



RIDE Rhode Island
Department
of Education

Phase III Report (Submitted April 1, 2020)

Reporting Period: March 2019–February 2020

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A. Summary of Phase III, Year 4

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 with specific learning disabilities (SLDs) who are Black or Hispanic/Latino in Grades 3–5 by 2018–19. 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 2017–2022)—which resulted in the development of the Intensive Math Intervention Project (hereafter, Math Project). During the Phase III, Year 4 (April 2019–March 2020) reporting cycle, AIR engaged in technical assistance activities in 19 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 last year’s submission (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)	3	1	2	6
Total	12	5	2	19

^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 report details implementation and evaluation activities involved in the Math Project since the last reporting period (April 2018–March 2019) and communicates key findings resulting from the ongoing evaluation of the project. As discussed in last year’s report, Rhode Island began implementing a new statewide assessment (the Rhode Island Comprehensive Assessment System or RICAS) in Grades 3–8 in English language arts (ELA) and mathematics in 2018. We examine statewide assessment data for 2018–19, including RIDE’s progress toward its SiMR, in this report (see Section C.1.f.).

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 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 were made to 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

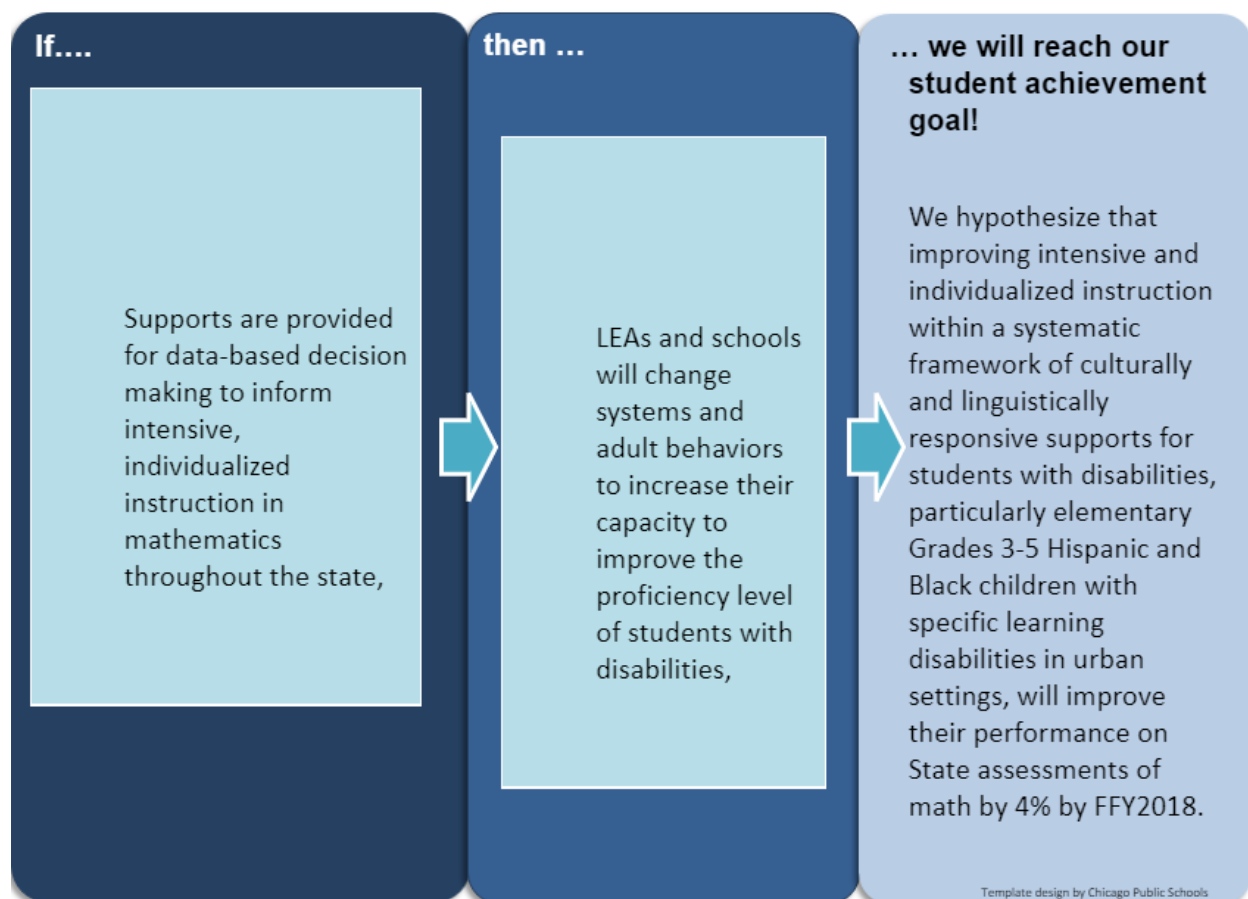
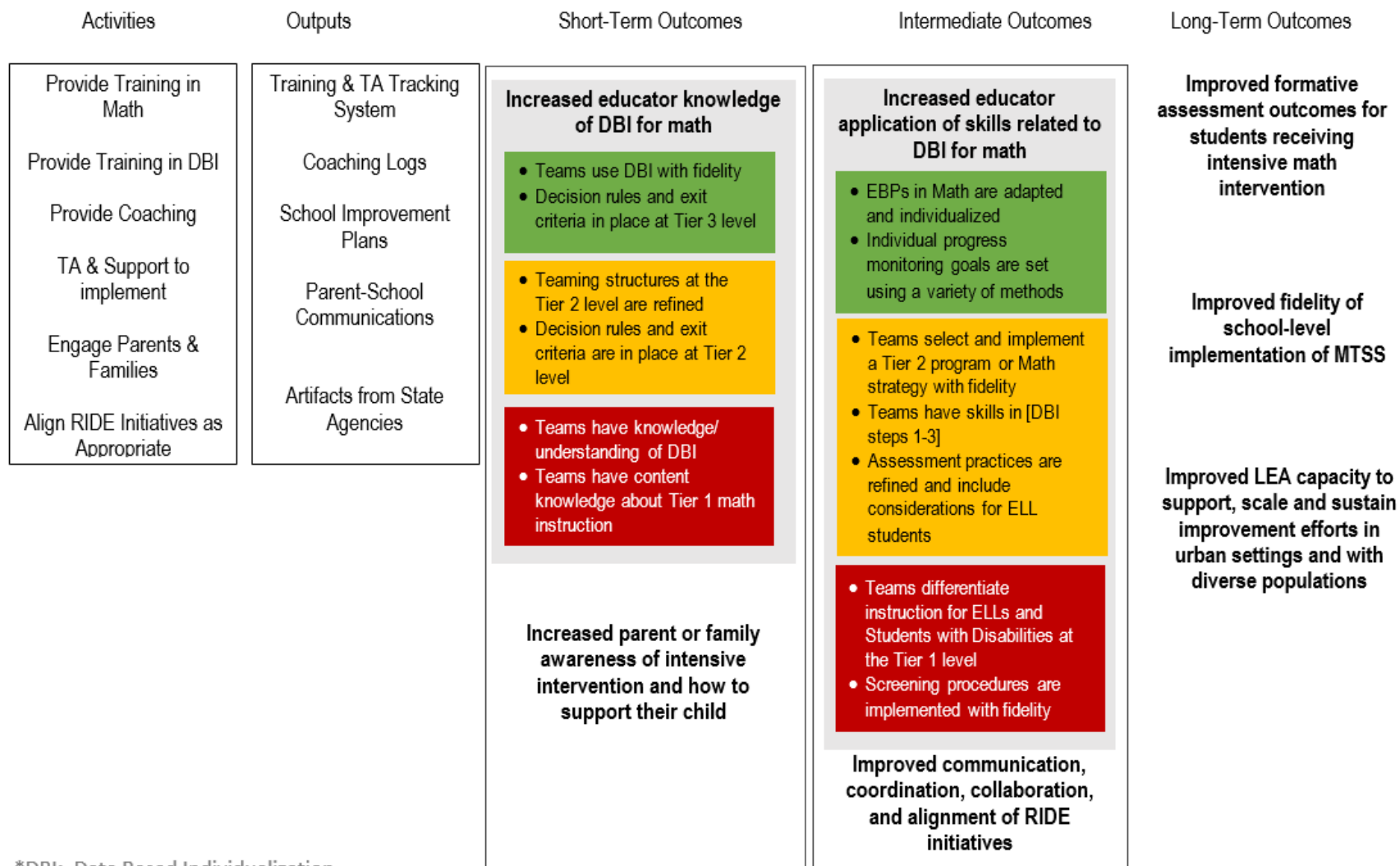


Figure 2. RIDE SSIP Logic Model

SiMR: Improve the mathematics achievement for Hispanic and Black students with specific learning disabilities in Grades 3–5 by 4% by fiscal year 2018 (2018–19) on the statewide assessment.



*DBI: Data Based Individualization

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

a. Coherent Improvement Strategies Employed

As discussed, the Math Project brought on a third cohort of sites this year, while continuing to provide training and ongoing coaching support to sites in the first two cohorts. The third cohort has four school-level sites and two district-level, cross-school implementation teams (i.e., district model). With the increased number of sites and personnel supported by the Math Project, an additional coach was hired to support implementation activities. In addition, given that the Math Project is currently in Year 4 of 5, a priority for all sites this year and next is on scaling and sustaining implementation. The principal activities employed by the Math Project to address this priority are as follows:

- A book study and self-paced, online training series focused on **evidence-based practices** (EBPs) in mathematics (see Section 3.a.)
- A leadership professional learning community (PLC; see Section 3.a.)
- A district model for implementation (see Section 3)

The book study and leadership PLC occur in addition to other training and/or coaching activities outlined by site-level action plans, allowing the Math Project to have broader reach to personnel who are not members of sites' core teams. The book study and PLC provide the Math Project team with an additional way to **align ongoing professional learning with the theory of action**. Each activity provides LEAs and school leadership with supports and tools so that they can work toward changing systems and adult behaviors to increase their capacity to improve mathematics outcomes. Section C.1.c. discusses the results of these activities.

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.

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 ELA. In response to the 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 two 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/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 2022, focusing on different aspects of implementation (e.g., learning and implementing EBPs in mathematics and DBI and then scaling and sustaining efforts) based on their implementation “phase.” For example, Cohort 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

Examples of EBPs in mathematics	Relevance		
	Tier 1	Tier 2	Tier 3
Concrete-representational-abstract	X	X	X
Using manipulatives in Base 10	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

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 online learning modules described in last year's report 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.

As previously mentioned, a book study was used to increase the Math Project's "reach" to additional educators across cohorts, providing a structure for scaling EBPs. Participants from across all cohorts used *Teaching Elementary Mathematics to Struggling Learners* (Witzel & Little, 2016) in the book study. During the book study, all participants read one chapter per week during the course of 9 weeks. The participants also completed corresponding learning modules.¹ After reading each chapter and viewing each learning module, participants completed reflection questions via SurveyMonkey and engaged in discussion board questions with other educators across the state via Padlet. (See the results summary in Section C.1.c.) Participants who completed all activities received nine professional learning unit credits that their districts could approve for educators' certification renewal. For school sites across the three project cohorts, the rationale for creating a book study allowed educators to have ownership of their own learning and increase the Math Project's "reach" beyond core team members. The book study also is a mechanism for districts and schools to use after the Math Project's termination.

For book study participants from the district models, the goal is to build the capacity of internal personnel to lead/facilitate future book studies with other educators in their districts. 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 and addresses a concern raised in last year's submission related to middle school participants' completion of training related to EBPs in mathematics.

Leadership PLC Training Activities

This year's PLC sessions focused on topics identified by primary stakeholders (i.e., district or school staff from implementing sites). Sessions occurred in June 2019, September 2019 ("makeup" to June's session), January 2020, and February 2020. The June and September sessions walked school and district leaders through the DBI process, focusing on how to use

¹ Book study participants completed the following modules: Features of Core Instruction Part 1 and Part 2, Delivering High-Quality Instruction, Effective Instruction to Support Language Development in Mathematics, and Effectively Planning Mathematics Instruction.

student-level formative assessment data to inform instructional intensification. The January and February sessions focused on conducting an item-analysis of RICAS items to inform instructional changes in areas where students did not perform as well, with attention given to strategies for students with disabilities and multilingual learners (MLLs).

b. Training Participation

To support the alignment of training activities to the SiMR population, Math Project staff encouraged sites to select educators to participate in trainings in Grades 2–5 at the elementary level and Grades 5–8 at the middle school level. 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 book study approach allowed sites that previously focused implementation at a single grade level to involve other educators in knowledge-building activities (further demonstration of progress toward **short-term outcomes**).

General education teachers were the primary audience for all training activities—including participation in the book study and completion of online, self-paced learning modules. However, many special educators and/or interventionists working across grade levels participated in the training activities to ensure instructional alignment across MTSS tiers and the achievement of short-term and intermediate project outcomes. During this submission period, we increased the number of special educators and/or interventionists in professional learning activities because of the flexibility and self-paced nature of the book study. Table 3 details which sites have completed which training modules to date. Completion of training modules occurred in one of three ways:

- Ongoing professional learning activities supported by coaching
- Completion of the book study and aligned online, self-paced learning modules
- Participation in leadership PLC activities

Table 4 details the number of participants across all three cohorts that participated in the book study ($n = 100$).

Table 3. Site Trainings

Elementary school sites	Number Talks	Features of core instruction (Part 1)	Features of core instruction (Part 2)	Effective instruction to support language development in mathematics	Features of fidelity	Features of assessment	Universal design, scaffolding	
Suburban elementary	Attended/scaled	Attended	Attended	Attended	Attended PLC	Attended PLC	Attended	
Urban ring elementary	attended	Attended	Attended	N/A	N/A	N/A	N/A	
Urban elementary	Attended/scaled	N/A	N/A	Attended	Attended	N/A	N/A	
Urban ring elementary	Attended	Attended	Attended	Attended	Attended PLC	Attended PLC	Attended	
Suburban elementary	Attended/scaled	N/A	N/A	N/A	Attended PLC	Attended PLC	N/A	
Urban ring elementary	Attended/scaled	Attended	Attended	Attended	N/A	N/A	Attended	
Urban elementary	Attended	Attended	N/A	Attended	Attended PLC	Attended PLC	N/A	
Suburban elementary	Attended/scaled	Attended/scaled	Attended/scaled	N/A	Attended PLC	Attended PLC	Attended	
Urban ring elementary	Attended	N/A	Attended	N/A	Attended PLC	Attended PLC	N/A	
Urban ring elementary	N/A	N/A	N/A	N/A	Attended PLC	Attended PLC	N/A	
Urban ring elementary	N/A	Attended	Attended	Attended	Attended PLC	Attended PLC	Attended	
Urban elementary	Attended	N/A	N/A	N/A	N/A	N/A	N/A	
Middle school sites	Number Talks	Features of core instruction (Part 1)	Features of core instruction (Part 2)	Effective instruction to support language development in mathematics	Features of fidelity	Other (STAR goals; Fraction Face-Off)	Features of assessment	Universal design, scaffolding
Urban ring middle	N/A	N/A	N/A	N/A	N/A	Attended	N/A	N/A
Urban ring middle	N/A	Attended	Attended	Attended	Attended	N/A	Attended PLC	Attended
Urban middle	Attended	N/A	N/A	N/A	Attended	N/A	N/A	N/A
Suburban middle	N/A	N/A	N/A	N/A	Attended PLC	Attended	Attended PLC	N/A
Suburban middle	N/A	N/A	N/A	N/A	Attended PLC	N/A	Attended PLC	N/A

District models	Number Talks	Features of core instruction (Part 1)	Features of core instruction (Part 2)	Effective instruction to support language development in mathematics	Features of fidelity	Other (STAR goals; Fraction Face-Off)	Features of assessment	Universal design, scaffolding
Urban ring district	Attended	Attended	Attended	Attended PLC	N/A	N/A	N/A	Attended
Suburban district	N/A	Attended	Attended	Attended	Attended PLC	N/A	Attended PLC	Attended

“N/A” indicates that the content was either not relevant for the site, based on their needs assessment results, or the site will complete the module in the future. “Attended” indicates that at least a team of educators or one grade level completed the module. “Attended/scaled” indicates that a team or a grade level first completed module, but then the site scaled the module and implementation to an additional grade level or schoolwide. “Attended PLC” indicates that participants from a site engaged in the content during a leadership PLC) session.

Table 4. Book Study Participation

Summer book study	Fall book study
Individual participants from <ul style="list-style-type: none"> School sites: 22 District model: 5 Total: 27	Individual participants from <ul style="list-style-type: none"> School sites: 51 District model: 22 Total: 73

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 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.

Cohort 1 Coaching Activities

Since the last reporting period (March 2019) through February 2020, Cohort 1 sites received 188 hours of ongoing coaching support from Math Project staff. Coaching support involved conducting classroom observations and providing feedback related to mathematics instruction

and Number Talks implementation, modeling Number Talks and/or PALS implementation, supporting data meetings, and examining screening and progress monitoring measures to support data-based decision making and readiness for DBI implementation. In addition, Math Project coaches supported teams with identifying individual students for a DBI case study.

Cohort 2 Coaching Activities

Since the last reporting period (March 2019) through February 2020, Cohort 2 sites received 174.5 hours of ongoing coaching support from Math Project staff. Coaching support involved leading a book study on mathematics instruction; attending professional development sessions with site personnel delivered by RIDE’s Office of Instruction, Assessment & Curriculum; conducting classroom observations; providing feedback related to mathematics instruction and Number Talks implementation; modeling Number Talks and/or PALS implementation; supporting data meetings; and examining screening and progress monitoring measures to support data-based decision making and readiness for DBI implementation. In addition, Math Project coaches supported teams with identifying individual students for a DBI case study.

Cohort 3 Coaching Activities

Since the last reporting period (March 2019) through February 2020, Cohort 3 sites received 156 hours of ongoing coaching support from Math Project staff. Coaching support involved launching kickoff meetings for incoming school sites; conducting classroom observations of mathematics core instruction; leading action planning meetings; discussing core mathematics instruction and coaching on assessment and screening materials; facilitating book study discussions and intervention inventories; and training grade levels on effectively planning mathematics instruction: universal design for learning, Number Talks, and concrete-representational-abstract. In addition, Math Project coaches supported teams with identifying individual students for a DBI case study.

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

The project’s evaluation activities and measures **align with 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 E.3.

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

- Collected and analyzed data on quality, relevance, and usefulness of training modules
- Conducted qualitative analysis of book study participant survey and discussion board responses

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
- Conducted fidelity checks on PALS and Number Talks implementation activities
- Conducted stakeholder engagement sessions to inform potential changes to the SiMR

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 data on MTSS/DBI implementation fidelity through “pulse checks” with school sites

Collected and analyzed universal screening and benchmarking data

5. Highlights of Changes to Implementation and Improvement Strategies

During this reporting period, the major shifts in implementation and improvement strategies were the book study and the district model. See Section 3.a. for a description of these activities. Participants in the district model also completed the book study while working through three or four online, self-paced learning modules (depending on when participants completed the book study). Once the initial group of educators completed the book study, they then led and facilitated the same book study with additional educators from their respective districts. The purpose of the district model and book study, as previously described, was to address **bringing EBPs to scale** (long-term outcome).

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 funded 26 educators to attend the 2019 regional conference of the National Council of Teachers of Mathematics in Boston, Massachusetts.

Presently, Cohorts 1 and 2 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. Cohort 3 will learn about the DBI process in the second year of the 2-year implementation cycle.

During this reporting year, the Math Project continued implementing its PLC for district and building leadership, including administrators, interventionists, or instructional coaches. **Improving LEA capacity to support, scale, and sustain improvement efforts** is a long-term outcome in the RIDE logic model and directly aligns to the theory of action (i.e., change systems and adult behaviors). This year's PLC sessions focused on topics identified by primary stakeholders (i.e., district or school staff from implementing sites). Sessions occurred in June 2019, September 2019 ("makeup" to June's session), January 2020, and February 2020 (see Section C.1.c.).

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. A team from across these initiatives supported the training and adoption of the SUM diagnostic assessment. As a team, the SUM initiative further supported an elementary school in the implementation of the diagnostic assessment, including its integration into the DBI process. The school team worked with their RTI/MTSS team leaders, a math interventionist, a special educator, and a general educator to refine their practice of setting specific targets for learners who were struggling and use quantifiable data (rather than just qualitative) to measure progress across time. This collaboration led to an expansion of our efforts in supporting the integration of the SUM diagnostic into MTSS systems in three additional schools. In addition, those same RIDE offices began additional areas of collaboration and alignment with the Office of College and Career Readiness. Initial conversations focused on middle and high school algebra readiness, college math readiness intervention pilots, and the new online early warning system that can help reorient districts to data-based decision-making resources developed through the MTSS work.

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. AIR continues to work with the Rhode Island Parent Information Network (RIPIN) as a partner on the Math Project. This year, RIPIN posted two toolkits related to intensive

intervention on its [website's resources page](#). The first toolkit, for educators, highlights resources that educators can use when communicating about DBI and intensive intervention with families. The second toolkit, for parents and families, provides access to resources that can support parents and families with understanding DBI and intensive intervention. We shared links to both toolkits with educators through training and coaching activities, as well as the leadership PLC.

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 5 captures the state's SSIP implementation progress by the primary implementation areas. Overall, the state carried out its planned activities for fall 2019 with fidelity. The planned activities for spring 2020 are underway. Section E.2. presents an in-depth discussion of the fidelity of site-level implementation activities.

Table 5. Overview of March 2019–February 2020 Implementation Progress

Implementation area	Activities	Status of implementation
Project planning and coordination General activities necessary for the management of the SSIP	Conduct informational meeting/kickoff with Cohort 3 sites.	Complete
	Complete needs assessments with Cohort 3 sites.	Complete
	Draft and finalize the memorandum of understanding and mini-grant process with Cohort 3 school sites.	Complete
	Implement action plans with Cohorts 1 and 2 sites.	Ongoing
	Have Cohort 3 sites prioritize needs assessment results and develop action plans.	Complete
Training Activities associated with delivering professional development for educators	Schedule trainings for Cohorts 1, 2, and 3.	Complete
	Conduct trainings, as scheduled.	In progress
Coaching Activities associated with technical assistance support	Identify objectives and targets for the school year.	Complete
	Administer evaluation protocols and instruments, including fidelity assessments (evaluation methods vary by cohort).	Ongoing
	Conduct site observations and team meetings.	Ongoing
	Support teams with selecting DBI case studies (i.e., DBI case study).	Complete
	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
	Develop toolkit and present to PLC and/or sites	In progress

Implementation area	Activities	Status of implementation
Stakeholder engagement ^a Activities involved both peripheral and primary stakeholders	SSIP briefing from at the September 28, 2019, RISEAC Strategic Planning Day.	Complete
	An update from the OSCAS director and request for feedback survey completion on efforts to support stakeholder engagement with the SSIP during the December 19, 2019, RISEAC meeting.	Complete
	Feedback from the SSIP update during the May 16, 2019, RISEAC meeting.	Complete
	SSIP briefing to the Rhode Island team of the CEEDAR Center during the December 16, 2019, state leadership team in-person meeting.	Complete
	SSIP update to the Rhode Island team of the CEEDAR Center during the February 24, 2019, state leadership team virtual meeting.	Complete
	NCII stakeholder meeting with Math Project coach's participation in January 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
	Attended professional development sessions on SUM and Ed reports to ensure alignment of our project's training with other RIDE departments.	Complete
LEA capacity to support diverse students in urban settings <i>Activities associated with increasing LEA capacity</i>	Develop PLC.	Complete

^a Descriptions of stakeholder engagement activities are further described in Sections A.3.a., A.3.b., B.2.a., and B.2.b.

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

This year, the Math Project brought on a third cohort—four school sites and two district models. For the third cohort, recruitment, needs assessment interviews, and action planning have occurred. All Cohort 3 sites signed an official memorandum of understanding with the 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 will extend 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 around 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 Cohort 3 sites to help facilitate school-to-parent communications. At the state level, active collaboration across RIDE departments resulted in the implementation of the SUM initiative.

2. Stakeholder Involvement in SSIP Implementation

a. How Stakeholders Have Been Informed of the Ongoing Implementation 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. At these meetings, the director presents an update regarding the work of the office, which includes updates on the Math Project (May, September, and December 2019). 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.

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

Primary stakeholders partner with Math Project staff (i.e., site coaches) to make decisions about 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. For example, the Math Project team received feedback from summer 2019 book study participants to reduce the number of mini-modules because of the redundancy to concepts covered in the text. In response, the Math Project team worked to reduce the number of mini-modules required for the book study from four to three and created a new mini-module about effectively planning mathematics instruction to extend participants' understanding of text material.

The SUM initiative provided peripheral stakeholders—including personnel from other RIDE offices—an opportunity to determine how to best align the SUM initiative and the Math Project. A Cohort 1 school with the Math Project participated in SUM training. Rather than implementing the work separately, we aligned the initiatives and facilitated a structure for the site to integrate SUM into its existing DBI process, helping refine the site's implementation.

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 6 depicts alignment across the theory of action and maps the logic model outcomes to key measures and the data sources for each. 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).

Table 6. Evaluation Questions and Evidence by Logic Model Outcome Measure

Logic model outcome	Evaluation question	Data/evidence
Increased educator knowledge of DBI for mathematics (<i>short term</i>)	To what extent did educator knowledge of DBI change?	Needs assessment End-of-year (EOY) pulse check
Increased educator beliefs of DBI for mathematics (<i>short term</i>)	To what extent did educator beliefs about mathematics instruction change?	Math Beliefs Survey Data-Driven Instruction Survey
Increased educator application of skills related to DBI for mathematics (<i>intermediate</i>)	To what extent have intensive mathematics intervention and instructional practice changed adult behavior and practice in participating schools?	Training evaluation Observational tool EOY pulse check Training implementation survey
Improved formative assessment outcomes for students receiving intensive mathematics interventions (<i>long term</i>)	To what extent have the implementation of intensive mathematics intervention and instruction practices improved student results?	Universal screening data Progress monitoring data on student-level plans
Improved fidelity of school-level implementation of DBI in mathematics (<i>long term</i>)	To what extent did schools implement DBI in mathematics with fidelity?	Needs assessment EOY pulse check Observational tool
Improved LEA capacity to support, scale, and sustain improvement efforts in urban settings and with diverse populations (<i>long term</i>)	To what extent did LEAs increase their capacity to support, scale, and sustain improvement efforts related to high-quality mathematics instruction?	PLC capacity survey
Increased parent or family awareness of intensive intervention and how to support their child (<i>short term</i>)	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
Effective communication, coordination, and collaboration among and between RIDE initiatives (<i>short term</i>)	To what extent was communication effective among and between RIDE staff?	Collaboration survey

Logic model outcome	Evaluation question	Data/evidence
Improve the mathematics achievement for Hispanic and Black students with SLDs in Grades 3–5 by 4% by FY2018	To what extent did the intervention improve the mathematics achievement for Hispanic and Black students with SLDs in Grades 3–5 by 4% FY2018 (schools with target population)	Universal screening data State assessment data
Stakeholder engagement (<i>peripheral</i>)	How have stakeholders been informed and involved in decision making regarding ongoing implementation and evaluation of the project?	Stakeholder engagement survey
Stakeholder engagement (<i>primary</i>)	To what extent do school-level stakeholders report feeling engaged in the ongoing implementation and evaluation of the project?	EOY pulse check

a. Data Sources for Each Key Measure

Table 7 describes each data and evidence type presented in Table 6.

Table 7. 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 used to assess 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	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.

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 develop 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.

b. Description of Baseline Data for Key Measures

The Math Project team previously reported on baseline data from site needs assessments, educator beliefs about mathematics and data-driven instruction (Cohorts 1 and 2), training evaluations, stakeholder engagement, coordination and collaboration across RIDE initiatives, pulse checks, and screening. This report includes baseline data on (a) Web traffic to the intensive intervention toolkits, (b) LEA capacity, (c) student-level DBI case studies, (d) book study participants' knowledge, and (e) Cohort 3's beliefs about mathematics and data-driven instruction. (See [Math Beliefs and Data-Driven Instruction Surveys](#) for more information.)

Parent and Family Awareness

As described in last year's submission, parent and family awareness of intensive intervention was hard to measure given the focus of our site's professional development, training, and coaching on core mathematics instruction. Because we anticipated shifting many of our sites to focusing on Targeted (Tier 2) and Intensive (Tier 3) intervention, we worked with the 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 baseline website analytics from last reporting period through January 31, 2020.

Across the two toolkits, 14 resources are available, with 215 unique pageviews across the resources. The resource with the highest number of pageviews ($n = 27$) was *Intensive Intervention: A Practitioner's Guide for Communicating With Parents and Families* (Marx,

Peterson, Donovan, Belanger, & Klein, 2018). Users spent an average of 44.81 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) *Homework: A Helpful Overview* and (b) *How You Can Support Intensive Intervention: Tips for Families*. Given that this was the first year the resources were available—and our project’s primary focus on mathematics core instruction—we expected the low pageview rate. In the future, we plan to leverage more dissemination across our participating cohorts and will measure change in website traffic across time.

LEA Capacity

A survey measuring LEA capacity was sent to the listserv for the leadership PLC 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. At least one representative per participating LEA responded to the survey ($n = 18$). For the question, “Our participation in Math Project activities has resulted in [less/same/more] internal capacity to support core mathematics instruction when compared to our work prior to participating in the Project,” 77.78% of participants chose “more.” For the question, “Our participation in Math Project activities has resulted in [less/same/more] internal capacity to support struggling learners in mathematics (e.g., students with disabilities or different abilities, students within RTI/MTSS interventions, multi-lingual learners) when compared to our work prior to participating in the Project,” 88.89% of participants chose “more.” For the question, “Our participation in Math Project activities has resulted in [less/same/more] internal capacity to support data-based decision making in mathematics when compared to our work prior to participating in the Project,” 83.33% of participants chose “more.” Across the questions, no respondent selected “less.” Two respondents indicated “same” as their responses across the three items: (a) One respondent is from an LEA that is not formally participating with the project but has engaged with the leadership PLC activities, and (b) the other respondent came from a site that has had high leadership turnover since its participation on the Math Project.

Student-Level DBI Case Studies

As part of its 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 two cohorts. These data were collected using a standard template to build a student-level case. Nine schools identified students for the case study; however, only seven schools provided complete data. This report summarizes these seven student-level DBI case studies initiated in 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. The students selected for the case studies attended schools from Cohorts 1 and 2, of which six were elementary schools and one a middle school. Four students were in Grade 3, two students were in Grade 4, and one student was in Grade 6. Five students were male, and two students were female. Table 8 summarizes information about the case study students’ demographic profiles.

Table 8. Student Demographics

Student	Gender	Grade	Race/ethnicity	MLL status	IEP status
1	Female	3	White	No	Yes
2	Male	6	Other (Portuguese)	No	Referred for eligibility
3	Male	4	Hispanic	Yes	No
4	Male	3	White	No	No
5	Female	4	White	No	Yes
6	Female	3	Hispanic /Native American	No	No
7	Male	4	Black	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.)

Table 9. Identification of Mathematics Skill Deficient Areas

Identified mathematics skill deficit area	Number of students
Operations	4
Computation	2
Fluency	2

Identified mathematics skill deficit area	Number of students
Specific mathematical areas of study (e.g., geometry)	2

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 the students, having the 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 the student away from peers to help the 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 writing multiples on sentence strips, using arrays, 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, 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. Four case studies provided information about strategies related to involving families. Two case studies reported how specific tools would be used. One case study described how educators provided flashcards to help parents work on their child's fluency, and another described how a self-management tool used in the classroom would be used in the home setting to extend the student's learning outside the classroom. Other educators reported strategies related to homework (e.g., requiring fewer problems than peers) based on a discussion with the family.

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 the student's mathematical skills and abilities. Tools used to monitor students' progress were AIMSweb, STAR Math, and Monitoring Basic Skills Progress (MBSP). 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). Additional information related to the outcomes of the DBI case study process in relationship to the project's logic model outcomes appears later in Section 3.

- Student 1 (suburban elementary) made ambitious growth on the first measure and met the targeted benchmark three consecutive times. The team began using the next grade-level measure, where the student again met with ambitious growth. Finally, the team assigned a new goal based on word problems because the student exceeded her computation goal and was working on grade level.
- Student 2 (suburban middle school) made moderate growth toward the benchmark but did not make ambitious growth. Ambitious growth is needed to maintain gap closing, especially for a student at the middle school level.
- Student 3 (urban elementary), was approaching meeting the ambitious goal at the end of the school year. Based on the progress monitoring data and the qualitative meeting notes, “Student has high motivation and puts in effort; student is more verbal now, has more confidence. Fluency has increased significantly—both in computation and verbal fluency.”
- Student 4 (urban ring elementary) demonstrated ambitious growth with the STAR Math score.
- Student 5 (suburban elementary) made ambitious growth and met the benchmark three consecutive times. The team then reset the target goal for the next grade level, and the student continued to make ambitious growth.
- Student 6 (urban ring elementary) demonstrated ambitious growth in both measures for computation and concepts and application but not on the broad-spectrum computer-based STAR Math assessment.
- Student 7 (suburban elementary) demonstrated ambitious growth from fall to winter. Progress monitoring data were not reported in the case study from winter to spring.

Book Study Participants’ Knowledge

2019 Summer Book Study. A survey was administered to educators after they completed the initial book online training modules and the text *Teaching Elementary Mathematics to Struggling Learners*. Survey and reflection questions asked teachers about their current mathematics teaching practices and encouraged them to reflect and plan for improving their mathematics instruction based on the content of the book study and modules. Twenty-six Rhode Island teachers responded to some or all questions. Data from the book study survey suggest that respondents already possessed broad knowledge of strategies and approaches for supporting students struggling with mathematics and were applying these methods in their classrooms. All respondents identified areas where they could improve their core mathematics instruction, however, by implementing validated interventions and performing data collection and progress monitoring. Respondents also explained how they will apply information and skills learned from the book and training modules to better support students who are struggling to

learn mathematics. Teachers who completed this book study and training module are well positioned to more fully and successfully implement DBI in mathematics for Tier 1 students.

2019 Fall Book Study. A survey was administered to educators, and the results were used to address progress toward SSIP outcomes related to **increased educator knowledge and application of skills related to DBI**. Survey and reflection questions asked teachers about their current mathematics teaching practices and encouraged them to reflect and plan for improving their mathematics instruction based on the content of the book study. Eighty-eight Rhode Island teachers responded to some or all questions in the fall survey. Data from the book study survey suggest that respondents already possessed broad knowledge of strategies and approaches for supporting students struggling with mathematics and were applying these methods in their classrooms. All respondents identified areas where they can improve their core mathematics instruction, both by implementing validated interventions. Respondents also explained how they will apply information and skills learned from the book study and training modules to better support students who are struggling to learn mathematics. Teachers who completed this book study and training module are well positioned to more fully and successfully implement DBI in mathematics for Tier 1 students.

c. 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 (i.e., 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: pre-assessment once/post-assessment annually Timeline: prior to coaching or training/late spring
Data-Driven Instruction Survey	Frequency: pre-assessment once/post-assessment 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

Data/evidence	Timeline
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

d. Sampling Procedures [If applicable]

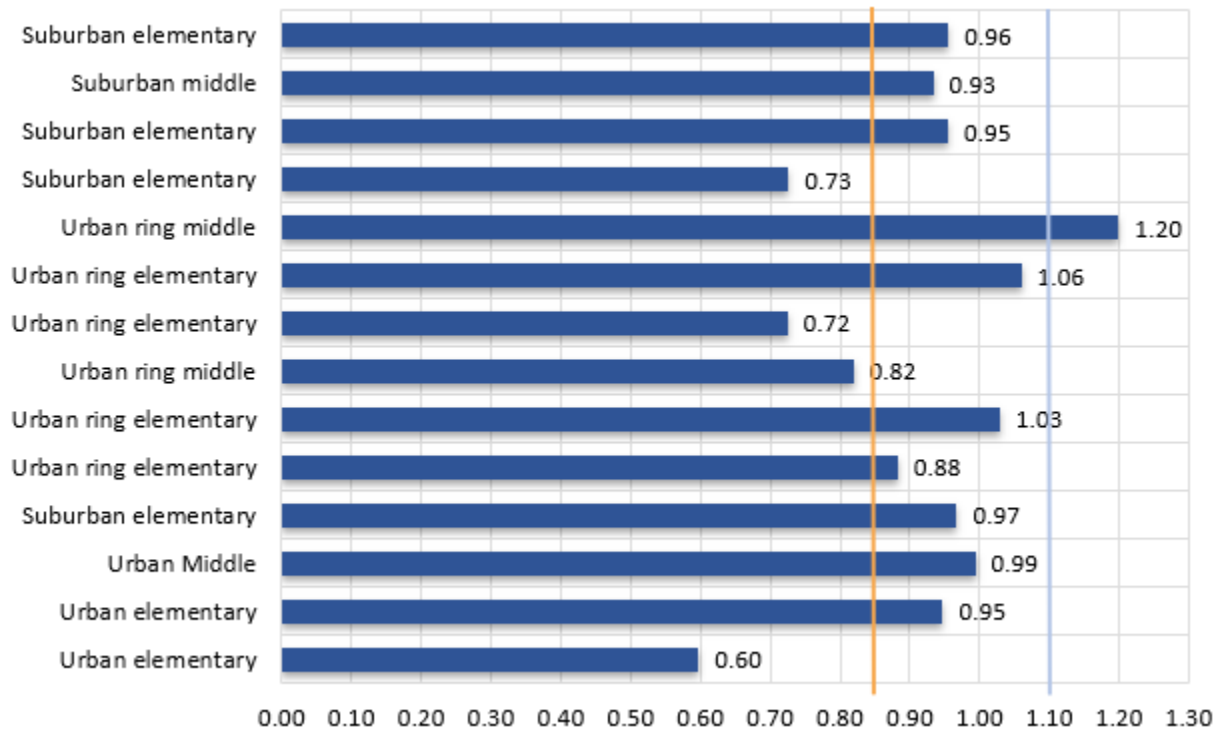
Regarding the SiMR target population, no sampling procedures are used. Black and Hispanic students with SLDs represent a small number of students throughout the state, and the focus on improving their mathematics outcomes remains relevant to RIDE, SSIP implementation sites, and stakeholders.

e. Planned Data Comparison [If appropriate]

We will compare across time data 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. Case-study students are identified in nine sites and will be identified in the other Math Project sites by the start of the 2019–20 school year.

Examining RICAS performance statewide from the 2018 to 2019 administration (Figure 3), 2.9% more Black students and 2.1% more Hispanic students met or exceeded expectations. Both increases represent a significant difference. In 2019, 15% of Black and Hispanic students met or exceeded expectations on RICAS in Grades 3–8. In 2019, 5.02% of students with disabilities met or exceeded expectations. Of the 13 participant schools, 12 schools show an increase in the percentage of students overall meeting or exceeding expectations in mathematics, and two of the 12 schools have statistically significant increases. In reviewing the growth index across the 2 years on district accountability report cards, one middle school earned three stars (i.e., greater than 1.10 growth index), which is the highest rating, for students with disabilities, whereas nine other project schools earned two stars (i.e., between 0.85 and 1.10 growth index) for students with disabilities. Five of the schools exceeded the 0.96 marker for average growth for similarly performing peers statewide.

Figure 3. RICAS Math Growth Index



Note. The 1.10 growth index is the goal. The goldenrod line represents a growth index of 0.85.

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

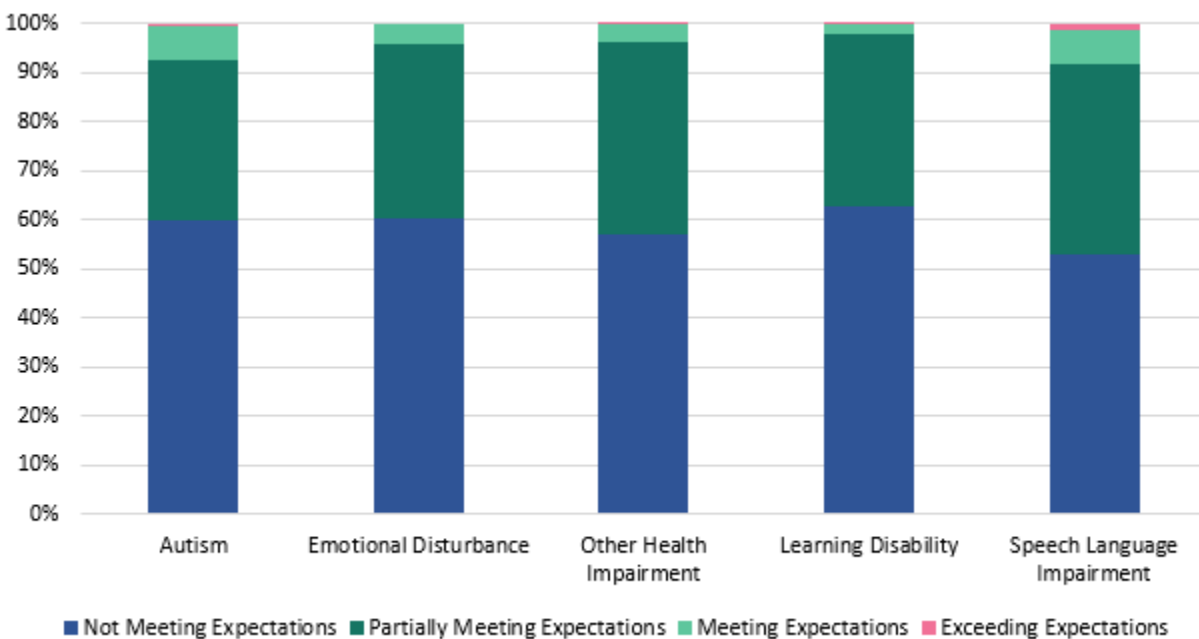
As data are collected and analyzed, the regular structure of SSIP core team meetings continues to support the review of the results and decision making needs to continue effective implementation of SSIP activities. Student-level assessment data are matched with enrollment and IEP census demographics using the state-assigned student identification, a unique ID number assigned to each Rhode Island public school student. Data analysis begins with the Office of Data and Technology Services and the Office of Instruction, Assessment & Curriculum in consultation with IDEA Partnership staff to create data files consistent with those produced in prior years. Data are reviewed and further analyzed by the SSIP core team and shared at OSCAS staff meetings and RIDE leadership meetings. Agency improvements to increase nimble data access and disaggregated reports have facilitated more efficient data meetings, cross-office sharing, and stakeholder engagement.

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

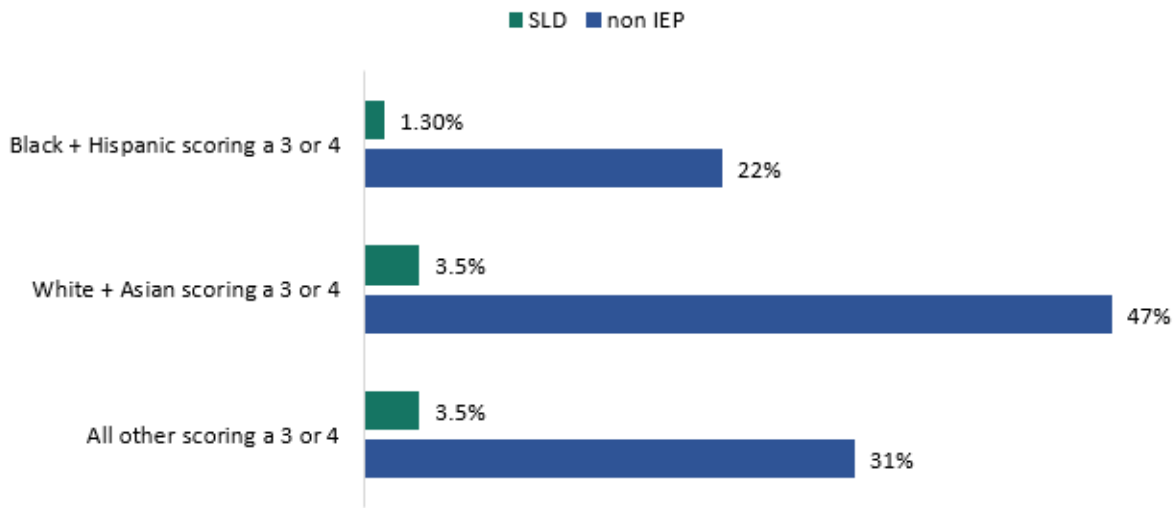
a. How the State Reviewed Key Data That Provide Evidence Regarding Progress Toward Achieving Intended Improvements to Infrastructure and the SiMR

Students with learning disabilities (Figure 4) continue to represent the smallest percentage of students meeting or exceeding expectations on RICAS mathematics assessment (2%) compared with students with autism (7%), emotional disturbance (4%), other health impairments (4%), or speech language impairments (8%).

Figure 4. RICAS Math 2019 Grades 3–8



Of students in Grades 3–5 with learning disabilities who attend regular class at least 80% of the time, 3% met or exceeded proficiency on the 2019 RICAS mathematics assessment. When disaggregated by race rather than placement, 1.3% of Black or Hispanic students with learning disabilities in Grades 3–5 met or exceeded expectations on the RICAS mathematics assessment in 2019. Although this represents a 0.2 percentage point increase from 2018, it does not meet the target on the SiMR. White and Asian students with learning disabilities demonstrated an increase of 0.9 percentage points in 2019. Statewide, all grades, races, and students, both with and without IEPs, increased by only 2.5 percentage points on the RICAS mathematics assessment from 2018 to 2019.

Figure 5. RICAS Math 2019 Percentage Meeting or Exceeding Expectations Grades 3–5

Note. Meeting expectations is score 3; exceeding expectations is score 4.

With last year’s new baseline of 1% of Black and Hispanic students in Grades 3–5 with SLDs meeting or exceeding expectations on RICAS, performance for the SiMR population continues to be an area of significant need. RIDE will continue to engage a variety of stakeholder groups with this new baseline data within the context of the larger Math Project data to inform implementation of the work.

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 with baseline data from last year’s submission include the following:

- Math Beliefs and Data-Driven Instruction Survey

- Training evaluations
- Peripheral Stakeholder Engagement Survey
- Collaboration and Communication Survey (internal RIDE survey)
- Pulse check
- Screening

Math Beliefs and Data-Driven Instruction Surveys

Aligned with the SSIP theory of action, changes in adult behaviors include their beliefs about mathematics and better understanding of how to use data. 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 mind-set)
- 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 for which a strong agreement would indicate positive belief, and for “I don’t enjoy doing mathematics,” strong disagreement would indicate positive belief.

The Math Beliefs Survey has been administered to educators across the SSIP sites for the past 3 years, with 2017 serving as the baseline data point. Fifty-five 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 this year (2019) to determine progress from the baseline for the measure. Seven educators had scores that could be matched for this analysis. The results indicate that all of those 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 only six items to one who improved on 27 items. Tables 11 and 12 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 11. Math Beliefs Survey Results by Number of Items Improved/Maintained/Decreased 2017 to 2019

Improved in ratings			
1–9 items	10–19 items	20–29 items	30–39 items
2 educators	4 educators	1 educator	0 educators
Maintained ratings			
1–9 items	10–19 items	20–29 items	30–39 items
2 educators	2 educators	3 educators	0 educators
Decreased in ratings			
1–9 items	10–19 items	20–29 items	30–39 items
4 educators	2 educators	1 educator	0 educators

As described in Table 11, each educator demonstrated improved ratings from 2017 to 2019. To further explore the data, we conducted an analysis of the Math Beliefs Survey results by domain area (Table 12). The domain area on which the highest percentage of educators improved their ratings was “teacher control versus child autonomy in classroom lessons” (43.5%). The domain addressing “enjoyment of mathematics” is the one in which fewer educators made improvements on their ratings (20.6%).

Table 12. Average Percentage of Educators Who Improved Their Ratings by Domain (2017 to 2019)

Math Beliefs Survey item domain	Average percentage of educators with improved ratings from 2017 to 2019 (progress from baseline)
Teacher control versus child autonomy in classroom lessons	43.5%
Correct answers versus understanding as primary goal	36.7%
Mathematics as a set of operations versus a tool for thought	32.1%
Entity versus incremental view of intellectual ability (i.e., a fixed versus growth mind-set)	30.2%
Confidence in teaching mathematics	30.2%
Enjoyment of mathematics	20.6%

In addition to analyzing progress from the baseline for the Math Beliefs Survey results, we conducted an analysis of progress from 2018 to 2019 (year to year) for those who completed the survey in each year. Table 13 summarizes the results for the 13 educators included in this set.

Table 13. Average Percentage of Educators Who Improved Their Ratings by Domain (2018 to 2019)

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

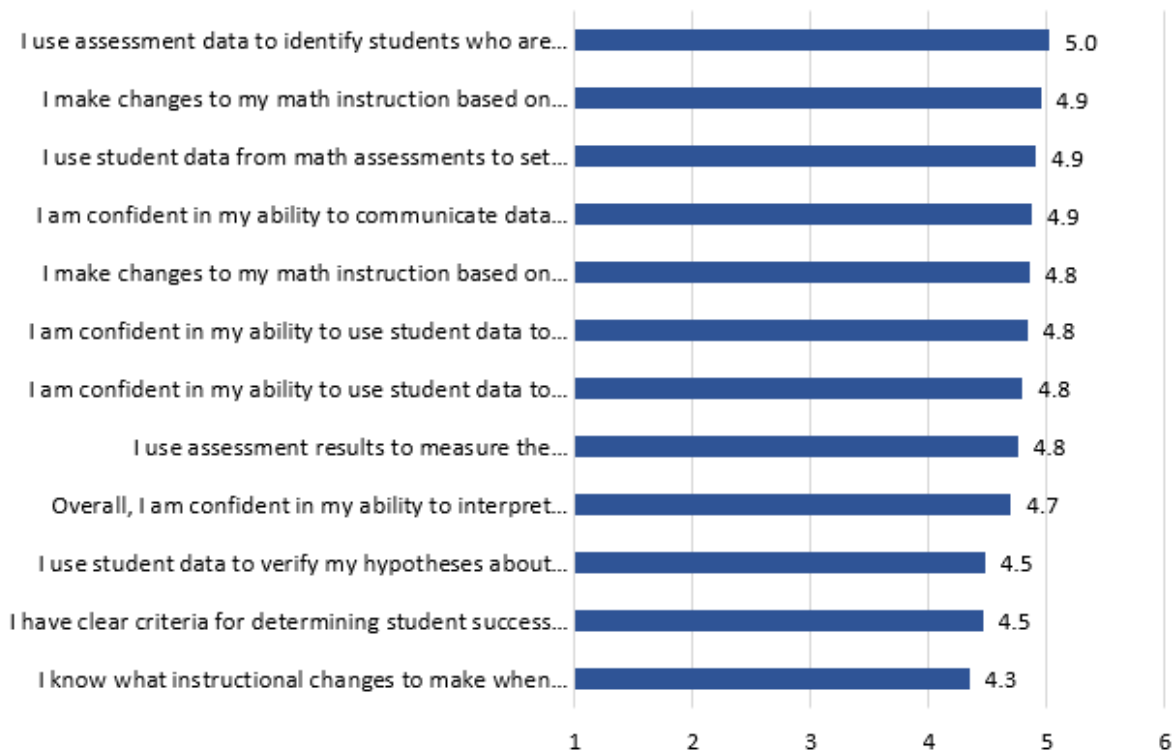
For those educators who completed the Math Beliefs Survey for the first time this school year ($n = 33$), we conducted an analysis on the items in which they scored most positive and least positive. Table 14 displays those results, with Figure 6 providing the item-response averages. Overall, the responses suggest that educators lack confidence in their knowledge of the mathematics content they are teaching, have more “fixed” mind-sets, and believe in more “traditional” approaches to assessing student learning (e.g., having students complete assigned tasks rather than observing students and listening to how they arrived at an answer). These responses are consistent with current research and responses from educators participating in the project at their baseline. In the coming year, the results of those who responded to the survey again will be tracked and reported as part of progress on the performance measure.

Table 14. 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 mathematics, answers are either right or wrong.	In mathematics, you can be creative and discover things on your own.
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. Students who produce correct answers have a good understanding of the mathematical concepts.	Discussing students’ efforts with the class is a good strategy for enhancing students’ understanding.

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)
Teacher control versus child autonomy in classroom lessons	To understand mathematics, students need to work independently on assignments.	To assess students' mathematics understanding, it is important to observe them while they are working and listen to their mathematical conversations.
Entity versus incremental view of intellectual ability (i.e., a fixed versus growth mind-set)	Mathematical ability 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.
Confidence in teaching mathematics	When my answer to a mathematical problem doesn't match someone else's, I usually assume that my answer is wrong.	I feel confident that I understand the mathematical material I teach. I'm not strong enough in mathematics to teach it beyond the current grade level in which I teach.
Enjoyment of mathematics	Mathematics is my favorite subject to teach.	I enjoy encountering situations in my everyday life (e.g., sewing, carpentry, finances) that require me to use mathematics to solve problems.

Figure 6. Data-Driven Instruction Survey Item-Response Averages (n = 53)



The results from the 2019–20 Data-Driven Instruction Survey indicate that educators responding from 11 LEAs are using the data they collect to inform instruction in their classrooms. The items related to having clear criteria for determining success and knowing what instructional changes to make when the data show students are not successful had lower ratings, but the average ratings for these items were still high (4.3 and 4.5, respectively).

Training Evaluations

Between March 2019 and February 2020, the Math Project offered several online learning opportunities for general and special educators. These learning opportunities included a module on delivering high-quality core instruction, a module on effective instruction to support language development in mathematics, and a module on effectively planning mathematics instruction. General and special educators also had the opportunity to use online learning modules on Number Talks and the features of core instruction (Part 1).

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. For the item, “Based on the information shared in the module, I feel better equipped with various strategies to support my struggling learners,” 95.1% of educators agreed with the statement. For the item, “I understand how to incorporate the training module content into core math instruction,” 97% of educators agreed or strongly agreed with the statement. For the item, “After completing the self-paced training module, I feel confident in various strategies to promote the content from the module,” 99% of educators agreed or strongly agreed with the statement. 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,” 96% of educators rated the module content as relevant or very relevant.

Peripheral Stakeholder Engagement Survey

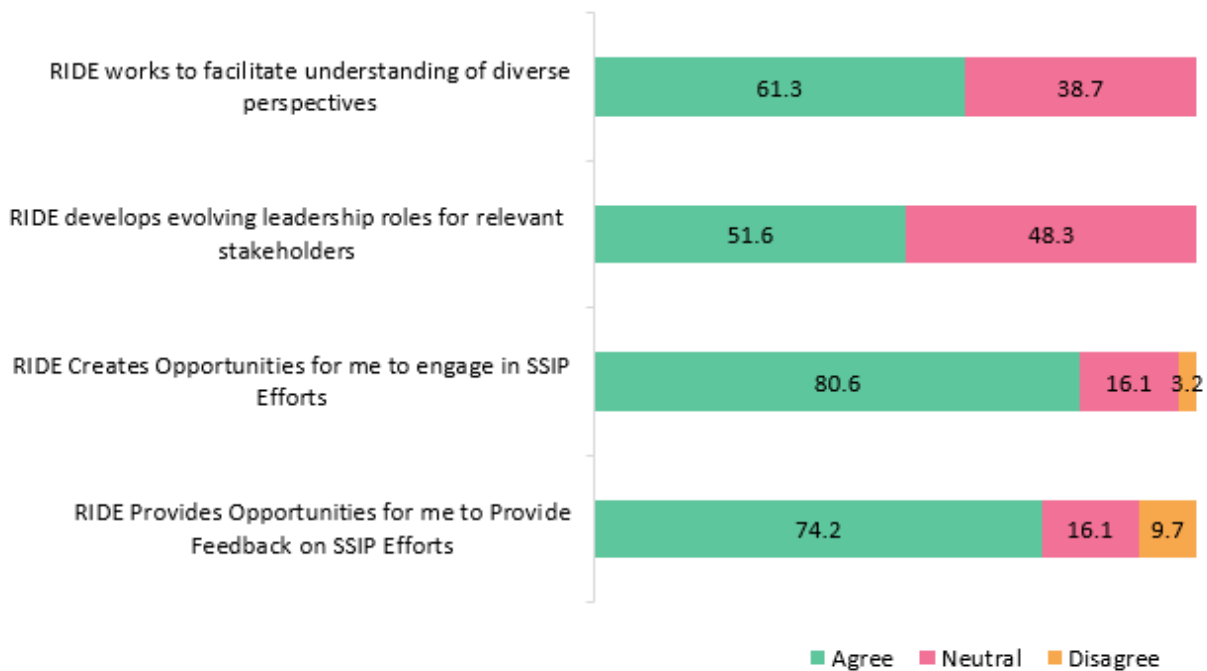
To further assess the relationship and enhance the understanding between broader environmental awareness of the SSIP and student performance, the Math Project in this cycle sent out a Stakeholder Engagement Survey.

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 2019, and 31 responses were received from representatives from LEAs, schools, charter schools, and advisory council members.

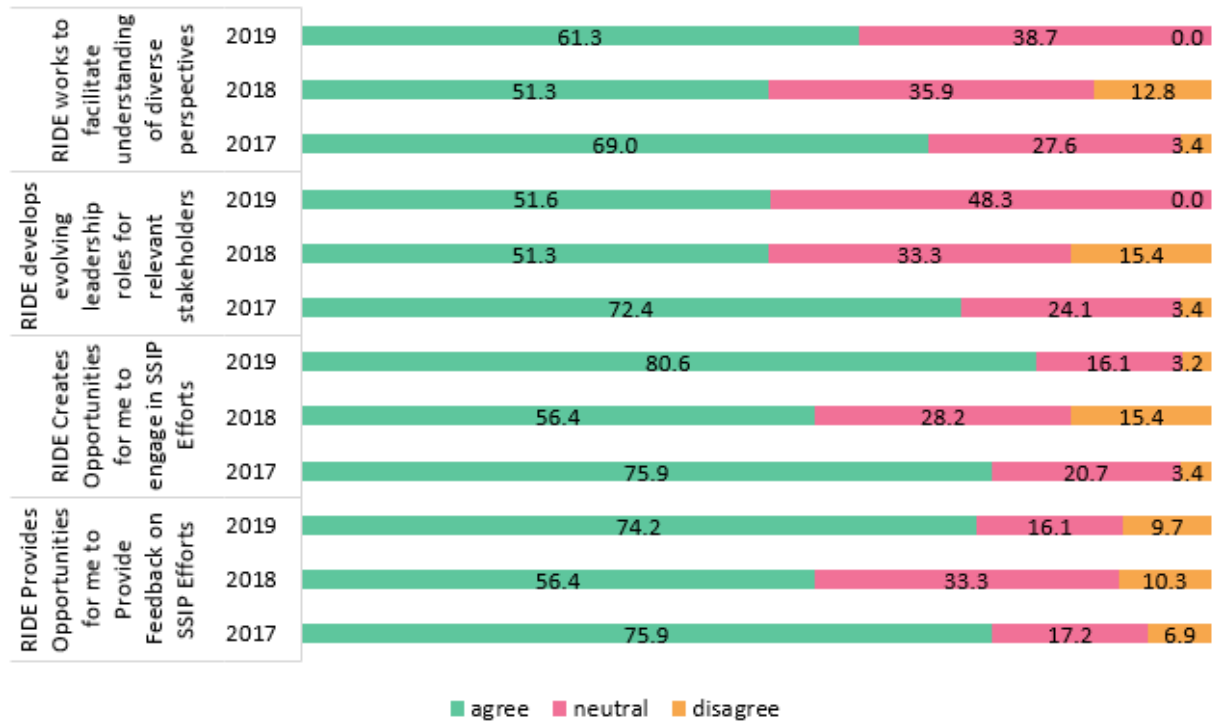
The possible ratings for each survey item were strongly agree, agree, neutral, disagree, and strongly disagree. For the analysis, we combined the ratings of strongly agree and agree into an overall agreement percentage and the ratings of strongly disagree and disagree into an overall disagreement percentage. As depicted in Figure 7, a high number of stakeholders agreed that they had opportunities to engage in SSIP efforts (80.6%). Almost three quarters of the stakeholders agreed that they had opportunities for feedback as part of that engagement (74.2%).

Figure 7. 2019–20 Ensuring Relevant Participation Responses by Percentage Agreement/Disagreement/Neutral (n = 31)

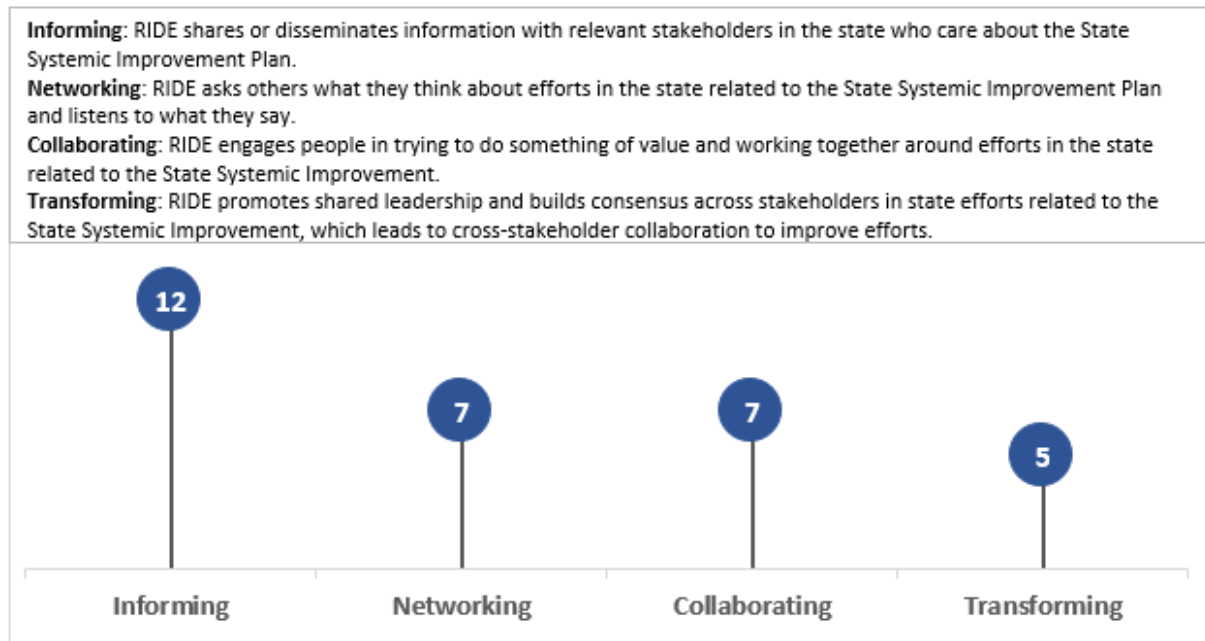


These results are higher than those of the 2017 and 2018 stakeholder surveys (Figure 8). For all three survey administrations, little disagreement occurred about the aspects of relevant participation; however, several respondents indicated neutral, which was particularly true for the item regarding “evolving leadership roles” that had a higher percentage of neutral responses in each survey administration. There may be potential to clarify this aspect of stakeholder engagement in SSIP activities moving forward.

Figure 8. 2017, 2018, and 2019 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 9, as is the definition of each response item. It is clear that many stakeholders (12) perceived that they are informed about SSIP efforts. Nearly half of the responses (14) indicate that stakeholders consider they are listened to ($n = 7$), and engagement related to SSIP efforts is valuable ($n = 7$).

Figure 9. 2019–20 Perception of Engagement ($n = 31$)

Communication and Collaboration Among and Between RIDE Initiatives

In December 2019, a survey was sent to personnel from several departments within RIDE, including OSCAS, where the SSIP work is housed. Nineteen 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 15 and 16. Please note that a direct comparison to personnel who previously participated in the survey is not possible. 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 15. Respondents by Department

Respondents by department	Total
Office of College and Career Readiness	1
Office of Educator Excellence & Certification	3
OSCAS	9
Assessment	3
System of Support	2
School Improvement	1
Total responses	19

Table 16. Respondents by Role

Respondents by role	Total
Specialist	16
Other	3
Total responses	19

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 10, 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 and opportunities to engage in SSIP efforts** (78.9% and 57.9%, respectively). The percentage of neutral responses was higher regarding **opportunities to provide feedback** or to **engage in a leadership role** (36.8% and 42.1%, respectively). There may be opportunity in the coming year for RIDE to examine these aspects to determine if there is clarity among their collaborative partners regarding how they engage in the SSIP, especially with new RIDE personnel.

Figure 10. 2019 Ensuring Relevant Participation Responses by Percentage Agreement/Disagreement/Neutral (n = 19)

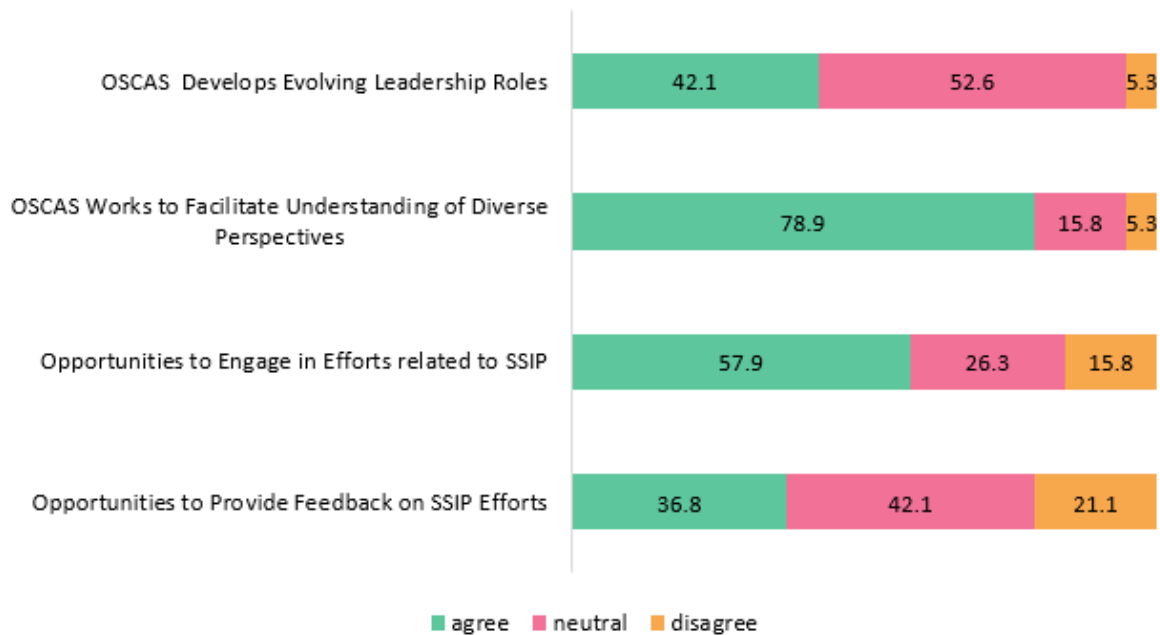
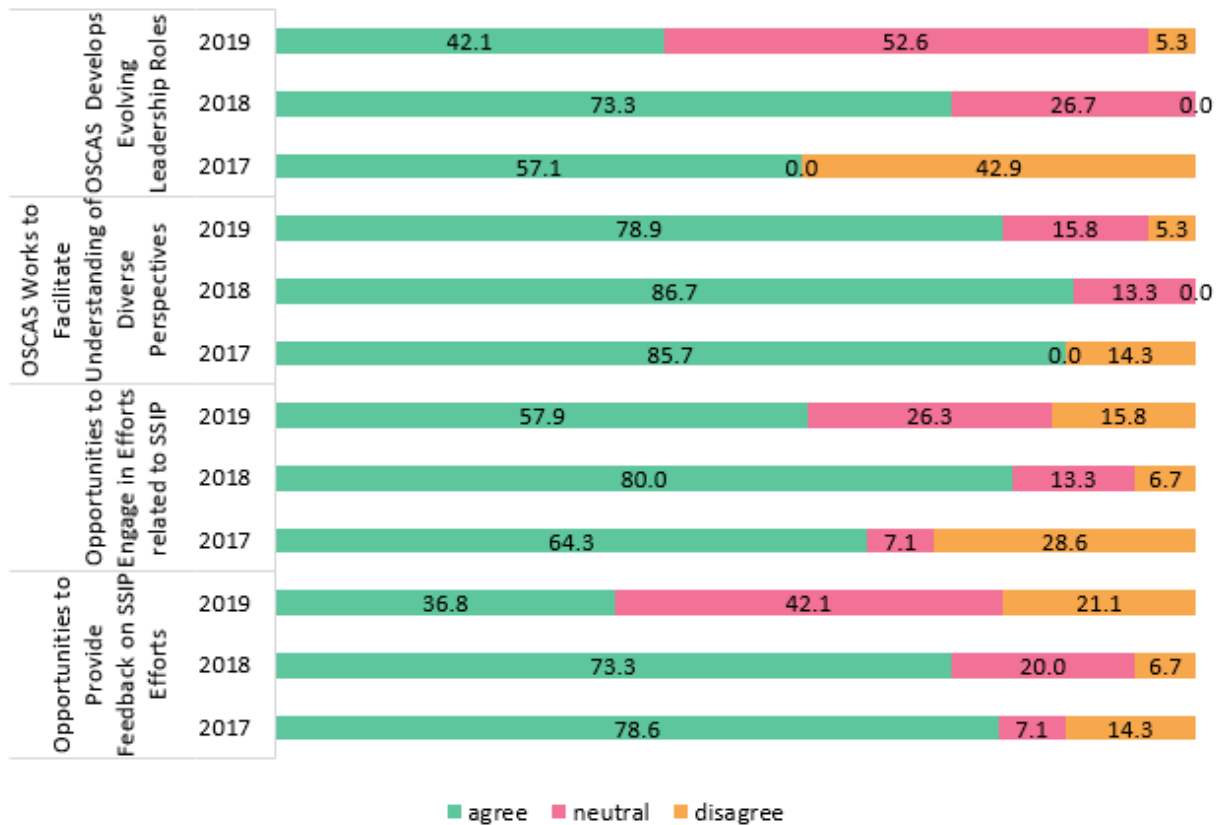
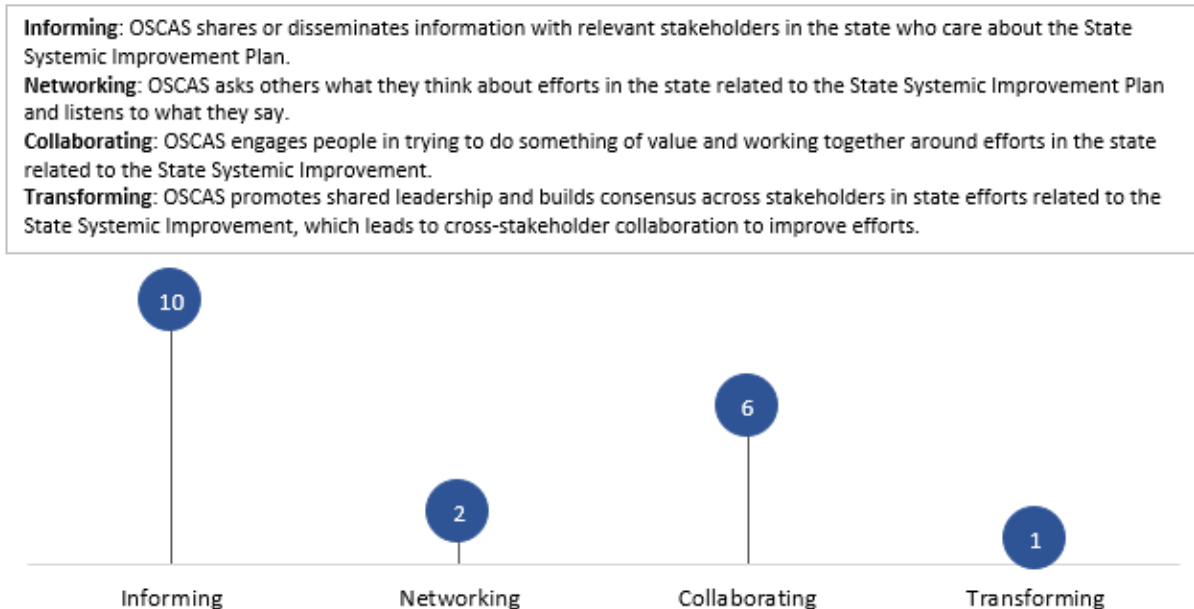


Figure 11 summarizes the responses from the three collaborator survey administrations. Overall, the 2019 results reflect lower agreement levels than in previous years. The item regarding opportunities to provide feedback had the lowest agreement rating and had higher disagreement than in previous years, which may be the result of personnel turnover at the agency level. The item regarding facilitating understanding of diverse perspectives remained the highest rated each year (85.7%, 86.7%, and 78.9%, respectively).

Figure 11. 2017–2019 Ensuring Relevant Participation Responses by Percentage Agreement/Disagreement/Neutral



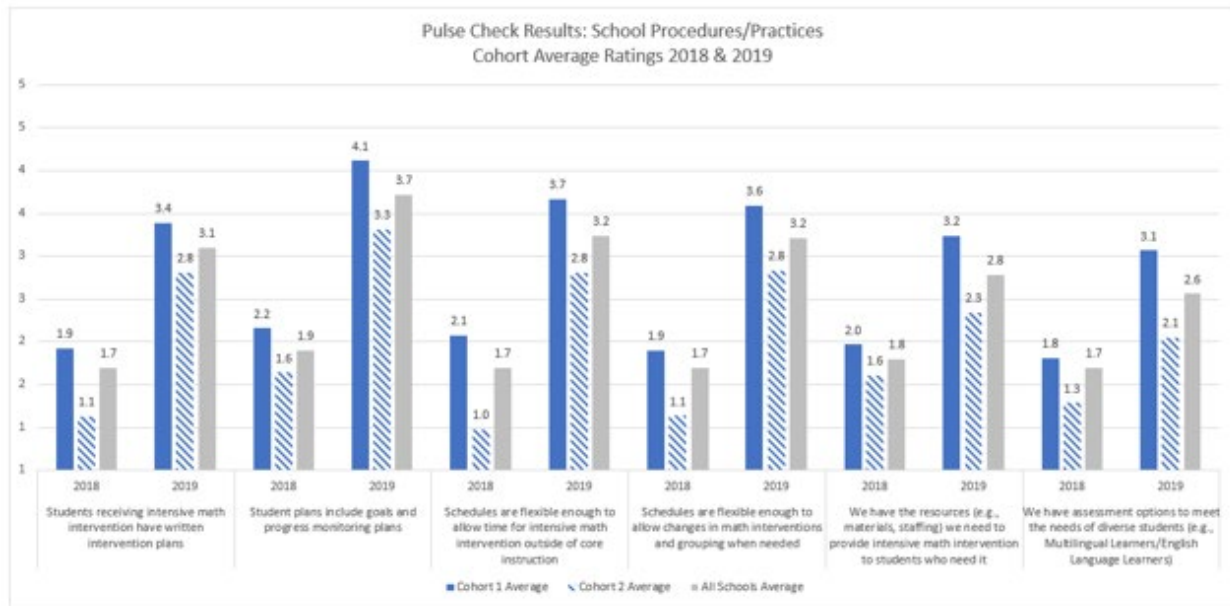
Respondents also rated their perception of the **level of engagement** at RIDE regarding the SSIP activities. The response options were informing, networking, collaborating, and transforming, with each option defined for the respondents. The results, as well as the definition for each option, appears in Figure 12.

Figure 12. 2019 Perception of Engagement Level by Number of Responses (n = 19)**Pulse Check**

As part of the support and planning to cohort sites, Math Project staff conducted an EOY pulse check at each site to explore the changes in DBI implementation. The pulse check included measured short-term and intermediate outcomes in the following domains: (a) educator knowledge of DBI, (b) school implementation of tiered mathematics intervention, (c) educator application of skills related to DBI, and (d) family awareness/understanding of instructional/intervention support. Within this narrative, we present a comparison of EOY pulse check results from baseline, shown as cohort averages across items. These data appear in Figure 13. See Appendix A for a detailed display of all items measured through the EOY pulse check.

A slight increase occurred in educator knowledge of DBI for both Cohorts 1 and 2 (short-term outcome). For the short-term outcome of school implementation of tiered mathematics intervention, a drastic increase occurred among Cohorts 1 and 2. For the intermediate outcome of educator application of skills related to DBI, an increase also was evident among both Cohorts 1 and 2. For the long-term outcome of family awareness/understanding of instructional/intervention support, Cohorts 1 and 2 increased.

Figure 13. EOY Pulse Check Results From Baseline, Shown as Cohort Averages Across Items



Screening

Using the screening data collection tool described in previous submissions, we calculated the percentage of students in each instructional tier, and percentage changes between fall 2018, winter 2018, and spring 2019. Data are reported for all participating sites, except for one urban ring elementary school. Elementary school performance in Grades 3–5 (Figure 14) demonstrates an upward trend, with a 6% increase from fall to winter and a 1% percent increase from winter to spring within Tier 1 (core mathematics instruction). Performance decreased by 3% from fall to winter and winter to spring within Tier 2 (targeted intervention). Interestingly, performance decreased by 4% decrease from fall to winter but increased by 3% increase from winter to spring within Tier 3 (intensive intervention). The percentage change in Tier 1 in middle schools (Figure 15) reveals an upward trend as well, with a 5% increase from fall to winter and a 2% increase from winter to spring. Tier 2 had a performance decrease of 2% decrease from fall to winter and a 1% decrease from winter to spring. For Tier 3, performance decreased by 4% from fall to winter, with no change between winter and spring. See Appendix B for a detailed display of all items measured by tier and subgroup.

Figure 14. Elementary School Percentage Changes Across Tiers From Fall 2018 to Spring 2019

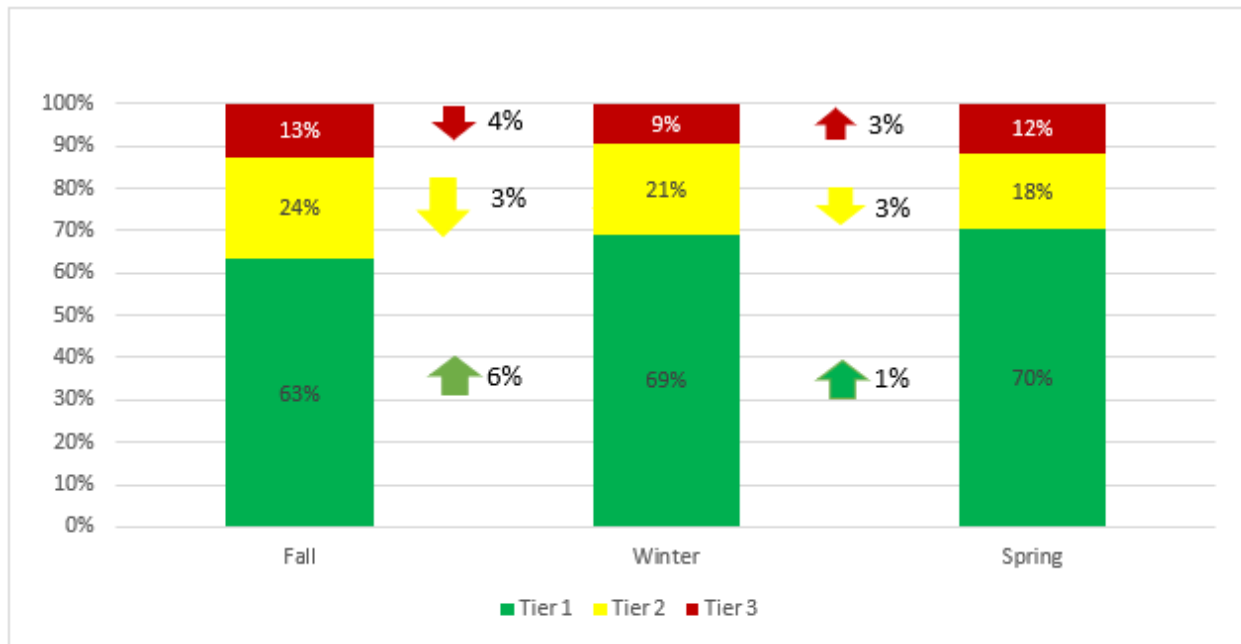
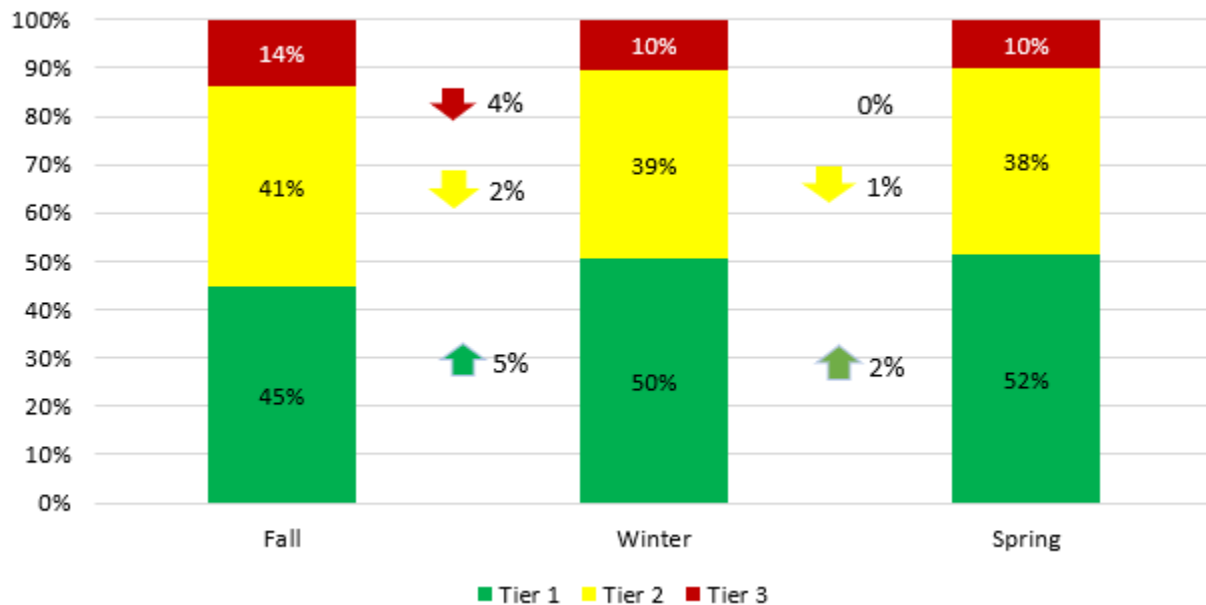


Figure 15. Middle School Percentage Changes Across Tiers From Fall 2018 to Spring 2019



Because the tool we used to collect baseline screening data asked only for fall and spring benchmarks and was piloted with only a select number of sites, we are currently reporting on a

matched comparison of school sites' screening implementation in Figure 16 for elementary schools and Figure 17 for middle schools. This comparison is between 2017–18 (baseline) and 2018–19 (current reporting period) screening results for sites with data across the school years. We plan to continue data comparisons across years with all sites participating in the project in the coming year.

Figure 16. Comparison to Baseline: Elementary School Percentages in Each Tier

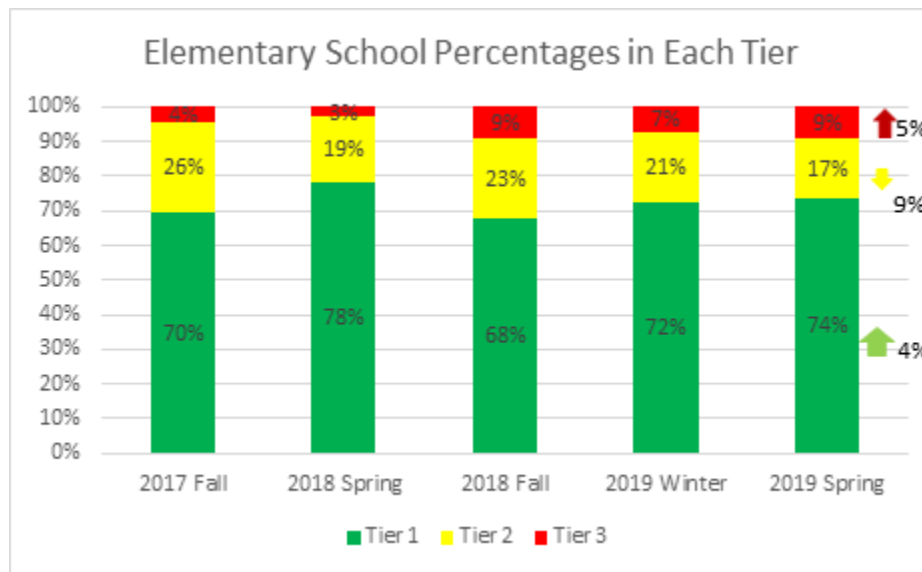
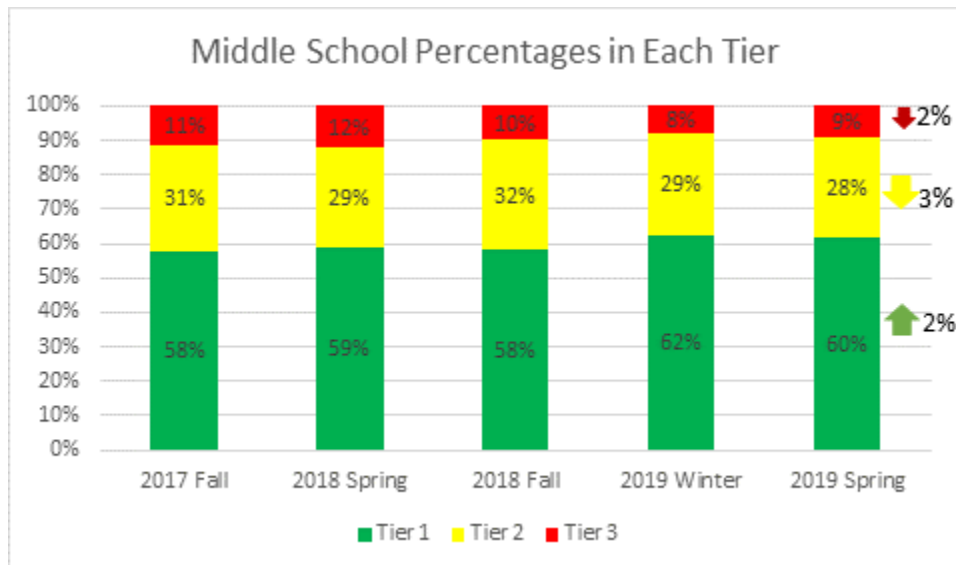


Figure 17. Comparison to Baseline: Middle School Percentages in Each Tier



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

As discussed in last year's report, the leadership PLC serves as a mechanism for cross-district and cross-site leadership to further discuss implementation and help sustain practices throughout the state. In response to survey data from PLC participants, the content emphasis changed from focusing solely on targeted (Tier 2) and intensive (Tier 3) intervention to address questions related to the connections between instruction, intervention, and assessment—especially the statewide assessment. As a result, the most recent PLC sessions focused on the RICAS assessment. In addition, we made connections to RICAS and the new state rules related to LEA adoption of HQCM and instructional practices for students who are struggling, including students with disabilities and/or language learning needs (i.e., SiMR population).

In many sites, we also supported educators with revisiting the types of progress monitoring measures used in mathematics to help them shift from overuse/reliance of/on computer-based measures that do not allow for adequate analysis of student-level data for diagnostic purposes within DBI. The shift in progress monitoring measures has helped build educators' skills related to data use to drive effective instruction, including error analysis of student-level data.

The district model also emerged as a way to increase scale-up and sustainability of EBPs in mathematics. This change to our traditional, site-level implementation was in direct response to requests from two districts that saw value in including additional educators from across multiple school sites to promote increased buy-in. The book study—which initially began to support the district model—included more site-level educators in response to the favorable evaluation results for the approach. These implementation and improvement strategies also allowed our project staff to provide more comprehensive, broader reaching support to a greater number of educators in the state.

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

Currently, the target population is not represented in the sites participating in the project as well as we planned. Although two urban core districts are part of Cohort 1, both are small districts. Two additional urban ring districts are participating, and the remaining participants are suburban. We recruited the largest urban core district in the state for the project, but the district declined to participate. Of the districts in Cohort 3, two are in an urban ring district, one is in a suburban district, and the final district is an urban ring district with sites that have a larger percentage of Black or Hispanic students with SLDs in Grades 3–5. Statewide, fewer than 800 students with SLDs are Black or Hispanic. At the site level, the Math Project encourages the student-level DBI case-study students to reflect the SiMR population to the extent possible; this is supporting us with refining our local-level collection of formative assessment data to ensure that we can demonstrate progress toward the short- and long-term outcomes.

During the reporting period, the Math Project reached more educators across the state through the book study. The survey data collected from participants will continue to help us refine the book study—including the identification of another text to help educators continue to build their knowledge, skills, and beliefs about mathematics. We plan to use data gathered through the LEA capacity survey to identify focus areas for training and coaching related to scaling and sustaining practices.

Because parent and family awareness has been a hard construct to measure, and because the focus of our project (based on our theory of action) is to change adult behaviors, we plan to collaborate with RIPIN to add additional resources to help support educators with sustaining practices related to family engagement within intensive intervention that they highlighted in their student-level DBI case studies. We plan to examine existing assessment tools related to school-level family engagement strategies to determine if/how they measure parent and family engagement within tiered instructional frameworks. The assessment will be shared with our sites and added as a resource for the educator toolkit.

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

Planned modifications to the intended outcomes, including the SiMR, are under review with stakeholder feedback and will be reported in the 2021 submission. Statewide assessment results reveal that the SiMR population is still a relevant population to support (even after the baseline reset from PARCC [Partnership for Assessment of Readiness for College and Careers] to RICAS). The improvements in educators' beliefs, positive trends in RIDE collaborations, and the active engagement of both primary and peripheral stakeholders support the SSIP's implementation.

3. Stakeholder Involvement in the SSIP Evaluation

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

Primary stakeholders—district and school staff from implementation sites—are informed of the ongoing evaluation of the SSIP. At the onset of site-level participation with the Math Project, school personnel learned about the project's short- and long-term outcomes, including the goal of improving mathematics achievement for the SiMR target population. We also discussed training evaluation results with school personnel, including leadership who may not be present for training/professional development. At many sites, leaders offered anecdotal evidence confirming the positive training evaluation data gathered thus far.

As noted earlier, peripheral stakeholders (individuals who have a broad interest in state intensive intervention efforts but do not have regular engagement in the SSIP) were engaged in

the SSIP activities during the CEEDAR February state leadership team. At this meeting, RIDE staff gave a presentation about the SSIP, and state leadership team members were asked if the SSIP should consider resetting the SiMR and initial targets. All members agreed that the SSIP should add consideration of growth index along with the percentage proficient for the target, and most members agreed that measurement of the SiMR should be expanded to Grades 3–6 or Grades 3–7.

b. How Stakeholders Have Had a Voice and Been Involved in Decision Making Regarding the Ongoing Evaluation of the SSIP

Initially, Rhode Island set a SiMR goal (i.e., outcome measure for Indicator 17) to raise the mathematics achievement of Hispanic or Black students with SLDs (percentage proficient) by 4% and met that goal 2 years ahead of schedule. Having completed the test change transition from last reporting period, Rhode Island has growth data to examine and could consider resetting the SiMR and targets using growth data rather than the percentage proficient. This information was presented to active and peripheral stakeholders during the May 2019 RISEAC meeting, the June 2019 leadership PLC, and the CEEDAR February 2020 state leadership team. During these meetings, stakeholders provided verbal and/or written feedback to the following questions:

1. Should Rhode Island continue to set targets based on the percentage proficient, add consideration of the growth index to the SiMR, or use only the growth index and not the percentage proficient?
2. Should the state continue to focus on Grades 3–5 and students with learning disabilities for our SiMR or widen the scope and include additional disability categories?

Several recurring themes were evident in their feedback, described in the following subsections.

Feedback on Set Targets Based on Percentage Proficient

- Percentage proficiency alone will not show or account for growth. It is not sensitive enough to see improvements that occur.
- The state should continue to set targets based on the percentage proficient as an indicator, but it will take a long time to move the needle for the state. It also can serve as a target comparison to all.

Feedback on Adding Consideration of Growth Index

- A growth index gives a better picture of an individual's success. It is a better representation and can be used to talk about the need for intensification.

- The growth index is a true value-added measure that widens the scope of measurement to see how and if students are progressing, not just the normal target of meeting proficiency.
- It is the best way to show student growth for those who are low end of not meeting the goal to those who are almost meeting the goal.
- A growth index indicates growth regardless of score. Consider digging into how growth is calculated to make sure you are comfortable with it as a measure.
- Add the growth index along with the percentage proficient because we know we will have the measure moving forward if the assessment stays consistent.
- If the growth index is included, we would have to expand grade levels to report cohorts of growth across time.

Feedback on Continuing to Focus on Grades 3–5 for the SiMR

- Would like to include Grades 3–8, thinking it would provide time and better data to look at growth. It is important to see if the students are on target for high school.
- Should keep it Grades 3–5 because these are the critical grades to ensure student progress and proficiency in the future.
- Focusing on elementary grades will benefit middle school educators.
- There is curiosity to see what happens between Grades 6–8 and Grades 5–6. It might be helpful because it is the foundation, and educators need to understand what is and is not working at these grade levels.

Feedback on Continuing to Focus on Students With Learning Disabilities for the SiMR

- Should widen the scope to all disabilities as preparation for those students will be the same. Looking at all areas of disability might provide better data for improvement.

Feedback on Widening the Scope and to Include Additional Disability Categories

- Add emotional disturbance? It often is a “catch-all” if it cannot adequately address behavioral issues. It also would account for many out-of-district placements, notably Black and Hispanic students. Maybe add other health impairment because it is the “White catch-all” category?
- It should not include students identified under speech because they are typically below the target grade levels.
- It should include students with autism because they are in the high frequency category.
- It should include students with disabilities that take RICAS.

- Widening the scope might increase the proficiency with other disability categories and provide better data for improvement.

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 the submission in February 2021.

D. Data Quality Issues: Data Limitations That Affected Reports of Progress in Implementing the SSIP and Achieving the SiMR

1. Concerns or Limitations Related to the Quality or Quantity of the Data Used to Report Progress or Results

The SSIP aims to use local assessments to provide a more in-depth understanding of student progress. One major area of concern is that sites use different local assessments and tools to collect universal screening and ongoing progress monitoring data. The data collection tool we refined after pilot use has been helpful as we look across various screening results from different measures. The student-level DBI case studies also reflect schools' use of different local assessments. This reporting year is the first year in which we aggregated formative assessment data at the student level gathered through the student-level DBI case studies. Only seven case-study students had complete data, which limits the Math Project's ability to determine if the progress they made toward ambitious, individualized goals in targeted areas of need would extend to other students in the schools.

2. Implications for Assessing Progress or Results

Reviewing progress on the SiMR from Phase I through the April 2019 submission has been challenging with two state assessment changes and two baseline resets. Examination of local data, implementation data, and other evaluation measures as described previously continue to be vital to understanding progress in improving outcomes for the target population.

3. Plans for Improving Data Quality

Examination of the SiMR population performance statewide on RICAS in consecutive years moving forward will produce more meaningful year-to-year comparisons for statewide assessment. To address the data quality issues raised in the previous year's report related to the lack of common assessments to screen and progress monitor students, the Math Project created a screening data collection tool. Continued training of school-level participants to extract universal screening data by disability category and race will improve future outcome

measures. In addition, continuing to expand the case-study approach to examine progress monitoring data for specific disabilities and races will strengthen data quality in the evaluation.

In last year's submission, we discussed how the shift to the online training modules led to our inability to monitor participants' completion of the training evaluations. However, an unanticipated benefit of the book study model was that participants—to earn professional learning unit credits—had to complete surveys about the text that they read, participate in an online discussion board, and evaluate the training modules they completed. This provided us access to additional data to help us measure participant knowledge of EBPs in mathematics. We plan to continue the book study model, perhaps with a different text, and will require participants to complete similar data sources so that we can access quality data.

E. Progress Toward Achieving Intended Improvements

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

At RIDE, more frequent cross-division (Educator Quality, Instruction and Assessment, School Improvement, and OSCAS) meetings are now occurring. The overarching goal of these meetings is to align practices and initiatives at the state level to reduce confusion for LEAs about potentially competing initiatives from across divisions. This approach to changing RIDE's infrastructure has the potential to reduce barriers related to initiative overload on LEAs, thus resulting in more sustainable, scalable efforts.

To produce greater cross-office collaboration, OSCAS staff have been included in curriculum work at RIDE. The focus also is on more active collaboration instead of information sharing. For example, mathematics specialists have opened core mathematics training preparation to OSCAS staff and Math Project partners for feedback and input. OSCAS staff also have participated in new curriculum teamwork in the department, with the outcome to support districts with tools for choosing a quality core mathematics curriculum along with technical assistance to provide professional learning support for the implementation of any new materials. RIDE personnel, including mathematics specialists, curriculum specialists, and assessment specialists, work alongside one another in the same office space; those specialists are now in the same division as OSCAS staff. Overall, the focus of leadership has been on ensuring infrastructural changes to support collaboration across RIDE initiatives.

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. 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 used to track EBP implementation (i.e., teacher self-report, implementation logs, and observations). Although self-report is not always a reliable source of fidelity data, it is an efficient method (Center on Response to Intervention, n.d.). Conversely, observations are more reliable but a less efficient method (Center on Response to Intervention, n.d.). Because the goal for our sites is to sustain practices across time, we aimed to create structures and/or processes that will make fidelity monitoring more feasible and likely to occur separate from project coaching activities. An example of this is our Number Talks fidelity form, which includes a fidelity checklist and a space for educators to report formative assessment data. In that way, the form has a dual purpose. Also, many sites have established structures for leadership to conduct observations and/or “instructional rounds,” where teachers can observe each other’s implementation using a fidelity monitoring tool (either a tool that comes with an intervention or a created form with essential elements of the intervention).

a. PALS Math Fidelity Through Observations

The training activities in this reporting period have focused on developing participants’ knowledge of evidence-based, core mathematics instructional strategies and PALS Math aligned with the Common Core State Standards. PALS Math has fidelity monitoring tools included with the teacher handbooks. The Math Project has addressed implementation fidelity of PALS Math across sites that are implementing the intervention. In an urban ring middle school seventh-grade class, we monitored PALS Math intervention fidelity through observation in spring 2019. During an initial observation, the leadership team went together to observe and then calibrated the observations. Approximately 40% of the student behaviors (identified on the PALS Math fidelity monitoring tool) were met, and 25% of teacher behaviors were met. These data led to conversations about which integral components of the intervention were not implemented as intended. The first component addressed for improvement was student use of the PALS Math

intervention's coach's question sheet and self-talk. The second component addressed was the educator's active monitoring of student pairs to ensure student coaches were providing immediate corrective feedback. The final component of fidelity addressed was the use of the intervention's point sheet/motivation system. Although teachers had a motivation system in place, it did not engage the students and educators as active participants throughout the entire lesson. In response to these data, the site's coach provided a refresher training to educators and staff, modeling the integral parts of the PALS Math intervention, including how to actively use the PALS points and then how to "re-train" students on using the coaching sheet and providing corrective feedback to their partner. After this refresher, the leadership team conducted a post-observation: Teacher behaviors increased to 73% observed, and student behaviors increased to approximately 75%.

b. Number Talks Fidelity Through Self-Report

In relationship to implementation fidelity of Number Talks, data include educator self-assessments using a checklist or observations of teachers implementing learned practices. In some instances, sites developed an "instructional round" approach, during which peers observe other teachers implementing a learned strategy and provide feedback. In November 2019, educators in Grades K–8 engaged in professional development to learn about implementing Number Talk. The teachers were asked to implement a Number Talks session with students and reflect on the experience to share with their grade-level group at a February 2020 professional development session. Of the 69 educators who participated in the trainings, 43 completed the self-reflection and/or shared student responses to the math problems posed during their Number Talks. Of the 43 that completed the implementation with the self-reflection form, 81% implemented a Number Talks session where mental math played an integral part, and 19% implemented a Number Talks session that involved the application of mathematics in word problem contexts. Mental math and the application of mathematics are both appropriate areas of focus for Number Talks sessions with students. All educators implemented Number Talks with high fidelity (at least 80% accuracy) across key areas (e.g., short, student-led sessions; hand signals to promote wait time, expectations and procedures were made clear, teacher as facilitator).

At another project site, the project coach and the school's principal conducted instructional rounds in fall 2019 using the Number Talks observational tool. The coach and the principal observed eight teachers at different grade levels. Teachers ranged from 60% to 90% adherence to implementation fidelity across the sessions, with an average of 75% adherence. In slightly more than one third of the classrooms ($n = 3$), mental math was not yet an integral part of the Number Talks, a core element of fidelity. Each teacher received, via e-mail, individualized, targeted feedback written collaboratively between the Math Project coach and the school

leader. We plan a second round of observations for spring 2020 to examine teachers' growth across time.

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 seven case-study students (see Section C.1.c. for more detailed information), implementation fidelity data were reported for four students. Attendance and student engagement during intervention were the most frequently reported measures of fidelity. Students attended sessions and were actively engaged 67%–71% of the implemented sessions. Educators' fidelity to intervention delivery was reported for two students (fidelity may have been assessed during Number Talks or PALS Math but not embedded as a data source within students' DBI case-study documentation); in both instances, the educators implemented the students' interventions as intended—and documented through intervention fidelity logs. One student's team also assessed fidelity of the student's engagement during progress monitoring administrations. The student's engagement was monitored during three monthly progress monitoring administrations; the student was engaged during each session. Fidelity to student engagement during progress monitoring administrations and during 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 statements about outcomes, supports the Math Project's theory of action, that **changes to adult behaviors result in student-level improvements.**

a. Book Study and Training Outcomes (Short-Term)

The analyses of both the summer and fall book studies indicate that participating educators are enhancing their knowledge related to supporting their students, and they also describe how they may apply their learning from the book study 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)

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 points in time. In all but

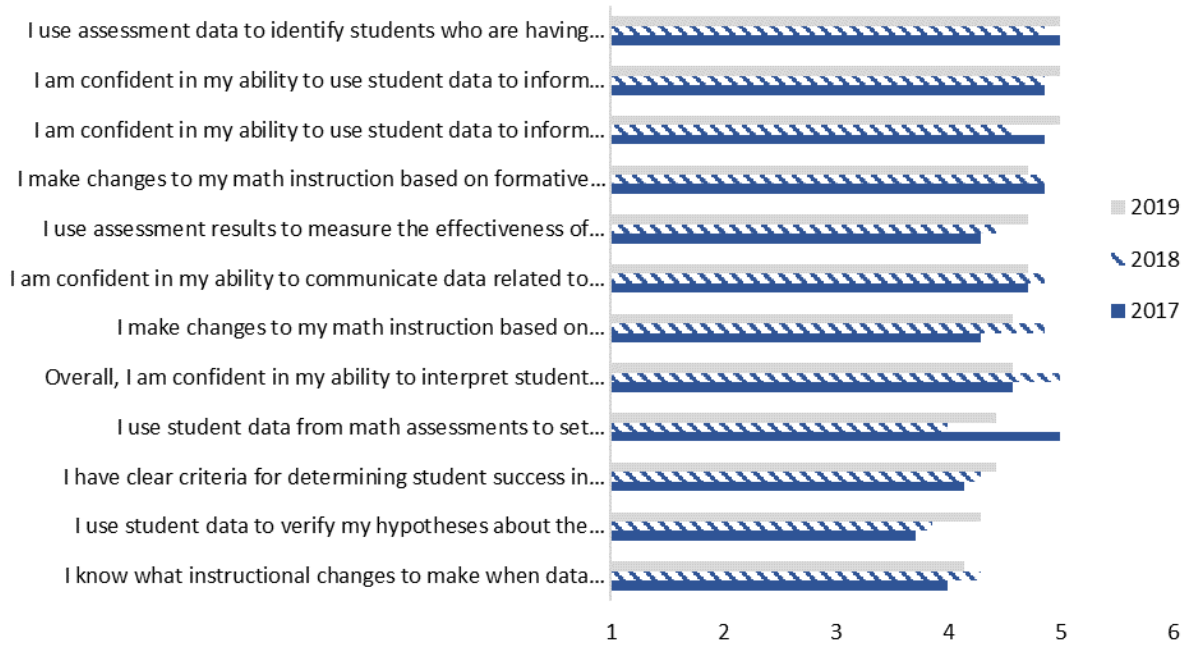
one domain, these gains are greater for those responding to the 2018 and 2019 survey administrations. These results are in Table 17.

Table 17. 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
Correct answers versus understanding as primary goal	36.7%	30.4%
Mathematics as a set of operations versus a tool for thought	34.2%	49.0%
Enjoyment of mathematics	31.7%	45.6%
Entity versus incremental view of intellectual ability (i.e., a fixed versus growth mind-set)	30.6%	46.0%
Confidence in teaching mathematics	27.5%	30.6%
Teacher control versus child autonomy in classroom lessons	26.3%	31.7%

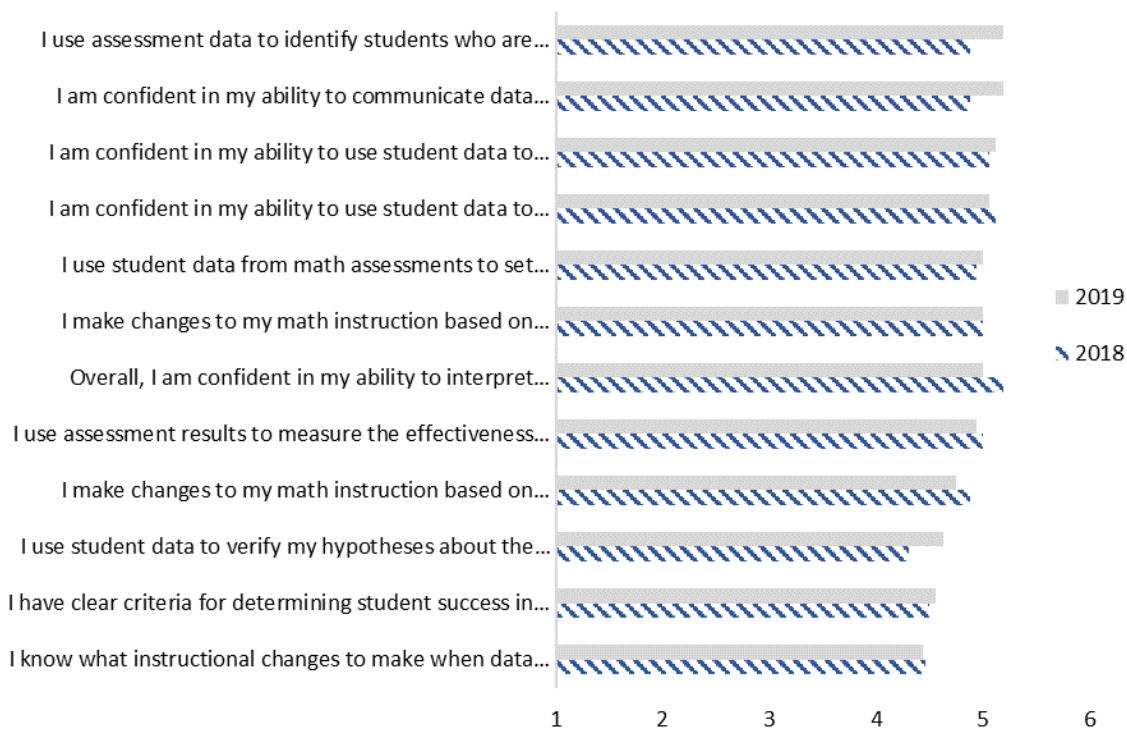
We analyzed the responses for those educators who completed the DBI Survey at multiple points in time during the project to determine trends (Figure 18). Seven educators completed all three survey administrations from 2017 to 2019. These respondents represent five participating districts. Of the 12 items on the survey, educators rated 10 items higher or the same from 2017 to 2019. The two items where ratings slightly decreased were related to using data to make changes to instruction and setting instructional targets and goals for students.

Figure 18. Data-Driven Instruction Survey Item-Response Averages ($n = 53$), from 2017 to 2019



For the 16 educators who completed the DBI survey in 2018 and 2019, average ratings on seven of the 12 survey items increased or remained the same (Figure 19). The items with the greatest gain were about using assessment data to identify students who are having difficulty learning math, verifying hypotheses about the causes of student behavior and math performance, and confidence in communicating data to colleagues and parents. Average ratings for each item increased by .31 from 2018 to 2019.

Figure 19. Data-Driven Instruction Survey Item-Response Averages ($n = 53$), from 2018 to 2019



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

In this submission, we reported on website traffic and pageview times as a baseline measure of parent and family awareness of intensive intervention. As discussed in Section C.1.c., the initial release of the online toolkits resulted in a very small number of pageviews across the 14 posted resources ($n = 215$). We hope to increase the number of pageviews as we add additional resources and increase our dissemination of the online toolkits now that our sites are focusing more on intensive mathematics intervention in addition to core mathematics instruction. We also may revisit this outcome to determine how best to continue measuring parent and family awareness.

d. Stakeholder Engagement and RIDE Collaboration Outcomes (Intermediate Outcomes)

In comparing this year's results to the previous years (see Figure 20), a consistently high number of stakeholders indicated that they are informed about the SSIP (6, 14, and 12, respectively). The results reflect a steady increase each year in the number of stakeholders who indicate they are meaningfully engaged (asked for their thoughts and then listened to [4, 5, and 7, respectively]).

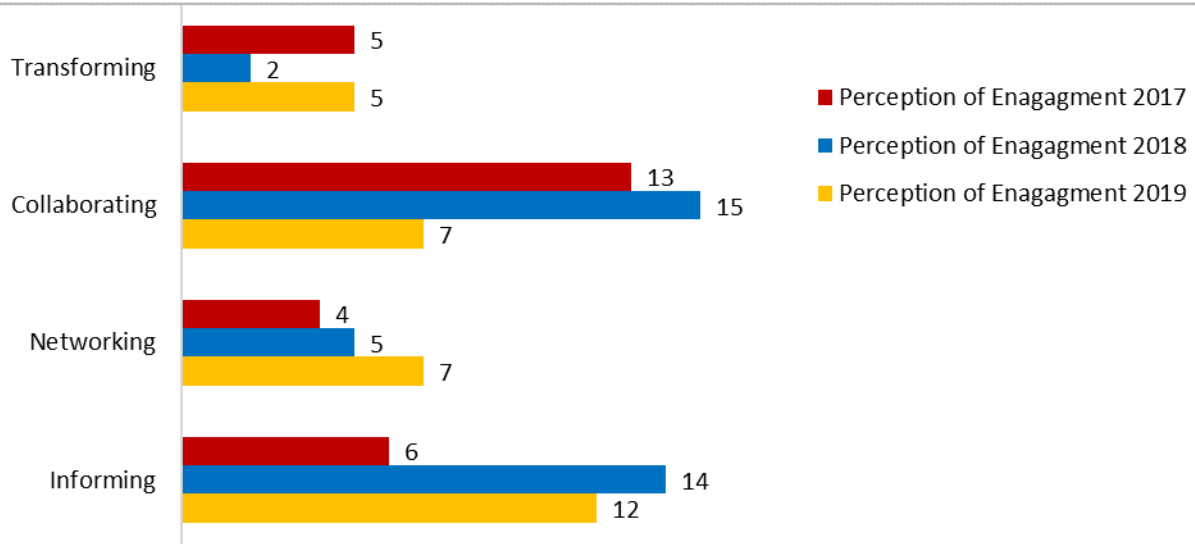
Figure 20. Peripheral Stakeholder Perception of Engagement Across Time

Informing: RIDE shares or disseminates information with relevant stakeholders in the state who care about the State Systemic Improvement Plan.

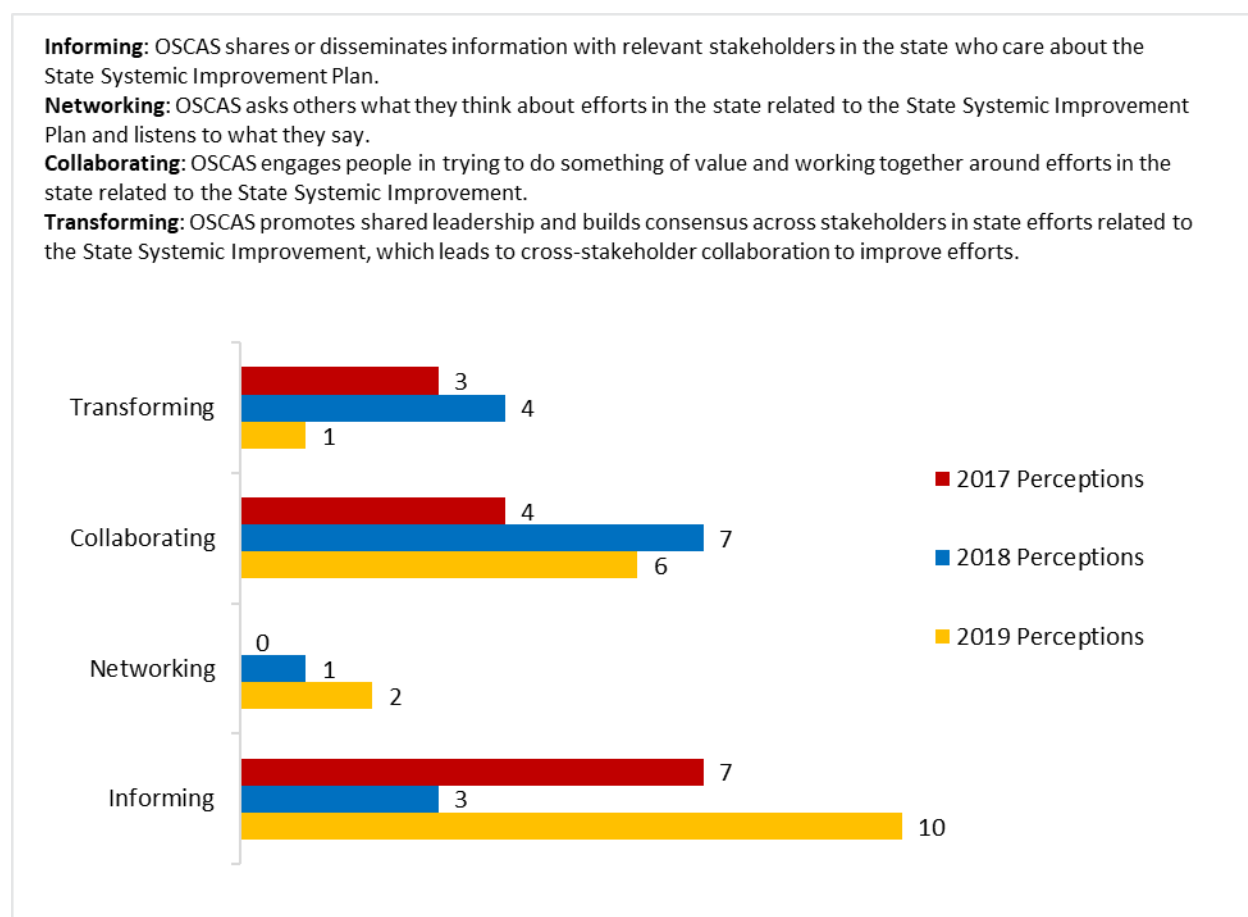
Networking: RIDE asks others what they think about efforts in the state related to the State Systemic Improvement Plan and listens to what they say.

Collaborating: RIDE engages people in trying to do something of value and working together around efforts in the state related to the State Systemic Improvement.

Transforming: RIDE promotes shared leadership and builds consensus across stakeholders in state efforts related to the State Systemic Improvement, which leads to cross-stakeholder collaboration to improve efforts.



In analyzing this year's results from past 3 years (see Figure 21), it is clear that RIDE's collaborating partners know about SSIP activities. Many stakeholders selected the collaborating level, indicating that they are not only informed but also view the SSIP efforts as valuable.

Figure 21. RIDE Collaboration: Perception of Engagement Across Time

e. 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**). Based on information reported by school personnel participating in DBI pulse checks this reporting cycle, we noticed **increases in educators' responses across all pulse check items compared with previous years**. In addition, the overall ratings remained high for pulse check items related to educators' knowledge of DBI and educators' application of skills in DBI (**intermediate outcomes**). For both the 2018 and 2019 Pulse Check Survey administrations, the item regarding the difference between progress monitoring and diagnostic assessment data had the highest rating (4.3 in 2018 and 4.2 in 2019). The greatest increase in ratings from 2018 to 2019 related to understanding what sources of data to include for diagnostic purposes if/when progress monitoring data cannot be used. A set of items on the Pulse Check Survey addressed the composition of the intensive mathematics intervention team as well as their meeting processes. All schools rated the item regarding team composition (i.e., team includes staff with the needed expertise to develop, monitor, and adapt

intensive mathematics intervention plans) highest in both 2018 and 2019. The outcomes related to effectively identifying students in need of intensive intervention and using data to guide decisions regarding the interventions also were in the Pulse Check Survey. Team members rated seven items related to these outcomes. The ratings across all items indicate strong gains from 2018 to 2019. Regarding the extent to which students with disabilities who receive intensive mathematics intervention planning and support have those integrated into their IEP, the average ratings each year were slightly lower than other items related to the data use outcome area. As in 2018, Cohort 2 ratings were slightly lower than Cohort 1 ratings across the data use items. The average ratings for the three items related to implementing intensive mathematics interventions for all the school teams completing the pulse check process were relatively similar in each survey administration. Both Cohort 1 and Cohort 2 teams had higher ratings in 2019 across all the items. In relationship to the Math Project's outcome related to **family awareness of practices to support students**, the average ratings from 2018 to 2019 across all schools increased.

f. LEA Capacity Outcomes (Long-Term)

The LEA capacity survey results (see Section C.1.c.) demonstrate that **LEA leaders perceive that their internal capacity** related to supporting core mathematics instruction, students who are struggling to learn mathematics, and supporting data-based decision making in mathematics **increased as a result of their participation in the Math Project's activities** (long-term outcomes). Participants shared how the Math Project supported their LEA's capacity related to data-driven, tiered mathematics instruction. One participant explained how their participation in Math Project activities helped their school create and facilitate a mathematics intervention classroom as well as support staff for preparing classroom instruction by using released RICAS and STAR Math data. Other participants discussed how their participation helped clarify and refine educators' practices related to delivering mathematics interventions and progress monitoring. Because of their participation in Math Project activities, LEAs have been able to implement decision-making processes to determine Tier 1 and Tier 2 interventions of support.

g. Screening Outcomes (Long-Term Outcomes)

The reporting cycle does not align with the assessment cycle, making our progress toward long-term outcomes seem delayed. This is the first reporting period that we can provide information about Cohort 1 and 2's performance across multiple time periods. The comparison of screening data (see Section C.2.b.) demonstrates slight increases in the percentage of students at Tier 1 (core mathematics instruction), which provides evidence toward **improved student outcomes on formative assessments** (long-term outcome). In addition, these data support the Math Project's shift to a 2-year implementation cycle (which allowed greater focus on core instructional strategies). In our next submission, we will have additional time points to

compare, as well as additional information about Cohort 3's baseline performance on their screening measures.

h. 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), which led to **improved student outcomes on formative assessments**. All seven case-study students made moderate to ambitious growth toward progress monitoring goals (long term-outcome; see Section C.1.c. for additional detail as well as Appendix B for graphed student-level data).

One educator provided illustrations of gains made by her student in addition to reporting the results of progress monitoring. She described the positive change in mindset from fall to spring: “[A] sense of self confidence has pushed the student to be okay with making mistakes and process through why the mistakes occurred. Earlier in the school year, the student was self-conscious and would cry when making a mistake.” She also noted skill areas that had improved: “Fluency has increased significantly—both in computation and verbal fluency. The student is on grade level for computation, according to the MBSP results.”

4. Measurable Improvements in the SiMR in Relation to Targets

Because the 3 years of PARCC data collection did not match the implementation timeline of the SSIP, direct causation to the current Math Project is not feasible. Math Project implementation began January 2017 after a fall 2016 recruitment and needs assessment process. PARCC data collected in spring 2017 likely did not reflect those initial implementation efforts but may reflect prior pilot work, MTSS, and NCII project work. RICAS 2018 was the first administration but measured only 1 year of the 2-year implementation cycle. The RICAS 2019 administration is the first opportunity we had to assess the SSIP implementation efforts. RIDE is currently examining state assessment performance of students with SLDs who are Black or Hispanic from participating districts compared with nonparticipating districts and will report on findings once multiple years of RICAS data corresponding to the 2-year implementation cycle become available. As mentioned previously, of the 13 project participant schools, 12 schools show an increase in the percentage of students overall meeting or exceeding expectations in mathematics and two of the 12 schools have statistically significant increases. In reviewing the growth index across the 2 years on district accountability report cards, one middle school earned three stars (i.e., greater than 1.10 growth index), which is the highest rating, for students with disabilities, whereas nine other project schools earned two stars (i.e., between

0.85 and 1.10 growth index) for students with disabilities. Five of the schools exceeded the 0.96 marker for average growth for similarly performing peers statewide.

F. Plans for Next Year

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

Table 18 provides an overview of the additional activities to be implemented next year, with the timeline delineated by project activity.

Table 18. Implementation Plan and Timeline

Project implementation areas	Completed activities	Planned activities	Timeline for implementation
Project planning and coordination	Conduct informational meeting/kickoff with Cohort 3 sites.	Implement action plans with Cohort 1, 2, and 3 sites.	Ongoing
	Complete needs assessments with Cohort 3 sites.		
	Draft and finalize the memorandum of understanding and mini-grant process with Cohort 3 school sites.		
	Implement action plans with Cohort 1 and 2 sites.		
	Have Cohort 3 sites prioritize needs assessment results and develop action plans.		
Training and coaching	Identify objectives and targets for school year.	Identify objectives and targets for school year, including objectives and targets in relationship to scaling and/or sustaining project work as supports are gradually faded.	Summer and early fall 2020
	Schedule and implement trainings for Cohorts 1, 2, and 3.	Schedule and implement trainings for Cohorts 1, 2, and 3.	Fall 2020–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).	Ongoing
	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.	Ongoing

Project implementation areas	Completed activities	Planned activities	Timeline for implementation
	Support teams with selecting DBI case studies.	Support teams with taking ownership of the DBI case-study process.	Ongoing
	Model EBPs with schools.	Scale the book study to more educators and districts.	Ongoing

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

As the training, coaching, and technical assistance are implemented, the Math Project team will continue to put into action data collection instruments to gather data on quality, knowledge gain, and fidelity of implementation. These tools will 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 (i.e., RIPIN) to meaningfully examine increases in parent and family awareness of intensive intervention.

3. Anticipated Barriers and Steps to Address Those Barriers

Given that the contract that funds the Math Project will terminate in June 2021, sites are moving into the final 18 months of support from an external provider (i.e., AIR; Math Project). We anticipate that Cohorts 1 and 2 sites will need support with developing processes and procedures to continue scaling and sustaining the work. We 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 a myriad of 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 Evidence-Based Practices Cross-State Learning Collaborative—a new collaborative that will extend the prior years’ learning from the Mathematics Cross-State Learning Collaborative. To date, the Mathematics Cross-State Learning Collaborative has been a very effective resource for developing the design decisions for the Intensive Math Intervention Project, examining evidence-based research and providing support for implementation challenges. We expect that this new collaborative will continue to serve as a helpful tool for the SSIP. In addition, RIDE will leverage CEEDAR Center, NCII, and IDEA Data Center technical assistance to continue development and implementation of the SSIP.

G. References

- Marx, T., Peterson, A., Donovan, S., Belanger, D., & Klein, E. (2018). *Intensive intervention: A practitioner's guide for communicating with parents and families*. Washington, DC: American Institutes for Research, National Center on Intensive Intervention. Retrieved from [https://intensiveintervention.org/sites/default/files/Intensive Intervention Practitioners_Guide-508.pdf](https://intensiveintervention.org/sites/default/files/Intensive_Intervention_Practitioners_Guide-508.pdf)
- National Center for Systemic Improvement. (2016). *Resource list: Tools for building and measuring capacity*. San Francisco, CA: WestEd. Retrieved from <https://ncsi.wested.org/wp-content/uploads/2016/03/ResourceList-ToolsforBuildingMeasuringCapacity.pdf>
- Witzel, B. S., & Little, M. E. (2016). *Teaching elementary mathematics to struggling learners*. New York, NY: Guildford Press.

Appendix A. Pulse Check Report Aggregated Data

Figure A1. Intensive Intervention Process and Team

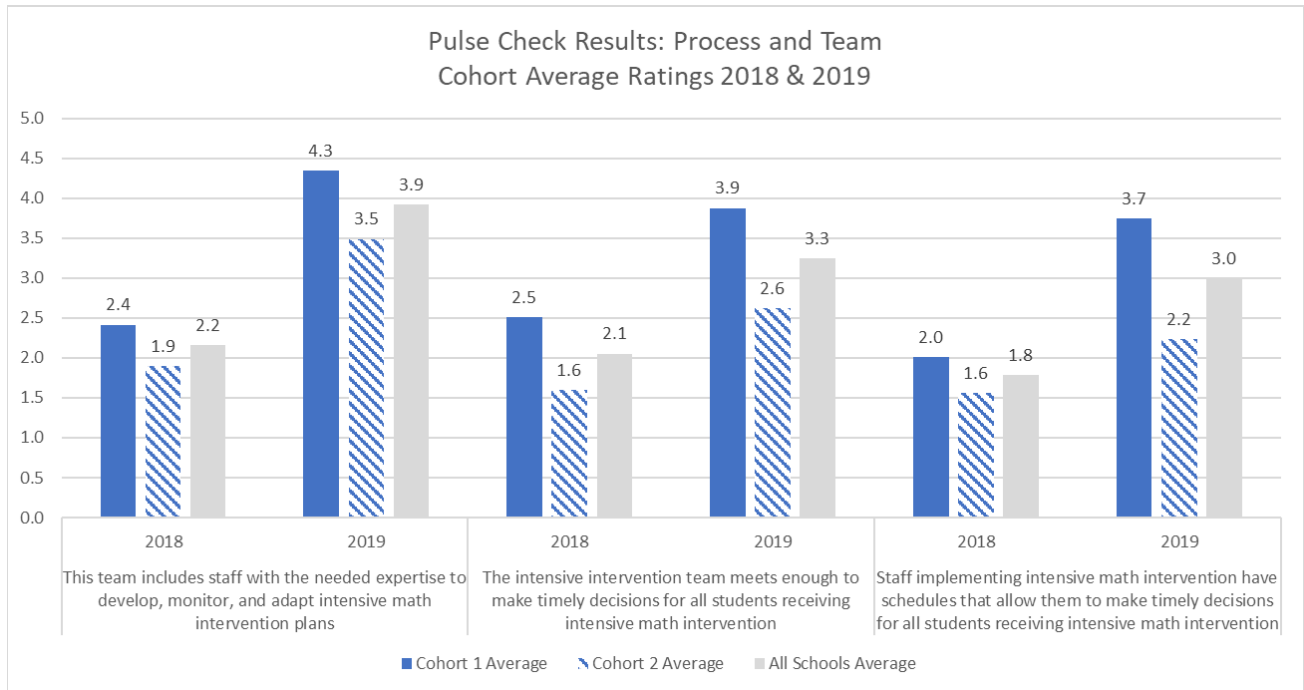


Figure A2. Scheduled Team Meetings

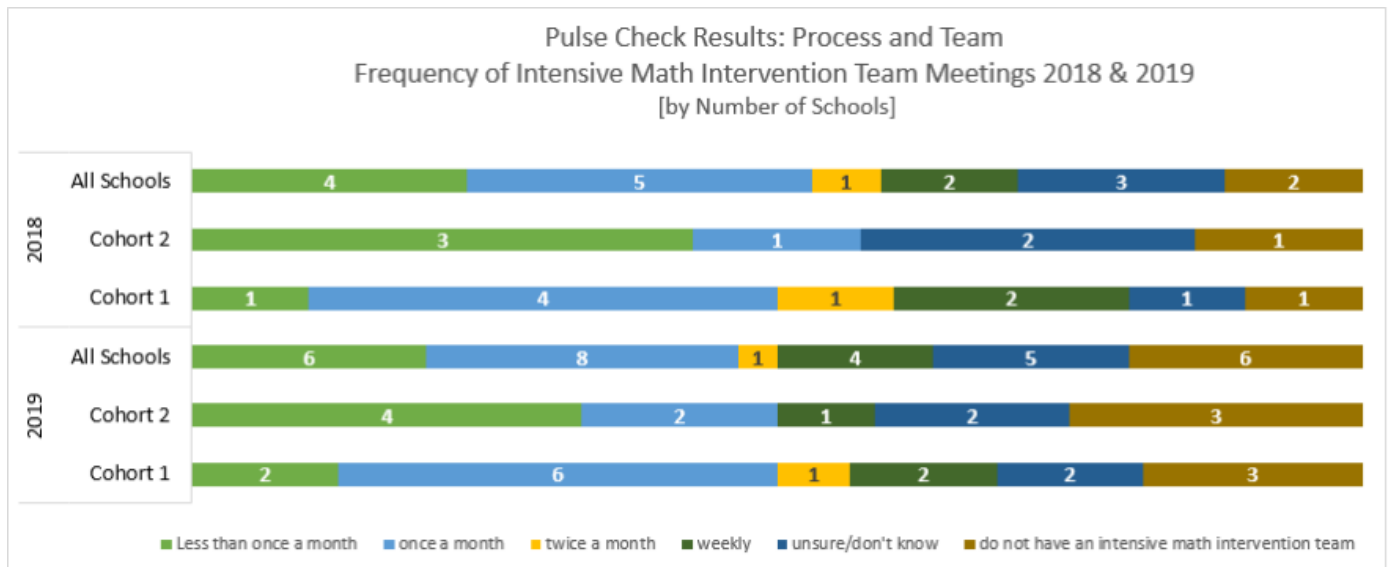


Figure A3. School Procedures and Practices to Support Mathematics Intervention

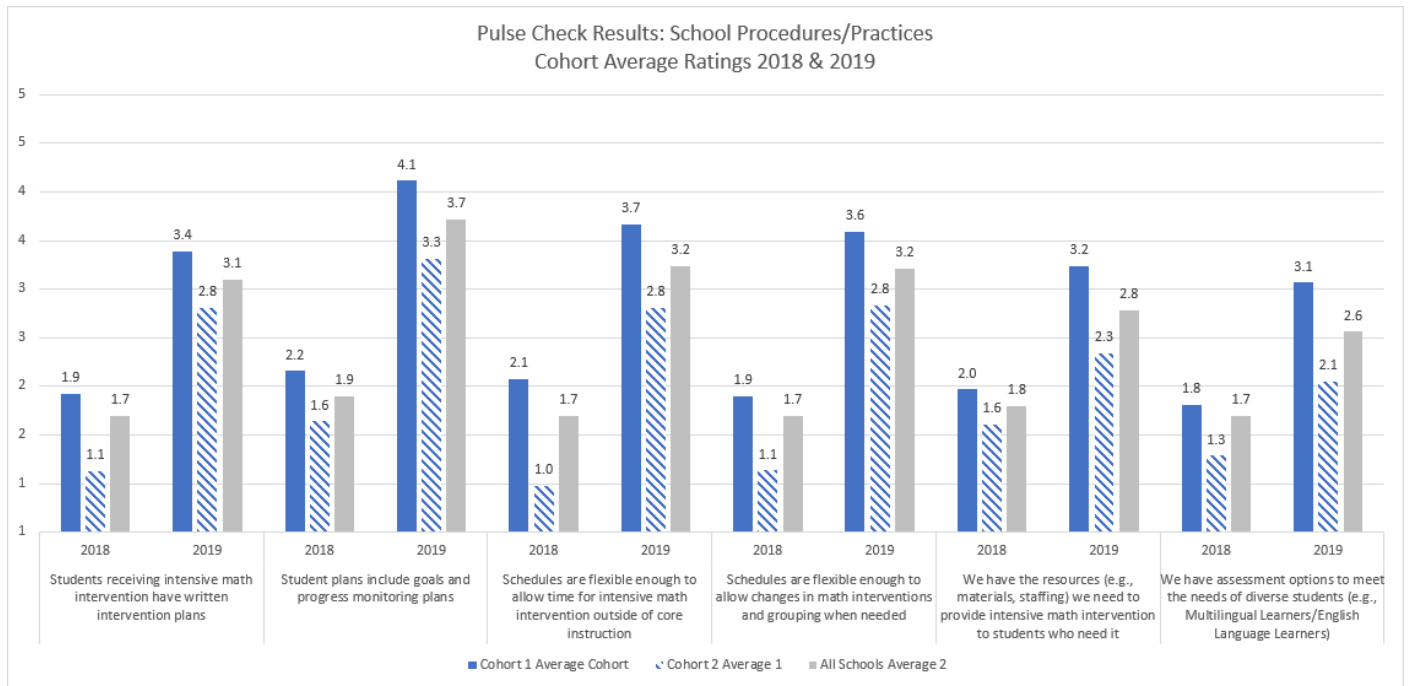


Figure A4. Diverse Students and Parent Involvement

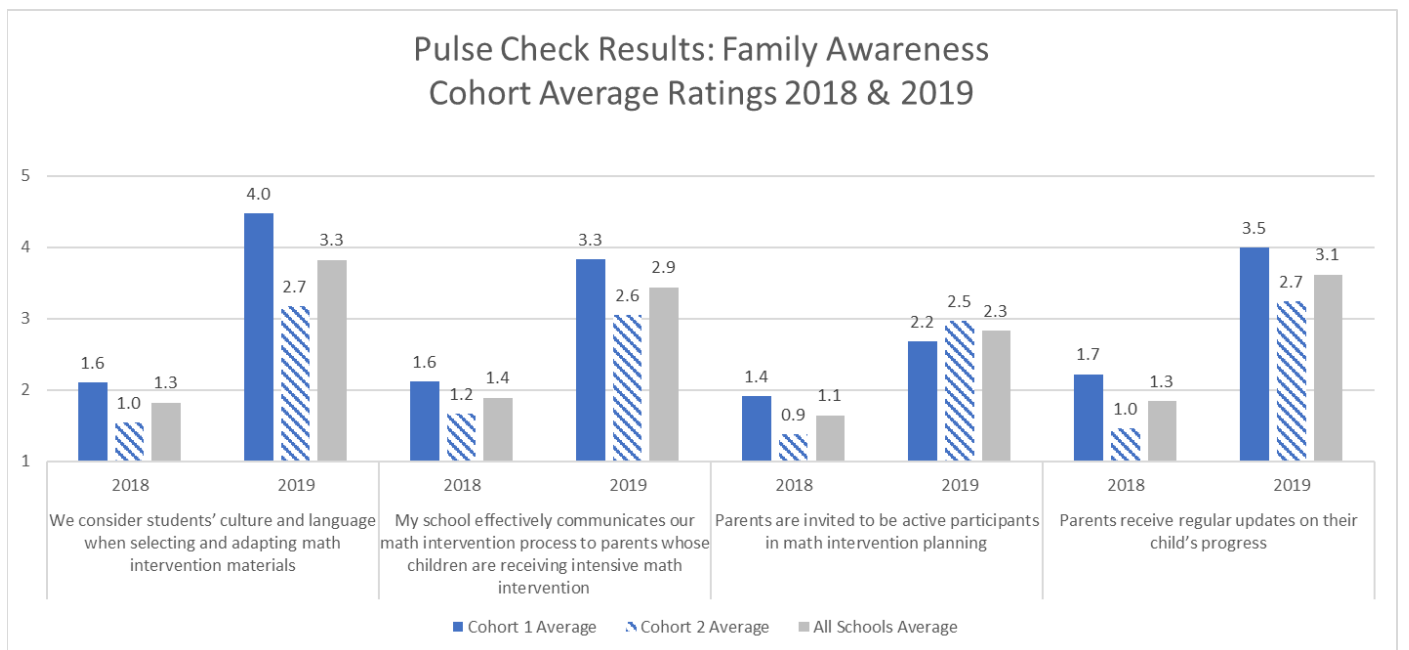


Figure A5. Identification and Data Use

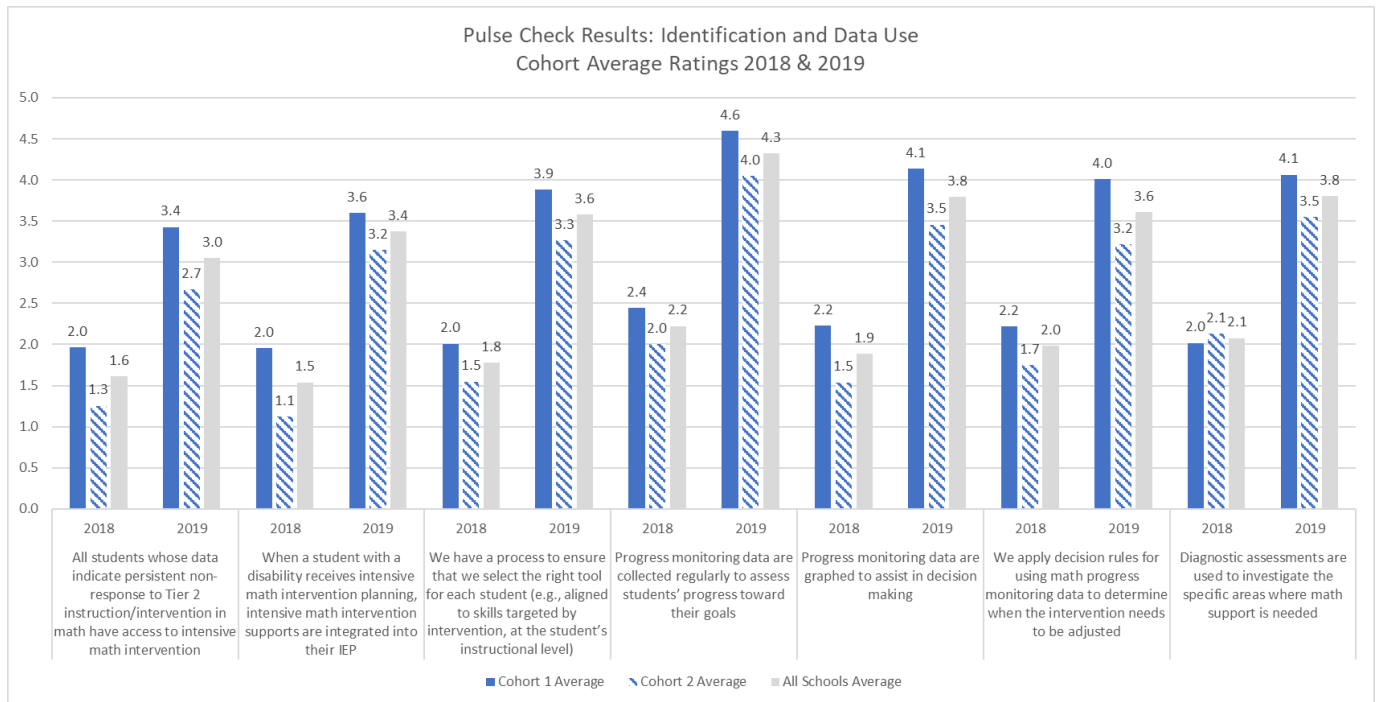


Figure A6. Interventions

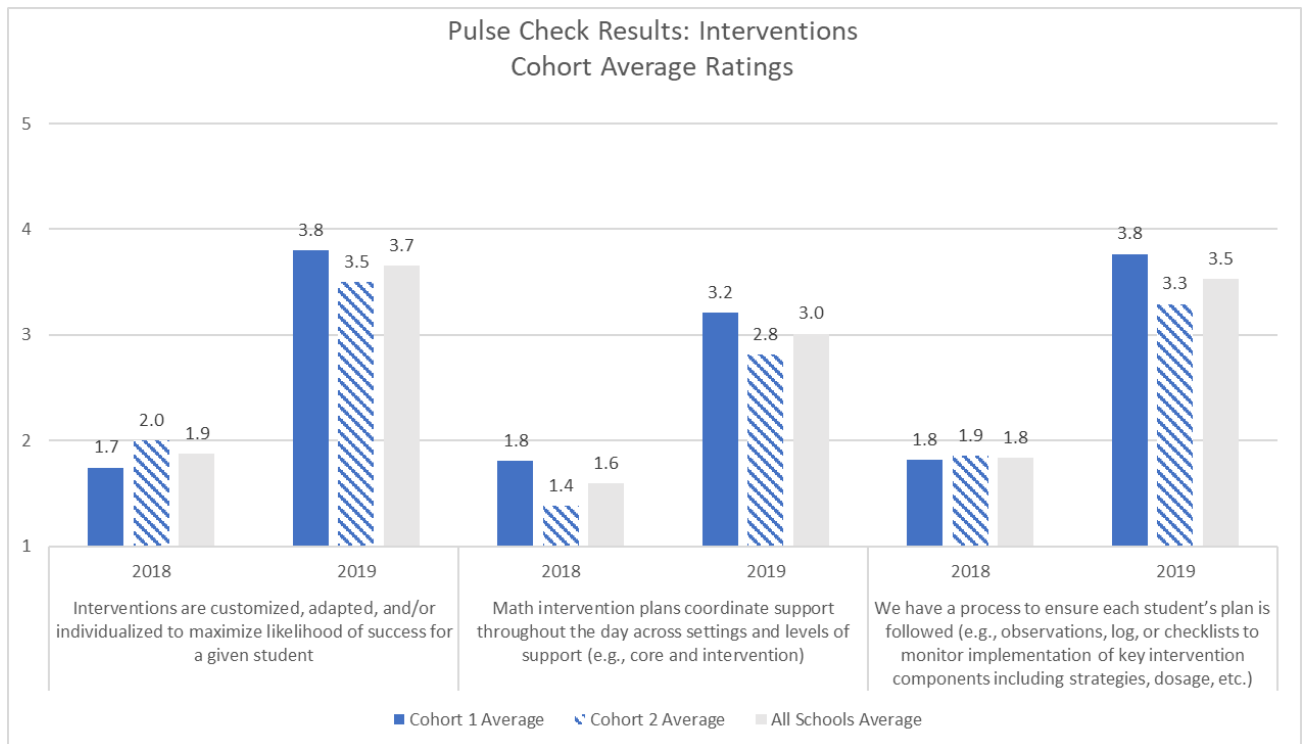
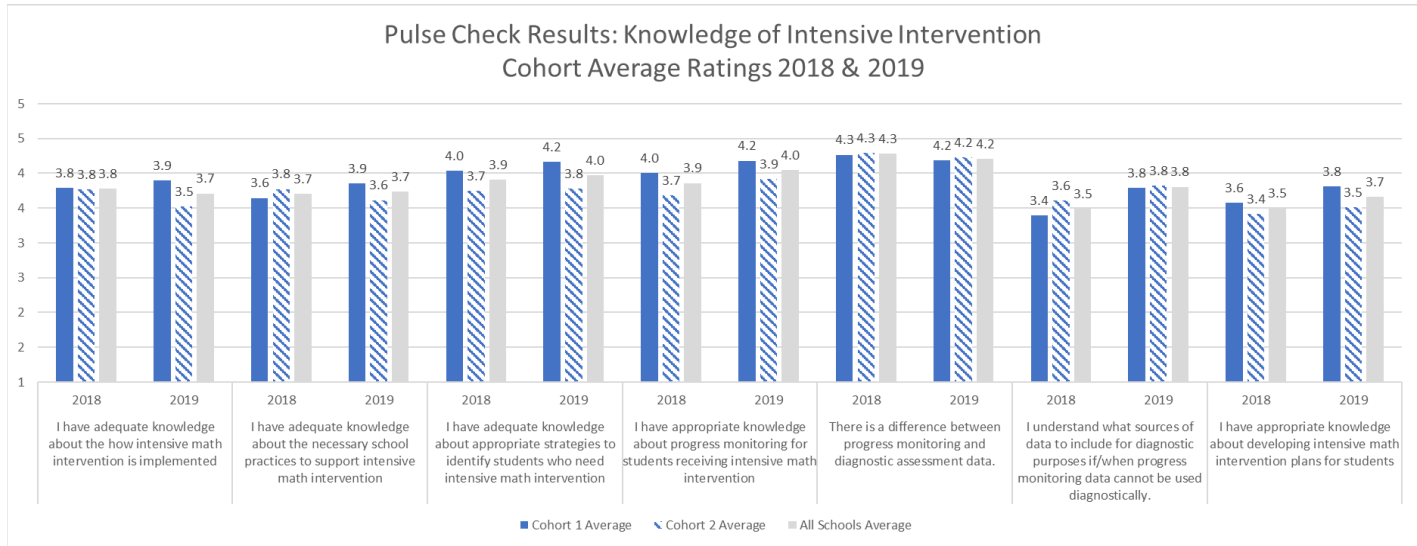


Figure A7. Intensive Intervention Knowledge



Appendix B. Screening Data by Tier by Subgroups

Figure B1. Pilot Elementary Schools

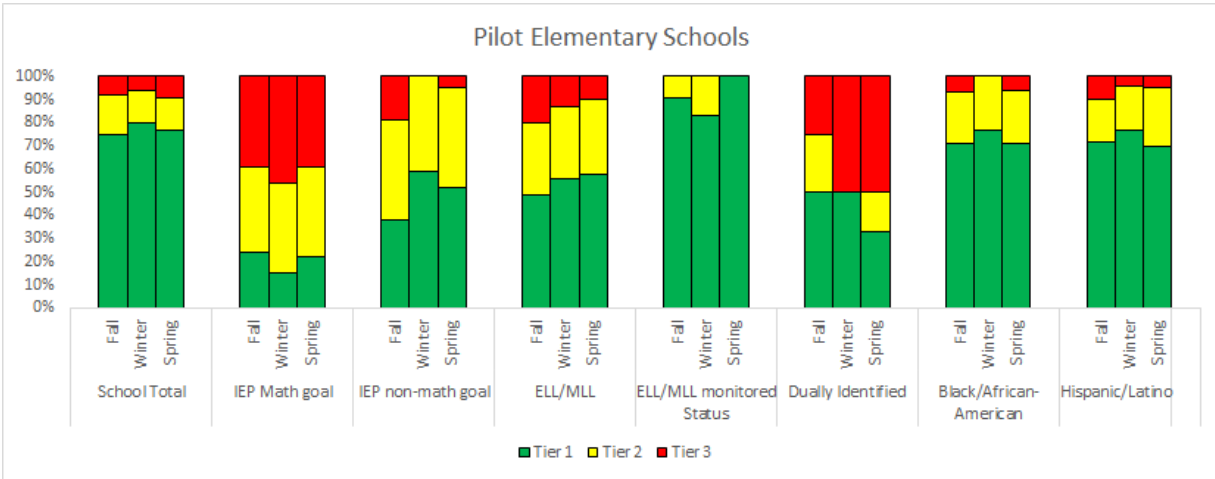


Figure B2. Pilot Middle Schools

