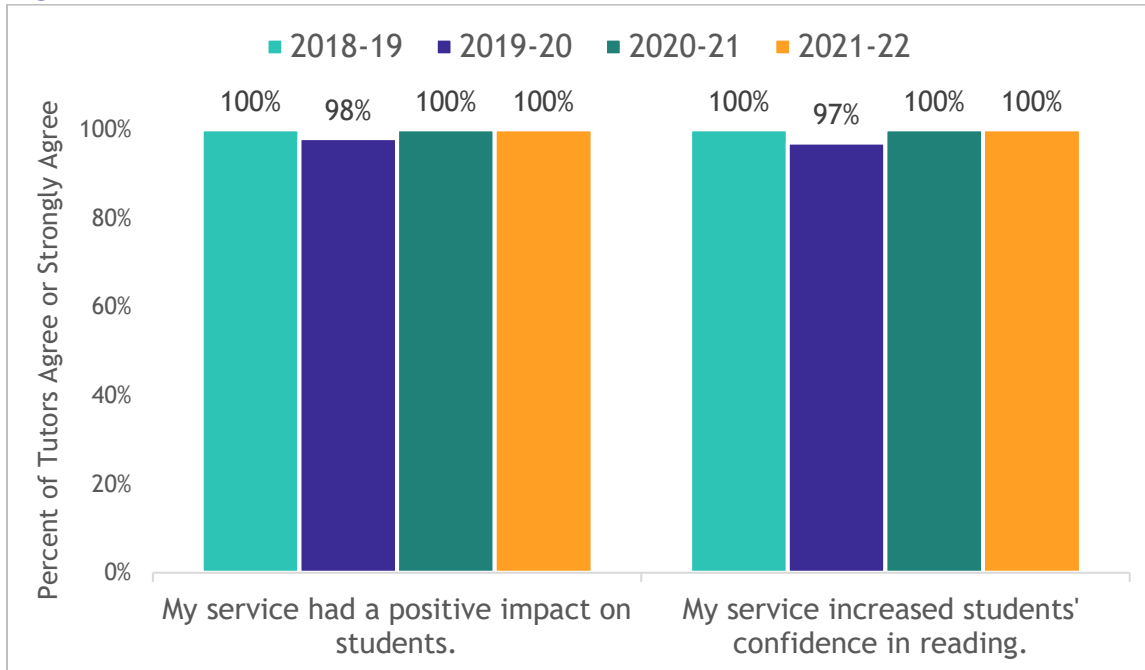
# 4. How did serving as a tutor impact their skills and knowledge related to education and their future career goals?

While supporting student literacy growth is the primary goal for the program, Reading Corps also strives to provide tutors with an overall positive experience and prepare them for any future career they might pursue, especially careers in the education field. As previously described, Reading Corps evaluators distribute a survey to tutors in the spring of each program year. The survey asks tutors a series of questions on their experience in Reading Corps and the impact the program had on them, their students, and their school. Survey results are used to evaluate the program's impact on the tutors themselves.

## Service Experience

A common practice in surveys is to ask the respondent if they would recommend the program to others, as one's willingness or unwillingness to recommend encompasses the overall experience of serving in Reading Corps. Figure 12 shows that 89% of tutors would recommend serving as a member of Reading Corps, with the majority of these respondents indicating they strongly agree. These results suggest tutors had a highly positive experience while serving with Reading Corps.

The survey also asked tutors if serving in Reading Corps had a positive impact on them personally. Figure 13 shows that 95% of tutors agree or strongly agree service had a positive impact on them, demonstrating the positive personal impact of serving.
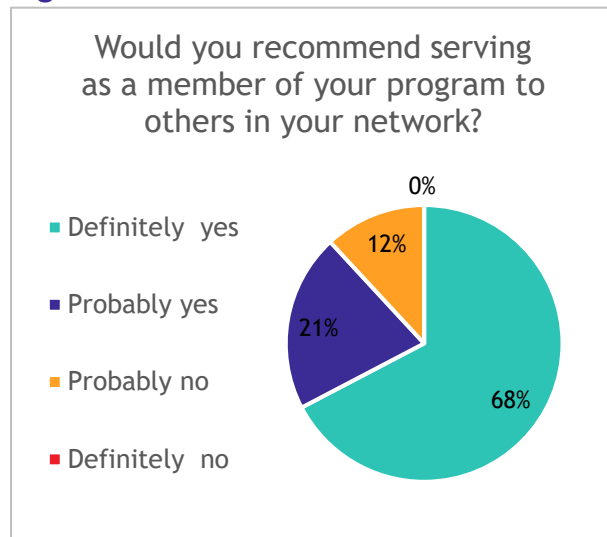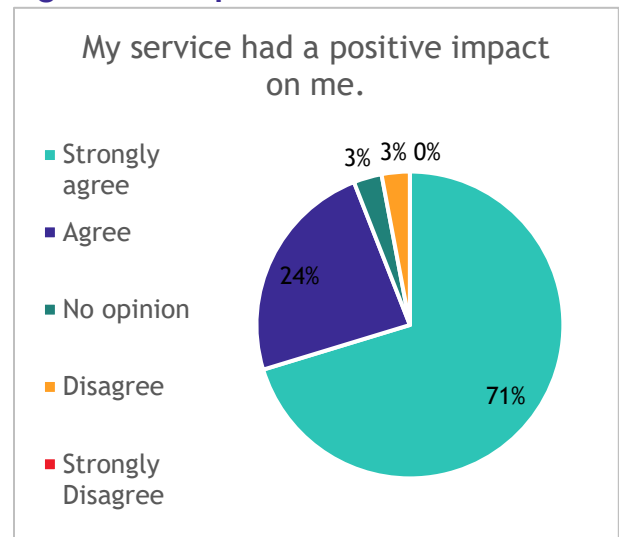
## Figure 12. Tutor Satisfaction

**Would you recommend serving as a member of your program to others in your network?**

- Definitely yes
- Probably yes
- Probably no
- Definitely no

0%
12%
21%
68%

## Figure 13. Impact on Tutors

**My service had a positive impact on me.**

- Strongly agree
- Agree
- No opinion
- Disagree
- Strongly Disagree

3% 3% 0%
24%
71%

## Skill Development and Future Careers

Reading Corps strives to support tutor professional development through the training, coaching, service experience, and other professional development support provided by the program. In particular, Reading Corps aims to increase the teacher and school staff pipeline in communities through its tutors pursuing careers in education after their service. To evaluate these outcomes in the short term, the spring survey asks tutors to respond to questions related to their increased knowledge and skills as well as any potential plans to pursue a career in education.
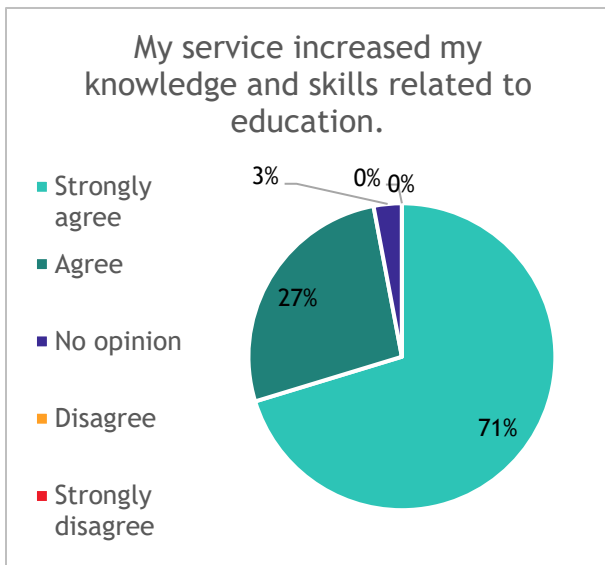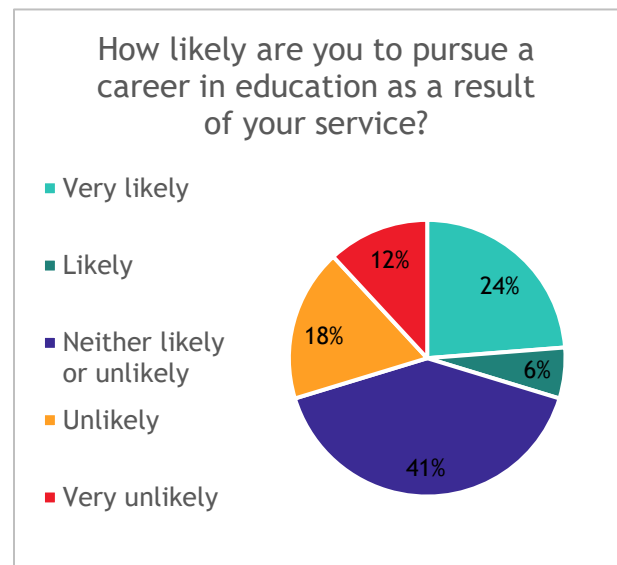
Figure 14 shows that 98% of respondents agree or strongly agree that their service increased their knowledge and skills related to education, demonstrating the program is having a positive impact on tutors in this area. Figure 15 displays tutor responses related to the likelihood they will pursue a career in education as a result of their service in Reading Corps. 24% of respondents answered that they are very likely to pursue a career in education as a result of their service and 6% responded that they are likely to do so. These results indicate Reading Corps likely contributes to the education career pipeline in the communities where tutors serve.

### Figure 14. Tutor Increased Knowledge and Skills

My service increased my knowledge and skills related to education.

- Strongly agree
- Agree
- No opinion
- Disagree
- Strongly disagree

3%  0%  0%  27%  71%

### Figure 15. Tutors Pursuing Careers in Education

How likely are you to pursue a career in education as a result of your service?

- Very likely
- Likely
- Neither likely or unlikely
- Unlikely
- Very unlikely

12%  24%  6%  18%  41%

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# Appendix A: Assessment Measures and Procedures

The following table depicts which measures are used at each grade across the school year. **BOLDED** measures are used to progress monitor (Grade 1 students are monitored for progress with two measures during part of the winter).

## Assessment Measures by Grade and Benchmark Season

| Grade | Fall | Winter | Spring |
|---|---|---|---|
| Kindergarten | **Test of Letter Sounds** | **Test of Letter Sounds** Test of Nonsense Words (English) | **Test of Letter Sounds** Test of Nonsense Words (English) |
| Grade 1 | **Test of Letter Sounds** Test of Nonsense Words (English) | **Test of Nonsense Words (English)** **CBMReading (3 passages)** | **CBMReading (3 passages)** |
| Grade 2 | **CBMReading (3 passages)** | **CBMReading (3 passages)** | **CBMReading (3 passages)** |
| Grade 3 | **CBMReading (3 passages)** | **CBMReading (3 passages)** | **CBMReading (3 passages)** |

For each eligibility assessment, a target score was identified as the goal for the beginning, middle, and end of the school year. The original Reading Corps target scores using AIMSweb brand passages were based on research conducted at the St. Croix River Education District in Minnesota, which documented the predictive and concurrent validity of these measures with the state reading proficiency assessment. As a result of the strong correlations between performance on the selected AIMSweb fluency measures and the statewide reading assessment, a series of cut scores were originally identified. These original benchmark scores, or target scores, defined levels of performance on the fluency measures that strongly predict future success on the grade 3 statewide reading assessment.

In the 2013-2014 school year, Reading Corps starting using FAST brand passages. With increased performance expectations for 3rd grade students on state accountability tests across the country, the target scores were updated in 2014-2015 to reflect performance that predicts proficient state test performance.

The table below specifies assessments given at each grade level and the FAST benchmark scores for each assessment during several points throughout the school year that maintain their predictive nature with reading proficiency targets that correspond to college readiness.

**Benchmark Targets by Grade and Season**

| Grade | Measure | Fall Aug. 8-Sept. 24 | Winter Jan. 3-28 | Spring Apr. 25-May 27 |
|---|---|---|---|---|
| Kindergarten | Test of Letter Sounds | 8 | 27 | 48 |
| Grade 1 | Test of Nonsense Words (English) | 36 | 63 | |
| Grade 1 | CBMReading | | 52 | 82 |
| Grade 2 | CBMReading | 63 | 97 | 116 |
| Grade 3 | CBMReading | 100 | 122 | 135 |

The target scores for each assessment grow across years from Kindergarten to Grade 3, which results in benchmarks for reading performance that students should maintain in order to predict future reading success. Within a single year, these benchmarks are used to establish the rates of growth at which a student should grow to maintain that likelihood of success. For example, the fall Grade 2 target score is 63 on CBM-Reading. The spring Grade 2 target score on this measure is 116. To grow from 63 to 116 in one academic year, a student would need to gain 1.61 words correct per minute per week on the CBM-Reading assessment. Thus, 1.61 words growth per week becomes the expectation for Grade 2 growth rates.

# Appendix B: Assessment Research Base

Assessment tools were selected for use in Reading Corps because of their well-established statistical reliability and validity for screening and progress monitoring purposes. The Test of Letter Sounds, Test of Nonsense Words, and Curriculum-based Measures for Reading (CBMReading) are measures of early literacy skills that have been supported by decades of thorough research, most recently as part of the Formative Assessment System for Teachers (FAST). Reading Corps uses measures from FAST, which are some of the strongest available measures for assessing the skills targeted by Reading Corps. CBMReading provides an assessment of connected text reading. Early and ongoing research on this measure has also been conducted at the University of Minnesota. All these measures fit under the umbrella of "Curriculum-Based Measurement (CBM) and are fluency-based assessments, meaning that students respond to an unlimited number of items within a fixed amount of time and the number of correct responses is counted.

The information that follows summarizes empirical findings related to the statistical reliability and validity of the measures used in Reading Corps.

**Test of Letter Sounds:**
- r= .83 2-week test-retest reliability
- r=.80 alternate form reliability
- r= .79 with Letter Naming Fluency
- Predictive r=.72 with R-CBM

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**Test of Nonsense Words:**
- r= .83 one month alternate form reliability
- r=.36 to .59 with WJ-R Readiness Cluster
- Predictive r= .82 with Spring R-CBM in Spring of grade 1
- Predictive r = .65 with oral reading and .54 with maze in grade 3
- Ell Predictive r= .63 with a composite of DIBELS NWF and R-CBM

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**Curriculum Based Measurement – Reading (CBMReading):**

- r= .92 to .97 test retest reliability
- r= .89 to .94 alternate form reliability
- r= .82 to .86 with Gates-MacGinite Reading Test
- r= .83 to Iowa Test of Basic Skills
- r = .88 to Stanford Achievement Test
- r= .73 to .80 to Colorado Student Assessment Program
- r= .67 to Michigan Student Assessment Program
- r=.73 to North Carolina Student Assessment Program
- r=74 to Arizona Student Assessment Program
- r=.61 to .65 to Ohio Proficiency Test, Reading Portion
- r= .58 to .82 with Oregon Student Assessment Program (SAT 10)

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# Appendix C: Intervention Research Base

The interventions used in the Reading Corps program are designed to provide additional practice that is supplemental to the core reading instructional program offered by the local school site. The interventions target automaticity and fluency of important reading skills that have been introduced by local classroom teachers. It is important to note that *Reading Corps participation is in addition to, not in replacement of*, a comprehensive core reading instructional program, and that the Reading Corps program should in no way be viewed as a substitute for high quality core instruction.

A unique feature of Reading Corps is the consistent use of research-based intervention protocols with participating students to provide this additional support. School-based Internal Coaches select from a menu of research-based supplemental reading interventions for use with participating students as listed below. For each intervention protocol sources of empirical evidence for intervention effectiveness are listed.

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