RIDE Rhode Island Department of Education

Phase III Report (Submitted April 1, 2021)

Reporting Period: March 2020–February 2021

Contents

Page

Tables

Page

Figures

Page

A. Summary of Phase III, Year 5

In 2014, the Rhode Island Department of Education (RIDE) established the State-identified Measurable Result (SiMR) to improve mathematics achievement (on the statewide assessment) by 4% for students in Grades 3–5 with specific learning disabilities (SLDs) who are Black or Hispanic/Latino by 2018–19. At the beginning of this project 5 years ago, data from the 2019–20 Rhode Island Comprehensive Assessment System (RICAS) were intended for setting a new SiMR baseline. As a result of the COVID-19 pandemic, however, the planned administration of RICAS in spring 2020 did not occur; as such, a new baseline for the SiMR has not yet been set. The SiMR aligns to one facet of RIDE's Every Student Succeeds Act plan, which delineates ambitious improvements in mathematics outcomes for students with disabilities, as well as students who are Black or Hispanic/Latino. To address the SiMR, RIDE awarded the American Institutes for Research (AIR) a 5-year contract to support the State Systemic Improvement Plan (SSIP) implementation and evaluation activities (contract period 2017–2021)—which resulted in the development of the Intensive Math Intervention Project (hereafter, Math Project). A 1-year contract extension is currently being negotiated. During the Phase III, Year 5 reporting cycle (March 2020—February 2021), AIR engaged in technical assistance activities in 31 schools in nine districts, representing sites from three cohorts (Table 1). The third cohort represents the final cohort of sites that will engage in the 2-year implementation cycle described in previous submissions (i.e., Year 1 focused on core instruction, Year 2 on intensifying instruction).

Table 1. Participating Sites by Cohort

Cohorts	Elementary school sites	Middle school sites[a]	District models[b]	Total
Cohort 1 (participation started in the 2016–17 school year)	4	2	0	6
Cohort 2 (participation started in the 2017–18 school year)	5	2	0	7
Cohort 3 (participation started in the 2018–19 school year)	14[b,c]	3[b]	2	6
Total	33	10	2	31

[a] Middle school sites in Rhode Island often serve students in Grade 5, and many students identified in 2014 for the SiMR are now in middle school. [b] For the district model, local education agencies (LEAs) identify a cohort of educators across the district that may include a combination of administrators, mathematics coaches and coordinators, special education leads, and multitiered system of supports (MTSS) or response to intervention (RTI) leads. This expanded our reach to 10 additional elementary schools and two additional middle schools. [c] One elementary school site expanded to third and fourth grades during the 2018–19 school year.

Starting in March 2020, COVID-19 shuttered school buildings and converted all learning to online. The pandemic caused a major disruption in the administration of technical assistance at the end of the 2019–20 academic year and throughout the 2020–21 academic year. Although each site reopened schools for hybrid learning by February 2021, each district has conducted hybrid

learning differently. All sites have continued to participate in the Math Project, but all trainings and technical assistance support have been completely virtual since March 2020.

This report details implementation and evaluation activities involved in the Math Project since the last reporting period (March 2020–February 2021), including adaptations to technical assistance support and professional development opportunities that were necessary because of COVID-19, and communicates key findings resulting from the ongoing evaluation of the project. With the cancellation of RICAS in 2020, in this report we examine iReady and STAR Math (i.e., interim, formative mathematics assessments) data for 2019–20 to track RIDE's progress toward its SiMR, using the best and most accurate data that are available by the report writing (see Section C.1.h). It should be noted, however, that iReady and STAR Math do not represent statewide data and measure different benchmarks than RICAS, so these data cannot be compared to prior RICAS results.

1. Theory of Action or Logic Model for the SSIP, Including the SiMR

Previous submissions detailed refinements to the theory of action (Figure 1) and the logic model (Figure 2), based on stakeholder feedback and actual implementation. The language changed from broad language related to MTSS implementation to data-based decision making to inform intensive, individualized instruction in mathematics. The change in language better articulates the nature of the SSIP work, including how the theory of action drives the implementation to ensure successful outcomes for the SiMR population. In this reporting cycle, no changes occurred in the theory of action or the logic model. The theory of action and logic model continue to guide the activities and outputs to help RIDE achieve the intended outcomes and the SiMR.

Figure 1. RIDE SSIP Theory of Action

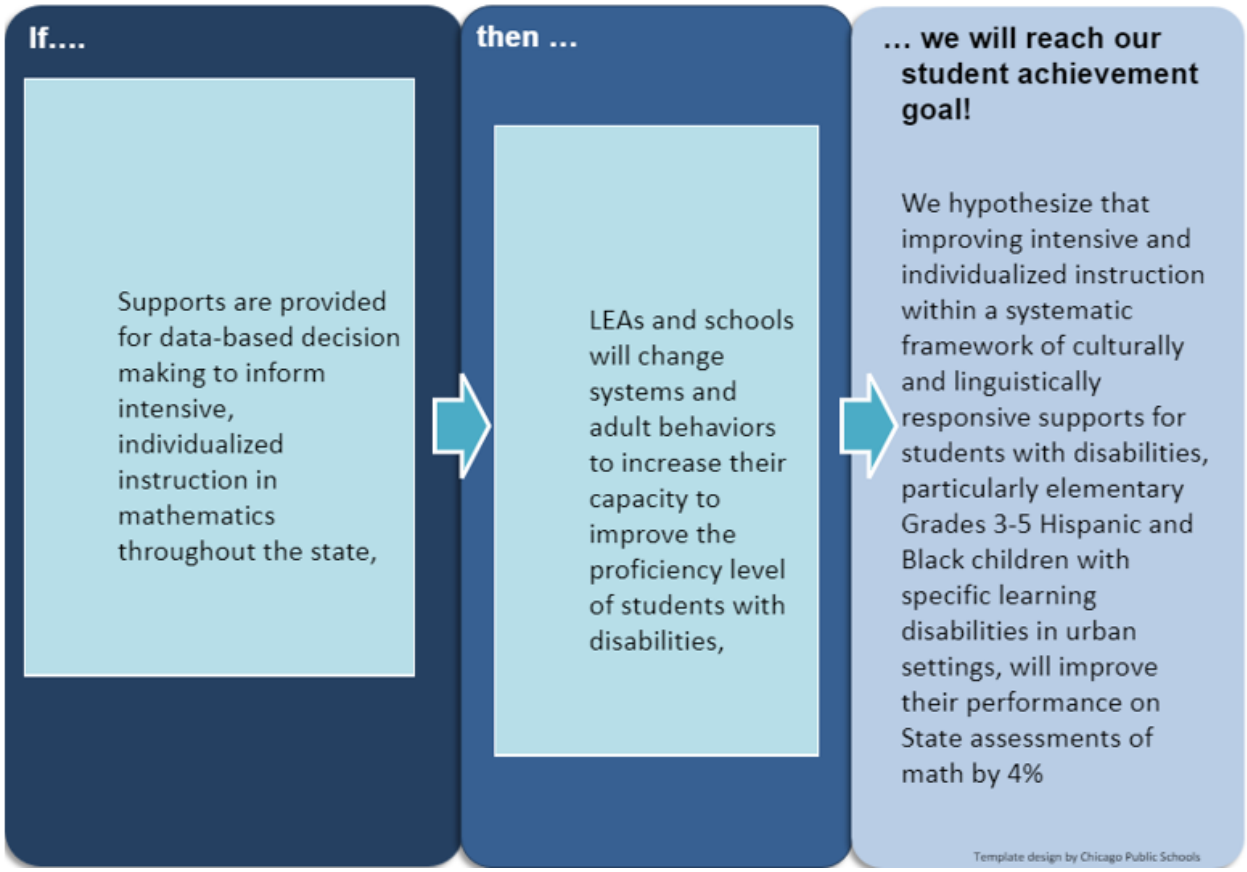
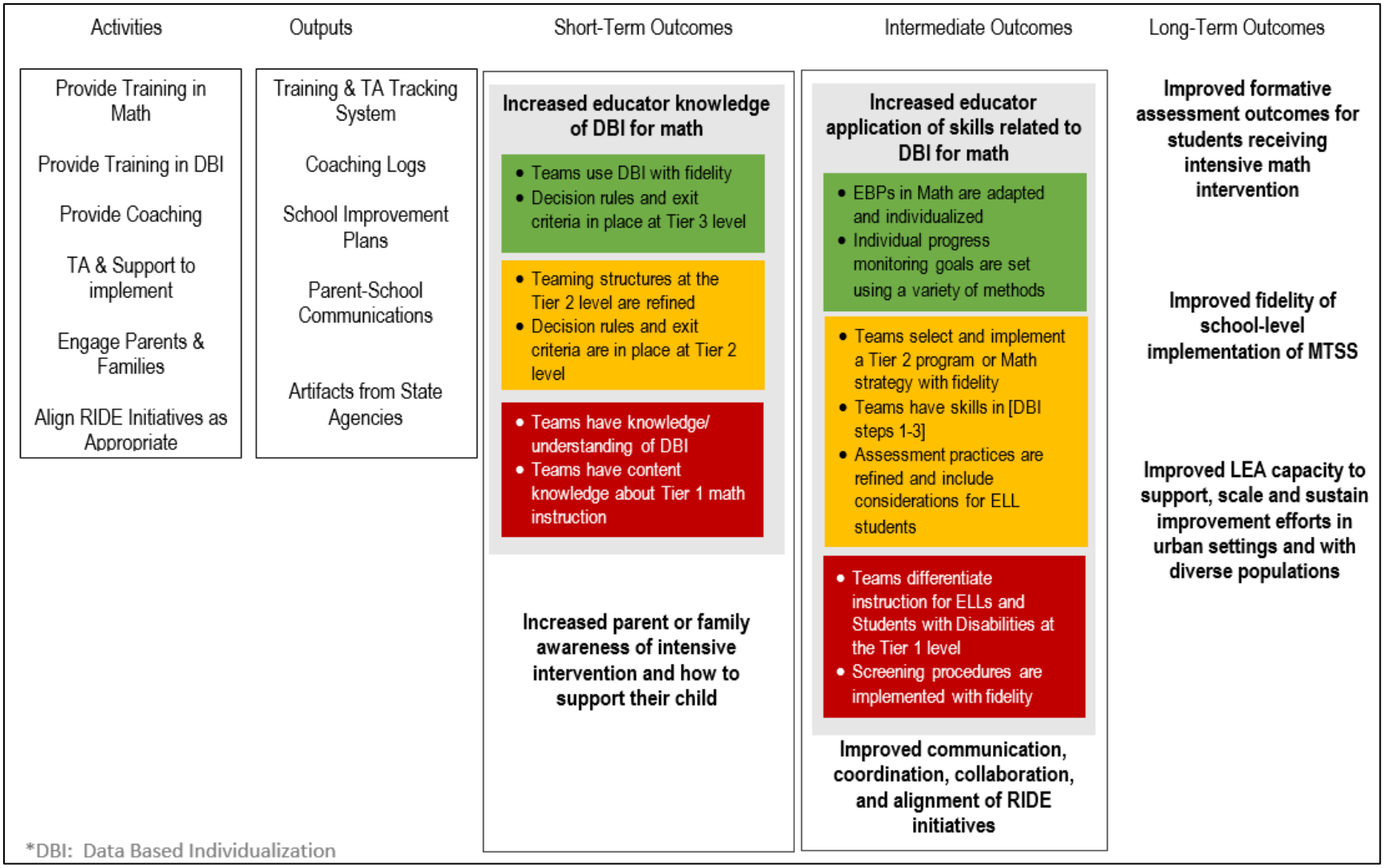


Figure 2. RIDE SSIP Logic Model

SiMR: Improve the mathematics achievement for Hispanic and Black students with specific learning disabilities in Grades 3–5 by 4% on the statewide assessment.



2. Coherent Improvement Strategies or Principal Activities Employed During the Year, Including Infrastructure Improvement Strategies

a. Coherent Improvement Strategies Employed

The Math Project is working with its third, and final, cohort of sites, while continuing to provide training and ongoing coaching support to sites in the first two cohorts. Given that the Math Project is currently in its final year (unless extended; contract extension under negotiation), a priority for all sites this year is on scaling and sustaining implementation. Because of the impact of COVID-19, activities had to be adjusted to accommodate the health, safety, and needs of the participating sites. During this reporting period, the major implementation shift was from in-person training and coaching to virtual activities. Between April and May 2020, the project team facilitated a five-session virtual community of practice (CoP) with 27 educators from across project sites and cohorts to learn together how to shift mathematics instruction.

Although the shift to virtual support was necessary as a result of the pandemic, the Math Project team held a session with leaders from across sites in fall 2020 (after contract issues were resolved) to ensure sites' **active contribution to the project's implementation and evaluation, especially amid the COVID-19 pandemic**. The project held three virtual sessions at different times of the day to increase participation. The sessions gathered site leader perspectives on the following questions to inform necessary changes to the project's implementation and evaluation in light of COVID-19:

- What was the most helpful/successful support that your local education agency (LEA) has received from the Math Project?
- What supports seem feasible to participate in this fall?
- Are there any materials, resources, interventions, or assessment tools that you need right now?
- When do you anticipate that your LEA/site will be able to start any implementation?
- What data are feasible for your LEA/site to collect this year?
- What, specifically, could the project support you with in relationship to collecting those data?

Eleven participants engaged in the virtual sessions. In addition to facilitating a discussion, the Math Project team leveraged Jamboard technology to capture responses to refer back to. Overwhelmingly, the site leaders suggested that during fall 2020, training/coaching activities should be

- asynchronous (virtual, on own time) versus synchronous (virtual, in real-time);
- available to all educators at sites; and

- focused specifically on virtual/hybrid instruction, intervention, and assessment.

These recommendations changed how the Math Project engaged with sites. First, the project disseminated a list of all existing self-paced, online learning modules (see Appendix A) and created a way to track participant completion and award professional learning unit (PLU) credits. Site leaders shared the modules with all staff at their sites, allowing for broader reach of the content. Second, two additional modules were developed in response to participant feedback: Virtual Screening and Progress Monitoring and Virtual Number Talks Implementation. Project staff also created companion materials to support implementation of virtual Frayer models (i.e., an evidence-based visual schematic diagramming strategy).

In addition, site leaders suggested the topic of **accelerating learning in mathematics** as the focus for the leadership professional learning community (PLC). In response, the Math Project released two asynchronous modules on this topic: *An Introduction to Acceleration* and *Yearly Planning*. The Math Project continues to develop content on this topic and will release modules in spring 2021 and hold virtual, synchronous discussions, after this reporting period.

Coaching continues at the site level, as guided by site-level action plans. These coaching sessions are synchronous and scheduled during statewide professional development days or at agreed-on times with site teams. Many of these sessions focus specifically on supporting sites with learning and applying the evidence-based data-based individualization (DBI) process with case study students in alignment with the Math Project's **long-term outcome of improving formative assessment outcomes**.

After winter break (December 2020), the Math Project reassessed with site leads the approaches/strategies and agreed to add a virtual book study option, as it had in past years. This approach **aligns with the Math Project's theory of action and long-term outcomes**; it provides a mechanism for LEAs to build their internal capacity, take ownership of professional learning activities, and work toward sustaining practices across time. The book study approach has been favorably received in the past. The current book study began in February 2021 and implementation is ongoing; data will be included in subsequent reports.

Regarding **engaging families related to SSIP implementation and evaluation**, RIDE has regular meetings with the Rhode Island Special Education Advisory Committee (RISEAC) to facilitate its input and feedback. Staff from the Rhode Island Parent Information Network (RIPIN; the Office of Special Education Programs–funded Parent, Training, and Information Center) are members of RISEAC, serve as members of the SSIP core team, and are integral to informing decisions about implementation strategies. In addition, RIPIN has a subcontract award on the Math Project to help achieve the outcomes related to parent and family awareness and understanding of DBI.

b. Infrastructure Improvement Strategies

During this reporting period, RIDE continued working to align other state-level initiatives by identifying common goals. Specifically, infrastructure initiatives were leveraged to ensure that the SSIP project's (i.e., Math Project) core team is building on the success of various implementation efforts, including the state's systems of support (SOS) contract focused on MTSS, the Collaboration for Effective Educator Development, Accountability, and Reform (CEEDAR) Center, and the National Center on Intensive Intervention (NCII). The core team includes RIDE staff from across departments, project staff working directly with the school sites, stakeholders (described later), and key personnel from other RIDE initiatives. The SSIP core team made connections across the initiatives to (a) ensure consistency in how DBI, a process that integrates assessment and intervention for individual students—as a part of an MTSS model—is communicated; (b) revise implementation plans based on lessons learned; (c) connect with key personnel from existing RIDE initiatives on a regular basis; and (d) share ongoing updates with RIDE to facilitate a continuous feedback loop.

RIDE also made some infrastructure changes, which included new state rules on LEA adoption of high-quality curricular materials (HQCM) in mathematics and English language arts. In response to new state rules, RIDE leadership developed a cross-office state team to support LEAs with their selection and implementation of HQCM in mathematics. In addition, they recently received the following grants: the School Climate Transformation grant and the Comprehensive Literacy State Development grant. In tandem, these grants and the Math Project provide a mechanism for RIDE to ensure that LEAs receive ample opportunity to focus professional learning efforts in the targeted areas of need. The SSIP mathematics focus also fostered increased collaboration between staff at RIDE's Office of Student, Community and Academic Supports (OSCAS) and the Office of Instruction, Assessment & Curriculum on not only the Math Project for the SSIP but also general education mathematics initiatives and statewide curriculum work. (See Section B.2.b for additional discussion.)

3. Specific Evidence-Based Practices Implemented to Date

To date, three cohorts of schools are engaged in the Math Project. Cohort 1 includes six schools that began participating in the project during the 2016–17 academic year and continue to receive project support. Cohort 2 includes seven schools that joined the project during the 2017–18 academic year and continue to receive project support. Cohort 3 includes four schools that joined the project in summer 2019. In addition to the four schools, Cohort 3 also includes the two districts engaged in the district model.

For the district model, each district identified a group of educators across the district that included a combination of the following personnel: administrators, mathematics coaches and

coordinators, special education leads, MTSS or RTI leads, and/or curriculum or instructional leads. In this model, participants received training and coaching from a Math Project coach, a mini-grant award to support implementation activities for 2 years, and access to the Math Project's professional learning modules. The training/coaching focused on ensuring access for all learners, including **increasing participant knowledge** of Universal Design for Learning, differentiation, and scaffolding in mathematics instruction. Participants in the district model also received training on how to support students with solving word problems by learning "attack" strategies and schema-based instruction.

All cohorts will continue to participate in the Math Project through June 2021 (a contract extension is currently being negotiated), focusing on different aspects of implementation (e.g., learning and implementing evidence-based practices [EBPs] in mathematics and DBI and then scaling and sustaining efforts) based on their implementation phase. For example, Cohorts 1 and 2 sites are focusing on scaling and sustaining implementation, whereas Cohort 3 sites are implementing the 2-year professional learning cycle, with attention given to scale-up and sustainability from the onset. Before implementation activities began, all school sites completed a needs assessment process (see previous submission for examples). The results drive the development of a site-level action plan, which is reviewed annually and considers site-level fidelity data (i.e., DBI Pulse Check, summarized in Section C.2.b). Action plans prioritize two to three goals for the academic year related to not only increasing knowledge and implementation of Common Core–aligned EBPs in mathematics across the tiers (see Table 2) but also the structural changes (i.e., teaming processes) required to achieve results. Action plan goals align to the **short-term and intermediate outcomes** in the logic model.

Table 2. Example Evidence-Based Practices Across MTSS Tiers

	Relevance		
Examples of EBPs in mathematics	**Tier 1**	**Tier 2**	**Tier 3**
Concrete-representational-abstract	X	X	X
Using concrete and virtual manipulatives	X	X	X
Clear and concise mathematical language supports	X	X	X
Visual schematic diagramming (e.g., Frayer model, place value thinking squares)	X	X	X
"Attack" strategies and schema-based instruction for word problem solving	X	X	X
Peer-assisted learning strategies (PALS) in mathematics	X	X	
Corrective mathematics		X	X
DBI process (includes evidence-based intensification strategies)			X
Bridges math intervention		X	X
Systematic Instruction	X	X	X

Note. We may add EBPs to this list as sites identify additional skill deficit areas that require instruction or intervention.

Common areas of need that are the focus of site-level action plans include inconsistent procedures for teaming structures in mathematics to support data-based decision making, a lack of diagnostic tools and processes for students who are struggling, gaps in current instructional delivery processes, and an overall recognition of a need to improve the implementation of EBPs in mathematics across the tiers.

a. Training in Evidence-Based Practices

All site action plans include goals related to improving knowledge and implementation of EBPs in mathematics across the tiers. The Math Project team continues to leverage the asynchronous learning modules (see Appendix A) as a part of its ongoing professional learning. In addition, Math Project staff continue to provide coaching support to ensure **implementation fidelity** of learned EBPs (e.g., PALS) and instructional strategies geared at increasing student dialogue in the mathematics classroom (e.g., Number Talks) to promote alignment with mathematical content and practice standards. Fidelity data were harder to collect during this reporting period because of the impact of COVID-19 (e.g., student and teacher absences resulting from viral exposure, shifts in implementation between virtual and hybrid instruction). To lend additional support during the pandemic, Dr. Sarah Powell conducted a virtual training on the topic of Peer Assisted Learning Strategies in Math and Schema-Based Instruction for educators, with suggestions on how to adapt for virtual learning. The Math Project also hosted a five-session virtual CoP to support distance learning in April and May 2020. The CoP started out as a synchronous learning opportunity but shifted to asynchronous halfway through in response to participant feedback received from using the Jamboard website for participant discussion and feedback.

Leadership PLC Training Activities

This year's PLC sessions were entirely asynchronous and focused on accelerated learning rather than remediation in the 2020–21 academic year. The first of six asynchronous modules—*An Introduction to Acceleration*—was released in December 2020, with subsequent releases and technical assistance ongoing. Subsequent topics are (a) making acceleration a schoolwide focus (for administrators), (b) developing a yearlong plan using acceleration (for teachers), (c) developing a unit plan using acceleration (for teachers), (d) assessing student needs (for teachers, (e) developing a lesson plan using acceleration (for teachers), and (f) the role of the interventionist in acceleration.

b. Training Participation

To support the alignment of training activities to the SiMR population, Math Project staff encouraged sites to select educators in Grades 2–5 at the elementary level and Grades 5–8 at the middle school level to participate in trainings. Many sites elected to focus training participation at one grade level and based their decision on screening data, which indicated a

need for improving core instruction at that grade level. As previously mentioned, the implications of COVID-19 resulted in the pivoting of all the Math Project training to virtual platforms. Based on stakeholder feedback, the Math Project offered online, self-paced learning modules as asynchronous learning opportunities for educators to receive PLU credits. **As of February 2021, 51 PLU certificates have been distributed to 33 general and special education teachers, interventionists, and instructional coaches.** In addition, in spring 2020, the Math Project hosted a five-session virtual CoP. This CoP was facilitated synchronously but also accessible asynchronously for additional PLU credits. It included 25 participants representing special educators, general educators, dual-language support educators, teacher assistants, interventionists, and school/district administrators across 11 sites.

c. Coaching Activities

Rather than recruiting and training external personnel to serve as coaches, Math Project staff provide coaching supports to all participating sites. One site-level coach is a former mathematics interventionist from Rhode Island, who joined AIR as a full-time employee and currently works with 12 school sites (five Cohort 1 sites, five Cohort 2 sites, and two Cohort 3 sites) and the two district models. A second site-level coach, with expertise in MTSS and supporting English learners, works with three sites in the same district, one site from each cohort. The third site-level coach, with expertise in educational systems, bilingual education, and teacher and instructional development, works with two sites in the same district, one site in Cohort 2 and the other in Cohort 3. An additional member of the Math Project team leads the leadership PLC activities and supports another coach with the district models. All Math Project staff meet internally to ensure coaching alignment across sites, discuss challenges and solutions, and identify any additional training or coaching needs across sites. As a response to the needs of sites during the spring 2020 shutdown, our project shifted to cross-cohort coaching and training opportunities. **Between March 2020 and February 2021, cross-cohort sites received 113.5 hours of ongoing coaching support from Math Project staff (see Table 3).** Coaching supports included providing feedback related to virtual instruction, how to plan for distance learning and prioritize standards, effective virtual platforms for mathematics instruction, and assessing student understanding. Across cohorts, coaching focuses on supporting educators as they prioritize Rhode Island's mathematics standards in efforts to support accelerated learning to address the impacts of COVID-19, while implementing intensive intervention with case study students who are in the educator's stable pods. Coaches have worked with teachers, reviewing fall and winter screening data to identify major areas of concern on which to focus efforts. Coaches also increased conversations about progress monitoring in intervention settings to keep track of fidelity data in terms of the modality in which the intervention was delivered (e.g., virtual vs. in-person, when and why there were interruptions, student and educator absences). The Math Project coaches also worked to

support sites in identifying additional materials that would support their instruction and intensive intervention (e.g., manipulatives, assessment tools, and intervention programs). Math Project coaches also (a) met with newly hired district MTSS coordinators and special education directors to discuss the project's scope of work, (b) met with one district to support Tier 1 HCQM, (c) supported planning the implementation of Eureka Math, and (d) helped sites leverage materials for parents and families.

Table 3. Coaching Activities and Hours by Cohort

Cohort 1	Cohort 2	Cohort 3
• Support for data meetings and examining screening and progress monitoring data • Identifying students for DBI case studies, despite instructional shifts Total: 25 hours	• Support for data meetings and examining screening and progress monitoring data • Virtual support related to adopting and implementing the Tier 2 Bridges Math Intervention Total: 48.5 hours	• Support for data meetings and examining screening and progress monitoring data • Identifying students for DBI case studies, despite instructional shifts Total: 40 hours

4. Brief Overview of the Year's Evaluation Activities, Measures, and Outcomes

The project's evaluation activities and measures **align with the logic model outcomes** to help demonstrate the Math Project's impact on the SiMR. Causality, however, is not implied; our evaluation does not include a comparison group, and we did not control for extraneous variables. A discussion of evaluation data results is in Section D.3.

a. Evaluation Activities and Measures (Short-Term Outcomes)

- Collected and analyzed data on quality, relevance, and usefulness of training modules

b. Evaluation Activities and Measures (Intermediate Outcomes)

- Conducted DBI case studies to determine educator-level outcomes related to DBI implementation
- Collected web traffic data on intensive intervention toolkits

c. Evaluation Activities and Measures (Long-Term Outcomes)

- Conducted DBI case studies to determine student-level outcomes on formative assessments (i.e., progress monitoring measures)
- Collected and analyzed STAR and iReady Math assessment data

- Collected and analyzed data on MTSS/DBI implementation fidelity through "pulse checks" with school sites[1]

B. Progress in Implementing the SSIP

1. Description of the State's SSIP Implementation Progress

All cohorts continue to make progress toward **short-term outcomes related to increasing their knowledge of core mathematics instruction and data-driven processes** to appropriately identify students in need of intensive intervention. Participants from all cohorts are completing training (i.e., module professional development sessions) and actively participating in coaching activities focused on mathematics instructional progressions and EBPs across the tiers. In addition to the training opportunities described throughout this report, the Math Project has promoted opportunities for participants to register for both the Rhode Island Mathematics Teachers Association virtual spring conference as well as the Long Island Mathematics Conference Boards annual conference, held virtually in March 2021.

Presently, all cohorts are making progress toward the logic model's intermediate outcome, **applying learned skills to student-level DBI case studies**. The coaching activities focus on multiple aspects of the DBI process, based on site-level action plans and areas of need. These activities include effectively analyzing screening and progress monitoring data, setting ambitious growth goals for students, and developing an understanding of using progress monitoring data diagnostically to identify students' strengths and deficits in mathematics.

During this reporting year, the Math Project continued implementing its PLC for district and building leadership, including administrators, interventionists, and instructional coaches. Because of COVID-19, the PLC shifted entirely online through asynchronous, online training modules. **Improving LEA capacity to support, scale, and sustain improvement efforts** is a long-term outcome in the logic model and directly aligns to the theory of action (i.e., change systems and adult behaviors). Two learning modules of a series on accelerating learning in mathematics are currently available to PLC participants. Additional modules in the series and synchronous sessions are planned for spring 2021.

In relationship to **improving communication, coordination, collaboration, and alignment of RIDE initiatives**, the Steps for Understanding Mathematics (SUM) initiative was a focus for collaboration between RIDE's Office of Instruction, Assessment & Curriculum, OSCAS, the SOS contract, and the SSIP Math Project. Because of the COVID-19 pandemic, this initiative has

[1] Pulse check items were added to the annual survey; we were unable to collect data in the same way as in the past because of the COVID-19 pandemic.

halted in its previous format. In summer 2020, the SUM initiative supported the Rhode Island Mathematics Teachers Association in transitioning their content to the Bridge-RI format for future statewide dissemination throughout Rhode Island.

Building family awareness of DBI and intensive intervention continues to be a relevant outcome. Many sites indicated that they would like to learn strategies to better engage parents and families. In response, RIPIN, a partner on the Math Project, developed two online toolkits—one for educators working with families whose children have intensive needs and one for families of children receiving intensive intervention. The content is continuously updated, and the Math Project team shares the online toolkit throughout the school year. Because more families were charged with supporting their child(ren)'s mathematics instruction at home, the Math Project also shared a previously developed resource, Homework: A Helpful Overview as a way for sites to build effective engagement strategies. The resource is currently available in English and Spanish.

Despite the challenges faced by educators and LEAs in the past year, the **Math Project sustained implementation with all sites**, demonstrating a continued desire at the local level to improve mathematics instruction and outcomes.

a. Extent to Which the State Carried Out Its Planned Activities With Fidelity—What Was Accomplished, What Milestones Were Met, and Whether the Intended Timeline Was Followed

Table 4 captures the state's SSIP implementation progress by the primary implementation areas. COVID-19 caused major disruptions to carrying out planned activities with fidelity. Wherever possible, activities were carried out virtually. Section D.2 presents an in-depth discussion of the fidelity of site-level implementation activities.

Table 4. Overview of March 2020–February 2021 Implementation Progress

Implementation area	Activities	Status of implementation
Project planning and coordination General activities necessary for the management of the SSIP	Establish a project website to house all learning opportunities in a more accessible form.	Complete
	Develop Year 5 action plans for Cohorts 1, 2, and 3	Complete
	Implement action plans with Cohorts 1, 2, and 3 sites	Ongoing
Training Activities associated with delivering professional development for educators	Reorganize content and training to be accessible asynchronously	Ongoing
	Conduct trainings, as scheduled	In progress
	Provide asynchronous training opportunities to all sites and district	In progress
Coaching	Identify objectives and targets for the school year	Complete

Implementation area	Activities	Status of implementation
Activities associated with technical assistance support	Administer evaluation protocols and instruments, including fidelity assessments (evaluation methods vary by cohort)	Ongoing
	Conduct virtual team meetings	Ongoing
	Support teams with selecting DBI case studies	Complete
	Support teams in monitoring the implementation plans for the DBI case studies	Ongoing
	Model EBPs with schools	Ongoing, as needed
Family engagement Activities associated with improving family engagement in intensive intervention	Collaborate with RIPIN to develop family engagement protocols	Complete
	Collaborate with RIPIN to develop family engagement resources for math homework and intensive intervention	Complete
	Develop toolkit and present to PLC and/or sites	Ongoing
Stakeholder engagement[a] Activities involved both peripheral and primary stakeholders	Feedback from the SSIP update during the May 2020 RISEAC meeting.	Complete
	Leadership PLC session focused on gaining stakeholder input on the ongoing implementation and evaluation of the project during COVID-19 (October 2020)	Complete
	Develop and administer stakeholder engagement surveys	Complete
Collaboration between RIDE initiatives Activities associated with RIDE collaboration	Develop and administer collaboration surveys	Complete
	Supported the initial implementation of RIDE's Office of Instruction, Assessment & Curriculum's SUM training and coaching	Complete
	Collaborate with Bridge-RI to embed Math Project content into the statewide learning management system to ensure continuity of professional learning access for RI educators	Ongoing
LEA capacity to support diverse students in urban settings Activities associated with increasing LEA capacity	Facilitate leadership PLC	Ongoing

[a] Descriptions of stakeholder engagement activities are further described in Sections A.2.b, B.2.a, and B.2.b.

b. Intended Outputs Accomplished as a Result of the Implementation Activities

This year, the Math Project continues to work with the third cohort—four school sites and two district models—that began in 2019. All Cohort 3 sites signed an official memorandum of understanding with the Math Project (**activities and outputs described in the logic model**). The 2-year implementation cycle for Cohort 3 began in the 2019–20 school year and runs through the 2020–21 school year. Action plans focus on building core instructional strategies and teachers' knowledge of conceptual understanding, improving planning mathematics lessons to

meet the needs of all learners, and establishing a common language for core instruction and best practices.

In addition, project staff are consistently using a technical assistance tracking template and coaching logs to document training, coaching, and technical assistance activities. We shared the toolkits developed in collaboration with RIPIN with the all sites to help facilitate school-to-parent communications. At the state level, active collaboration across RIDE departments continues through its Intervention Team.

2. Stakeholder Involvement in SSIP Implementation and Evaluation

a. How Stakeholders Have Been Informed of the Ongoing Implementation and Evaluation of the SSIP

Two groups of stakeholders are associated with SSIP implementation. Primary stakeholders include school staff and DBI core team members involved in the ongoing implementation efforts. Peripheral stakeholders, including SSIP core team members, are those who are not engaged in ongoing implementation efforts but have a broader interest in statewide intensive intervention.

Primary stakeholders participate in the ongoing implementation of the SSIP. These stakeholders play a significant role in determining the course of technical assistance activities by codeveloping the final action plans and goals for the academic year and/or providing feedback on training content or coaching resources prior to broader dissemination or use with other participants.

Peripheral stakeholders received periodic updates from the RIDE director of OSCAS. The number of schools participating in the technical assistance, along with district-, school-, and classroom-level data from the Math Project, have been shared. Stakeholders expressed their support in continuing the state's efforts with outreach to families and community members. In addition, the OSCAS director meets monthly with the executive board and presents regularly at the general membership meetings of the Association of Rhode Island Administrators of Special Education, RISEAC, the CEEDAR Center state leadership team, and statewide special education director meetings. These meetings shifted to virtual meetings and additional electronic updates if meetings were cancelled because of COVID-19 (e.g., the planned October meeting only had five participants so an email newsletter including director updates and project infographics was implemented to engage additional committee members). At these meetings, the director, or a designee, presented an update regarding the work of the office, which includes updates on the Math Project (May 2020, October 2020, and January 2021). RIDE also regularly updates its website with pertinent information related to the Math Project and SSIP for stakeholders,

including resources to support families. The SSIP project's module content and EBP one-pagers are available on this website as well and are regularly shared in OSCAS update email newsletters to special education directors.

b. How Stakeholders Had a Voice and Were Involved in Decision Making Regarding Ongoing SSIP Implementation and Evaluation

Primary stakeholders partner with Math Project staff (i.e., site coaches) to decide which training and coaching opportunities to prioritize during the calendar year. Core team members regularly check in with staff to discuss intensive mathematics interventions and communicate concerns. The start of this year's report detailed how the Math Project involved primary stakeholders in decision making regarding the ongoing implementation of the SSIP through its PLC meeting in October 2020. Peripheral stakeholders provided input on implementation, project outcomes, and SiMR reset to the OSCAS team during a November 2020 meeting.

The Math Project core team will consider this information, as well as conduct additional stakeholder sessions this year, as it looks to identify new targets for its SiMR for submission in February 2022. OSCAS is beginning to conduct data exploration activities with a broader stakeholder group in anticipation the setting of a new SiMR and targets. Given the impact of COVID-19, RICAS was not administered in 2020, so the third year of trend data were not available. Spring 2021 administration will provide additional data to inform new SiMR targets and benchmarks. The 2021 administration also will provide new baseline data to be included in the February 2022 APR submission.

C. Data on Implementation and Outcomes

1. How the State Monitored and Measured Outputs to Assess the Effectiveness of the Implementation Plan

a. How Evaluation Measures Align With the Theory of Action

As noted earlier, the theory of action articulates that if supports are provided for data-based decision making to inform intensive, individualized instruction in mathematics throughout the state, then adult behavior at the local level will change, which will help achieve positive outcomes in mathematics proficiency for Black and Hispanic students with SLDs in Grades 3–5. The evaluation measures are aligned with the theory of action by assessing how educators in schools use data-based decision making to intensify mathematics interventions.

Table 5 depicts alignment across the theory of action and maps the logic model outcomes to key measures and the data sources. Data and evidence are collected at various time points in the implementation cycle. For example, all cohort sites' needs assessments initiate their involvement

with the Math Project. Other measures (i.e., surveys and evaluations) are collected either before or after training activities. Formative and summative data are collected at meaningful time points for sites (i.e., after the administration of spring benchmarking or statewide assessments).

b. Data Quality Concerns Directly Related to the COVID-19 Pandemic

As noted throughout the report, the COVID-19 pandemic caused significant disruptions to the support and technical assistance offered by the Math Project. COVID-19 also caused disruptions in how data were collected on implementation and outcomes. The largest disruption was to the 2020 RICAS. As previously mentioned, at the beginning of this project 5 years ago, data from the 2019–20 RICAS were intended for setting a new SiMR baseline for data comparison in the final years of the project. As a result of the pandemic, RICAS was not administered in 2020, so the new baseline was not set. At the site level, implementation fidelity and universal screening data could not be gathered after February 2020, and progress monitoring data were not collected as frequently, and in limited circumstances, were not at all. In addition, even when collected, results should be interpreted with caution because they may inaccurately reflect student performance. For example, students may perform differently under different assessment conditions, which includes where/how assessments were conducted (i.e., in-person, hybrid, virtual).

Table 5. Evaluation Questions and Evidence by Logic Model Outcome Measure

Logic model outcome	Evaluation question	Previous data/evidence	Adjustments to data/evidence (because of COVID-19)	Status
Increased educator knowledge of DBI for mathematics (short term)	To what extent did educator knowledge of DBI change?	• Needs assessment • End-of-year (EOY) pulse check	• EOY pulse check • Items added to annual survey	Complete
Increased educator beliefs of DBI for mathematics (short term)	To what extent did educator beliefs about mathematics instruction change?	• Math Beliefs Survey • Data-Driven Instruction Survey	No changes	Complete
Increased educator application of skills related to DBI for mathematics (intermediate)	To what extent have intensive mathematics intervention and instructional practice changed adult behavior and practice in participating schools?	• Training evaluations • Observational tool • EOY pulse check • Training implementation surveys	No changes	Complete
Improved formative assessment outcomes for students receiving intensive mathematics	To what extent have the implementation of intensive mathematics intervention	• Universal screening data	Student-level case studies	Complete

Logic model outcome	Evaluation question	Previous data/evidence	Adjustments to data/evidence (because of COVID-19)	Status
interventions (long term)	and instruction practices improved student results?	• Progress monitoring data on student-level plans		
Improved fidelity of school-level implementation of DBI in mathematics (long term)	To what extent did schools implement DBI in mathematics with fidelity?	• Needs assessment • EOY pulse check • Observational tool	No changes	Complete
Improved LEA capacity to support, scale, and sustain improvement efforts in urban settings and with diverse populations (long term)	To what extent did LEAs increase their capacity to support, scale, and sustain improvement efforts related to high-quality mathematics instruction?	PLC capacity survey	Develop and administer an interview protocol with LEA leadership	To be completed in spring 2021
Increased parent or family awareness of intensive intervention and how to support their child (short term)	• To what extent do families report they are aware of their child's mathematics instruction? • To what extent do families report that they understand how to support their child's mathematics instruction?	• Needs assessment • EOY pulse check • Site-level dissemination of toolkit resources • RIPIN web traffic	No changes	Complete
Effective communication, coordination, and collaboration among and between RIDE initiatives (short term)	To what extent was communication effective among and between RIDE staff?	Collaboration survey	No changes	Complete
Improve the mathematics achievement for Hispanic and Black students with SLDs in Grades 3–5 by 4% by fiscal year 2018	To what extent did the intervention improve the mathematics achievement for Hispanic and Black students with SLDs in Grades 3–5 by 4% in fiscal year 2018 (schools with target population)	• Universal screening data • State assessment data	Unable to collect spring 2020 universal screening and RICAS data because of COVID-19	Unable to collect
Stakeholder engagement (peripheral)	How have stakeholders been informed and involved in decision making regarding ongoing implementation and evaluation of the project?	Stakeholder engagement survey	No changes	Complete

Logic model outcome	Evaluation question	Previous data/evidence	Adjustments to data/evidence (because of COVID-19)	Status
Stakeholder engagement (primary)	To what extent do school-level stakeholders report feeling engaged in the ongoing implementation and evaluation of the project?	EOY pulse check	Held virtual PLC session to gather input	Complete

c. Data Sources for Each Key Measure

Table 6 describes each data and evidence type presented in Table 5.

Table 6. Description of Data/Evidence

Data/evidence	Description
Needs assessment	The needs assessment is completed during the initial interview that sites undergo with project staff at the beginning of technical assistance. Responses on the needs assessment serve as a pretest to understand the degree to which the site implements mathematics instruction and data-based decision making across the tiers at the onset of participation.
EOY pulse check	The pulse check is the annual follow-up from the needs assessment. Responses on the pulse check serve as a posttest to explore the changes in DBI implementation at the end of each academic year.
Math Beliefs Survey	This survey was adapted from the Teacher Beliefs About Math Survey developed by Deborah Stipek et al. (2001) and assesses teacher beliefs or misconceptions about mathematics instruction. Educators receive a pretest and a posttest each academic year.
Data-Driven Instruction Survey	This survey is an internally developed source to assess educator beliefs about using data to inform instruction. Multiple sources were used to develop the survey, including Nancy Harris's (2011) Data-Driven Instruction Survey. Educators receive a pretest and a posttest each academic year.
Training evaluation	Training attendees evaluate each training with a short survey to assess training quality, relevancy, and the potential to influence educator practice.
Training implementation protocols (including an observational tool)	As a follow-up to trainings, implementation protocols will be designed to determine the degree to which educators implemented with fidelity the skills attained during training. Implementation protocols will be developed in the next reporting period.
Universal screening data[2]	Screening is conducted to identify students who may be at risk for poor learning outcomes so that early intervention can occur. Screening assessments typically are brief and administered with all students at a grade level. Some schools use a gated screening system, in which universal screening is followed by additional testing or short-term progress monitoring to confirm a student's risk status before intervention occurs.

[2] COVID-19 interrupted sites' ability to collect these data. We are unable to compare results in this year's report, but will examine data from Spring 2019 in comparison to Spring 2021 in next year's submission.

Data/evidence	Description
Progress monitoring data on student-level plans	Progress monitoring assesses a student's performance, quantifies his or her rate of improvement or responsiveness to intervention, adjusts the student's instructional program to make it more effective and suited to the student's needs, and evaluates the effectiveness of the intervention.
PLC capacity survey	The PLC survey assesses LEA capacity to support, scale, and sustain improvement efforts. Capacity is defined in the survey for participants as "organizational structures and processes support sustained change that ultimately leads to improved child/student outcomes" (National Center for Systemic Improvement [NCSI], 2016, p. 1).
RIPIN toolkit dissemination and use	RIPIN will developed a toolkit with guides for educators and parents/families about how to use the content for raising awareness of intensive intervention. The toolkit will be shared broadly across sites. Web traffic data will be gathered. Parent interviews will be revisited as a strategy.
Stakeholder engagement survey	Leading by Convening: A blueprint for authentic engagement developed by the IDEA Partnership and the National Association of State Directors of Special Education was adapted to assess the engagement of peripheral stakeholders.
Coordination and collaboration survey	Leading by Convening: A blueprint for authentic engagement developed by the IDEA Partnership and the National Association of State Directors of Special Education was adapted to assess coordination and collaboration across RIDE initiatives and departments.
State assessment	State assessment data are used to monitor progress toward the SiMR.

d. Description of Baseline Data for Key Measures

The Math Project team previously reported on baseline data from site needs assessments, educator beliefs about mathematics (see Math Beliefs and Data-Driven Instruction Surveys for more information), LEA capacity, training evaluations, stakeholder engagement, coordination and collaboration across RIDE initiatives, pulse checks, and screening. **This report includes baseline data on (a) Math Beliefs Survey results for educators taking the survey for the first time and (b) student-level DBI case studies for new case study students.**

Math Beliefs Survey

Aligned with the SSIP theory of action, changes in adult behaviors include their beliefs about mathematics. The Math Project administers a Math Beliefs Survey, which includes 39 items designed to assess the level of agreement regarding educators' mathematics beliefs using an agreement scale of 1 (*strongly disagree*) to 6 (*strongly agree*). Based on research conducted at the University of California–Los Angeles Graduate School of Education (Stipek et al., 2011), the survey includes items in six domain areas:

- Mathematics as a set of operations versus a tool for thought
- Correct answers versus understanding as the primary goal
- Teacher control versus child autonomy in classroom lessons
- Entity versus incremental view of intellectual ability (i.e., a fixed versus growth mindset)

- Confidence in teaching mathematics
- Enjoyment of mathematics

Within each domain, items varied in terms of whether a positive belief represented strong agreement or strong disagreement. For example, within the "enjoyment of mathematics" domain, "mathematics is my favorite subject to teach" would be one item for which a strong agreement would indicate positive belief, and for "I don't enjoy doing mathematics," strong disagreement would indicate positive belief.

For those educators across cohorts who completed the Math Beliefs Survey for the first time this school year (*n* = 74), we conducted an analysis on the items that they scored most positive and least positive. Table 7 displays those results. Overall, the responses suggest that educators have confidence in their knowledge of the mathematics content they are teaching and enjoy doing mathematics. Educators have a positive belief regarding child autonomy (e.g., observing students and listening to how they arrived at an answer) versus a teacher control approach (e.g., traditional assessment). There is divergence in their ratings regarding mindset related students' mathematical ability. Many educators indicated they believe this was "fixed" for their students, whereas others indicated agreement that this ability is something that can be changed (or grow). These responses are consistent with current research and responses from educators participating in the project at their baseline (see past submissions).

Table 7. Math Beliefs Survey Results for Respondents for 2019

Domain areas on which educators' responses were least and most positive		
Item domain	**Least positive average belief (among responding educators)**	**Most positive average belief (among responding educators)**
Mathematics as a set of operations versus a tool for thought	In math, answers are either right or wrong.	There is usually only one way to solve a mathematics problem.
Correct answers versus understanding as primary goal	It doesn't matter whether students get the right answer as long as they understand the mathematical concepts inherent in a problem.	When a student makes an error in front of the class, it is best to call on another student.
Teacher control versus child autonomy in classroom lessons	If teachers provide good instruction, all students will be able to master the general mathematics curriculum.	To assess students' mathematical understanding, it is important to observe them while they are working and to listen to their mathematical conversations.
Entity versus incremental view of intellectual ability (i.e., a fixed versus growth mindset)	Mathematical ability is something that remains relatively fixed throughout a person's life.	Mathematical ability is something people have a certain amount of, and there isn't much they can do to change it.

Domain areas on which educators' responses were least and most positive		
Item domain	**Least positive average belief (among responding educators)**	**Most positive average belief (among responding educators)**
Confidence in teaching mathematics	When my answer to a mathematics problem doesn't match someone else's, I usually assume that my answer is wrong.	I feel confident that I understand the math material I teach.
Enjoyment of mathematics	Math is my favorite subject to teach.	I don't enjoy doing mathematics.

Student-Level DBI Case Studies

As part of the summative evaluation, the Math Project's external evaluator, Evergreen Evaluation & Consulting Inc. (EEC), analyzed data to measure progress toward the Math Project's **intermediate outcome** (increased educator application of skills related to DBI for math) and **long-term outcome** (improved formative assessment outcomes for students receiving intensive math intervention). EEC examined data reported by schools from three cohorts. These data were collected using a standard template to build a student-level case. Thirteen schools identified students for the case study; however, because of COVID-19, many of the intervention plans were interrupted at the end of the 2019–20 school year. Supports for these students were shifted to virtual, but implementation data were not readily available. As previously mentioned, RICAS data are unavailable for these students, so their learning growth was not tracked across time using statewide assessment data. For this reporting period, we offer an alternative measure of progress by reporting a descriptive summary of the DBI case study participants. Table 8 summarizes the 22 student-level DBI case studies initiated in the 2019–20 school year—a threefold increase in DBI case studies from the 2018–19 school year.

Student Demographics. Across sites, we tried to identify case study students who reflected the SiMR population to demonstrate progress toward the Math Project's **long-term outcome** related to improved formative assessment outcomes for students receiving intensive mathematics intervention. In locations where students were selected for a case study but do not match the SiMR population, data revealed a need for intensive intervention and school teams determined to focus their supports on addressing their needs. The students selected for the case studies attended schools from all three cohorts, of which 17 were elementary schools and five were middle schools. One student was in Grade 1, one student was in Grade 2, three students were in Grade 3, seven students were in Grade 4, five students were in Grade 5, two students were in Grade 6, and two students were in Grade 8. Eight students were male, and 14 students were female. Table 8 summarizes information about the case study students' demographic profiles. In some instances, race/ethnicity was not initially reported on the case study template (i.e., "none specified" listed in the column). The project team is working retroactively with educators across sites to obtain complete information.

Table 8. Student Demographics

Student	Gender/grade		Race/ethnicity	MLL status	IEP status
1	Female	8	Hispanic/Latino	No	No
2	Male	8	Hispanic/Latino	No	No
3	Female	2	Hispanic/Latino	Yes	No
4	Male	3	White	No	Yes
5	Male	5	Afro-Caribbean	No	Yes
6	Female	4	None specified	Yes	No
7	Male	4	None specified	No	No
8	Female	6	White	No	No
9	Female	5	White	No	Yes
10	Male	5	White	No	Yes
11	Female	2	White	No	No
12	Female	4	Hispanic/Latino	Yes	No
13	Male	4	White	No	No
14	Female	6	White	No	No
15	Female	5	None specified	No	Yes
16	Female	3	White	No	Yes
17	Male	1	White	No	Yes
18	Female	4	Hispanic/Latino	Yes	Yes
19	Male	3	Afro-Caribbean	No	No
20	Female	5	Hispanic/Latino	Yes	No
21	Female	4	White	No	No
22	Female	4	White	No	No

Note. IEP = individualized education program; MLL = multilingual learner.

Case Study Protocol. The case study protocol included (a) identification of mathematics skill deficit areas based on screening or progress monitoring results, (b) strategies identified to address instruction and behavior, (c) progress monitoring tools used, and (d) results achieved by the students on formative assessments. Table 9 summarizes identified skill deficit areas for the students. (Note: Students may have been identified as having more than one skill deficit area.) Each deficit area is discussed in the summaries that follow.

Table 9. Identification of Mathematics Skill Deficient Areas

Identified mathematics skill deficit area	Number of students
Number sense	7

Identified mathematics skill deficit area	Number of students
Computational fluency	11
Place value understanding	5
Operational computation on whole numbers	9
Fractions	3
Word problems (additive)	1

Instructional and Behavioral Decisions (intermediate outcome). Educators developed a hypothesis from which to move forward in addressing students' areas of need. Educators described the differentiation, scaffolds, and accommodations provided for the case study students in Tier 1 instruction. These included educators working one-to-one with students, having students engage in small groups to work on specific skills, allowing extended time to finish assignments, using manipulatives, and providing directions for tasks in multiple ways (e.g., reading aloud). Educators also described strategies related to managing students' behavior during mathematics instruction. One noted incorporating movement breaks into the lesson design, and another described seating a student away from peers to help that student focus on the activities.

To support their students, educators then selected a Tier 2 intervention to implement with fidelity. Some of the interventions described were specific strategies, such as accessing manipulatives, using arrays and representations, and daily practice with subtraction regrouping within the mathematical problem. Several educators noted instructing in small-group settings as a strategy, and others used specific interventions, such as PALS Math, Strategic Math Series, or Bridges Math Intervention, to support student learning.

Family Engagement (short-term outcome). As part of the case study for each student, educators reflected on how families might be engaged in supporting their student's learning. Seven case studies provided information about strategies related to involving families. Of the seven case studies, six discussed the forms of communication used to involve parents in the intervention process and include them in the supporting their child engage in the mathematics. One case study described the crucial partnership created between educators and parents in spring 2020 to support their students' continued growth in mathematics during the pandemic.

e. Data Collection Procedures and Associated Timelines

After finalizing the appropriate data sources to assess logic model outcomes, the project team established data collection procedures and timelines (Table 10). AIR leads the effort to collect all data on a consistent and timely basis. Prior to reporting submissions, the external evaluator (EEC) provides supports by aggregating and analyzing the data.

Table 10. Timeline for Data Collection

Data/evidence	Timeline
Needs assessment	Frequency: once Timeline: fall
EOY pulse check	Frequency: annually Timeline: April–May
Math Beliefs Survey	Frequency: preassessment once/postassessment annually Timeline: prior to coaching or training/late spring
Data-Driven Instruction Survey	Frequency: preassessment once/postassessment annually Timeline: prior to coaching or training/late spring
Training evaluation	Frequency: after each training Timeline: ongoing
Observation/fidelity tool	Frequency and timeline to be determined during the next reporting period
Universal screening data	Frequency: annually Timeline: ongoing throughout the school year
Progress monitoring data on student-level plans	Frequency: annually Timeline: ongoing throughout the school year
PLC capacity survey	Frequency and timeline to be determined during the next reporting period
Parent and family awareness activities (i.e., site-level dissemination and tracking of toolkit downloads)	Frequency: annually Timeline: winter
Stakeholder engagement survey	Frequency: annually Timeline: winter
Coordination and collaboration survey	Frequency: annually Timeline: fall
State assessment data	Frequency: annually Timeline: late spring

f. Sampling Procedures [If applicable]

Regarding the SiMR target population, no sampling procedures are used. Black and Hispanic students with SLDs represent a small number of students throughout the state, and the focus on improving their mathematics outcomes remains relevant to RIDE, SSIP implementation sites, and stakeholders.

g. Planned Data Comparison [If appropriate]

The goal for this report was to compare data across time on individual students who are tracked through the case study approach using the DBI process to determine if students are making progress toward the intervention goals. Unfortunately, because of COVID-19, no RICAS

data were available for the 2019–20 school year, so those data were unavailable for tracking and reporting purposes.

h. How Data Management and Data Analysis Procedures Allow for Assessment of Progress Toward Achieving Intended Improvements

As previously stated, the RICAS assessment was not administered during the 2019–20 academic year, so no data were available on RICAS achievement growth for participating students. Because of the inability to administer the RICAS assessment, the state provided LEAs with access to two different interim assessments if they did not already have a mechanism in place to collect these data. The selected assessment measures were STAR Math and iReady, and LEAs were able to use them at the start of the 2020–21 school year. With these options, RIDE could provide information on interim student performance across these two measures in LEAs where these data were collected and included in the state's system. Some LEAs already had their own systems in place using these or different tools, so their data were not automatically reported to the state. In lieu of statewide assessment data, we include information about student performance on STAR Math and iReady for students matching the SiMR population at the fall 2020 administration (winter benchmark data are still being analyzed) for districts that participated in the interim assessment opportunity.

iReady Assessment

As of the fall 2020 administration of the iReady Math assessment, 15% of Grade 3, 19% of Grade 4, and 23% of Grade 5 students were at grade level (i.e., meeting grade-level benchmarks identified by the assessment) in schools participating in the Math Project. By instructional model, 20% of in-school, 22% of fully remote, and 27% of hybrid students were at or above grade level. Across Grades 3–5, 22% of students were at grade level or above, 8% of students with individualized education programs (IEPs) were at grade level or above, and 13% of Black and 17% of Latino students were at grade level or above. Black and Latino students make up 30% of those assessed.

STAR Math Assessment

As of the fall 2020 administration of the STAR Math assessment, 56% of Grade 3, 55% of Grade 4, and 52% of Grade 5 students were at or above benchmark level (i.e., meeting grade-level benchmarks identified by the assessment) in schools participating in the Math Project. By instructional model, 50% of in-school, 56% of fully remote and, 58% of hybrid students were at or above benchmark. Across grades, 11% of students with IEPs were at or above benchmark, and 42% Black and 41% of Latino students were at or above benchmark; 45% of the total group was assessed.

As data are collected and analyzed, RIDE is currently embarking on deep data analysis with existing RICAS, DLM, PSAT, and SAT data coupled with LRE, graduation, attendance, and discipline data to engage in stakeholder input sessions around future SSIP areas of focus and SiMR outcomes. The goal is to present a data visualization much like what has been done for RI's MLL population, which will serve to drive strategic planning for students with disabilities.

2. How the State Has Demonstrated Progress and Modified the SSIP (As Necessary)

a. How the State Reviewed Key Data That Provide Evidence Regarding Progress Toward Achieving Intended Improvements to Infrastructure and the SiMR

The Math Project team (site coaches and formative evaluation lead) meets on a weekly basis to provide site-level updates so that coaches can learn from one another about any successes and/or challenges faced in implementation, which allows the evaluation coordinator to ensure the timeliness of data collection. In addition, during the school year, the SSIP core team collaborates to review any recent data and determine if any midcourse corrections are needed for implementation and/or evaluation activities. RIDE and AIR also analyze additional data available on RIDE's accountability report card to look for patterns across SSIP participating sites, as well as more broadly across the state. Interesting and relevant findings for the SSIP are shared with the leadership PLC to help generate discussion about ways to continuously improve and align this work with other state-level work.

b. Evidence of Change to Baseline Data for Key Measures

The key measures evaluated this reporting period and compared (where possible) with baseline data from last year's submission include the following:

- Student-level DBI case studies
- Parent and family awareness
- LEA capacity
- Math Beliefs Survey
- Data-Driven Instruction Survey
- Training evaluations
- Peripheral Stakeholder Engagement Survey
- Collaboration and Communication Survey (internal RIDE survey)
- EOY pulse check

Student-Level DBI Case Studies

Section C.1.d provides information about the 22 students for whom DBI case studies were implemented from the previous reporting period (April 2019) through the end of the 2019–20 school year. As noted, COVID-19 significantly impacted implementation fidelity and data collection at the end of last school year. Following is an analysis of the data from when DBI case studies started to just prior to when implementation/data collection was interrupted (unless otherwise noted).

Progress Monitoring Results (long-term outcome). A critical component of the student case study was to select and implement a progress monitoring tool to track growth in students' mathematical skills and abilities. Tools used to monitor students' progress were iReady, AIMSweb, STAR Math, Monitoring Basic Skills Progress (MBSP), and Curriculum-Based Measures (Easy CBM). The frequency with which the assessments were conducted varied according to the student deficit areas being targeted and the progress monitoring measure's administration recommendations. For example, MBSP is administered weekly, whereas STAR Math typically is administered monthly. The following summarizes student progress toward ambitious goals (i.e., more than a year's worth of growth in a year to close gaps). The impacts of COVID-19 on each student's progress also is detailed in these summaries.

- **Student 1 (urban middle school)** made moderate growth but did not make ambitious growth toward the benchmark as of February 2020. There were plans to intensify intervention supports, but school closures interrupted the plan.
- **Student 2 (urban middle school)** made ambitious growth toward the benchmark through the pandemic. The educator, student, and family made the student's success in eighth grade a priority regardless of the distance learning impact. They stayed in contact on a weekly basis to ensure that all work was completed and understood. The student increased two percentiles in mathematics during the spring 2020 virtual instruction.
- **Student 3 (suburban elementary).** Progress monitoring data were not reported for the student. The focus of the case study was on Tier 1 supports involving Math Workshop.
- **Student 4 (suburban elementary).** As of February 2020, it was reported that the student was making low growth on AIMS Web Number Sense Fluency.
- **Student 5 (suburban middle)** made emerging growth on the AIMS Web Number Sense Fluency measure prior to March 2020.
- **Student 6 (urban ring elementary)** demonstrated ambitious growth in both measures for computation and concepts and application prior to March 2020, but with school closures and a lack of virtual engagement, growth could not be determined.

- **Student 7 (suburban elementary)** demonstrated ambitious growth from fall 2019 to winter 2020. There was dip in the student's progress after the February vacation, but the student was able to recover after consistent instruction. Growth could not be determined after this time because the student would not engage in virtual learning, and after multiple attempts to contact the parents, they asked school staff to stop contacting them.
- **Student 8 (urban ring middle)** made ambitious growth as of March 2020. The student continued to engage virtually, mastering whole number computation, and moved to rational number understanding, but no official progress monitoring data were collected for the new skill.
- **Student 9 (suburban elementary)** made ambitious growth as of March 2020. The student continued to engage virtually, but supports focused on accessing core, Tier 1 instruction.
- **Student 10 (suburban elementary)** made ambitious growth as of February 2020. The student met the whole number computation goal and was shifting to a focus on fractions. No data were collected during spring 2020 after shifting to virtual instruction.
- **Student 11 (suburban elementary)** made ambitious growth as of March 2020. During school closures, interventions did not take place because the educator's role shifted.
- **Student 12 (urban ring elementary)** made ambitious growth as of March 2020 and then stayed stable during school closures. The educator had to shift the progress monitoring tool used to ensure accessibility and accuracy virtually, which makes it challenging to determine growth between measures. In addition to the progress monitoring measure, the style of intervention and the material presented had to shift based on time constraints and resources.
- **Student 13 (urban ring elementary)** made minimal progress throughout the 2019–20 school year on AIMSWeb Number Sense Fluency. As of March 2020, the intervention plan was no longer implemented. The educator continued to support the student with accessing Tier 1 instruction, but the student continued to struggle.
- **Student 14 (suburban middle)** was not making progress as of March 2020. Intensification plans were established but not implemented because of the school closure and a lack of time and resources in virtual learning. The educator focused on supporting the Tier 1 instruction and did not have the capacity to provide intervention.
- **Student 15 (urban ring elementary)** made moderate progress as of January 2020. The team had plans to come back to together after a training and establish intensification strategies, but it was halted.

- **Student 16 (urban ring elementary)** almost made ambitious growth as of January 2020. The student's scores were inconsistent on STAR Math and the targeted MBSP Computation. There were plans to dig into the data for error analysis, but the schools closed, intervention supports were halted, and the educator went out on maternity leave.
- **Student 17 (urban ring elementary)** made ambitious growth with computation but continued to struggle with number discrimination and orientation language. Support continued virtually through the pandemic, with slight adaptations to the approach and dosage because of limited resources and restrictions.
- **Student 18 (urban ring elementary)** made moderate growth as of January 2020. Intensification plans were established but not implemented because of school closures. The student did not engage in virtual learning for 2 months.
- **Student 19 (urban ring elementary)** did not make ambitious growth on MBSP, and no goal was set in STAR Math. Intensification plans were halted with the COVID-19 pandemic, and the student had inconsistent attendance and lack of engagement on virtual platforms.
- **Student 20 (urban ring elementary)** made ambitious growth on two measures as of February 2020. The student was very overwhelmed by distance learning and struggled to attend online intervention sessions offered in addition to Tier 1 instruction. The educator supported the student on the weekends with completing any Tier 1 mathematics work that the student was missing or struggled with. This worked best for the student and had an impact on growth and success.
- **Student 21 (suburban elementary)** made moderate growth prior to the school closures and continued to engage in online asynchronous mathematics platforms. Further growth could not be determined for spring 2020 because of restrictions and limited resources.
- **Student 22 (suburban elementary)** made moderate growth prior to the school closures. The student did not engage in virtual support for 2 months, but then met 4 days per week for 30 minutes with a focus on supporting Tier 1 core mathematics instruction. Further growth could not be determined for spring 2020 because of restrictions and limited resources.

Table 11. Number of DBI Case Study Students by Level of Growth Through February/March 2020

Level of growth	Number of students (*N* = 22)
Ambitious growth	10

Level of growth	Number of students (*N* = 22)
Moderate growth	7
Low/emerging growth	3
No growth	2

Note. Lack of growth may be explained by COVID-19's impact on educators' ability to intensify supports or collect data after an initial goal was set.

In line with Rhode Island's SiMR goals, of the 15 students identified with an IEP, as a multilingual learner, and reported ethnicity as Black, African American, or Hispanic/Latino, **seven students made ambitious growth, and four students made moderate growth** prior to the impact of COVID-19 on intervention implementation and/or progress monitoring data collection. Seven of the 22 students did not identify as having any of the characteristics identified in Rhode Island's SiMR goals. The goal is to continue, as possible, case studies with these 22 students during the 2020–21 school year to determine the impact of COVID-19 on student learning and ways in which the project can support educators with accelerating their learning—especially in mathematical domains where students are struggling to make gains across time.

Parent and Family Awareness

As described in last year's submission, we worked with RIPIN to develop online toolkits covering content related to intensive intervention—one intended for use by educators and the other intended for use by parents and families. This report presents website analytics from last reporting period through February 28, 2021.

Across the two toolkits, 17 resources are available, with 134 unique pageviews across the resources. The resource with the highest number of pageviews (*n* = 61) was *Evidence-Based Math Strategy* (Retrieved from Understood.org). Users spent an average of 37 seconds during their pageviews. Although this may seem low, the intention is for educators and/or parents to access downloadable resources rather than use the toolkit resources directly from the website. The resources that users averaged longer times on the page were as follows: (a) *Intensive Intervention: A Practitioner's Guide for Communicating with Parents and Families* (Marx et al., 2018) and (b) *Evidence-Based Math Strategy*. Because of the COVID-19 pandemic, many educators were seeking resources and tools to share with parents and families on how best to support their children while learning at home. As a result, **pageviews increased by 41% from last year's reporting period** on the topics of intensive intervention support, growth mindset for parents, and understanding your child's mathematics struggles.

LEA Capacity

Baseline data of LEA capacity were reported last year through a survey to measure progress toward the Math Project's **long-term outcome** (improved LEA capacity to support, scale, and sustain improvement efforts in urban settings and with diverse populations). The purpose of the survey was to gain a self-reported, retrospective understanding of LEA capacity (defined as "organizational structures and processes support sustained change that ultimately leads to improved student outcomes" [NCSI, 2016, p. 1]) related to data-driven, tiered mathematics instruction. To limit the amount of data collection demands from this project on top of other responsibilities during the pandemic, the Math Project team opted not to send the LEA capacity survey, so no comparison data are available. Because this is the final year of the project, qualitative interviews are being planned and will be conducted in late spring or early summer 2021 by the external evaluator (EEC) to gather robust detail on how the Math Project has supported LEA capacity. The interview prompts will mirror the survey questions but will probe deeper. These data also will inform the state as the state determines next steps related to implementation and evaluation.

Math Beliefs Survey

The Math Beliefs Survey has been administered to educators across the SSIP sites for the past 4 years, with 2017 serving as the baseline data point. One hundred twenty-two educators completed the survey this year. For the purpose of SSIP reporting, we compared the results for those who took the survey in 2017 and in 2020 to determine progress from the baseline for the measure. Five educators had scores that could be matched for this analysis. The results indicate that all educators who took the survey in both years (100%) improved on at least one of their ratings. The level of improvement ranged from one educator who improved on 11 items to one who improved on 24 items. Tables 12 and 13 present details of the level of improvement—in this case, the number of survey items on which educators improved—as well as the domains in which the educators improved.

Table 12. Math Beliefs Survey Results by Number of Items Improved/Maintained/Decreased

Improved in ratings			
1–9 items	**10–19 items**	**20–29 items**	**30–39 items**
4 educators	1 educator	0 educators	0 educators
Maintained ratings			
1–9 items	**10–19 items**	**20–29 items**	**30–39 items**
0 educators	4 educators	1 educator	0 educators
Decreased* in *ratings			
1–9 items	**10–19 items**	**20–29 items**	**30–39 items**

Improved in ratings			
2 educators	2 educators	1 educator	0 educators

As described previously, each educator demonstrated improved ratings from 2017 to 2020. To further explore the data, we conducted an analysis of the Math Beliefs Survey results by domain area (Table 13). For 2020, the domain area on which the highest percentage of educators improved their ratings was "enjoyment of mathematics" (66.7%). The domain addressing "teacher control versus child autonomy in classroom lessons" is the one in which fewer educators made improvements on their ratings (33.3%). Also depicted in Table 13 are results from the 2019 survey results. On all but one domain, educators maintained or increased their positive belief ratings. "Enjoyment of mathematics" and "confidence in teaching mathematics" were domains in which the most positive increases were reported (20.6% to 66.7%, and 30.2% to 50%, respectively).

Table 13. Average Percentage of Educators Who Improved Their Ratings From Baseline by Domain (2019 and 2020)

Math Beliefs Survey item domain	Average percentage of educators with improved ratings from baseline	
	2019	**2020**
Correct answers versus understanding as primary goal	36.7%	36.7%
Mathematics as a set of operations versus a tool for thought	32.1%	46.7%
Enjoyment of mathematics	20.6%	66.7%
Entity versus incremental view of intellectual ability (i.e., a fixed versus growth mindset)	30.2%	46.7%
Confidence in teaching mathematics	30.2%	50.0%
Teacher control versus child autonomy in classroom lessons	43.5%	33.3%

In addition to analyzing progress from the baseline for the Math Beliefs Survey results, we conducted an analysis of progress from 2019 to 2020 (year to year) for those who completed the survey in each year. Table 14 summarizes the results for the 31 educators included in this set.

Table 14. Average Percentage of Educators Who Improved Their Ratings by Domain (2019 to 2020)

Math Beliefs Survey item domain	Average percentage of educators with improved ratings from 2019 to 2020 (year-to-year progress)
Correct answers versus understanding as primary goal	25.8%
Mathematics as a set of operations versus a tool for thought	25.1%

Math Beliefs Survey item domain	Average percentage of educators with improved ratings from 2019 to 2020 (year-to-year progress)
Enjoyment of mathematics	31.4%
Entity versus incremental view of intellectual ability (i.e., a fixed versus growth mindset)	20.6%
Confidence in teaching mathematics	28.7%
Teacher control versus child autonomy in classroom lessons	28.0%

Data-Driven Instruction Survey

One hundred twenty-two educators completed the Data-Driven Instruction Survey. Seventy-four of the 122 respondents (60.7%) completed this survey for the first time. Table 15 represents the weighted averages (Likert-type scale from 1 to 5) across 12 items. In all but two items, educators who have participated with the project for a longer amount of time rated themselves higher. The two items where new participants indicated higher weighted averages were (a) I use assessment results to measure the effectiveness of my math instruction and (b) I make changes to my math instruction based on formative assessment results. These findings are not surprising because many individuals rate themselves higher at initial implementation because they unaware of what they do not know.

Table 15. Data-Driven Instruction Survey Results

Item	New participants (*N* = 74)	Recurring participants (*N* = 48)
Overall, I am confident in my ability to interpret student data.	4.71	5.11
I am confident in my ability to use student data to inform my decisions about how students are performing.	4.76	5.11
I am confident in my ability to use student data to inform instructional decisions I make in my classroom.	4.73	5.11
I am confident in my ability to communicate data related to student performance to teachers, students, and parents.	4.74	5.07
I use assessment data to identify students who are having difficulty learning math.	5.02	5.09
I know what instructional changes to make when data show that students are not successful in math.	4.29	4.73
I use assessment results to measure the effectiveness of my math instruction.	4.9	4.85
I use student data to verify my hypotheses about the causes of student behavior and math performance.	4.29	4.62
I have clear criteria for determining student success in completing instructional activities in math.	4.49	4.72

Item	New participants (*N* = 74)	Recurring participants (*N* = 48)
I make changes to my math instruction based on formative assessment results.	5.15	5.07
I make changes to my math instruction based on summative assessment results.	4.83	4.87
I use student data from math assessments to set instructional targets and goals for students.	4.88	5.02

Training Evaluations

Between March 2020 and February 2021, the Math Project offered 17 online learning opportunities for educators. Because of COVID-19 and all sites transitioning to distance learning, the Math Project developed learning modules about implementing mathematics curriculum virtually. There were newly created modules on how to conduct virtual screening and progress monitoring and implementing Number Talks virtually. The evidence-based mathematics resources virtual trainings hosted by Dr. Sarah Powell were recorded and offered as a learning module for educators. These online learning opportunities were offered as asynchronous training opportunities for educators to receive PLU credit.

For each module, a common evaluation form was used to collect data on the quality and relevance of the session as well as the extent to which participants gained understanding of the skills addressed in the session and their intent to apply those skills in their daily practices. Respondents rated their level of agreement with statements using strongly agree, agree, disagree, or strongly disagree. For the purposes of analysis, we calculated an overall agreement percentage by aggregating the item responses of strongly agree and agree for each professional learning session. Statement and agreement rates are as follows:

- "Based on the information shared in the module, I feel better equipped with various strategies to support my struggling learners." **90% agreement**
- "I understand how to incorporate the training module content into core math instruction." **95% agreement**
- "After completing the self-paced training module, I feel confident in various strategies to promote the content from the module." **95% agreement**

Respondents also rated the level of relevance of module content with statements using very relevant, relevant, slightly relevant, or not at all relevant. For the item, "How relevant was this training module to your current need in enhancing core math instruction," **100% of educators rated the module content as relevant or very relevant.**

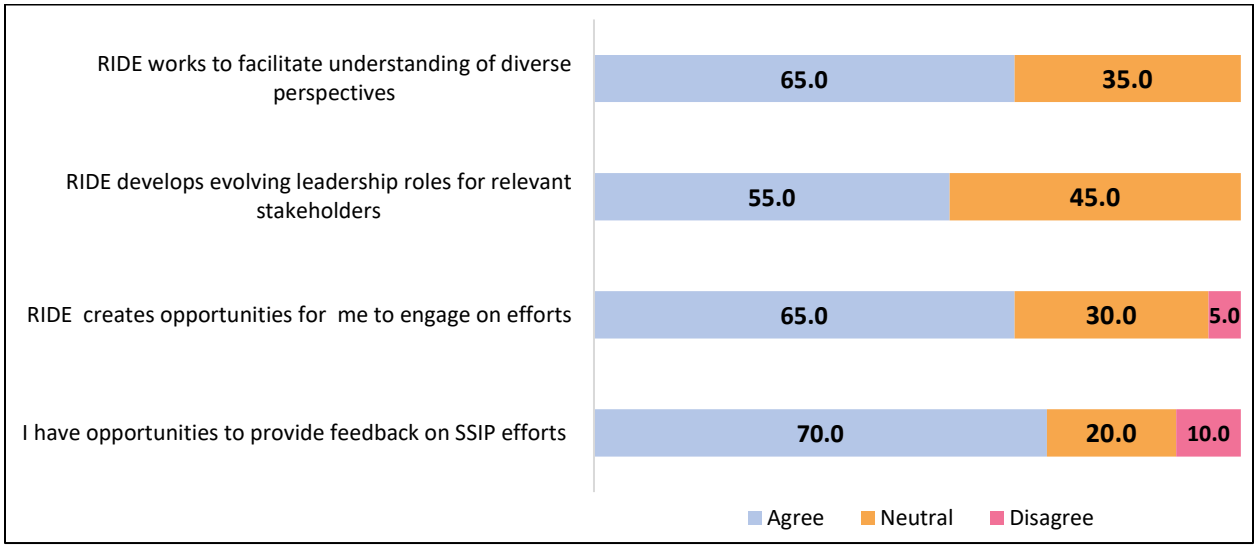
Peripheral Stakeholder Engagement Survey

To further assess the relationship and enhance the understanding between broader environmental awareness of the SSIP and student performance, the Math Project in this cycle sent out a Stakeholder Engagement Survey.

Data to inform the performance measure regarding peripheral stakeholder engagement was collected via a survey to assess the extent to which RIDE engages relevant stakeholders—those who broadly have an interest in/awareness of the SSIP but may not work closely with implementation/evaluation activities. The survey was sent to a broad range of stakeholders in late December 2020, and 20 responses were received from representatives from LEAs, schools, charter schools, and advisory council members.

The possible ratings for each survey item were strongly agree, agree, neutral, disagree, and strongly disagree. For the analysis, we combined the ratings of strongly agree and agree into an overall agreement percentage and the ratings of strongly disagree and disagree into an overall disagreement percentage. As depicted in Figure 3, a high number of stakeholders agreed that they had opportunities to provide feedback SSIP efforts (70.0%). More than half of the stakeholders agreed that RIDE works to facilitate understanding of diverse perspectives and creates opportunities for engagement (65%).

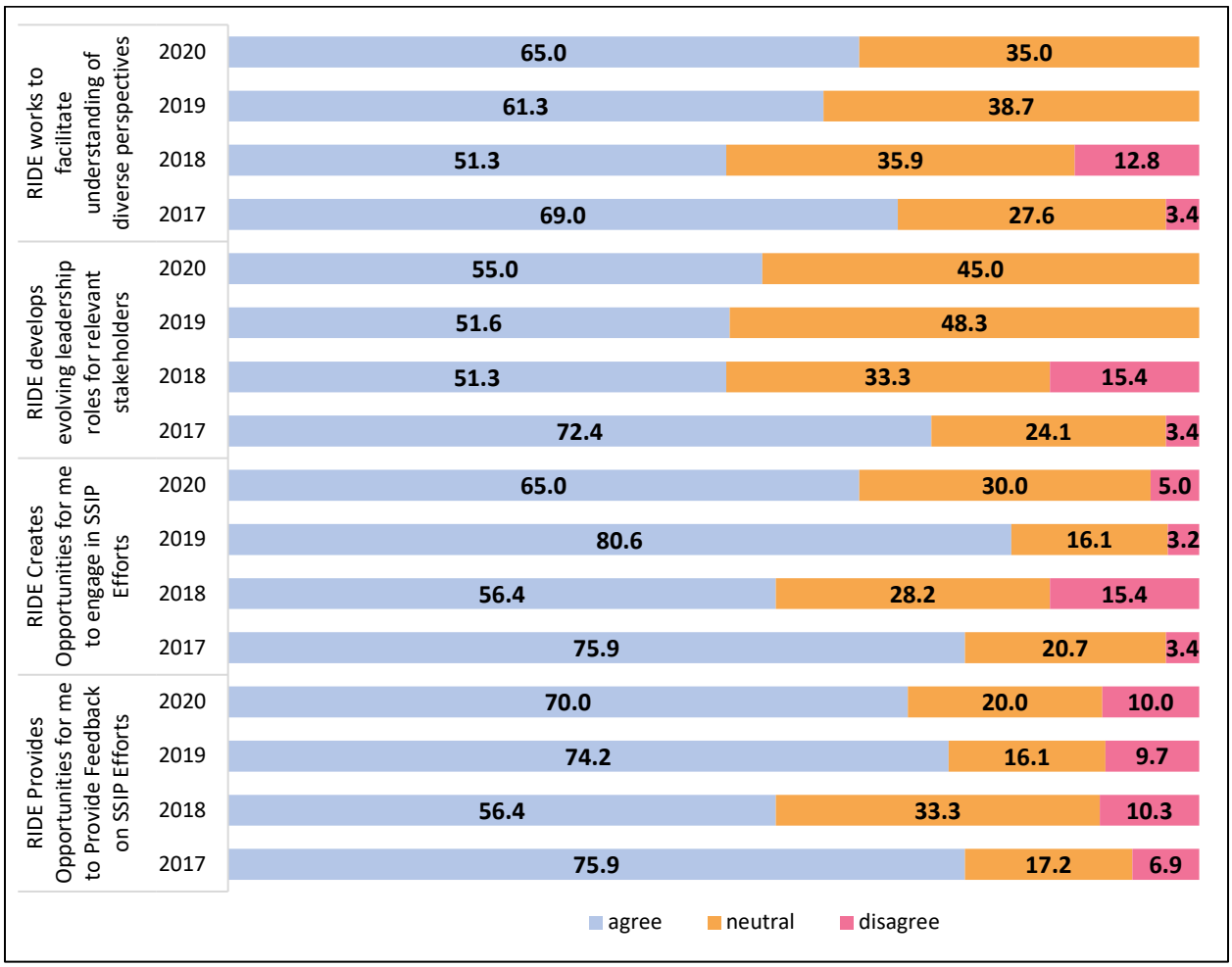
Figure 3. 2020–21 Ensuring Relevant Participation Responses by Percentage Agreement/Disagreement/Neutral (*n* = 20)



For all three survey administrations, little disagreement occurred about the aspects of relevant participation; however, several respondents indicated neutrality, which was particularly true for the item regarding "evolving leadership roles" that had a higher percentage of neutral responses in each survey administration. Results for each annual survey indicate that the

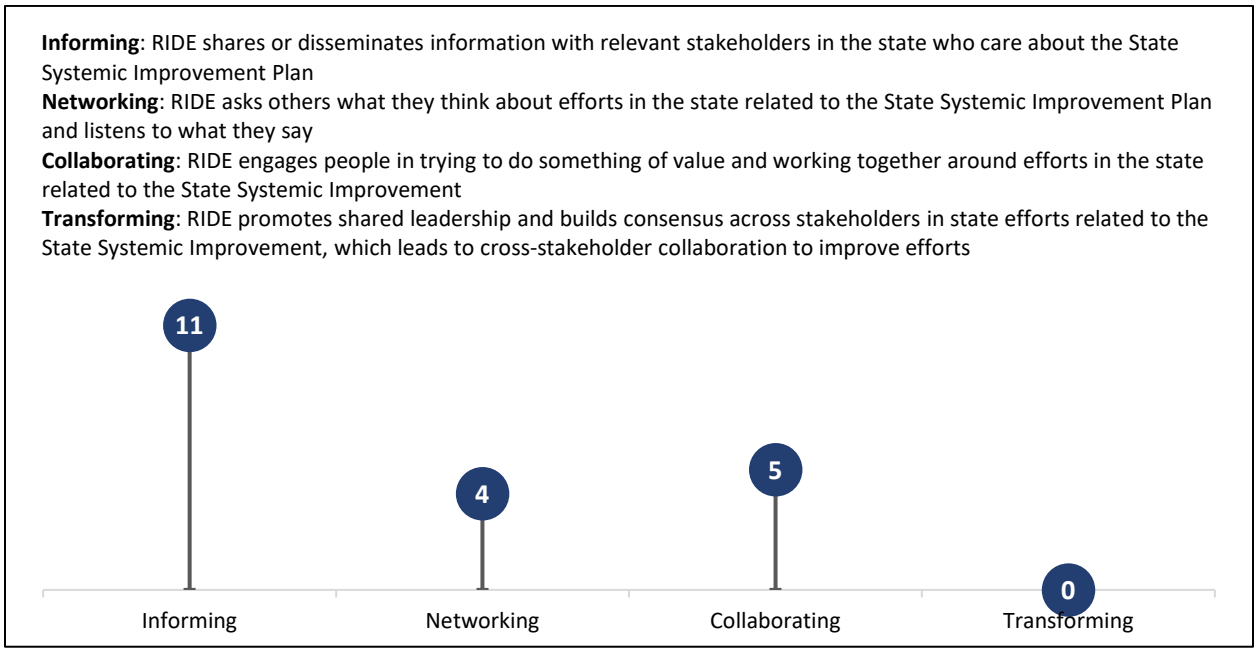
majority of stakeholders agree that they have been provided opportunities to provide feedback and engage in SSIP efforts.

Figure 4. 2017, 2018, 2019 and 2020 Ensuring Relevant Participation Responses by Percentage Agreement/Disagreement/Neutral



The stakeholders also rated their perception of the level of engagement related to SSIP activities. The item response options were informing, networking, collaborating, and transforming, with each option defined for the respondents. The results for this survey item appear in Figure 5, as is the definition of each response item. It is clear that many stakeholders (11) perceived that they are informed about SSIP efforts. Nearly half of the responses (nine) indicate that stakeholders consider they are listened to (*n* = 4), and engagement related to SSIP efforts is valuable (*n* = 5).

Figure 5. 2019–20 Perception of Engagement (*n* = 20)



Communication and Collaboration Among and Between RIDE Initiatives

In December 2020, a survey was sent to personnel from several departments within RIDE, including OSCAS, where the SSIP work is housed. Eighteen staff members completed the survey. The survey addressed the performance measure regarding effective communication and coordination of SSIP activities and various RIDE initiatives. Details about the departments or organizations represented by the respondents and their general roles are in Tables 16 and 17. Please note that a direct comparison to personnel who previously participated in the survey is not possible due to anonymity of survey responses. In addition, RIDE experienced significant turnover agency-wide at the specialist and leadership levels, which may have resulted in different/lower scores than in previous years.

Table 16. Respondents by Department

Respondents by department	Total
OSCAS	7
Systems of Support	3
Office of College and Career Readiness	2
Office of Instruction, Assessment and Curriculum	2
Division of System Transformation	1
School Improvement	1
Office of Educator Excellence & Certification	1
RIDE	1

Respondents by department	Total
Total responses	**18**

Table 17. Respondents by Role

Respondents by role	Total
Specialist	15
Other	2
Leadership	1
Total responses	**18**

The survey included items addressing the extent to which personnel agreed that they were **informed and engaged in SSIP activities** and the extent to which **an understanding of diverse perspectives and evolving leadership was facilitated** throughout the process. The possible ratings for each survey item were strongly agree, agree, neutral, disagree, and strongly disagree. For the purpose of analysis, we combined the ratings of strongly agree and agree into an overall agreement percentage, and we combined the ratings of strongly disagree and disagree into an overall disagreement percentage. As depicted in Figure 6, most respondents agreed with these aspects of ensuring relevant participation in the SSIP activities. The highest agreement levels were related to **facilitating understanding of diverse perspectives** (83.3%). The majority of personnel agreed that there were **opportunities to provide feedback, engage in SSIP efforts** overall, and they had opportunities to **engage in a leadership roles** (61.1%).

Figure 6. 2020 Ensuring Relevant Participation Responses by Percentage Agreement/Disagreement/Neutral (*n* = 18)

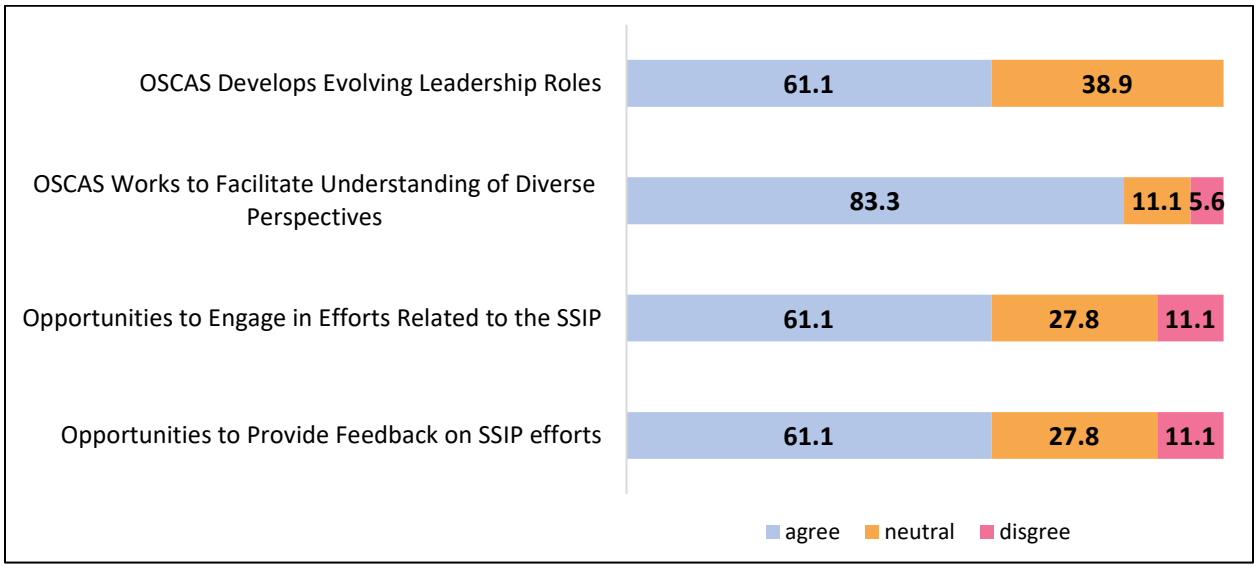
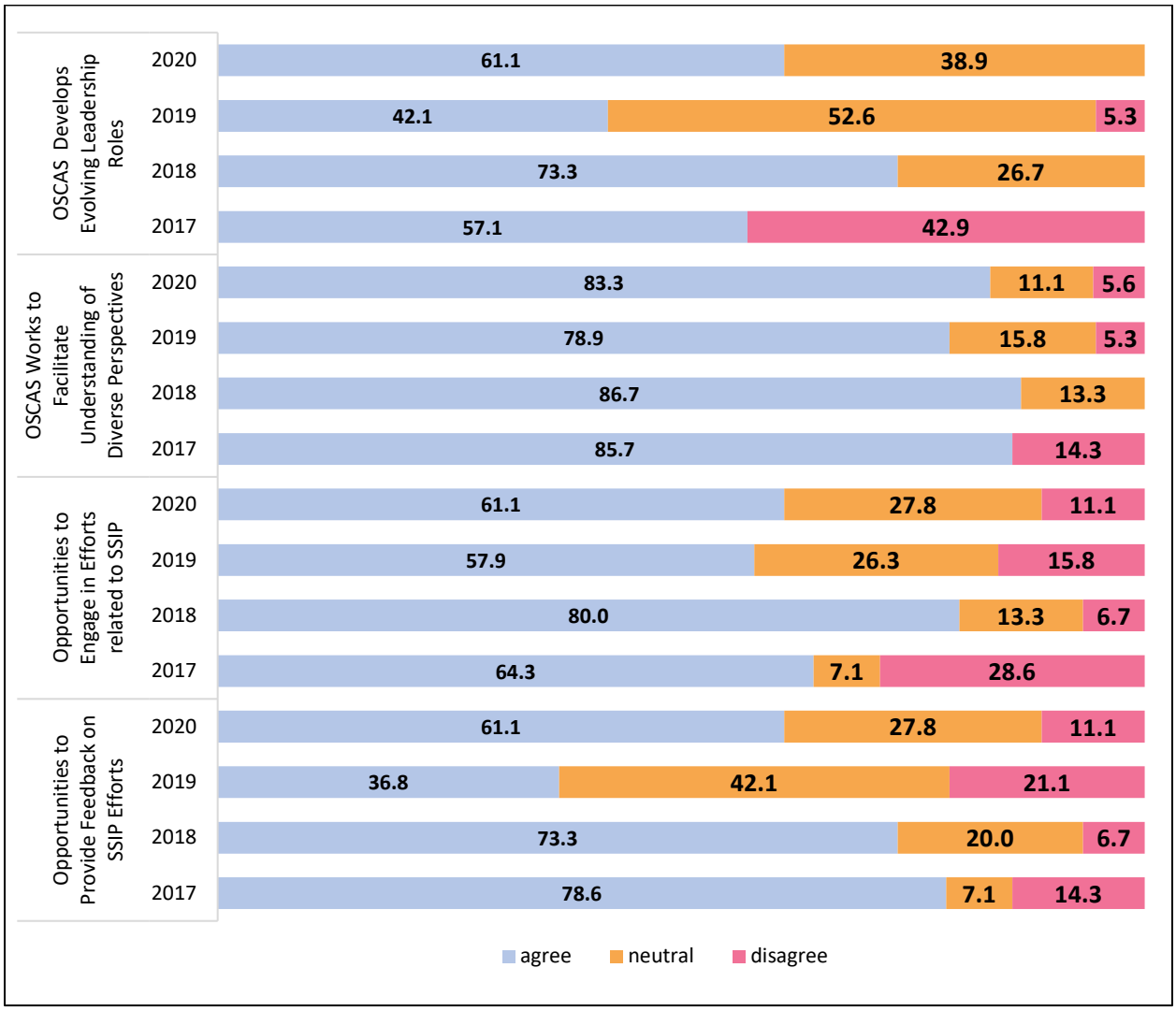


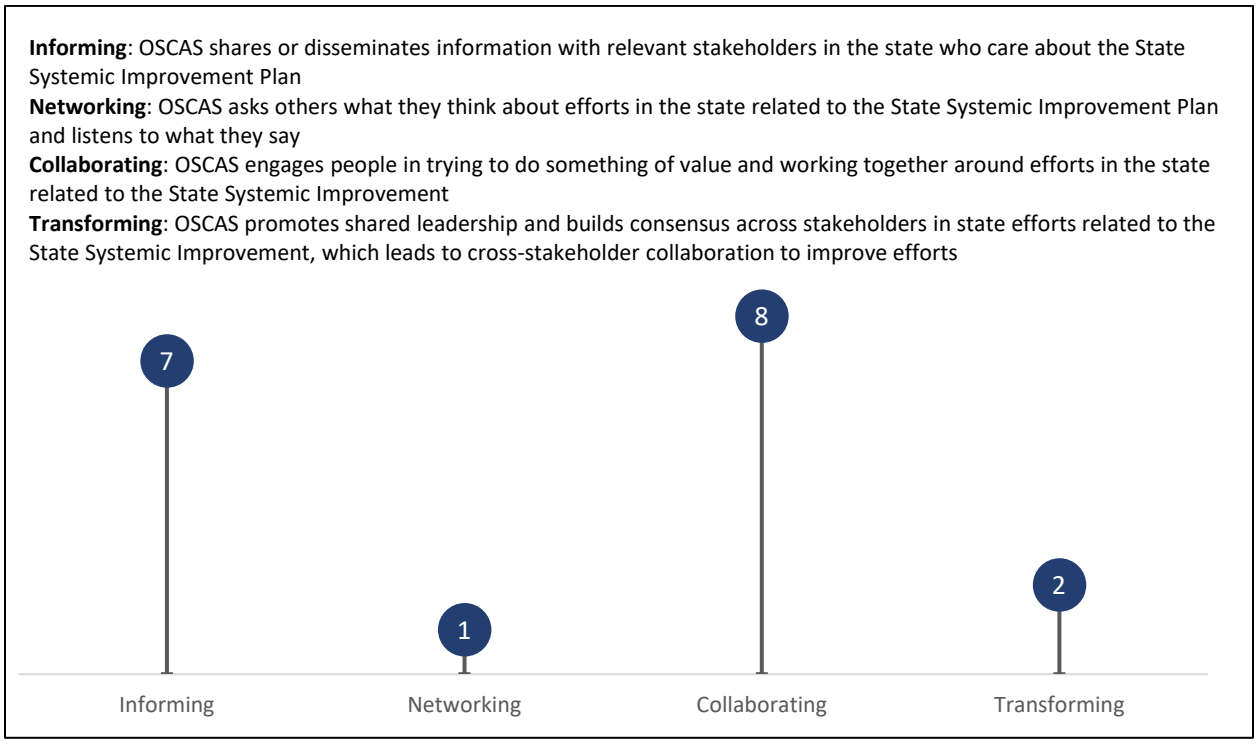
Figure 7 summarizes the responses from the three collaborator survey administrations. The item regarding opportunities to provide feedback had the lowest agreement rating in 2019 but much higher agreement in the current survey administration (36.8% to 61.1%). The item regarding facilitating understanding of diverse perspectives remained the highest rated each year (85.7%, 86.7%, 78.9%, 83.3%, respectively).

Figure 7. 2017–2020 Ensuring Relevant Participation Responses by Percentage Agreement/Disagreement/Neutral



Respondents also rated their perception of the **level of engagement** at RIDE regarding the SSIP activities. The response options were informing, networking, collaborating, and transforming, with each option defined for the respondents. The results, as well as the definition for each option, appear in Figure 8.

Figure 8. 2020 Perception of Engagement Level by Number of Responses (*n* = 18)



Pulse Check

As part of the support and planning with cohort sites, Math Project staff conduct an EOY pulse check at each site to explore the changes in previous years. Because the pulse check could not be done in-person during this reporting period, the items were included as part of a larger survey. The pulse check measured **short-term and intermediate outcomes** on a five-point Likert-type scale.

For this report, we present weighted average responses to each survey item in Appendix B. One hundred twenty-two participants completed the survey items aligned with the EOY pulse check. Of these, 74 took survey for the first time, and 48 were returning participants who completed the pulse check at least one other time during the project. We typically compare growth across time from baseline, but COVID-19 affected our ability to administer surveys at the same time as in past years, so we are unable to report comparative data in this report. Plans to examine data comparatively are in place and will be included in subsequent reports. In addition, we cannot guarantee that these results accurately reflect "typical" responses because participants may have rated items in relationship to current, pandemic-influenced implementation. To determine potential impacts of COVID-19 on a school's ability to provide intensive mathematics intervention, we included a survey item, "We can't have regular math intervention activities due to COVID." Both new and returning participants rated this item the lowest of all survey

items (2.59 and 2.5, respectively), suggesting that COVID-19 impacted a school's ability to deliver intervention in mathematics intervention.

Knowledge of Intensive Intervention. Items analyzed in this domain included prompts related to knowledge of implementation, strategies to identify to students in need of intensive intervention, the purpose of progress monitoring and diagnostic data, and developing student-level plans. On all seven items related to participants' ratings of their knowledge of intensive intervention, returning participants rated themselves higher (3.85) than new participants did (3.40). The item with the largest difference between means was the prompt "There is a difference between progress monitoring and diagnostic assessment data" (new = 4.22; returning = 3.52), suggesting that returning participants better distinguish between types of data used within the DBI process to support intensive intervention implementation.

Implementation of Student Plans. Items analyzed in this domain included prompts related to school schedules, resources, and cultural and linguistic considerations when selecting interventions and assessments. Across these seven items, new participants rated themselves higher (3.27) than returning participants (2.76). Although these data may seem surprising or contradictory to what we should expect, they suggest that new participants may not understand the full complexity of intensive intervention implementation, resulting in their higher ratings.

Parent and Family Involvement. Three items from the EOY pulse check measure parent and family involvement in intensive intervention and communication about student progress. For the two items related to communication, new participants rated themselves higher (3.44; 3.46) than returning participants did (3.14; 3.23). On the item related to parents being invited as active participants in mathematics intervention planning, returning participants rated their agreement higher (2.98) than new participants did (2.76). There are not large differences in means noted when comparing results between new and returning participants. Communication, overall, is reported higher than parents being invited to participate in mathematics intervention planning. Parent and family involvement in intensive intervention continues to be a priority to the Math Project.

c. How Data Support Changes Made to Implementation and Improvement Strategies

The impact of COVID-19 far outweighed any impacts of data on changes made to implementation and improvement strategies. The primary change was the complete overhaul of technical assistance, training, and coaching from in-person/hybrid to a fully virtual model.

d. How Data Are Informing Next Steps in the SSIP Implementation

Although COVID-19 impacted many aspects of implementation and evaluation, it also presented some silver linings. Namely, this is the first time in state history where interim data

(see Section C.1.h) are being collected on similar measures across LEAs. Although not every LEA participates, this **provides an immense opportunity for the state to make informed decisions**—for not only SSIP work but also other statewide work—based on more than just a single, annual measure (i.e., RICAS summative assessment) of student performance.

Primary and peripheral stakeholder data will continue to provide useful information regarding next steps related to

- resetting the baseline/SiMR,
- determining priority content as schools return to fully in-person instruction, and
- preferred training/coaching models

e. How Data Support Planned Modifications to Intended Outcomes (Including the SiMR)—Rationale or Justification

The data collection intended to address planned modifications to the intended outcomes, including the SiMR, were intended to be included in this submission. Because of COVID-19 and the cancellation of 2019–20 RICAS, the Math Project is still collecting relevant data to fully report on this.

D. Progress Toward Achieving Intended Improvements

1. Infrastructure Changes That Support SSIP Initiatives: How System Changes Support Achievement of the SiMR, Sustainability, and Scale-Up

During this reporting period, the Office of Student, Community and Academic Supports (OSCAS) at RIDE was moved to the Division of System Transformation. OSCAS personnel are now in the same division as accountability staff. To maintain collaboration with personnel in RIDE's Instruction, Assessment and Curriculum (IAC) and Educator Excellence and Certification Services (EECS), OSCAS staff continue to participate in cross-office teams. Other IDEA-funded staff are involved on the curriculum team and two OSCAS staff are members of a newly formed cross-office team focused on intervention. IAC staff working as math and literacy specialists are part of this new team, as well.

RIDE is also leveraging its ReThink Grant to expand digital mathematics opportunities, with a focus on digital supports for students across the MTSS tiers. Additionally, RIDE participates on the Council of Chief State School Officers' cross-state group with 8 other states focused on social-emotional learning. Personnel from OSCAS, Systems of Support (SOS), Project Aware, and the School Climate Transformation Grant participate together. Prior to COVID-19, OSCAS and IAC personnel also supported school-based meetings through various grants, but were no longer able

after March 2020. In lieu, they instead met to explore ways to use grant monies to strengthen core instruction and MTSS implementation.

As indicated previously, RIDE vetted and made iReady and STAR Math available at no cost to LEAs to promote the collection of interim/benchmark assessment data—a direct result of the state's inability to administer RICAS because of COVID-19. Another statewide effort RIDE engaged in this reporting period was the development of additional cross-office and cross-division teams (including IAC, OSCAS, and the Office of College and Career Readiness) to promote new RIDE-funded grant opportunities for LEAs to apply for. These grants focus on providing blended learning mathematics intervention supports for LEAs.

RIDE continues to align projects to support continuous improvement in DBI and tiered systems of support, as evidenced by its investment in the SOS contract. SOS personnel created a website and are populating it with a variety of training, coaching, and professional resources that Rhode Island educators can access through different modalities (i.e., online, self-paced, hybrid, request for in-person training and coaching). To Rhode Island educators, this site is known as BRIDGE-RI; it serves as the "hub" for LEAs to access ongoing professional learning. Elements of DBI are embedded into BRIDGE-RI courses and content. In addition, SOS and Math Project staff are conversing about how to transition Math Project content (e.g., mini-modules, book study resources) to BRIDGE-RI to ensure sustainability. The first course completed through the SOS and Math Project collaboration will be released at the beginning of May 2021: "Language Development in Mathematics." The Math Project hopes to transition as many learning modules as possible to ensure the content is accessible and available to all RI Educators. SOS personnel worked on designing the course in their platform, and the Math Project developed the content, evidence base, and research needed to align the work of both initiatives. Rhode Island also continues to receive intensive technical assistance from NCII (extending previous efforts). NCII's technical assistance to Rhode Island includes scaling up DBI practices across initiatives and LEAs to support sustainability, considering the frequency with which LEA staff move around the state.

2. Evidence That SSIP's Evidence-Based Practices Are Being Carried Out With Fidelity and Having the Desired Effects

Implementation fidelity of EBPs continues to be a focus of the Math Project. Multiple fidelity monitoring tools are tracking EBP implementation (e.g., teacher self-report, implementation logs, and observations) in a typical year. Because of extenuating circumstances at most sites, including the move to online learning as a result of the pandemic, participating schools needing to employ long-term subs who were unfamiliar with our self-reporting tools, and coaches' inability to observe teaching, the fidelity monitoring tools were not used in a systematic way during the reporting period.

a. Fidelity Self-Report From the EOY Pulse Check

Five items from the EOY pulse check (see Appendix B) provide information about the fidelity of overall implementation of project activities, both related to Tier 1 instruction and intensive mathematics intervention. For items that provide more nuanced understanding of implementation (e.g., student-level plans are developed and followed, goals and progress monitoring plans are in place), returning participants rated themselves higher (3.55) than new participants did (3.35). The item with the highest difference in ratings was in relationship to having written plans in place (returning = 3.7, new = 3.27). These ratings suggest that returning participants may have more processes in place to document and monitor student-level mathematics interventions.

Two items asked about participants' agreement related to their beliefs about their school's implementation of Tier 1 and intensive mathematics intervention. Across these items, new participants had slightly more positive ratings (3.43) than returning participants did (3.04). Given that participants, both new and returning, represent educators from across sites that have been participating for 5 years, the similarity in responses is encouraging. When we initially began implementing, ratings on these items—especially for core mathematics instruction—demonstrated larger differences.

b. Fidelity Through Observations

In previous years, the Math Project supported implementation fidelity of Number Talks and PALS Math across sites that are implementing these approaches. During this reporting period, coaches were unable to observe teachers during instruction because of the COVID-19 pandemic, so we cannot report on fidelity data as planned. We anticipate being able to update the instruction/intervention fidelity data in the 2022 report.

c. Fidelity to Student-Level DBI Case Studies Through Logs

Fidelity to student-level plans (e.g., implementation logs) and the DBI process more generally (e.g., EOY pulse check) help the Math Project demonstrate progress toward the project's intermediate outcome related to increased educator application of skills related to DBI in mathematics. For the 22 case study students (see Section C.1.d for more detailed information), implementation fidelity data were reported for three students. Attendance and student engagement during intervention were the most frequently reported measures of fidelity. Students attended sessions and were actively engaged in 52%–74% of the implemented sessions. Educators' fidelity to intervention delivery was reported for one student. The educators implemented the student's interventions as intended and used appropriate intensification and language supports throughout, which were documented and discussed

through intervention fidelity logs. Fidelity to student engagement during progress monitoring administrations and intervention sessions will continue to be monitored.

3. Outcomes Regarding Progress Toward Short-Term and Long-Term Objectives That Are Necessary Steps Toward Achieving the SiMR

The collective evidence, described in the following sections about outcomes, supports the Math Project's theory of action: **changes to adult behaviors result in student-level improvements**.

a. Training Outcomes (Short-Term Outcomes)

The training module evaluations suggest that participating educators are enhancing their knowledge related to supporting their students, and they also describe how they may apply their learning from the modules in their classrooms. Educators reported their understanding and use of strategies related to (a) addressing nonstrategic learner characteristics, (b) success with differentiation and application of instructional methods, (c) supporting students' mathematical language, (d) supporting English learners, and (e) implementing modifications and accommodations.

b. Math Beliefs and Data-Driven Instruction Outcomes (Short-Term Outcomes)

An examination of year-to-year progress from 2017 to 2019 affirms overall growth in mathematical beliefs for those educators completing the survey at two time points. In all but one domain, these gains are greater for those responding to the 2018 and 2019 survey administrations (Table 18).

Table 18. Average Percentage of Educators Who Improved Their Ratings by Domain (Year to Year)

Math Beliefs Survey item domain	Average percentage of educators with improved ratings from year to year		
	2017 to 2018	2018 to 2019	2019 to 2020
Correct answers versus understanding as primary goal	36.7%	30.4%	25.8%
Mathematics as a set of operations versus a tool for thought	34.2%	49.0%	25.1%
Enjoyment of mathematics	31.7%	45.6%	31.4%
Entity versus incremental view of intellectual ability (i.e., a fixed versus growth mind-set)	30.6%	46.0%	20.6%
Confidence in teaching mathematics	27.5%	30.6%	28.7%
Teacher control versus child autonomy in classroom lessons	26.3%	31.7%	28.0%

c. Parent and Family Awareness Outcomes (Short-Term Outcomes)

In the previous submission, the Math Project reported on website traffic and pageview times as a baseline measure of parent and family awareness of intensive intervention. As discussed in Section C.2.b, there was a 41% increase in pageviews from last year's reporting period across the 17 posted resources (*n* = 246). The Math Project is working with RIPIN to develop and distribute a survey to gather information on parent and family awareness of their child's mathematics instruction and how they support their child's mathematics instruction at home. The survey will be available in both English and Spanish. In addition to the survey, participants can opt-in to share in-depth explanations of their responses in a follow-up interview.

d. DBI Pulse Check Outcomes (Intermediate and Long-Term Outcomes)

The DBI pulse checks measure educators' perceptions related to their school sites' implementation of DBI (**long-term outcome**). For school personnel who have participated in the project for more than 1 year, we noticed the overall ratings were higher than new participants' ratings on the domains related to educators' knowledge of DBI and educators' application of skills in DBI (**intermediate outcomes**). Year-to-year comparisons by participant, as applicable, will be explored to inform sustainability planning.

e. Student-Level DBI Case Study Outcomes (Intermediate and Long-Term Outcomes)

By engaging in student-level DBI case studies, educators at the SSIP school sites had an opportunity to **apply skills and knowledge** (intermediate outcome) they gained through the Math Project's training and coaching support. Based on the student-level DBI case study analysis, educators took concepts they learned and applied them into their practice **with fidelity** (long-term outcome). Prior to COVID-19's impact on implementation, the majority of the DBI case study students **improved their outcomes on formative assessments**. Seventeen of the 22 (77%) case study students made moderate to ambitious growth toward progress monitoring goals as of winter 2020 (long term-outcome; see Section C.1.d for additional details). Even with the impacts of school closures, some students continued to make progress, grow, and feel success. One student qualified for special education services in March 2020 based on the team's review of the data collected and the evidence of need for continued intensive support.

E. Plans for Next Year

1. Additional Activities to Be Implemented Next Year, With Timeline

Additional activities, outlined in Table 19, are included through June 30, 2021, which is the current end date for the contract. A 1-year contract extension is currently being negotiated.

Table 19. Implementation Plan and Timeline

Project implementation areas	Completed activities	Planned activities	Timeline for implementation
Project planning and coordination	Implemented action plans with Cohorts 1, 2, and 3 sites.	Continue implementing action plans with Cohorts 1, 2, and 3 sites, with a focus on scaling and/or sustaining project work as supports are gradually faded.	Spring 2021
Training and coaching	Identify objectives and targets for school year.	Implement virtual book study using the text Visible Learning in Mathematics	Spring 2021
	Administer evaluation protocols and instruments, including fidelity assessments (evaluation methods vary by cohort).	Administer evaluation protocols and instruments, including fidelity assessments (evaluation methods vary by cohort).	Spring 2021
	Conduct site observations, including data team meetings.	Conduct site observations, including data team meetings and model with a site-level facilitator how to conduct data-team meetings.	Spring 2021
	Support teams with selecting DBI case studies.	Support teams with taking ownership of the DBI case study process.	Spring 2021
	Model EBPs with schools.	Scale the book study to more educators and districts.	Spring 2021
Leadership PLC	Identified scope and sequence of PLC unit on accelerating learning.	Implement asynchronous leadership PLC modules and synchronous sessions focused on accelerating learning.	Spring 2021
Stakeholder engagement	Developed survey and interview protocol for parent and families to share perspectives on math instruction.	Administer survey and interviews (English and Spanish) and analyze results.	Spring 2021
	Facilitated conversations with stakeholders to inform SiMR/baseline reset.	Continue surveying project participants and peripheral stakeholders (including RIDE staff from other offices) to inform SiMR/baseline reset.	Spring 2021
Communication and collaboration	Began creating more sustainable project resources in collaboration with BRIDGE-RI.	Release collaboratively developed online module within the BRIDGE-RI learning management system and continue to create more sustainable tools and resources out of existing content.	Spring 2021

2. Planned Evaluation Activities, Including Data Collection, Measures, and Expected Outcomes

As the training, coaching, and technical assistance are implemented, the Math Project team continues to put into action data collection instruments to gather data on quality, knowledge gain, and fidelity of implementation. These tools include a standard end-of-training survey, a needs assessment and a beliefs assessment, protocols for reviewing action plans and other documentation to assess fidelity of implementation, screening data collection tools and case studies, and protocols for interviews and focus groups with SSIP participants and stakeholders. We will explore additional measures with stakeholders (e.g., RIPIN) to meaningfully examine increases in parent and family awareness of intensive intervention.

3. Anticipated Barriers and Steps to Address Those Barriers

Because the contract that funds the Math Project will terminate in June 2021, sites are moving into the final months of support from an external provider (i.e., AIR; Math Project). The Math Project anticipates that Cohorts 1 and 2 sites will need support with developing processes and procedures to continue scaling and sustaining the work. The Math Project will address this by (a) modeling how to conduct the case study process; (b) releasing data-team meeting facilitation responsibilities to site-level personnel; and (c) supporting sites with developing guidance related to EBP implementation, fidelity monitoring, and how to use the book study and online, self-paced professional learning modules independent from the Math Project's requirements.

The Math Project has developed myriad resources that educators will likely want to access after the Math Project's termination. The Math Project will continue to work with other initiatives in the state (e.g., SOS contract) to transfer content into more sustainable formats (i.e., BRIDGE-RI learning management system), as well as identify ways to engage other RIDE departments with taking ownership of Math Project materials, as deemed necessary. Also, RIDE may want to continue supporting the Math Project to leverage the lessons learned from the work and identify how to fund a similar initiative, should the focus continue to be a relevant priority for the state.

4. Additional Support and/or Technical Assistance Needed

Currently, RIDE and the state core team participate in the NCSI EBP Cross-State Learning Collaborative. To date, the EBP Collaborative has been a very effective resource for learning from other states about their implementation successes and challenges, examining evidence-based research, and providing resources to explore for use on the project. In addition, RIDE will leverage technical assistance from the CEEDAR Center, NCII, and the IDEA Data Center to continue development and implementation of the SSIP. Now that schools are implementing high-quality curricula and using more EBPs in the core, we have been working to support their

structures and systems for math intervention. The Math Project anticipates that, with the increased number of students who experience learning loss as a result of COVID-19, it is going to be more crucial than ever to support sites in providing just-in-time Tier 1 supports and target the appropriate students for intensive intervention based on the local context (capacity, resources, time, effectiveness).

F. References

Marx, T., Peterson, A., Donovan, S., Belanger, D., & Klein, E. (2018). *Intensive intervention: A practitioner's guide for communicating with parents and families.* American Institutes for Research, National Center on Intensive Intervention. https://intensiveintervention.org/sites/default/files/Intensive_Intervention_Practicioners_Guide-508.pdf

National Center for Systemic Improvement. (2016). *Resource list: Tools for building and measuring capacity.* WestEd. https://ncsi.wested.org/wp-content/uploads/2016/03/ResourceList-ToolsforBuildingMeasuringCapacity.pdf

Appendix A. Asynchronous Learning Module Offerings

Module	Description	PLU credits	Evaluation
Virtual Screening & Progress Monitoring NEW MODULE	You will learn how to administer screening and progress monitoring assessments virtually. You also will learn about potential barriers and solutions to administering assessments virtually.	0.5 credit	Virtual Screening & Progress Monitoring Evaluation
Features of Core Instruction, Part 1	You will learn about the progression of mathematics standards and strands across grade levels.	0.5 credit	Features of Core Instruction, Part 1 Evaluation
Features of Core Instruction, Part 2	You will learn what is meant by "rigor" in a mathematics classroom so that you can balance conceptual understanding, procedural fluency and application as you plan lessons.	0.5 credit	Features of Core Instruction, Part 2 Evaluation
Effective Instruction to Support Language Development in Mathematics	You will learn about the importance of using precise and technical mathematics language and teaching vocabulary, particularly for students who are struggling or multilingual learners.	0.5 credit	Language Development in Mathematics Evaluation
Number Talks	You will learn about the major components of a Number Talk and how to implement in the classroom, including considerations for students who are struggling. You will also learn how Number Talks promote student understanding of mathematics.	1 credit Requirements: • Watch the module • Complete the evaluation 3 credits Requirements: • Conduct a number talk (virtual or in-person) • Complete an implementation plan • Implement at least three number talks with students • Complete a self-assessment (includes pictures of student responses/work) as evidence. This can be uploaded to the evaluation survey.	1 Credit Number Talks Evaluation 3 Credits Number Talks Evaluation

Module	Description	PLU credits	Evaluation
Features of Fidelity	You will learn about the five elements of fidelity and what they look like in practice as well as the importance of fidelity in the mathematics classroom.	1 credit	Features of Fidelity Evaluation
Features of Assessment	You will learn about the various types of assessments used to support, guide, and inform mathematics instruction as well as each assessment's purpose.	2 credits	Features of Assessment Evaluation
Effectively Planning Mathematics Instruction: How to universally design and differentiate lessons	You will learn about strategies to universally design and differentiate mathematics instruction to ensure students' mathematical language.	2 credits	Effectively Planning Mathematics Instruction Evaluation
Delivering High-Quality Core Instruction: Universal Design, Differentiation, and Scaffolding	You will learn about the various aspects of Universal Design for Learning, differentiation, and scaffolding as they pertain to mathematics instruction throughout the year.	2.5 credits	Delivering High-Quality Core Instruction Evaluation
Math PALS Training With Dr. Sarah Powell	You will learn about the intervention Math PALS, how it aligns to the Common Core State Standards, and how to implement the intervention in a classroom. The video is a recorded training session led by Dr. Sarah Powell.	2.5 credits	Math PALS Evaluation
Schema-Based Instruction Training With Dr. Sarah Powell	You will learn about the various schemas found in word problems and the attack strategies students can use to solve word problems. The video is a recorded training session led by Dr. Sarah Powell.	2.5 credits	Schema-Based Instruction Evaluation
Using Math Curriculum Virtually: Getting Started	You will learn about the necessary items needed by teachers, students, and parents to get started in teaching math virtually.	0.5 credit	Getting Started Evaluation
Using Math Curriculum Virtually: What to Teach	You will learn how to determine what you will teach, knowing that there will be adjustment to the usual pacing because of limited time available.	0.5 credit	What to Teach Evaluation

Module	Description	PLU credits	Evaluation
Using Math Curriculum Virtually: Teacher-Directed Instruction	You will learn how to lesson plan for distance/virtual learning.	0.5 credit	Teacher-Directed Instruction Evaluation
Using Math Curriculum Virtually: Student-Directed Learning	You will learn about options for independent learning that is student directed.	0.5 credit	Student-Directed Learning Evaluation
Virtual Number Talks	You will learn about the major components of a number talk and how to implement on a virtual platform.	0.5 credit	Virtual Number Talks Evaluation
Virtual Frayer Model NEW MODULE	You will find templates of Frayer Models to be used on virtual platforms and best practices on how to use Frayer Models virtually. If you would like to learn more about the Frayer Model, check out the Effective Instruction to Support Language Development in Mathematics module.	No evaluation	

Padlet Website for Resource Sharing: https://padlet.com/rimathproject/ddzc4ze1fhsjvu2g

Appendix B. Pulse Check Findings

Please rate the extent of your knowledge of intensive intervention.	New participants	Returning participants	All
I have adequate knowledge about the how intensive math intervention is implemented.	3.33	3.8	3.59
I have adequate knowledge about the necessary school practices to support intensive math intervention.	3.33	3.76	3.57
I have adequate knowledge about appropriate strategies to identify students who need intensive math intervention	3.83	4.06	3.96
I have appropriate knowledge about progress monitoring for students receiving intensive math intervention	3.74	4.06	3.91
There is a difference between progress monitoring and diagnostic assessment data.	3.52	4.22	3.9
I understand what sources of data to include for diagnostic purposes if/when progress monitoring data cannot be used diagnostically.	2.98	3.43	3.22
I have appropriate knowledge about developing intensive math intervention plans for students	3.05	3.62	3.36

Please rate the extent to which each of the following is in place in your school.	New participants	Returning participants	All
Students receiving intensive math intervention have written intervention plans	3.27	3.7	3.51
Student plans include goals and progress monitoring plans	3.63	3.72	3.68
Schedules are flexible enough to allow time for intensive math intervention outside of core instruction	3.75	3.1	3.39
Schedules are flexible enough to allow changes in math interventions and grouping when needed	3.56	2.9	3.2
We have the resources (e.g., materials, staffing) we need to provide intensive math intervention to students who need it	2.83	2.78	2.8
We have assessment options to meet the needs of diverse students (e.g., English Language Learners)	2.95	2.9	2.92
We consider students' culture and language when selecting and adapting math intervention materials	3.13	2.56	2.82
My school effectively communicates our math intervention process to parents whose children are receiving intensive math intervention	3.44	3.14	3.27
Parents are invited to be active participants in math intervention planning	2.76	2.98	2.88
Parents receive regular updates on their child's progress	3.46	3.23	3.34
We can't have regular math intervention activities due to COVID-19	2.59	2.5	2.54

Please rate the extent to which each of the following is in place in your school.	New participants	Returning participants	All
Interventions are customized, adapted, and/or individualized to maximize likelihood of success for a given student	3.57	3.25	3.39
Math intervention plans coordinate support throughout the day across settings and levels of support (e.g., core and intervention)	3.11	2.76	2.91
We have a process to ensure each student's plan is followed (e.g., observations, log, or checklists to monitor implementation of key intervention components including strategies, dosage, etc.)	3.14	3.22	3.19

Please rate the extent of your knowledge of mathematics instruction.	New participants	Returning participants	All
I believe my school does a good job of addressing the needs of students receiving intensive math intervention	3.32	3.1	3.2
Over the course of this academic year, I have strengthened my understanding of how to apply Tier 1 core instructional math strategies	3.43	3.17	3.28
I believe my school does a good job of implementing Tier 1 core instructional math strategies	3.54	2.98	3.22
Over the course of this academic year, I have strengthened my ability to apply data-based decision making in math	3.49	3.47	3.48