



Washington Reading Corps Implementation and Impact Evaluation



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2015–2016 Report

Prepared for
Washington Reading Corps

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Program Overview

The Washington Reading Corps places AmeriCorps members in public schools and early learning sites with the goal of supporting the development of foundational and comprehensive skills of struggling readers from pre-Kindergarten through Grade 6. The program seeks to achieve that goal through effective collaboration involving schools, community organizations, families, community members, business and state partners, and AmeriCorps. Funded by the Corporation for National and Community Service (CNCS), at the state level the Washington Reading Corps (WRC) is a partnership between the Washington Service Corps (WSC) and the Office of Superintendent of Public Instruction (OSPI). The Washington Reading Corps has been supported since 1998 by the Washington State Employment Security Department and SERVE Washington, the Washington Commission for National and Community Service.

To improve students' reading skills, Washington Reading Corps members provide (a) one-on-one or small-group tutoring using research-based reading methods, (b) reading support for families through outreach and literacy activities, and (c) recruitment and training of community volunteers to expand the program's impact. The program logic model and theory of change developed by the Washington Reading Corps appear in Appendix A. In 2015–2016 sites could apply to have members either at early learning sites or at Kindergarten through Grade 6 sites.

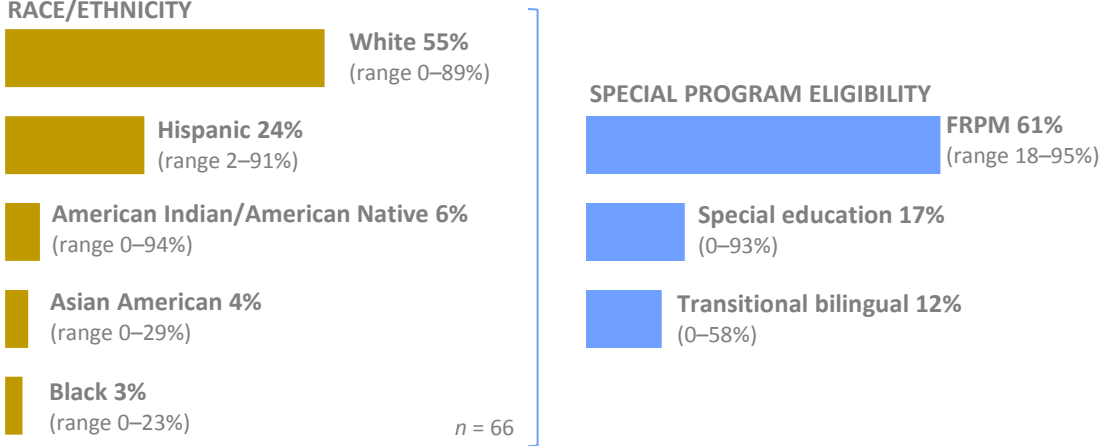
In 2015–2016 the Washington Reading Corps placed 153 members (with 117 retained) in 8 early learning centers and 69 schools across 40 school districts in Washington State. According to the OSPI website,¹ the participating schools had an average total enrollment of 367 students (range 86–695). Data available for 66 of the 77 sites indicated that the majority of students were White or Hispanic and qualified for free or reduced-price meals (see Exhibit 1). Teachers had an average of 13 years of teaching experience (range 0–21 years).



¹Data source: <http://reportcard.ospi.k12.wa.us/DataDownload.aspx>

Exhibit 1

The majority of the students in Washington Reading Corps schools were White or Hispanic and qualified for free or reduced-price meals.



Program Implementation

The implementation evaluation addressed program outputs for tutoring implementation, member professional development and training, student tutoring participation, member involvement in family literacy events and volunteer recruitment, barriers and best practices, and site sustainability of Washington Reading Corps activities. The evaluation questions and their data sources are in Appendix A (Exhibit A1). Data were synthesized from various sources:

- PD** Program data
- STL** Student tracking logs
- MS** Washington Reading Corps member survey (see Appendix C)
- SS** Washington Reading Corps site supervisor survey (see Appendix D)

Tutoring Implementation and Outputs

Evaluation Question

To what extent are the Washington Reading Corps programs being implemented?

Evaluation Question

To what extent are the Washington Reading Corps programs providing their projected program outputs?

Sites Served

PD

In 2015–2016, 77 sites in Washington State participated in the Washington Reading Corps program, above the target of 75. These sites included 69 elementary schools and 8 early learning centers. **Initially 153 Washington Reading Corps members participated with 39 returning members (33%), and 117 members were retained during the year.** Most members (86%) began serving in September 2015 and the remainder (14%) began in October 2015. Sites had between 1 and 5 Washington Reading Corps members.

Core Reading Programs and Tutoring Programs

PD

As part of their 2015 application for the Washington Reading Corps program, sites provided brief descriptions of their core reading programs and intervention materials, which included such programs as Good Habits, Great Readers; Engage New York; Journeys by Houghton-Mifflin; Treasures Reading Curriculum; Fountas and Pinnell; Imagine It; Open Court; Benchmark Literacy; and Read Well, among others. According to site supervisor feedback, members typically received initial training on their site's core reading program from multiple staff members, including the Washington Reading Corps site supervisor (66%), the site's literacy specialist (59%), the Title I and/or Learning Assistance Program teacher (57%), and the classroom teacher (48%).

In addition to core reading instruction, students identified for Tier II services receive supplemental tutoring in reading through the Washington Reading Corps program. Some of the tutoring approaches proposed by site applicants included Leveled Literacy Intervention (Fountas and Pinnell), Read Naturally, Reading Mastery, Read Well, Road to the Code, Wonder Works, Early Reading Intervention, and Read 180.

Tutoring Implementation

MS

SS

From the feedback collected from the Washington Reading Corps member survey and the site supervisor survey 4 main implementation findings emerged:

- **The majority of Washington Reading Corps sites implemented key aspects of the tutoring model.** On a scale from *not at all* to *to the full extent*, at least 75% of Washington Reading Corps member respondents ($n = 74$) said that implementation was *to the full extent* for (a) 20-minute tutoring sessions with Tier II intervention students 3 times a week (75%) and (b) small-group tutoring with no more than 6 students in each session (76%).
Almost all site supervisor respondents said members provided small-group tutoring (92%), most (77%) said members provided one-on-one tutoring, and 70% said members implemented both tutoring formats at their site. Roughly 75% of site supervisors reported that members were involved in before- or after-school reading programs.
- **Schools used a combination of push-in and pull-out delivery models for Washington Reading Corps tutoring.** Many site supervisor respondents (79%) indicated that members followed a pull-out model (students leave class to work with the tutor), and 64% reported using a push-in model (the tutor goes into classes). According to 21% of the site supervisor respondents members were embedded in a classroom. Early learning centers used a range of delivery models, similar to school sites.
- **Site supervisors strongly endorsed the usefulness of tutoring provided by a Washington Reading Corps member.** More than 80% of Washington Reading Corps site supervisor respondents described tutoring as *very* or *extremely useful* at their site. A majority cited data from reading assessments or student growth in reading as evidence of the usefulness of Washington Reading Corps tutoring. The ability to assist many more students was another noted strength.
- **The majority of Washington Reading Corps members served at their site in ways consistent with their role.** Most members had not been asked to serve in ways beyond their designated role, but a few reported being asked to provide general assistance in the classroom ($n = 8$); assist in nonreading subjects ($n = 5$); or fill in for recess, bus, library, or unrelated school volunteer duties ($n = 4$).

Tutoring Minutes and Days Provided by Members 2012–2016

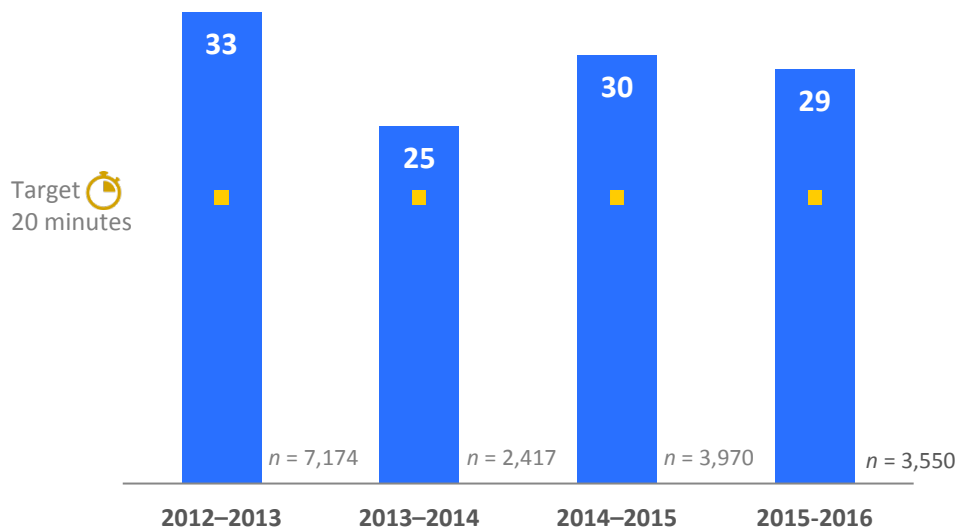
STL

Using the student tracking logs, site supervisors (2015–2016) and members (2012–2015) recorded the average number of minutes per day and average number of days per week members provided tutoring to students in Kindergarten through Grade 6. The evaluation team compared these data across 4 years. As Exhibit 5 shows, **on average sites exceeded the target of providing 20 minutes of tutoring per**

session in 2012–2013, 2013–2014, 2014–2015, and 2015–2016.² Sites also provided tutoring slightly more than 3 days per week (average of 3.5 days in 2012–2013, 3.4 days in 2013–2014, 4 days in 2014–2015, and 4 days in 2015–2016).³

Exhibit 2

On average students received more than 20 minutes of tutoring per day.



Member Professional Development and Training

In 2015–2016 Washington Reading Corps member training included a 3-day training institute in the fall, monthly professional learning cluster meetings led by Washington Reading Corps members and regional trainings led by Educational Service Districts and Washington Reading Corps coordinators, and on-site training and coaching from school and early learning site staff.

2015 Washington Reading Corps Training Institute



In October 2015 Washington Reading Corps conducted the Training Institute, a 2-day required training for new and returning members. Speakers included school district and Educational Service District staff, OSPI staff, and external presenters from United Way of Chelan/Douglas Counties, Central Washington University, Whatcom Dispute Resolution Center, and elsewhere. Content included the fundamentals of reading, effective communication skills, student behavior management, cultural competency and inclusion, early childhood development, and early learning teaching strategies (targeted to members placed in early learning centers).

²Minutes per day: *n* = 7,174 students in 2012–2013, *n* = 2,417 students in 2013–2014, *n* = 3,970 in 2014–2015, *n* = 3,550 in 2015–2016.

³Days: *n* = 7,171 students in 2012–2013, *n* = 2,404 students in 2013–2014, *n* = 3,987 in 2014–2015, *n* = 3,551 in 2015–2016.

For the 2015–2016 program year the Training Institute included a new presentation to members about best practices in recruitment and retention of community volunteers. Each member received a volunteer recruitment workbook with information about the volunteer program at the member’s site and guidance on assessing teacher and staff needs for volunteers; connecting with past volunteers; and training, tracking, and communicating with volunteers. Other Training Institute topics included a member orientation to Washington Reading Corps program requirements and expectations and brief presentations on data collection methods, reading with English language learners, extended learning opportunities, family literacy engagement, and reading activity toolkits.

Washington Reading Corps members (about 43%) rated the Training Institute topics as useful or very useful (see Exhibit 3). Whereas instruction on the fundamentals of reading was considered most useful, Fish! Philosophy Training received mixed reviews with 52% of members rating it as either *very* or *extremely* useful and 35% rating it as *not* or *somewhat* useful. Conversely, members reported that training on volunteer recruitment and management was least useful.

Exhibit 3
Usefulness of Washington Reading Corps Training Institute Topics

Topic	Not Useful	Somewhat Useful	Useful	Very Useful	Extremely Useful	I did not receive training on this
Fish! Philosophy Training	12%	23%	8%	24%	28%	4%
Fundamentals of Reading	3%	12%	30%	23%	26%	5%
Student and Behavior Management	7%	18%	22%	23%	19%	11%
Cultural Competency and Inclusion	10%	15%	27%	19%	17%	12%
English Language Learners	4%	14%	22%	19%	14%	27%
Activity Toolkits	6%	12%	28%	22%	10%	21%
Data Collection Methods	8%	21%	28%	13%	8%	22%
Extended Learning	4%	12%	30%	12%	8%	34%
Family Engagement	5%	14%	30%	17%	8%	26%
Early Learning	3%	10%	26%	7%	6%	47%
Principled Negotiation	7%	15%	22%	14%	6%	35%
Volunteer Recruitment/Mgmt	15%	16%	30%	13%	6%	20%

Note. n = 92–100. Colored text reflects trainings more members rated as most useful or least useful.

Professional Learning Cluster Meetings



Starting in 2015–2016 members were offered member-led professional learning cluster meetings. These meetings occurred monthly from December 2015 through July 2016 and included a sustainability binder project, member reflection project, Martin Luther King Jr. Day service project development, and several assignments related to professional development, such as development of an “elevator pitch” about member service and practice interviewing. Also added in 2015–2016 were 3 regional literacy trainings

provided by OSPI, Washington Reading Corps, and Educational Service District staff for members in November 2015 and February and May 2016. Regional Washington Reading Corps coordinators organized trainings and activities with each regional ESD coordinator, including a LETRS training (ParaReading), a supplemental reading module based on the National Reading Panel’s recommendations for research-based instruction.⁴ However, in contrast to other types of professional development, **the quality of regional professional learning cluster meetings and monthly member-led professional learning cluster meetings received mixed reviews by members** (see Appendix C).

Site-Specific Training

PD MS SS

In their applications, prospective sites described plans for site-based training. Each site was expected to train Washington Reading Corps members on certain topics. **At least 62% of 110 Washington Reading Corps member survey respondents received a training on the site safety plan, orientation to the site, how students learn to read, tracking student progress, and where to direct questions.** Training on other topics was reported less frequently (see Exhibit 4).

**Exhibit 4
Reported Receipt of Site-Specific Training**

Topic	Members
Site safety plan	76%
Orientation to site	65%
How students learn to read (critical components of reading)	64%
Tracking student progress	62%
Where to direct questions	62%
Tutoring/intervention program	58%
Site culture (expectations for conduct)	58%
Student behavior management	52%
Communication plan for accessing school/site staff	45%
Family literacy engagement plan	42%
Strategies for diverse learners	38%
How tutoring connects with classroom instruction	35%
State English Language Arts (ELA) learning standards	32%
Strategies for English Language Learners or bilingual students	29%
Community volunteer recruitment or management plan	29%

Note. n = 110. Colored text reflects site-specific training topics received by at least 60% of members.

Strategies for bilingual students or English language learners (ELL). About a third of site supervisor respondents said their site provided some Washington Reading Corps member training to support

⁴National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: an evidence-based assessment of the scientific research literature on reading and its implications for reading instruction.* Retrieved May 19, 2015, from <http://www.nichd.nih.gov/publications/nrp/smallbook.htm>

reading skills of ELL or bilingual students. About half of those described coaching, demonstrations, or weekly conversations with members specifically related to supporting bilingual and ELL students. At several sites the ELL teacher provided training or coaching to members. At several sites members were provided with Guided Language Acquisition Design (GLAD) strategies from a model designed to support ELL students in a mainstream classroom.

Ongoing supervision or coaching of members. Almost every site reported ongoing supervision or coaching of Washington Reading Corps members. **More than 70% of site supervisor respondents rated ongoing coaching or supervision of members as a very or extremely effective element of the Washington Reading Corps program** (see Exhibit 8). Site supervisors described:

- Daily check-ins or weekly or biweekly meetings ($n = 23$ respondents).
- Coaching from the classroom teacher, Title I or Learning Assistance Program teacher, principal, or literacy coach ($n = 21$).
- Member participation in staff trainings, ESD and Early Childhood Education and Assistance Program trainings, reading-specific trainings, or grade level collaboration meetings ($n = 12$).
- Supervisor or staff observations of members during tutoring and feedback ($n = 4$).
- Supervisor being housed in office space with members ($n = 4$).

Quality and Relevance of Training

MS

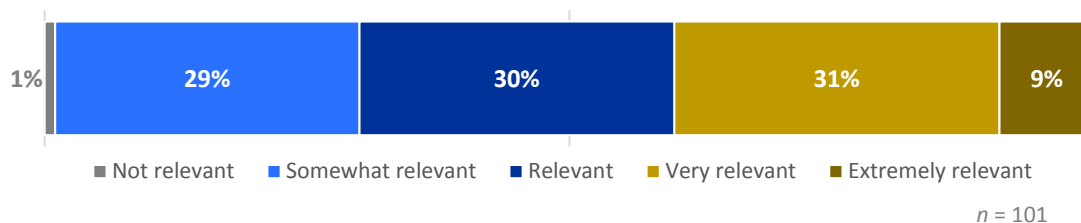
Members rated the quality of all types of Washington Reading Corps training they received in 2015–2016 from any source. Of those who were offered and attended different types of training ($n = 26–104$), **at least 47% of members rated the quality as very good or excellent** for:

- Professional development with school staff (64%).
- Washington Reading Corps Training Institute (51%).
- Site-specific Washington Reading Corps trainings (47%).
- Other professional development (47%).

Members also rated the relevance of all of the Washington Reading Corps training and professional development they received in 2015–2016 (see Exhibit 5).

Exhibit 5

The majority of the members considered the training they received to be relevant or very relevant to their work.



Student Participation

Washington Reading Corps Program Participation

STL

Exhibit 6 shows the number and percentage⁵ of students in the targeted grades at active sites who were enrolled, screened, and tutored in the Washington Reading Corps program at any time during 2012–2013, 2013–2014, 2014–2015, and 2015–2016.

Exhibit 6

Washington Reading Corps Participation by Grade

Year	Total	K	G1	G2	G3	G4	G5	G6
2012–2013	7,199	28% ^a	18%	17%	13%	10%	10%	3%
2013–2014	2,417	41% ^a	16%	13%	10%	10%	9%	1%
2014–2015	4,008	27% ^a	22%	19%	14%	9%	7%	2%
2015–2016	3,602	20%	21%	20%	15%	13%	9%	2%

Note. Percentages may not sum to 100 due to rounding. Total number of tutoring participants and grades based on student tracking logs. Percentages in 2015–2016 based on 3,420 students with a grade recorded in the student tracking logs.

^aMay include some pre-K children.

Tutoring Program Participation and Completion

STL

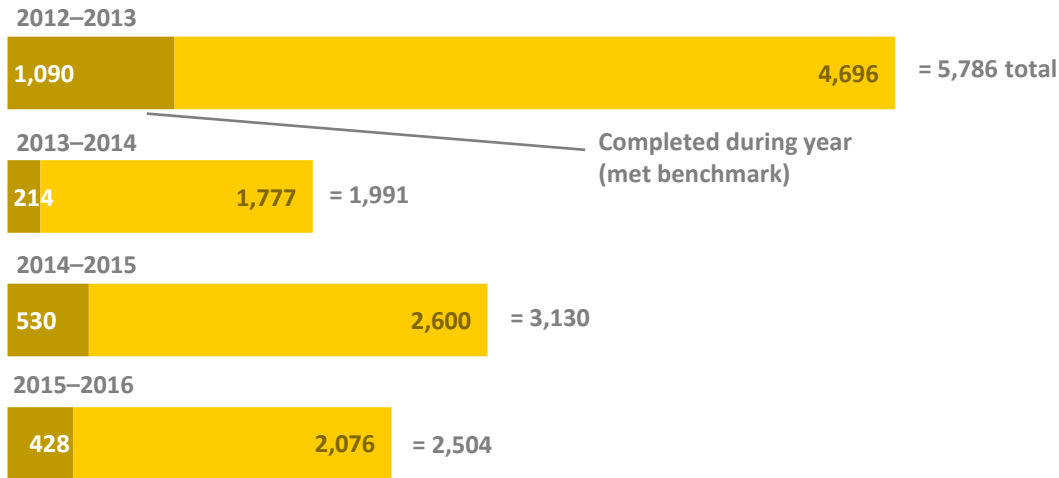
Program completion is defined as either participating in tutoring through spring or meeting the reading benchmark during the year and thus exiting the Washington Reading Corps program. Across all years, the numbers of students still receiving Washington Reading Corps tutoring at the end of the year (defined as between May 16 and June 30 for 2012–2014 and between May 1 and June 30 for 2014–2015 and 2015–2016) and students who met the benchmark and thus completed the program earlier in the year⁶ were obtained from student tracking logs (see Exhibit 7). Because students whose benchmark status or program end date was not recorded were not included in this analysis, Exhibit 7 likely underrepresents student participation in Washington Reading Corps.

⁵A total of 15% of student data had either no pretest date or a date outside of 2012–2014. These students were not removed from 2012–2013 and 2013–2014 analyses, but this finding suggests potentially broader issues with missing data or the quality of data entry.

⁶In 2012–2013 and 2013–2014 the variable for *met benchmark* was combined with *improved at least one grade*. In 2014–2015 tracking logs, these were 2 separate variables. In 2015–2016 tracking logs included *met benchmark* and “*Did student improve?*” as 2 separate variables.

Exhibit 7

Since 2012–2013 between 70% and 80% of Washington Reading Corps students were participating at year end.



Literacy-Focused Family Activities and Events

PD MS SS

In addition to tutoring students, Washington Reading Corps members were expected to be involved in literacy-focused activities and events for parents and families. The Washington Reading Corps reported 374 events through June 2016 with 27,239 attendees. Family literacy nights were common events. Other examples of family events included “Dr. Seuss night,” ELL Parent Night, “Books and Breakfast,” book fairs or book giveaways, and a spelling bee.

Members predominantly served in Family Literacy Nights. The vast majority of Washington Reading Corps members surveyed (90%) said they were involved with at least 2 family literacy events during the academic year—primarily through family literacy nights. Other member-reported activities included providing literacy resources ($n = 21$) and organizing volunteers ($n = 5$). According to site supervisor survey respondents, 95% said members attended family literacy events and at least 80% said members planned events, developed materials, promoted, and facilitated family literacy events.

Almost all sites (95%) measured results of family literacy activities or events based on the number of families who attended or participated. Roughly half of sites measured results based on teacher or staff feedback after literacy events (58%) or whether more families got involved in school activities (49%). Finally, 36% of sites considered whether students showed more interest in reading after events.

Community Volunteers

PD MS SS

To help schools achieve their literacy goals, Washington Reading Corps members were expected to support recruitment of community volunteer tutors for before- and after-school programs, enhance or create community volunteer recruitment systems, or develop or expand existing volunteer recognition program. Such activities did not always align with sites’ needs; for example, some sites already had a staff person in charge of community volunteer recruitment. The Washington Reading Corps’ data

indicated that by the end of June 2016 a total of 3,512 community volunteers had provided 39,787 hours of volunteer service related to reading support across sites.

- **Most members were involved in recruiting community volunteers to tutor students** according to 66% of site supervisors and 38% of member survey respondents. The supervisors of 33% of the sites reported that members assisted the site’s volunteer coordinator and at about 25% of sites members trained volunteers to tutor or were involved in volunteer retention (e.g., appreciation events). Members described other involvement such as coordinating volunteers ($n = 7$), orienting volunteers ($n = 5$), and interacting with volunteers at events ($n = 2$). Members indicated that recruiting volunteers and managing volunteer commitment were the most challenging aspects of working with community volunteers.
- **A majority of members received site training for their role with community volunteers.** Members met with or worked with school staff (e.g., the principal, Washington Reading Corps coordinator, site supervisor, school counselor, or volunteer liaison) regarding volunteer recruitment. Several site supervisors mentioned a volunteer handbook as a training resource. About 20% of site supervisor respondents indicated that no member training was provided.
- **Community volunteer hours were tracked in several ways.** More than half of sites (58%) used a paper system to track community volunteer hours, whereas 25% used a computer spreadsheet and 20% used an online system. No tracking system existed at 10% of the sites. Most often responsibility for tracking community volunteer hours was shared across multiple site staff (e.g., the member, site supervisor, other staff persons, and/or a volunteer coordinator).

In addition to involvement with community tutors, members were often involved in arranging for peer tutoring or cross-age tutoring within their schools.

Barriers and Best Practices in Implementation

Evaluation Question

What barriers or contextual factors are influencing the Washington Reading Corps program implementation?

Barriers to Effectiveness



Barriers to implementation described by site supervisors included the following:

- **Certain Washington Reading Corps program requirements.** Program requirements described as challenging included initial paperwork requirements; the need for consistent monitoring of student progress; site supervisor training off-site at a busy time of year; members’ volunteer hours requirement and restrictions on types of acceptable activities; off-site member trainings and other responsibilities that interrupted members’ on-site activities; and Washington Reading Corps access being limited to “strategic” students.
- **Scheduling challenges.** Some site supervisors and members reported difficulty scheduling pull-out tutoring that did not conflict with core instruction. Additional challenges mentioned by Washington Reading Corps members included lack of time allotted to pull students out for tutoring, not seeing the same students regularly because teachers’ schedules changed, having to tutor students during ‘free choice’ time when students are “more interested in playing than learning,” and being assigned to tutor additional students when a Washington Reading Corps member left during the academic year.

- **Member characteristics.** Some members did not appear to be interested in the work, seemed immature or irresponsible, or had personal issues that interfered with their service.
- **Member recruitment and absenteeism.** Finding strong candidates and enough candidates to fill member positions was described as challenging and time consuming. Additionally, member absenteeism and departure from the Washington Reading Corps for personal or professional reasons were also implementation barriers noted by site supervisors.

Implementation challenges cited by member survey respondents were categorized as either related to the Washington Reading Corps program or site specific. With regard to *program challenges*, a few members reported issues related to training ($n = 4$) and meetings ($n = 3$). Training issues included training that occurred too late in academic year and school staff who were unfamiliar with the Washington Reading Corps. Some members felt that the frequency of professional learning cluster meetings took time away from serving at the site. The most common *site-specific challenges* included teachers' lack of clarity regarding member roles or early learning members not understanding their role is ($n = 12$) and scheduling conflicts ($n = 11$).

Suggestions for Improvement

MS

SS

Suggestions to improve the Washington Reading Corps program addressed some identified barriers to implementation and other topics such as the following:

- **Certain Washington Reading Corps program requirements.** Suggested improvements included reducing the number of hours or expanding types of activities counted toward members' required hours and increasing options for members volunteering in the community. At a few sites the tutoring group size exceeded Washington Reading Corps requirements or members felt overwhelmed by the number of students assigned to them. Adjusting the timing of some program activities was another recommendation, such as having cluster meetings during school breaks or on non-school days and having members start on-site earlier to participate in staff development. Lastly, site supervisors recommended reducing or streamlining the reporting requirements; the amount of paperwork to initiate a member and ongoing documentation were considered burdensome.
- **Member recruitment.** Site supervisor suggestions for improvement included identifying and attracting more qualified candidates, selecting members pursuing a career in education, and reducing sites' burdens related to summer recruitment logistics (e.g., doing background checks, selecting members when teachers are gone for summer).
- **Professional development for members.** Site supervisors' recommended topics for additional member professional development included recruiting volunteers, managing student behavior and positive behavior training, implementing strategies to support struggling readers, and increasing early learning training. Conducting a midyear meeting to discuss next steps toward members' future jobs or education was also suggested. In response to an open-ended survey question about their interest in other types of training, Washington Reading Corps members most frequently requested more professional development on behavior management ($n = 23$), reading strategies ($n = 8$), and working with ELL students ($n = 8$) and a variety of other student populations (e.g., students in poverty; students with autism or other special education needs; and students from a variety of cultural backgrounds; $n = 5$).
- **Additional support from Washington Reading Corps administrators.** Site supervisor suggestions included increasing initial communication with members about expected activities and projects; checking in monthly with new members from a state-level staff person; increasing contact with

site supervisors; showcasing exemplary practices so all Washington Reading Corps sites benefit from successful strategies; and increasing program support to help members find alternative placements during school breaks.

Evaluation Question

What best practices can be identified in the Washington Reading Corps program design and implementation?

Practices That Support Effectiveness

MS

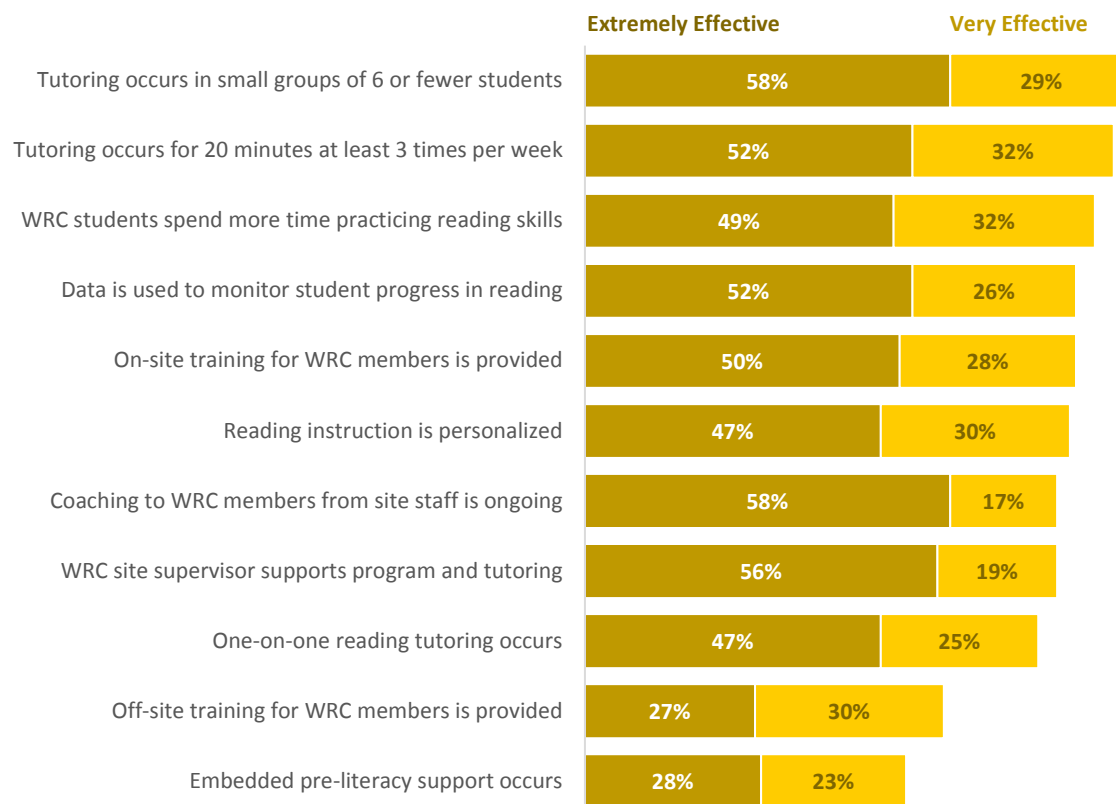
SS

Washington Reading Corps member survey respondents rated the degree to which they found specific program factors helpful. Overall, they found school resources more helpful than resources provided by the Washington Reading Corps program coordinators. **Roughly 30% rated as extremely helpful** (a) support from school administration for the Washington Reading Corps program, (b) site supervisor involvement with the Washington Reading Corps members, and (c) lead teacher involvement with Washington Reading Corps members.

Site supervisor survey respondents rated the effectiveness of elements of the Washington Reading Corps program for helping struggling readers at their site. **More than 80% of respondents rated these program elements as extremely or very effective:** “tutoring occurs in small groups of 6 or fewer students”; “tutoring occurs for 20 minutes at least 3 times per week”; and “students spend more time practicing reading skills” as a result of their Washington Reading Corps participation (see Exhibit 8).

Exhibit 8

A majority said program elements were extremely or very effective for struggling readers.



Note. $n = 56-59$.

In response to an open-ended question, site supervisors described the following practices as helping the members or the tutoring program be effective in 2015–2016:

- Coaching and training opportunities for members, including from site staff.** Examples of coaching practices included opportunities for members to tutor with seasoned teachers and staff; conference with literacy staff; observe effective teachers model interventions; participate in staff, department, or weekly team meetings; and meet with the site supervisor regularly. Training practices included member training at the October Training Institute; ensuring the member was trained in the site’s reading program; and training in positive behavior supports, social thinking, and other topics. These types of coaching and training practices were described by many site supervisors ($n = 23$).
- Member characteristics and integration.** Member characteristics such as eagerness, flexibility, competence, drive, dedication, work ethic, and organizational skills supported program effectiveness. Members’ involvement in the school and community and their development of relationships with students and staff were other effective practices. Members were described as *fully integrated* into the site community by 62% of site supervisor respondents and *moderately integrated* by 19% of respondents.

- **Elements of the Washington Reading Corps program.** Elements of the program itself were highlighted as effective practices, including implementation of research-based reading intervention methods; the augmentation of reading interventions available to students (including before- and after-school programs) because of members; members' review and use of student data; and support and communication from Washington Reading Corps staff to sites.

Sustainability of Program Components

Evaluation Question

To what extent are these changes sustainable?

Site sustainability includes members' efforts to recruit, engage, and maintain community volunteers to support reading tutoring at each site. Three additional dimensions of sustainability were assessed: written resources that describe implementation of the Washington Reading Corps program; sustainability of reading supports provided by members; and member retention, such as factors affecting whether members continue to serve for a second year.

Written Resources for Implementation

SS

Site supervisor survey respondents described written materials and resources at each site about how to:

- **Orient and train Washington Reading Corps members on site.** Most frequently, written materials from Washington Reading Corps or OSPI were reported (e.g., supervisor handbook, sustainability handbook or binder, site orientation checklist). Other materials included past member training materials, classroom materials and curriculum guides, written school or district expectations, and resource books or articles on teaching literacy. Additional resources included new staff orientation and trainings, knowledge and experience of site staff (site supervisor, principal, instructional coach, etc.), and building staff development resources.
- **Organize family literacy events.** Written materials from past years' events and sustainability binders were most frequently mentioned, along with guides from the Title I grant program. Other resources included staff experience, returning members' experience, online materials, and partnering with groups such as the Parent-Teacher Association, an after-school reading club, or Boys and Girls Clubs. Eleven respondents were unsure or said their sites did not have written materials or resources on this topic.
- **Recruit community volunteers to tutor.** Most frequently mentioned written materials included volunteer recruitment manuals, site sustainability binders, and site supervisors' or past members' notes and materials. The parent handbook, district volunteer form, and guides from the Title I grant program were described. Resources included the district or other volunteer coordinators, experience of staff members, and partnerships with United Way or the Parent-Teacher Association. Seventeen respondents were unsure or said their sites did not have written materials or resources on this topic.

Reading Support Sustainability

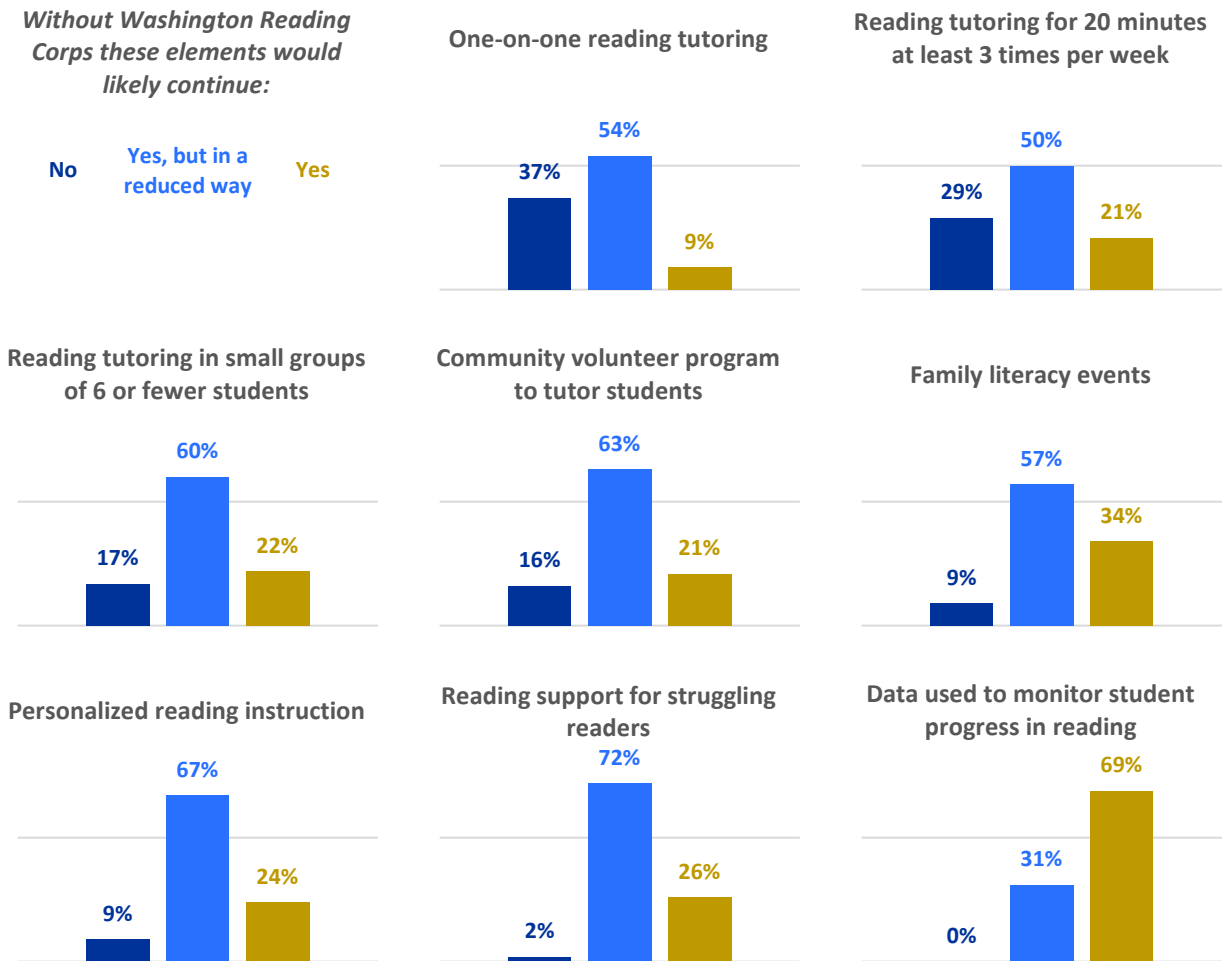
SS

Site supervisor survey respondents indicated which elements would likely continue without the Washington Reading Corps program (see Exhibit 9). Most elements were likely to be fully or partially sustained at most sites:

- Two thirds of respondents said **data used to monitor student progress in reading would continue** without the program.
- Reading supports for struggling readers** and **personalized reading instruction would continue, but in a reduced way** according to more than two thirds of respondents.
- In contrast, roughly one third of respondents said **one-on-one reading tutoring** and **tutoring for 20 minutes at least 3 times per week would not continue** without Washington Reading Corps.

Exhibit 9

Tutoring elements were the least likely to be sustained across all sites.



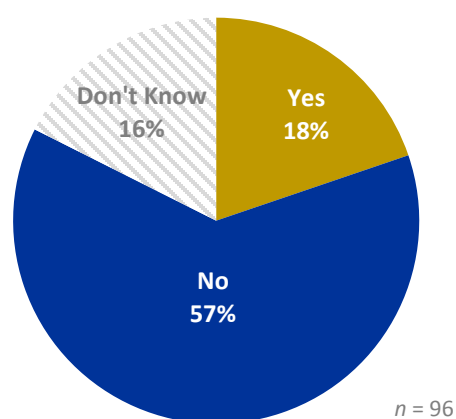
Note. n = 57–58.

Member Retention

MS

Member retention beyond their first year is relevant to program sustainability because retention may support continuity of tutoring, family literacy events, and volunteer efforts at a site. According to the Corporation for National and Community Service guidelines, members are allowed to serve a total of 4 terms and receive an education grant for the equivalent of 2 terms. About 18% of the respondents to the Washington Reading Corps member survey planned to return in 2016–2017, whereas slightly more than half did not plan to return (Exhibit 10).

Exhibit 10
Slightly more than half of Washington Reading Corps members did not plan to return in 2016–2017.



Survey respondents who planned to return most frequently reported that their decision was influenced by their enjoyment of Washington Reading Corps ($n = 7$), the education grant ($n = 4$), and the learning experience ($n = 4$). Other factors included the school culture and the feeling that they were making a difference. Members who did not plan to return most frequently responded that the stipend was too low ($n = 23$), they were planning to attend school in the fall ($n = 18$), or they could no longer receive the education grant ($n = 5$). They also referred to lack of support ($n = 3$) and scheduling problems ($n = 3$) and a few mentioned burnout or burdensome Washington Reading Corps requirements.

Factors associated with retention. To further explore factors related to Washington Reading Corps member retention, RMC Research conducted an exploratory factor analysis on 16 survey items related to member experiences⁷ (see Appendix C). This analysis revealed 3 factors: meaningfulness of work ($\alpha = .82$), satisfaction ($\alpha = .56$), and affiliation ($\alpha = .88$). The survey items included in these 3 factors are presented in Exhibit 11.

⁷Mesch, D.L., Tshirhart, M., Perry, J.L., & Lee, G. (1998). Altruists or Egoists? Retention in Stipended Service, *Nonprofit Management and Leadership*, 9(1), 3–21.

Exhibit 11

Factors Associated With Washington Reading Corps Members' Experiences

Meaningfulness of Service	Satisfaction	Affiliation
I am helping others through the Washington Reading Corps.	I feel like my skills are being utilized as a Washington Reading Corps member.	I have been able to get to know other Washington Reading Corps members.
I am serving the site community.	I find my service with the Washington Reading Corps interesting.	I have a good relationship with other Washington Reading Corps members.
I have a good relationship with the students I tutor through the Washington Reading Corps.	I find my service with the Washington Reading Corps challenging.	I have an opportunity to socialize with other Washington Reading Corps members.
I know how my service as a Washington Reading Corps member influences my students' reading skills.	I receive quality supervision as part of the Washington Reading Corps.	
I feel a responsibility for developing my students' literacy.		

Washington Reading Corps members who indicated they were not planning to return in 2016–2017 reported significantly less affiliation than those who planned to return and those who were unsure.

Regardless of whether they planned to return, members' ratings on *meaningfulness* and *satisfaction* related to Washington Reading Corps did not significantly differ. In other words, members who planned to return, did not plan to return, or were unsure did not differ in how meaningful or satisfying they found their service with the Washington Reading Corps. To further examine the relationship among Washington Reading Corps member characteristics (e.g., gender, previous volunteer experience, 4-year degree), meaningfulness of service, satisfaction, affiliation, and compensation, RMC Research designed a multiple logistic regression model to explore whether these factors predicted retention. Members with a 4-year degree were significantly more likely ($p = .01$) to report that they did not plan to return during the 2016–2017 academic year than members without a 4-year degree.

RMC Research then created a second multiple logistic regression model that only included 2 predictors: the factor *affiliation* and the survey item "I receive fair benefits for my service with the Washington Reading Corps (e.g., stipend, education grants, etc.)" In this model "fair benefits" was a significantly strong predictor of Washington Reading Corps member retention ($p = .04$, odds ratio = 2.25), whereas perceptions of affiliation did not significantly predict retention. This finding suggests that Washington Reading Corps members were 2.3 times more likely to be retained for each unit increase in members' perception of fair benefits. In other words, **the more the members agreed that the benefits they receive for their service were fair, the more likely they were to indicate they planned to return the following year.**

RMC Research then conducted a third multiple logistic regression model to explore the relationship between the 5 facilitators of implementation (support from school administration, time allotted to tutor students, lead teacher involvement with members, Washington Reading Corps site supervisor involvement, and Washington Reading Corps program coordinator involvement) and member retention. This multiple logistic regression model revealed that none of these facilitators significantly influenced member retention.

The impact evaluation of the Washington Reading Corps examined (a) the influence of the Washington Reading Corps program on student reading scores, (b) the relationships between school characteristics, member characteristics, and student reading scores, (c) change in student reading skills, and (d) member perceptions of change in students' attitudes, behaviors, and self-confidence in reading. The evaluation questions and their data sources are presented in Appendix A (Exhibit A1). Data were synthesized from several sources:

- RA** Statewide reading assessments
- PD** Program data
- STL** Student tracking logs
- MS** Washington Reading Corps member survey (see Appendix C)

Influence of the Washington Reading Corps on Student Reading Scores

Evaluation Questions

To what extent do student assessment scores differ between those served by Washington Reading Corps and those not served by Washington Reading Corps?

To what extent are the Washington Reading Corps programs on track to show increases in students achieving grade level reading proficiency?

To what extent are the Washington Reading Corps programs on track to show decreases in reading proficiency gaps?

RA **PD**

RMC Research addressed these 3 evaluation questions for the 2014–2015 cohort using a matched comparison group (see Appendix E for results). For the 2015–2016 cohort, these evaluation questions will be addressed using student-level data from Washington Reading Corps schools and from comparison schools identified in fall 2016. Analyses will occur in winter 2017 when the state assessment data are available.⁸

To analyze the impact of Washington Reading Corps on 2015–2016 participating students, RMC Research will use a quasi-experimental design with a 2-step propensity score matching process (matching students and matching schools). When random assignment to experimental conditions is not feasible in real world settings, quasi-experimental designs provide another rigorous approach to exploring the causal relationship between an intervention and related outcomes. Matching Washington

⁸This analysis is proposed in the 2016–2017 contract.

Reading Corps students and schools to other similar students and schools reduces sampling bias and leads to a more precise analysis of whether reading outcomes are related to Washington Reading Corps participation. Identifying a matched comparison group creates the counterfactual condition: what would student outcomes have been if students had not participated in Washington Reading Corps? With matched comparison groups in place, the evaluation team can statistically test whether students' reading outcomes differ significantly at schools with and without Washington Reading Corps tutoring.

To address whether participation in Washington Reading Corps influenced student reading scores on the ELA Smarter Balanced Assessment, RMC Research will use cross-sectional hierarchical linear modeling (HLM) to account for Washington Reading Corps' hierarchical structure, meaning that students (hierarchical Level 1) are nested in different schools (hierarchical Level 2). As an analytic technique, HLM provides a more precise estimate of individual student effects and school effects on reading scores. Because Washington Reading Corps is implemented in multiple schools, HLM can identify how student scores on the ELA Smarter Balanced Assessment may be influenced by each school's unique characteristics, by each student's unique characteristics, and by the school's participation in Washington Reading Corps.

Evaluation Question

To what extent are the Washington Reading Corps programs meeting the 3 Corporation for National and Community Service (CNCS) National Performance Measures?

STL

The Washington Reading Corps focused on economically disadvantaged students with regard to Education Performance Measures 1 and 2 (ED1 and ED2). Although specific information about the economic status of individual students participating in the program is not available, the Washington Reading Corps program is typically implemented in schools with a significant percentage of students receiving free or reduced-price meals. Among 66 Washington Reading Corps sites with OSPI Report Card data, the average percentage of students receiving free or reduced-price lunch was 61% (range 18–95%). As shown in Exhibit 12, the number of students participating in active Washington Reading Corps sites is represented in Measure ED1. For Measure ED2, students who completed the program is defined as the number of students who either continued to receive services through spring or met benchmark during the year and exited the Washington Reading Corps program. For Measure ED5, in 2015–2016 improved academic performance in literacy is defined as the number of students who received a 'yes' for "did student improve?" variable at any time during the school year: **92% of students with data were rated as showing improved academic performance in literacy.**⁹

⁹A total of 687 students had missing data on the variable "did student improve?" and 226 were reported no improvement.

Exhibit 12
National Performance Measures Results

National Performance Measure		2015–2016
Measure ED1	The number of economically disadvantaged students or students with special/exceptional needs who start in a CNCS-supported education program .	3,605
Measure ED2	The number of economically disadvantaged students or students with special/exceptional needs who complete a CNCS-supported education program .	2,504
Measure ED5	The number of students with improved academic performance in literacy.	2,692

What is the relationship between school characteristics, Washington Reading Corps member characteristics, and student reading skills?

Predictors of Meeting Grade Level Reading Benchmark

PD **STL** **MS**

To further explore whether participation in the Washington Reading Corps influences student outcomes, RMC Research used HLM to explore the relationship between site characteristics, Washington Reading Corps member perceptions, and whether or not students met grade level reading benchmarks. Using HLM accounts for the hierarchical structure of the Washington Reading Corps (meaning that students are nested in schools). HLM provides a way to determine which characteristics, by hierarchical level, are significantly related to student reading outcomes.

RMC Research conducted a 2-level HLM that included students ($n = 2,334$) at Level 1 and sites ($n = 33$) at Level 2. The final model included 6 predictors of meeting the grade level reading benchmark. Exhibit 13 presents descriptive statistics for each of the variables included in the HLM. In contrast to 2014–2015, none of the predictors listed in Exhibit 13 were significantly related to students meeting the grade level reading benchmark. In 2014–2015 the helpfulness of the site supervisor and the tutoring group size were positively associated with students meeting grade level benchmarks, whereas the number of tutoring days per week was negatively associated with students meeting grade level benchmarks.

Exhibit 13
Descriptive Statistics for Predictor Variables

Predictor	Mean	Min	Max
Helpfulness of site supervisor	3	0	4
Tutoring group size	4	1	7
Number of years with Washington Reading Corps	6.22	2	19
Total school enrollment	403	126	668
Average minutes per tutoring session	28.59	0	110
Average tutoring days per week	4	0	6

Note. Helpfulness of site supervisor 1 = *not helpful*, 2 = *somewhat helpful*, 3 = *helpful*, 4 = *very helpful*, 5 = *extremely helpful*. Site $n = 33$, student $n = 2,334$.

Change in Student Reading Skills

Evaluation Question

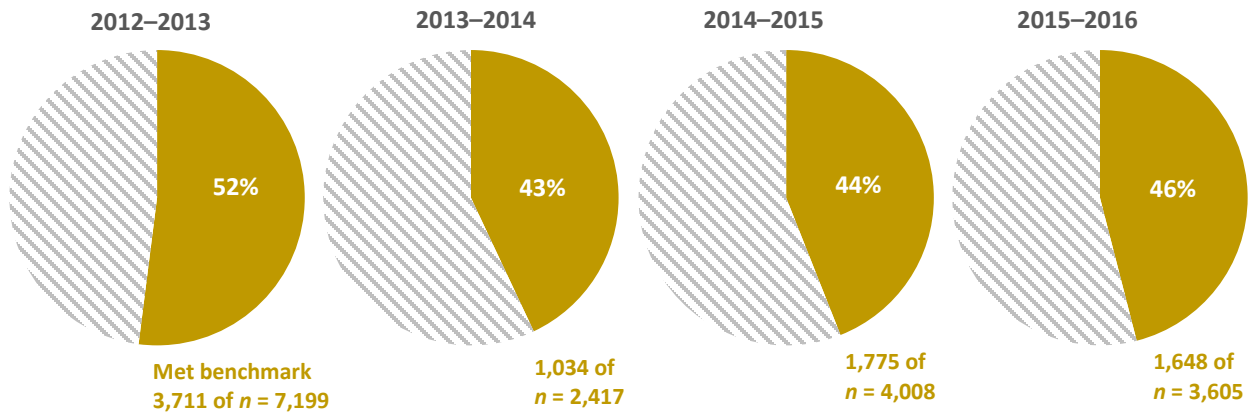
To what extent are the Washington Reading Corps programs on track to show increases in students meeting reading benchmarks?

STL

The percentages of students in the program who met reading benchmarks at any time during the year (fall, winter, or spring) are reported in Exhibit 14. Notably, in 2012–2013 and 2013–2014 *met benchmark* was combined with *gained at least one grade*, meaning that students might have met either of these criteria, whereas in 2014–2015 *met benchmark* and *gained at least one grade* were separate variables. In 2015–2016 tracking logs included *met benchmark* and “Did student improve?” as separate variables.

Exhibit 14

Roughly 40 to 50% of students enrolled in the active Washington Reading Corps sites met reading benchmarks during the year.



Note. Only students with reading benchmark data recorded in the student tracking logs are included. In 2015–2016, 548 students (15%) were missing reading benchmark data.

Student Attitudes, Behaviors, and Self-Confidence in Reading

Evaluation Question

To what extent are the Washington Reading Corps programs on track to show improvements in students' attitudes, behaviors, and self-confidence in reading?

Attitudes

MS

Washington Reading Corps members were asked 2 questions about if and how their students' attitudes toward reading had changed since the beginning of the 2015–2016 school year. The majority of respondents (67%) reported that their students' attitudes were *much better* while some reported student attitudes were *somewhat better* (26%). As Exhibit 15 shows, open-ended survey responses further supported these results.

Exhibit 15

Members reported that student attitudes toward and enjoyment of reading changed the most.

Enjoy reading

76 members

Enjoy small group

10

Mixed attitudes

5

Better attitude toward reading

3

No change

2

$n = 93$

One of my lowest readers at the beginning of the year has become something of an actor in class now, while also being able to read his lines proficiently. The progress I've seen is incredible, and helping the kids find what part of reading is their favorite part has been a joy.

They went from "why do we have to?" to "what are we starting today?"



To explore the extent to which students' behaviors toward reading changed, RMC Research analyzed data from the student tracking logs and from the member survey.

Student tracking logs. Members at each site rated students in fall, winter, and spring on the extent to which students were engaged and participated during their tutoring sessions. RMC Research conducted a paired samples *t*-test for each grade to determine whether reported student behaviors changed significantly between fall and spring. Across all grades except Grade 6, **student engagement and participation significantly increased, with the greatest behavior change in Grade 1** (see Exhibit 16).

Exhibit 16
Reading behaviors improved across all grades.

Grade	Fall	Spring	Change	<i>n</i>
K	2.89	3.27	0.38***	361
1	2.77	3.28	0.51***	323
2	2.87	3.29	0.42***	343
3	2.92	3.25	0.33***	275
4	3.04	3.42	0.38***	214
5	3.02	3.46	0.44***	124
6	2.95	3.00	0.05	20
All Grades	2.90	3.30	0.40	1,660

Note. 1 = disengaged (rarely participated), 2 = somewhat engaged (sometimes participated), 3 = mostly engaged (often participated), 4 = engaged (always participated). Only students with fall and spring ratings were included in the analysis.
****p* = .000.

Member survey. Survey respondents estimated the percentage of students they tutored in 2015–2016 who showed improvement across a range of reading behaviors. The vast majority of members reported observing change in over half of their students on all reading behaviors. Exhibit 17 shows the proportion of respondents who reported that more than half of their students showed improvement in each area.

Exhibit 17
All reading behaviors improved among majority of students.

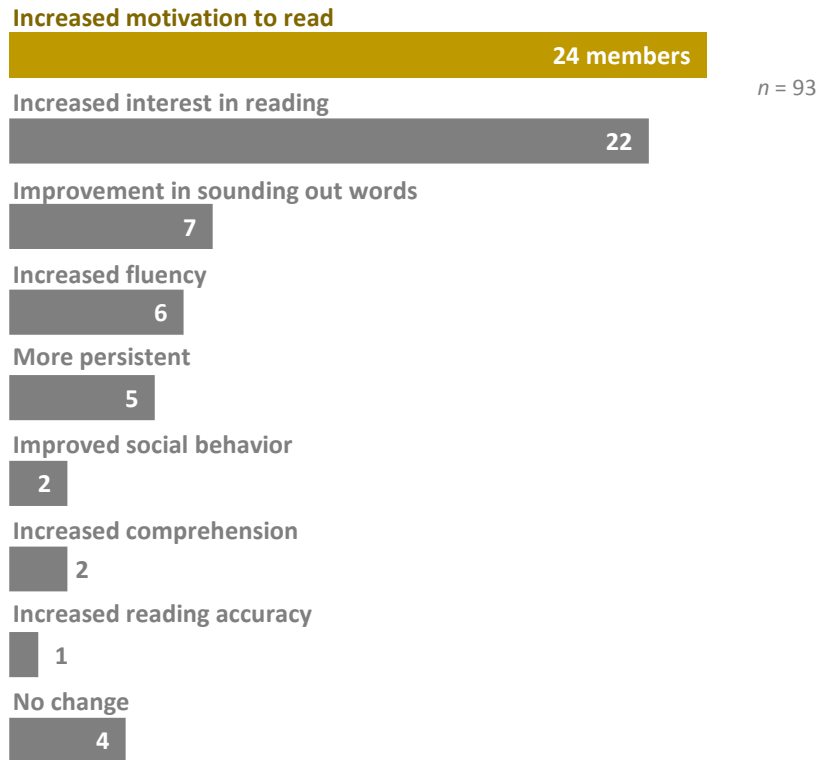
Reading Behavior	Members
Demonstrating interest in new books	84%
Putting in effort when reading	82%
Expressing enjoyment when reading	79%
Answering questions about what they read	76%
Exploring different kinds of books	75%
Reading independently	74%
Comfort reading aloud	72%
Choosing own books	71%
Staying on-task while reading	70%
Asking questions about what they read	67%
Reading aloud fluently	66%
Reading for longer amounts of time	66%
Asking about word definitions	57%

Note. Percentages represent proportion who reported that more than 50% of their students showed improvement. $n = 97-98$.

When asked about other changes in their students’ reading behaviors, about one quarter of Washington Reading Corps members reported that students they tutored were more motivated ($n = 24$) or more interested in reading ($n = 22$) as the year progressed. Washington Reading Corps members also described several other ways their students’ reading behaviors changed (Exhibit 18).



Exhibit 18
Members reported observing changes in student reading behaviors.

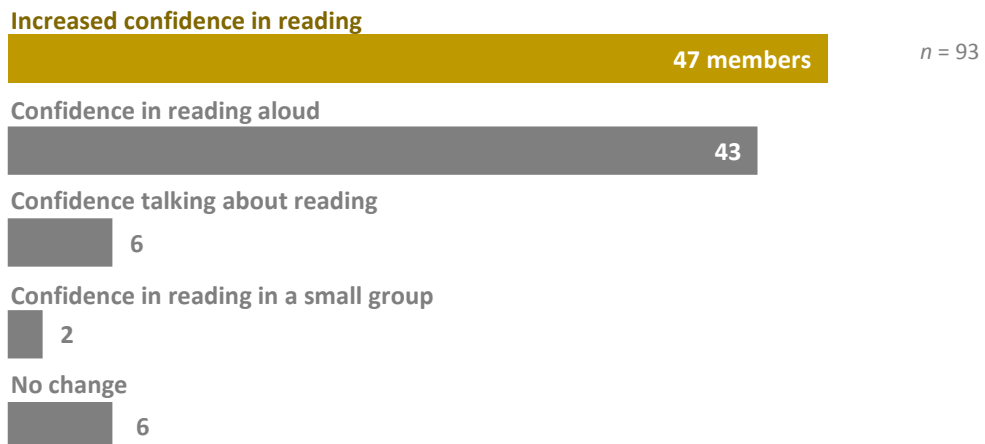


Confidence in Reading

MS

Washington Reading Corps members were surveyed about whether they noticed any changes in their students' self-confidence in reading. About half of respondents (*n* = 47) noticed increased confidence in students' reading, while others provided specific examples presented in Exhibit 19.

Exhibit 19
The majority of members observed increased student confidence in reading.



Summary and Recommendations

The findings and recommendations from the 2015–2016 implementation and impact evaluation are organized around (a) program implementation, (b) barriers to effectiveness, suggestions for improvement, and best practices, (c) sustainability, and (d) program impact.

Program Implementation

- **A total of 77 sites participated** (69 elementary schools and 8 early learning centers) and **117 members were retained in the Washington Reading Corps program in 2015–2016.**
- In Kindergarten through Grade 6, **3,602 children participated and 2,504 were counted as completing** the tutoring program; however, the number of students who completed the program is likely underreported due to missing data.
- **The majority of Washington Reading Corps sites implemented key aspects of the tutoring model**, such as one-on-one and small-group (with 6 or fewer students) tutoring. On average sites exceeded the target of 20 minutes of daily tutoring and sessions occurred 4 days a week.
- Site supervisors strongly endorsed the **usefulness of having a Washington Reading Corps member provide tutoring** to improve struggling students' reading skills. More than 80% of Washington Reading Corps site supervisor respondents described tutoring as *very* or *extremely* useful at their site and a majority cited data from reading assessments or student growth in reading as evidence of usefulness.
- Members received professional development and training from multiple sources: the Washington Service Corps Training Institute, member-led and regional professional learning cluster meetings, and their respective sites.
 - About half of members rated training from all sources as *very good* or *excellent* quality and as *relevant* or *very relevant* to their service.
 - With respect to the Washington Service Corps Training Institute, members said **the most useful topics included the fundamentals of reading and student and behavior management.** The *Fish! Philosophy* training had the most mixed ratings.
 - **The quality of regional professional learning cluster meetings had more mixed ratings** than other types of professional development. Some site supervisors and members disliked the schedule because it interrupted members' on-site activities.
 - Most sites provided training and ongoing coaching to members.
 - ▶ Most site supervisor respondents rated **ongoing coaching or supervision of members as a very or extremely effective element** of the Washington Reading Corps program.
 - ▶ Sites did not consistently provide training across all topics, according to member respondents.
 - ▶ About a third of site supervisor respondents said their site provided some member training to support reading skills of English Language Learners or bilingual students.
- Members were most commonly involved in implementing **family literacy nights at their sites.** Almost all sites measured results of family literacy activities based on the number of families who attended; other indicators of results were teacher and staff feedback and whether more families got involved in school activities.
- **Most members were involved in recruitment of community volunteers and most received site training for their role with community volunteers.**

- More than half of sites used a manual paper system to track community volunteer hours. Most often responsibility for tracking hours was shared across multiple site staff, including the member(s) and site supervisor.

Barriers to Effectiveness, Suggestions for Improvement and Best Practices

- Several **barriers to effectiveness** were cited by site supervisors and members:
 - Certain Washington Reading Corps program requirements (i.e., paperwork, off-site trainings that interrupted activities, members' volunteer hours requirements, restrictions on acceptable activities).
 - Member characteristics that interfered with service, challenges recruiting members, and member absenteeism.
 - Challenges scheduling pull-out tutoring.
 - Some teachers' lack of clarity regarding member roles and some early learning members not understanding their role.
- Site supervisors and members made some **suggestions for improvement**:
 - Modify some program requirements for members.
 - Adjust the timing of off-site trainings.
 - Reduce reporting requirements.
 - Improve the efficacy and efficiency of member recruitment.
 - Provide additional member professional development on managing student behavior, reading strategies, early learning, and working with ELL students and other student populations.
 - Increase support from Washington Reading Corps administrators to sites through more initial communication with members about expected activities and projects, check-ins with new members, increased contact with site supervisors, and assistance find placements for members during school breaks.
- Best practices in support of program effectiveness** identified by site supervisors included:
 - All elements of the Washington Reading Corps program design.** In particular, implementation of research-based reading intervention programs, tutoring in small groups, tutoring for 20 minutes at least 3 times per week, increased student time spent practicing reading skills (including through before- and after-school programs supported by members), members' use of student data, and support from Washington Reading Corps staff to sites.
 - Coaching and training opportunities for members**, including from site staff.
 - Member characteristics and member integration** with students and staff.

Sustainability

- In terms of **written materials and resources for ongoing implementation** of the Washington Reading Corps program, sites described:
 - Written materials from Washington Reading Corps or OSPI and other on-site resources (staff trainings, experience of staff members) for **orientation and training of members on site**.
 - Written materials from past years' events and sustainability binders around **organization of family literacy events** (a subset were unsure or their sites did not have written materials or resources).

- Volunteer recruitment manuals, site sustainability binders, parent handbook, and guides from the Title I grant program for **recruitment of community volunteers** (a subset were unsure or their sites did not have written materials or resources).
- **In terms of reading support sustainability at sites**, most elements were likely to be sustained, either fully or in a reduced way. Using data to monitor student progress in reading was the element most likely to be fully sustained. However, about one third of site supervisors said **one-on-one reading tutoring** and **tutoring for 20 minutes at least 3 times per week would not continue** without Washington Reading Corps.
- In terms of **local sustainability through member retention**, about 18% of members planned to return for the next academic year.

Program Impact

- **About 46% of participating students with data met grade level reading benchmarks** during 2015–2016.
- **Fully 92% of students with data were rated as showing improved academic performance in literacy** during 2015–2016.
- Site characteristics and Washington Reading Corps member perceptions did not significantly predict whether or not students met grade level reading benchmarks in 2015–2016.
- Across all grades except Grade 6, **student engagement and participation in tutoring significantly increased over the year, with the greatest behavior change observed in Grade 1 students**.
- Members consistently reported **improvement in students’ reading behaviors, attitudes, and confidence in reading**. For example, more than 80% of Washington Reading Corps members surveyed indicated that by spring 2016 their tutoring students put in more effort when reading and were more interested in new books. A majority said students had much better attitudes toward and enjoyment of reading. About half of members reported students showed more confidence in reading and reading aloud.

Recommendations

RMC Research has developed recommendations to strengthen both the implementation and impact and the evaluation of the Washington Reading Corps program.

To Strengthen Implementation and Impact

- **Improve the efficacy and efficiency of member recruitment.** In addition to logistical challenges of recruitment, more generally site supervisors said member characteristics could be either a barrier or a key facilitator to program implementation.
- **Review program requirements for members and for site paperwork** to reduce burden on members and on site supervisors where possible.
- **Provide additional training for members**—for example, professional development on managing student behavior, reading strategies, early learning, and working with ELL students and other student populations.
 - Members had mixed perceptions of the quality of professional learning clusters. Scheduling these meetings on non-school days may reduce disruption to sites’ Washington Reading Corps implementation.

- **Consider additional support from Washington Reading Corps administrators to sites.** Site supervisor respondents mentioned support from Washington Reading Corps staff to sites as a best practice and requested more ongoing communication from Washington Reading Corps administrators to members and to site supervisors.
- **Increase consistency of sites' sustainability through written materials and resources.** Although many sites described written materials and resources that would support sustainability of implementation, a subset of sites did not seem to have written materials and resources.
- **Increase efforts to support members' affiliation with other Washington Reading Corps members** to support local sustainability by increasing member retention for a second year. Efforts might include, for example, structuring some social activities at the annual Training Institute, offering online forums for member communication, and encouraging site supervisors or lead teachers to support member interactions. Members' perceived affiliation with other members ("I have been able to get to know other Washington Reading Corps members," "I have a good relationship with other Washington Reading Corps members," and "I have an opportunity to socialize with other Washington Reading Corps members") predicted whether they planned to remain at their site for an additional year.

To Strengthen Evaluation of Program Impact

- **Increase efforts to support accuracy and completeness of data entry** in the student tracking logs to strengthen impact analyses. For example, quality assurance checks by Washington Reading Corps staff in fall and winter may allow for more complete logs. When data is missing for "met benchmark," the full impact of the Washington Reading Corps program cannot be described. If "start date" and "end date" were consistently entered, the effect of program dosage on student reading outcomes could also be explored.
- **Consider collecting student tracking log data using an online data collection tool.** Student tracking log data are currently collected 3 times a year using individual spreadsheets for each site. Some sites alter spreadsheets or enter incompatible data values. This method also requires consolidating spreadsheets into a single data file after each data collection wave. An online data collection tool can improve the quality of data that are collected and increase efficiency in data cleaning and analysis.



Appendix A

Evaluation Methodology









RMC Research initiated its independent impact and implementation evaluation of the Washington Reading Corps program in April 2015 under contract with the Washington State Office of Superintendent of Public Instruction (OSPI). The impact evaluation examined the program's effect on students' reading skills through a quasi-experimental design that compared state assessment reading scores of the schools implementing the Washington Reading Corps program to the scores of a matched sample of schools not implementing the program. Tracking logs were used to report on students meeting benchmarks and select sites for telephone interviews, and surveys were conducted to provide insight into Washington Reading Corps members' perceptions of changes in students' reading attitudes, behaviors, and self-confidence. The implementation evaluation described program outputs, barriers and facilitators to implementation, possible best practices, and sustainability.

Evaluation Questions and Design

The evaluation was guided by the program logic model and 8 questions originally developed by the Washington Reading Corps and 2 related questions proposed by RMC Research (see Exhibit A1; see also Exhibit A3, the logic model). The central impact question addressed by the quasi-experimental design was *To what extent do student assessment scores differ between those served by Washington Reading Corps and those not served by Washington Reading Corps?* Quasi-experimental designs provide a rigorous approach for exploring the causal relationship between an intervention and related outcomes when random assignment is impractical. By employing this design RMC Research statistically tested whether sites that have Washington Reading Corps members differ significantly in student reading scores from similar sites without Washington Reading Corps members. If sites with Washington Reading Corps members have significantly higher reading achievement scores than those without Washington Reading Corps members, it may be inferred that the program had a positive impact on student achievement.¹⁰ Because the Washington Reading Corps provides individualized and small-group interventions, it likely impacts reading skills of students who are tutored by Washington Reading Corps members (rather than all students in a school). Therefore, to more rigorously test the impact of Washington Reading Corps on students, RMC Research used student-level data for this analysis.

¹⁰The primary limitation of using matched comparison groups rather than random assignment to treatment and comparison conditions is related to group equivalence. With matched comparison designs, we can assume that groups are equivalent only on known characteristics. Random assignment assures equivalence on both known and unknown characteristics.

Exhibit A1
Washington Reading Corps Evaluation Questions

Focus	Evaluation Question	Data Sources
Implementation 	1. To what extent are the Washington Reading Corps programs being implemented?	<ul style="list-style-type: none"> ▶ Program data ▶ Member surveys^a ▶ Site supervisor surveys^a
Impact 	2. To what extent are the Washington Reading Corps programs meeting the 3 CNCS National Performance Measures? ^b	<ul style="list-style-type: none"> ▶ Program data ▶ Student tracking logs
Implementation 	3. To what extent are the Washington Reading Corps programs providing their projected program outputs?	<ul style="list-style-type: none"> ▶ Program data ▶ Student tracking logs ▶ Member and/or Site supervisor surveys^a
Impact 	4. To what extent are the Washington Reading Corps programs on track to meet their short- and medium-term outcomes? a) Improvements in students' attitudes, behaviors, self-confidence in reading b) Increases in students meeting reading benchmarks c) Increases in students achieving grade level reading proficiency, decreases in reading proficiency gaps	<ul style="list-style-type: none"> ▶ Member surveys^a; student tracking logs ▶ Student tracking logs ▶ State reading assessment data
Impact 	5. To what extent do student assessment scores differ between those served by Washington Reading Corps and those not served by Washington Reading Corps?	<ul style="list-style-type: none"> ▶ Program data ▶ State reading assessment data
Implementation 	6. What barriers/contextual factors are influencing the Washington Reading Corps program implementation?	<ul style="list-style-type: none"> ▶ Member surveys^a ▶ Site supervisor surveys^a
Implementation 	7. What best practices can be identified in the Washington Reading Corps program design and implementation?	<ul style="list-style-type: none"> ▶ Member surveys^a ▶ Site supervisor surveys^a
Implementation 	8. To what extent are these changes sustainable? a) What program characteristics influence member retention? ^c	<ul style="list-style-type: none"> ▶ Site supervisor surveys^a ▶ Member surveys^a
Impact 	9. What is the relationship between school characteristics, Washington Reading Corps member characteristics, and student reading skills? ^c	<ul style="list-style-type: none"> ▶ Program data ▶ Member surveys^a ▶ Student tracking logs

^aSource proposed by and data collected by RMC Research. ^bCNCS National Performance Measures include (a) number of economically disadvantaged students or students with special or exceptional needs who *start* in a CNCS-supported education program, (b) number of economically disadvantaged students or students with special or exceptional needs who *completed* participation in a CNCS-supported K–12 education program, and (c) number of students with *improved* academic performance in literacy (and/or math). ^cQuestion proposed by RMC Research.

Data Sources

The data sharing agreement with OSPI allowed RMC Research to receive and analyze de-identified student-level data, which included Washington Reading Corps student tracking log data. Washington Reading Corps and Washington Service Corps staff provided additional program data to RMC Research such as excerpts from site applications, Washington Reading Corps Training Institute training materials, and Washington Service Corps data on family literacy events and community volunteer hours. RMC Research also used surveys to collect data from Washington Reading Corps members and site supervisors.

Washington Reading Corps Student Tracking Log Data

Most spring 2015–2016 student tracking logs were received in July 2016. Tracking logs from 2012–2013, 2013–2014, 2014–2015, 2015–2016 were used to address program outputs. Outputs based on tracking logs were summarized only for students in Kindergarten through Grade 6.

Online Washington Reading Corps Member Survey

The online Washington Reading Corps member survey included questions about professional development; the tutoring provided at each site; changes in students' attitudes, behaviors, and confidence in reading; barriers and facilitators to program implementation; and the respondents' experiences as a Washington Reading Corps member. Items related to experiences as a Washington Reading Corps member were developed based on research conducted on the motivational, demographic, and individual factors that affect the retention of stipended volunteers (Mesch, Tschirhart, Perry, & Lee, 1998).¹¹ Of the 127 Washington Reading Corps members, 126 with active email accounts were invited to complete an online survey via Survey Monkey, and the response rate was 87%. Respondents received an electronic \$10 gift card from Starbucks for completing the survey (see Appendix C). The survey was developed in April 2015, reviewed by Washington Reading Corps and Washington Service Corps stakeholders and by RMC Research's internal Human Protections Committee, and administered to all Washington Reading Corps members in May 2015 and 2016.

Online Washington Reading Corps Site Supervisor Survey

The online Washington Reading Corps Site Supervisor Survey included questions about implementation of reading tutoring at each site; member training in the site's reading approach; facilitators and barriers to tutoring implementation; members' roles with community volunteers and with family literacy events; and sustainability of program elements. Across 75 sites there were 71 site supervisors, including 4 who supervised 2 sites and were invited to complete surveys about each of their 2 sites. All 71 site supervisors had active email accounts and were asked to complete an online survey via Survey Monkey. The response rate was 81% (61 respondents out of 75 possible surveys). Respondents received an electronic \$10 gift card from Starbucks for completing the survey (see Appendix D). The survey was developed in April 2016, reviewed by Washington Reading Corps and Washington Service Corps stakeholders and by RMC Research's internal Human Protections Committee, and administered to Washington Reading Corps site supervisors in May 2016.

Exhibit A2 outlines all data types used to address implementation and impact questions.

¹¹Mesch, D.L., Tschirhart, M., Perry, J.L., & Lee, G. (1998). Altruists or Egoists? Retention in Stipended Service, *Nonprofit Management and Leadership*, 9(1), 3–21.

Exhibit A2
Washington Reading Corps Evaluation Data

Focus	Sources
Demographic	<ul style="list-style-type: none"> ▶ School (e.g., free or reduced-price lunch, student demographics, county, district) ▶ Student (e.g., free or reduced-price lunch, race/ethnicity, gender)
Program data and student tracking logs	<ul style="list-style-type: none"> ▶ Washington Reading Corps members (e.g., gender, education level) ▶ Number of members trained ▶ Hours of training provided ▶ Number of sites served ▶ Number of tutoring hours provided by members to students ▶ Number of children in early learning centers and elementary schools who are enrolled, screened, and tutored ▶ Number of students who complete the tutoring program ▶ Number of parents and family members who participate in literacy-focused school or home activities ▶ Number of community volunteers recruited, trained, and retained
Student tracking logs	<ul style="list-style-type: none"> ▶ Screener test scores: fall, winter, spring ▶ Number of grade levels gained ▶ Met benchmark on assessment tool
Participating and comparison schools	<ul style="list-style-type: none"> ▶ State reading assessments
Member survey, site supervisor survey ^a	<ul style="list-style-type: none"> ▶ Implementation of reading tutoring ▶ Suggestions for program improvement (facilitators and barriers to implementation) ▶ Sustainability of Washington Reading Corps program elements ▶ On-site training for members ▶ Members' roles with family literacy events and community volunteers ▶ Members' perceptions of change in students' attitudes, behaviors, and self-confidence in reading ▶ Members' experience with the program ▶ Members' perceived quality, relevance, and utility of professional development activities

^aNew data collected by RMC Research.

Exhibit A3

Logic Model Chart Developed by Washington Reading Corps

Theory of Change: By training dedicated AmeriCorps members to provide best-practice literacy tutoring to struggling readers, targeted to students' assessed needs, Washington Reading Corps can help raise students' reading proficiency levels, improve their academic achievement, and, over the long term, improve their life outcomes. By helping individual children gain the skills they need for academic and life success, Washington Reading Corps helps foster socially engaged citizens and economically stable communities.

Project Resources INPUTS What we invest (# & type of AmeriCorps members)	Core Project Components ACTIVITIES What we do	Evidence of Implementation and Participation OUTPUTS Direct products from program activities	Evidence of Change OUTCOMES		
			Short-Term (Changes in knowledge, skills, attitudes, opinions)	Medium-Term (Changes in behavior or action)	Long-Term (Meaningful changes)
<p>OSPI and WSC staff to provide leadership, guidance, and technical assistance.</p> <p>Washington Reading Corps Program Coordinator to manage day-to-day implementation; recruit, place, and provide training and technical assistance to members; monitor fidelity of implementation and program success; and coordinate planning for ongoing quality improvement.</p> <p>150 Full-time AmeriCorps members to provide tutoring, volunteer recruitment and coordination, and community/parent outreach.</p> <p>Early Learning Centers (ELC) and school site staff to provide member supervision, support, and alignment with core early literacy and/or reading curricula.</p> <p>Regional ESD staff to support service sites in specific geographic areas with technical assistance from literacy specialists, in partnership with OSPI.</p>	<ol style="list-style-type: none"> 1) Serve sites that have the highest level of needs (high percentages of low-income children, English Learners, children of military personnel; low overall reading proficiency; and or large reading proficiency gaps). 2) Use a competitive application process to identify and select program sites based on demonstrated need, use of research-based strategies, and strongest level of commitment to Washington Reading Corps' service goals and objectives. 3) Use valid, reliable literacy screening assessments to determine which students need support and focus on those that need Tier II interventions. 4) Use valid, reliable, diagnostic, oral language fluency, and progress monitoring tools to assess students' reading proficiency early and multiple times throughout the year and use results of assessments to target tutoring to student need. 5) Provide tutoring individually and in small groups of no more than six through intensive 20-minute sessions at least three times a week (for preschool students, provide support during literacy activities throughout the day). All tutoring is based on proven literacy development practices. 6) Provide significant, structured, evidenced-based training and ongoing support to AmeriCorps tutors. 7) Provide ongoing technical assistance by qualified Literacy Specialists to ensure fidelity of implementation and troubleshoot/problem-solve challenges. 8) Use WRC members to leverage additional tutoring support from community volunteers. 	<p>The number of:</p> <ol style="list-style-type: none"> 1) AmeriCorps members trained (150 Full Time). 2) Hours of training provided (minimum 36 hours). 3) Sites served (75). 4) Tutoring hours provided by members (270,000). 5) Children in ELCs and students in elementary schools who are enrolled, screened, and tutored (6,000). 6) Participants who complete the tutoring program (5,100). 7) Participants in ELCs who improve emergent literacy/reading readiness skills and students in elementary schools who increase their grade level proficiency or meet curriculum-based reading benchmarks (3,300). 8) Parents or family members who participate in literacy-focused school or home activities (24,292). 9) Community volunteers recruited, trained, and retained (3,000). 	<ol style="list-style-type: none"> 1) Improvements in students' attitudes, behaviors, and self-confidence in reading, as measured by observation. 2) Increases in students' literacy skills and reading proficiency, as measured by a) the number of children who meet literacy benchmarks on progress monitoring tools and b) the % of students who gain one grade level of reading proficiency on state assessments or meet curriculum-based reading benchmarks. 3) Washington Reading Corps members' reports of satisfaction with the program as measured by Washington Reading Corps' "Life After AmeriCorps" survey. 	<ol style="list-style-type: none"> 1) An increase in the number of Washington State students achieving grade-level reading proficiency, as measured by performance on state reading assessments. 2) A decrease in reading proficiency gaps, as measured by disaggregated performance data from state reading assessments. 	<ol style="list-style-type: none"> 1) Washington State students meet college-ready benchmarks in high school. 2) Students graduate from high school and enroll in and successfully complete postsecondary programs. 3) As adults, students gain meaningful employment that pays a living wage and participate actively in civic life. 4) Participating AmeriCorps members use the skills and experience they gain to become leaders in their chosen professions and in their communities.

Appendix B HLM Model

Exhibits B1 and B2 present the results for the final HLM model that explored the relationship between school-level characteristics, Washington Reading Corps member characteristics, and whether or not students met grade level benchmarks.

Exhibit B1
HLM Final Estimation of Fixed Effects: Population Average Model

Fixed Effect	Coefficient	Standard Error	t-ratio	Approx. df	p-value
Intercept1,B0					
Intercept2,Y00	0.143	0.210	0.679	27	0.503
Years in WRC,Y01	-0.030	0.002	-0.661	27	0.514
Total Enrollment,Y02	0.002	0.045	1.168	27	0.253
Site Supervisor,Y03	0.206	0.249	0.828	27	0.415
Average days of the week, slope,B1					
Intercept2,Y10	-0.009	0.070	-0.129	1842	0.897
Average minutes per day, slope, B2					
Intercept2,Y20	-0.007	0.006	-1.198	1842	0.231
Average group size, slope, B3					
Intercept2,Y30	0.073	0.043	1.694	1842	0.090

Exhibit B2
HLM Final Estimation of Fixed Effects: Population Average Model (continued)

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
Intercept1,B0			
Intercept2,Y00	0.143	1.153	(0.749, 1.775)
Years in WRC,Y01	-0.030	0.970	(0.885,1.065)
Total Enrollment,Y02	0.002	1.002	(0.998,1.006)
Site Supervisor,Y03	0.206	1.223	(0.738,2.047)
Average days of the week, slope,B1			
Intercept2,Y10	-0.009	0.991	(0.864,1.136)
Average minutes per day, slope, B2			
Intercept2,Y20	-0.007	0.993	(0.981,1.005)
Average group size, slope, B3			
Intercept2,Y30	0.073	1.076	(0.989,1.171)

Washington Reading Corps Member Survey With Frequencies

Survey Introductory Text

Thank you taking the time to complete this survey. The survey includes questions about the professional development you received as a Washington Reading Corps member, what tutoring looks like at your site, changes you have noticed in your students’ attitudes, behaviors, and self-confidence around reading, barriers and facilitators to implementing the program, and a few questions about you. The survey will take roughly 15 minutes to complete. You will receive a \$10 gift card from Starbucks for your participation.

Professional Development

1. If you received WRC training through the Training Institute, please rate how useful the training was in each of the following areas. Select only one response for each item.

Training Institute Topics	Not Useful	Somewhat Useful	Useful	Very Useful	Extremely Useful	I did not receive training on this
Activity Toolkits	6%	12%	28%	22%	10%	21%
Cultural Competency and Inclusion	10%	15%	27%	19%	17%	12%
Data Collection Methods	8%	21%	28%	13%	8%	22%
Early Learning	3%	10%	26%	7%	6%	47%
English Language Learners	4%	14%	22%	19%	14%	27%
Extended Learning	4%	12%	30%	12%	8%	34%
Family Engagement	5%	14%	30%	17%	8%	26%
Fish! Philosophy Training	12%	23%	8%	24%	28%	4%
Fundamentals of Reading	3%	12%	30%	23%	26%	5%
Principled Negotiation	7%	15%	22%	14%	6%	35%
Student and Behavior Management	7%	18%	22%	23%	19%	11%
Volunteer Recruitment and Management	15%	16%	30%	13%	6%	20%

Note. n = 92–100.

2. Please select any site specific trainings (at your WRC site or community site) you received during the 2015–2016 academic year. Check all that apply.

Topic	Received Training
Tutoring/intervention program	58%
Tracking student progress	62%
How tutoring connects with classroom instruction	35%
How students learn to read (critical components of reading)	64%
Strategies for diverse learners	38%
Strategies for English Language Learners or bilingual students	29%
State English Language Arts (ELA) learning standards	32%
Community volunteer recruitment or management plan	29%
Family literacy engagement plan	42%
Student behavior management	52%
Communication plan for accessing school/site staff	45%
Orientation to site	65%
Site culture (expectations for conduct)	58%
Site safety plan	76%
Where to direct questions	62%

Note. $n = 110$.

3. Please rate the quality of the WRC training and professional development you received during the 2015–2016 academic year.

WRC Professional Development or Training	Poor	Fair	Good	Very Good	Excellent	Not Offered	Did Not Attend
Washington Reading Corps Training Institute	4%	15%	23%	29%	21%	8%	0%
Regional professional learning cluster (PLC) meetings (primarily led by ESDs)	9%	29%	24%	17%	19%	1%	1%
Monthly member-led professional learning cluster (PLC) meetings	14%	22%	29%	24%	12%	0%	0%
Site specific WRC trainings	2%	9%	31%	23%	24%	3%	9%
Professional development with site staff	4%	9%	19%	28%	37%	2%	2%
Other: please rate here and describe below.	4%	8%	8%	12%	31%	31%	8%

Note. $n = 26-104$.

4. Thinking about all of the WRC training and professional development you received in 2015–16, how **relevant** was it to your work as a WRC member?

Did Not Attend	Not Relevant	Somewhat Relevant	Moderately Relevant	Very Relevant	Extremely Relevant
1%	1%	29%	30%	31%	9%

Note. n = 101.

5. Think about all of the training and professional development in student behavior management you received through WRC and at your site this year. Do you think it was sufficient?

Response	Percent
Yes	55%
No	45%

Note. n = 100.

6. As a WRC member, are there areas where you wish you had more training or professional development? If so, in which areas?

[open ended]

Community Volunteers and Family Literacy Engagement

7. Please describe your involvement with community volunteers who tutor students (e.g., calling volunteers from previous years, training and scheduling volunteers, recruiting volunteers, administering volunteer tutor surveys.)
8. Please describe any challenges recruiting or working with community volunteers.
9. Please describe your involvement with family literacy engagement.

Implementation of Reading Tutoring

10. To what extent were the following aspects of WRC tutoring implemented at your site during the 2015–2016 academic year?

WRC Program Elements	Not at all	To some extent	To a moderate extent	To the full extent	Not applicable
20 minute tutoring sessions with Tier II intervention students 3 times a week	4%	3%	11%	75%	7%
Small-group tutoring with no more than 6 students in each session	3%	4%	12%	76%	5%
One-on-one reading tutoring	4%	16%	26%	54%	0%
Embedded pre-literacy support (Pre-K sites only)	12%	3%	4%	14%	67%

Note. n = 99–100.

11. In how many family literacy events did you serve during the 2015–2016 academic year (e.g., Dr. Seuss Night, Books and Bears, Title I Family Literacy)?

None	One	Two	Three or more
2%	8%	31%	59%

Student Responses to Reading

12. Thinking about the students you tutored in reading this year, approximately what percentage of students showed improvement in:

Student reading behavior	0%	1–25%	26–50%	51–75%	76–100%	Not Applicable
Reading for longer amounts of time	0%	4%	20%	34%	33%	9%
Reading independently	0%	5%	12%	43%	31%	8%
Putting in effort when reading	0%	2%	9%	25%	58%	6%
Staying on-task while reading	0%	7%	18%	53%	18%	5%
Asking questions about what they read	0%	10%	20%	35%	33%	2%
Answering questions about what they read	0%	7%	15%	39%	37%	2%
Asking about word definitions	0%	14%	25%	33%	24%	4%
Reading aloud fluently	0%	10%	16%	28%	39%	7%
Comfort reading aloud	0%	8%	10%	36%	37%	9%
Choosing own books	0%	8%	13%	26%	46%	7%
Demonstrating interest in new books	0%	7%	6%	32%	52%	3%
Exploring different kinds of books	0%	7%	12%	36%	39%	6%
Expressing enjoyment when reading	0%	3%	16%	34%	45%	2%

Note. n = 97–98.

13. Thinking about the students you tutored this year, have you noticed any other changes in their **reading behaviors**? If so, please describe.

[open ended]

Student Attitudes Toward Reading

14. Thinking about the students you tutored since the beginning of this academic year, how have your students' **attitudes** changed, if at all, toward reading?

Attitude toward reading	Percent
Much worse	0%
Somewhat worse	0%
About the same	5%
Somewhat better	26%
Much better	67%
I don't know.	2%

Note. *n* = 99.

15. Please explain how your students' **attitudes toward reading** have changed since the beginning of this academic year.

[open ended]

16. Thinking about the students you tutored this year, have you noticed any changes in their self-confidence in reading? If so, please describe.

[open ended]

Facilitators and Barriers to Implementation

17. How helpful were the following factors this past year in implementing the WRC tutoring model?

Factors	Not helpful	Somewhat helpful	Helpful	Very Helpful	Extremely Helpful
Support from school administration for the WRC program	4%	6%	21%	39%	30%
Time allotted to tutor students	1%	10%	28%	42%	19%
Lead teacher involvement with the WRC members	1%	12%	28%	31%	28%
WRC Site Supervisor involvement	4%	5%	18%	41%	32%
WRC Program Coordinator involvement	1%	8%	30%	39%	22%
Other	23%	0%	8%	15%	54%

Note. *n* = 13–98.

18. What challenges this past academic year, if any, did you face implementing the WRC tutoring model at your site?

[open ended]

WRC Member Experiences

19. We're interested in learning more about your experience with the WRC. Please rate your level of agreement with the following statements as a WRC member **during the 2015–16 academic year**.

WRC Member Experience	Strongly Disagree	Disagree	Agree	Strongly Agree
I am helping others through the WRC.	0%	1%	32%	67%
I am serving the site community.	0%	0%	37%	63%
I have a good relationship with the students I tutor through the WRC.	0%	0%	14%	86%
I know how my work as a WRC member influences my students' reading skills.	0%	0%	25%	75%
I feel a responsibility for developing my students' literacy.	0%	0%	19%	81%
I feel like my abilities are being utilized as a WRC member.	0%	4%	39%	57%
I feel like my skills are being utilized as a WRC member.	0%	2%	44%	54%
I find my service with the WRC challenging.	8%	18%	43%	31%
I find my service with the WRC interesting.	0%	3%	39%	58%
I am learning new skills from WRC that will be useful in the future.	0%	8%	34%	58%
I receive fair benefits for my service with the WRC (e.g., stipend, education grants, etc.)	4%	34%	42%	20%
I receive quality supervision as part of the WRC.	2%	9%	37%	52%
I have received positive feedback for my work with the WRC.	0%	4%	28%	68%
I have been able to get to know other WRC members.	0%	3%	44%	53%
I have a good relationship with other WRC members.	0%	5%	41%	54%
I have an opportunity to socialize with other WRC members.	0%	8%	45%	46%

Note. $n = 97-98$.

20. Have you been asked to serve in other ways *during the school day* that are not related to your role as a WRC member? If so, please describe.

21. Do you plan to return as a WRC member during the 2016–17 academic year?

Response	Percent
Yes	18%
No	66%
I don't know	17%

Note. n = 100.

22. What factors are influencing your decision about returning as a WRC member in the 2016–17 academic year? Please explain.

[open ended]

23. Is there anything else you would like to add about your experience as a WRC member?

[open ended]

WRC Member Demographics

24. Have you had previous experience, not including your service with the WRC, as a volunteer?

Response	Percent
Yes	90%
No	10%

Note. n = 100.

25. I identify my gender as

[open ended]

26. What is your highest level of education?

Level of Education	Percent
Some high school, but did not graduate	0%
High school graduate or GED	10%
Some college, but did not graduate	29%
College graduate	52%
Other (please specify)	9%

Note. n = 100.

27. Which grade levels did you work with as a WRC member during the 2015–16 academic year?

Grade Level	Percent
Pre-kindergarten	14%
Kindergarten	72%
Grade 1	75%
Grade 2	75%
Grade 3	68%
Grade 4	57%
Grade 5	53%
Grade 6	15%

Washington Reading Corps Site Supervisor Survey With Frequencies

Survey Introductory Text

Thank you taking the time to complete this survey. The survey includes questions about implementation of members’ tutoring, community volunteer recruitment, and family literacy activities; facilitators, barriers, and suggestions for program improvement; sustainability of Washington Reading Corps activities; and your role. The survey will take about 15 minutes to complete. You will receive a \$10 gift card from Starbucks for your participation.

Implementation of Reading Tutoring

- How many Washington Reading Corps members serve at your site?

1	2	3
54%	31%	15%

Note. n = 61.

- At your site, with which groups does a WRC member provide tutoring or reading support? Check all that apply.

Pre-Kindergarten	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
15%	77%	82%	82%	74%	79%	62%	18%

- What does tutoring by Washington Reading Corps (WRC) members look like at your site? Check all that apply.

Member provides one-on-one tutoring	Member provides small group tutoring	Member follows push-in model (tutor goes into classes)	Member follows pull-out model (students leave class to work with tutor)	Member helps with before- or after-school reading program	Member is embedded in a classroom	Other (please specify)
77%	92%	64%	79%	74%	21%	5%

WRC Member Training in Site’s Reading Approach

4. How does the member get *initial training about your site’s core reading program*? Check all that apply.

From literacy specialist at site	From Title I and/or Learning Assistance Program teacher	From WRC site supervisor	From classroom teacher	Other (please specify)
59%	57%	66%	48%	8%

5. Does your site provide training to members about how to support reading skills *among bilingual students or English Language Learners*?

Response	Percent
Yes	36
No	64

6. If yes, what kind of training is provided?

[open ended]

7. Does your site provide ongoing supervision or coaching to the WRC member?

Response	Percent
Yes	98
No	2

8. If yes, please describe the ongoing supervision or coaching provided to the WRC member.

[open ended]

Facilitators and Barriers to Tutoring Implementation

9. Please rate the usefulness of WRC tutoring at your site.

	Not Useful	Somewhat Useful	Useful	Very Useful	Extremely Useful
For struggling students’ reading skills, tutoring by a WRC member is	0%	5%	13%	26%	56%

10. Please describe what evidence you used to rate the usefulness of WRC tutoring.

[open ended]

11. Please rate how effective these elements of the Washington Reading Corps program are for helping struggling readers at your site. Select only 1 response per item.

	Not Effective	Somewhat Effective	Effective	Very Effective	Extremely Effective	This didn't occur
WRC students spend more time practicing reading skills	0%	3%	15%	32%	49%	0%
Reading instruction is personalized	0%	5%	15%	30%	47%	2%
Data is used to monitor student progress in reading	0%	7%	14%	26%	52%	2%
Tutoring occurs for 20 minutes at least 3 times per week	0%	2%	14%	32%	52%	0%
Tutoring occurs in small groups of 6 or fewer students	0%	2%	8%	29%	58%	3%
One-on-one reading tutoring occurs	2%	2%	15%	25%	47%	8%
Embedded pre-literacy support occurs	0%	2%	21%	23%	28%	25%
On-site training for WRC members is provided	0%	0%	21%	28%	50%	2%
Coaching to WRC members from site staff is ongoing	0%	5%	19%	17%	58%	2%
Off-site training for WRC members is provided	0%	24%	15%	30%	27%	3%
WRC site supervisor supports program and tutoring	0%	2%	20%	19%	56%	3%

Note. n = 56–59. Percentages may not equal 100% due to rounding.

12. What other practices helped make the WRC member(s) or the WRC tutoring program effective this year?

[open ended]

13. What were some barriers to implementing the WRC tutoring program at your site?

[open ended]

14. What suggestions do you have to improve the WRC program or the WRC member's role?

[open ended]

15. How integrated is the WRC member in your site community?

Not at all Integrated	Slightly Integrated	Somewhat Integrated	Moderately Integrated	Fully Integrated
0%	9%	10%	19%	62%

Note. n = 58.

WRC Member's Role with Community Volunteers

16. What is your WRC member's role with *community volunteers who tutor students*? Check all that apply.

	Recruiting volunteers to tutor	Training volunteers to tutor	Tracking volunteers' hours	Volunteer retention (e.g., appreciation events)	Assisting Volunteer Coordinator
My site's WRC member is involved in these activities:	66%	27%	36%	25%	34%

Note. n = 59.

Other (please specify): [open ended]

17. What kind of *training at your site does the WRC member receive for their role with community volunteers*?

[open ended]

18. At your site, who tracks *community volunteers'* participation (e.g., hours, frequency of volunteers)? Check all that apply.

	WRC member	WRC site supervisor	Volunteer Coordinator	Other staff person	Tracking doesn't happen
Who tracks community volunteer participation?	45%	33%	25%	35%	13%

Note. n = 60.

19. What kind of tracking system for community volunteers does your site have?

Manual paper system	Computer spreadsheet	On-line system	None	Other (please specify)
58%	25%	20%	10%	10%

Note. n = 59.

WRC Member's Role with Family Literacy Events

20. What is your WRC member's role with *family literacy activities or events*? Check all that apply.

	Planning family literacy events	Promoting family literacy events	Developing materials for family literacy events	Facilitating at family literacy events	Attending family literacy events
My site's WRC member is involved in these activities:	86%	81%	80%	83%	95%

Note. n = 59.

Other (please specify): [open ended]

21. What types of family literacy activities or events occurred at your site this year?

[open ended]

22. Check all that apply. Our site measures results of family literacy activities or events based on:

Number of families who attend family literacy events	Teacher/staff feedback after literacy events	More students show interest in reading after events	More families get involved in school activities	Other (please specify)
95%	58%	36%	49%	3%

Note. n = 59.

Sustainability

23. What kinds of written materials or resources does your site have about how to recruit community volunteers to tutor students?

[open ended]

24. What kinds of written materials or resources does your site have about how to organize family literacy events?

[open ended]

25. What kinds of written materials or resources does your site have about how to orient and train WRC members on-site?

[open ended]

26. Imagine your site did not have the Washington Reading Corps program and member next year. What elements would continue at your site?

Without Washington Reading Corps, these elements would likely continue:

Without Washington Reading Corps, these elements would likely continue:	Yes	Yes, but in a reduced way	No
Reading supports for struggling readers	26%	72%	2%
Personalized reading instruction	24%	67%	9%
Data used to monitor student progress in reading	69%	31%	0%
Reading tutoring for 20 minutes at least 3 times per week	21%	50%	29%
Reading tutoring in small groups of 6 or fewer students	22%	60%	17%
One-on-one reading tutoring	9%	54%	37%
Community volunteer program to tutor students	21%	63%	16%
Family literacy events	34%	57%	9%

Note. n = 57–58.

27. Please add any other thoughts or feedback.

[open ended]

Your Site Role

28. Please describe your site role this year. Check all that apply.

Site Role	Percent
I taught students in an elementary classroom.	12
I taught pre-Kindergarten children.	0
I was the site's Reading or Literacy Specialist.	38
I was the site's Washington Reading Corps site supervisor.	90
My role was something else (please describe)	21

Appendix E
Impact Evaluation Summary 2014–2015



Washington Reading Corps



February 2016

Impact Evaluation Summary

Prepared for
Washington Reading Corps

Office of Superintendent of Public Instruction
Olympia, WA 98504

Washington Service Corps
Employment Security Department
Lacey, WA 98503



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The Washington Reading Corps places AmeriCorps members in education and community sites with the goal of supporting struggling readers' foundational skills from pre-Kindergarten through Grade 6. The program seeks to achieve that goal through effective collaboration involving schools, families, community members, business and state partners, and AmeriCorps. At the state level the Washington Reading Corps (WRC) is a partnership between the Washington Service Corps (WSC) and the Office of Superintendent of Public Instruction (OSPI) that has been supported since 1998 by the Washington State Employment Security Department, SERVE Washington.

Washington Reading Corps schools are expected to utilize a multitiered instructional system of support for reading based on individual student data. To improve students' reading skills Washington Reading Corps members provide (a) one-on-one or small-group tutoring using research-based reading programs, (b) reading support for families through outreach and educational activities, and (c) recruitment and training of community volunteers to support literacy. Tutoring is intended to supplement rather than supplant core reading instruction. When a student is identified as needing Tier II intervention services due to not meeting the expected benchmarks on a universal reading screening tool, he or she receives one-on-one or small-group (up to 6 students) tutoring from a trained Washington Reading Corps member with the goal of at least 20 minutes of tutoring 3 times per week.

This impact evaluation rigorously tested the effect of Washington Reading Corps participation on Grade 4 and Grade 5 students by comparing Washington Reading Corps students' outcomes on the spring 2015 English Language Arts (ELA) Smarter Balanced Assessment to the outcomes of students from matched comparison schools that did not participate in Washington Reading Corps in 2014–2015.

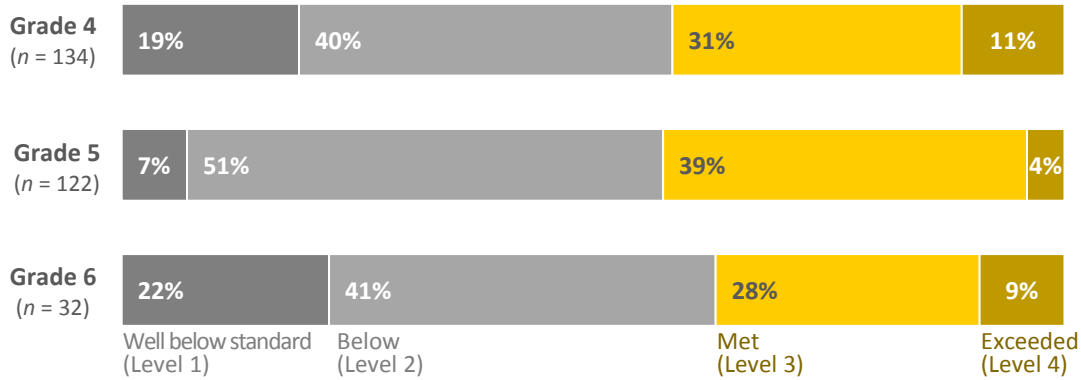
Washington Reading Corps Students

During the 2014–2015 academic year 65 sites participated in the Washington Reading Corps program with 2,649 pre-Kindergarten to Grade 2 students and 1,349 students in Grade 3 through Grade 6. Because the younger students do not complete statewide assessments, the impact evaluation is limited to students in Grades 3 through Grade 6. According to OSPI data, the majority of Washington Reading Corps students in Grades 3 through 5 were either White (51–53%) or Hispanic (21–28%), with a lower percentage of White students in Grade 6 (33%). Across all grade levels 70–77% of Washington Reading Corps students were identified as low income, consistent with the program's goal of prioritizing reading support for low-income students.

Prior reading level varied across the Washington Reading Corps participants. RMC Research identified each Grade 4 and Grade 5 participant's score and corresponding reading level on the 2014 Measurements of Student Progress (MSP) reading assessment, which was administered in the spring prior to the students' participation in Washington Reading Corps (see Exhibit 1).

Exhibit 1

About 40% of prospective Washington Reading Corps participants were at Level 3 or Level 4 on the MSP reading assessment standard in spring 2014.



Note. Grade 6 students were excluded from the impact analyses due to small sample size. Exhibit includes only students with 2014 MSP Reading scores. Due to rounding, percentages may not total 100%.

As a Tier II intervention, students who meet reading standard might not be the intended audience for the Washington Reading Corps program. The fact that in spring 2014 some prospective Washington Reading Corps participants had MSP reading scores that *met* or *exceeded* the standard suggests possible differences between the MSP reading assessment and the screening tools the program sites used in fall 2014. That is, these summative and formative assessments might have targeted different reading skills—or the students’ reading skills might have changed over the summer between assessments. Alternately, the locally selected screening tools could have identified some participants who might not be the best candidates for the Tier II reading services offered by the Washington Reading Corps.

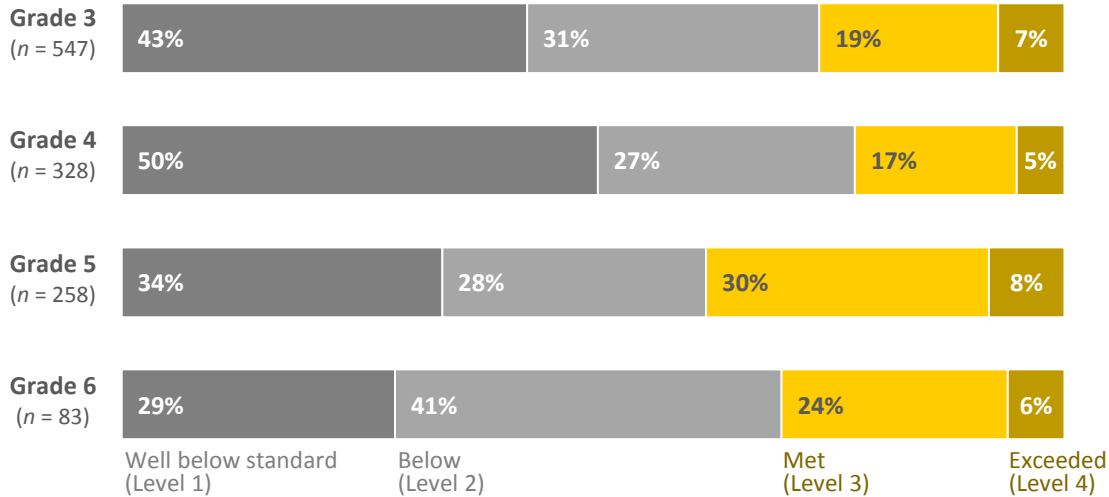
As Exhibit 2 shows, after receiving Washington Reading Corps tutoring the majority of students were classified as Level 1 or Level 2 on the spring 2015 ELA Smarter Balanced Assessment, whereas between 23% and 38% of Washington Reading Corps participants *met* or *exceeded* the ELA standard (Level 3 or Level 4). Overall, statewide percentages of students meeting the standard were lower on the ELA Smarter Balanced Assessment in 2015 compared to the MSP reading assessment in 2014. Statewide, between 52% and 58% of students in Grade 3 through Grade 6 met the ELA Smarter Balanced Assessment standard in 2015, and between 70% and 73% of Grade 3 through Grade 6 students met the MSP reading standard in 2014. ^{1,2} ELA Smarter Balanced Assessment scale scores and their corresponding reading levels are presented in Exhibit B4 in Appendix B.

¹<http://reportcard.ospi.k12.wa.us/summary.aspx?groupLevel=District&schoolId=1&reportLevel=State&year=2014-15>

² <http://reportcard.ospi.k12.wa.us/summary.aspx?groupLevel=District&schoolId=1&reportLevel=State&year=2013-14&yrs=2013-14>

Exhibit 2

A majority of Washington Reading Corps participants were at Level 1 or Level 2 on the ELA Smarter Balanced Assessment in spring 2015.



Note. Due to rounding percentages may not total to 100%.

Impact Evaluation

The impact evaluation was guided by 3 questions:

- 1** *To what extent do student assessment scores differ between those served by Washington Reading Corps and those not served by Washington Reading Corps?*
- 2** *To what extent are the Washington Reading Corps programs on track to show increases in students achieving grade level reading proficiency?*
- 3** *To what extent are the Washington Reading Corps programs on track to show decreases in reading proficiency gaps?*

To analyze the impact of Washington Reading Corps on participating students (Evaluation Question 1), RMC Research used a quasi-experimental design with a 2-step matching process to provide more precise estimates of program impact than is possible without matching. Using propensity score matching RMC Research selected a comparison sample of Grade 4 and Grade 5 students who would have been as likely to receive Washington Reading Corps services as the students who did. First, *schools* that participated in Washington Reading Corps in 2014–2015 ($n = 32$) and enrolled students in Grades 3–6 were matched to similar schools that did not participate in Washington Reading Corps ($n = 32$). Second, Washington Reading Corps *students* in Grade 4 ($n = 132$) and Grade 5 ($n = 122$) were matched to similar students at their corresponding matched school. Students were matched for similarity on characteristics such as race and ethnicity, low income status, and MSP reading scale scores from the prior spring. The number of Grade 6 students who participated in Washington Reading Corps was too small ($n = 83$) to include in the analyses.

RMC Research then used hierarchical linear modeling (HLM) to analyze program impact on Grade 4 and Grade 5 students. HLM models the outcome variable (ELA Smarter Balanced Assessment scale score or *met standard*) as a combination of student- and school-level predictor variables. Each of the predictor variables included in the model controls for that variable's influence on the outcome.

To address Evaluation Questions 2 and 3, RMC Research conducted a descriptive subgroup analysis of Washington Reading Corps students in Grades 3–6. Subgroups that had fewer than 10 students (e.g., American Indian/Alaska Native, Black/African American) were excluded from the analyses. Further detail on the evaluation design and analyses appears in Appendix A.

1 *To what extent do student assessment scores differ between those served by Washington Reading Corps and those not served by Washington Reading Corps?*

After controlling for the influence of student- and school-level predictors, RMC Research identified 4 key findings related to program impact.

First, Washington Reading Corps had a significant positive impact on Grade 5 students who were reading at Level 2 in 2014. Grade 5 students who were identified as reading at Level 2 the spring prior to participating in Washington Reading Corps had significantly higher ELA Smarter Balanced Assessment scale scores than the comparison students. After controlling for student- and school-level characteristics, Washington Reading Corps students' scale scores were an estimated 27 points higher than comparison students. They also were estimated to be 3 times more likely to meet the ELA Smarter Balanced Assessment standard in 2015 than the comparison students. In contrast, Grade 5 students who were reading at Level 1 the spring prior to participating in Washington Reading Corps had significantly lower ELA Smarter Balanced Assessment scale scores than the comparison students. After controlling for student- and school-level characteristics, these Washington Reading Corps students' scale scores were an estimated 52 points lower than comparison students. Those comparison students identified as Level 1 in 2014 might have received other types of reading interventions during the 2014–2015 year that account for this difference.

Second, Washington Reading Corps had a significant positive impact on Grade 5 Hispanic students' ELA Smarter Balanced Assessment scale scores. After controlling for student- and school-level characteristics, Washington Reading Corps had a positive influence on Grade 5 Hispanic students' ELA Smarter Balanced Assessment scale scores. Their scale scores were an estimated 19 points higher than Grade 5 Hispanic students who did not participate in Washington Reading Corps. However, participation in Washington Reading Corps in Grade 5 did not increase Hispanic students' likelihood of meeting the ELA Smarter Balanced Assessment standard relative to comparison students.

Third, Washington Reading Corps had no significant impact on Grade 4 students' ELA Smarter Balanced Assessment scale scores. Participation in Washington Reading Corps did not have a significant impact on ELA Smarter Balanced Assessment scale scores for Grade 4 students who were at either Level 1 or 2 the prior spring. One possible explanation for why Grade 5 participants reading at Level 2 in 2014 benefited and Grade 4 participants reading at Level 2 in 2014 did not: significantly more students in the Grade 4 comparison group were identified as Learning Assistance Program (LAP) Reading status, which might have diminished the differences in reading skills between this sample of Grade 4 Washington Reading Corps participants and their comparison group.

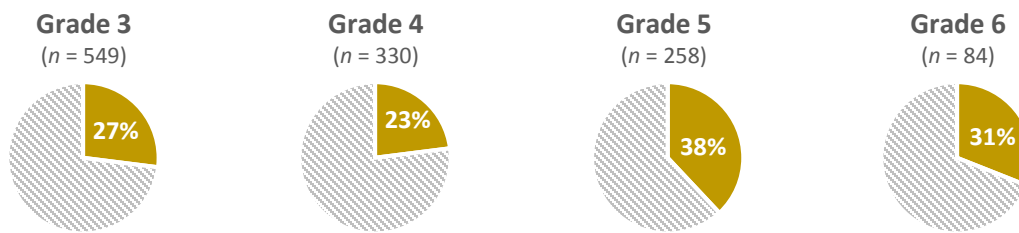
Finally, Grade 4 students who were reading at Level 1 in 2014 were significantly less likely to meet the 2015 ELA Smarter Balanced Assessment standard. Students identified as Level 1—well below the

standard—might not be best served by a Tier II intervention such as Washington Reading Corps. Nearly 20% of Grade 4 Washington Reading Corps participants in 2014–2015 were identified as Level 1 the prior spring. Similar students in the comparison schools might have received other reading interventions during the 2014–2015 academic year that increased their likelihood of meeting the 2015 ELA Smarter Balanced Assessment standard.

2 *To what extent are the Washington Reading Corps programs on track to show increases in students achieving grade level reading proficiency?*

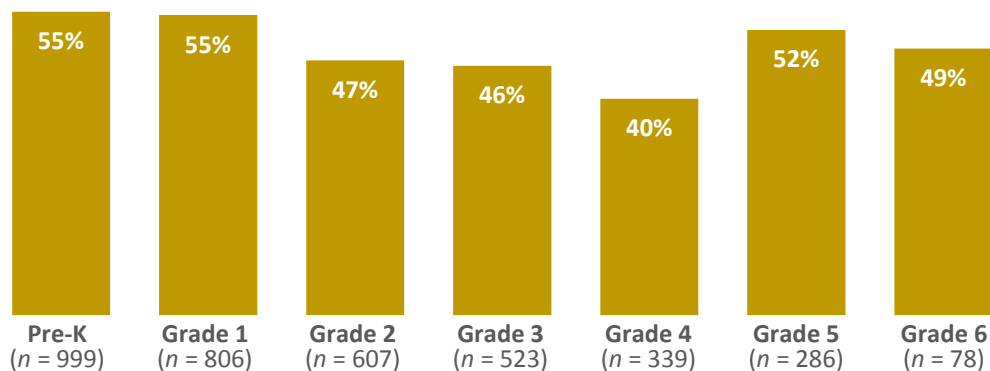
Evaluation Question 2 was operationalized as a description of the percentage of Washington Reading Corps students who met the ELA Smarter Balanced Assessment standard in spring 2015. As Exhibit 3 shows, Grade 5 Washington Reading Corps participants had the highest percentage meeting the standard compared to other grades.

Exhibit 3
Percentage of all Washington Reading Corps students who met ELA Smarter Balanced Assessment standard in 2015.



Washington Reading Corps also collected data on the number of participating students who met the benchmark on locally selected reading screening tools in 2014–2015. Of the 4,240 student tracking logs that RMC Research received, 3,730 had complete benchmark data (see Exhibit 4).

Exhibit 4
Between 40% and 55% of Washington Reading Corps participants met the grade level benchmark on locally selected screening tools in 2014–2015.



3 *To what extent are the Washington Reading Corps programs on track to show decreases in reading proficiency gaps?*

Washington Reading Corps staff have not yet fully identified which subgroup gaps in reading achievement might be most meaningful to explore. To support further discussion RMC Research calculated percentages for participating students who met the ELA Smarter Balanced Assessment standard in 2015 grouped by race and ethnicity, low income status, gender, and need for academic support status (sample sizes were too small to report for some subgroups, such as American Indian/Alaska Native students). These descriptive statistics—unlike the impact results described heretofore—do not control for other student- or school-level variables related to meeting the standard. Exhibit 5 presents the percentages of all Washington Reading Corps students in Grade 3 through Grade 6 who met the ELA Smarter Balanced Assessment standard by subgroup and the subgroup percentages for matched Washington Reading Corps and comparison students in Grade 4 and Grade 5.

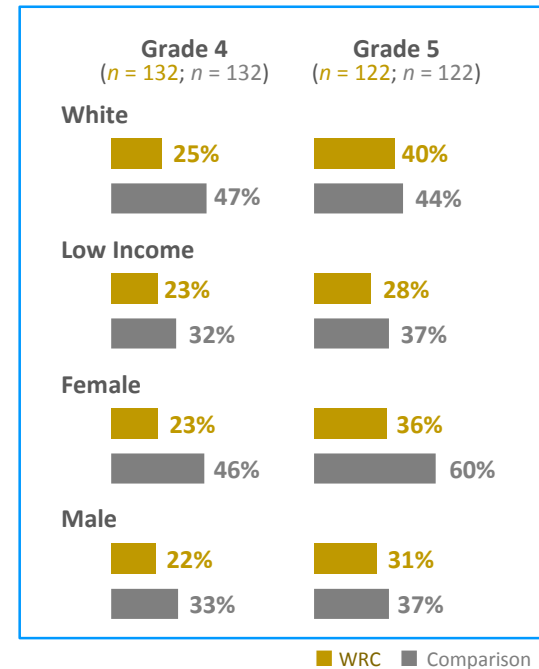
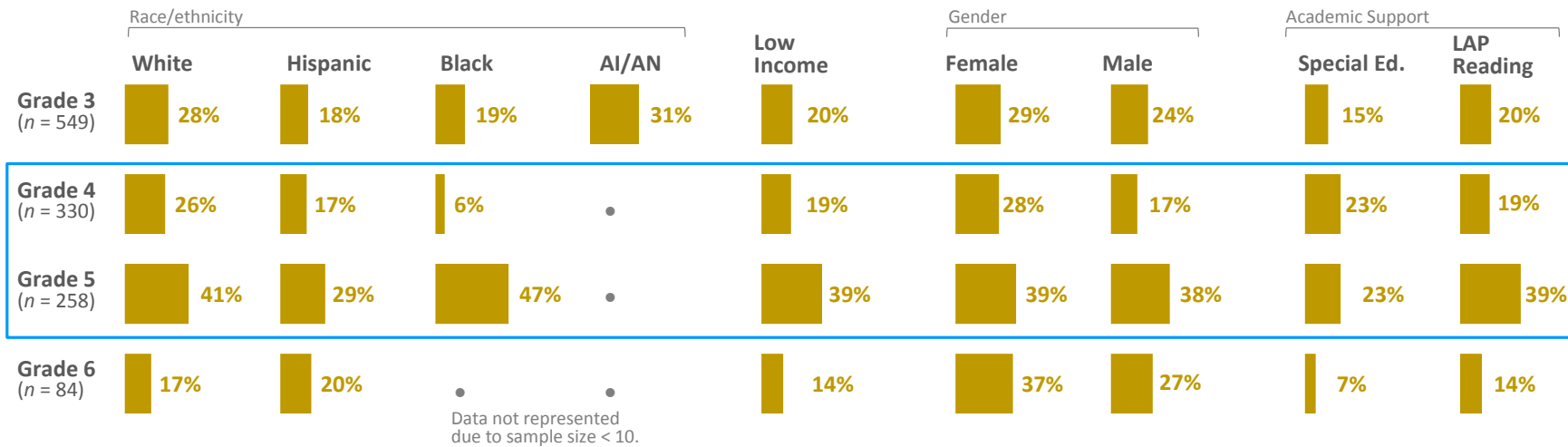


Exhibit 5
Percentage of students who met the ELA Smarter Balanced Assessment standard in spring 2015.



Recommendations

Washington Reading Corps provides tutoring and other literacy supports to struggling readers from pre-Kindergarten through Grade 6. This summary examined the impact of Washington Reading Corps for a subset of 2014–2015 participants: students in Grades 4 and 5. Of note, the impact of Washington Reading Corps tutoring on 3,227 pre-Kindergarten to Grade 3 students could not be examined because participation in statewide reading assessments begins in Grade 3. Reading scores for Grade 3 were used to establish baseline equivalence between Grade 4 Washington Reading Corps and comparison students. The number of Grade 6 students who participated in Washington Reading Corps was too small to include in the analyses.

By matching Washington Reading Corps schools and comparison schools and then matching individual Washington Reading Corps participants with similar comparison students, the impact of Washington Reading Corps participation on reading outcomes was estimated with high precision. Comparison students were similar to Washington Reading Corps participants on many characteristics that may influence reading outcomes, including reading scale scores on the prior year’s statewide assessment. This quasi-experimental design resulted, however, in some loss of data because not all 2014–2015 schools and students had assessment scores from the prior year.

RMC Research has 3 recommendations based on the impact findings:

- **Replicate these impact analyses with 2015–2016 Washington Reading Corps schools and students to more fully describe the effects of participation on reading outcomes.** This summary had to exclude schools that field tested the ELA Smarter Balanced Assessment in 2013–2014 and therefore did not have MSP reading scores from the spring prior to 2014–2015 Washington Reading Corps participation for those students. However, more 2015–2016 Washington Reading Corps schools and students can be included in future impact analyses, providing larger samples more fully inclusive of those who participated in Washington Reading Corps and with greater statistical power to detect impact. In addition, in 2015–2016 a consistent statewide assessment can be used to describe reading skills before and after Washington Reading Corps participation and to establish baseline equivalence with the comparison students.
- **Continue to be intentional about student selection process.** In Grade 5 Washington Reading Corps had a positive impact on students who were reading at Level 2 the prior spring. The program model is to target students needing Tier II support, and Grade 5 Level 2 students might benefit most from Washington Reading Corps. This supposition is further supported by the fact that after RMC Research controlled for student- and school-level characteristics, Grade 5 students who were reading at Level 1 the previous spring had significantly lower scale scores on the ELA Smarter Balanced Assessment than the comparison students. Additionally, about 40% of participants had already *met* or *exceeded* the standard (Level 3 or Level 4) prior to receiving Washington Reading Corps services. For students in Grades 4, 5, and 6, Washington Reading Corps should consider recommending that sites use prior year state reading assessment data to identify participants. This approach would provide consistent inclusion criteria for students in these grades across sites and might more precisely identify students best served by the Washington Reading Corps.
- **Consider using LAP Reading status as a matching variable and as a covariate in future impact studies.** RMC Research suggests including students’ LAP Reading status as part of the propensity score matching process and as a covariate in the HLM analyses. This approach would more precisely determine how LAP services mirror or interact with Washington Reading Corps

services. For example, students who are identified for LAP Reading support services and also participate in Washington Reading Corps might be receiving more supplemental services than students who participate in Washington Reading Corps only.

Appendix A

Evaluation Methodology

Research Design

To analyze the impact of Washington Reading Corps on participating students, RMC Research used a quasi-experimental design with a 2-step matching process. When random assignment to experimental conditions is not feasible in real world settings, quasi-experimental designs provide another rigorous approach to exploring the causal relationship between an intervention and related outcomes. Matching Washington Reading Corps students and schools to other similar students and schools reduces sampling bias and leads to a more precise analysis of whether reading outcomes are related to program participation. Identifying a matched comparison group creates the counterfactual condition. In other words, what would student outcomes have been if the students had not participated in Washington Reading Corps? With matched comparison groups in place, the evaluation team can statistically test whether students' reading outcomes at schools providing Washington Reading Corps services differ significantly from schools that do not. If students at the former have significantly higher reading scores than students at the latter it can be inferred that the program had a positive impact on student reading outcomes. The primary limitation of using matched comparison groups is related to group equivalence. Using a matched comparison group, groups are assumed to be equivalent on observable characteristics such as family income, gender, race, ethnicity, and prior reading scores but it is not known if the groups differ on unobserved characteristics such as attitudes and beliefs about reading.

Using propensity score matching RMC Research selected a comparison sample of Grade 4 and Grade 5 students who would have been as likely to receive Washington Reading Corps services as the students who did. First, schools that participated in Washington Reading Corps in 2014–2015 ($n = 32$) that enrolled students in Grades 3–6 were matched to similar schools that did not participate in Washington Reading Corps ($n = 32$). Next, Washington Reading Corps students in Grade 4 ($n = 132$) and Grade 5 ($n = 122$) were matched to similar students at their corresponding matched school.

Sample

To address program impact (Evaluation Question 1) RMC Research identified a subsample of Washington Reading Corps and comparison schools and students using propensity score matching. Use of this statistical technique to create comparison groups based on their observed characteristics (e.g., low income, reading scores) reduces sampling bias and approximates random assignment. That is, propensity score matching achieves a balanced sample by identifying a comparison group that would have been as likely to receive Washington Reading Corps had it been offered to them. The propensity score represents either a school's or a student's probability of being eligible for Washington Reading Corps. The program and comparison schools were matched using the publically available 2013–2014 Demographic Information by School data file and the 2013–2014 MSP-HSPE Scores by School data file located on OSPI's Washington State Report Card website (<http://reportcard.ospi.k12.wa.us/DataDownload.aspx>). Student-level data for Washington Reading Corps and comparison students were acquired through a data sharing agreement with OSPI. Schools and students were matched using 2014 data to establish baseline equivalence. To address the program

impact on the 2014–2015 Washington Reading Corps cohort, the evaluation team needed to ensure that the comparison schools and students were similar on variables of interest (e.g., reading level) in the spring of 2014—several months before Washington Reading Corps was implemented in the participating schools.

Subsample of matched schools. Using nearest neighbor propensity score matching, the evaluation team matched the Washington Reading Corps and comparison schools on 7 covariates that were hypothesized to be related to students’ scores on the 2015 ELA Smarter Balanced Assessment. Nearest neighbor matching pairs each Washington Reading Corps school with a comparison school that has the closest probability of being selected for Washington Reading Corps. For example, a Washington Reading Corps school with a propensity score of .0419 was matched to a comparison school with a propensity score of .0418—meaning that these 2 schools had a nearly identical probability of receiving Washington Reading Corps services had they been offered. Comparison schools were matched to Washington Reading Corps schools in 2013–2014 on:

- Percent of students receiving free- or reduced-priced lunch.
- Percent of Black/African-American students.
- Percent of Hispanic students.
- Percent of Native American/Alaska Native students.
- School reading level indices for Grades 3, 4, and 5 in 2013–2014.³

The school-level covariate balance is presented in Exhibit A1. Matched Washington Reading Corps and comparison schools did not differ significantly on any characteristics included in the propensity score matching.

Exhibit A1
Washington Reading Corps and Comparison Subsample

Sample Type	WRC Schools	Comparison Schools
Entire Sample	48	830
Matched sample	32	32

Note. Matched sample only includes schools that enrolled Grade 3 to Grade 6 students and that administered the Measures of Student Progress (MSP) in Reading in 2014.

Subsample of matched students. Washington Reading Corps and comparison students were also matched using nearest neighbor propensity score matching. To identify matched comparison students, RMC Research used students’ 2014 MSP reading scores to establish baseline reading equivalence for Washington Reading Corps and comparison students. Students who participated in the ELA Smarter Balanced Assessment pilot in 2014 were excluded from the sampling pool. Matching on 2014 MSP reading scores ensured that the students in the comparison sample were at a similar baseline reading level to Washington Reading Corps students. Accounting for students’ 2014 MSP reading scores led to a more precise measurement of Washington Reading Corps’ impact on students’ ELA Smarter Balanced Assessment scale scores in 2015. Because of the low number of Grade 6 students that participated in Washington Reading Corps in 2014–2015, these students were excluded. The final sample included a matched sample of comparison students in Grade 4 and Grade 5 (see Exhibit A2).

³Reading indices were derived from schools’ MSP reading scores.

Exhibit A2
Washington Reading Corps and Comparison Student Subsample

Sample Type	Grade 4		Grade 5	
	WRC	Comparison	WRC	Comparison
Total sampling pool	380	2,158	301	2,106
Students with 2014 MSP reading scale scores	134	1,805	122	1,749
Matched students with 2014 MSP reading scale scores	132	132	122	122

Power Analysis. RMC Research conducted a power analysis using Optimal Design software. Each criterion in Exhibit A3 was entered into Optimal Design to identify the power to detect small (.20) or medium (.40) program effects. All HLM analyses were sufficiently powered to detect a moderate program effect.

Exhibit A3
Power Analysis for Hierarchical Linear Modeling

Grade	Number of clusters	α	ICC	Effect Size	Power
4	46	.05	.06	.20	.75
				.40	1.00
5	42	.05	.19	.20	.30
				.40	.82

Data

The impact evaluation included several types of data from different sources (see Exhibit A4).

Exhibit A4
Washington Reading Corps Impact Data

Data Type/Data	Source
Demographic	
School (e.g., free and reduced-price lunch, student demographics, Title 1 status, Reading Index)	<ul style="list-style-type: none"> ▶ OSPI publically available report card data ▶ Washington Reading Corps
Student (e.g., free and reduced-price lunch, race/ethnicity, low income status)	<ul style="list-style-type: none"> ▶ OSPI student-level enrollment data
Program	
WRC Grade 3, 4, 5, and 6 participants	<ul style="list-style-type: none"> ▶ Washington Reading Corps student tracking logs
WRC program sites	<ul style="list-style-type: none"> ▶ Washington Reading Corps
Student Achievement	
2014 MSP reading Assessments	<ul style="list-style-type: none"> ▶ OSPI student-level data
2015 ELA Smarter Balanced Assessment	

Impact Analysis

To address whether participation in Washington Reading Corps influenced student reading scores on the ELA Smarter Balanced Assessment in Grades 4 and 5, RMC Research used cross-sectional HLM rather than a longitudinal model for 2 reasons: (a) student outcomes in 2015 could not be compared to prior years without access to student growth percentile data and (b) 2015 was the first year Washington State administered the Smarter Balanced Assessments, which might influence trends in reading achievement. The cross-sectional HLM analysis is an equally rigorous analytic technique that accounts for Washington Reading Corps' hierarchical structure, meaning that students (hierarchical Level 1) are nested in different schools (hierarchical Level 2). As an analytic technique HLM provides a more precise estimate of individual student effects and school effects. In other words, because Washington Reading Corps is implemented in multiple schools HLM can identify how student scores on the ELA Smarter Balanced Assessment may be influenced by each school's unique characteristics and also by each student's unique characteristics. The evaluation team included the following student- and school-level characteristics in each HLM model either because they were of interest to Washington Reading Corps or they were expected to influence student outcomes. Students' 2014 MSP reading level was included as a covariate to account for the relationship between students' reading level in 2014 and their reading level in 2015.

Exhibit A4
School and Student Characteristics Included in Hierarchical Linear Models

Hierarchical Level		Characteristics	Variable Type	Values
Level 2	School	Percent free and reduced-price lunch	Continuous	0%–100%
		Title I Status	Dichotomous	0 = no, 1 = yes
		Number of years in WRC	Continuous	0–17
		WRC Participation	Dichotomous	0 = no, 1 = yes
Level 1	Student	2014 MSP reading score level	Dichotomous	Level 1 (0 = no, 1 = yes) Level 2 (0 = no, 1 = yes) Level 3 (0 = no, 1 = yes) Level 4 (0 = no, 1 = yes)
		Low Income	Dichotomous	0 = no, 1 = yes
		Hispanic	Dichotomous	0 = no, 1 = yes
		Outcome	ELA SBA scale score Grade 4	Continuous
	ELA SBA scale score Grade 5	Continuous	2201–2701	
	ELA SBA met standard	Dichotomous	0 = no, 1 = yes	

Appendix B Supplemental Data

**Exhibit B1
Washington Reading Corps Student Sample Characteristics**

Student Characteristic	Grade 3		Grade 4		Grade 5		Grade 6	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
American Indian or Alaskan Native	2%	13	3%	10	3%	9	5%	4
Asian	4%	24	5%	18	7%	18	13%	11
Black	6%	34	5%	18	6%	15	12%	10
Hispanic	28%	156	26%	88	21%	56	29%	25
White	52%	297	51%	172	53%	140	36%	31
Native Hawaiian/Pacific Islander	1%	5	2%	5	1%	2	0%	0
Two or more Races	7%	39	7%	25	8%	22	7%	6
Low Income	68%	384	69%	232	69%	180	77%	67
Homeless	4%	20	7%	25	2%	6	2%	2
S504	2%	12	2%	7	4%	10	0%	0
Gifted	0%	2	1%	3	1%	3	1%	1
Migrant	4%	20	2%	6	1%	3	2%	2
Special Education	14%	78	16%	54	12%	31	18%	16
Title 3 Native American	0%	0	0%	0	0%	1	0%	0
LAP Reading	29%	163	19%	62	9%	23	26%	23

Note. Grade 3 *n* = 568, Grade 4 *n* = 336, Grade 5 *n* = 263, Grade 6 *n* = 87.

Exhibit B2
Matched Comparison School Characteristics

School Characteristics	Comparison	WRC
Total Enrollment	424	372
Percent American Indian or Alaskan Native	1%	3%
Percent Black	2%	3%
Percent Hispanic	24%	20%
Percent White	61%	60%
Percent 2 Or More Races	8%	8%
Percent Migrant	3%	2%
Percent Transitional Bilingual	14%	11%
Percent Special Education	13%	17%*
Percent Free or Reduced-Priced Meals	55%	55%
Percent Section 504	1%	2%
ReadingLevelIndex.3	3	3
ReadingLevelIndex.4	3	3
ReadingLevelIndex.5	3	3

Note. Schools were matched using OSPI report card data from 2013–2014 using Percent American Indian or Alaskan Native, Percent Black, Percent Hispanic, Percent Free or Reduced-Priced Meals, and all 3 Reading Level Indices.

Comparison $n = 32$, Washington Reading Corps $n = 32$.

* $p < .05$.

Exhibit B3
Matched Student Characteristics (2014—2015 Cohort)

Student Characteristics	Grade 4		Grade 5	
	WRC	Comparison	WRC	Comparison
American Indian or Alaskan Native	2%	1%	2%	1%
Black	6%	2%	4%	2%
Hispanic	28%	25%	24%	24%
White	50%	58%	55%	55%
Migrant	2%	1%	2%	6%
Special Education	16%	18%	16%	22%
Title3 Native American	0%	1%	1%	1%
LAP Reading	17%	37%*	14%*	2%
S504	2%	2%	4%	5%
Gifted	1%	2%	0%	3%
Low Income	66%	67%	71%*	57%
Homeless	5%	3%	3%	2%
2014 MSP Level 1	19%	23%	7%	6%
2014 MSP Level 2	40%	31%	51%	50%
2014 MSP Level 3	31%	31%	39%	39%
2014 MSP Level 4	11%	14%	4%	5%
2014 MSP Reading Scale Score	393	393	395	396
2015 Met Standard	23%	38%*	33%	45%*
2015 SBA ELA Smarter Balanced Assessment Scale Score	2422	2426	2464	2483*

Note. Grade 4 Washington Reading Corps $n = 132$, Comparison $n = 132$; Grade 5 Washington Reading Corps $n = 122$, Comparison $n = 122$.

* $p < .05$.

Exhibit B4
Reading Levels Aligned With Smarter ELA Smarter Balanced Assessment and MSP Reading Scale Scores

Reading Level	Definition	Smarter Balanced		MSP	
		Grade 4	Grade 5	Grade 4	Grade 5
Level 1	Well below standard	2131–2415	2201–2441	275–274	275–274
Level 2	Below standard	2416–2472	2442–2501	375–399	375–399
Level 3	Met standard	2473–2532	2502–2581	400–423	400–421
Level 4	Exceeds standard	2533–2663	2582–2701	424–475	422–475

Exhibit B5
Grade 4 Hierarchical Linear Model: ELA Smarter Balanced Assessment Scale Score Outcome

Predictor	Model 1		Model 2		Model 3		Model 4		Model 5	
	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE
Intercept	2422.88	11.28	2422.25	30.39	2323.40	64.07	2326.83	70.41	2274.24	122.65
Low income			7.81	28.49	21.67	31.35	21.58	31.65	58.42	63.99
Hispanic			-17.44	12.83	-9.28	10.41	-9.03	10.17	-7.92	20.11
2014 MSP Level 2					78.22	44.31	79.04	43.07	88.52	53.25
2014 MSP Level 3					124.31**	45.37	124.50**	44.56	127.11**	45.08
2014 MSP Level 4					178.90***	47.04	178.69***	46.72	185.46***	51.62
WRC							-7.40	17.63	34.06	59.57
Percent FRP lunch									-0.74	1.06
Title I									40.08	43.74
Years in WRC									1.05	1.47
WRC X Low Income									-73.22	63.20
WRC X Hispanic									3.47	22.60
WRC X 2014 MSP Level 2									-19.50	29.57
Deviance	3411.11		3494.49		3339.61		3329.82		3297.66	
ICC	0.06									

Note. School $n = 46$, student $n = 268$.
*** $p < .001$. ** $p < .01$. * $p < .05$.

Exhibit B6
Grade 4 Hierarchical Linear Models 1–3: ELA Smarter Balanced Assessment Met Standard Outcome

Predictor	Model 1				Model 2				Model 3			
	Est.	SE	OR	CI	Est.	SE	OR	CI	Est.	SE	OR	CI
Intercept	-0.91	0.19	0.40	(.28, .59)	-0.58	0.25	0.56	(.33,.93)	-2.34	0.52	0.10	(.03,.27)
Low Income					-0.17	0.31	0.84	(.46,1.54)	0.05	0.35	1.04	(.52, 2.11)
Hispanic					-1.02***	0.25	0.36	(.22,.60)	-0.92**	0.28	0.40	(.23, .70)
2014 MSP Level 2									0.81	0.56	2.25	(.75, 6.77)
2014 MSP Level 3									2.23***	0.51	9.28	(3.39, 25.45)
2014 MSP Level 4									3.55***	0.56	34.66	(11.47, 104.73)

Note. School $n = 46$, student $n = 268$.

*** $p < .001$. ** $p < .01$. * $p < .05$.

Exhibit B7
Grade 4 Hierarchical Linear Models 4 and 5: ELA Smarter Balanced Assessment Met Standard Outcome

Predictor	Model 4				Model 5			
	<i>Est.</i>	<i>SE</i>	<i>OR</i>	<i>CI</i>	<i>Est.</i>	<i>SE</i>	<i>OR</i>	<i>CI</i>
Intercept	-2.01	0.55	0.13	(.04, .41)	-1.27	0.61	0.28	(.08,.96)
Low Income	0.04	0.37	1.04	(.51,2.15)	-0.67	0.36	0.51	(.25,1.05)
Hispanic	-0.94*	0.29	0.39	(.22,.69)	-1.07**	0.35	0.34	(.17,.69)
2014 MSP Level 2	0.90	0.56	2.47	(.82,7.41)	0.59	0.68	1.81	(.47, 7.70)
2014 MSP Level 3	2.36***	0.50	10.63	(3.96,28.53)	2.33***	0.49	10.27	(3.93, 26.82)
2014 MSP Level 4	3.72***	0.55	41.31	(13.90, 122.76)	3.67***	0.54	39.28	(13.49, 114.36)
WRC	-0.93*	0.37	0.39	(.19,.82)	-1.96**	0.62	0.14	(.04, .50)
Percent FRP lunch					0.02	0.01	1.02	(1.00,1.05)
Title I					-0.15	0.44	0.86	(.36, 2.09)
Years in WRC					0.04	0.06	1.04	(.93,1.17)
WRC X Low Income					1.13	0.72	3.09	(.74, 12.87)
WRC X Hispanic					-0.02	0.97	0.98	(.34,2.84)
WRC X 2014 MSP Level 2					0.65	0.71	1.92	(.48, 7.70)

Note. School $n = 46$, student $n = 268$.

*** $p < .001$. ** $p < .01$. * $p < .05$

Exhibit B8
Grade 5 Hierarchical Linear Model: ELA Smarter Balanced Assessment Scale Score Outcome

Predictor	Model 1		Model 2		Model 3		Model 4		Model 5	
	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE
Intercept	2472.86	7.28	2494.28	9.23	2412.56	17.73	2420.71	26.23	2437.64	26.73
Low income			-33.78***	9.03	-20.78*	8.98	-19.67*	8.76	-32.86*	12.76
Hispanic			1.29	7.51	-6.79	5.72	-6.67	6.01	-16.68**	6.02
2014 MSP Level 2					45.97**	14.78	44.91*	14.55	29.72	15.41
2014 MSP Level 3					120.17***	17.72	119.21***	17.73	119.13***	16.85
2014 MSP Level 4					150.21***	18.02	149.29***	18.02	148.44***	17.92
WRC							-17.95	14.06	-51.51*	19.35
Percent FRP lunch							0.05	0.37	0.00	0.38
Title I							-2.91	19.25	2.96	19.59
Years in WRC							0.21	1.32	0.03	1.27
WRC X Low Income									23.10	17.98
WRC X Hispanic									18.91*	11.19
WRC X 2014 MSP Level 2									27.27*	12.72
Deviance		2695.69		2671.61	2553.65		2534.69		2507.58	
ICC		0.19								

Note. School $n = 42$, student $n = 244$.
*** $p < .001$. ** $p < .01$. * $p < .05$.

Exhibit B9
Grade 5 Hierarchical Linear Models 1-3: ELA Smarter Balanced Assessment Met Standard Outcome

Predictor	Model 1				Model 2				Model 3			
	Est.	SE	OR	CI	Est.	SE	OR	CI	Est.	SE	OR	CI
Intercept	-0.43	0.19	0.65	(.44, .94)	0.07	0.27	1.07	(.623, 1.83)	-1.50	0.76	0.22	(.05,1.04)
Low Income					-0.80**	0.26	0.45	(.27,.74)	-0.70*	0.32	0.49	(.26,.93)
Hispanic					-0.01	0.34	0.99	(.50,1.95)	-0.19	0.38	0.82	(.39,1.74)
2014 MSP Level 2									0.64	0.72	1.91	(.46,7.92)
2014 MSP Level 3									2.57***	0.96	13.02	(3.02,56.15)
2014 MSP Level 4									3.01**	0.96	20.46	(3.07,136.40)

Note. School $n = 42$, student $n = 244$.

*** $p < .001$. ** $p < .01$. * $p < .05$.

Exhibit B10
Grade 5 Hierarchical Linear Models 4 and 5: ELA Smarter Balanced Assessment Met Standard Outcome

Predictor	Model 4				Model 5			
	Est.	SE	OR	CI	Est.	SE	OR	CI
Intercept	-1.21	0.96	0.30	(.04,2.09)	-0.53	0.99	0.59	(.08,4.41)
Low Income	-0.72*	0.33	0.49	(.26,.93)	-1.39	0.47	0.25	(.09,.64)
Hispanic	-0.19	0.39	0.83	(.38,1.79)	0.00	0.53	1.00	(.35, 2.84)
2014 MSP Level 2	0.55	0.68	1.74	(.45,6.66)	-0.11	0.69	0.90	(.23, 3.54)
2014 MSP Level 3	2.52***	0.72	12.49	(3.02,51.73)	2.48**	0.76	11.99	(2.65, 54.14)
2014 MSP Level 4	3.05**	0.96	21.16	(3.17,141.28)	3.04**	0.97	21.06	(3.14, 141.49)
WRC	-0.66	0.54	0.52	(.17,1.53)	-1.79*	0.83	0.17	(.03,.89)
Percent FRP lunch	0.00	0.02	1.00	(.97,1.04)	0.00	0.02	1.00	(.97, 1.04)
Title I	-0.17	0.85	0.85	(.15,4.78)	0.22	0.02	1.25	(.19, 8.18)
Years in WRC	0.03	0.04	1.03	(.94,1.13)	0.01	0.04	1.01	(.93,1.10)
WRC X Low Income					1.02	0.72	2.79	(.68, 11.5)
WRC X Hispanic					-0.42	0.73	0.66	(.16, 2.78)
WRC X 2014 MSP Level 2					1.15*	0.55	3.19	(1.08, 9.39)

Note. School $n = 42$, student $n = 244$.

*** $p < .001$. ** $p < .01$. * $p < .05$.