

Scaling the Reading Corps intervention: Insights from the experiences of United Ways of Iowa

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Christopher Jones, Daniel Friend, Mary Anne Anderson, Karen Needels, and Scott Richman

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250 E Street SW
Washington, DC 20525
Project Officer: Anthony Nerino
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Submitted by:

Mathematica
1100 First Street, NE, 12th Floor
Washington, DC 20002-4221
Phone: 202-484-9220
Project Director: Scott Richman
Reference Number: 50332

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EXECUTIVE SUMMARY

Scaling interventions that have demonstrated effectiveness can increase the likelihood that an organization's activities will improve participants' lives (National Implementation Research Network 2016). At the same time, scaling can be challenging because it goes beyond implementation—the focus is not only on implementing an intervention but also on reproducing the same effects for a larger or different population, in a new or different location, or perhaps while modifying some of the intervention's components.

The Corporation for National and Community Service (CNCS) has invested significant resources in supporting implementation of interventions designed to improve lives and strengthen communities through its AmeriCorps and Social Innovation Fund (SIF) programs. CNCS also invests in evaluating the effectiveness of these interventions and supporting the scaling of those that have evidence of being effective to serve new communities or populations. Recognizing that an increasing number of CNCS-funded grants were being used to scale interventions, CNCS contracted with Mathematica in 2016 to conduct the Scaling Evidence-Based Models (SEBM) project to deepen the agency's understanding of the interventions and its knowledge base on scaling them. The project was also funded to generate systematic analysis on how the grantees planned to scale and what their experiences have been when doing so.

Using information gathered through the SEBM project's process study, this report presents a case study of United Ways of Iowa (UWI), a CNCS grantee implementing the Reading Corps intervention in Iowa. Reading Corps is a standardized literacy intervention that provides one-on-one tutoring to students enrolled in pre-kindergarten through third grade to help them achieve reading proficiency. This case study provides insights about how UWI and its partners are scaling Reading Corps, as well as the factors that appear to facilitate and hinder scaling.

The intervention and grantee

This report describes the scaling of Reading Corps, a literacy intervention designed to improve reading proficiency, by United Ways of Iowa and its partners.

Research questions, site selection, and data collection methods

More generally, the SEBM project's process study examined how three organizations that received CNCS grant funding and that were selected for in-depth investigation scaled their evidence-based interventions. We define evidence-based interventions as those that have been demonstrated, through rigorous evaluation studies, to improve participant outcomes. The process study focused on how grantees viewed scaling, the actions they took when they scaled, and what factors appeared to facilitate or challenge scaling. The process study aimed to address two overarching research questions:

1. How did selected CNCS grantees define and operationalize scaling? For this research question, we describe the type of scaling that each grantee selected for the process study planned to undertake. The three types of scaling considered under the SEBM project are briefly defined in the box to the right. (See the appendix for more information about these definitions.)

2. How did selected CNCS grantees scale evidence-based interventions? To answer this research question, we describe how the grantees selected for the process study used organizational and implementation supports—including the organizational workforce,¹ systems to monitor implementation and facilitate communication, funding and other resources, and use of data systems and evaluation—to facilitate scaling. We drew from the implementation science literature (see box below) to identify supports that are typically needed. In documenting the extent to which grantees drew upon organizational and implementation supports, the process study also identified factors that appeared to facilitate and hinder scaling.

Types of scaling

Expansion extends the intervention to more people in the same target population in the same location.

Replication extends the intervention to the same target population in a new location.

Adaptation extends the intervention to a different target population in either the same or different location or modifies the intervention for the same population in either the same or different location.

To answer these research questions, CNCS, with input from Mathematica, selected three grantees that were implementing evidence-based interventions. The grantees and the interventions they were implementing also demonstrated a higher degree of scaling readiness than did other CNCS grantees. This meant that the grantees and interventions met the conditions expected to lead to successful scaling—that is, scaling the intervention while maintaining or exceeding the beneficial impacts documented in evidence about its effectiveness.

Mathematica collected and analyzed data from four sources: (1) a review of documents relevant to each intervention and its scaling and supplied by the grantees or their partners, (2) a two-day visit during October 2018 to each grantee and local partners involved in scaling interventions, (3) brief telephone calls with grantee personnel shortly before and after the visits, and (4) follow-up telephone interviews conducted with grantee personnel about 12 months after the visits (that is, in September 2019). Information from these sources was compiled to identify insights about scaling that are particular to each grantee.

What is implementation science?

Implementation science is the scientific investigation of factors associated with effective implementation of an evidence-based intervention or practice (Franks and Schroeder 2013).

¹ We use the terms *personnel* and *workforce* to refer to organization and partner personnel as well as AmeriCorps members who deliver intervention services.

Overview of the Reading Corps intervention

Reading Corps is a standardized, evidence-based literacy intervention that provides one-on-one tutoring to students enrolled in pre-kindergarten through third grade to help them achieve reading proficiency.² It targets students who are reading below grade level, but not low enough to qualify for more intensive assistance. Reading Corps features 20 minutes of one-on-one, in-school reading tutoring each school day. Tutoring consists of a set of 10 scripted activities that target phonemic awareness, phonics, reading fluency, and comprehension skills. The specific set of activities used with each student is individualized based on their needs and progress. Students also receive materials and short literacy activities to take home to engage in with their families. Tutors track student progress by administering short weekly assessments. Students whose scores reach and remain above a specified threshold of reading proficiency exit the intervention. Each tutor is an AmeriCorps member³ serving at the school, who is overseen by an internal coach (an educator at the school) and a master coach (hired or contracted by the grantee for his or her literacy and coaching expertise). To ensure fidelity—the extent to which implementation of an intervention matches the intervention as designed—internal coaches observe tutors twice per month. Master coaches meet with tutors and internal coaches monthly to examine each student's progress.

Reading Corps was originally developed in Minnesota by the state AmeriCorps commission, ServeMinnesota, and was first implemented in that state in 2003. Since then, Reading Corps has expanded to 12 states and the District of Columbia, serving more than 35,000 students during the 2017–2018 school year. It is currently overseen by Reading and Math, Inc., which we refer to as the developer in this report. The developer implements the Reading Corps intervention directly in some locations (primarily Minnesota) and licenses other organizations to replicate it in other locations, with the requirement that the intervention be implemented with fidelity. As a CNCS grantee, UWI, a statewide association of local United Way chapters, receives CNCS grants to scale Reading Corps in Iowa. This report considers the full time frame of UWI's implementation of Reading Corps, which began in 2012, but focuses on the period since it received a 2015 CNCS grant to scale the intervention to a larger number of schools in the state.

Key findings from this case study report

The key findings in this report pertain to two areas. First, we discuss the types of scaling that UWI and its partners have pursued while implementing Reading Corps in Iowa. Second, we discuss how UWI and its partners draw on organizational and implementation supports—including the organizational workforce, systems to monitor implementation and facilitate communication, funding and other resources, and use of data systems and evaluation—to scale Reading Corps. We also discuss the facilitators and challenges that UWI and its partners have experienced while scaling.

² See the Reading Corps websites for more information: <http://www.readingcorps.org/> and <https://minnesotareadingcorps.org/>.

³ AmeriCorps members are individuals participating in local service programs funded by CNCS who commit their time to addressing critical community needs through engaging in national service.

Approaches to scaling. UWI has both replicated and expanded Reading Corps by partnering with school districts to implement the intervention in schools across Iowa. UWI originally **replicated** Reading Corps by licensing it from the developer in 2012, based on interest from Iowa policymakers, the state commission of volunteer service, and the local United Way chapters that formed UWI as their statewide association. After a planning year, UWI implemented Reading Corps during the 2013–2014 and 2014–2015 school years in about eight or nine schools, with about 10 to 15 tutors. UWI then used its 2015–2016 CNCS grant to **expand** Reading Corps to more schools in existing districts and to further **replicate** it in new districts in Iowa. Since 2015–2016, the intervention in Iowa has had about 65 to 70 AmeriCorps members serving as tutors in about 60 to 65 schools in as many as 30 districts. The specific locations at which Reading Corps is expanded and to which it is replicated depend heavily on local factors, most prominently school districts' interest in participating and whether funding is available to cover the proportion of costs the CNCS grant does not cover. These factors have limited the extent to which Reading Corps is scalable in Iowa.

Reading Corps is an evidence-based intervention, and Reading and Math, Inc. requires organizations that license it to implement it with fidelity to the intervention. This means UWI avoids adapting the intervention. Instead, it adopts any updates to the intervention made by the developer, which also provides extensive assistance and supports to Iowa and other sites. These requirements are important to ensure that interventions that have shown evidence of effectiveness can continue to have those effects in new settings. UWI and other Reading Corps personnel reported being committed to fidelity and do not view the requirements as onerous or limiting. Nevertheless, UWI implements Reading Corps differently in a few ways, including by having tutors conduct additional literacy activities in the summer, although for the SEBM project we do not consider these to be modifications of the intervention.

Organizational workforce. UWI has two full-time Reading Corps personnel—a program director and a program manager. At the time of the site visit in October 2018, UWI's only other employees were a contract bookkeeper, the UWI executive director, and a small number of personnel implementing a second, unrelated grant program that had ended as of September 2019. The vast majority of those delivering Reading Corps in Iowa are not UWI personnel. AmeriCorps members serve as tutors; school employees serve as internal coaches; and most of the 12 master coaches at the time of the site visit were employees of one of Iowa's area education agencies (AEAs).⁴ These personnel take on Reading Corps duties for the schools they already serve for the AEA. UWI contracts for the remaining master coaches.

Reading Corps' layered personnel approach involves roles that are well-defined, focused on specific aspects of implementation, and relate to other roles through a structure of monitoring and support. However, before implementing Reading Corps, UWI was a one-person organization, and UWI personnel reported a key challenge was having enough personnel to meet the intensive workload involved in scaling and administering the intervention at its current size. Because of this challenge, partners have been essential providing much of the workforce—internal coaches and master coaches—needed to deliver the intervention. Still, these arrangements can lead to challenges; for example, some coaches struggle to find the

⁴ AEAs are funded by the state and provide a variety of services to school districts, including special education services. Each AEA serves a geographic area in the state.

time needed for Reading Corps due to their other duties as educators. Also, as Reading Corps has expanded, it has been more difficult to recruit people to serve as tutors, due to improving economic conditions, competing national service programs in Iowa, and fewer candidates in rural areas.

Training is prescribed by the Reading Corps developer as part of the intervention. UWI holds an initial four-day training for tutors and internal coaches each September and two one-day trainings later in the fall, which the master coaches conduct.⁵ The developer supports the master coaches and UWI Reading Corps personnel, including through train-the-trainer meetings. Respondents described the Reading Corps training as thorough and said it prepares personnel to carry out their roles, facilitating successful implementation.

Systems to monitor implementation and facilitate communication. UWI uses the layered structure and extensive processes built into the Reading Corps intervention to help monitor implementation fidelity. These include monitoring of tutors by internal coaches, including twice-monthly observations; monitoring of tutors and internal coaches by master coaches, including monthly meetings to review students' progress; monitoring of master coaches by a lead master coach and developer personnel; and monitoring of other aspects of implementation by the lead master coach and UWI personnel, including around tutor caseloads and amounts of tutoring each student receives. UWI personnel also monitor members to ensure they are following AmeriCorps policies and procedures. Personnel also communicate outside of monitoring processes; for example, tutors and coaches meet regularly, and UWI personnel communicate changes in policies or procedures through mass emails. The developer also organizes separate monthly calls involving lead master coaches, program directors, and master coaches across sites; sends mass email updates; and communicates individually with the Iowa lead master coach and UWI program director, although more frequently with the former.

Implementation monitoring and communication systems allow personnel to identify and address issues as they arise, including tutors struggling to deliver literacy activities, internal coaches not overseeing tutors with the prescribed frequency, and students not receiving the intended amount of tutoring per week. This facilitates implementing Reading Corps with fidelity. Reading Corps has many different personnel roles, and they need to coordinate, ask and answer questions, and monitor and support one another within the structure of the intervention. This became especially important when the intervention expanded and fewer opportunities existed for more personal forms of communication between some types of personnel, especially between leadership and frontline personnel. Personnel have also used frequent informal communication to supplement formal processes, often by email but also by phone or text message. However, as UWI has scaled Reading Corps and communication has become more complex, respondents reported challenges involving communication processes between leadership and frontline personnel, and challenges involving communication from the developer to Reading Corps personnel in Iowa.

Funding and other resources to support scaling. Because CNCS requires that its funds cannot cover the entire cost of an intervention, matching funds must pay part of the cost of each

⁵ For 2019–2020, per a change from the developer, returning internal coaches were excused from in-person training if they passed an online, open-book test.

AmeriCorps member placed in a school. UWI is a statewide association of local United Way chapters, and each local chapter has sole authority (within the national organization) to fundraise in its geographic area. Thus, at the start of implementation in Iowa, UWI and stakeholders planned that local chapters would raise the matching funds. UWI is restricted from fundraising in those areas to avoid competing for funds with the local chapters. Although some chapters have raised the matching funds consistently, others have never provided funding or stopped doing so over time. UWI has tried to raise funds from other sources, but success has been limited. Most significantly, after initial implementation in Iowa, the state legislature came close to appropriating funding for a large expansion, but ultimately did not include it in the budget, and has not done so despite advocacy from UWI. As a result, most school districts provide the matching funding, but some school districts cannot afford to participate at all or with as many tutors as needed, which limits the scaling of Reading Corps in Iowa; respondents perceived that this also threatens the intervention's sustainability in some districts. These challenges would be greater if not for the significant portions of the cost covered by partners. Part of this stems from the design of Reading Corps, as the internal coach is a school employee. Part is Iowa-specific, as the AEA whose personnel dedicate some of their time to serving as master coaches also continues to pay for their full salary and benefits, facilitating UWI's capacity to serve more schools.

UWI is able to obtain most of the other resources needed for scaling from the developer and school partners. As part of licensing Reading Corps from the developer, each school year UWI purchases the physical materials needed for implementation. Reading Corps is highly structured and has extensive materials, including a program manual. Tutors work in schools, so most of Reading Corps' needs for physical space are provided by the school. Schools also provide tutors with a computer. However, UWI personnel had to resolve basic infrastructural issues such as obtaining or upgrading sufficient computers, printers, and office space for themselves. Some of these challenges occurred because UWI is a small organization whose capacity needed to expand significantly to scale Reading Corps.

Use of data systems and evaluation during scaling. UWI primarily uses an extensive data system built and managed by the developer. This system is critical for tracking the weekly progress assessments and other implementation processes, in particular for monitoring tutor caseloads, student-specific amounts of tutoring received, and internal coach observations of tutors. Personnel also use it to communicate via notes about students, and to view intervention materials. The developer also has adopted commercial software to enable UWI personnel to more easily produce a variety of reports from the data system, which they have used to better identify and address monitoring and other implementation-related issues. Overall, personnel find the system easy to use and well-supported by the developer. Finally, UWI also uses other data systems to track AmeriCorps member hours, member recruitment, and school applications to participate in Reading Corps.

As required by its current CNCS grant, UWI is engaging with an external evaluator to conduct a formal evaluation during the 2019-2020 school year, using a quasi-experimental design study. UWI looks forward to this evaluation because evidence from formal evaluations has so far played a limited role in encouraging districts to participate. This is because those evaluations took place outside of Iowa. Iowa-specific data from the Reading Corps data system and reports from the developer have been more influential, and UWI expects that an evaluation in Iowa will

be more appealing to Iowa districts as well. Outside of this planned evaluation, however, UWI faces challenges to conducting Iowa-specific evaluations and data use. Because the developer requires UWI to replicate Reading Corps with fidelity, and not to adapt it, UWI has limited ability to consider and test out local changes and improvements to the intervention. UWI personnel also have limited time and resources to conduct evaluations or use data outside of prescribed monitoring processes. The developer has an extensive process to update Reading Corps, although it is for the intervention as a whole and only considers site-specific circumstances and experiences to a limited extent.

Conclusion. UWI's scaling of Reading Corps reveals both successes and challenges in replicating and expanding an evidence-based intervention. This report seeks to help stakeholders understand the factors that might facilitate and hinder scaling, based on insights from the experiences of one CNCS grantee scaling an evidence-based intervention. Two companion reports provide further insights on the scaling experiences of the other two CNCS grantees included in the process study. One report presents a case study of Parent Possible's scaling of Home Instruction for Parents of Preschool Youngsters (HIPPI), a home visiting intervention that seeks to help parents improve their young children's development (Anderson et al. 2020). The other report presents a case study of the Child Abuse Prevention Council's scaling of the Birth and Beyond intervention, which seeks to provide parenting education and support to parents of children in order to reduce child maltreatment (Eddins et al. 2020). Additionally, a fourth report (Needels et al. 2020) presents a cross-grantee analysis of information collected from all three grantees; that report includes insights on the commonalities and differences in how grantees scaled evidence-based interventions, and the challenges and facilitators they faced while scaling.

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I. INTRODUCTION

Scaling interventions that have demonstrated effectiveness can increase the likelihood that an organization's activities will improve participants' lives (National Implementation Research Network 2016). At the same time, scaling can be challenging because it goes beyond implementation—the focus is not only on implementing an intervention but also on reproducing the same effects for a larger or different population, in a new or different location, or perhaps while modifying some of the intervention's components.

The Corporation for National and Community Service (CNCS) has invested significant resources in supporting implementation of interventions designed to improve lives and strengthen communities through its AmeriCorps and Social Innovation Fund (SIF) programs.⁶ CNCS also invests in evaluating the effectiveness of these interventions and supporting the scaling of those that have evidence of being effective to serve new communities or populations. Although many of the grants that CNCS funds are for scaling interventions, little systematic analysis has been conducted on how the grantees have planned to scale and what their experiences have been when doing so.

Recognizing this, CNCS contracted with Mathematica in 2016 to conduct the Scaling Evidence-Based Models (SEBM) project, to deepen the agency's understanding of interventions and its knowledge base on scaling them.

The project

The Corporation for National and Community Service is deepening its understanding of how to scale interventions deemed to be effective through the Scaling Evidence-Based Models project.

The intervention and grantee

This report describes the scaling of Reading Corps, a literacy intervention designed to improve reading proficiency, by United Ways of Iowa and its partners.

This report presents a case study, using information from the SEBM project's process study, of United Ways of Iowa (UWI), a CNCS grantee implementing the Reading Corps intervention in Iowa (see box at left). Reading Corps is a standardized literacy intervention that provides one-on-one tutoring to students enrolled in pre-kindergarten through third grade to help them achieve reading proficiency. This case study provides insights about how UWI and its partners is scaling Reading Corps, and the factors that appear to facilitate and hinder scaling.

A. Overview of the SEBM process study

As part of the SEBM project, Mathematica conducted a process study examining how organizations that received CNCS grant

⁶ AmeriCorps supports a wide range of local service programs through grants to address critical community needs, such as those pertaining to education, public safety, health, and the environment. The Social Innovation Fund supported programs from 2010 through 2016. SIF grants were used to fund community-based programs to address challenging social problems communities face in the areas of economic opportunity, healthy futures and youth development. CNCS (2016) and CNCS (n.d.) provide a detailed description of these programs.

funding scaled evidence-based interventions. We define evidence-based interventions as interventions that have been demonstrated, through rigorous evaluation studies, to improve participant outcomes. The process study focused on how these grantees view scaling, the actions they take when they scale, and what factors appeared to facilitate or challenge scaling. Specifically, the process study aimed to address two overarching research questions:

1. How did selected CNCS grantees define and operationalize scaling? For this research question, we describe the type of scaling that each grantee planned to undertake. The three types of scaling considered under the SEBM project are briefly defined in the box to the right. (See the appendix for more information about these definitions.)

2. How did selected CNCS grantees scale evidence-based interventions? For this research question, we describe how the grantees selected for the process study used organizational and implementation supports to facilitate scaling. We drew from the implementation science literature (see box on the next page) to identify supports that are typically needed. In documenting the extent to which grantees drew upon organizational and implementation supports, the process study also identified factors that appeared to facilitate and hinder scaling.

Types of scaling

Expansion extends the intervention to more people in the same target population in the same location.

Replication extends the intervention to the same target population in a new location.

Adaptation extends the intervention to a different target population in either the same or different location or modifies the intervention for the same population in either the same or different location.

To answer these research questions, CNCS, with input from Mathematica, selected three grantees that were implementing interventions with evidence of effectiveness, meaning that evaluation studies of those interventions used rigorous research designs and had consistently favorable findings. The grantees and the interventions they were implementing also, when compared to other CNCS grantees, demonstrated a higher degree of scaling readiness. This meant that the grantees and interventions met the conditions expected to lead to successful scaling—that is, scaling the intervention while maintaining or exceeding the beneficial impacts documented in evidence about its effectiveness. (See the appendix for details of the selection process and data collection).

The grantees selected for the process study—and the interventions they were scaling—differed with respect to the size of the grantee implementing an evidence-based intervention, intervention focus areas,⁷ planned types of scaling, how long the grantee had been scaling the intervention, reported successes and challenges with their scaling experiences, and the extent to which the grantees had attempted to apply lessons learned in the past. Because CNCS did not intend for the

⁷ Intervention focus area refers to the topics in which CNCS concentrates its funding: disaster services; economic opportunity; education; environmental stewardship; healthy futures (including physical and mental health, substance abuse, and nutrition); and veterans and military families.

grantees selected for the process study to offer interventions that were typical of all CNCS grantees, the insights from their scaling experiences might not apply to a broader set of CNCS-funded grantees or service providers. Still, because of their scaling readiness strengths, the findings from the process study can provide insights about scaling practices that can help stakeholders understand the conditions that might facilitate or hinder intervention scaling.

Mathematica collected and analyzed data from four sources: (1) a review of documents relevant to each intervention and its scaling supplied by the grantees or their partners, (2) a two-day visit during October 2018 to each grantee and local partners involved in scaling the interventions, (3) brief telephone calls with grantee personnel shortly before and after the visits, and (4) 12-month follow-up telephone interviews conducted with grantee personnel in September 2019.⁸ Information from these sources was compiled to identify insights about scaling particular to each grantee. (See the appendix for a more detailed discussion of the data sources.)

This report presents a case study of one of three grantees included in the process study: United Ways of Iowa (UWI), implementing the Reading Corps intervention in Iowa. We adapted the process study's research questions for UWI's scaling of Reading Corps in Iowa. As the CNCS grantee, UWI partners with school districts to implement Reading Corps to eligible students in schools across Iowa. Under a 2015 CNCS grant, UWI scaled Reading Corps to a larger number of schools in the state. UWI initially scaled Reading Corps (via replication) in the state starting in 2012. This report considers the full time frame of UWI's implementation of Reading Corps in Iowa (since 2012). However, this report focuses on the period since the 2015 CNCS grant. At the national level, Reading Corps' scaling is supported and monitored by Reading and Math, Inc., located in Minnesota, where the intervention was developed and first implemented.

What is implementation science?

Implementation science is the scientific investigation of factors associated with effective implementation of an evidence-based intervention or practice (Franks and Schroeder 2013).

In seeking to answer the process study's research questions with a focus on this single grantee, this report describes how UWI is scaling an evidence-based intervention, providing an in-depth focus on the grantee's implementation activities. This report aims to deepen understanding among funders, policymakers, and service providers on UWI's efforts to scale an intervention with evidence of effectiveness. Two companion reports discuss findings from our case studies of the other two CNCS grantees included in the process study—Parent Possible, implementing the Home Instruction for Parents of Preschool Youngsters (HIPPY) intervention (Anderson et al.

⁸ We use the terms *personnel* and *workforce* to refer to organization and partner personnel as well as AmeriCorps members who deliver intervention services.

2020), and the Child Abuse Prevention Council, implementing the Birth and Beyond intervention (Eddins et al. 2020).⁹

B. Overview of the Reading Corps intervention

Reading Corps is a standardized literacy intervention that provides one-on-one tutoring to students enrolled in pre-kindergarten through third grade to help them achieve reading proficiency.¹⁰ Reading Corps was originally developed in Minnesota by the state AmeriCorps commission, ServeMinnesota, and was first implemented in that state in 2003. The intervention seeks to engage students who are reading below grade level, but not low enough to qualify for more intensive assistance (for example, Title I reading assistance).¹¹ Intervention personnel identify eligible students using benchmark assessments that predict third-grade reading performance.

Reading Corps features 20 minutes of one-on-one, in-school reading tutoring each school day. Tutoring consists of a set of 10 scripted activities¹² that target phonemic awareness, phonics, reading fluency, and comprehension skills. The specific set of activities used with each student is individualized based on their needs and progress; these activities range from blending and segmenting phonemes to reading text aloud multiple times to improve fluency. Students are removed from their regular classrooms, but not during core reading instruction, for tutoring. Students also receive materials and short literacy activities to take home to engage in with their families. Tutors track student progress by administering short weekly assessments. Students whose scores reach and remain above a specified threshold of reading proficiency exit the intervention.

Tutors are AmeriCorps members—individuals participating in local service programs funded by CNCS who commit their time to addressing critical community needs through engaging in national service. Members engage in terms of service, which specify the number of hours that they are committed to serve.¹³ Each tutor serves a caseload of 15 to 18 students in a school, and

⁹ A previously published report (Needels et al. 2020) presented a cross-grantee analysis of information collected during the process study visits from all three grantees. The insights from this analysis pertain to two broad areas: (1) the approaches that grantees and their partners took to scaling—including how grantees viewed scaling and their actions when the scaling was taking place; and (2) specific commonalities and differences in how they scaled, and the challenges and facilitators they faced with these aspects of scaling. In contrast, the three case study reports provide deeper insights into the scaling experiences of each of these grantees.

¹⁰ See the Reading Corps websites for more information: <http://www.readingcorps.org/> and <https://minnesotareadingcorps.org/>.

¹¹ However, according to a UWI respondent, starting in 2019–2020, the developer broadened the eligibility criteria to include all low-scoring students. Chapter II, Section B discusses this change in more detail.

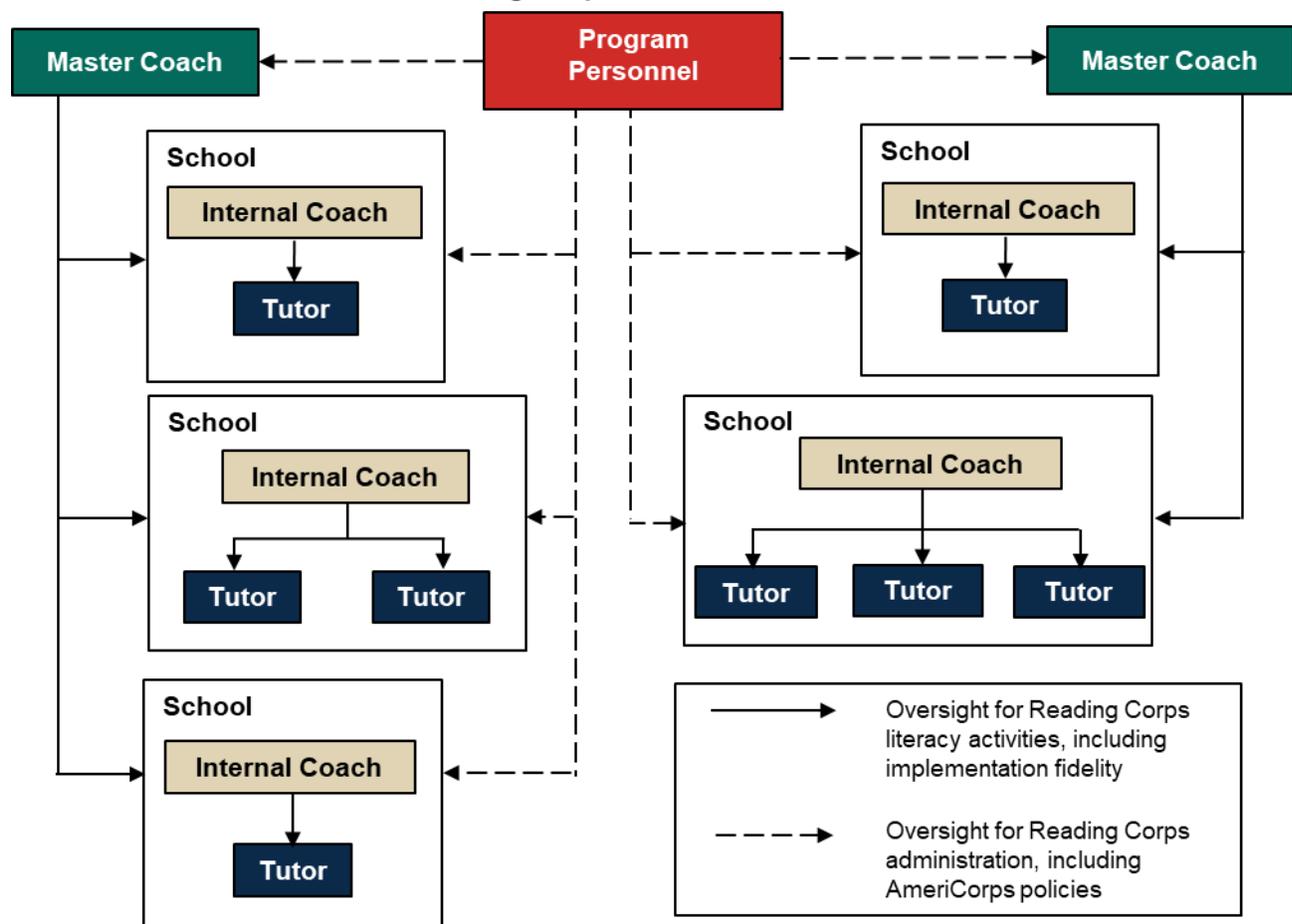
¹² Reading Corps uses different terminology than the SEBM process study and these three case study reports: Reading Corps uses the term “program” to refer to the overall Reading Corps intervention and “intervention” to refer to one or more of the 10 specific literacy activities delivered through Reading Corps tutoring.

¹³ This report refers to AmeriCorps members serving as Reading Corps tutors as “members” and “tutors” interchangeably.

is overseen by an internal coach, who is a classroom teacher, reading specialist, or other educator at the school. Internal coaches observe tutors twice per month to monitor fidelity, which is the extent to which implementation of an intervention matches the intervention as designed. In this case, fidelity means that the tutors are delivering the literacy activities as designed and scripted. Internal coaches also handle most interactions with parents and students' classroom teachers, including coordinating with teachers on when each student should leave the classroom for tutoring.

Each tutor and internal coach are also overseen by a master coach, who is hired or contracted by the grantee based on the candidate's literacy and coaching expertise. Master coaches meet with each tutor and internal coach monthly to conduct case reviews. During these reviews, this three-person team examines each student's progress based on the assessments, and uses the results to update the individualized approach to tutoring each student as needed. Exhibit 1 illustrates the personnel structure of the Reading Corps intervention.

Exhibit 1. Personnel roles in Reading Corps intervention



Reading Corps is an evidence-based intervention. The 10 scripted literacy activities it uses were derived from empirical studies of effective instructional practices in reading and literacy. The overall Reading Corps intervention has demonstrated evidence of effectiveness. A 2014 study, using a randomized controlled design, found positive effects on literacy assessment scores, with larger effects on younger students (kindergarten and first grade) and positive effects across different subgroups of students based on gender, race, dual language learner status, and low-income status (Markovitz et al. 2014).

According to our document review, since its initial implementation in Minnesota, the Reading Corps intervention has expanded to 12 states and the District of Columbia, serving more than 35,000 students during the 2017–2018 school year. It is currently overseen by Reading and Math, Inc., which was created as a separate organization from the original developer (ServeMinnesota) to oversee the scaling of Reading Corps.¹⁴ Reading and Math, Inc. implements the Reading Corps intervention directly in some locations (primarily Minnesota) and licenses other organizations to replicate it in other locations, with the requirement that the intervention be implemented with fidelity. It also supports the other organizations implementing Reading Corps, such as by providing training and technical assistance, a data system, and intervention materials. The developer updates the Reading Corps intervention based on data and research from intervention locations.

In the remainder of this report, we identify the types of scaling pursued by UWI (Chapter II), describe how it scales Reading Corps and discuss the factors that appear to facilitate and hinder scaling (Chapter III), and summarize our findings (Chapter IV). In the appendix, we describe the process study's design and the methodologies used to collect and analyze data for this process study.

¹⁴ This report refers to Reading and Math, Inc. as “the developer” because it oversees implementation of Reading Corps, including licensing it to other organizations, and maintains and updates the intervention.

II. HOW DID UWI DEFINE AND OPERATIONALIZE SCALING?

UWI, a statewide association of local United Way chapters, has received CNCS grants since 2012 to scale Reading Corps in Iowa. UWI partners with local school districts to implement Reading Corps in schools. In scaling Reading Corps, UWI has both **replicated** and **expanded** the intervention, implementing it with fidelity as required.

A. Replicating and expanding Reading Corps

UWI originally **replicated** Reading Corps by licensing it from the current developer in 2012 to implement it in the state. UWI personnel identified three factors that led to the initial replication of Reading Corps in Iowa. First, the Iowa legislature had passed a law mandating grade retention for students not proficient in reading by the end of third grade, so policymakers focused on supporting grade-level reading. Although the mandatory grade retention was later removed before it could take effect, provisions in the law remained for schools to identify children at risk for not becoming proficient in reading and providing interventions to support literacy. Second, Iowa's state commission on volunteer service identified Reading Corps as an intervention using AmeriCorps members that could benefit the state by improving student outcomes in reading. Third, the local United Way chapters that formed UWI as their statewide association wanted to support a reading intervention collectively through UWI.

Scaling Reading Corps in Iowa

In Iowa, Reading Corps has been **replicated** (brought to new locations for the same target population) and **expanded** (delivered to a larger population in existing locations).

After a planning year in 2012–2013, UWI implemented Reading Corps during the 2013–2014 and 2014–2015 school years in about eight or nine schools in five districts, with about 10 to 15 AmeriCorps members serving as tutors. For the 2015–2016 school year, UWI received a larger grant from CNCS (this is the grant that was reviewed by the SEBM project and led to UWI's selection for this process study). UWI used its 2015–2016 CNCS grant to **expand** Reading Corps to more schools in existing districts and to further **replicate** it in new districts in Iowa. Since 2015–2016, the intervention in Iowa has had about 65 to 70 members serving as tutors in about 60 to 65 schools in as many as 30 districts. Members have been supported by about 60 to 65 internal coaches (because there is usually one per school) and about 12 (at the time of the site visit) to 14 (at the time of follow-up calls) master coaches. During the 2018–2019 school year, about 1,700 students received Reading Corps tutoring.

UWI personnel explained that UWI would like to engage the highest-need schools and districts within the state for Reading Corps services. However, the specific locations to which Reading Corps is replicated and at which it is expanded depend heavily on local factors. Many, but not

all, of these factors involved similar considerations when replicating the intervention in new districts and expanding it in existing districts.¹⁵

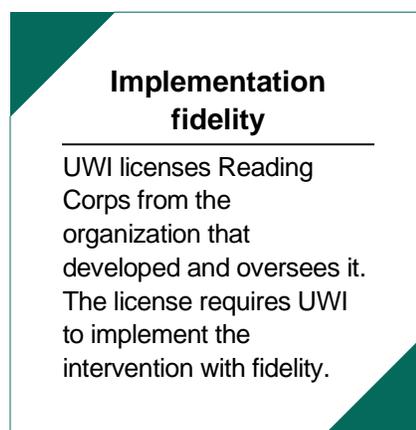
- First, school districts have to agree to participate, and the primary considerations are their interest and whether funding is available. In some areas of the state, local United Way chapters have raised funds for the proportion of the cost of each tutor not funded by CNCS. In other areas, school districts must pay this proportion of the cost. (Chapter III, Section C explains this issue in more detail.)
- Word of mouth and educator movement to new schools affected districts' interest in participating. Respondents reported that more districts became interested as they heard from teachers and principals who were satisfied with how their students had benefited, or as teachers and principals from a district with Reading Corps moved to a new district and wanted to bring the intervention there. At the same time, when a tutor performed poorly, word could spread and discourage districts and schools from participating. Respondents said this latter situation had only happened on a few occasions and did not indicate that it had been a major limitation.
- Some districts might incorrectly think they are not eligible to participate. During follow-up calls in September 2019, one respondent relayed that personnel in a newly participating district had said they previously thought the district was not eligible. This might have occurred because during the first two years, districts could only participate if their local United Way chapter raised the additional funding; however, after Reading Corps in Iowa expanded, the funding could come from any source. Although this was the only time UWI has heard about this misperception, the respondent said UWI plans to reach out to districts next year to correct any potential misperceptions about eligibility.
- Another local factor is AmeriCorps member recruitment. Although UWI recruits AmeriCorps members, members interview for a spot in a specific school. As a result, participation depends on whether UWI can find a satisfactory candidate to serve in a particular school.
- Participation is a challenge with small schools. If not enough students in the target population fill one tutor's caseload (15 to 18 students), assigning a tutor to that school is an inefficient use of resources.
- When working with districts to determine which schools will receive a tutor, UWI prioritizes higher-need schools to the extent possible.

¹⁵ To the extent that respondents described scaling approaches, their definitions sometimes differed from those used by the SEBM project. They discussed expansion as increasing the size of implementation in Iowa and updating or maintaining operations at the larger size. In contrast, they discussed implementing Reading Corps with fidelity as replication, which they saw as necessary regardless of the size of implementation.

Some of these factors have limited the extent to which Reading Corps is scalable in Iowa. UWI proposed in its 2015–2016 CNCS grant application for about 75 members to serve as tutors¹⁶, but the actual number has ended up slightly smaller because of these limitations, although as of September 2019 UWI anticipated getting closer to this number in 2019–2020 than in previous years. UWI has also not previously attempted formal outreach to districts, instead relying on districts to contact them to express interest; doing so could increase participation. UWI had previously planned to scale in more than half of the state's districts; however, the funding from the state legislature to do so never materialized.¹⁷ State funding would have covered the proportion of costs for each tutor that districts or local United Way chapters currently must provide.

B. Scaling while implementing Reading Corps with fidelity

Reading Corps is an evidence-based intervention, and Reading and Math, Inc. requires organizations that license it to implement it with fidelity. This means UWI avoids adapting the intervention. Instead, it adopts any updates to the intervention made by the developer. Developer personnel said they usually pilot test major updates in Minnesota first and that changes take effect at the start of a new school year. UWI is committed to fidelity and does not view the requirements as onerous or limiting. Respondents consistently noted the importance of fidelity so the intervention could be effective, as supported by past evidence. These comments included:



- From a tutor: “Making sure that we’re highly trained in these interventions and that we’re doing them with fidelity I think is very critical.”
- From an internal coach: “The fidelity check [of the tutor] is one of the most important parts... because when they stick with [implementing as intended] it’s proven through evidence that it works.”
 — *Internal coach*
- From a master coach: “Our big responsibility is to ensure the fidelity of the program.”

¹⁶ UWI proposed the equivalent of 75 tutors serving full time, but because a few tutors are not full time, the total number of tutors would have been slightly higher.

¹⁷ The legislature did add a section to the state administrative code about Reading Corps, which one respondent said encouraged school districts to participate in Reading Corps instead of pursuing alternative interventions or approaches.

The developer also provides extensive assistance and supports to Iowa and other sites, including intervention materials, a data system, and training and technical assistance for master coaches.

UWI implements Reading Corps differently in a few ways, although for the SEBM project we do not consider these to be modifications of the intervention because they do not alter any Reading Corps activities or other aspects of the intervention prescribed by the developer. First, UWI uses a modified definition for intervention completion, counting students who participate for at least 12 weeks as completing Reading Corps. However, UWI uses this definition only to count performance benchmarks for CNCS, which requires grantees to define such benchmarks. UWI still follows the Reading Corps procedures, where students continue to receive tutoring until they consistently reach their target scores on assessments, regardless of their status at 12 weeks.

Second, much of the evidence base for Reading Corps comes from evaluation of the developer's implementation in Minnesota. In at least one evaluation (Markovitz et al. 2014), some (but not all) kindergarten students in Minnesota received a different tutoring approach, featuring doubled daily intensity (40 minutes instead of 20) and adding small-group activities instead of solely one-on-one tutoring. Students in other grades continued to receive the same approach of 20 minutes of one-on-one tutoring daily. However, at the time of the site visit in October 2018, the developer reported that this different approach remains confined to sites in Minnesota; the developer is still considering under what circumstances UWI and other implementing organizations could adopt the approach. In the meantime, UWI continues to use the 20-minute, fully one-on-one approach with kindergarten students.

Third, UWI has tutors conduct additional literacy activities in the summer. Tutors choose or develop their own activities, which UWI personnel must approve. These do not have to consist of the scripted Reading Corps activities, and tutors do not administer any of the weekly assessments to monitor students' reading progress. The summer activities do not even have to occur at the tutor's school or serve the students who received tutoring during the school year. For example, one tutor helped conduct a summer reading program at her school, while another helped with a different summer reading program at a local library and set up a table there with themed books and activities. UWI added this component so AmeriCorps members could reach the required annual number of service hours for a full-time member (1,700 hours). The summer activities do not affect any aspect of the Reading Corps intervention or the activities that occur during the school year.

For the 2019–2020 school year, Reading and Math, Inc. adapted the Reading Corps intervention by broadening the target population. However, for the SEBM project, we do not consider this to be a modification of the intervention by UWI because it continues to replicate the developer's (now updated) model. Specifically, the developer broadened the eligibility criteria to include all students who previously would have scored too low to qualify for Reading Corps services (under the logic that they were eligible for more intensive assistance). One UWI respondent attributed the change to feedback from schools that when these children did participate, their literacy skills were improving, even if they had not yet reached proficiency. This respondent also explained

that the change was feasible because the developer had shifted its performance goals from focusing on levels of proficiency to emphasizing student growth. Unlike measures based on reading proficiency, measures based on growth are potentially within reach for all students, even the lowest-scoring ones.

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III. HOW DID UWI SCALE READING CORPS?

To understand how UWI supported scaling of the Reading Corps intervention in Iowa, we describe aspects of implementation that are identified as having key roles in scaling interventions. Each of these components is shown to help organizations scale interventions while they seek to generate the same beneficial participant outcomes that occurred before scaling (National Implementation Research Network n.d.). Namely, we examined the following:

- How the workforce helped to carry out Reading Corps implementation
- How grantee and partner personnel used monitoring and communication systems to support implementation as intended
- The sufficiency of funding and other resources, such as materials and physical space
- The use of data systems to monitor ongoing implementation and inform any changes that might need to be made, and evaluation to assess whether a scaled intervention is still producing the same outcomes observed in prior research

A. Organizational workforce

Engaging supportive leadership and sufficient personnel members, who have been appropriately trained in their duties, can support intervention scaling. Strong leaders can provide creative solutions to implementation problems as well as other meaningful implementation supports during scaling (Bernfeld 2006). Implementation science literature also suggests that specifying workforce characteristics, such as requirements around the types of education and experience that personnel should have, supports strong implementation (Fixsen et al. 2005, 2013). Additionally, procedures to train personnel have been shown to facilitate scaling the intervention with fidelity, meaning the extent to which implementation of an intervention matches the intervention as designed (Breitenstein et al. 2010; National Implementation Research Network n.d.).

1. Approach to structuring and training the workforce

According to the document review and interviews with respondents, UWI has two full-time Reading Corps personnel: a program director and a program manager. The current program director was hired when UWI received the CNCS grant in 2015–2016 to expand and further replicate Reading Corps in Iowa. Since 2015–2016, three people have filled the role of program manager; the most recent was hired in summer 2019. UWI also contracts with a bookkeeper to handle fiscal tasks for Reading Corps, such as payroll and grant reporting; she also performs a small amount of non-Reading Corps work for UWI. UWI is a small organization; outside of these three personnel, at the time of the site visit in October 2018, UWI's only other employees were a small number of personnel implementing a second, unrelated grant program (which had ended by September 2019), and the UWI executive director.

The executive director oversees UWI's budget and finances for Reading Corps and manages UWI's Reading Corps personnel, using an informal approach to supervision. She also communicates and promotes the intervention with a range of stakeholders, including local United Ways chapters, businesses, and state legislators and policymakers. Her primary duties are outside of Reading Corps and relate to UWI's status as a statewide association of local United Ways chapters.

The vast majority of those delivering Reading Corps in Iowa are not UWI personnel. UWI recruits people to join AmeriCorps and serve as tutors in specific schools, primarily using a major job search website, supplemented by initiatives such as Service Year Alliance. Participating schools provide an employee to fill the internal coach role. This role is expected to encompass 6 to 9 hours each month, although more time is involved in the beginning of the school year. One of Iowa's area education agencies (AEAs) designates its personnel who already work with schools to take on the master coach role for schools that participate in Reading Corps.¹⁸ At the time of the site visit, 9 of the 12 master coaches, including the lead master coach, were AEA personnel. They each support a relatively small number of schools and tutors because they only serve the schools where they already provide other services. The remaining three master coaches are contracted directly by UWI, and each serves more schools (one works nearly full time as a master coach).

Training is prescribed by the Reading Corps developer as part of the intervention. UWI holds an initial four-day training in September of each year, shortly after the school year starts. In Minnesota, the initial Reading Corps training is held before the school year begins, but in Iowa teachers return to work closer to the start of the school year, which does not leave enough time before the year begins for the Reading Corps training. This training covers the following:

- AmeriCorps, including member regulations, policies, and expectations
- Reading Corps, including its background and history, principles of literacy and reading instruction, and delivering Reading Corps, including practice delivering the literacy activities

To avoid overwhelming trainees during the initial training, two additional, one-day trainings take place later:

- One in October of each year to cover the Reading Corps data system
- One in November that covers how to deliver the most complex of the 10 literacy activities

Trainings are attended by AmeriCorps members and internal coaches, and conducted by master coaches who have at least one year of experience and have attended a two-day train-the-trainer meeting held by the developer. The developer also supports the master coaches who serve as trainers through co-training support during their first training and observations of the training.

¹⁸ AEAs are funded by the state and provide a variety of services to school districts, including special education services. Each AEA serves a geographic area in the state.

The developer provides additional training and support, including (1) training for new master coaches, (2) customized training for each organization implementing Reading Corps (including UWI) on the Reading Corps data reporting system, and (3) an annual national meeting in Minneapolis for personnel from all implementing organizations.

Whereas the developer provides a single statewide training for implementing Reading Corps in Minnesota, UWI started holding trainings in two locations in Iowa after expanding to the current number of members and schools. This is primarily to limit travel times. It also has the benefit of exposing some members and internal coaches to a different master coach than the one who will work with them during the school year. One respondent noted in September 2019 that the size of Reading Corps in Iowa was almost large enough to add a third training location.

For the 2019–2020 school year, Reading and Math, Inc. excused returning internal coaches from in-person training if they passed an online test. One UWI respondent noted this led to more work for UWI personnel who had to review the test results and explain any areas of concern to each coach. However, the respondent added that the online test process might better prepare internal coaches because it requires them to review the Reading Corps material more closely to pass. This respondent also expressed a desire to conduct more training remotely especially as the intervention is further expanded and replicated in Iowa, to ease the burden of travel for personnel and the cost to the intervention.

2. Facilitators and challenges to structuring and training the workforce

Partners have been essential in providing the workforce needed to deliver Reading Corps.

This support has helped UWI with each type of personnel delivering or overseeing tutoring.

- The AEA's designation of its personnel to serve as master coaches means UWI does not need to recruit and hire as many people for this role.
- School personnel serving as internal coaches is an inherent part of Reading Corps. However, respondents said that, as part of participating districts' and schools' strong support for Reading Corps, they have largely selected and supported internal coaches who effectively carry out their intervention duties. For example, the district and school officials interviewed described deliberate processes of identifying the most appropriate people and asking for their agreement to serve as the internal coach. In one district, these were reading specialists who already had the most relevant expertise among school personnel; in one school in another district, the principal identified the person viewed as the best fit based on the skills needed.
- As Reading Corps has expanded, districts and schools have helped recruit AmeriCorps members. Respondents mentioned that some districts use their

Promising practice about the workforce

Having internal coaches (due to the design of Reading Corps) and master coaches (due to in-kind support from an area education association's personnel) who already work in the participating schools facilitates having the personnel needed to deliver Reading Corps.

knowledge of their area to reach out to groups of candidates, such as people who moved there recently and want to become teachers, or people with children who want to return to the workforce. One respondent added that district and school participation in recruiting can increase their commitment to the intervention. However, this respondent said most districts still need help with recruiting and hiring candidates, in part because of all the other demands on their time. To meet this need, some local United Way chapters have also helped recruit members.

Training was cited as a facilitator of the intervention's success. Respondents consistently praised the training as thorough and helpful to the tutors and internal coaches, with one tutor calling it “the best training I’ve ever received for any job.” Tutors explained this was important because the first few months of delivering the intervention could feel overwhelming simply because it requires intensive effort and attention to detail. One tutor explained, “If you just read the scripts and do it like they tell you to do it then you’re okay. But you’re just overwhelmed

“...the best training I’ve ever received for any job.”
– Tutor

because this is the first time you’ve ever done it.” They said both high quality training and experience delivering Reading Corps are needed to become comfortable in their role. Tutors mentioned a couple additional training topics that might be useful, including on organizing their Reading Corps materials to facilitate efficient service delivery and on dealing with children who have behavioral difficulties.

One key challenge is having enough personnel to oversee and manage the intervention. Respondents reported the number of UWI personnel has not been enough to handle the workload of implementing Reading Corps at its current scale. One respondent said another program manager and an administrative assistant were needed. This workload issue stems in part from how UWI structured its budget to implement Reading Corps. According to one respondent, at the start of the larger 2015–2016 CNCS grant, UWI had set the level of matching funding per tutor too low to afford a third UWI

workforce member dedicated to the Reading Corps intervention. During the follow-up calls in September 2019, this respondent explained that UWI could not increase the matching funding level because schools would have too much difficulty providing a higher amount, given the challenges meeting the existing level (as discussed in Section C of this chapter). Because UWI is so small, it has limited capacity to support the intervention workforce’s implementation efforts. One respondent noted that “we wrote a great organizational capacity plan that said we’re going to do this and we’re going to do that,” but then struggled to find the time needed to carry out the proposed plan. As of September 2019, UWI had updated procedures for a couple of time-intensive administrative tasks, including bringing in the contract bookkeeper for more support, which had freed up some time for the program director to work on other tasks.

Lesson learned about the workforce

A large increase in capacity is difficult to build in a short period of time, especially for a small organization with limited initial capacity.

Personnel from partners serving as coaches can also lead to capacity-related challenges.

Similar to workload challenges UWI personnel face, some internal coaches struggle to find the time needed for Reading Corps, but in this case it is because of their other duties as educators. As one master coach said, “They feel a huge commitment to the students they serve [in their regular role], so it’s hard for them.” Master coaches address the issue in part through what one described as “gentle reminders” that the school agreed to commit the internal coach’s time to devote to Reading Corps, along with suggestions on how to fit in their Reading Corps activities. If needed, master coaches or UWI personnel will follow up with the school principal. Master coach respondents added that the AEA-provided master coaches also struggle at times to balance their Reading Corps role with their other duties.

As Reading Corps has expanded, recruiting people to serve as tutors has become more difficult.

Respondents attributed this in part to improving economic conditions, which decrease the appeal of the AmeriCorps stipend amount. Iowa had an especially strong economy at the time

“At the end of the day there’s only so many people who want to work for [the stipend amount].”
– UWI respondent

of the site visit in October 2018, with unemployment among the lowest in the nation.¹⁹ Strong economic conditions can also make it harder to retain members, although as of late September 2019, only two members had left since the 2019–2020 year had started, in late August 2019. One UWI respondent said members are unlikely to leave after the first couple months of the school year. The respondent added that

UWI is generally able to replace members who leave early in the year because they can be caught up to speed at the trainings in the fall. Some members end up leaving after the school year, before fulfilling the summer component.

Iowa also has a large set of national service programs, which effectively compete for people willing to serve as AmeriCorps members. As one UWI respondent said, this means “flooding the market with national service opportunities in Iowa... all of us struggle to some degree or other to fill our grants, because at the end of the day there’re only so many people who want to work for [the stipend amount].” Finally, recruiting members in rural areas has been more challenging, because there are fewer candidates and, in some cases, schools ruled out a local candidate who was already known to school staff for reasons unrelated to the candidate’s potential tutoring ability. According to one UWI respondent, efforts by CNCS to help increase the visibility and prominence of national service—making it “part of the national culture”—could facilitate local recruiting. The respondent mentioned a previous series of panels on national service held by the Department of Defense and CNCS, including one held in Iowa, as an example, but had not heard about any follow-up or similar efforts since then.

UWI personnel said one challenge was not providing enough additional developmental and growth opportunities for AmeriCorps members beyond direct Reading Corps training. For example, these could cover broader issues around literacy and education, diversity and

¹⁹ See state unemployment rates from the Bureau of Labor Statistics for 2018: <https://www.bls.gov/lau/lastrk18.htm>.

communication in the workplace, or the communities they are serving, or targeted workforce skills such as writing resumes and responding to interview questions. Respondents noted these had been an important part of other AmeriCorps programs they managed or participated in. During the October 2018 site visit, respondents indicated that it is challenging to find time for such additional developmental and growth opportunities because AmeriCorps members spend their time tutoring students, and UWI personnel do not want to lose tutoring time by pulling members out of schools to attend them. Although they did not describe this challenge as affecting implementation of Reading Corps, respondents were concerned about how it would affect what members learned from their AmeriCorps experiences. As of September 2019, UWI had developed more of these opportunities, spurred by a large number of snow days the previous winter that led to a need for members to make up lost hours. UWI structured these opportunities by having members read material on their own and then participate in online discussions at times when they were not tutoring, such as after school or on a weekend.

After the intervention scaled up to its current size in Iowa, UWI had to more clearly define policies and procedures, particularly those regarding member supervision. Respondents noted that policies and procedures in place when there were fewer members allowed for more flexibility that would not be sustainable at a larger scale. One respondent explained, with fewer members “you can make the one-off exception [to a supervision or human resources-related policy for members] and say, ‘Oh yeah, that’ll be okay’ because you know you’re not going to have 30 other people potentially asking you to do exactly the same thing.” As another example, UWI limited members’ flexibility in choosing summer activities to reduce the amount of time UWI personnel would spend reviewing and approving them.

Changes in CNCS policies and procedures for enrolling and exiting AmeriCorps members have implications for UWI personnel’s time managing members. One respondent said CNCS policies and procedures were not burdensome overall but described some changes that led to UWI personnel spending more time on these tasks. For example, this respondent explained that CNCS had removed the paper option for the member enrollment and exit forms, and that some members struggled to use the online version, requiring UWI personnel to travel to meet them in-person or otherwise arrange for help with filling out the forms. However, the respondent also praised changes that had reduced the burden on UWI personnel. For example, the CNCS citizenship verification process has been much prompter than in the past. The respondent also explained that CNCS had recently allowed organizations implementing interventions with AmeriCorps members to use a vendor to help manage the fingerprinting process for Federal Bureau of Investigation background checks. This process was more efficient and saved considerable time for UWI personnel; the respondent said it was well-suited for organizations operating at a larger scale.

B. Systems to monitor implementation and facilitate communication

In studying the conditions under which evidence-based interventions are implemented, research on implementation science has identified specific supports that can help to ensure an intervention's fidelity, which is important to scaling. Lack of fidelity can be a reason why interventions might produce good outcomes when initially implemented but then fail to yield the same outcomes when scaled (Breitenstein et al. 2010). Robust systems that track measures related to fidelity and have processes in place to address challenges that arise can help ensure that an intervention maintains the beneficial outcomes that it produced before scaling.

According to implementation science research, a system to foster communication among organizational personnel, as well as personnel from partner agencies, can be another critical support for fidelity during scaling. Frequent communication should be maintained so that leaders can constructively intervene, address challenges, and strengthen implementation supports on an ongoing basis (Nord and Tucker 1987). Researchers have found that better adherence to intervention components might be related to implementing agencies demonstrating high quality communication between stakeholders, including well-specified channels of communication, common goals, and clear lines of authority (Mihalic and Irwin 2003, Fagan et al. 2008, Fagan and Mihalic 2003).

1. Monitoring implementation

a. Approach to monitoring implementation

UWI uses the extensive structure and processes built into the Reading Corps intervention to help monitor implementation fidelity. As one master coach noted, "The beautiful thing about the program is that it is really built in for us to have the best practices regarding fidelity." These processes include the following:

- Internal coaches have primary responsibility for monitoring AmeriCorps members and how they tutor students. While observing tutors, internal coaches must use a checklist to verify the tutor is delivering the literacy activities with fidelity, and immediately correct any mistakes the tutor makes. Internal coaches ensure that tutors deliver literacy activities as scripted but also broadly monitor how tutors interact with students.
- Master coaches monitor internal coaches and tutors as well as students' progress in the intervention. In addition to the monthly meetings to review students' progress, master coaches observe internal coaches and tutors to ensure they are fulfilling their roles with fidelity. Several respondents said the master coach role was an important strength of Reading Corps, especially because master coaches' expertise about the literacy activities freed up UWI personnel to monitor other aspects of implementation.
- The lead master coach and developer personnel also monitor master coaches. The lead master coach observes each master coach from one to three times per year, depending on his or her tenure as a master coach. The lead master coach also monitors other aspects of

implementation, such as caseloads and amounts of tutoring received. Originally, the developer conducted more of these observations in Iowa but has shifted this work to the lead master coach, building the coach's capacity in these duties through training and technical assistance.

- UWI personnel also conduct monitoring, primarily to ensure members are following AmeriCorps policies and procedures. This includes having members fill out timesheets and tracking that they are on pace to reach their required number of service hours. However, UWI personnel also monitor aspects of implementation such as tutor caseloads and amounts of tutoring each student receives, tutors' entry of assessment results in the data system, and internal coaches' observations of tutors.

b. Facilitators and challenges to monitoring implementation

Respondents consistently indicated that monitoring processes are being followed with fidelity to the Reading Corps intervention.

In addition to following the prescribed processes, internal coaches also meet with tutors outside of observations; tutors reported that their coach formally meets with them anywhere from weekly to monthly to as needed, but that informal contact is much more frequent, often daily. Also, internal coaches, master coaches, and the lead master coach explained that when they notice during observations or other monitoring (such as data system reports) that a tutor or coach is struggling with his or her duties, they conduct extra observations to provide that person with more oversight and support. Tutors, internal coaches, and master coaches all expressed appreciation for one another and said they work well together. The only indication of deviating from these processes came from one internal coach who mentioned observing their tutors at least once or twice per month, when the intervention calls for twice per month.

Promising practice with monitoring

Having workforce roles and processes for monitoring—among other implementation supports—built into Reading Corps helps ensure the intervention is implemented with fidelity.

Respondents described using monitoring processes to identify and address several implementation issues as they arise. These processes, including those built into Reading Corps, cover each intervention activity and personnel delivering them. The issues include:

- Tutors struggling to deliver the literacy activities with fidelity or not meeting expectations for their role (such as arriving to school on time, or entering assessment data). When tutors struggle with fidelity, internal and master coaches help them improve their service delivery. The coaches also follow up with tutors about other Reading Corps activities, such as entering data, while UWI personnel address human resources-related issues such as tutor attendance.
- Internal coaches not overseeing tutors with the prescribed frequency. During the follow-up interviews, one UWI respondent explained that use of a new report from the intervention data system uncovered that some internal coaches were not observing tutors regularly but were

waiting and then observing several times in a short window of time. UWI personnel discussed the issue with master coaches so they could address the issue.

- Schools attempting to serve students with levels of reading proficiency too low for Reading Corps and who instead need more intensive support. During the October 2018 site visit, one respondent said that master coaches usually notice this issue, although UWI personnel and tutors have also identified when it occurs. If so, UWI personnel and master coaches follow up with schools about serving the appropriate target population. However, as of September 2019, this was no longer an issue because the intervention developer expanded the eligibility criteria to include these students.
- Students not receiving enough of the intended amount of 100 minutes per week. Some of this shortfall is unavoidable due to student absences, but it sometimes occurs when teachers do not allow the student to leave the class for tutoring. Respondents said this usually subsides when teachers see how students were benefiting from the tutoring, and internal coaches usually resolve issues with the teachers. In a few cases, UWI personnel had to intervene with internal coaches and principals, and had to stop implementing Reading Corps in one school when this support was not forthcoming.

Respondents described a couple of potential monitoring challenges stemming from using personnel from partners as coaches. Respondents said that, in a few rare cases, the school assigned a teacher as the internal coach without first getting the teacher's input, which was a concern because that teacher was less likely to be committed to his or her role of monitoring tutoring. One respondent also expressed concern that the AEA-funded master coaches' pre-existing relationships with their schools meant they might place slightly less emphasis on fidelity to avoid hurting their relationships. However, this respondent indicated this was not a serious problem. This respondent also noted that the pre-existing relationships were a strength because the master coach and school personnel can draw on their experience working together.

The small initial size of Reading Corps in Iowa made it slightly harder for master coaches to acclimate to their roles. At the start of implementation in Iowa, each master coach only served a few members and did not need to spend much time on intervention activities. Even at the current, larger scale, this can still be an issue for the AEA-provided master coaches because they serve fewer schools. However, respondents indicated this was not a major issue. Monitoring and communication processes help master coaches carry out their duties, even when they are starting out and have less experience in the role.

2. Communication systems

a. Approach to using communication systems

The Reading Corps intervention defines several communication-related activities and processes. Some are part of monitoring, such as observations of tutors and monthly master coach meetings. Internal coaches' duties include communicating with students' classroom teachers and parents. Personnel in Iowa have additional formal meetings outside of those prescribed by the intervention. For example, additional meetings between members and coaches occur anywhere from weekly to monthly as needed. In addition, personnel from UWI and the lead master coach meet monthly to review reports from the Reading Corps data system and to discuss issues. More broadly, UWI personnel communicate changes in policies or procedures through mass emails to members and coaches, and respond to questions from them, especially at the beginning of the school year when members and coaches have the most questions.

Promising practice in communication

Personnel supplement formal, prescribed meetings with frequent informal communication to ask questions, keep processes consistent, and maintain relationships.

There is also frequent communication between the Iowa site and the developer, although more intensively through the lead master coach than the UWI personnel. The developer organizes monthly meetings of all of the lead master coaches across Reading Corps sites, and all of the program directors across sites. The developer also sends monthly email updates to all state partners. Meetings involve presentations by the developer and discussions among participants; the topics discussed are based on feedback from participants. The lead master coach is also in frequent individual contact with the coaching lead at the developer; individual contact between developer and UWI personnel appears to be less frequent.

In addition to communication involving Iowa site leaders, the developer holds three monthly calls involving the Iowa master coaches: (1) one with master coaches across all of Reading Corps who have more than two years of experience, (2) one for master coaches across all of Reading Corps in their first or second year (at the time of the site visit, only one coach in Iowa was in this group), and (3) a supplemental one specifically for master coaches in Iowa.²⁰ Calls cover specific issues members encounter when delivering the literacy activities and how master coaches can support them. The developer also uses these calls to discuss how to monitor data completeness and accuracy and to answer questions from the master coaches. Because the calls involve master coaches with different experiences, the content varies across calls.

Finally, UWI personnel said they would like to organize a periodic internal call with all of the Iowa master coaches but are reluctant to add this type of call. This reluctance is because most master coaches are AEA employees who are already setting aside some of their time for Reading

²⁰ The developer does not conduct the third call for every state or other location where Reading Corps is implemented, but the developer does so in Iowa because the master coaches are a larger group and the AEA coaches each serve fewer schools and get less practice in their role.

Corps. UWI personnel would also like to supplement email updates to members and internal coaches, for example, by regularly spotlighting members or their summer literacy activities, but as of September 2019 had not had time to go beyond communicating essential updates.

b. Facilitators and challenges involving communication systems

Personnel use informal communication to supplement formal processes. Members and internal coaches reported informal communication that is much more frequent than formal communication, often occurring daily. Internal and master coaches described frequent communication outside of the monthly meetings, often by email but also by phone or text message. One internal coach explained the value of this communication, saying, “Any questions that come up, being [able] to email or otherwise contact [the master coach] and get a quick response back has been an immense help.” Outside of the formal, developer-arranged calls, the lead master coach is in frequent communication with the master coaches to send updates and reminders and informally answer questions as they arise. The program director and program manager from UWI communicate constantly. The program director also sends individual emails to master coaches to informally check in with them.

“Any questions that come up, being [able] to email or otherwise contact [the master coach] and get a quick response back has been an immense help.”

– *Internal coach*

Communication processes between leadership and frontline personnel have been challenging. When the intervention in Iowa was smaller, the program director spoke with each member weekly. However, the program director explained that since the expansion, “I’m lucky to see them twice a year, other than training.” UWI respondents also noted that the expansion made it difficult to check in with members after their first 30 days, as required for AmeriCorps, mainly due to the larger number of members and constraints on the capacity of UWI personnel. One respondent added that, although mass emails are used to communicate changes, members and internal coaches do not always thoroughly read the emails and understand the changes. UWI personnel view part of the internal coach role as ensuring their members understand these changes. However, this has been challenging because internal coaches do not think of themselves as supervisors whose role includes oversight outside of the formal monitoring activities. One UWI respondent noted that because internal coaches already communicate regularly with master coaches around Reading Corps, they tend to also ask master coaches about administrative issues that should be asked of UWI personnel, and that master coaches try to help the internal coach directly. This leads to delays in UWI personnel finding out about administrative issues.

Lesson learned on communication

After the intervention in Iowa increased in size, leadership did not have enough time to communicate individually with the larger number of frontline personnel.

Feedback indicated that personnel in Iowa would benefit from having more consistent and timely communication from the developer in some cases, to help foster smooth implementation. In the time since Reading Corps was first implemented in Iowa, Reading and Math, Inc. has shifted from a model with one contact for UWI to one in which different contacts are responsible for different aspects of the intervention such as master coaching, data, and materials. One respondent said that although the previous model was preferred, the new model was understandable and likely reflected the developer's own attempts to scale its oversight of Reading Corps. However, feedback suggested that the new model posed some communication challenges. For example, some information from the developer could have been communicated more consistently with both UWI personnel and master coaches, and some changes could be communicated with more advance notice to allow UWI to provide input or to implement the changes as prescribed.

C. Funding and other resources to support scaling

Providing sufficient and sustainable funding as well as other nonfinancial resources can be critical to intervention scaling. According to findings from implementation science research, providing adequate resources might be one of the most significant factors influencing implementation of an intervention (Wenter et al. 2002). Resources can include a range of supports such as funding, physical space, and intervention materials (Klingner et al. 2001, 2003; Coolbaugh and Hansel 2000). Organizations might want to ensure the availability of such resources well before implementation begins so that they can develop and put into place any needed space, equipment, and other supports (Metz and Albers 2014).

1. Funding for Reading Corps scaling

a. Approach to funding intervention scaling

The primary source of funding for Reading Corps in Iowa is UWI's CNCS grant. Because CNCS requires that its funds cannot cover the entire cost of an intervention, matching funds must pay part of the cost of each AmeriCorps member placed in a school. UWI is a statewide association of local United Way chapters, and each local chapter has sole authority (within the national organization) to fundraise in its geographic area, so UWI and stakeholders planned that local chapters would raise the matching funds. UWI is restricted from fundraising in those areas to avoid competing for funds with the local chapters. UWI has also pursued fundraising in areas without a local chapter, as well as state funding (the largest potential source) and funding from other grants. School districts can also provide the matching funding, and in most cases this is what occurs.

Reading Corps funding becomes more efficient—the cost per tutor decreases—as its size increases, according to one respondent. This is primarily because the fixed costs—mainly those involving UWI personnel—can be spread out over a larger number of tutors. However, one respondent noted that these efficiencies are limited because most costs also increase proportionally when scaling. For example, costs related to master coaches and travel are related

to the numbers of tutors and schools. Nevertheless, different approaches to personnel and other aspects of implementation can affect these costs; the same respondent noted that UWI was considering using more local master coaches in future years, which would reduce the amount of travel to schools and save some money.

b. Facilitators and challenges involving funding for intervention scaling

Partners cover significant portions of the cost of the intervention in Iowa, facilitating UWI's capacity to implement it. Districts and schools cover the costs of the internal coach; the coach devotes part of their time to Reading Corps and the school or district continues to pay the full salary and benefits of the school employee serving in this role. Schools also provide funding needed for the internal coach to attend Reading Corps training. One UWI respondent explained that this is a relatively small amount, particularly because UWI structures trainings to limit costs such as overnight travel. In Iowa, the AEA whose personnel dedicate some of their time to serving as master coaches also continues to pay their full salary and benefits. Respondents noted that without this in-kind contribution, Reading Corps would not have the capacity to serve as many schools. As one respondent said of the AEA, "We would never be able to do this program without them." The respondent also noted that some of the other AEAs, although not providing their personnel, have encouraged the districts and schools in their areas to participate in Reading Corps.

"We would never be able to do this program without [the AEA]."
– Respondent

Fundraising challenges limit the size of Reading Corps in Iowa. Although the planned approach was for local chapters to raise the matching funding and some chapters have done so consistently, other chapters have never provided funding or stopped doing so over time. One respondent expressed frustration over this situation, noting many areas had local donors who would likely provide funding if UWI were not restricted from asking. Although UWI is less restricted in locations without a local United Way chapter, respondents reported that local chapters remain opposed to local fundraising even in those areas.²¹

Respondents also reported that opportunities for state-level or other funding have been limited. After the initial implementation of Reading Corps in Iowa, the state legislature came close to appropriating funding for a large expansion, but ultimately did not include it in the budget. Since then, UWI has been unsuccessful in advocating for funding, despite efforts such as inviting the governor and legislators to visit participating

Lesson learned on funding

Limitations on UWI's ability to fundraise have meant school districts must supply matching funding to participate, which has limited UWI's ability to serve new districts and schools and could affect the sustainability of Reading Corps in some districts in Iowa.

²¹ In addition, those areas are already more challenging for fundraising because areas without a local chapter, such as the southwestern portion of the state, tend to have weaker economic conditions.

schools to observe Reading Corps activities and meeting with the director of the Iowa Department of Education, which the UWI executive director has led. One respondent noted that “there’s simply more statewide resources in Minnesota compared to Iowa,” explaining that in Minnesota, Reading Corps receives funding from the state legislature and from the foundation of a large corporation headquartered in the state. Respondents also attributed lack of funding to changing stakeholder priorities. One respondent noted that Iowa policymakers have shifted the focus of state education policy from reading programs to teacher professional development.

These challenges have limited the scaling of Reading Corps in Iowa because they leave districts and schools to supply the matching funding in most cases. Some districts or schools have enough money in their budgets or have foundations that can raise the funds, but despite their interest many cannot afford to participate at all or with as many tutors as they need, especially without more state funding for districts and schools. One UWI respondent added that in some cases, schools do not apply to external sources that could pay for their matching funding, often because they are not used to doing so or are reluctant to rely on a funding source that might end up being short-term. However, in September 2019 this respondent also said that the Iowa Department of Education planned to start giving UWI a list of schools that had unspent funds from state Early Literacy Implementation (ELI) grants, which could be used to pay for the matching funding. The respondent said that with the list, UWI “can go talk to them and say, ‘Look, your third-grade reading scores are at 68 percent and you have unspent ELI money...we could start making a dent in this.’”

Respondents perceived that these funding challenges also threaten the sustainability of Reading Corps in some districts in Iowa. One UWI respondent said budget pressures facing districts and schools could lead more of them to drop out of the intervention, despite their desire to keep participating. This respondent added that UWI cannot depend on always receiving CNCS funding, citing two risks: (1) that CNCS might not continue funding Reading Corps in Iowa if it cannot meet CNCS standards for evidence-based programs using evaluation results and (2) that all CNCS funding will be eliminated from the federal budget.²² Another UWI respondent said that without CNCS funding, UWI would not have the resources to continue implementing Reading Corps. From the participating school districts’ perspective, sustainability would be very challenging if districts had to pay for the full cost of the intervention. One district official said that sustaining the intervention in the district’s highest-need schools might be possible, but not anywhere else. Another official said the district could likely could not afford to continue the intervention without external funding.

²² As of September 2019, the entire CNCS budget had been proposed for elimination from the federal budget multiple times, although these proposals had not been implemented at the time.

2. Other resources

a. Approach to leveraging other resources

As part of licensing Reading Corps from the developer, each school year UWI purchases the physical materials needed for implementation. Reading Corps is a highly structured intervention and the developer has created extensive implementation materials, including a program manual, calendar, workbook, and templates for meeting agendas and forms. The developer updates materials every year. A materials coordinator from the developer works with UWI and organizations in other locations to deliver the materials they need. UWI prints out other materials, such as training handouts and human resources documents, some of which are made available by the developer through a web portal.

Reading Corps is delivered in schools, which provide most of the physical space needed for implementation. Most tutors travel around the school and work with children in or near their classrooms. Tutors also need a small office space in the school for their work outside of directly serving children, primarily entering assessment results into the data system. Office space for the UWI personnel managing Reading Corps is paid under the CNCS grant. Most of UWI's office space is only needed because of Reading Corps; UWI's only current employee not directly implementing Reading Corps is the executive director, whose salary and office space are funded by dues from local United Ways chapters.

b. Facilitators and challenges to leveraging other resources

School partners provide many of the additional resources needed for implementation. With tutors working in schools, most of Reading Corps' needs for physical space are addressed. Respondents said finding space could be challenging for some schools, although they are able to come up with solutions such as finding a spot in the school library. Schools also provide the computer for the tutor to use while in the school. Although schools could usually provide one on hand, one district official explained, "I've had to purchase some of those out of Title I funds if the building didn't have one that they thought they could spare."²³

UWI experienced some initial issues with infrastructure resources. The computers and printer/scanner UWI personnel used during the first few years of implementation were older and did not have enough capacity to meet their needs. When UWI received funding to expand Reading Corps, personnel used the larger budget to purchase better equipment. UWI does not have its own network server, which it is considering purchasing. The program director initially worked out of a public library and added, "I didn't

Lesson learned about other resources

UWI needed to address resource needs not only for direct delivery of intervention services but also for its personnel managing the intervention; the latter proved to be challenging.

²³ The U.S. Department of Education provides Title I grants to schools and districts to improve the academic achievement of economically disadvantaged students.

have office furniture for the first few months, because we weren't sure we had money." Some of these challenges occurred because UWI is a small organization whose capacity needed to expand significantly to implement Reading Corps. One respondent noted that some issues could have been avoided with better planning and execution of UWI's initial Reading Corps budget. UWI has moved to a larger, more sufficient space since it began implementing Reading Corps.

D. Use of data systems and evaluation during scaling

Data systems can be used to track, measure, and store information about program implementation. These systems typically include a financial data collection and reporting system as well as a management information system to record the processes and outcomes of the intervention's core components. According to findings from implementation science research, using data systems is critical to monitoring an intervention's implementation because these systems can alert personnel as to whether changes are necessary to improve the intervention's effectiveness or efficiency (National Implementation Research Network n.d.).

In addition to drawing on data and data systems to monitor scaling in an ongoing way, intervention developers and organizations scaling those interventions can use evaluation to assess whether scaled evidence-based interventions are maintaining their intended effects—that is, producing the same beneficial outcomes that were produced before scaling (Bangser 2014). Furthermore, multiple studies of the same intervention in different scaling contexts can be used to generate evidence about whether the intervention can produce similarly positive results while being scaled across new or adapted settings and populations.

1. Data systems

a. Approach to using data systems

Data systems are a critical feature in delivering Reading Corps. Key aspects of providing and monitoring services in the intervention, such as the weekly progress assessments, require a data system. UWI primarily uses the Reading Corps Data Management System (RCDMS), an extensive system built and managed by the developer. RCDMS also plays a key role in other implementation processes. For example, it is used to monitor whether tutors have entered their assessment data and whether internal coaches have conducted their required observations of members. It can also serve as a means for communication, as the tutors and coaches can send notes to one another about specific students. In addition, the system has data on tutor attendance, tutor caseloads, and student-specific amounts of tutoring received, with codes for reasons why a student did not receive tutoring on a particular day. It also contains materials such as Reading Corps training documents, video examples of delivering the scripted literacy activities, and additional reading passages that tutors can use.

The state requires schools to use formative assessments, which are the same ones Reading Corps uses, allowing personnel to use data already being collected. Some schools choose to have teachers or other school personnel conduct those assessments and report the results to the tutor

(who enters them in RCDMS), to avoid administering the same assessment twice to those students. Other schools decide to have the tutor conduct the assessments for students participating in Reading Corps. As a result, some internal coaches also reported reviewing data through the FastBridge assessment system used by Iowa districts and schools. One internal coach reported using the FastBridge system more than RCDMS to review data, although another internal coach reported using RCDMS more.

Although data systems are primarily used in Reading Corps to track student progress on reading assessments and monitor implementation processes, UWI personnel use other data systems as well. They track member hours using a system that many AmeriCorps programs use, to ensure members are on pace to reach their required number of service hours. UWI personnel also use a data system to track AmeriCorps member recruitment, and an online system that schools can use when applying to participate in Reading Corps.

b. Facilitators and challenges involving use of data systems

Respondents reported that the data system is easy to use and well supported by the developer. They said RCDMS is helpful

for implementing the intervention and increases workforce efficiency. Respondents described how the developer has made minor changes to the system, based on user feedback, that have made it easier to use. The developer also has adopted commercial software (Microsoft Power BI) to enable better reporting of data from RCDMS. Respondents noted that UWI personnel previously had to ask developer personnel to generate reports for them. With this software in place, UWI personnel can produce the reports they need at any time. The developer has also set up the software so UWI can generate a greater variety of

reports, including reporting data on service delivery by tutor, receipt of tutoring by all of the students at each school, and more details on internal coaches' observations of members.

However, one respondent said it would help "to be able to do more of the things that I know the [developer] can do with the data," such as comparing schools or grade levels. Personnel have used the reports to more easily identify and address implementation issues, including those described in the monitoring section earlier.

Respondents described how their frequent and intensive use of the system would uncover errors. Although there are no formal procedures to validate data accuracy, master coaches explained that because each student receives weekly assessments, a mistakenly entered score would stand out compared to other scores. More broadly, the frequent observations of tutors by coaches ensures tutors are administering the assessments as intended, meaning the data generated are high quality. One master coach summarized the issue as, "it's really not difficult to know if the data is accurate. The struggle can be making sure that the tutors are entering it in a timely

Promising practice in data systems

Using software to facilitate better reporting of data from the data system expands UWI's ability to use it for monitoring and improvement and allows more efficient operations by reducing the need for the developer to generate reports.

manner.” Members are required to enter data weekly, although some said they enter their data at the end of each day.

Implementing Reading Corps without access to the data system was briefly a challenge.

Before RCDMS, UWI used a system provided by the developer, edSpring, which crashed in 2015–2016, the first school year after UWI received the larger CNCS grant to expand Reading Corps in Iowa. Although the developer accelerated the already-planned rollout of RCDMS in response, during a six-week period UWI and frontline personnel were limited to paper forms and Microsoft Excel spreadsheets to work with data, which one respondent described as challenging.

2. Use of evaluation

a. Approach to using evaluation

Both UWI and Reading and Math, Inc. use evaluation when scaling Reading Corps. UWI is required by its current CNCS grant to conduct a formal evaluation. At the time of the site visit in October 2018, the plan was to engage an external evaluator to conduct a quasi-experimental design study in which students participating in Reading Corps are matched with similar students (primarily within participating schools and, only if needed, from other, similar schools) who are not participating. UWI planned that, after a test run in the 2018–2019 school year, the evaluator would conduct the evaluation during the 2019–2020 school year. As of September 2019, UWI was very close to contracting with the evaluator, and the planned time frame for the evaluation was still during 2019–2020.

One UWI respondent expressed excitement for the opportunity from the upcoming evaluation, because having Iowa-specific evidence of effectiveness could help increase district participation and stakeholder support. This respondent also noted that previously, evidence of effectiveness from evaluations had been less important for decisions by districts and schools to participate, compared to awareness of the intervention itself and then word of mouth from the districts and schools initially implementing it. On the few occasions when needed, UWI cites the evaluation that took place in Minnesota (Markovitz et al. 2014). However, another UWI respondent mentioned that the decision about which intervention to initially replicate in Iowa had emphasized choosing one with evidence of effectiveness. The first respondent thought that an evaluation from Iowa would be more effective at increasing interest from districts, especially if UWI were to cite evaluation evidence while reaching out to districts that have not yet discussed the possibility of participating in Reading Corps.

More broadly, developer respondents noted that randomized controlled trials had taken place in three locations implementing Reading Corps, building the evidence base around the intervention. The developer has used those studies to consider changes to the intervention, and developer personnel said they would use results from the Iowa evaluation after they became available. The developer also helps other organizations with evaluation logistics; in Iowa, the developer personnel helped UWI prepare its evaluation proposal.

Apart from formal evaluations, the developer conducts extensive improvement activities on Reading Corps. Developer personnel described how they examine intervention data and gather feedback from the organizations licensing the intervention (including UWI). One UWI respondent said tutors, internal coaches, school teachers and principals, and master coaches are surveyed annually by the developer, although UWI personnel are not. The developer then considers and develops updates, and pilot tests them—usually in Minnesota—before rolling them out more broadly. One example is the changes to tutoring for kindergarten students discussed in Chapter II: doubling the amount of daily tutoring and using small-group activities to supplement one-on-one tutoring. As another example, the overall data have shown that first-grade students do not progress as much compared to other students. As a result, the developer is working with a team of experts to develop and pilot a new scripted literacy activity that would replace one of the existing activities. One developer respondent said, “We’re always looking for ways to improve” Reading Corps.

Most of the developer’s evaluation is conducted across all locations and does not specifically focus on Iowa or any other location. Developer personnel said that although they have approximate targets for tutor caseload sizes and amounts of tutoring students receive, they do not set targets for student growth on assessments because growth rates are sensitive to many other factors besides Reading Corps. They also do not compare results across locations because context can vary widely by location; instead, the developer examines trends in each location’s results over time. The developer does produce year-end reports using Reading Corps data for each location, including Iowa. The report includes data on numbers of students served, amounts of tutoring received, fidelity of assessments given and observations conducted, and results on the assessments and student growth. The report also lists areas of strength and areas for improvement for the organization implementing Reading Corps in that location to consider. One UWI respondent said this report was helpful, with “great, great graphs” that can be shown to partners and stakeholders. Another UWI respondent said that the type of data from these reports, especially from the initial years of implementation in Iowa, had helped increase districts’ and schools’ interest in participating and had helped UWI further replicate and expand Reading Corps to its current size.



“We’re always looking for ways to improve [Reading Corps].”
– *Developer respondent*

b. Facilitators and challenges involving use of evaluation

Some evaluation and data use is built into Reading Corps and is facilitated using results from the Reading Corps data system. On a day-to-day basis, the data system (RCDMS) is primarily used by coaches and tutors to record and monitor students' progress on literacy assessments and service receipt. However, data also serve to identify issues with tutors and schools; data are also helpful for broader purposes such as identifying the effectiveness of each of the 10 scripted literacy activities. Because frequent assessment is a key part of Reading Corps and the intervention uses an extensive data system with strong reporting capabilities, personnel can draw on the detailed data and reports for evaluation and improvement.

UWI faces challenges to conducting Iowa-specific

evaluations and data use. First, because UWI must implement the intervention with fidelity, it is not allowed to make changes to the intervention and test how well those changes work. More importantly, UWI personnel have limited time and resources to conduct evaluations or use data outside of prescribed monitoring processes. UWI personnel described a couple of initiatives they would like to explore if they had more time. For example, they would like to generate new school-level and grade-level data reports that would enable them to consider targeted improvements. One respondent also mentioned using data more to help recruit districts and schools by showing administrators and principals the benefits for students.

Promising practice in evaluation

Having an extensive data system and incorporating frequent data collection into the intervention allows the developer to use these data to evaluate how the intervention is working and to consider improvements.

IV. SUMMARY OF KEY FINDINGS

In Iowa, UWI is scaling an evidence-based literacy tutoring intervention—Reading Corps—by both replicating it in new locations and expanding it to serve more schools in existing districts. While scaling Reading Corps, UWI and its partners and stakeholders have drawn upon supports such as organizational workforces, implementation monitoring and communication systems, funding and other resources, and data systems and evaluation to varying degrees. In this chapter, we highlight key findings in light of what we learned about the scaling of Reading Corps by UWI.

- **A highly structured intervention facilitates replication and expansion.** A key facilitator of UWI's implementation of Reading Corps in Iowa is the extent to which the intervention is highly structured. Reading Corps has a layered personnel approach where each role—particularly tutors, internal coaches, and master coaches—is well defined and focused on specific aspects of implementation, including activities and assessments that are detailed and scripted. The intervention has strong training that prepares personnel to carry out their roles, and each role relates to other roles through a structure of monitoring and support. Implementation monitoring and communication systems allow personnel to identify and address issues as they arise, and the data system is central for service delivery, monitoring, and evaluation. The developer also provides extensive assistance, ranging from training and technical assistance to infrastructural elements such as the data system and materials.
- **Replication and fidelity requirements facilitate the implementation of an effective intervention but limit consideration of changes and improvements.** The developer requires UWI and other implementing organizations to replicate Reading Corps with fidelity and not to adapt it. These requirements are important to ensure that interventions that have shown evidence of effectiveness can continue to have those effects in new settings. Respondents consistently expressed the importance of fidelity and their commitment to implementing the intervention as designed. However, these restrictions also limit UWI's ability to consider local changes and improvements to Reading Corps. For example, such restrictions affect UWI's use of Iowa data and evaluations to consider intervention improvements. The developer has a process to update Reading Corps, although it is for the intervention as a whole and only considers site-specific circumstances and experiences to a limited extent.
- **Communication and collaboration help facilitate scaling, although ensuring communication remains strong after scaling can be a challenge.** As with other implementation supports, many formal communication processes are built into Reading Corps. Reading Corps has many different personnel roles—members, internal coaches, master coaches, and the UWI workforce primarily, plus district and school administrators and developer personnel. Personnel in these roles work for several different organizations and many rarely meet in person. They need to coordinate, ask and answer questions, and monitor and support each other based on how their roles are structured relative to each other within

the intervention. This became especially important when the intervention became larger and fewer opportunities existed for more personal forms of communication between some types of personnel. In addition to the extensive formal communication—much of it built into the intervention or arranged by the developer—personnel engage in frequent informal communication and collaboration. Ensuring communication remains responsive and consistent after scaling has proved somewhat challenging. For example, personnel might not communicate consistent messages to others or might not communicate needed information to the right people. Despite these challenges, respondents said support from people in other roles was very helpful, and that others were committed and bought into the goals of the intervention.

- **Limited personnel size and organizational infrastructure have been a key challenge.** Before implementing Reading Corps, UWI was a one-person organization and found it challenging to increase its capacity to meet the demands of implementation, especially after expanding to a much larger scale after the first two years of implementation in Iowa. UWI personnel had to deal with basic infrastructural issues such as obtaining or upgrading sufficient computers, printers, and office space for themselves. The developer's supports have helped in many areas. Still, the UWI intervention workforce would have benefited from having others in the organization to draw on for support, such as human resources personnel to advise on recruiting and hiring members. The UWI personnel who led the effort to scale Reading Corps starting with the 2015–2016 school year reported having difficulty meeting the intensive workload involved in administering the intervention. Some of these issues would be less pressing if UWI had budgeted to have another employee, but this would have increased the matching funding amount needed to place a tutor in a school, making it even more challenging for districts and schools to participate.
- **Stakeholder and partner support has contributed to some of the intervention's greatest strengths and challenges.** Because UWI's capacity has been limited, support from stakeholders and partners has been crucial. The design of Reading Corps requires considerable involvement from participating schools; this in-kind support bolsters the intervention and encourages school commitment but is also challenging for several reasons. First, schools usually have to find funding for part of the cost of the intervention. Second, school personnel have to balance their intervention activities with the rest of their educational mission. Third, some personnel involved in implementing the intervention are not subject to the authority of the grantee. In Iowa, an AEA's provision of master coaches has had similar benefits and challenges. Support from local United Ways chapters was also critical for initial implementation in Iowa but has dropped off since then, and lack of state funding and United Way-imposed limits on UWI's ability to fundraise have made scaling very challenging. Finally, UWI's implementation of Reading Corps can influence the surrounding context as word spreads between schools and districts about their intervention experiences. Occasionally this is problematic when a school has a member who performs poorly, but this is largely positive because most schools have positive experiences and teachers see the benefits of the tutoring.

UWI's scaling of Reading Corps reveals both successes and challenges in replicating and expanding an evidence-based intervention. This case study report, along with two companion case study reports about other CNCS-funded grantees, was intended to illustrate the various experiences that organizations attempting scaling might face (Anderson et al. 2020; Eddins et al. 2020). Using an implementation science lens, this report sought to help stakeholders understand the factors that might facilitate and hinder scaling, and the lessons learned by one particular grantee scaling an evidence-based intervention.

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APPENDIX: PROCESS STUDY METHODOLOGY

A. Overview of the process study

The Corporation for National and Community Service (CNCS) contracted with Mathematica in 2016 to conduct the Scaling Evidence-Based Models (SEBM) project. The project is intended to deepen the agency's understanding of evidence-based interventions and its knowledge base on scaling them. Through the SEBM project, Mathematica has (1) reviewed and evaluated research evidence on the effectiveness of AmeriCorps interventions that were funded in 2015 and 2016 and Social Innovation Fund (SIF) interventions that were funded in 2010 and 2011,²⁴ (2) assessed grantees' plans for scaling, and (3) evaluated the readiness for scaling of CNCS-funded interventions that showed research evidence of effectiveness and recommended for further study the grantees and interventions that showed evidence of readiness for scaling.

As part of the SEBM project, Mathematica conducted a process study examining how three CNCS-funded grantees implementing interventions that Mathematica assessed to have evidence of effectiveness and to be ready to scale actually scaled their interventions. This process study was structured to identify the types of scaling that grantees undertook and describe how grantees drew upon organizational and implementation supports to facilitate scaling. This report presents a case study of one of three grantees included in the process study: United Ways of Iowa (UWI) implementing the Reading Corps intervention in Iowa.

This appendix details the scaling definitions used for the project and the scaling readiness framework that informed grantee selection (Section B); the methods used to conduct the process study, including the grantee selection process (Section C); and the methodologies used to collect and analyze data for the process study (Section D).

B. Defining scaling and the SEBM scaling readiness framework

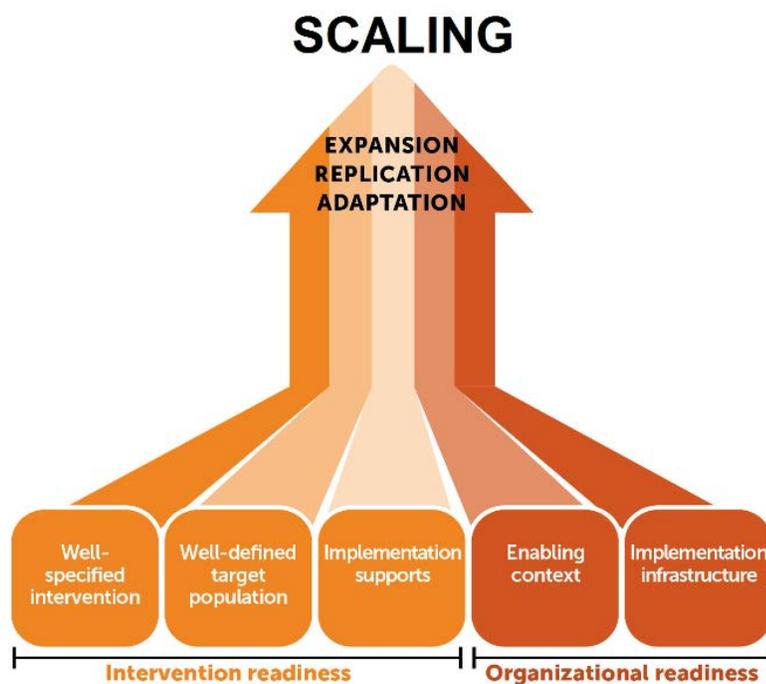
To better understand how funders like CNCS and other stakeholders can foster the scaling of evidence-based interventions, Mathematica first operationalized the concept of scaling by identifying three types of scaling that can be pursued:²⁵

²⁴ AmeriCorps supports a wide range of local service programs through grants to address critical community needs, such as those pertaining to education, public safety, health, and the environment. SIF supported programs from 2010 through 2016. SIF grants were used to fund community-based programs to address challenging social problems communities face in the areas of economic opportunity, healthy futures, and youth development. CNCS (2016, n.d.) provides a detailed description of these CNCS programs.

²⁵ Mathematica adapted these definitions from Fixsen et al. (2005), a synthesis of implementation research published by the National Implementation Research Network. For example, Fixsen et al. (2005) defines "adaptation of the program" as "modifications that are made in a program to accommodate the context and requirements at an implementation site" and defines "replication" as the implementation of an intervention in new sites. Given these existing definitions, Mathematica defined "expansion" as the implementation of an intervention in the same site, with the same population, but serving more people.

- **Expansion** extends the intervention to more people in the same target population in the same location. It requires that the intervention and the organization serve a larger number of participants with the same service quality and in a consistent manner with the intervention's design. An example of expansion would be increasing the number of unemployed adults served at a work center by hiring five more job search specialists who will each serve 20 more adults.
- **Replication** extends the intervention for the same target population to a new location. It requires the intervention and the organization maintain service quality and fidelity to the intervention in the new location. An example of replication would be implementing a reading program designed for 5th graders in a new school district, city, and state, but serving the same target population of 5th graders.
- **Adaptation** extends the intervention to a new target population. It requires that the organization adapt the intervention in a way that maintains service quality. An example of adaptation would be modifying a parent training curriculum designed for mothers to include language that is more inclusive of fathers.

Scaling is considered to be successful when the intervention (1) is replicated, expanded, and/or adapted, and (2) maintains or surpasses its beneficial impacts for participants after the scaling has occurred. Drawing on these definitions as well as research from implementation science, Mathematica then developed for the SEBM project a framework that identifies five conditions that indicate whether an intervention and the organization implementing it are ready for scaling (Exhibit A.1). For example, the framework specifies that an intervention might be ready for scaling if it is well specified. In the implementation science literature, this means that the core elements, or set of activities that is critical for achieving beneficial outcomes for the intervention's participants, are made clear and that for each core intervention element, a description exists of the dimensions necessary to produce the intended outcomes (Blase and Fixsen 2013). (A comprehensive synthesis of the implementation science literature that supports the scaling readiness framework is available in Maxwell and Richman 2019).

Exhibit A.1. Scaling readiness framework developed under the SEBM project

The first three conditions indicate whether an intervention might be ready to be scaled:

- **A well-specified intervention**, consisting of a description of the content, mode of service delivery, intensity, workforce needs,²⁶ and setting for each core element. A well-specified intervention also includes a definition of participation in and completion of the intervention.
- **A well-defined target population**, consisting of a description of the population for which the intervention was found to be effective.
- **Implementation supports**, consisting of a description of supports that can help ensure fidelity, such as an implementation monitoring team and performance benchmarks. Implementation supports also include a description of the procedures for putting the supports into action, such as describing the processes the monitoring team follows and a process for measuring performance benchmarks.

The final two conditions indicate that an organization might be ready to scale an intervention:

- **Enabling context**, consisting of a description of the presence of organizational and partner agency leadership and culture that supports the scaling effort. Enabling context is demonstrated with examples of ways that the organization is innovative and has improved upon past interventions, particularly in the face of implementation challenges.

²⁶ We use the terms *personnel* and *workforce* to refer to organization and partner personnel as well as AmeriCorps members who deliver intervention services.

- **Implementation infrastructure**, consisting of a description of the organizational infrastructure, such as the workforce, materials, and physical space that support implementation.

The scaling framework was used to inform selection of the three grantees that participated in the process study, because CNCS and Mathematica sought to include interventions with implementing grantees that appeared to be ready to scale. We also collected data from the grantees included in the process study using questions that were informed by the framework. This helped us understand whether the requirements for readiness for scaling were indeed present and sustained during implementation of each intervention.

C. Grantee selection for the process study

Mathematica and CNCS used a multistage process to select the interventions and the grantees scaling them for inclusion in the process study. In the first stage, Mathematica reviewed the evaluation studies that grantees submitted to demonstrate evidence of their intervention's effectiveness and grantees' plans for scaling those interventions. Grantees submitted these documents to CNCS in 2015 and 2016 for AmeriCorps grantees and in 2010 and 2011 for SIF grantees. Mathematica used those documents to identify 17 interventions that CNCS grantees were scaling that demonstrated evidence of effectiveness. Mathematica identified these interventions by assessing whether the evaluation studies used rigorous research designs and had consistently favorable findings, and whether the intervention upon which the evidence was based aligned with the proposed plans for the intervention during scaling.

In the second stage, Mathematica developed and applied a scoring system to rank the interventions, and the grantee(s) scaling them, according to their readiness to scale. The scoring system used condition-level scores to operationalize each of the five conditions in the scaling readiness framework (see Section B). Mathematica identified eight interventions, associated with 10 grantees²⁷ that had relatively high scores and represented a mix of scaling types and intervention focus areas.²⁸

In the third stage, CNCS staff in the Office of Research and Evaluation (ORE) conducted outreach and telephone screening interviews to learn more information about the eight interventions and 10 grantees. ORE staff reached out to the CNCS program officers, AmeriCorps State Commission administrative staff, and AmeriCorps National Direct staff who oversaw or interacted with each of the 10 identified grantees to understand any grant management issues or grantee capacity concerns that might preclude them from participating in the process study. Then, ORE staff contacted administrative personnel from the grantees via telephone, using a protocol to collect information on the grantees' reported progress toward their intervention scaling objectives, barriers and successes they had encountered when scaling, and their interest

²⁷ One recommended intervention was being scaled by three different grantees; other recommended interventions were being scaled by one grantee each.

²⁸ Intervention focus areas are the topics in which CNCS concentrates its funding: disaster services; economic opportunity; education; environmental stewardship; healthy futures (including physical and mental health, substance abuse, and nutrition); and veterans and military families.

and ability to participate in the process study. One of the 10 grantees asked not to be included in the process study, indicating that it could not fulfill the necessary data collection activities associated with the process study.

In the final stage, Mathematica used the information CNCS collected to develop criteria to identify three grantees as candidates for the process study. The selection criteria included grantee size and project age, geographic location, intervention focus areas, types of scaling, reported successes and challenges with their scaling experiences, and reported efforts to date to codify lessons learned. After applying these criteria to the remaining nine grantees, Mathematica recommended three grantees, each implementing a different intervention, as candidates for the process study. Based on Mathematica's recommendations and application of the criteria, CNCS ultimately selected three grantees to include in the process study, all of which agreed to participate in the study.²⁹

At the time of selection into the process study, the grantees varied in the extent to which they appeared to fully operationalize the conditions of the scaling framework. The selected sample included grantees that had reported, during their initial screening interviews with CNCS, both successes and challenges in their scaling execution processes, resource planning issues, successes and difficulties generating community support, grant management concerns, and successful, mixed, and poor results on various aspects of scaling. Because CNCS did not select the grantees at random, and they were not representative of all CNCS grantees, the insights from the experiences of the three process study grantees and their partners cannot be interpreted as applicable to a broader set of CNCS-funded grantees or service providers. However, the grantees—and the interventions they were scaling—were considered to be some of the strongest in terms of readiness to scale, and ranged in features such as geographic location, intervention focus areas, types of scaling, and the length of time they had been scaling their interventions. Because of their scaling readiness strength and range of experiences, the findings from the process study allow us to draw lessons learned and illustrative practices that can help stakeholders understand the conditions that might facilitate intervention scaling.

D. Methods for collecting and analyzing data for the process study

1. Methods for collecting data for the process study

Mathematica staff collected data from all three grantees selected for the process study during summer and fall 2018 and fall 2019. In summer 2018, Mathematica held pre-visit telephone calls with grantee personnel from all three grantees and reviewed grantees' program documents. Mathematica staff then conducted two-day visits during October 2018 to each grantee as well as any partner organizations involved in scaling activities, and brief follow-up telephone interviews after each visit. In September 2019, Mathematica staff conducted 12-month follow-up telephone interviews with grantee personnel.

²⁹ One of the grantees ultimately selected for inclusion in the process study differed from Mathematica's recommendations. Based on its internal conversations, CNCS selected this grantee in light of its own research and funding priorities.

During the visits to each grantee, members of the process study team conducted one-on-one or small group interviews with the following types of personnel: (1) the program manager who oversaw implementation of the intervention being scaled; (2) grantee executives, such as the executive director and deputy directors; (3) data managers from grantees; (4) any other personnel from grantees or partners directly involved in supporting scaling activities, including supervisors and managers of frontline personnel; (5) frontline personnel, including AmeriCorps members, who directly delivered the intervention being scaled; and (6) for this grantee and one of the other two grantees visited, personnel from the developer of the intervention being scaled. (The third grantee visited was scaling an intervention it developed itself.)

Both individual and group interviews during the process study visits generally lasted 30 minutes to two hours. The study team held the most comprehensive interviews with the program manager for each grantee. These interviews covered all topics related to the five conditions in the scaling framework (that is, the presence of a well-specified intervention, a well-defined target population, implementation supports, an enabling context, and an implementation infrastructure); the type of scaling conducted by the grantee and its partners; and the factors that appeared to facilitate and challenge implementation and scaling. Interviews with other types of respondents were more limited in scope. During interviews with grantee executives, we focused on topics related to planning and funding for scaling, and the use of evidence of intervention effectiveness in planning scaling efforts. When speaking with other types of grantee personnel, we focused on topics related to their specific function—for example, we concentrated on data systems and evaluation efforts when interviewing data managers. When interviewing personnel more closely aligned to frontline operations, in both individual and group settings, we focused on topics related to direct service provision, implementation supports (such as training, communication systems, data systems, and implementation and performance monitoring), use of evaluation, and other factors that might facilitate or hinder scaling. When interviewing intervention developers, we focused on topics related to implementation supports, evaluation efforts, plans to innovate or improve the intervention, scaling efforts beyond the specific grantee visited, and other factors that might facilitate or hinder scaling.

The study team collected additional data from the grantees during the follow-up telephone interviews held in September 2019. The study team held these interviews with the grantee program directors and executives. Across the grantees, these interviews focused on changes that had occurred in scaling since the visit in October 2018, any successes or challenges associated with scaling that the grantees experienced, and clarifications about information collected during the October 2018 visits.

2. Information used for the analysis of UWI's scaling of Reading Corps

We based the analysis for this report on information collected from UWI and its partners, as summarized in the previous section. First, study team members reviewed documents that could shed light on how UWI executed scaling of the Reading Corps intervention and the supports the grantee had in place to scale it. Examples of such documents include personnel manuals and

intervention materials, such as calendars, literacy activity scripts, and assessment instructions. The study team summarized the contents of these documents in a detailed write-up that also included notes from the data collection that took place during the process study visit (discussed below).

The study team then visited the grantee in October 2018. During and shortly after the site visit, we conducted one-on-one or small group interviews with the following personnel: (1) the UWI program director who oversaw implementation of Reading Corps; (2) the UWI program manager who assisted with implementation; (3) a former UWI program manager who had left the organization; (4) the UWI executive director; (5) the UWI fiscal specialist; (6) four of the AmeriCorps members who served as tutors; (7) three of the teachers or other school personnel who served as internal coaches; (8) three of the principals or administrators from schools and districts participating in Reading Corps; (9) two of the master coaches, one of whom is also the lead master coach; and (10) three personnel from Reading and Math, Inc., including the director of national replication, master coaching lead, and data and evaluation manager. We did not visit UWI's offices or any schools; instead, we interviewed personnel at an off-site location or by phone. The tutors, internal coaches, principals and administrators, and master coaches we interviewed had been asked to participate by the program director. The program director avoided asking personnel in their first year of involvement with Reading Corps because they would only have had a couple of months of intervention experience to draw on. In total, we interviewed 20 respondents during and shortly after the visit.³⁰ Exhibit A.2 details the characteristics of the 20 interview respondents.

Exhibit A.2. Characteristics of those interviewed

Respondent characteristic	Response category	Number of respondents
Type of position ^a	Grantee program manager	1
	Grantee executive	1
	Other grantee personnel	3
	Partner administrator	3
	Frontline supervisor	5
	Frontline personnel	4
	Developer personnel	3
Type of personnel	AmeriCorps member	4
	Paid organizational personnel (from the grantee, the developer, or local partners)	16

³⁰ The interview with the program director took place over multiple blocks during the site visit, with the combined total significantly exceeding two hours. The program director also attended the other interviews (other than with the intervention developer) but did not actively engage in the interviews. Three interviews (the master coaches, former program manager, and intervention developer) took place by phone shortly after the site visit, in November 2018.

Respondent characteristic	Response category	Number of respondents
Experience in current position	Fewer than 12 months	1
	1 to 2 years	4
	3 to 5 years	7
	More than 5 years	8
Experience with organization	Fewer than 12 months	0
	1 to 2 years	4
	3 to 5 years	9
	More than 5 years	7
Experience in the same type of work	Fewer than 12 months	0
	1 to 2 years	3
	3 to 5 years	6
	More than 5 years	11
Highest level of education	Less than high school degree	0
	High school degree (including equivalency)	2
	Some college, no degree	1
	Associate's degree	0
	Bachelor's degree	8
	Master's degree or above	9
Gender	Female	16
	Male	4
Race/ethnicity	White	20
	All other	0

^a For this characteristic, we categorized interview respondents as follows: the UWI program director as grantee program manager; the UWI executive director as grantee executive; the current and former UWI program managers and the fiscal specialist as other grantee personnel; the principals and district administrators as partner administrators; the two master coaches and three internal coaches as frontline supervisors; and the tutors as frontline personnel.

Finally, the study team conducted follow-up telephone interviews with UWI personnel in September and early October 2019. The study team held a three-hour interview (split into two parts) with the UWI program director, and one 30-minute interview with the UWI executive director.

3. Analysis of collected data

We ensured accuracy and thoroughness of data collection in the following ways: (1) preparing standardized protocols that were tailored to each respondent type and to the intervention and grantee; (2) having both a senior and junior researcher conduct the visits and telephone

interviews so that one team member could take notes while the other conducted interviews; (3) audio recording interviews and taking detailed, near-verbatim notes during interviews; and (4) having multiple study team members review and provide feedback on the interview notes as well as ask for clarifications on content when necessary and appropriate.

After finalizing the site visit interview notes, study team members synthesized those notes into a detailed write-up based on a standardized template. The template grouped information according to (1) scaling readiness conditions; (2) the contextual factors that affect implementation and scaling; (3) the accomplishments, challenges, successes, and facilitators of scaling; and (4) the sustainability of scaling efforts. The write-up also included a checklist that summarized the intervention's readiness for scaling in each of the five conditions of the scaling framework. Members of the study team reviewed these write-ups for completeness, thoroughness, and accuracy. Before visiting, the research team also developed detailed descriptions of each intervention and each grantee's scaling of it and asked the respective program managers to review and correct the description if needed. Study team members synthesized the follow-up telephone interview notes by organizing the notes by respondent and by the topics that aligned with the chapters and sub-sections of each of the case study reports.

To conduct the analysis across all three grantees, the study team reviewed the grantee-specific write-ups to synthesize data according to the data collection topics of interest. (These topics related to the research questions and the ways that grantees were approaching aspects of the five conditions that indicate scaling readiness.) Because the study team conducted this analysis before the September 2019 follow-up telephone interviews, it and the resulting report (Needels et al. 2020) were based on a more limited set of information than the analysis for the case study reports.

For this report, the authors assessed the topic-specific information relevant to only UWI from the analyses conducted with the data from the site visit and telephone interviews. The authors used these data to identify insights and takeaway conclusions that have the potential to be broadly applicable as CNCS seeks to support its grantees in their scaling efforts. Quotes from interview respondents also provided illustrative insights. A similar approach was used to analyze data for the two companion reports (Anderson et al. 2020; Eddins et al. 2020), each of which provides in-depth insights about scaling using data from the two other grantees in the process study.

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