

Student Participation Trends

Final Report

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Photo Credit: Reading Partners

Overview

[Reading Partners](#), a national literacy nonprofit, engaged [Child Trends](#), a national, nonprofit research group, to learn more about how to improve programming and, ultimately, boost learning outcomes for students who struggle with reading. In California reading centers, Child Trends evaluated five key areas of Reading Partners programs:

- **Dosage:** Document the amount of tutoring each student receives.
- **Tutor engagement and quality:** Examine the extent to which Reading Partners is successful in recruiting, engaging, and retaining tutors. Assess the quality of tutors' interactions with students and the effect those encounters have on children.
- **AmeriCorps member experiences:** Identify skills AmeriCorps members bring to Reading Partners and collect feedback about their experiences.
- **Student reading growth:** Determine how student learning is linked to implementation characteristics and dosage.
- **Social-emotional learning:** Examine how Reading Partners affects students' social-emotional learning (SEL).

The findings in this report on student participation trends show:

- California reading centers served nearly 7,500 students during the 2016–2017 and the 2017–2018 school years, and 92 percent of these students were reading below their grade level at baseline.
- Students in California reading centers attended Reading Partners consistently throughout the school year. On average, they attended 32.2 sessions during the year, 6.2 sessions per month, and remained in the program for 5.5 months.
- Reading Partners was successful in recruiting and retaining students who needed the greatest support in reading.
- Students in kindergarten and fifth grade have lower attendance rates than students in first through fourth grade.

Three companion briefs discuss findings related to the other evaluation focus areas; an accompanying infographic integrates and summarizes findings across the study.

This brief is based on findings from an independent evaluation conducted by Child Trends for Reading Partners.



Introduction

Reading is a critical academic skill, yet only 37 percent of U.S. fourth graders read proficiently.¹ Reading Partners, a national literacy nonprofit, is seeking to close this literacy gap by partnering with under-resourced schools and engaging community volunteers to provide one-on-one tutoring to elementary school-aged students.

In spring 2016, Reading Partners commissioned Child Trends to conduct an independent evaluation of Reading Partners' California reading centers. This evaluation was designed to build upon the findings of a prior [evaluation](#) conducted by MDRC and included an in-depth examination of how key program implementation characteristics (e.g., tutoring dosage, fidelity, student-tutor relationships, and AmeriCorps member characteristics) influence children's learning. The goal was to provide actionable information to improve Reading Partners programs, and enhance the experiences and outcomes of the children, volunteer tutors, and AmeriCorps members who participate in Reading Partners.

This brief highlights key themes and findings from the evaluation regarding student attendance patterns and provides a snapshot of:

- [Students who were enrolled in Reading Partners at California reading centers](#)
- [Student dosage trends](#)
- [Predictors of student dosage patterns](#)

To learn more about the methods used in this evaluation, please refer to the evaluation plan and the factsheets published in Year 1 of the evaluation.

Evaluation Methods

To answer questions about student dosage, researchers used the following data sources:

Administrative Data

We obtained Reading Partners' administrative data on student dosage and early literacy and reading outcomes (as measured by the Star assessment).

AmeriCorps Member Experiences Survey

Each spring we invited all Reading Partners' AmeriCorps members who served in California to complete a survey about their experiences.

Tutor Experiences Survey

In spring 2017, we offered tutors the opportunity to respond to a Tutor Experiences Survey as they left the Reading Partners program.

Tutor Fidelity Observations

Using an observation tool developed for this evaluation, Reading Partners staff observed tutors in a selected sub-sample at nine sites during the 2016–2017 school year.

Tutor Reading Engagement Survey

Reading Partners asked tutors in the sub-sample of 11 sites to report on the quality of their tutor-student relationship and students' level of reading engagement.⁵

Teacher Social-Emotional Learning (SEL) Survey

Teachers in the sub-sample of sites were asked to report on students' SEL skills at students' referral to Reading Partners and at the end of the school year.

¹ U.S. Department of Education, National Center for Education Statistics (2017). *National Assessment of Educational Progress Reading: Grade 4 National Results*. Retrieved from https://www.nationsreportcard.gov/reading_2017/#/nation/achievement?grade=4

Research Question and Sub-questions

Our research on student participation rates addresses the following evaluation question:²

1. **What are the program dosage patterns for California reading center participants?**
 - To what extent do Reading Partners' students receive at least 16 hours (21 45-minute sessions) of tutoring during each school year?
 - Does tutoring dosage vary by key student characteristics or other factors?

To answer these questions, we used Reading Partners' administrative data, a survey of AmeriCorps members serving at Reading Partners, tutor fidelity observations, and multiple tutor surveys. These data sources are described in the Evaluation Methods text box above and in greater detail below.

The evaluation included two samples from the 2016–2017 and 2017–2018 school years:

- **Full sample:** This included data from students, AmeriCorps members, and volunteer tutors at all California reading centers. Information collected from the full sample included administrative data, the AmeriCorps Member Experiences Survey, and the Tutor Experiences Survey.³
- **Sub-sample:** This included data from the 11 reading centers in the Los Angeles and Sacramento regions that participated in more intensive data-collection efforts. Data collected from the sub-sample included tutor fidelity observations,⁴ Tutor Social-Emotional Learning Survey,⁵ and teacher surveys.

² Some evaluation questions have been rephrased from the original evaluation plan.

³ The Tutor Experiences Survey was only administered during the 2016–2017 school year. In addition, we administered the survey to all tutors volunteering in California reading centers, but data linking tutors to children were only available for children in the sub-sample.

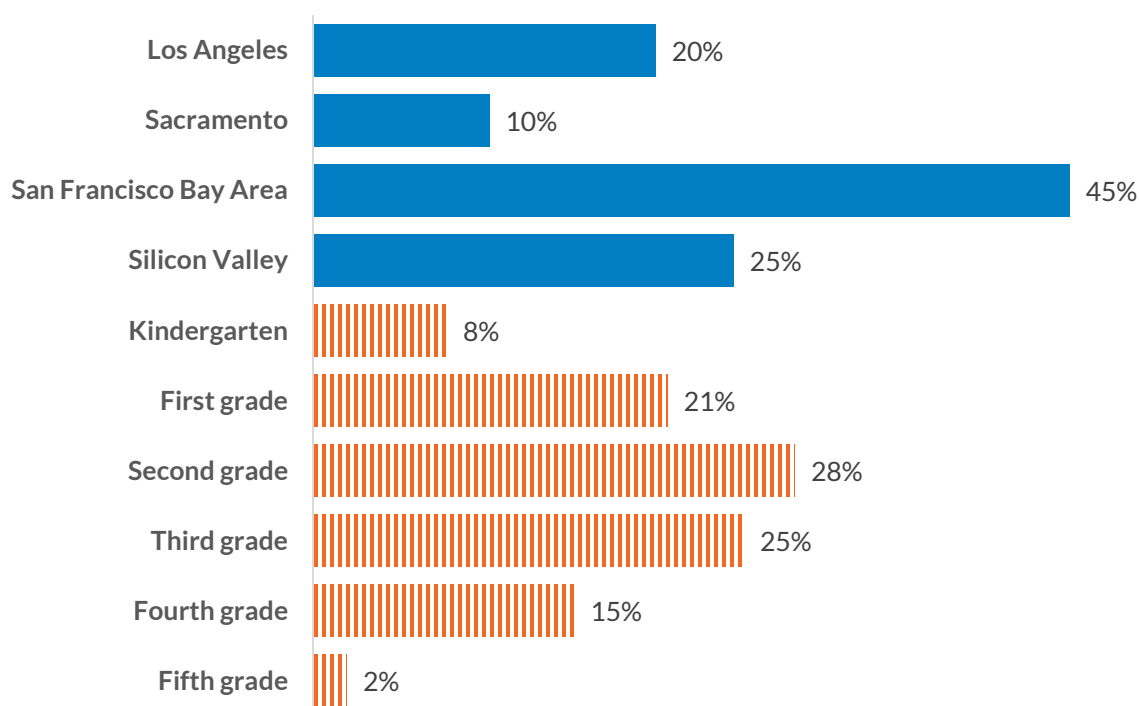
⁴ Tutor fidelity observations were conducted in the 2016–2017 school year only.

⁵ The Tutor Social-Emotional Learning Survey was revised between the 2016–2017 and 2017–2018 school years to focus more on student-tutor relationships.

Student Demographics

Across the 2016–2017 and 2017–2018 program years, California reading centers served approximately 7,460 students. As shown in **Figure 1**, nearly half of these students live in the San Francisco Bay Area, followed by Silicon Valley, Los Angeles, and Sacramento. Most students were enrolled in first grade, second grade, or third grade. The majority of Reading Partners students were identified as a target student⁶ (93 percent), and nearly 60 percent were identified as English Language Learners.

Figure 1: Demographics of Reading Partners participants (N=7,457)



Note: Source: Reading Partners' administrative data, 2016-2018.

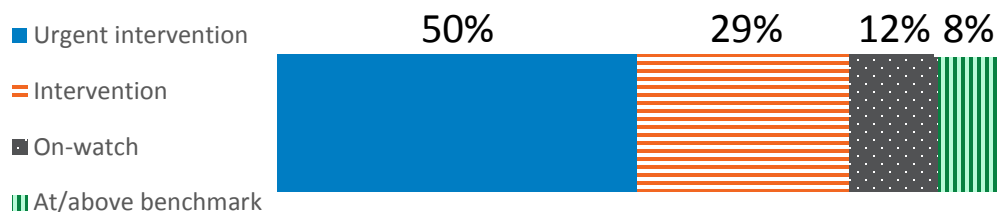
Upon enrollment in Reading Partners, students take either the Star Early Literacy assessment or the Star Reading assessment, depending on their grade level. As noted in **Figure 2**, when students entered the Reading Partners program, only 8 percent were identified as reading at their grade level (at or above benchmark).

⁶ Reading Partners defines target students as those in grades K-4 who do not have a cognitive-based Individualized Education Program (IEP), who have conversational English-speaking skills, and who are identified as reading below their grade level based upon the Star Early Literacy or Star Reading assessments.

Half of the students scored in the lowest reading intervention tier and were identified as needing urgent intervention. An additional 29 percent were identified as needing lower levels of intervention and 12 percent were categorized as being on-watch.⁷ This suggests that Reading Partners is successful in enrolling a population of students who would benefit from additional reading support.

California reading centers are successful at enrolling students who would benefit from additional support in reading.

Figure 2: Students' baseline reading level (N=6,396)



Note: Students' baseline reading level is based on their intervention level obtained from the Star Reading or Star Early Literacy assessments administered when they are enrolled in Reading Partners. Source: Reading Partners administrative data, 2016-2018.

Level of Student Participation

For students to achieve the maximum benefits of participating in Reading Partners, they must maintain consistent attendance throughout the school year. In this section, we examine overall program dosage patterns in the 2016–2017 and 2017–2018 school years, as well as dosage trends by region (San Francisco Bay Area, Sacramento, Silicon Valley, and Los Angeles), student characteristics (e.g., grade level, baseline reading level), and tutor characteristics (e.g., student-tutor relationship quality, fidelity, self-concept, social competence, tutoring efficacy, and satisfaction with Reading Partners). Given that Reading Partners is intended to be a year-long program, our analyses describe student attendance during a single year, even if a student enrolled during both years of the study.

⁷ Intervention tiers are based on psychometric analyses conducted by the Star assessment developers. Percentile cut-offs define each intervention tier (0–10 percentile = Urgent Intervention, 11–25 percentile = Intervention, 26–40 percentile = On-Watch, 40–100 percentile = At/Above Benchmark). Renaissance Learning. (2015). *STAR Early Literacy™ Technical Manual*. Wisconsin Rapids, WI.

To fully capture students' attendance patterns, dosage was measured in three ways:

- **Total sessions:** The number of 45-minute sessions in which the students participated
- **Duration:** The total number of months that students attended the program
- **Pacing:** The average number of sessions students attended per month (total sessions divided by duration)

Table 1: Average student dosage rates for 2016–2017 and 2017–2018 (N=7,420)

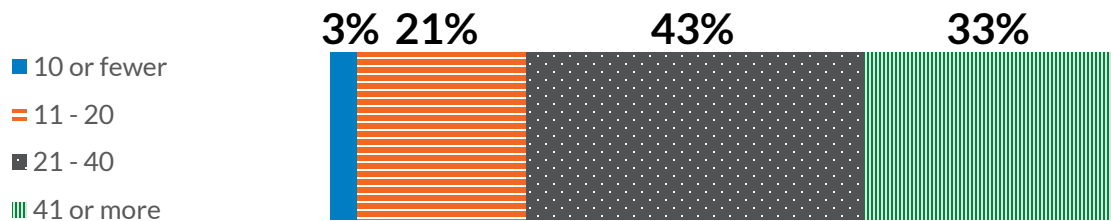
Dosage indices	Mean	Standard deviation	Range
Total sessions	32.2	13.9	1-74
Duration (months attended)	5.5	2.2	0-9.4
Pacing (average sessions attended per month)	6.2	1.7	1-15

Note: Source: Reading Partners administrative data, 2016-2018.

Total sessions

Reading Partners recommends that each student receive approximately 21 45-minute sessions (or 16 hours) of tutoring during the school year. The average number of sessions students attended in 2016–2017 and 2017–2018 was 32.2 (Table 1). Although most Reading Partners students (76 percent) met or exceeded the recommended dosage threshold, the number of Reading Partners sessions students attended varied (Figure 3).

Figure 3: Total 45-minute sessions attended by students (N=7,420)



Note: Source: Reading Partners administrative data, 2016-2018.

A total of 223 students (3 percent) participated in 10 or fewer sessions, 1,707 (21 percent) participated in 11 to 20 sessions, 3,116 (43 percent) participated in 21 to 40 sessions, and 2,300 participated in more than 41 sessions (33 percent).

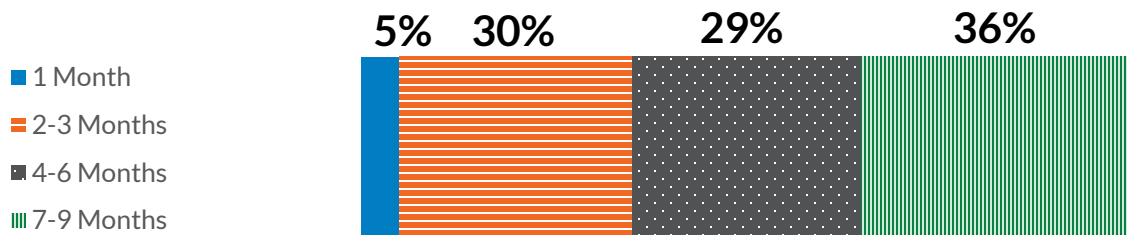
Students in California reading centers attend Reading Partners consistently throughout the year.

Duration

The duration index measures the total number of months students were enrolled in Reading Partners and is an indicator of how long they participated in the program. Each year, students took part in Reading Partners for an average of 5.5 months ([Table 1](#)).

As [Figure 4](#) shows, a total of 371 students (5 percent) participated for only one month, 2,226 (30 percent) participated for 2 to 3 months, 2,152 (29 percent) participated four 4 to 6 months, and 2,671 (33 percent) participated for 7 to 9 months.

Figure 4: Months enrolled in Reading Partners (N=7,420)

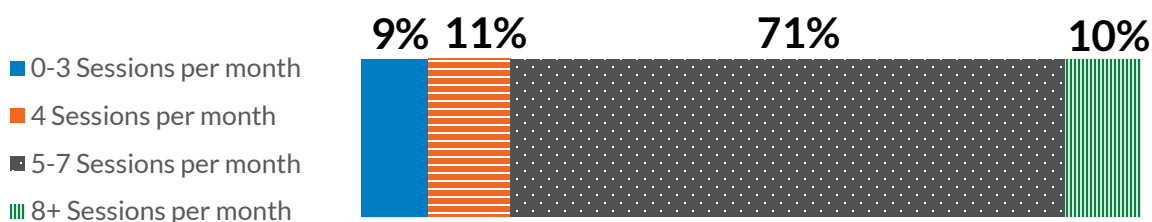


Note: Source: Reading Partners administrative data, 2016-2018.

Pacing

The pacing index assesses the average number of sessions students attended per month while enrolled in Reading Partners. On average, students participated in approximately 6.2 sessions per month ([Table 1](#)). As illustrated in [Figure 5](#), most students attended Reading Partners regularly. A total of 717 (10 percent) students attended an average of two sessions per week (8 sessions per month), 5,275 (71 percent) attended an average of just over one session per week (5 to 7 sessions per month), and 781 (11 percent) attended an average of one session per week (4 sessions per month). Only 647 (9 percent) attended an average of fewer than one session per week (0 to 3 sessions per month).

Figure 5: Average number of sessions attended per month (N=7,420)



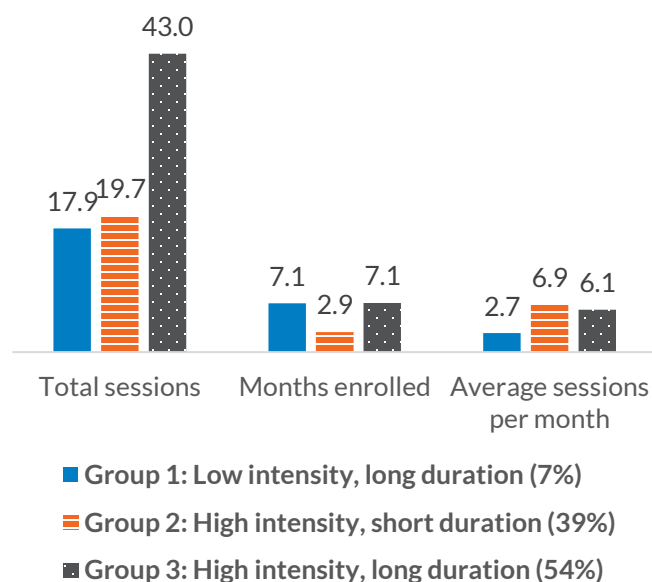
Note: Source: Reading Partners administrative data, 2016-2018.

Overall dosage

To obtain a holistic picture of student attendance patterns, we conducted a Latent Profile Analysis (LPA) to identify patterns of tutoring dosage across all three dosage indices. The results of the LPA suggest that students largely fall into one of three groups based on the amount of tutoring dosage received (Figure 6):

- 1. Low intensity, long duration:** A small group of students (7 percent of the sample) attended the reading program sporadically. These students averaged only 2.7 sessions per month (less than one session per week), yet they were enrolled in the program for most of the school year, averaging 7.1 months of participation. Students in this group attended the fewest sessions, however, averaging just 17.9 sessions during the year.
- 2. High intensity, short duration:** A second group of students made up nearly 40 percent of the sample of Reading Partners students. This group participated in the program with great intensity, averaging 6.9 sessions per month, over a relatively brief period (2.9 months). These students attended an average of 19.7 sessions during the year.
- 3. High intensity, long duration:** The third group of students make up just over half (54 percent) of those who participated in Reading Partners. These students demonstrated sustained and consistent participation in Reading Partners, attending an average of 43 sessions during the

Figure 6: Student attendance patterns (N=7,457)



Note: Source: Reading Partners administrative data, 2016-2018.

7.1 months they were enrolled. They attended an average of 6.1 sessions per month while enrolled in Reading Partners (just over one session per week).

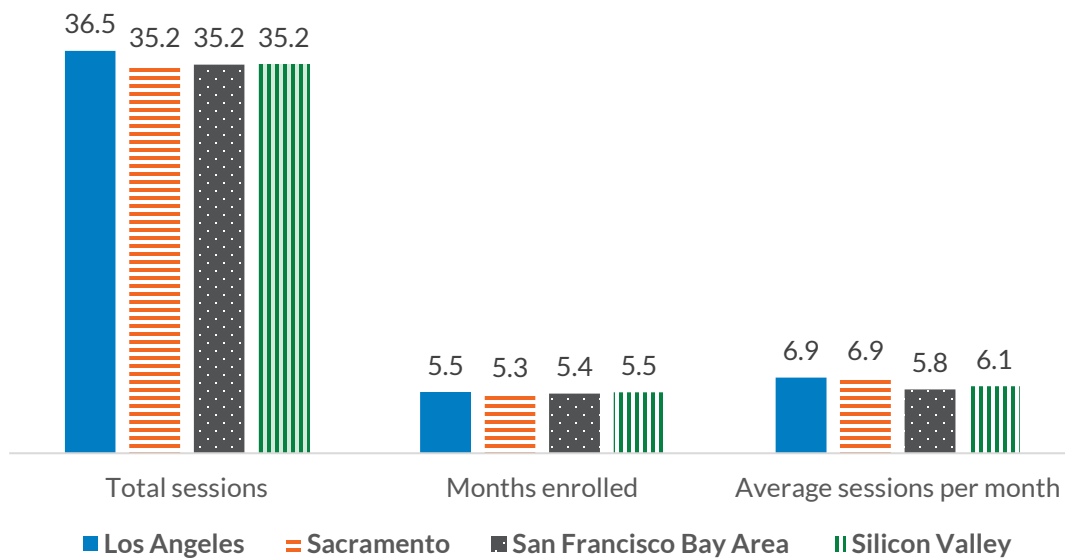
Predictors of Program Dosage

Consistent program participation is essential for fostering growth and development in students. Thus, to promote the positive development of students, it is important to understand the factors that predict student participation. This is particularly valuable for enhancing program practices, with the goal of improving student retention and generating consistent program attendance.

Region

Average student dosage rates by region (Figure 7) were small, yet statistically significant. Differences were found among regions in the number of sessions attended⁸ as well as the average number of sessions attended per month (pacing).⁹ There were, however, no significant differences in students' duration in Reading Partners by region.

Figure 7: Student dosage rates, by region (N=7,420)



Note: Source: Reading Partners administrative data, 2016-2018.

Student characteristics

Average student dosage rates by baseline reading level are found in Figure 8. Across all three dosage indices, students who were reading below grade level at baseline had significantly greater

⁸ $F(3, 7416)=108.33, p<.001$

⁹ $F(3, 7416)=207.80, p<.001$

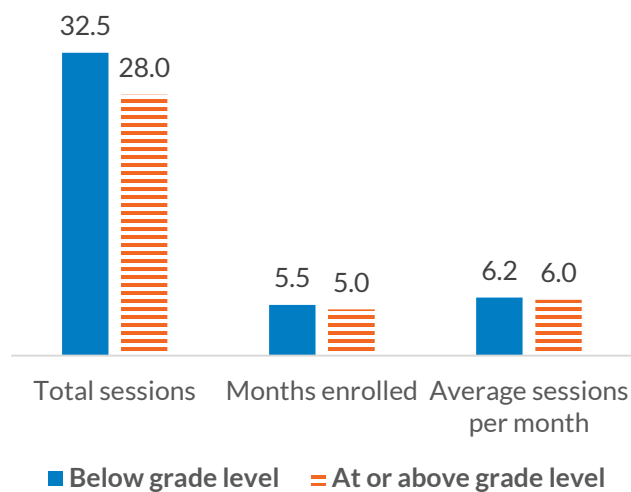
program attendance than students who were reading at or above grade level.¹⁰ This suggests that Reading Partners is successful in retaining students who need the greatest support in reading.

Figure 9 displays the student dosage rates by grade level. There were statistically significant differences in number of sessions attended, session pacing, and duration between students in different grade levels.¹¹ Generally, students in kindergarten and fifth grade had the lowest dosage rates, while those in second, third, and fourth grades had the highest dosage rates. However, with the exception of students in fifth grade, few differences in pacing emerged among students in different grade levels.

Tutor characteristics

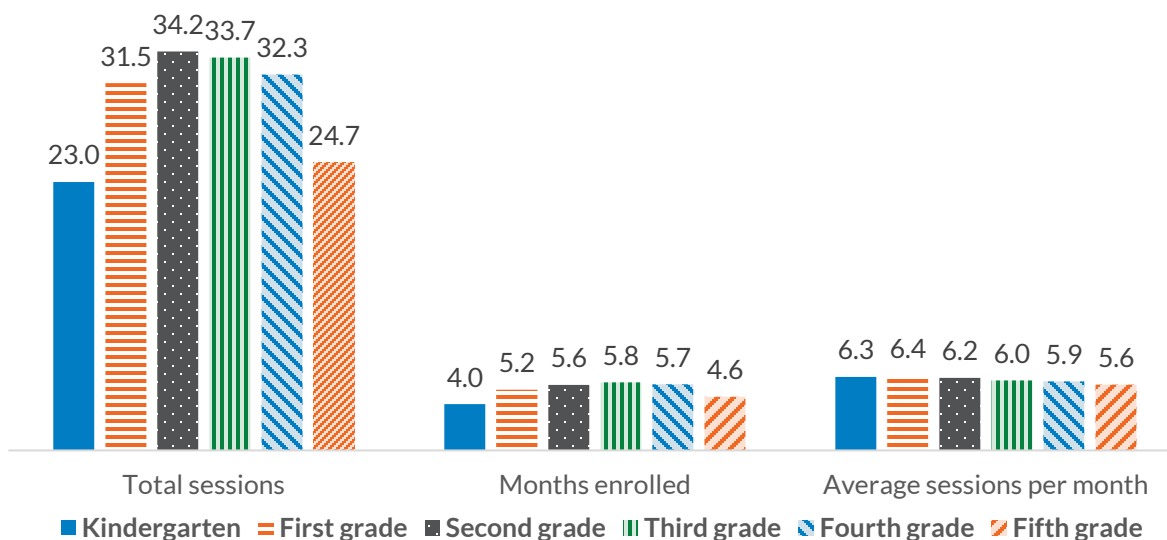
Data on tutor characteristics were only available for students in the sub-sample regions (Los Angeles and Sacramento). Average student dosage rates by their primary tutor (the one with whom the student had the most sessions) can be found in **Figure 10**.¹²

Figure 8: Student dosage rates, by baseline reading level (N=7,000)



Note: Source: Reading Partners administrative data, 2016-2018.

Figure 9: Student Dosage Rates, by Grade Level (N=7,420)



Note: Source: Reading Partners administrative data, 2016-2018.

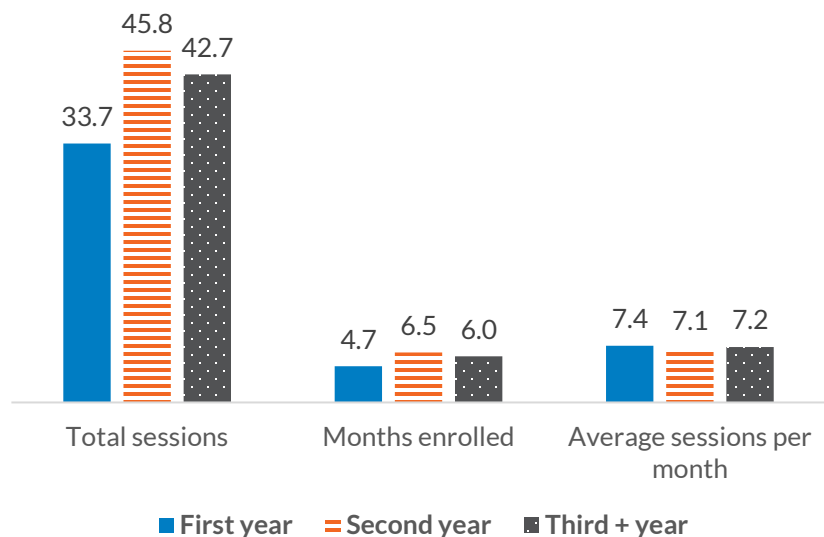
¹⁰ Total Sessions: $F(1, 6998)=56.38, p<.001$; Duration $F(1, 6998)=26.92, p<.001$; Pacing: $F(1, 6998)=10.27, p<.001$

¹¹ Total Sessions: $F(5, 7414)=78.37, p<.001$; Duration: $F(5, 7414)=81.98, p<.001$; Pacing $F(5, 7414)=24.49$

¹² Tutor tenure was only assessed in the 2016–2017 year.

On average, students whose tutors were more experienced in implementing the Reading Partners program had significantly greater program participation.¹³ Students paired with tutors who were new attended significantly fewer sessions and remained in the program for shorter durations than students paired with more seasoned tutors (those who were in their second, third, or greater year of tutoring).¹⁴ There were no significant differences in students' pacing based on tutors' experience levels.

Figure 10: Student dosage rates, by tutor tenure (N=277)



Note: Source: Reading Partners administrative data, 2016-2017.

In addition to examining the associations between students' dosage and their tutors' experiences, we also examined associations between students' dosage and their tutors' perceptions about: 1) student-tutor relationship quality; 2) self-concept; 3) level of support received from Reading Partners; 4) satisfaction with their role at Reading Partners; 5) tutoring efficacy; and 6) tutor fidelity (as measured by instructional strategies and student engagement in the session).¹⁵

Only tutors' perceptions of their relationship quality with students was significantly correlated with students' dosage. In terms of pacing, students whose tutors reported more positive relationships (as measured by lower levels of conflict and higher levels of closeness) tended to attend Reading Partners more regularly.¹⁶

The opposite pattern emerged in relation to students' duration and total sessions attended, as students whose tutors reported less positive relationships persisted in the program for a longer

¹³ Total sessions, $F(2, 275)=30.16, p<.001$; Duration, $F(2, 275)=30.5, p<.001$; Pacing, $F(2, 275)=4.58, p<.001$

¹⁴ Tukey post-hoc tests were used to conduct pairwise comparisons. All differences were significant at $p<.001$

¹⁵ Tutor self-concept, level of support from Reading Partners, satisfaction with their role, tutoring efficacy, and tutoring fidelity was only assessed during the 2016-2017 year.

¹⁶ Tutor's perceptions of student-tutor relationship were captured with the Tutor Reading Engagement survey. Closeness: $r=.09, p<.05$; Conflict: $r=-.14, p<.05$

duration and attended a greater number of sessions.¹⁷ One potential explanation for this finding may be that students with longer durations and more sessions attended were significantly more likely to have more tutors assigned to them throughout the school year.¹⁸ In contrast, pacing was not significantly associated with the total number of tutors a student had. Having more tutors may, in turn, disrupt the likelihood that a tutor and student can develop a strong, positive relationship.

Associations between tutor characteristics and students' dosage should be interpreted with some caution, however, as these findings are based on a small subsample of Reading Partners students ($n=720$) and are based on tutors' perceptions of the relationship quality rather than students' perceptions, or another more objective measure.

Conclusion

During the 2016–2017 and 2017–2018 program years, Reading Partners' California reading centers served nearly 7,500 students—the vast majority of whom entered the program reading below their grade level. Each program year, students were highly engaged in Reading Partners, with more than one-third of students participating in the program for almost a full school year and approximately 80 percent of students attending an average of at least one session per week.

We observed significant differences in participation rates based on region, student, and tutor characteristics. For instance, students in kindergarten and fifth grade tended to have the lowest dosage rates, attending, on average, around 10 fewer sessions than their peers. In addition, students who were reading below grade level at baseline demonstrated greater levels of participation than their peers, suggesting that Reading Partners is successful in engaging students who need the greatest levels of support. It should be noted, however, that although we observed statistically significant differences between regions, many of these differences were quite small, perhaps because most students evaluated attended Reading Partners consistently.

Significant differences also emerged in relation to tutor characteristics. Students whose tutors were more experienced had higher dosage rates than those whose tutors were less experienced. Furthermore, students with more positive student-tutor relationships had more consistent

¹⁷ Tutor's perceptions of student-tutor relationship were captured with the Tutor Reading Engagement survey, duration $r = -.17, p < .05$; pacing, $r = -.16, p < .05$.

¹⁸ duration $r = .36, p < .001$; sessions, $r = .29, p < .001$.

attendance (as measured by pacing) than students with less positive student-tutor relationships. In contrast, students with less positive student-tutor relationships had longer durations in Reading Partners and attended a greater number of sessions than students with more positive relationships. This finding that may be related to the fact that students with higher durations and number of total sessions attended were more likely to have more tutors assigned to them, while pacing was not significantly associated with the total number of tutors that students had assigned to them. Together, these findings highlight the importance of Reading Partners' efforts to retain tutors, both throughout the school year as well as across multiple school years.