RIDE Rhode Island Department of Education

Phase III Report

Contents

Tables

Page

Figures

Page

A. Summary of Phase III, Year 3

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 children 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 children with disabilities, as well as children who are Black or Hispanic/Latino. To address the SiMR, RIDE awarded the American Institutes for Research (AIR) a contract to support the State Systemic Improvement Plan (SSIP) implementation and evaluation activities. During the Phase III, Year 3 (April 2018 to March 2019) reporting cycle, AIR engaged in technical assistance activities in 13 schools across eight districts, representing sites from two cohorts. A third cohort will be added to the project in the fall 2019 (Table 1).

Table 1. Participating Sites by Cohort

Cohorts	Elementary sites	Middle school sites[a]	Total
Cohort 1 (participation start in 2016–17 school year)	4	2	6
Cohort 2 (participation start in 2017–18 school year)	5	2	7
Total	9	4	13

[a]Middle school sites in Rhode Island often serve students in Grade 5, and many of the students identified in 2014 for the SiMR are now in middle school.

This report details implementation and evaluation activities involved in the Intensive Math Intervention Project (hereafter, Math Project) since the last reporting period, April 2017 to March 2018, and communicates key findings resulting from the ongoing evaluation of the project. In 2018, Rhode Island implemented a new statewide assessment (the Rhode Island Comprehensive Assessment System or RICAS) in Grades 3–8 in English language arts and mathematics. This report also discusses the implications of the change in assessment, as well as information about resetting the baseline for the SiMR population.

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

The previous year's submission detailed refinements to the theory of action and logic model, based on stakeholder feedback and actual implementation. The language was changed from broad language related to multi-tiered system of supports (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 that are expected to help RIDE achieve the intended outcomes and the SiMR.

Figure 1. RIDE SSIP Theory of Action

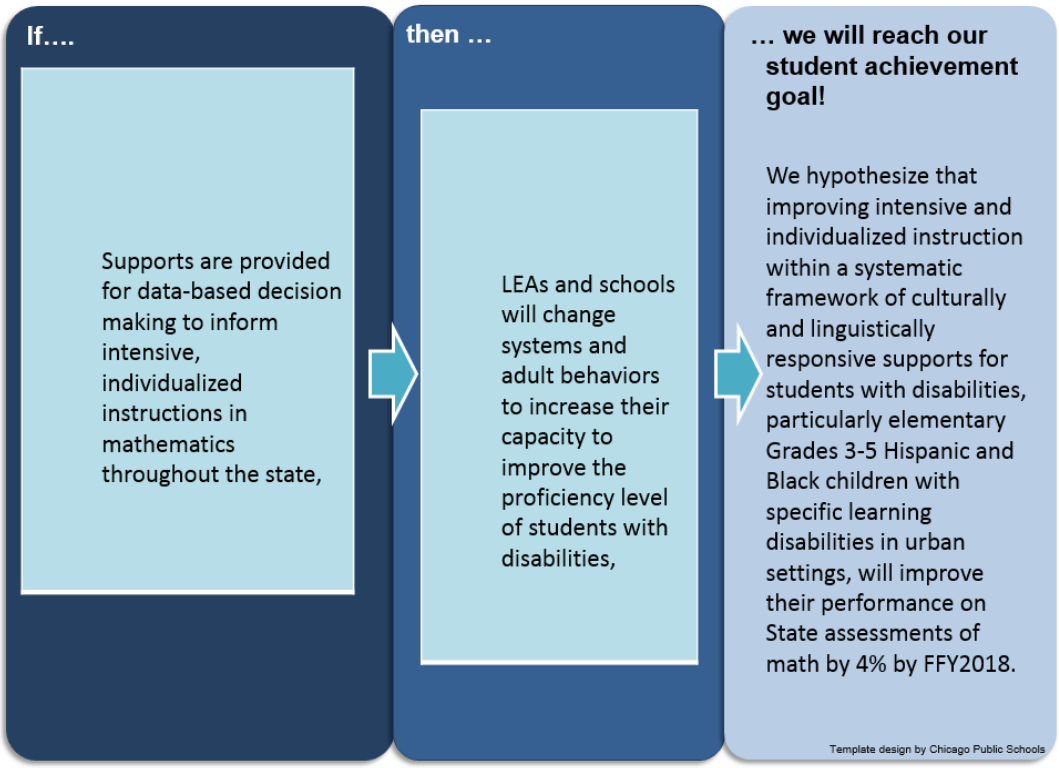
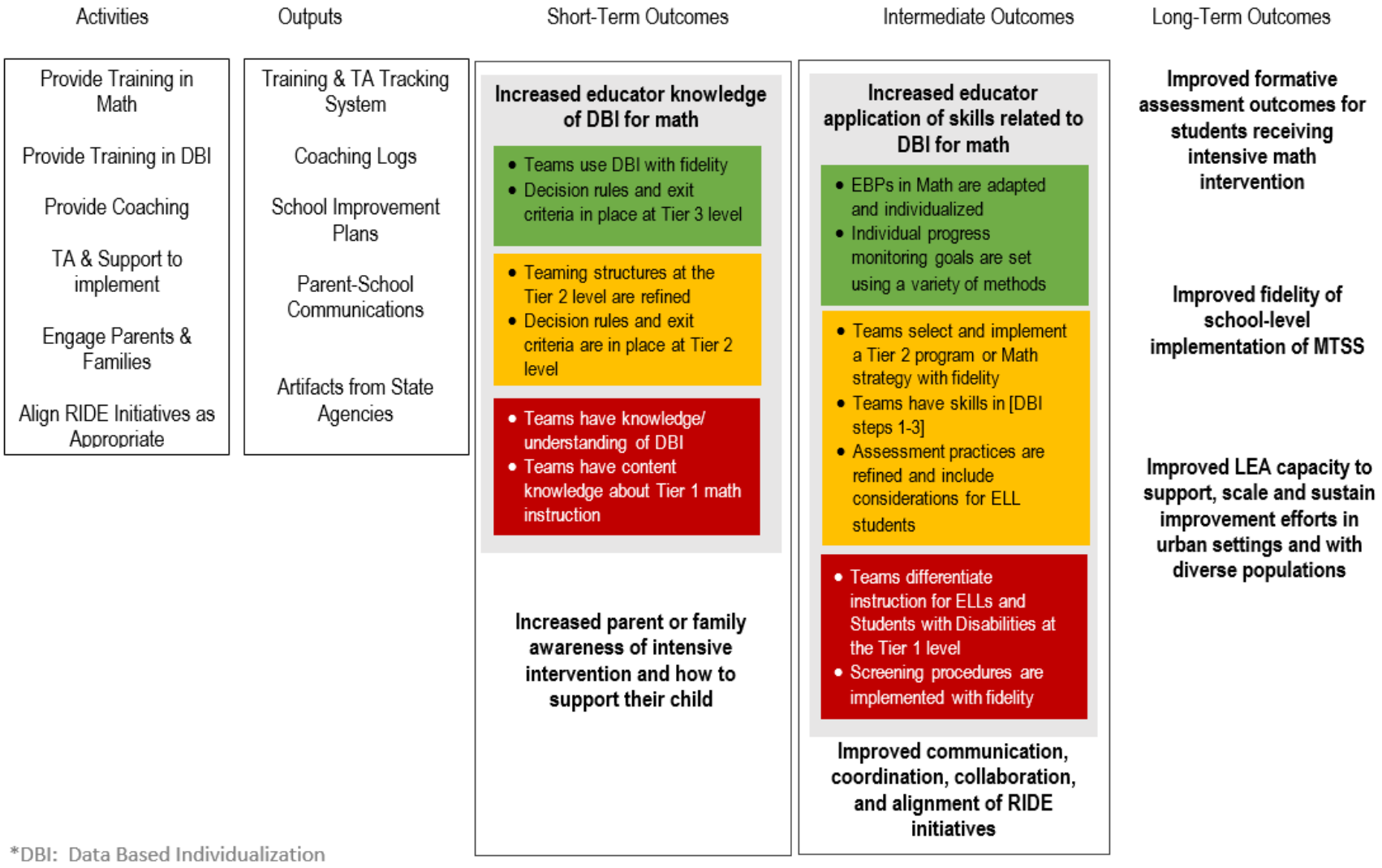


Figure 2. RIDE SSIP Logic Model

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

During this reporting period, RIDE worked to align other state-level initiatives by identifying common goals. Specifically, infrastructural initiatives were leveraged to ensure 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 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 school sites, stakeholders (described later), and key personnel from other RIDE initiatives. The SSIP core team has made connections across the initiatives to (a) ensure consistency in how data-based individualization (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. The SSIP mathematics focus also has fostered increased collaboration between staff at RIDE's Office for Student, Community, and Academic Supports and the Office of Instruction, Assessment, and 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).

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) are members of the 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.

3. Specific Evidence-Based Practices Implemented to Date

To date, two 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 have continued to receive project support through the 2018–19 academic year. Cohort 2 includes seven schools that joined the project during the 2017–18 academic year. Current cohorts will continue to participate in the Math Project through 2021, focusing on different aspects of implementation (e.g., learning and implementing DBI and then scaling and sustaining efforts) in subsequent project years. Before implementation, the sites identified for the Math Project have been engaged in a needs-assessment process (see previous submission for examples) that drives the development of an action plan for the site. During the needs-assessment phase, key personnel from participating sites are interviewed by Math Project staff using a semistructured interview protocol that asks sites to identify their current practices related to (a) tiered instruction in mathematics (core, targeted, and intensive), (b) their data-based decision-making processes (progress monitoring tools, decision rules, and diagnostic assessments), (c) their approach to parent and family engagement, and (d) their supports for culturally and linguistically diverse students and students with disabilities. Needs assessments and action plans are complete for all cohort schools.

Areas of need revealed through this process 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 evidence-based practices (EBPs) in mathematics across the tiers.

To help address the problems, Math Project staff developed site-specific action plans that incorporate feedback from school personnel through the needs-assessment process. 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. The action plans also outline the training and coaching activities in which sites will participate. These goals align to the short-term and intermediate outcomes in the theory of action and 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
Peer-assisted learning strategies (PALS) in mathematics	X	X	
Corrective mathematics		X	X
DBI process (includes evidence-based intensification strategies)			X

Note. EBPs may be added to this list as sites identify additional skill deficit areas that require instruction/intervention.

a. Training in Evidence-Based Practices

All site action plans included goals related to improving knowledge and implementation of EBPs in mathematics across the tiers. In the previous year, the Math Project offered training in evidence-based strategies, PALS, and distinctions of Tier 2 mathematics intervention from Tier 1 small-group instruction. These trainings led to increases in participating educators' beliefs related to mathematics instruction (see "Math Beliefs Survey Results" for more information), but many sites continued to face challenges related to scaling and sustaining learned strategies to other teachers or grade levels.

In response to these challenges, as well as the realization that many sites were unable to send teachers to offsite professional development, the Math Project team adjusted the training model. The team developed a series of short, online/virtual professional learning modules to accommodate the adjustments that include (a) a welcome letter discussing how to use the module; (b) prework activities (where applicable), including readings; (c) a video-based content presentation; (d) a slide deck for use by district- and or site-level personnel for future professional development offerings; and (e) implementation resources, including action plans, feedback forms, and/or additional readings or video examples. Presently, all modules are housed in the Math Project's Google Drive and are available on the RIDE website. In addition to use with project sites, the content has been

shared more broadly with RIDE's Office of Instruction, Assessment, and Curriculum and the state's Mathematics Advisory Board to promote collaboration and alignment across RIDE offices and initiatives. The online modality of the content has increased RIDE's ability to disseminate the content through various channels (on the RIDE website, in newsletters, and during meetings with local directors). Currently, the following modules are available:

- **Features of Core Instruction, Part 1 (30 minutes).** Discusses the progression of the Common Core State Standards in Mathematics across grade levels to promote educator understanding of how skills progress across time and support cohesion across grade levels.
- **Features of Core Instruction, Part 2 (30 minutes).** Discusses in depth the Standards for Mathematical Practice, as well as the concept of instructional rigor in mathematics.
- **Number Talks (30 minutes).** Presents the instructional strategy of Number Talks (a short, student-led discussion about a mathematics problem to promote computational fluency). Educators who complete the module can access resources to support Number Talks implementation (e.g., see Appendices A and B for an implementation plan; fidelity, formative assessment checklist, and feedback form).
- **Effective Instruction to Support Language Development in Mathematics (30 minutes).** Discusses the importance of using precise and technical mathematical language and teaching vocabulary, particularly for students who are struggling or English learners, and provides specific instructional strategies that can be used during mathematics instruction to support language development (e.g., Frayer models).
- **Features of Fidelity (15 minutes).** Discusses the importance of instructional fidelity and presents the five elements of fidelity (duration/exposure, adherence, quality of delivery, student engagement, and program specificity) that should be considered.
- **Features of Assessment (50 minutes; can be broken into segments).** Provides an overview of the types and purposes of assessments in mathematics and then details how various types of assessment can be used together to help educators adjust instruction appropriately.

At many of the middle school sites, the module content has been shared with administrators and interventionists, but because of turnover and/or changes to schedules, module completion has been a challenge. To address this, some sites participated in embedded professional development with a Math Project coach (see Coaching Activities) focused on setting ambitious growth goals in STAR (a mathematics progress monitoring measure) and evaluating the effectiveness of intervention. One site purchased an evidence-based mathematics intervention program (Fraction Face-Off) and participated in a training with the vendor. The Math Project team is coordinating implementation and supporting teachers with managing the intervention "block" in their new schedule.

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 improvement in core instruction at that grade level.

General education teachers were the primary audience for all trainings. However, many special educators and/or interventionists working across grade levels participated in training activities to ensure instructional alignment across MTSS tiers and that short-term and intermediate project outcomes are achieved. Previously, attendees either completed an evaluation on-site or were sent an evaluation link. But because of the previously described shift to the module training series, the project can no longer collect participant attendance data by training session because sessions may be held without project staff present (i.e., the site uses the content during a professional development day or a faculty meeting). Consequently, rather than providing participant attendance numbers as in previous submissions, Table 3 details which sites completed which training modules. Although actual numbers are difficult to report based on the new training evaluation structure, each site has a core team made up of approximately five to six personnel; for each training, core teams were expected to participate, but others from their site also were welcome. "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 the module was first completed by a team or a grade level, but then the site scaled the module and implementation to an additional grade level or schoolwide. The Features of Assessment Module was developed only recently, and many sites have not been introduced to the module, so site participation data are unavailable for this module.

Table 3. Elementary School Trainings

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
Suburban elementary	Attended/ Scaled	Attended	Attended	N/A	N/A
Urban ring elementary	Attended	Attended	Attended	N/A	N/A
Urban elementary	Attended/ Scaled	N/A	N/A	Attended	Attended
Urban ring elementary	Attended	Attended	Attended	N/A	N/A
Suburban elementary	Attended/ Scaled	N/A	N/A	N/A	N/A
Urban ring elementary	Attended/ Scaled	Attended	Attended	N/A	N/A
Urban elementary	Attended	Attended	N/A	Attended	N/A
Suburban elementary	Attended/ Scaled	Attended	Attended	N/A	N/A
Urban ring elementary	Attended	N/A	Attended	N/A	N/A

	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)
Urban ring middle	N/A	N/A	N/A	N/A	N/A	Attended
Urban ring middle	N/A	N/A	Attended	N/A	Attended	N/A
Urban middle	Attended	N/A	N/A	N/A	Attended	N/A
Suburban middle	N/A	N/A	N/A	N/A	N/A	Attended

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 10 sites (five Cohort 1 sites and five Cohort 2 sites). A second site-level coach, with expertise in MTSS and supporting English learners, works with two sites in the same district, one site from Cohort 1 and the other from Cohort 2. The third coach with expertise in MTSS and DBI is the project director who works with one Cohort 2 site. 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 2018) through January 2019, Cohort 1 sites received 119 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 2018) through January 2019, Cohort 2 sites received 95 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, and 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.

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

In addition to formative and summative evaluation data reported in subsequent sections, this report highlights an additional data collection activity completed this reporting period. Math Project personnel worked with school sites to pilot a data collection tool to collect universal screening data. Schools conducted universal screening to identify students at risk for poor learning outcomes. The Math Project team uses the screening data to (a) support schools with identifying students who need additional intervention, (b) evaluate the effectiveness of core instruction throughout the school year, and (c) support schools with identifying areas of curricular strength and weakness. Screening assessments typically are administrated with all students at each grade level across three time points in the school year (fall, winter, and spring). In some schools, a gated screening system was adopted, in which universal screening was followed by additional testing or short-term progress monitoring to confirm a student's risk before recommending a student for mathematics intervention.

Screening assessments group students into three tiers—Tier 1, at/above benchmark; Tier 2, on watch/intervention; and Tier 3, intensive intervention—to support educators with providing additional instruction or intervention to students based on need. In this way, screening data provide a way for the Math Project team to identify both cross-site and site-specific needs. Screening data from multiple years also may support schools with evaluating the effectiveness of instructional/intervention approaches attempted, providing a more comprehensive view of student performance and potential project effects.

An additional evaluation activity conducted during this reporting period was the implementation of a DBI case study. DBI is a process that integrates assessment and intervention for individual students. A DBI case study provides sites and the Math Project team with a way to capture the assessment-intervention cycle for an individual student presenting with intensive mathematics support needs.

Stakeholder engagement also was assessed to determine the degree to which stakeholders were informed and involved in decision making regarding the project. Peripheral stakeholders—those who broadly have an interest in/awareness of Rhode Island's SSIP but may not work closely with implementation or evaluation activities—were given a short survey to assess engagement. Relevant peripheral stakeholders include the state's special education directors and RISEAC leaders.

As noted, collaboration across RIDE departments and initiatives also was evaluated with an adaptation of the *Leading by Convening* materials available from the National Center for Systemic Improvement. RIDE surveyed personnel in the Office of Educator Excellence and Certification Services; the Office of Instruction, Assessment, and Curriculum; the Office of College and Career Readiness; and the Office of Student, Community and Academic Supports (OSCAS). Across time, RIDE would like to see increases in cross-departmental collaborations related to SSIP implementation.

A discussion of evaluation data results can be found in Section C.1.c.

5. Highlights of Changes to Implementation and Improvement Strategies

As detailed in last year's submission, the Math Project cohort structure was adjusted to better address overall site-level readiness. When the project was initially conceptualized, the goal was to have sites begin implementation of the DBI process within the first year of their participation. However, Math Project staff discovered Cohorts 1 and 2 had foundational deficits (e.g., evidence-based mathematics instruction at Tiers 1 and 2, confidence in teaching mathematics, understanding of data/assessment purposes and use) that needed to be addressed through training and coaching activities prior to focusing on DBI implementation. As previously noted, RIDE's theory of action includes changes in adult behaviors—in mathematics, these behaviors include a shift from a fixed mind-set to a growth mind-set. The 2-year implementation structure became the focus of the project to first help change mind-sets and beliefs and then change practice. The content of the module series (described in the section on training in EBPs) was developed with the theory of action in mind. Each module includes opportunities for educators to reflect on current practices considering what is covered in the module. The content is structured so that educators begin to see the connections to their instruction and future impacts on students' mathematics performance. The shift to a 2-year implementation cycle was well received by sites, and additional modules are being developed based on feedback from sites about content that would support them further.

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 RIPIN as a partner on the Math Project. RIPIN has helped develop a resource that sites can share with parents so that they can better understand (a) changes to mathematics instruction, (b) how to promote a growth mind-set, and (c) ways that they can provide information about their child's completion of homework (i.e., what a child was able to do independently and what a child struggled to complete). This resource will be included in a larger toolkit that RIPIN is developing. The content will be shared with sites, and professional development opportunities through RIPIN will be made available. In last year's submission, an interview protocol structure led by RIPIN with families of case-study students was discussed as a method of demonstrating progress toward short-term outcomes related to increases in parent or family awareness of intensive intervention. This approach has shifted slightly resulting from logistic coordination across sites and to ensure that sites took ownership of family engagement for case-study students and the broader school community. The project team and RIPIN will reassess the interview protocol structure, should the toolkit and professional development activities not lead to the desired changes in family awareness, which will likely be examined through Web traffic and site-level dissemination of the toolkit.

B. Progress in Implementing the SSIP

1. Description of the State's SSIP Implementation Progress

Presently, progress on the state's SSIP implementation is on track with the logic model's short-term outcome related to increasing educator knowledge of DBI in mathematics. All sites 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, coaching activities are focused on aspects of the DBI process that sites will apply later in the

implementation sequence. 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. In addition to the training opportunities described throughout this report, the Math Project also funded 12 educators to attend the 2018 National Council of Teachers of Mathematics' (NCTM) annual conference in Washington, D.C., and will provide funding for two educators for the 2019 NCTM Conference in San Diego, California (April 2019). Participating educators are expected to share learned strategies with others at their school site. The two educators attending the upcoming NCTM conference will produce either a professional development session for the Leadership professional learning community (PLC) or a module focused on an EBP that they learned about at the conference.

The Math Project will bring on an additional cohort of sites (the number of sites in the cohort to be determined). For the third cohort, recruitment, needs-assessment interviews, and action planning are currently occurring or will occur in the coming months. The 2-year implementation cycle for new cohort sites will start in the 2019–20 school year and extend into the 2020–21 school year. Three sites have completed informal needs-assessment interviews. Because of the connections our project team has made with district-level personnel during the project, we have leveraged leadership knowledge of site needs, as well as information from additional data sources to inform the needs assessment. An example of this comes from one district that was planning to work with a different professional development provider in mathematics but decided to work with the Math Project. The district shared the needs assessment from the other provider with the project team. Those data, along with a shorter interview (scheduled after this reporting period) with the site-level leaders, will guide the development of the site-level action plan. In another site, the school team was a participant in technical assistance and training activities through the CEEDAR Center and NCII. The Math Project's project director led those trainings and coordinated directly with the school team to connect their previous work supported through CEEDAR and NCII to the Math Project. Two additional districts are being targeted for the third cohort, with calls to discuss the project's expectations and supports scheduled or to be scheduled. These sites will go through the formal needs-assessment interview process. All Cohort 3 sites will sign an official memorandum of understanding (MOU) with the project (as described in past submissions).

During this reporting year, March 2018 to March 2019, the Math Project initiated a PLC for district and building leadership, including administrators, interventionists, or instructional coaches. Improving local education agency (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). In the previous submission, PLC topics were described; however, the project team actively engaged primary stakeholders (i.e., district or school staff from implementing sites) in the planning process (i.e., surveying potential participants to identify common areas of need, preferred structure, and frequency) to ensure a stronger connection to both implementation activities.

In addition, personnel from RIDE's Office of Instruction, Assessment, and Curriculum overseeing other mathematics initiatives supported with the development of content to ensure alignment with other RIDE departments. The first PLC meeting was held in February 2019, and representatives from six of the project's eight districts attended. Inclement weather (schools were on a 2-hour delay

because of snow) resulted in decreased participation at the first PLC session (*n* = 8). A brief evaluation was administered to the PLC participants, but only two responded. Overall, their responses were positive. All questions regarding relevance and improvement of understanding were generally positive. This continued with positive responses from attendees on whether they agreed that the content was useful for their work and with the organization of the training itself. Attendees stated that the information presented today was "just right." In addition to future PLC meetings, follow-up meetings are scheduled to ensure that the two districts that did not attend receive the content. The Math Project also will be exploring a summer institute with PLC members, with support from RIPIN and site-level participants who attended either national or regional NCTM conferences. The Math Project also will begin evaluating changes in capacity to document progress toward long-term project outcomes.

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

Table 4 captures the state's SSIP implementation progress by the primary implementation areas. Overall, the state carried out its planned activities for fall 2018 with fidelity. The planned activities for spring 2019 are underway.

Table 4. Overview of March 2018–February 2019 Implementation Progress

Implementation area	Planned activities	Status of implementation
Project planning and coordination General activities necessary for the management of the SSIP	Communicate with districts for recruiting Cohort 3 sites	Complete
	Collect universal screening data from sites	Complete for subset of sites (piloted tool spring 2018) Complete for most sites fall 2018 benchmark
	Collect statewide assessment data	Complete
Training Activities associated with delivering professional development for educators	Schedule trainings with sites	Complete
	Conduct trainings, as scheduled	In progress
Coaching Activities associated with technical assistance support	Develop observation tools to support fidelity of implementation	Complete
	Book study (site specific)	Complete
	Conduct site observations and team meetings	Ongoing
	Develop student level plan template (i.e., DBI case study)	Complete
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	Planned activities	Status of implementation
Stakeholder engagement[a] Activities involved both peripheral and primary stakeholders	SSIP online module resources shared during the February 6, 2019, special education directors meeting	Complete
	SSIP briefing from the director of OSCAS at the August 22, 2018, RISEAC new member orientation and September 22, 2018, RISEAC annual planning retreat	Complete
	Collected module feedback from site personnel on the Features of Assessment module to inform revisions prior to release	Complete
	Conducted a "listening session" at the Rhode Island Learning Forum September 15, 2018, to seek feedback from educators on resources and tools they would like to see from RIDE related to intensive intervention	Complete
	Collected information from PLC members prior to the start (i.e., interest in participation, frequency, and topics of interest), and codeveloped content with RIDE personnel from the Office of Instruction, Assessment, and Curriculum	Complete
	Held first PLC on February 28, 2019, focused on using RICAS data to guide district- and school-level examination of patterns in data to inform instruction	Complete
	Presented to and sought feedback from the Rhode Island Mathematics Advisory Board February 28, 2019.	Complete
	Develop and administer stakeholder engagement surveys	Complete
Collaboration between RIDE initiatives Activities associated with RIDE collaboration	Develop and administer collaboration surveys	Complete
	Supported with the review of RIDE's Office of Instruction, Assessment, and Curriculum's Steps to Understanding Mathematics (SUM) training content and resources	Complete
	Attended professional development sessions on SUM and Ed reports to ensure alignment of our project's training with other RIDE departments	Complete
	Presented with staff member from RIDE's Office of Instruction, Assessment, and Curriculum at the NCTM regional conference in Hartford, Connecticut	Complete
	Presented about how the SSIP addresses the new Rhode Island Professional Learning Standards at Rhode Island Learning Forum September 15, 2018, with RIDE's Educator Quality Division	Complete
LEA capacity to support diverse students in urban settings *Activities associated with increasing LEA capacity*	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

RIDE has achieved the intended outputs identified in the logic model. All sites have developed school improvement/implementation/action plans to document progress toward goals moving forward. In addition, project staff are consistently using a technical assistance tracking template and coaching logs to document training, coaching, and technical assistance activities. The homework resource developed in collaboration with RIPIN has been shared with sites to help facilitate school-to-parent communications. At the state level, active collaboration across RIDE departments resulted in the development and refinement of the SUM training materials (which are being implemented by the Office of Instruction, Assessment, and Curriculum).

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 who are 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. For example, two general educators reviewed the Features of Assessment Module. Their feedback resulted in clarified language related to understanding screening results, including the concepts of true/false positive and negatives.

Peripheral stakeholders received periodic updates from the RIDE director of the 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 have 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, the Rhode Island Special Education Advisory Council, 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. Updates were provided in August, September, and February. In addition, OSCAS and project staff extended their reach to the Rhode Island Mathematics Advisory Board in collaboration with the RIDE Office of Instruction, Assessment, and Curriculum. 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 is available on this website as well.

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

Primary stakeholders partner with 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 project staff to discuss intensive mathematics interventions and

communicate concerns. For example, one member of the Math Project's staff went on maternity leave (scheduled to return April 2019) and coaching/technical assistance supports were transitioned to other project personnel. Sites received a transition plan and had opportunities to share any additional needs they could foresee during the transition.

Further, the online module content became the primary training mechanism in direct response to primary stakeholder feedback related to sub-coverage issues. The modules have allowed sites to incorporate the content into faculty meetings, embedded professional development structures, or other PLC modalities already available. One educator from a participating elementary school was invited to present about Number Talks at the Rhode Island Learning Forum (a statewide, cross-initiative professional learning event), allowing for active engagement of site-level participants, broader dissemination of project activities, and building the educator's confidence (her first professional presentation) to model practice and support others' implementation. At the Learning Forum, Math Project staff also conducted a listening session in conjunction with the NCII to hear from practitioners around the state about their perspectives on current strengths and needs related to implementing intensive intervention. Two high school general education teachers, one elementary reading specialist, and one elementary special education teacher participated in the session; the two elementary educators had previous exposure to DBI. Their feedback is summarized in the Table 5.

Table 5. Responses from the Listening Session

Question/prompt	Responses
What resources, tools, or guidance from RIDE would be helpful to you to use the DBI process/implement intensive intervention?	• To help remove silos, having someone external come in and provide training and coaching to remove an "us" (special education) vs. "them" (general education) mentality • Tier 1 strategies for reading and mathematics • Intervention block structuring across content areas • Intervention scheduling ideas—especially for students with needs across content areas • Need guidance on what intensive intervention looks like in secondary settings
What supports your intensive intervention implementation?	• Clear processes in place (e.g., decision rules, meeting structures) • Continuous use of data
Barriers and ideas to reduce	• **Barrier:** Personnel supports with limited resources • **Suggestion:** Intervention specialists and teacher assistants trained when split across buildings, including flexibility in how we are using time before and after school (though transportation often is a barrier)
	• **Barrier:** The "high-flying" sites don't receive the same level/ongoing support • **Suggestion:** Develop a structure for "high-flying" sites to continue to receive some level of contact to ensure sustainability and stay current

Educators who may not work directly in mathematics or intensive intervention attended the listening session. To gain feedback from mathematics educators across the state, the project team met with the Rhode Island Mathematics Advisory Board. RIDE and Math Project staff facilitated a presentation about the SSIP project and engaged in a discussion with the board members about challenges related to mathematics instruction for all students, including students with disabilities,

as well as areas of strength that the project might be able to investigate further. Several recurring themes were evident in their feedback:

Challenges

- Time for general and special educators to strategically co-plan mathematics instruction
- Elementary, middle, and high schools rarely communicate across levels to ensure vertical alignment of curriculum
- Balancing "filling" students' gaps in understanding while still ensuring students' access to core instruction
- Using and analyzing data, rather than just collecting data

Areas of Strength

- Building in time for K–12 personnel to meet and look at mathematics progressions across the grades
- Having principals involved in the implementation work
- Developing decision rules related to when to use in-depth diagnostic assessments in mathematics

One area that the project team will reflect on, based on stakeholder feedback from across sessions, is encouraging greater vertical alignment in our participating districts and creating structures and resources to support implementation of data-based decision making.

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, 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 refined theory of action by assessing how educators in schools used data-based decision making to intensify mathematics interventions.

Table 6 depicts the alignment across the theory of action and maps the logic model outcomes to key measures and the data sources for each. The 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 spring benchmarking or statewide assessments are administered). After an initial comparison of data to the baseline, RIDE and Math Project staff may consider adding in additional benchmarks to compare against short- and long-term outcomes.

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 *(short term)*	To what extent did educator knowledge of DBI change?	• Needs assessment • End-of-year (EOY) pulse check
Increased educator beliefs of DBI for mathematics *(short term)*	To what extent did educator beliefs about math instruction change?	• Math Beliefs Survey • Data-Driven Instruction Survey
Increased educator application of skills related to DBI for mathematics *(intermediate)*	To what extent have intensive mathematics intervention and instructional practice changed adult behavior and practice in participating schools?	• Training evaluation • Observational tool • EOY pulse check • Training implementation survey
Improved formative assessment outcomes for students receiving intensive mathematics interventions *(long term)*	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 *(long term)*	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 *(long term)*	To what extent did LEAs increase their capacity to support, scale, and sustain improvement efforts related to high-quality mathematics instruction?	• PLC capacity survey
Increased parent or family awareness of intensive intervention and how to support their child *(short term)*	To what extent do families report they are aware of their child's mathematics instruction? To what extent to 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 *(short term)*	To what extent was communication effective among and between RIDE staff?	• Collaboration survey
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 *(peripheral)*	How have stakeholders been informed and involved in decision making regarding ongoing implementation and evaluation of the project?	• Stakeholder engagement survey
Stakeholder engagement *(primary)*	To what extent do school-level stakeholders report feeling engaged in the ongoing implementation and evaluation of the project?	• EOY pulse check

b. 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 and colleagues (2001) and is used to assess teacher beliefs or misconceptions about mathematics instruction. Educators receive a pre/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. A variety of sources were used to develop the survey, including Nancy Harris's (2011) Data-Driven Instruction Survey. Educators receive a pre/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 are 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.
Progress monitoring data on student-level plans	Progress monitoring is used to assess a student's performance, quantify his or her rate of improvement or responsiveness to intervention, adjust the student's instructional program to make it more effective and suited to the student's needs, and evaluate the effectiveness of the intervention.
PLC capacity survey	The PLC survey will be designed to assess LEA capacity to support, scale, and sustain improvement efforts. The 2019 PLC survey to RIDE will be developed in the next reporting period.
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 National Association of State Directors of Special Education was adapted to assess the engagement of peripheral stakeholders.

Data/evidence	Description
Coordination and collaboration survey	Leading by Convening: A blueprint for authentic engagement developed by the IDEA Partnership and 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.

c. 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 (Cohort 1), training evaluations, stakeholder engagement, and coordination and collaboration across RIDE initiatives. This report includes baseline data for pulse checks and screening data, as well as baseline data on Cohort 2's beliefs about mathematics and data-driven instruction. (See Beliefs About Math Survey and Data-Driven Instruction Survey for more information.)

Pulse Checks

As part of the support and planning to the 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 outcomes domains related to (a) educator knowledge of DBI, (b) school implementation of tiered mathematics intervention, and (c) family awareness/understanding of instructional/intervention supports. Results from these data indicate higher ratings related to the educator knowledge domain than the other two domains, with the majority of the respondents agreeing or strongly agreeing that they have the knowledge related to DBI process. See Appendix C for a summary of the pulse check responses aggregated across sites.

Screening

In 2018, the Math Project team collected universal screening data at least twice during the 2017–18 school year. (The spring 2018 data collection period fell after the previous reporting period; future reports will discuss results from across sites and screening/benchmarking time periods.) Although all project sites engage in universal screening and benchmarking, there is no easy or efficient way to collect information from across sites that use different screening and benchmarking measures. To address this challenge, the project collected data from a select number of sites using a pilot data collection tool that would allow for comparisons across sites, even if different screening measures were being used. Baseline data are reported in the following paragraphs and figures. It should be noted, that within an MTSS structure, we would like to see increases in the percentages of students in Tier 1 (meaning they are at or above benchmark performance) and decreases in percentages at Tier 2 (on watch/in need of intervention) and Tier 3 (in need of intensive intervention).

Using the data collection tool, the evaluation team calculated the percentage of students in each tier, and percentage changes between fall 2017 and spring 2018 were analyzed. Baseline results in elementary schools in Grades 3–5 are showing some steady upward trends, with an 8% increase of total students in Tier 1, while simultaneously reducing percentages of students in Tiers 2 and 3 by 7% and 1%, respectively (see Figure 3). Meanwhile, the percentage change in each tier in middle schools is less significant. Tiers 1 and 3 both increased by 1%, and Tier 2 decreased by 2% (see

Figure 4). These results likely result from the shift to more advanced mathematical concepts, including more abstract language, especially in the upper grades. This is evidenced in both seventh and eighth grades, where increases of 5% and 4%, respectively, are seen in Tier 3, with decreases in the other two tiers (see Figures 5 and 6). The findings from the screening data come with limitations, including the relatively small sample size and variations across the sites in relation to measures used.

Figure 3. Elementary School Percentage Changes Across Tiers From Fall 2017 to Spring 2018

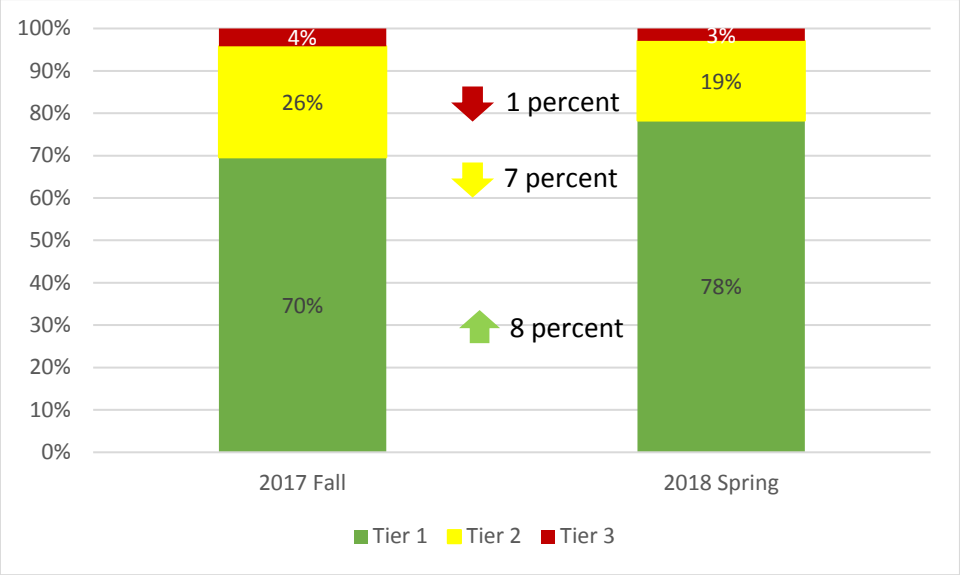


Figure 4. Middle School Percentage Changes Across Tiers From Fall 2017 to Spring 2018

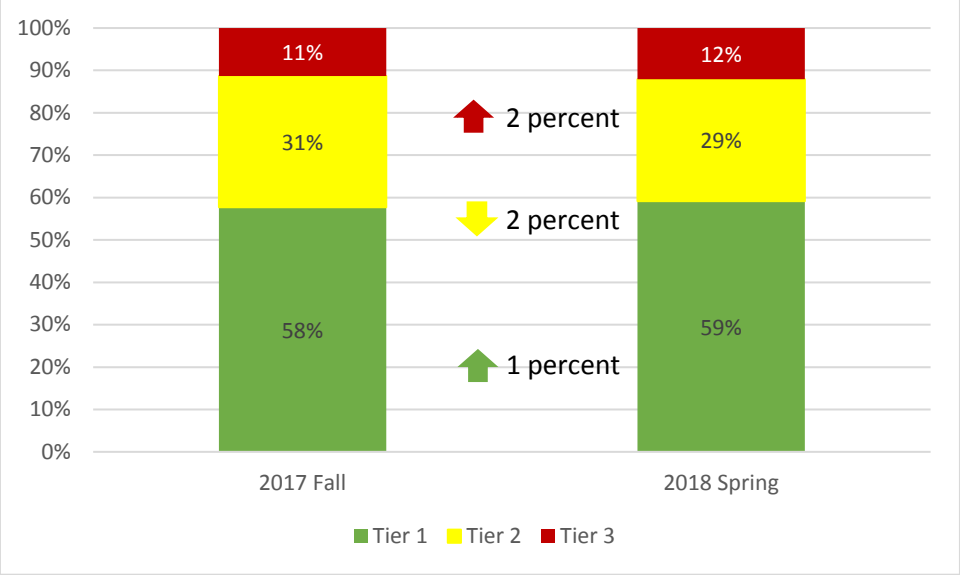


Figure 5. Seventh Grade Percentage Changes Across Tiers From Fall 2017 to Spring 2018

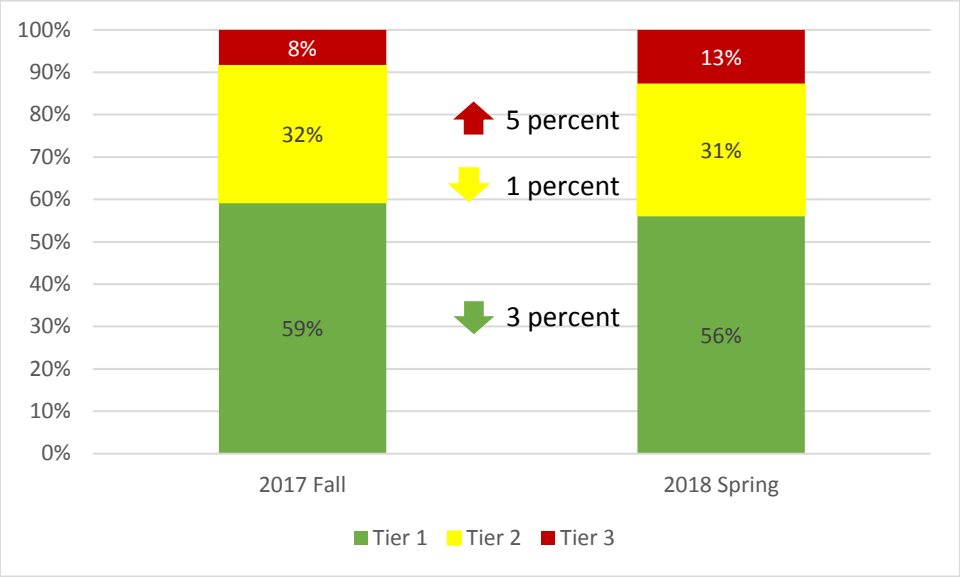
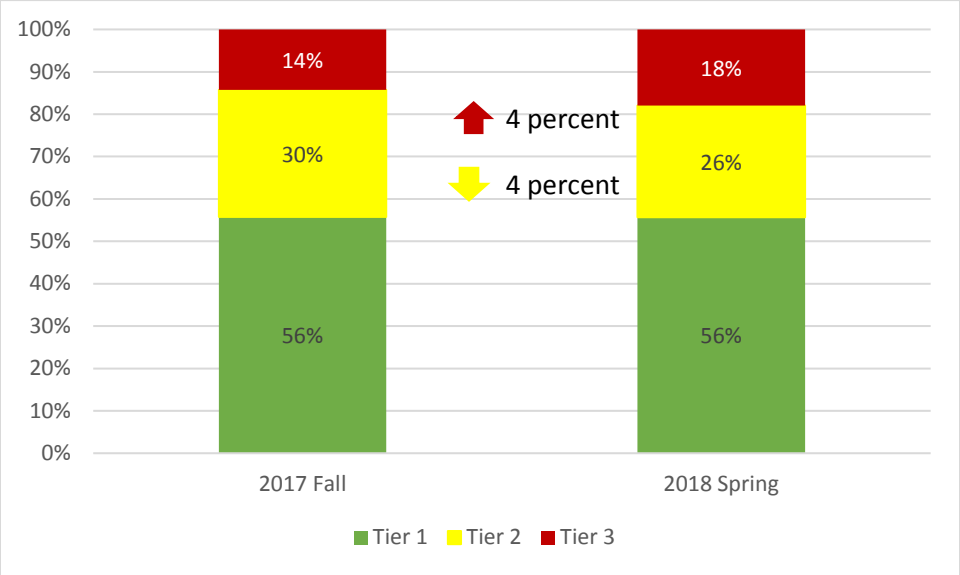


Figure 6. Eighth Grade Percentage Changes Across Tiers From Fall 2017 to Spring 2018



d. 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 (see Table 8). AIR leads the effort to collect all data on a consistent and timely basis. Prior to reporting submissions, the external evaluator supports with aggregating and analyzing data.

Table 8. Timeline for Data Collection

Data/evidence	Timeline
Needs assessment	Frequency: once Timeline: fall
EOY pulse check	Frequency: annually Timeline: April–May
Math Beliefs Survey	Frequency: preassessment once/postassessment annually Timeline: prior to coaching or training/late spring
Data-Driven Instruction Survey	Frequency: preassessment once/postassessment annually Timeline: prior to coaching or training/late spring
Training evaluation	Frequency: after each training Timeline: ongoing
Observation/fidelity tool	Frequency and timeline to be determined during the next reporting period
Universal screening data	Frequency: annually Timeline: ongoing throughout the school year
Progress monitoring data on student-level plans	Frequency: annually Timeline: ongoing throughout the school year
PLC capacity survey	Frequency and timeline to be determined during the next reporting period
Parent and family awareness activities (i.e., site-level dissemination and tracking of toolkit downloads)	Frequency: annually Timeline: winter Will revisit parent interviews discussed in previous report (see Section A.5)
Stakeholder engagement survey	Frequency: annually Timeline: winter
Coordination and collaboration survey	Frequency: annually Timeline: fall
State assessment data	Frequency: annually Timeline: late spring

e. [If applicable] Sampling Procedures

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.

f. [If appropriate] Planned Data Comparison

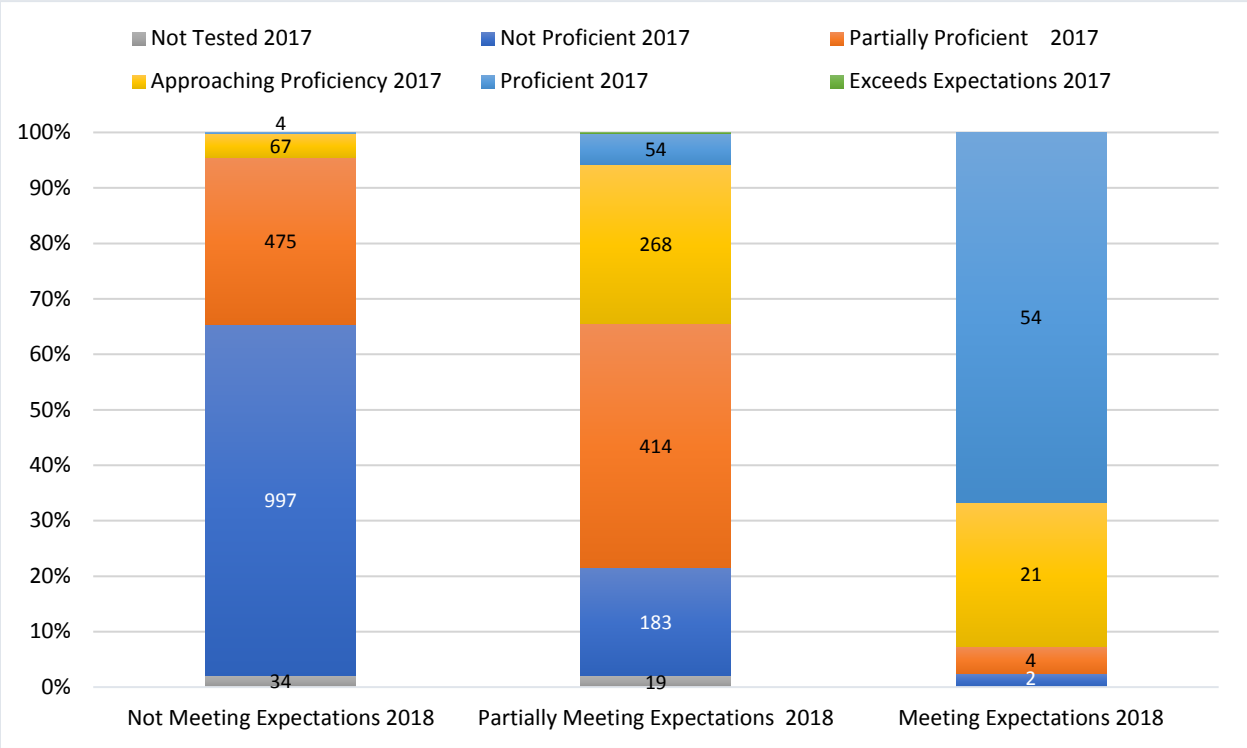
At the site level, longitudinal comparison of cohort performance across time will provide for data comparison from the 2015 cohort to the 2016 cohort to the 2017 cohort. (Note: "Cohort" here refers to the SiMR cohort, not sites.) Student-level performance on the Partnership for Assessment of Readiness for College and Careers (PARCC) assessment will provide for planned data comparison in two ways. First, assessment scores from the SiMR identified in Phases I and II will be compared across time; student performance will allow RIDE to examine if modifications should be made to the target population.

Second, the assessment scores from students at each cohort site will be compared annually; scores on both formative (i.e., screening/benchmarking measures) and summative (i.e., PARCC or RICAS) assessments will be compared during the project so that RIDE can assess the effectiveness of the SSIP implementation activities. Data on individual students who are tracked through the case-study approach using the DBI process will be compared across time to determine if students are making progress toward intervention goals. Case-study students are identified in four sites and will be identified in the other Math Project sites by the start of the 2019–20 school year.

The 2017 PARCC administration is compared with the first administration of RICAS in spring 2018; data are reported for students with disabilities in Grades 3–5. The RICAS assessment requires students to reach a higher performance standard, and the proficiency scale changed from 1–5 on PARCC (where a 4 was "proficient") to a 1–4 on RICAS (where a 3 is "meeting expectations"). (See RIDE's Frequently Asked Questions Guide for additional information about the PARCC to RICAS transition.) A discussion of the SiMR population's performance on RICAS is discussed in Section C.2.a.

Figure 7 disaggregates RICAS proficiency by prior year PARCC proficiency accomplished through a unique state-assigned student identification number match of scores. On the spring 2018 administration of the new RICAS assessment, 67% of students who met expectations (score of 3) on RICAS also were proficient on PARRC 2017. Another quarter of the group meeting expectations on RICAS was approaching expectations on PARCC 2017. Seven percent of the students were not proficient on PARCC or were at a partially proficient level on PARCC but met expectations on RICAS in 2018.

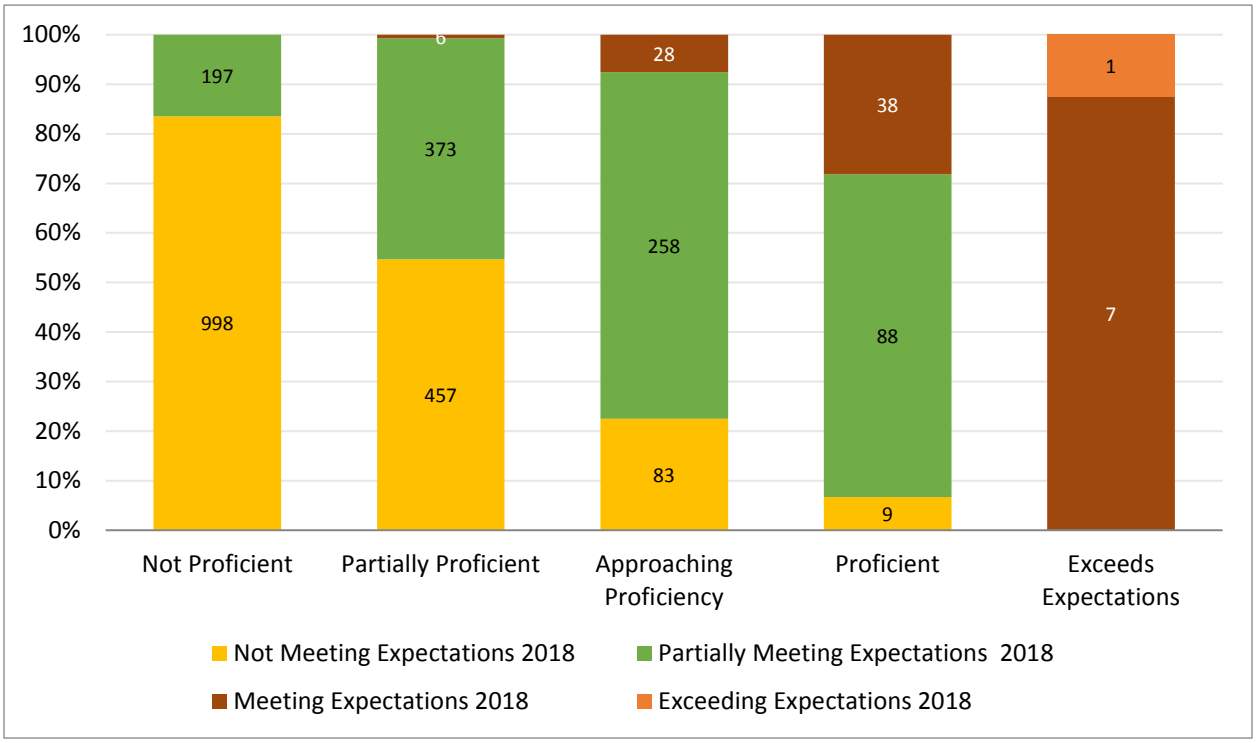
Figure 7. RICAS 2018 Mathematics Proficiency by PARCC Mathematics Proficiency 2017 Grades 3–5 Students With Individualized Education Programs Only



On the spring 2018 administration of the new RICAS assessment, 63% of students with disabilities in Grades 3–5 who scored a 1 ("not meeting expectations") also scored a 1 ("not proficient") on PARCC 2017. However, 30% of the students with disabilities in Grades 3–5 who scored a 1 on RICAS scored a 2 ("partially proficient") on PARCC 2017. Only 4% of those scoring a 1 on RICAS previously scored a 3 ("approaching proficiency") on PARCC 2017. Therefore, one third of the students with disabilities in Grades 3–5 scoring a 1 on RICAS previously had a PARCC level 2 or 3 in 2017. In contrast, 52% of the students with disabilities in Grades 3–5 moved up a proficiency level on RICAS (from "not proficient" to "partially meeting" or "meeting expectations," or from "partially" or "approaching proficient" to "meeting expectations"). Only 6% of the students who were "partially meeting expectations" on RICAS previously had "proficient" or "exceeding expectations" on PARCC.

Figure 8 shows PARRC 2017 scores disaggregated by new RICAS 2018 performance. On the spring 2018 administration of RICAS, 3% of the students with disabilities in Grades 3–5 met expectations. Thirty-six percent of the students partially met expectations, whereas 61% did not meet expectations on RICAS. Twenty-eight percent of the students with disabilities in Grades 3–5 who were proficient on PARCC 2017 also met expectations on RICAS 2018. Eighty-four percent of the students who were not proficient on PARCC 2017 still did not meet expectations on RICAS 2018. Given these data, the SiMR focus on improving mathematics outcomes for students with disabilities Grades 3–5 is still relevant.

Figure 8. PARCC Proficiency 2017 by RICAS 2018 Mathematics Proficiency Grades 3-5 Students With Individualized Education Programs Only



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

As the data are collected and analyzed, the regular structure of SSIP core team meetings will 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 individualized education program (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, and Curriculum in consultation with IDEA staff for the creation of 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.

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

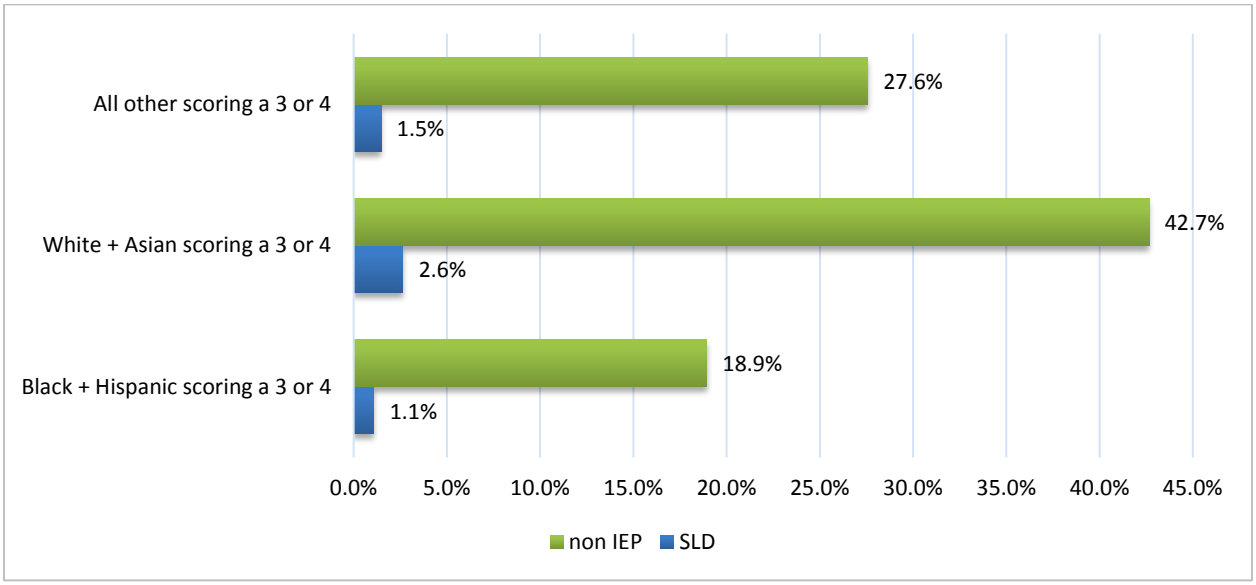
a. How the State Reviewed Key Data That Provide Evidence Regarding Progress Toward Achieving Intended Improvements to Infrastructure and the SiMR

As discussed in last year's submission, the statewide assessment changed. In 2018, all Rhode Island schools shifted from PARCC to RICAS, which is the new statewide assessment in Grades 3–8 . RICAS has different scale scores and achievement levels and, as such, requires a baseline reset.

With the state assessment change from PARCC to RICAS, RIDE must engage in a baseline reset once again for SiMR data. Statewide, 33% of the students in Grades 3–8 reached proficiency on PARCC in 2017, whereas 27% of the students in Grades 3–8 met expectations on RICAS in 2018. Although the learning standards remained the same, a true comparison is not possible because RICAS has a more difficult performance standard than PARCC. As mentioned, RICAS requires students to reach a higher performance standard, and the proficiency scale changed from a 1–5 on PARCC (where a 4 was "proficient") to a 1–4 on RICAS (where a 3 is "meeting expectations").

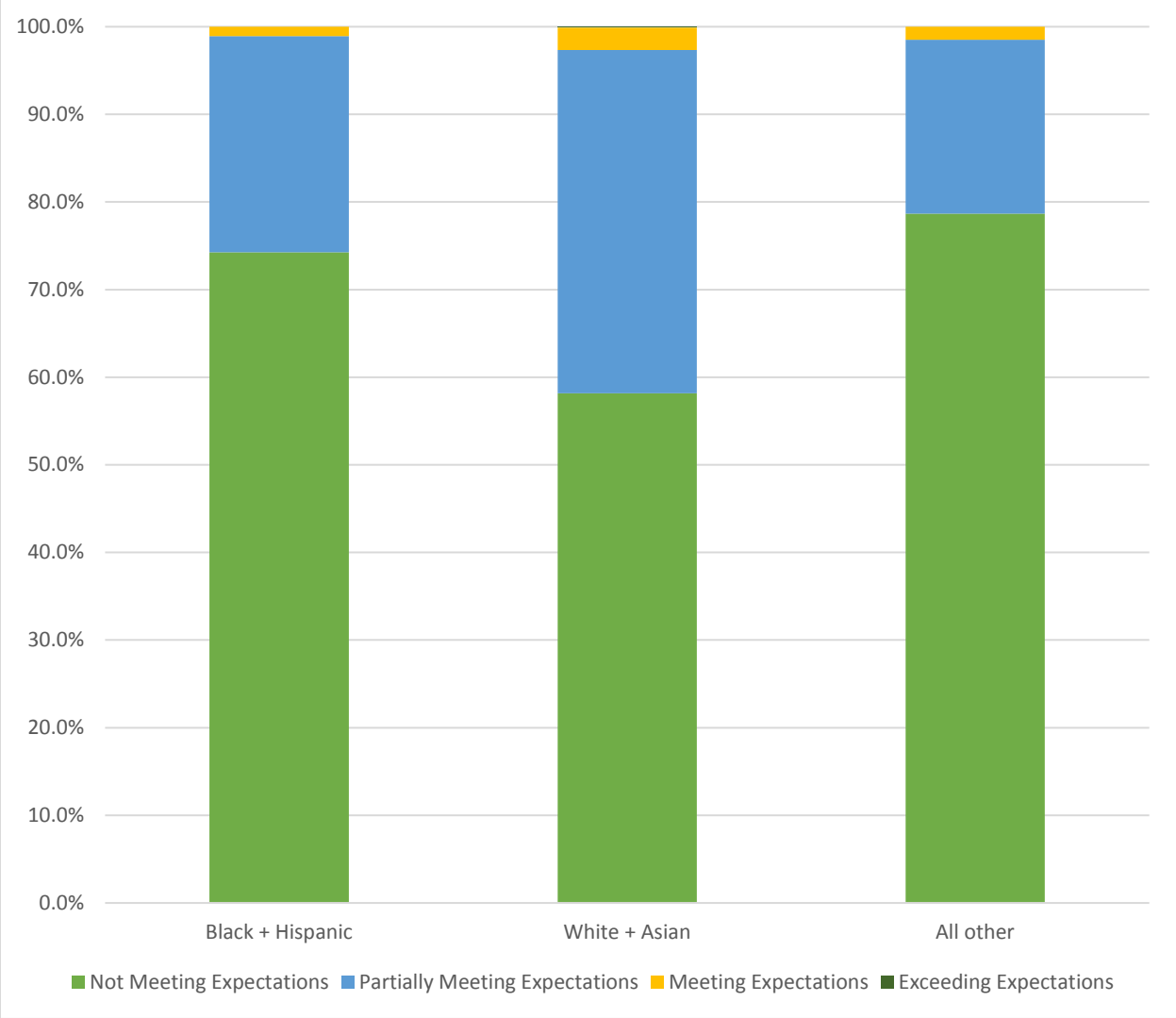
Narrowing down the data, 33% of the students in Grades 3–5 met or exceeded expectations on RICAS 2018, whereas 4% of the students with IEPs met or exceeded expectations. Breaking the data down by race/ethnicity, White and Asian students without IEPs had 42.7% meeting or exceeding expectations, whereas 2.6% of White and Asian students with SLDs met or exceeded expectations. The SiMR population of Black and Hispanic students with SLDs had 1.1% meeting or exceeding expectations, whereas 18.9% of Black and Hispanic students without IEPs met or exceeded expectations. Because of small *n* sizes, multiracial, Pacific Islander, and American Indian student groups were combined to an all other grouping, with 27% of the students without IEPs meeting or exceeding expectations and 1.5% of those with SLDs meeting or exceeding expectations. Figures 9–11 display subgroup performance on RICAS.

Figure 9. RICAS Math 2018 Percentage Meeting (3) or Exceeding (4) Expectations Grades 3–5



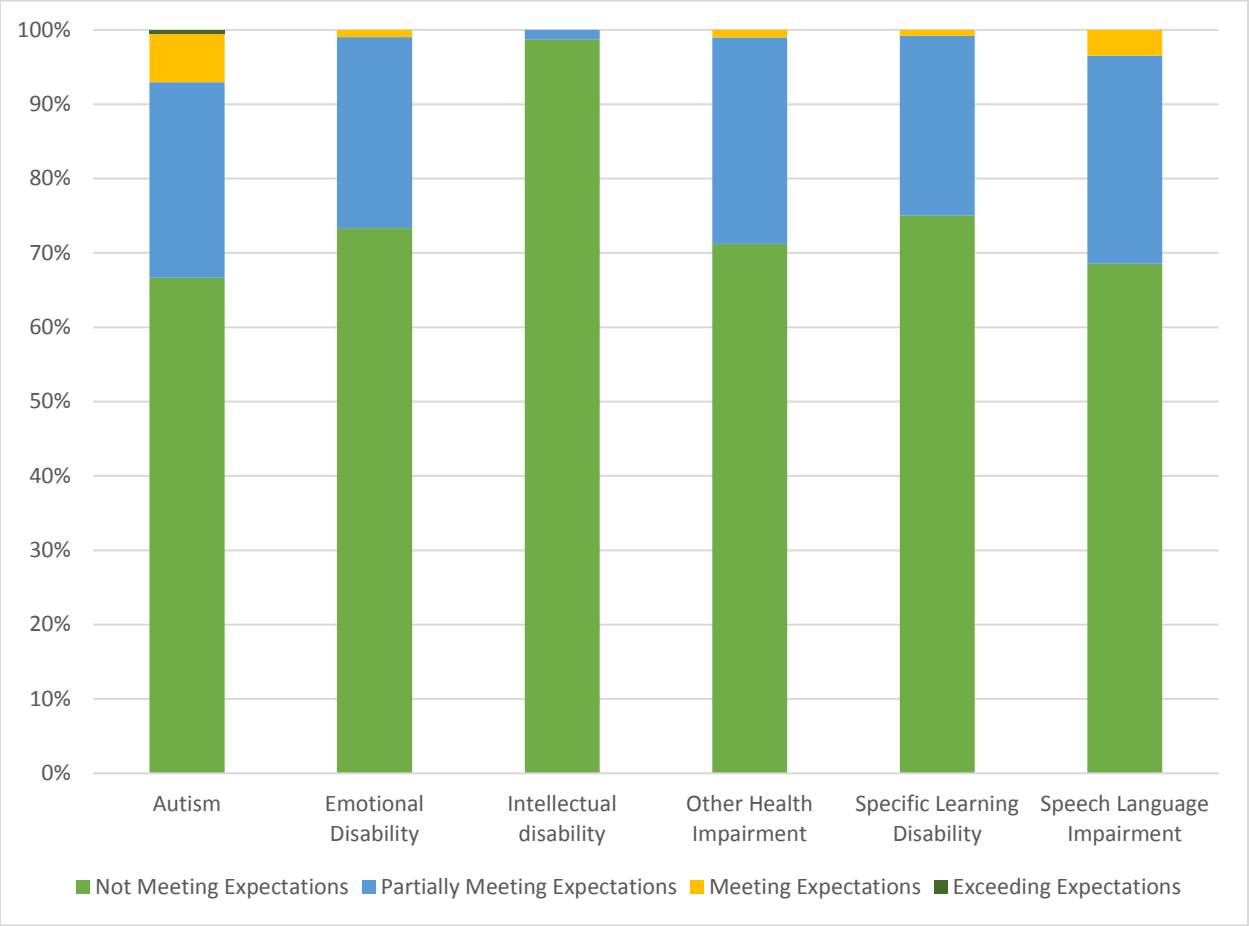
On RICAS, a score of 2 is "partially meeting" expectations, and slightly less than 25% of Black and Hispanic students with SLDs scored a 2 compared with 39.2% of White and Asian students with SLDs. Almost three fourths of Black and Hispanic students with SLDs scored a 1 ("not meeting expectations") on RICAS 2018. Nearly 80% of the students with SLDs are receiving special education services in general education more than 80% of the time. Two percent of the students with SLDs attending regular class at least 80% of the time met expectations on RICAS 2018.

Figure 10. RICAS 2018 Mathematics Proficiency by Race/Ethnicity for Students With SLDs Grades 3–5



Looking at Black and Hispanic students in Grades 3–8 across six major disability categories, those with autism or speech language impairments have the largest percentage of students meeting expectations on RICAS at 7% and 3.5%, respectively.

Figure 11. RICAS 2018 Mathematics Proficiency of Black and Hispanic Students by Disability Category in Grades 3–8



With a 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 meets to review any recent data and determine if any mid-course corrections are needed for implementation and/or evaluation activities. RIDE and AIR also have started analyzing additional data available on RIDE's new Accountability Report Card to look for patterns across SSIP participating sites, as well as more broadly across the state. We plan to share interesting and relevant findings for the SSIP 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 Survey
- Data-Driven Instruction Survey
- Training evaluations
- Peripheral Stakeholder Engagement Survey
- Collaboration and Communication Survey (internal RIDE survey)

As previously mentioned, this was the first reporting year where EOY pulse checks were completed with primary stakeholders. (See Appendix C for pulse check summary information for this reporting cycle.) In subsequent reporting years, data across time will be reported to demonstrate progress toward the intermediate project outcome of increasing educator application of skills related to DBI in mathematics.

Math Beliefs Survey and Data-Driven Instruction Survey

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 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*). The survey was designed based on research conducted at the University of California–Los Angeles Graduate School of Education (Stipek et al., 2011) and 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 would be reflected in terms of strong agreement or strong disagreement. For example, within the "enjoyment of mathematics" domain, the item "mathematics is my favorite subject to teach" would be one for which a strong agreement would indicate positive belief, and for the item "I don't enjoy doing mathematics," strong disagreement would indicate positive belief.

The Math Beliefs Survey was administered to 73 educators across the cohort sites. Fifty-six educators completed the survey this year, 20 of whom completed the survey last year. For the purpose of SSIP reporting, the results for those who took the survey last year and this year were analyzed to determine performance on the measure. The results of the analysis indicate that all (100 percent) of those who took the survey in both years improved on at least one of their ratings.

The level of improvement ranged from one educator who improved on only three items to one who improved on 23 items. Tables 9 and 10 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 9. Math Beliefs Survey Results by Number of Items Improved/Maintained/Decreased

Improved in ratings			
1–9 items	**10–19 items**	**20–29 items**	**30–39**
5 educators	14 educators	1 educator	0 educators
Maintained ratings			
1–9 items	**10–19 items**	**20–29 items**	**30–39**
9 educators	11 educators	0 educators	0 educators
Decreased in ratings			
1–9 items	**10–19 items**	**20–29 items**	**30–39**
4 educators	13 educators	3 educators	0 educators

As described, each educator demonstrated improved ratings. To further explore the data, an analysis of the Math Beliefs Survey results by domain area was conducted. The domain area on which the highest percentage of educators improved their ratings was "correct answers versus understanding as primary goal" (36.7%). The domain addressing "teacher control versus child autonomy in classroom lessons" is the one in which fewer educators made improvements on their ratings (26.3%).

Table 10. Average Percentage of Educators Who Improved Their Ratings by Domain

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

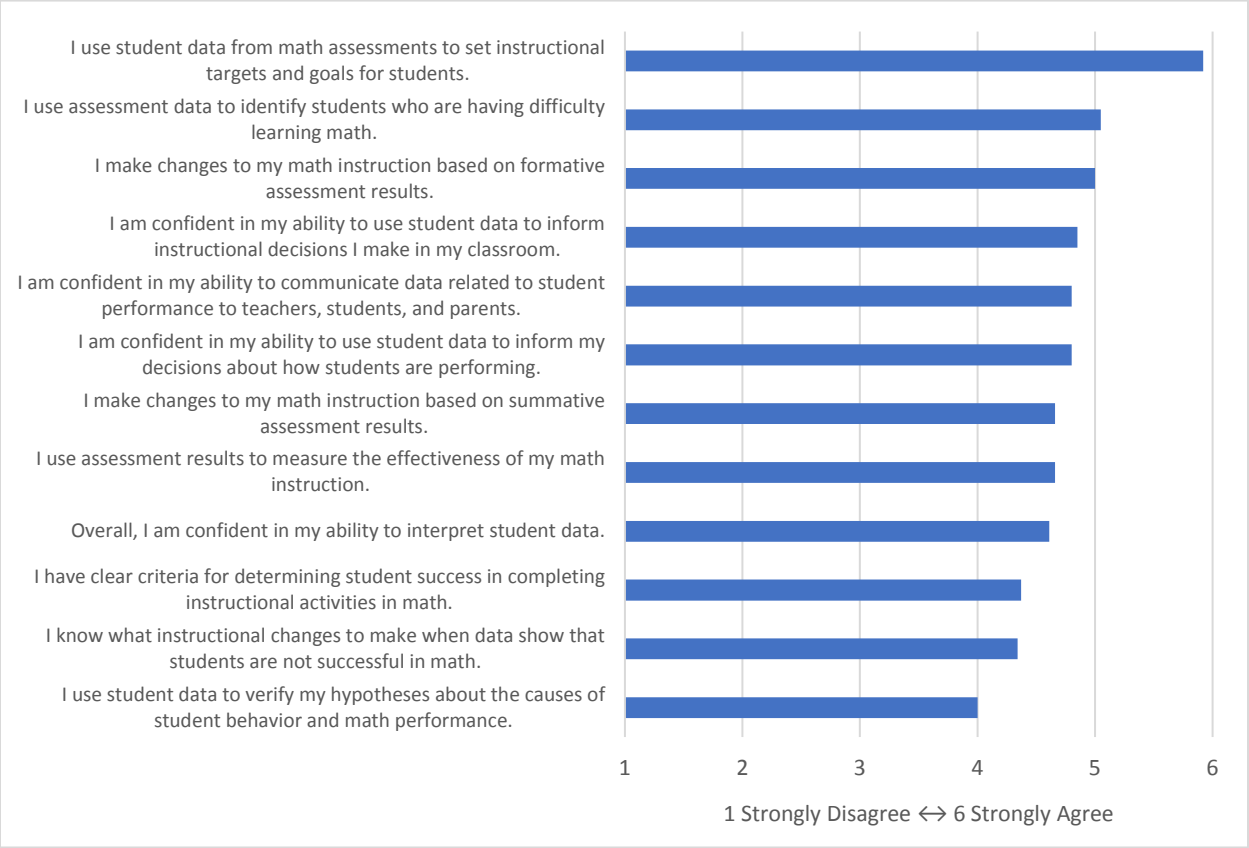
For those educators who completed the Math Beliefs Survey for the first time this school year (n = 36), an analysis was conducted on the items in which they scored most positive and least positive. Table 11 displays those results. Overall, the responses suggest that educators lack confidence in their 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 suggest a need for training and ongoing coaching related to mathematics content and EBPs to help educators shift from a fixed mind-set to a growth mind-set and develop the necessary skills to assess student understanding of mathematical concepts. 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 11. Cohort 2 Math Beliefs Survey Results

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	It is more beneficial to assess students based on their mathematical problem-solving process rather than on if they solve problems correctly.	There is usually only one way to solve a mathematics problem.
Correct answers versus understanding as primary goal	It doesn't matter whether students get the right answer as long as they understand the mathematical concepts inherent in a problem.	• When a student makes an error in front of the class, it is best to call on another student. • Discussing students' errors with the class is a good strategy for enhancing their understanding.
Teacher control versus child autonomy in classroom lessons	If teachers provide good instruction, all students will be able to master the general mathematics curriculum.	• Good teachers give students choices in their mathematical tasks. • Students can learn as much mathematics from other students as they can learn from teachers.
Entity versus incremental view of intellectual ability (i.e., a fixed versus growth mind-set)	Mathematical ability is something that remains relatively fixed throughout a person's life.	Mathematical ability is something people have a certain amount of, and there isn't much they can do to change it.
Confidence in teaching mathematics	• When I teach mathematics, I often find it difficult to interpret students' wrong answers. • When my answer to a mathematical problem doesn't match someone else's, I usually assume that my answer is wrong.	I'm good at communicating mathematical content to students.
Enjoyment of mathematics	I enjoy encountering situations in my everyday life (e.g., sewing, carpentry, finances) that require me to use mathematics to solve problems.	I don't enjoy doing mathematics.

Figure 12. Data-Driven Instruction Survey Item-Response Averages (*n* = 41)



Based on the results of the Math Beliefs Survey and the Data-Driven Instruction Survey, there is a need to both ensure that the instrumentation is accurately reflecting the reality of educators at the cohort sites and the results are meaningful and can be used by Math Project staff to support the cohort sites.

Training Evaluations

Between August 2018 and February 2019, the Math Project offered five online learning opportunities for general and special educators. These included two modules on features of core instruction, one module on features of fidelity, one module on instruction to support language development in mathematics, and one module on number talks. These modules are described in greater detail earlier in this report.

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. The survey item: "The training provided me with something (e.g., strategy, process, resource) that I can apply in my work…" was analyzed to determine the percentage of agreement. Respondents were asked to rate their level of agreement with this statement using a scale of strongly agree, agree, disagree, or strongly disagree. For the purposes of analysis, an overall agreement percentage was calculated by aggregating the item responses of strongly agree and agree for each professional learning session; 95.8% of educators agreed with the statement.

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.

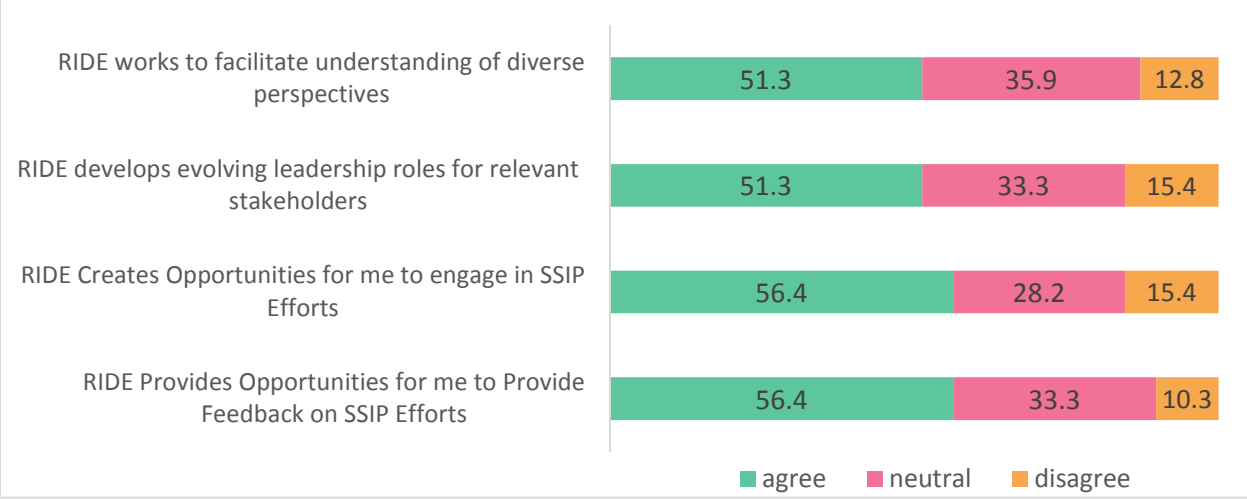
Table 12. Stakeholder Engagement Outcomes

Outcome	Performance measure(s)
• Stakeholder engagement (peripheral) • Stakeholder engagement (active)	• Increase in Leading by Convening survey scores • EOY pulse check

Data to inform the performance measure regarding peripheral stakeholder engagement was collected through 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 110 stakeholders in early January 2019, and 39 responses were received, yielding a response rate of 35.5%. Responses were received from representatives from LEAs, charter schools, state schools, disability organizations, and staff from technical assistance projects (excluding Math Project staff) and centers.

A rating scale of strongly agree, agree, neutral, disagree, and strongly disagree was used for each survey item. For the analysis, the ratings of strongly agree and agree were combined into an overall agreement percentage, and the same was done for the disagreement responses. As depicted in Figure 13, the majority of stakeholders agreed that they were provided opportunities for feedback and engagement (56.4%). A slightly smaller majority agreed that the process included evolving leadership and facilitation of understanding diverse perspectives (51.3%).

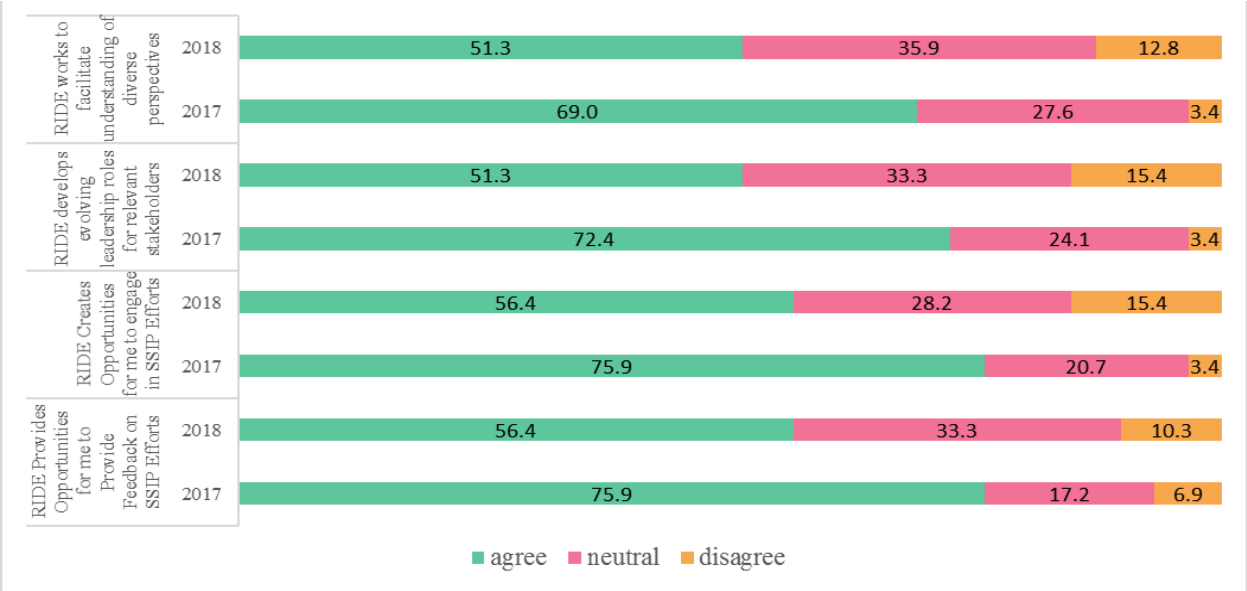
Figure 13. 2018–19 Ensuring Relevant Participation Responses by Percentage Agreement/Disagreement/Neutral (*n* = 39)



These results are slightly lower than those of the 2017–18 survey administration (see Figure 14), although it is not possible to know if respondents were the same form year to year because the survey link was broadly disseminated. For both survey administrations, there was little disagreement about the aspects of relevant participation; however, several respondents indicated neutral, which may be an area to investigate as RIDE reviews these results with their stakeholder

groups. There may be potential to strategize ways to better or differently provide opportunities for stakeholders to be informed and engage in SSIP activities.

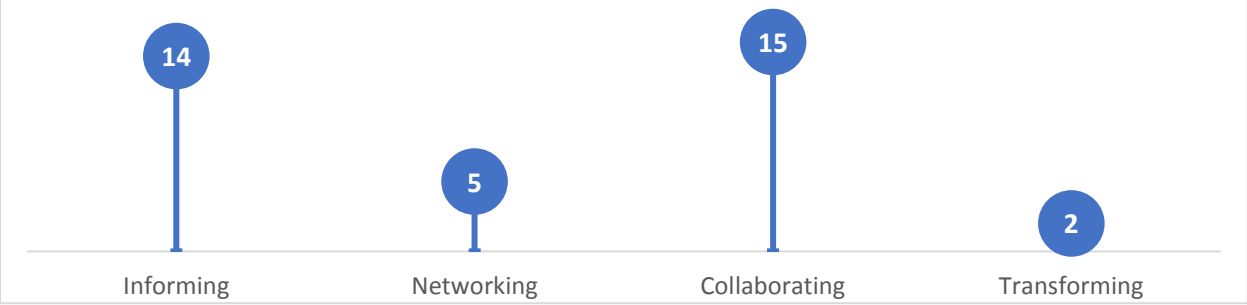
Figure 14. 2017 and 2018 Ensuring Relevant Participation Responses by Percentage Agreement/Disagreement/Neutral



The stakeholders also were asked to rate their perception of the level of engagement related to SSIP activities. The item response options were informing, networking, collaborating, and transforming, which were defined for the respondents. The results for this survey item are displayed in Figure 15, as is the definition of each response item. Of note, only 36 of the 39 survey respondents answered this item. It is clear that many stakeholders perceived that they are informed about SSIP efforts (*n* = 14). The majority of responses indicate that stakeholders are engaged and working together on SSIP efforts or collaborating (*n* = 15).

Figure 15. 2018–19 Perception of Engagement (*n* = 36)

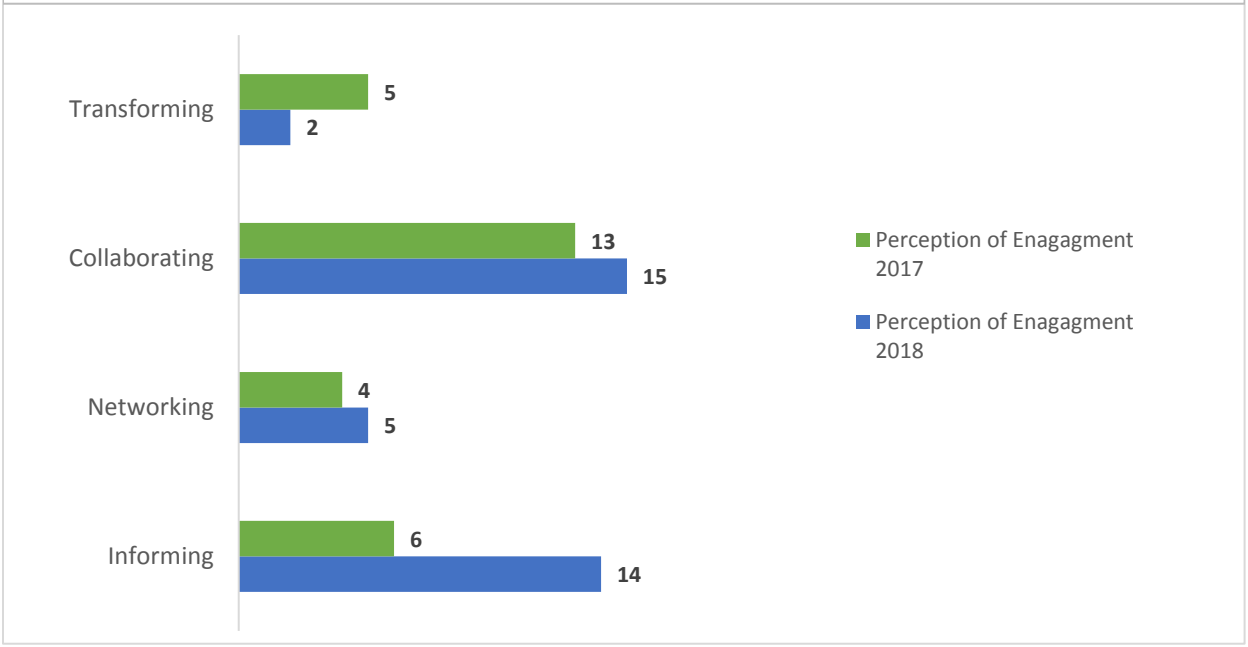
Informing: RIDE shares or disseminates information with relevant stakeholders in the state who care about the SSIP.
Networking: RIDE asks others what they think about efforts in the state related to the SSIP and listens to what they say.
Collaborating: RIDE engages people in trying to do something of value and working together on efforts in the state related to the SSIP.
Transforming: RIDE promotes shared leadership and builds consensus across stakeholders in state efforts related to the SSIPt, which leads to cross-stakeholder collaboration to improve efforts.



In comparing these results to the previous year, we found a significant shift for stakeholders who indicated that RIDE was informing them (from 6 to 14). In both survey administrations, the majority of stakeholders perceived they were collaborating, as depicted in Figure 16.

Figure 16. 2017 and 2018 Perception of Engagement

Informing: RIDE shares or disseminates information with relevant stakeholders in the state who care about the SSIP.
Networking: RIDE asks others what they think about efforts in the state related to the SSIP and listens to what they say.
Collaborating: RIDE engages people in trying to do something of value and working together on efforts in the state related to the SSIP.
Transforming: RIDE promotes shared leadership and builds consensus across stakeholders in state efforts related to the SSIP, which leads to cross-stakeholder collaboration to improve efforts



Communication and Collaboration Among and Between RIDE Initiatives

In December 2018, a survey was sent to personnel from several departments within RIDE, including OSCAS, where the SSIP work is housed. Fifteen RIDE staff members completed the survey. The survey was administered to address the performance measure regarding effective communication and coordination of SSIP activities and various RIDE initiatives. Details about the departments or organizations represented by respondents and their general roles are provided in Tables 13 and 14.

Table 13. RIDE Communication and Collaboration Outcomes

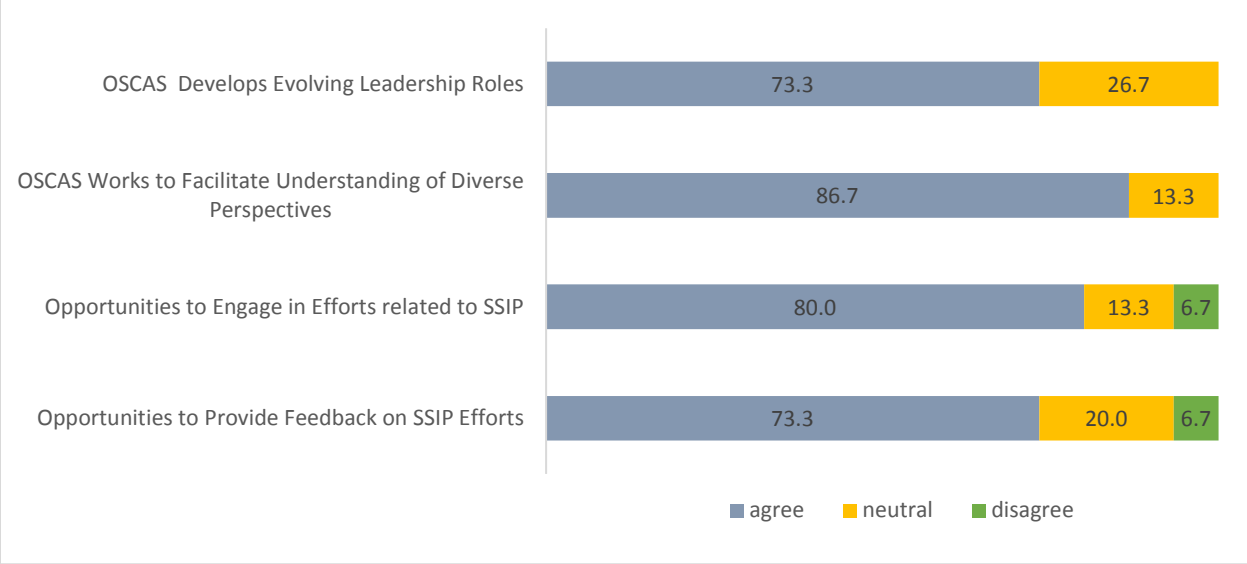
Outcome	Performance measure(s)
• Effective communication and coordination among and between RIDE initiatives (*short term*) • Effective collaboration and alignment of RIDE initiatives (*long term*)	• Increase in agreement scores • Increase in perceptions of engagement

Table 14. Respondents by RIDE Department

Respondents by department	Total
Office of College and Career Readiness	2
Office of Educator Excellence and Certification	4
OSCAS	8
Office of Instruction, Curriculum, Assessment	1
Total responses	15

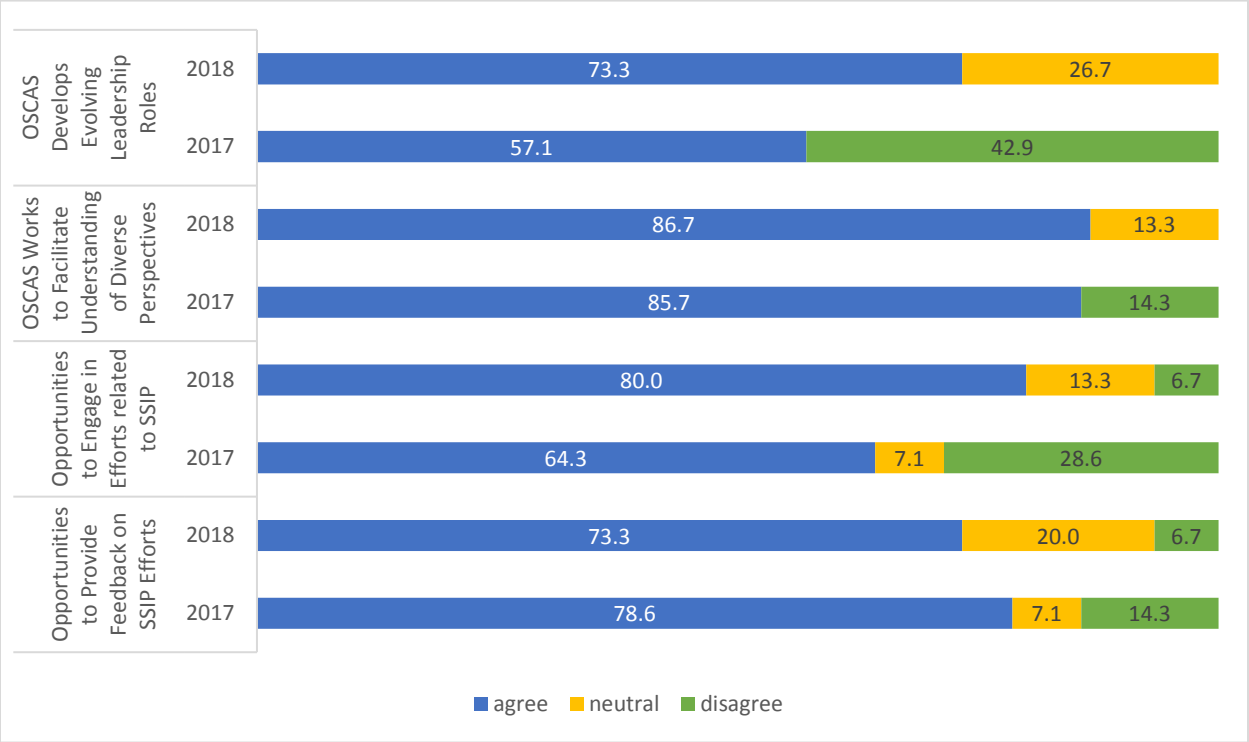
The survey included items addressing the extent to which personnel agreed that they were informed and engaged in SSIP activities and the extent to which an understanding of diverse perspectives and evolving leadership was facilitated throughout the process. A rating scale of strongly agree, agree, neutral, disagree, and strongly disagree was used for each survey item. For the purpose of analysis, the ratings of strongly agree and agree were combined into an overall agreement percentage, and the same was done for the disagreement responses. As depicted in the Figure 17, most respondents agreed with these aspects of ensuring relevant participation in the SSIP activities. The highest agreement levels related to the opportunities to provide feedback and that the process included an understanding of diverse perspectives (80.0% and 86.7%, respectively).

Figure 17. 2018 Ensuring Relevant Participation Responses by Percentage Agreement/Disagreement/Neutral (*n* = 15)



These results represent an overall increase in collaborator perceptions from last year (see Figure 18). The item with the largest gain from last year was the item about developing evolving leadership, which moved from 57.1% agreement to 73.3% agreement. The item regarding opportunities to engage in SSIP efforts also made gains, moving from 64.3% agreement to 80% agreement. The item regarding facilitating understanding of diverse perspectives remained the highest rated each year (85.7% and 86%, respectively).

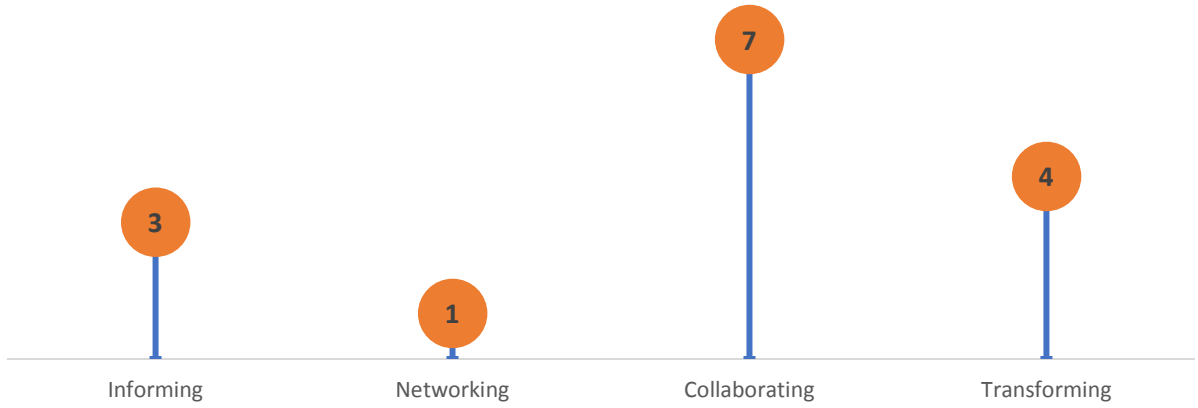
Figure 18. 2017–18 Ensuring Relevant Participation Responses by Percentage Agreement/Disagreement/Neutral



Respondents also were asked to rate their perception of the level of engagement at RIDE regarding the SSIP activities. The response options were informing, networking, collaborating, and transforming, each of which was defined for the respondents. The results are displayed in Figure 19, as is the definition for each option.

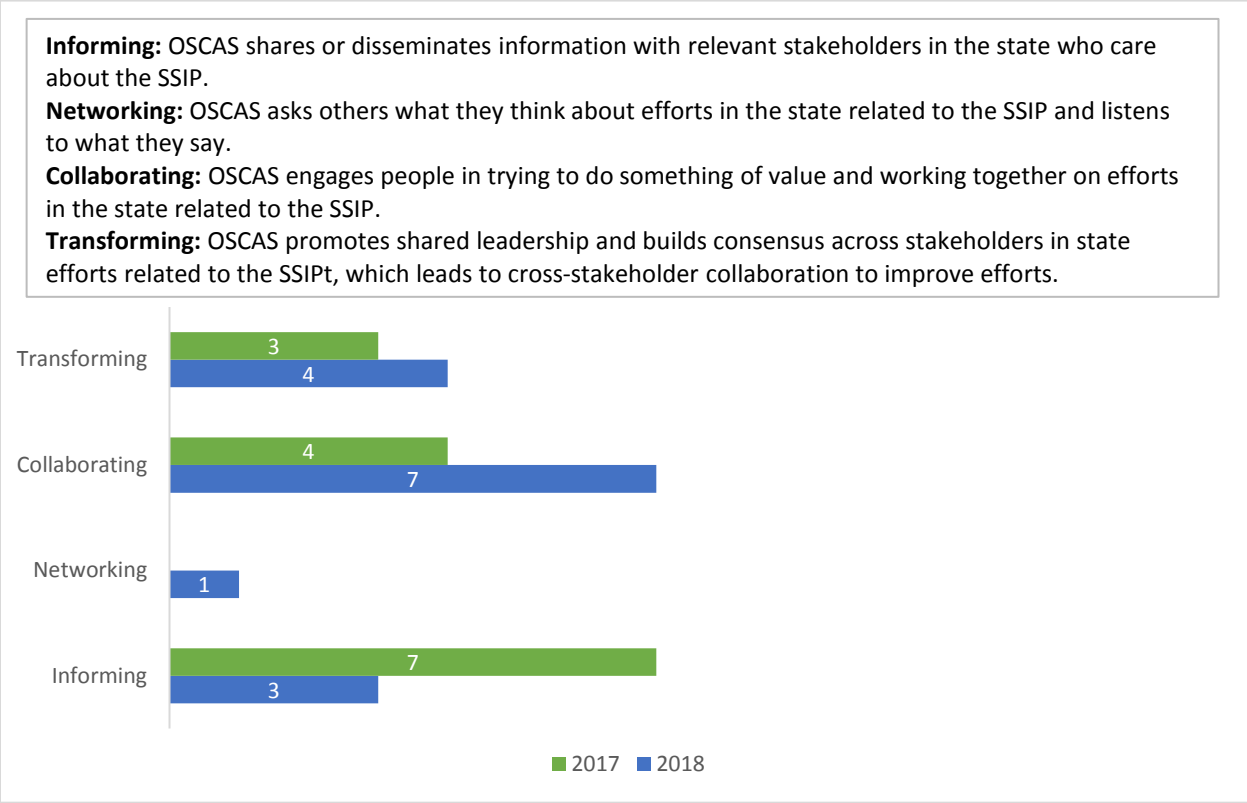
Figure 19. 2018 Perception of Engagement Level by Number of Responses (*n* = 15)

Informing: OSCAS shares or disseminates information with relevant stakeholders in the state who care about the SSIP.
Networking: OSCAS asks others what they think about efforts in the state related to the SSIP and listens to what they say.
Collaborating: OSCAS engages people in trying to do something of value and working together on efforts in the state related to the SSIP.
Transforming: OSCAS promotes shared leadership and builds consensus across stakeholders in state efforts related to the SSIP, which leads to cross-stakeholder collaboration to improve efforts.



In analyzing the results from last year to this year, we identified a clear shift in collaborators' perceptions from being informed about SSIP activities to collaborating about them and working together. There was a shift down from 7 to 3 in the informing option and a shift up from 4 to 7 in the collaborating option. These results suggest that across time, perceptions of engagement appear to be positively trending, as depicted in Figure 20.

Figure 20. 2017–18 Perception of Engagement Level by Number of Responses



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

Shifting to a 2-year cohort implementation cycle is supported by the increases evidenced in educators' mathematical beliefs. Given that the implementation shift has allowed for additional training and coaching in mathematics instruction, we expect similar results in subsequent years. In addition, the favorable responses to the online modules support this direction of professional learning as the Math Project continues. Further, the witnessed scalability of the modules from a team or grade level to additional grade levels or schoolwide substantiates the training model as the project moves forward and brings on additional sites. Many sites have a core group review content, plan with their Math Project coach about how to shape a professional development session, and then independently scale the content without the need for an on-site trainer or coach. The Leadership PLC will be mechanism for cross-district and cross-site leadership to further discuss this implementation approach to help sustain practices throughout the state.

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

Currently, the target population is not as well represented in the sites participating in the project as 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. The largest urban core district in the state was recruited for the project but declined to participate. Of the districts joining the project's third cohort, two sites are in an urban ring district, one site 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, Math Project staff are encouraging sites to select DBI case-study students who match the target population. This has been done in the four sites that have begun the DBI case-study process. DBI case studies will provide an additional level of data to report on progress toward outcomes—especially formative data that help inform the short-term and long-term outcomes of this project.

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 not planned because statewide assessment results reveal that the SiMR population is still a relevant population to support (even after the baseline reset from PARCC 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 were informed of the project's short- and long-term outcomes, including the goal of improving mathematics achievement for the SiMR target population. Training evaluation results also are discussed with school personnel, including leadership who may not be present for training/professional development. At many sites, leaders have 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 February Mathematics Advisory Board meeting. At this meeting, board members (some of whom also are primary stakeholders) were asked about implementation and plans for evaluation efforts. The members agreed with the project's use of student-level progress monitoring data in mathematics, but they encouraged the project to also provide guidance on the use of diagnostic assessments. Regular project updates, which include information on the evaluation plan have been provided to additional peripheral stakeholder groups, such as cross-office RIDE teams and the RISEAC. The RISEAC is invited to contribute feedback at least twice a year at their September annual retreat and the winter APR update.

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

Primary stakeholders are actively engaged in evaluation activities from the onset of their participation. School personnel are involved throughout the needs assessment and action planning processes and are encouraged to discuss any feedback on summaries and goals initially drafted by project staff. As DBI case-study students are identified, Math Project staff encourage sites to consider the SiMR population when selecting students, but school personnel will have the final "say" in who is selected. The pulse check interviews result in a summary that is shared with each

site. The results are used to further refine the next school year's action plan, based on primary stakeholder input.

Stakeholder feedback during the Mathematics Advisory Board meeting and the Learning Forum listening sessions affirmed the current evaluation plan. RIDE and Math Project staff plan to share implementation data across primary and peripheral stakeholder groups to ensure that they have a voice in how the data can be used to inform implementation, as well as preferred methods for providing input on the ongoing evaluation.

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 piloted with a subset of sites was refined to include additional categories, including English learner "watch" and "exited" status (to better align data collection with the SiMR), and an additional column for collecting winter benchmark data (to better align with when and how sites collect data). The tool is now being used with other sites but may need additional refinements based on broader use.

2. Implications for Assessing Progress or Results

Because of the project's shift to online module trainings, it is critical to continue efforts to encourage participants to complete the evaluations. These data are essential to the project's continuous improvement and to ensure that trainings are relevant and useful to school personnel. We may need to include an additional measure to collect the number of attendees per site that have completed modules to better understand the full scalability of the resources.

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 will 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 last 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 (see Section C.1.c. for data from pilot implementation). 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.

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 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. There also is a focus on more active collaboration instead of information sharing. For example, mathematics specialists have opened core mathematics training preparation to OSCAS staff and project partners for feedback and input. OSCAS staff also have participated in new curriculum team work in the department, with the outcome that districts will be supported with tools for choosing a quality core mathematics curriculum along with technical assistance to provide professional learning support for 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, leadership has been focused 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. Elements of DBI are included not only in the Math Project, but in CEEDAR and MTSS work throughout the state. Rhode Island also continues to receive intensive technical assistance from NCII (extending previous efforts). NCII's technical assistance to Rhode Island is likely to assist with scaling up DBI practices across initiatives to support sustainability, considering the frequency with which LEA staff move around the state. The goal of this work is to ensure that momentum need not be lost if changes within personnel/leadership occur. Furthermore, infusion of DBI in preservice preparation programs through CEEDAR will support sustainability and scale up of those practices.

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

The training activities in this reporting period have focused on developing participants' knowledge of evidence-based, core mathematics instructional strategies and PALS-Math that are aligned with the Common Core Standards. PALS-Math has fidelity monitoring tools included with the teacher handbooks. In relationship to implementation fidelity related to Number Talks, data include educator self-assessments using a checklist or observations of teachers implementing learned practices—in some instances, sites have developed an "instructional round" approach, during which peers observe other teachers implementing a learned strategy and provide feedback. In one third-grade classroom, fidelity data from a teacher's self-assessment revealed that she adhered to implementation fidelity with at least 85% accuracy across seven Number Talks sessions. In another school, Math Project coach observations of three teachers at different grade levels revealed 90% adherence to implementation

fidelity across sessions. Project staff follow up with school teams to determine their use of the fidelity tools, as well as introduce any fidelity tools associated with additional EBPs/interventions that sites select for future implementation. Project staff will continue to coordinate with school-level personnel to address any challenges related to implementation fidelity. Ensuring that school-level personnel take ownership of monitoring fidelity is critical to sustained implementation. In addition, as sites begin to identify students for DBI case studies, fidelity to student-level plans (e.g., implementation logs) and the DBI process more generally (e.g., EOY pulse check) will be included as another measure to demonstrate progress toward the intermediate outcome related to increased educator application of skills related to DBI in mathematics.

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

The increases in educators' beliefs about mathematics, as well as participants agreement rates related to training activities providing them with something they can apply, gives evidence that progress is being made toward the logic model's short-term outcomes related to increased knowledge of DBI in mathematics.

Three elementary schools and one middle school are actively engaging their core project team in implementing the DBI process with at least one case-study student, demonstrating progress toward the logic model's intermediate outcomes related to increased application of DBI in mathematics. Of the four schools, three had prior exposure to DBI through NCII technical assistance. The fourth is a Cohort 2 site with a strong district and school leadership; consequently, they are advancing through implementation more rapidly than other sites. Given that all sites are expected to identify case-study students, we expect to report on initial progress toward increased application of DBI in mathematics as the project progresses.

4. Measurable Improvements in the SiMR in Relation to Targets

Because the three years of PARCC data collection do 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 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. RICAS 2019 administration will be more likely to reflect SSIP implementation efforts. RIDE intends to examine state assessment performance of students with SLDs who are Black or Hispanic from participating districts compared with nonparticipating districts once multiple years of RICAS data become available. Very small *n* sizes will make meaningful comparisons unlikely. Nonetheless, trends in the data will be explored.

F. Plans for Next Year

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

Table 15 provides an overview of the additional activities to be implemented next year, with the timeline delineated by project activity. Section E.1 provides additional detail on additional activities that will be implemented in the coming year.

Table 15. Implementation Plan and Timeline

Project implementation areas	Completed activities	Planned activities	Timeline for implementation
Project planning and coordination	Work with current districts to identify sites for Cohort 3 and conduct a targeted outreach to districts with better alignment to the SiMR (i.e., two urban districts).	Conduct informational meeting/kickoff with Cohort 3 sites.	Spring 2019
	Conduct informational meeting/kickoff with Cohort 2 sites.	Complete needs assessments with Cohort 3 sites.	Spring 2019
	Draft and finalize the MOU and mini-grant process with Cohorts 1 and 2 sites.	Draft and finalize the MOU and mini-grant process with Cohort 3 school sites.	Spring/summer 2019
	Implement action plans with Cohort 1 and 2 sites.	Implement action plans with Cohort 1 and 2 sites.	Ongoing
	Have Cohort 2 sites prioritize needs assessment results and develop action plans.	Have Cohort 3 sites prioritize needs assessment results and develop action plans.	Summer/fall 2019
Training and Coaching	Identify objectives and targets for school year.	Identify objectives and targets for school year.	Summer 2019
	Adapt Cohort 1's trainings for Cohort 2's specific needs.	Nothing additional planned.	N/A
	Schedule and implement trainings for Cohort 1.	Schedule and implement trainings for Cohorts 1 and 2.	Fall 2019–spring 2020
	Schedule and implement trainings for Cohort 2.	Schedule and implement trainings for Cohort 3.	Fall 2019–spring 2020
	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.	Ongoing
	Support teams with selecting DBI case studies.	Support teams with selecting DBI case studies.	Ongoing
	Model EBPs with schools.	Model EBPs with schools.	Ongoing, as needed

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. Additional measures will be explored 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

As the Math Project continues to move forward, sites will be required to demonstrate their progress toward their implementation/action plans. These plans delineate training and coaching activities that sites are expected to be an ongoing basis. Because of when the project started working with them, sites often were committed to participation in activities with other projects (e.g., coaching from the MTSS initiative). Math Project staff will work with district- and site-level administrators to ensure this project is aligned to other state-level initiatives so that they understand the connections across the efforts to support their outcomes. In that way, scheduling barriers may be remediated. In addition to these barriers, we have experienced some leadership turnover at both the district and school levels, as well as turnover with participating educators. The Leadership PLC previously described is a strategy the Math Project will use to address barriers at the leadership level; the modules can provide support with addressing barriers at the educator level because they can be used with long-term substitutes and newly hired teachers. The content also can be shared with leadership at the school and local levels in the event of turnover.

4. Additional Support and/or Technical Assistance Needed

Currently, RIDE and the state core team will continue to participate in the NCSI Mathematics Cross-State Learning Collaborative. To date, this has been a very effective resource for the state in developing the design decisions for the Intensive Math Intervention Project, examining evidence-based research, and providing support for implementation challenges. It is expected that this collaborative will continue to serve as a helpful tool for the SSIP. In addition, RIDE will continue to leverage CEEDAR, NCII, and IDEA Data Center technical assistance to continue development and implementation of the SSIP.

Appendix A. Number Talks Implementation Plan

Teacher:	**Grade:**
Things to consider	
Select a designated time and location. • *Where in my day do Number Talks fit?* • *Will you implement as a morning meeting? An entrance/exit routine? Warm-up?*	
How will I create a safe, risk-free environment that encourages appropriate student communication?	
What topic are we focusing on? *Students need time to learn this process and become comfortable sharing thoughts with peers. Start with topics they are familiar with and can solve with ease; then build to more complex topics and discussions.*	☐ **Counting** ❑ **Fluency with** ❑ 3 ❑ 4 ❑ 5 ❑ 6 ❑ 7 ❑ 8 ❑ 9 ❑ 10 **Using** ❑ Dot Images ❑ Five-Frames/Ten-frames ❑ Rekenreks ❑ **Addition** ❑ Counting all/counting on ❑ Doubles/near doubles ❑ Breaking each number into its place value ❑ Making 10 ❑ Making landmark "friendly" numbers ❑ Compensation ❑ Adding up in chunks

	❑ **Subtraction** ❑ Removal/counting back ❑ Adding up *(Note: Difference is distance on a number line.)* ❑ Removal ❑ Adjusting ❑ Keeping a constant difference ❑ Place value and negative numbers *(Note: Students often "invent" this strategy)* ❑ **Multiplication** ❑ Repeated addition and skip counting *(Note: Skip counting might occur when students are presented with this topic for the first time. Scaffold student thinking from additive to multiplicative when facilitating their thinking.)* ❑ Making landmark or "friendly" numbers ❑ Partial products ❑ Doubling and halving ❑ Breaking factors into smaller factors ❑ Area models ❑ **Division** ❑ Repeated subtraction/dealing out *(Note: Repeated subtraction might occur when students are presented with this topic for the first time. Scaffold student thinking to multiplication and removing groups of__.)* ❑ Partial quotients ❑ Multiplying up ❑ Proportional reasoning (very advanced) ❑ Place value ❑ Area models
Number Talks Implementation Schedule *Goal is at least two Number Talks per week (e.g., including testing weeks during which Number Talks can be conducted during morning meeting or as a review). What will the Number Talks be? (Problem Set)*	**Anticipated student responses?**

Week of _____ **Problem Set 1** | **Problem Set 2**	I anticipate . . . **Problem Set 1** | **Problem Set 2**
Week of _____ **Problem Set 1** | **Problem Set 2**	I anticipate . . . **Problem Set 1** | **Problem Set 2**
Week of _____ **Problem Set 1** | **Problem Set 2**	I anticipate . . . **Problem Set 1** | **Problem Set 2**
Week of _____	I anticipate . . .

Problem Set 1	Problem Set 2

Problem Set 1	Problem Set 2

What instructional supports and scaffolds are needed for my struggling learners?
(Note: Have supports available that encourage students to think of any mental computation they can.)

Formative Assessment: *How will I assess students' skills and understanding?*

Appendix B. Number Talk Implementation Observation Checklist/Self-Assessment

Teacher:	**Grade:**	**Setting:**
		Absent students:

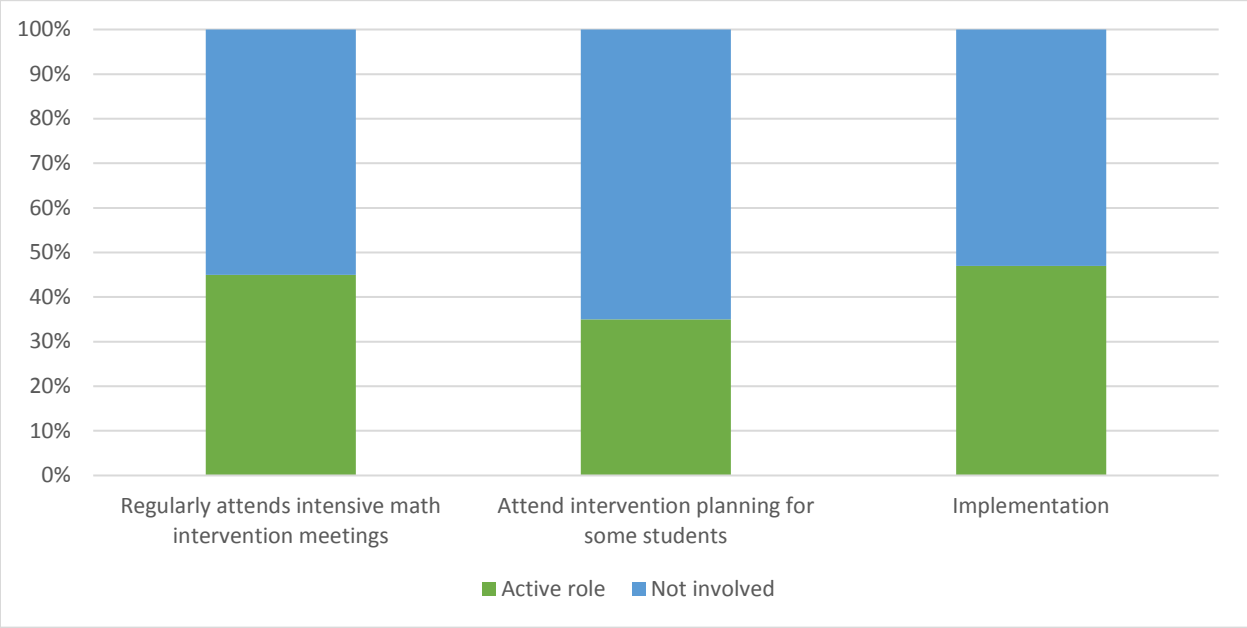
<table>
<tr><th>Number Talk problem</th><th colspan="2">Student engagement</th><th colspan="2">Student responses</th><th>Student strategies shared</th></tr>
<tr><td>What problem is posed?</td><td colspan="2">❑ Very few engaged
❑ Some engaged
❑ Most engaged
❑ All engaged</td><td colspan="2">❑ Very few students identify one strategy.
❑ Some students identify one strategy.
❑ Most students identify one strategy.
❑ All students identify one strategy.
How many students had multiple strategies?
☐ Very Few ☐ Some ☐ Most ☐ All</td><td rowspan="2"></td></tr>
<tr><td>Have students been exposed to this skill/ concept previously?
❑ Yes
❑ No</td><td>Who struggled?</td><td>Who exceeded?</td><td>Who struggled?</td><td>Who exceeded?</td></tr>
<tr><td colspan="6">Key implementation features (Place a check mark in each box if implemented/observed)</td></tr>
<tr><td colspan="2">Quick (10–15 min)</td><td colspan="2">Teacher as facilitator</td><td>Teacher recorded student thinking to visually interpret the strategy</td><td>Mental math plays an integral part in the Number Talk</td><td>Purposeful set of computation problems to build fluency</td></tr>
<tr><td colspan="2">Expectations set and classroom Number Talks procedures were clear</td><td colspan="2">Hand signals to promote wait time</td><td>Overall respect among group while students are sharing their thinking/answers</td><td>Students, rather than the teacher, determine if the answer is correct/incorrect</td><td>Use of scaffolds (e.g., whiteboards, manipulatives, or visual cues) for struggling learners</td></tr>
</table>

Reflection and/or Observational Feedback: Identify one or two areas of strength (+) and one or two areas to support future implementation (Δ).

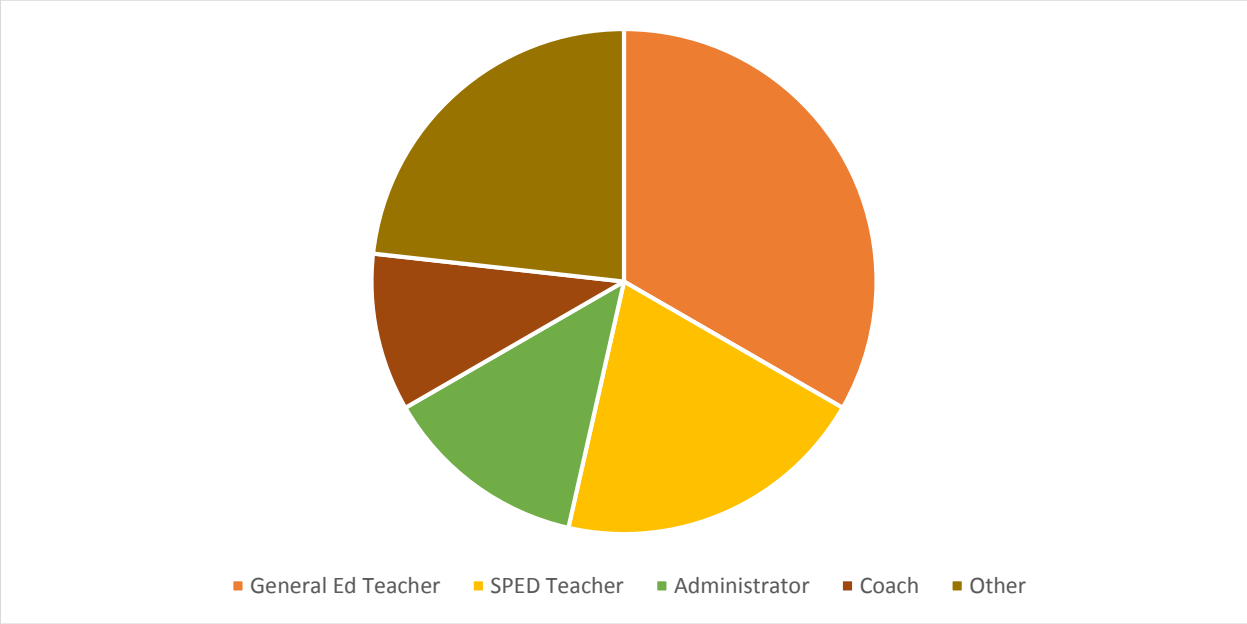
Focus areas	**+/Δ**	**Notes**
Reconsider the problem posed to students (easier/harder skill/concept, additional scaffolds).		
Consider reframing the problem to elicit multiple student strategies.		
Include more time for students to discuss their thinking about numbers and strategies.		
Give students opportunities to reflect on their thinking and reasoning about numbers, operations, and strategies.		
Provide opportunities for students to check and justify reasonableness of solutions.		
Facilitate active participation in Number Talks (consider the problem type, environment, wait time, or behavioral expectations).		
Facilitate opportunities for students to make generalizations and abstractions from concrete and representational models.		
Encourage student use of multiple representations of thinking and work (e.g., pictures, number lines, hundreds chart, place value, words, manipulatives).		
Establish clear expectations and procedures, including expected student behaviors (e.g., hand signals, model peer-to-peer feedback examples).		
Consider the use of scaffolds for struggling learners.		
Other suggestions to support implementation:		

Appendix C. 2017–18 Pulse Check Report Aggregated Data

Participants' Role in Relationship to Mathematics Intervention



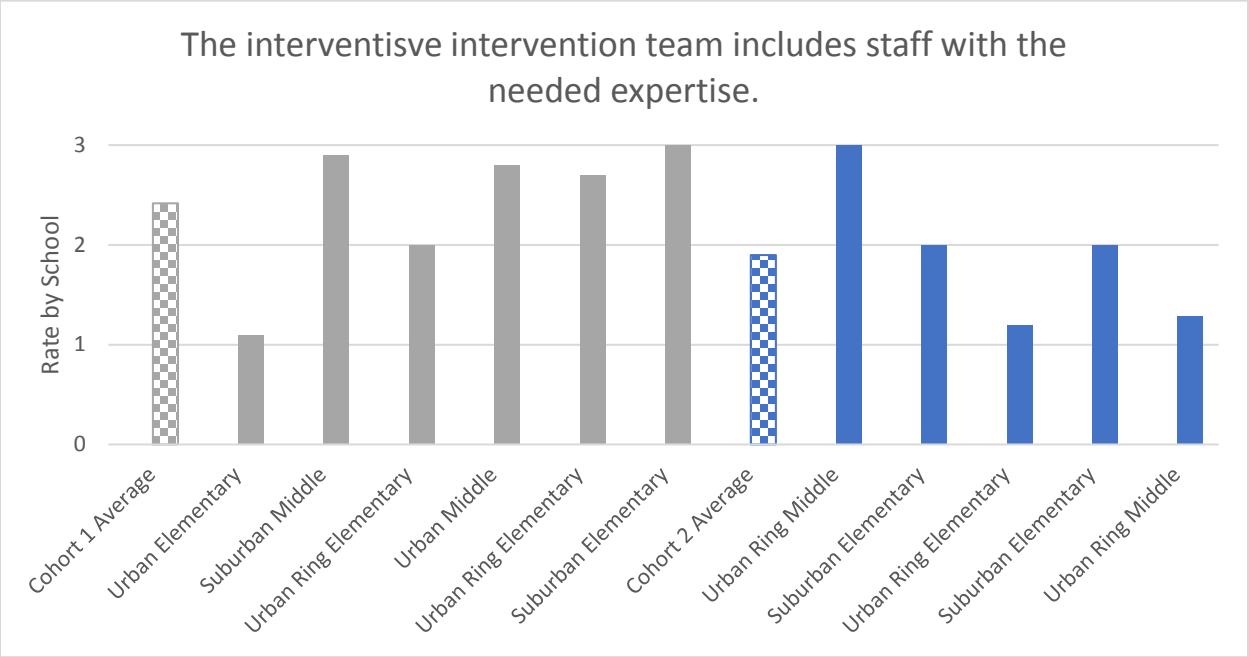
Participants' Role in the Schools

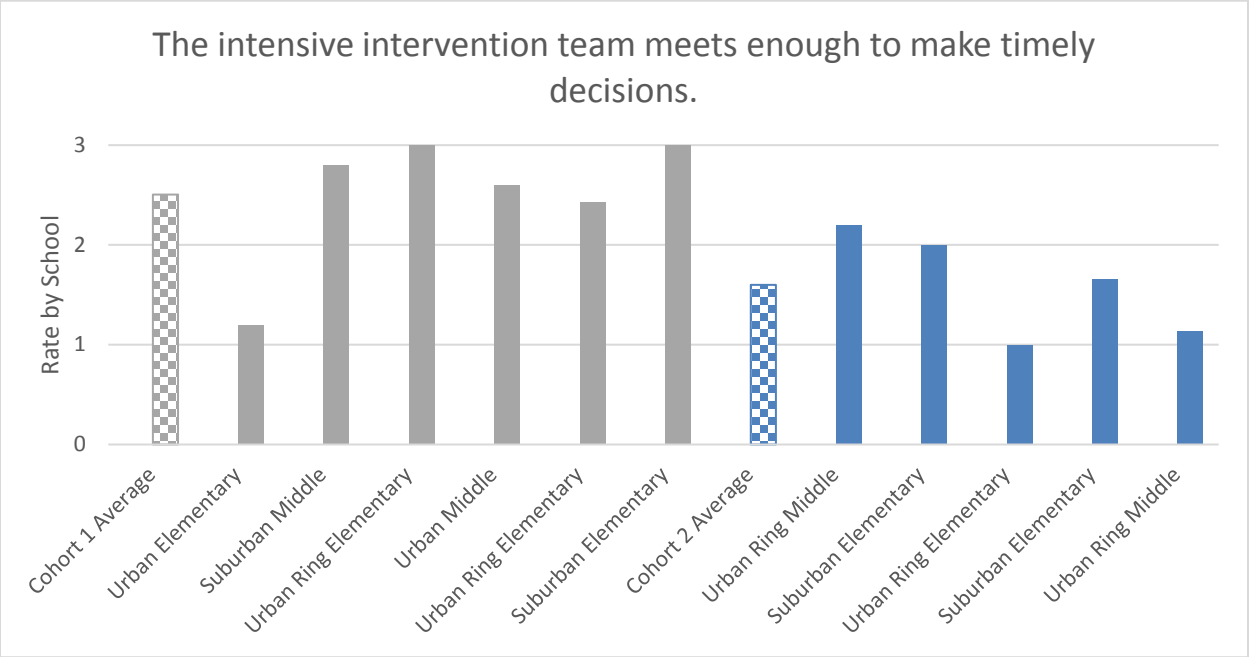


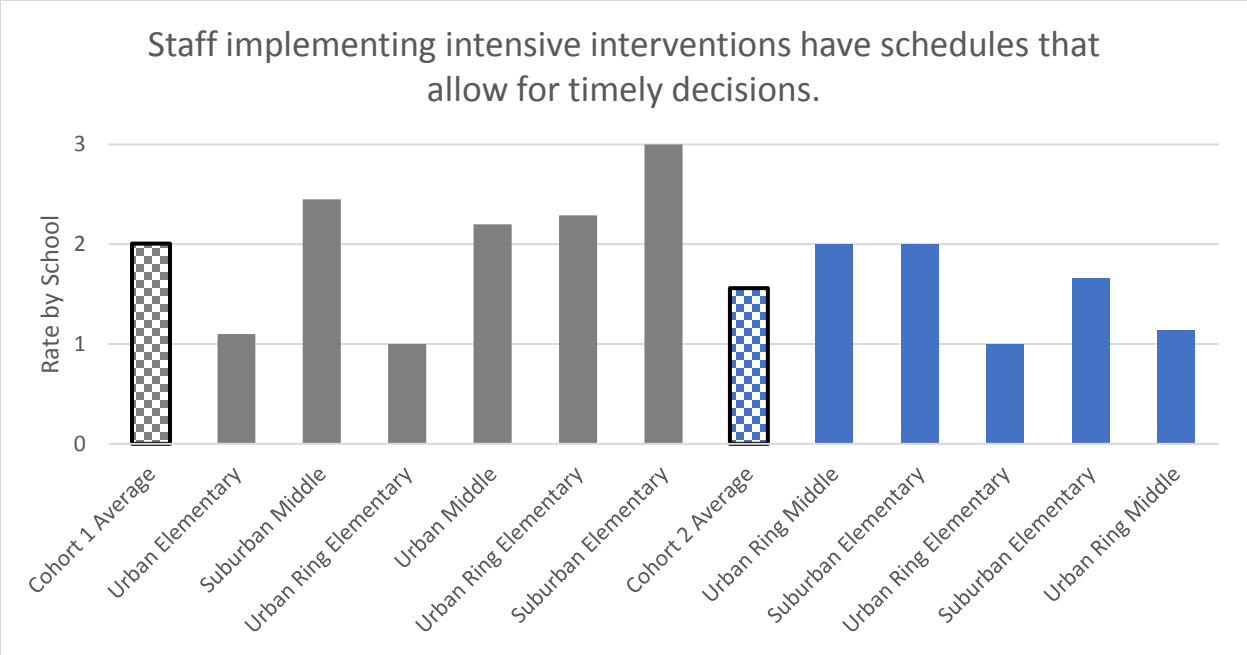
Note: The other category includes diverse positions such as district personnel, related services providers, and reading specialists.

Intensive Intervention Process and Team

Indicators in this section were rated from 0 (*not at all*) to 3 (*completely/consistently*).





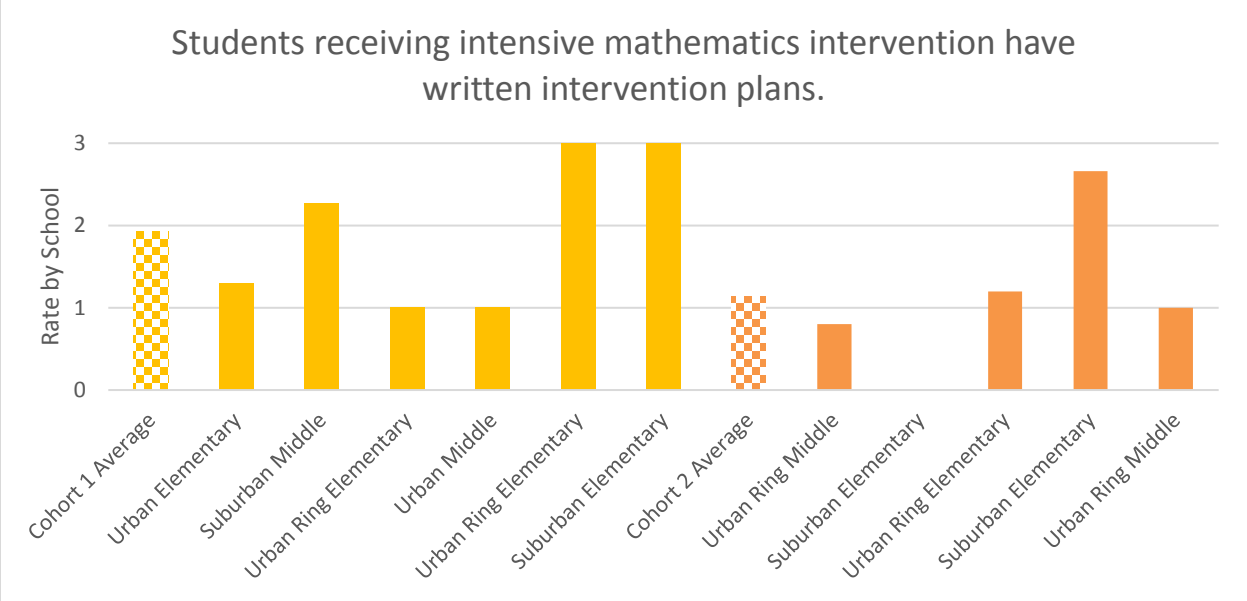


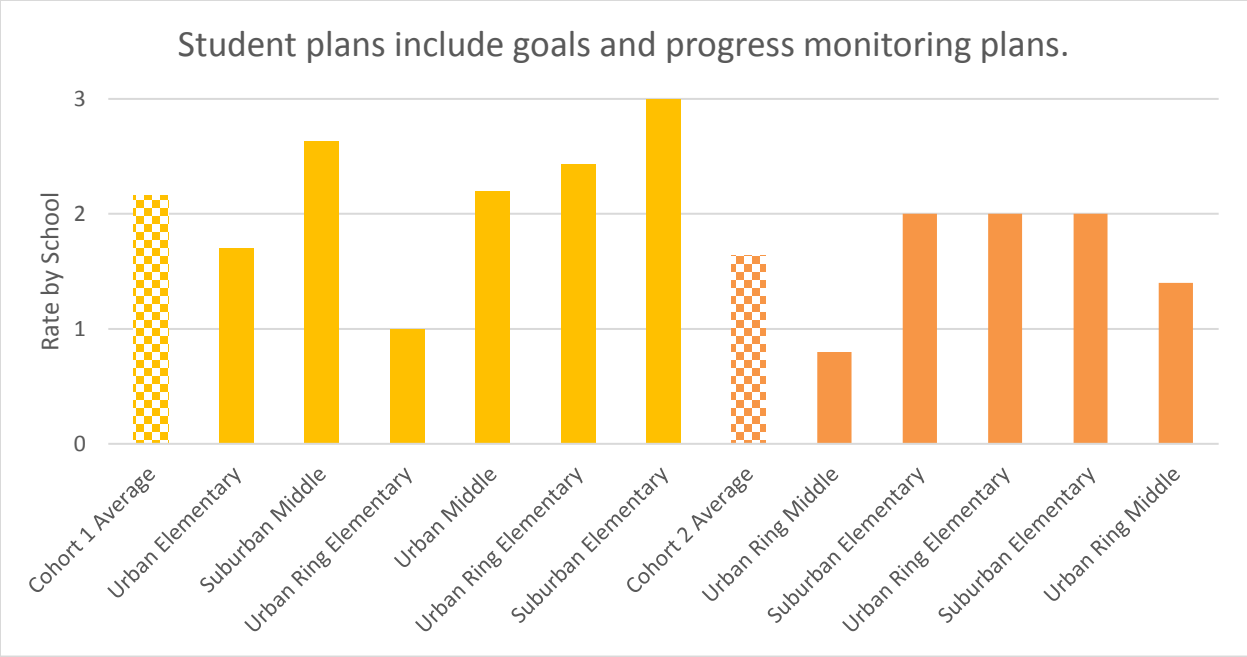
Scheduled Team Meetings

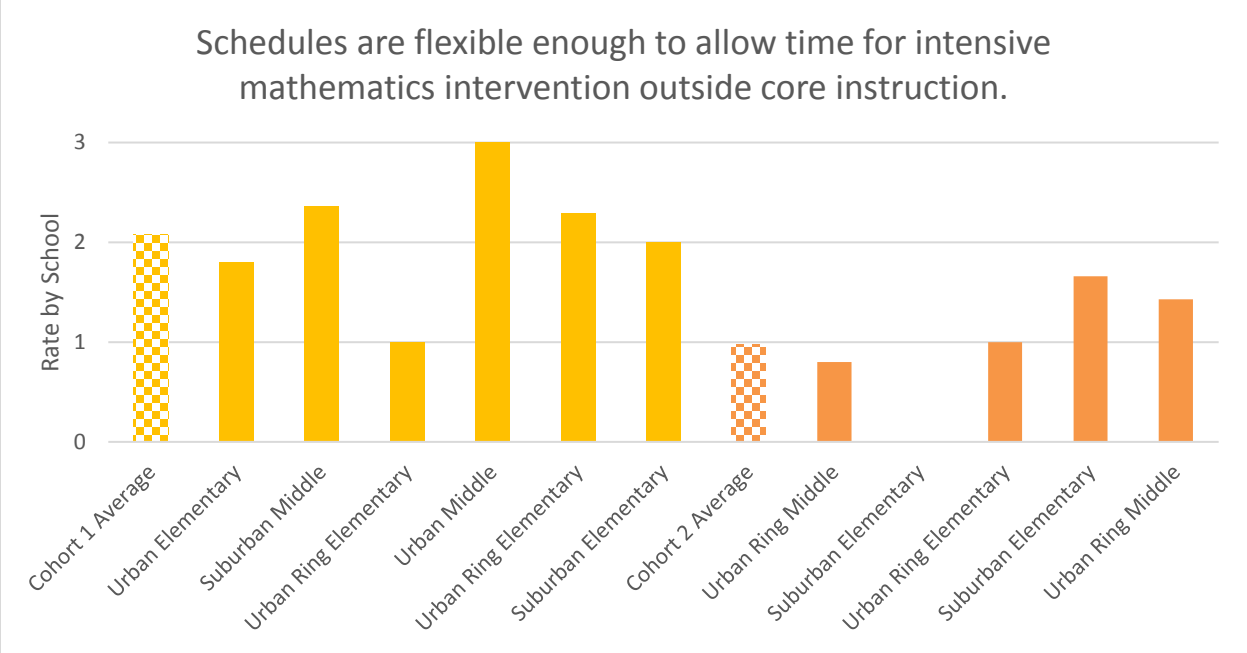
There is a high amount of variance in the frequency of meetings for cohort schools. Four schools meet once a month, with two others meeting less often. One school meets weekly, and another meets twice per month. Three school teams surveyed didn't know or were unsure of how often the team meets, which may be the result of survey responders confusing meetings for the intensive mathematics team with those of other support teams (MTSS, RTI, PBIS).

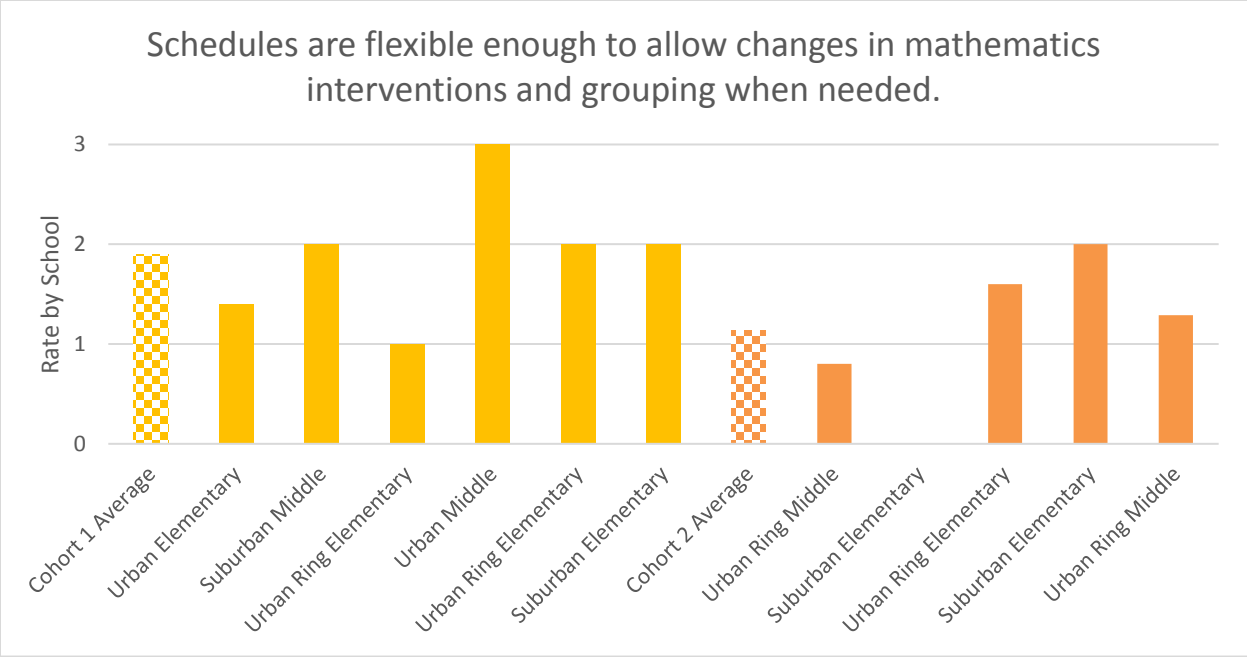
School Practices to Support Mathematics Intervention

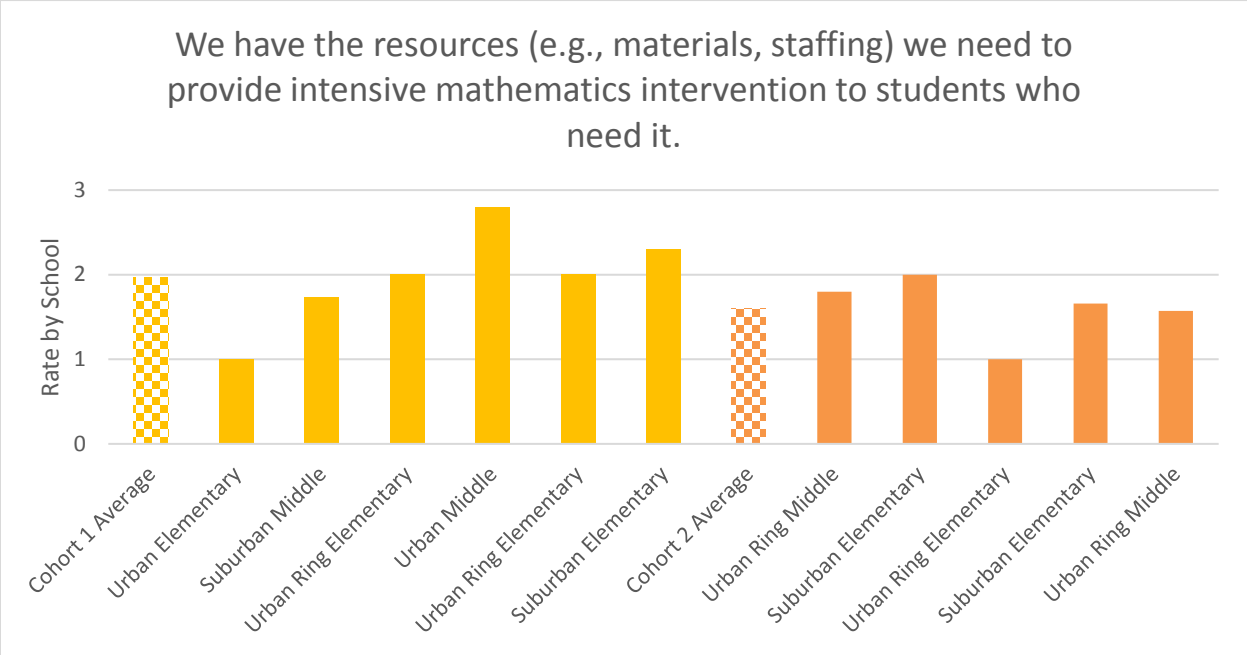
Indicators in this section were rated from 0 (not at all) to 3 (completely/consistently).




Student plans include goals and progress monitoring plans.
Rate by School
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

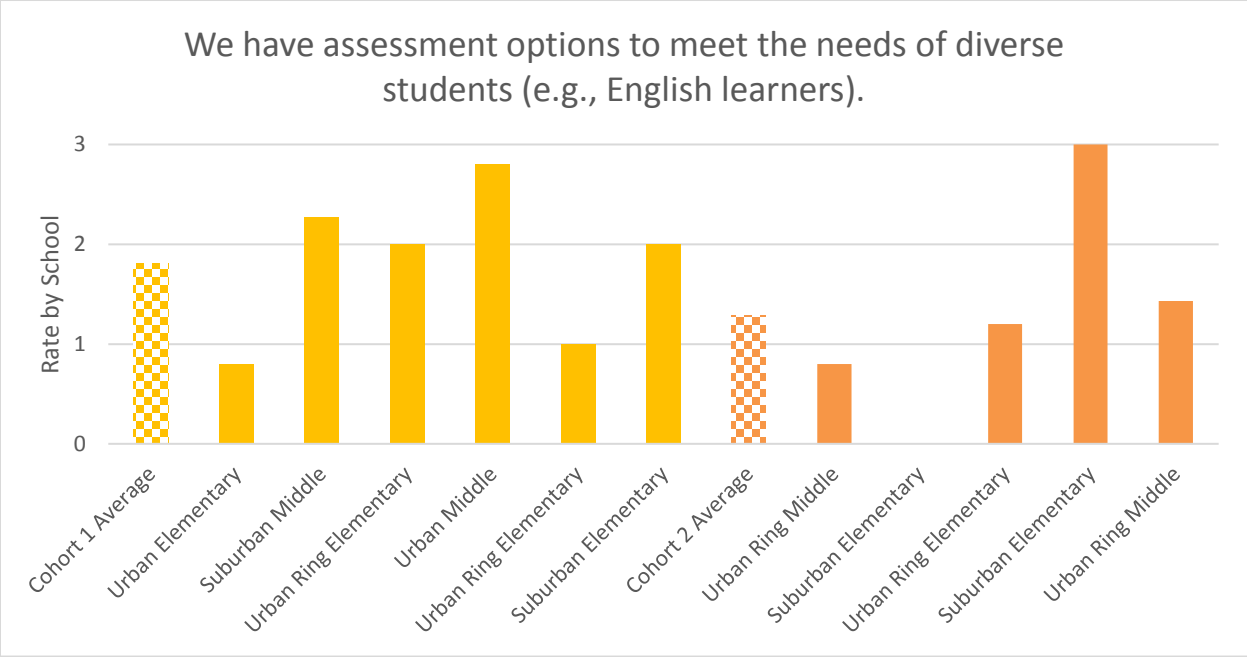

Schedules are flexible enough to allow time for intensive mathematics intervention outside core instruction.
Rate by School
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

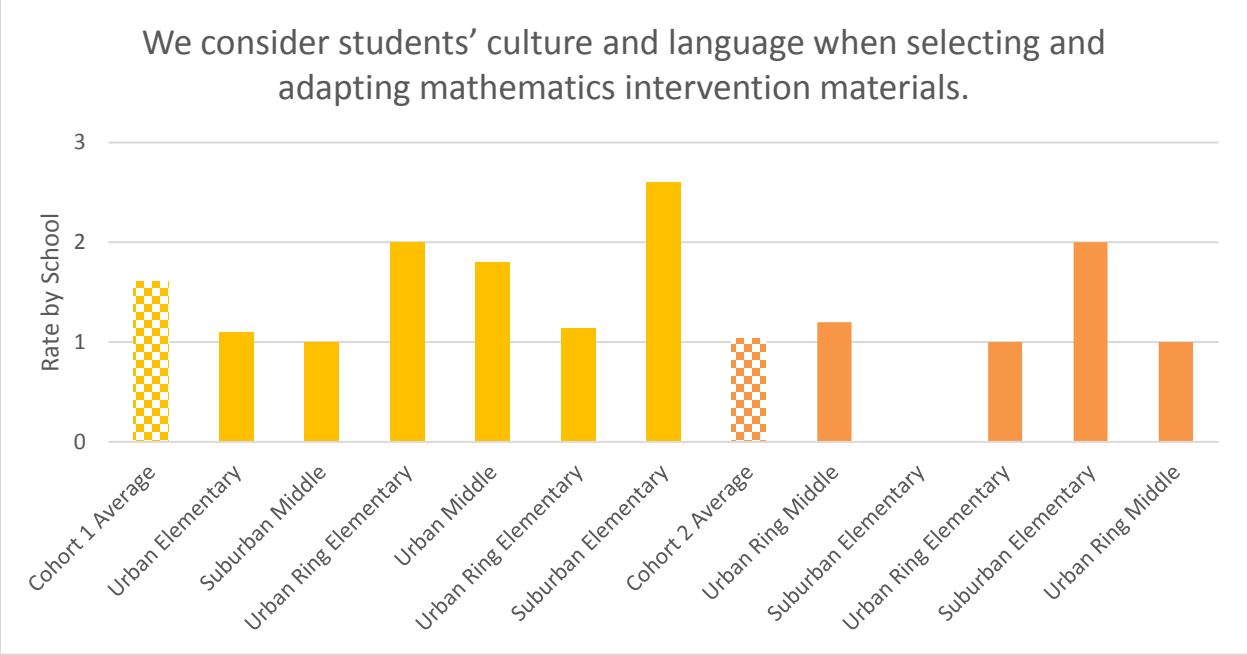

Schedules are flexible enough to allow changes in mathematics interventions and grouping when needed.
Rate by School
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

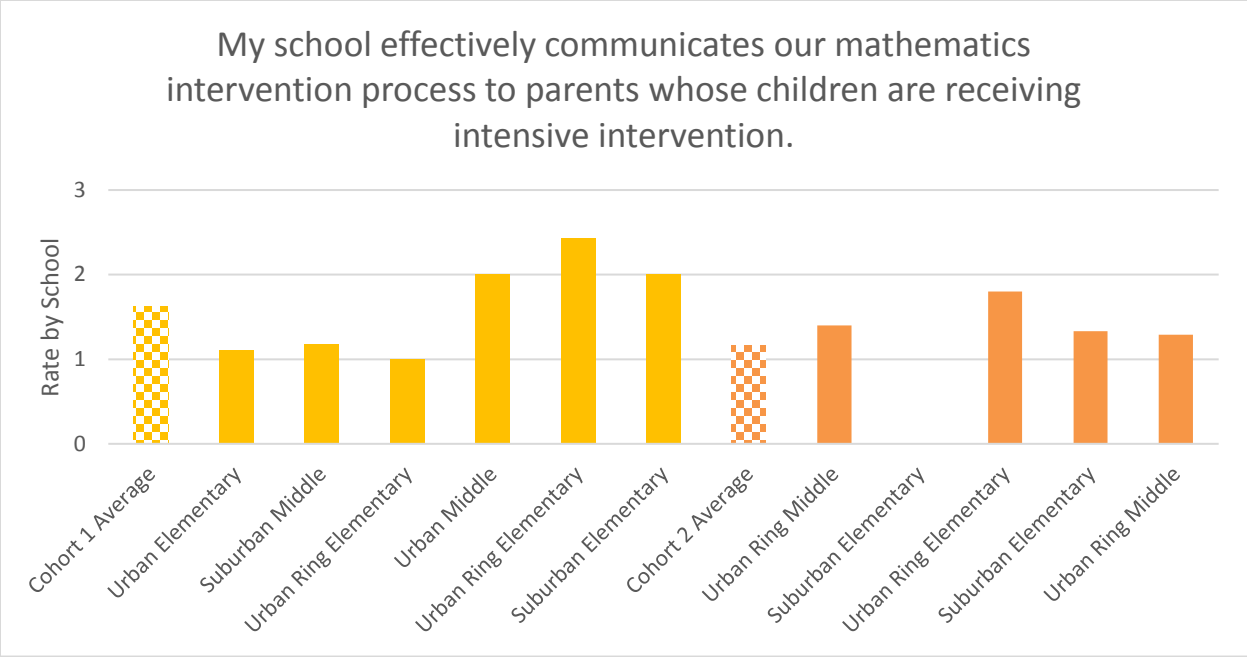

We have the resources (e.g., materials, staffing) we need to provide intensive mathematics intervention to students who need it.
Rate by School
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

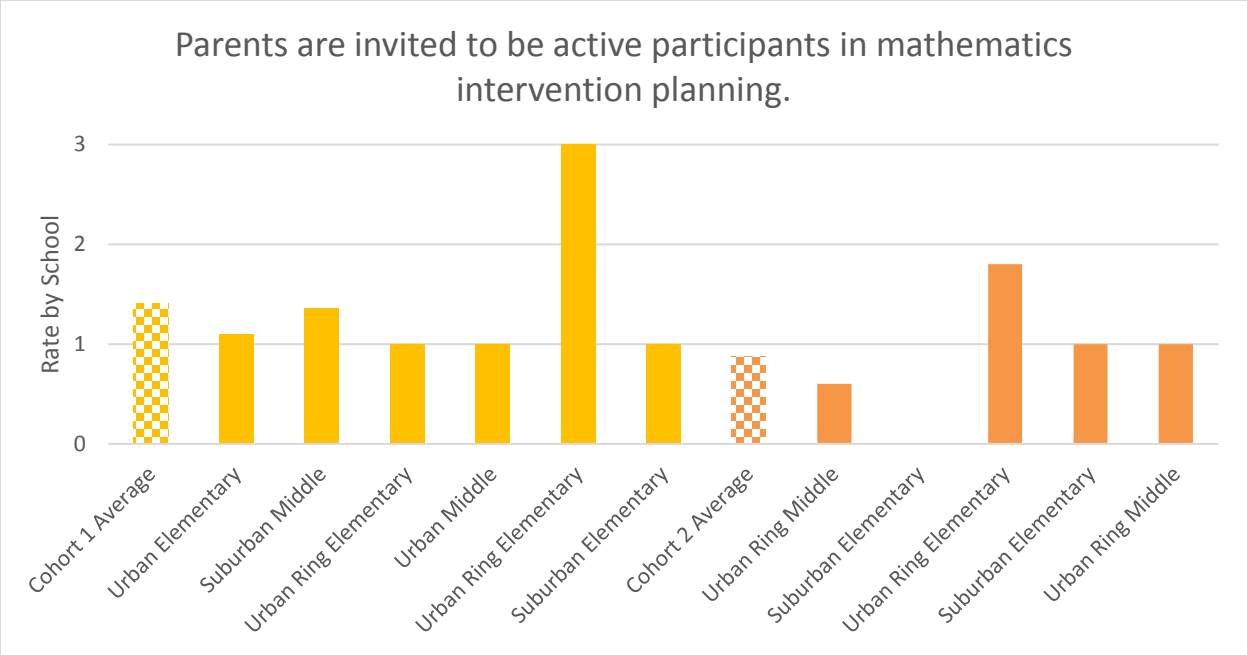
Diverse Students and Parent Involvement

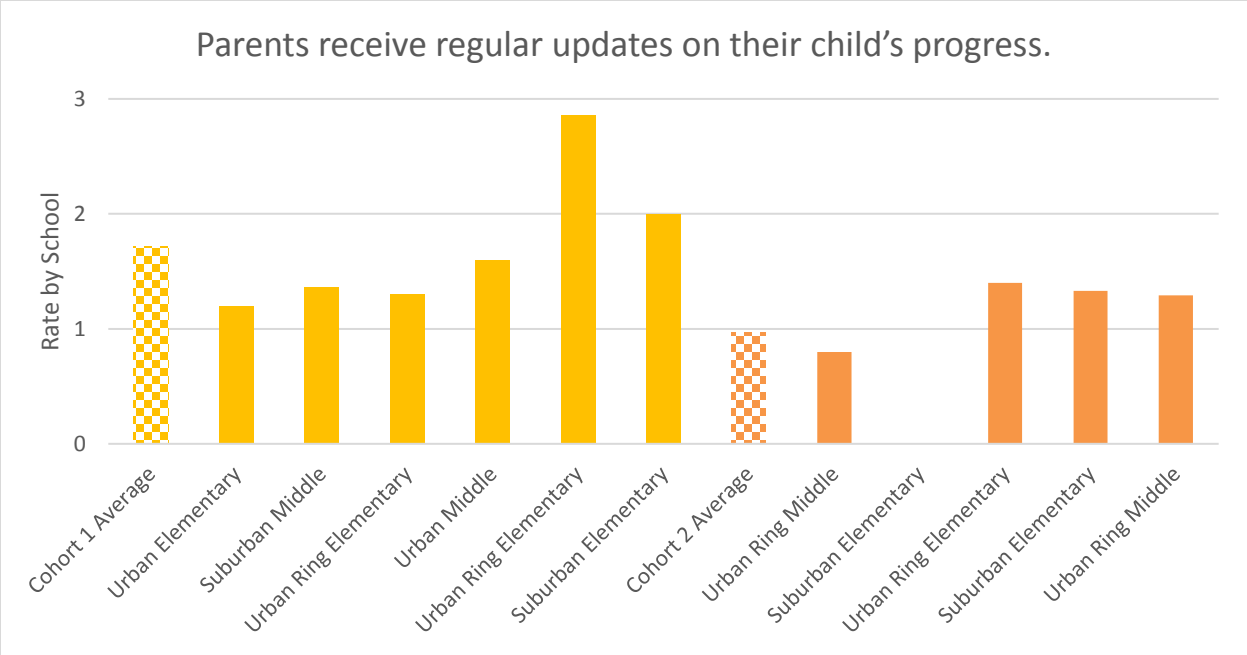
Indicators in this section were rated from 0 (not at all) to 3 (completely/consistently).





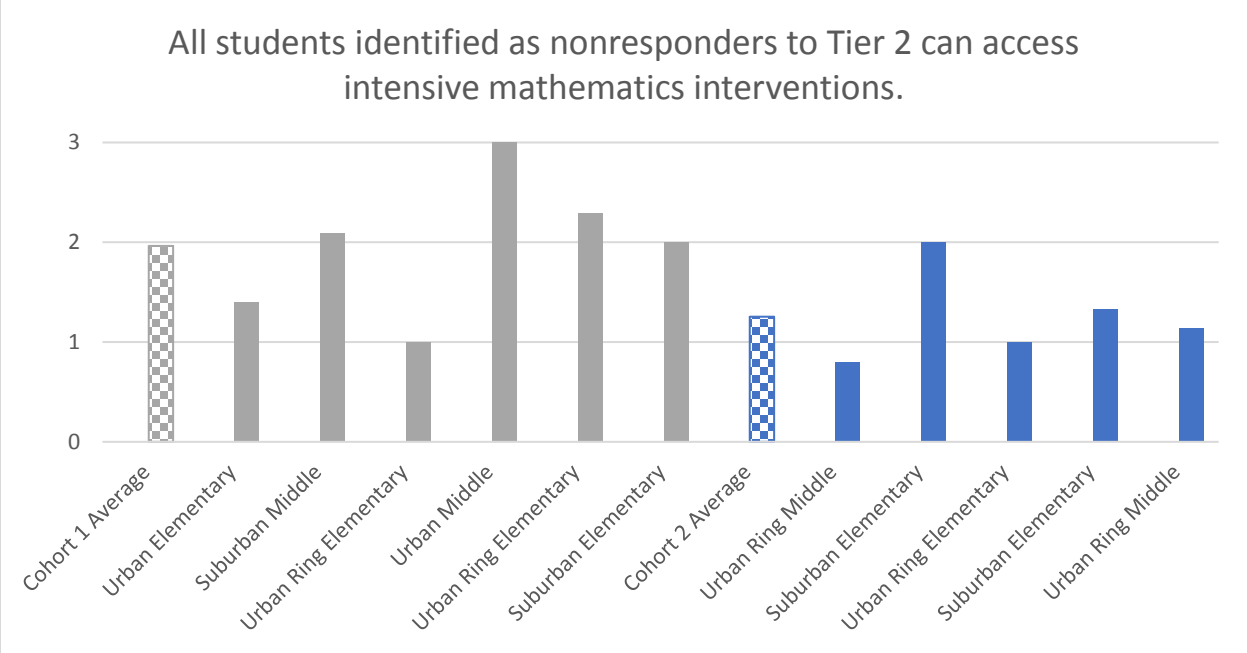

My school effectively communicates our mathematics intervention process to parents whose children are receiving intensive intervention.
Rate by School
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

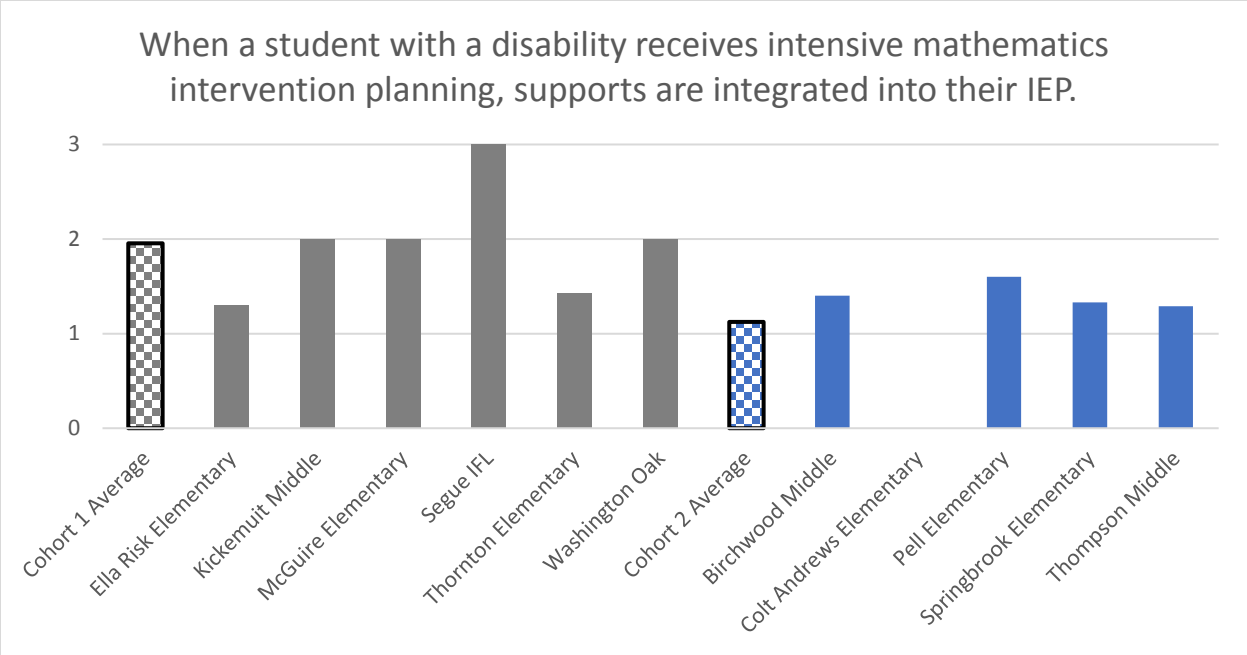

Parents are invited to be active participants in mathematics intervention planning.
Rate by School
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

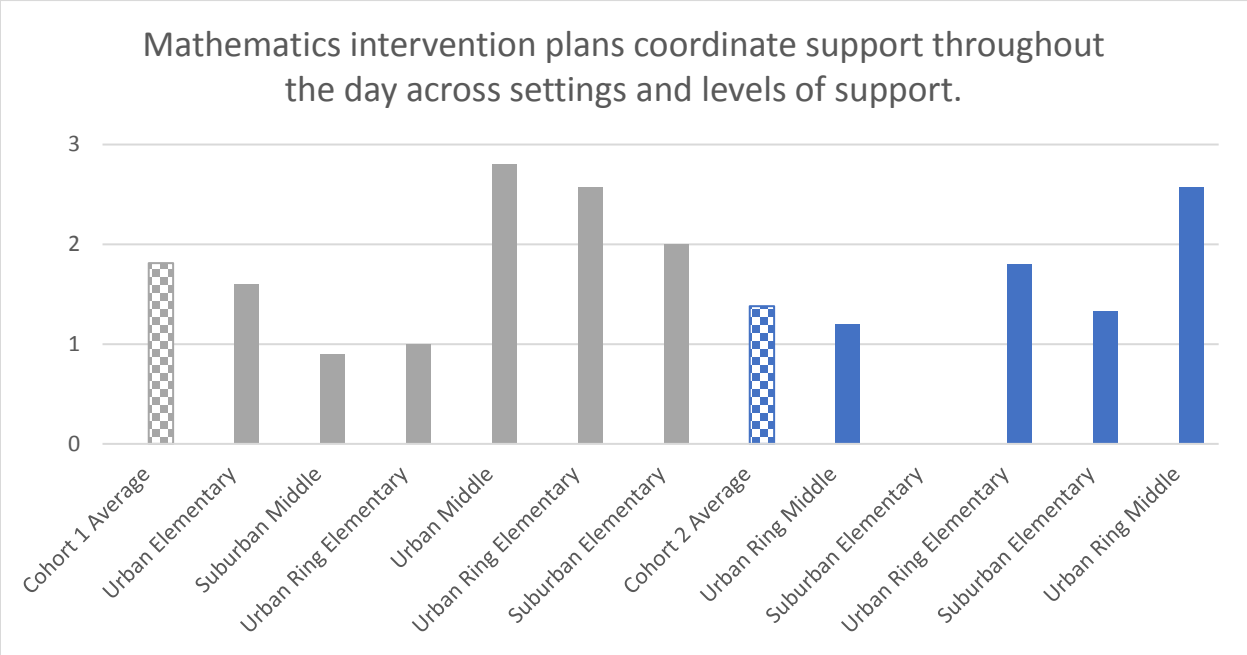


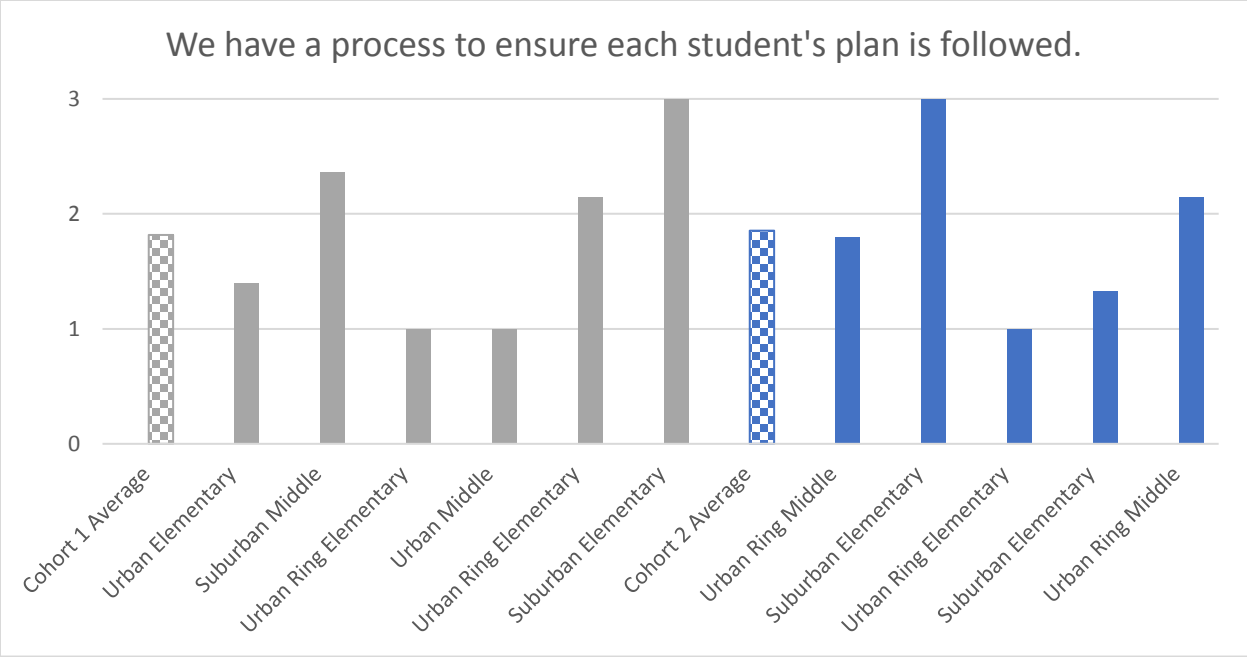
Providing Intensive Mathematics Intervention

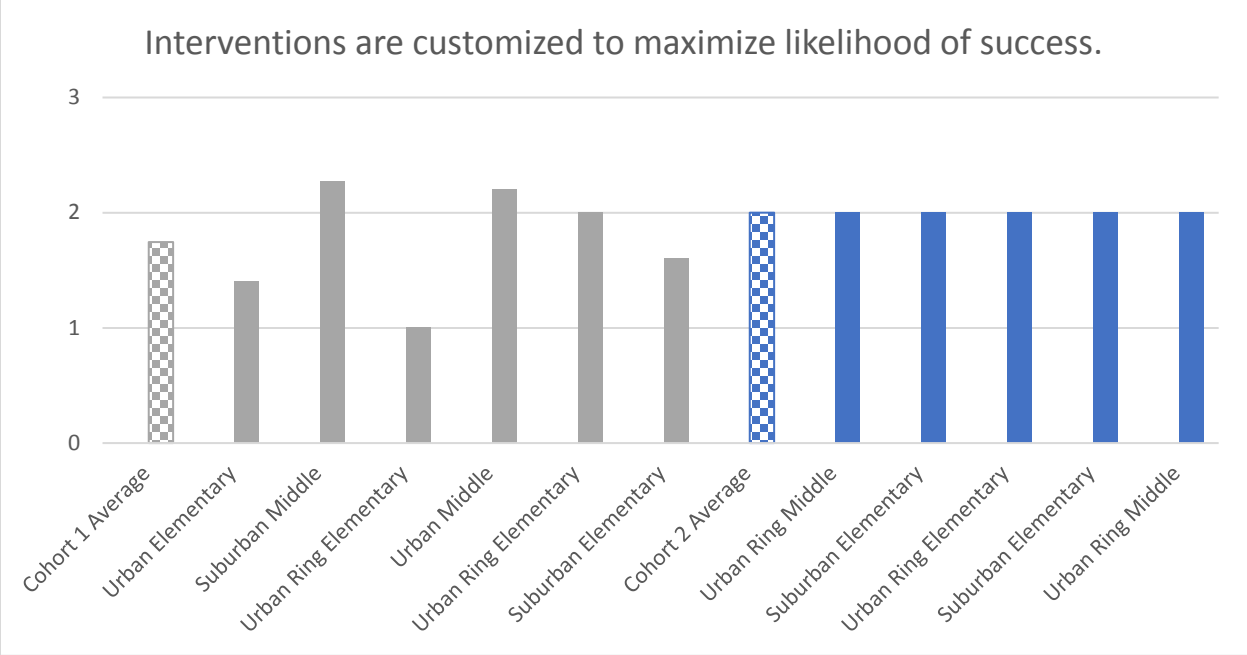
Indicators in this section were rated from 0 (not at all) to 3 (completely/consistently).




When a student with a disability receives intensive mathematics intervention planning, supports are integrated into their IEP.
3
2
1
0
Cohort 1 Average
Ella Risk Elementary
Kickemuit Middle
McGuire Elementary
Segue IFL
Thornton Elementary
Washington Oak
Cohort 2 Average
Birchwood Middle
Colt Andrews Elementary
Pell Elementary
Springbrook Elementary
Thompson Middle

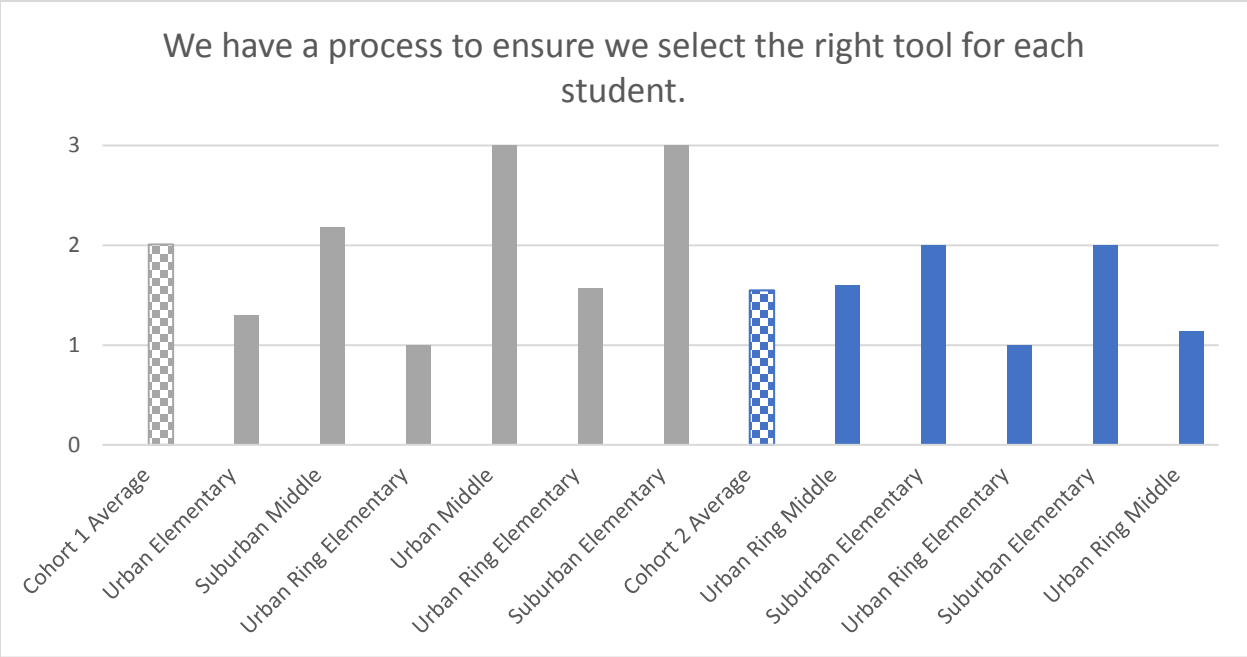

Mathematics intervention plans coordinate support throughout the day across settings and levels of support.
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

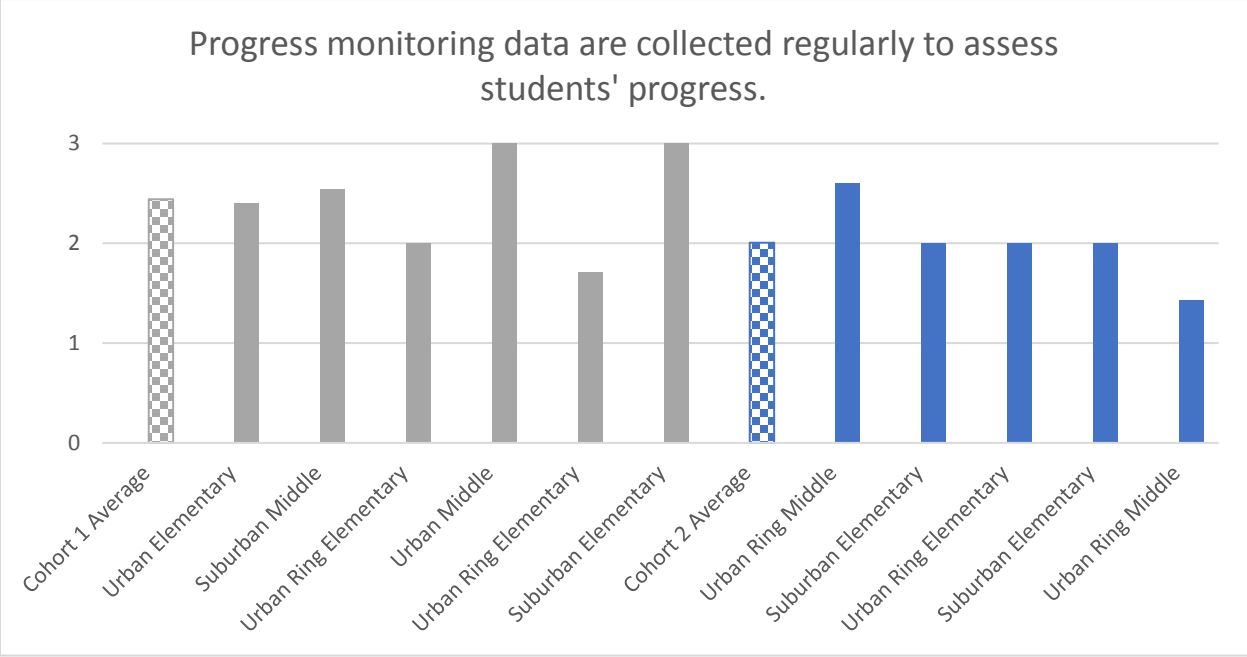

We have a process to ensure each student's plan is followed.
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

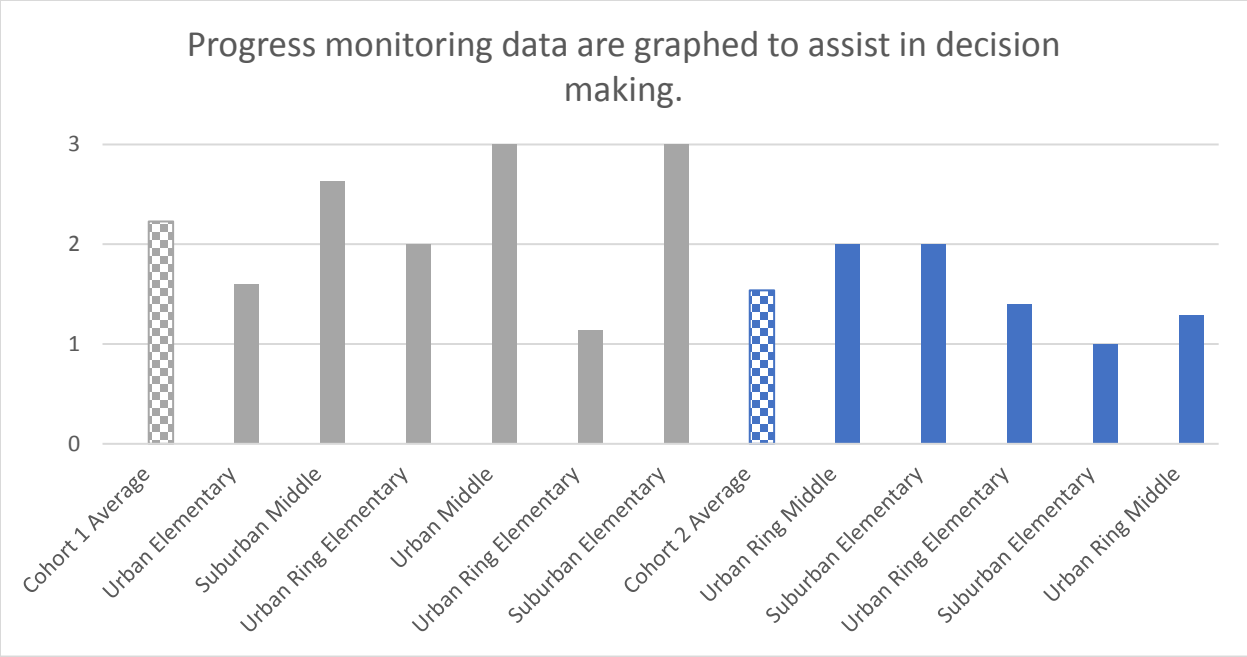

Interventions are customized to maximize likelihood of success.
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

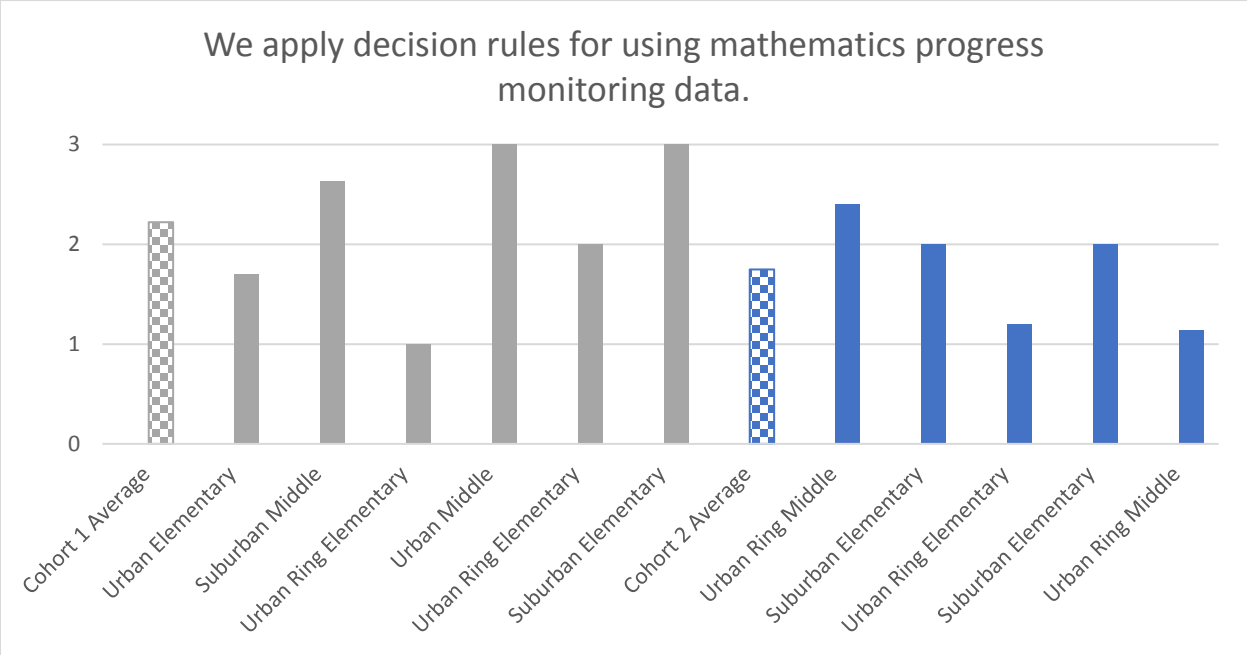
Data Use

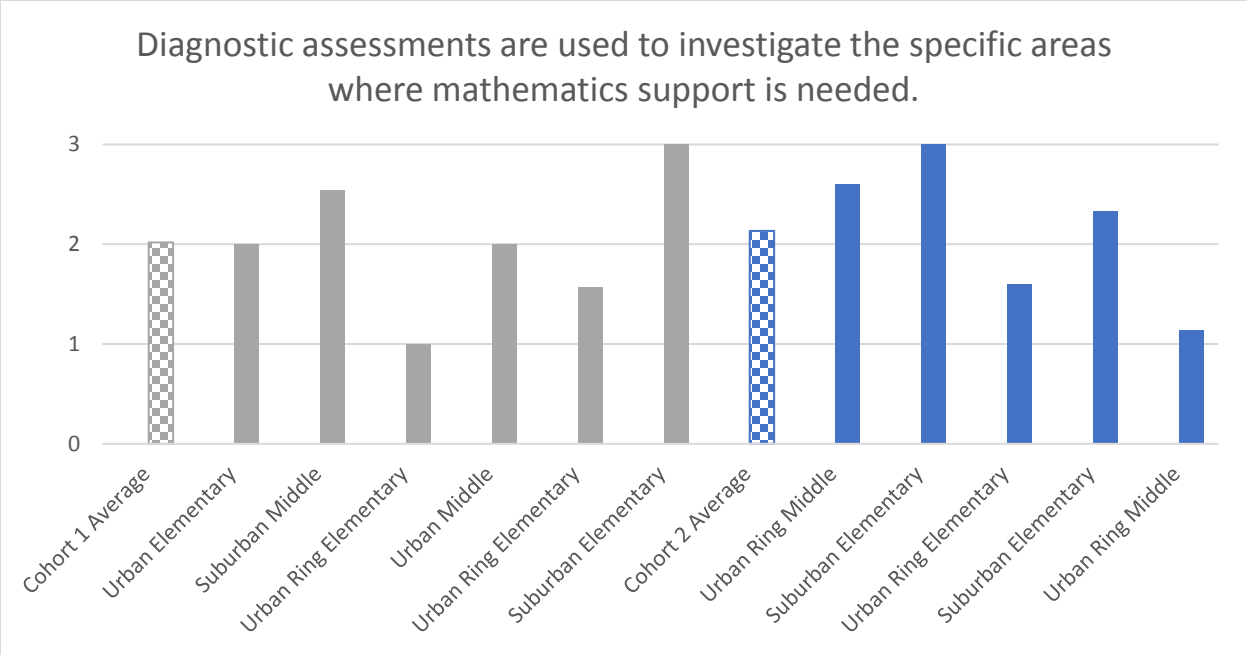
Indicators in this section were rated from 0 (not at all) to 3 (completely/consistently).





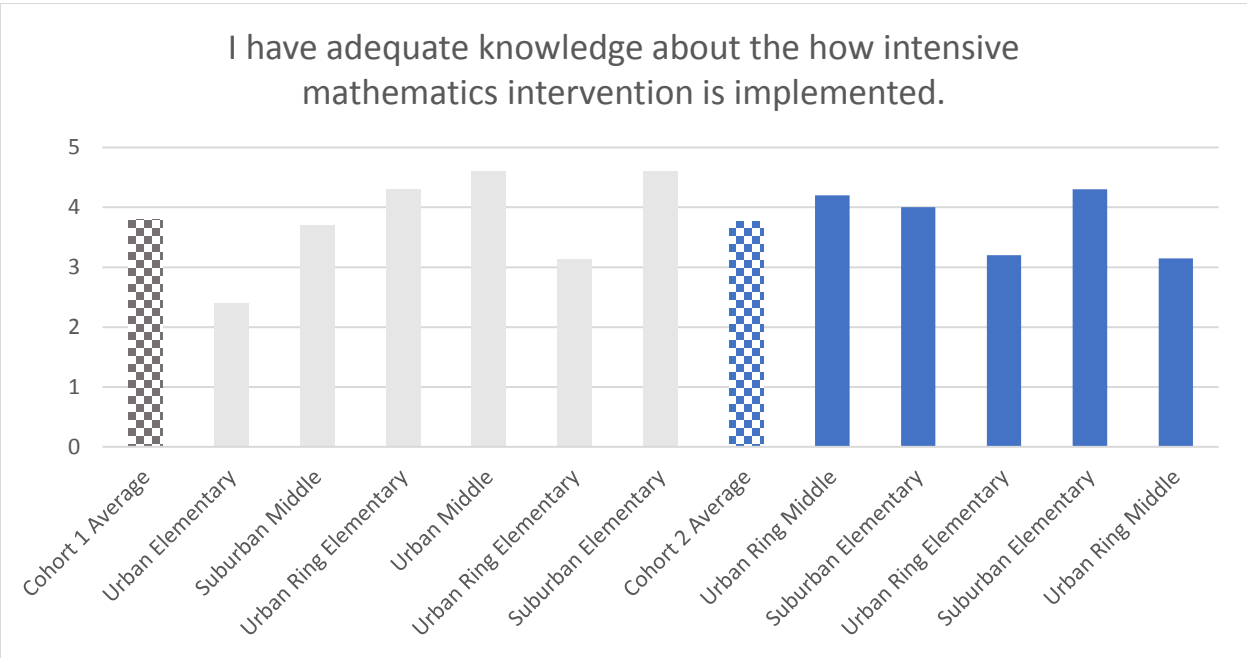

Progress monitoring data are graphed to assist in decision making.
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

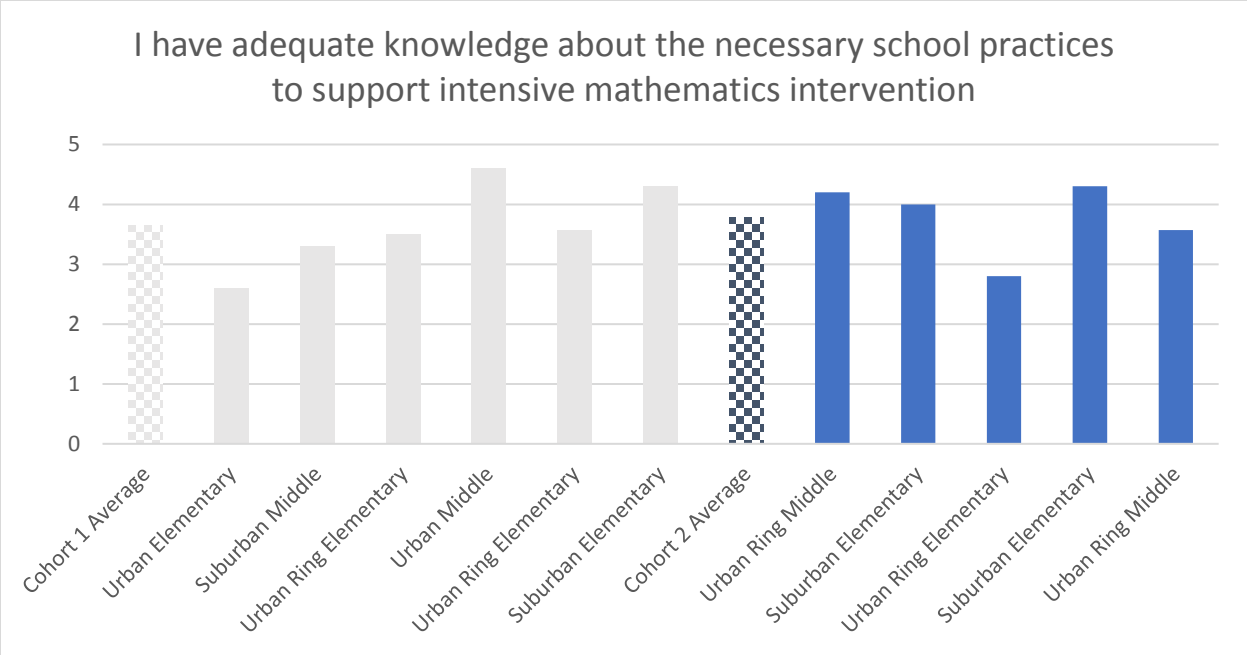

We apply decision rules for using mathematics progress monitoring data.
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

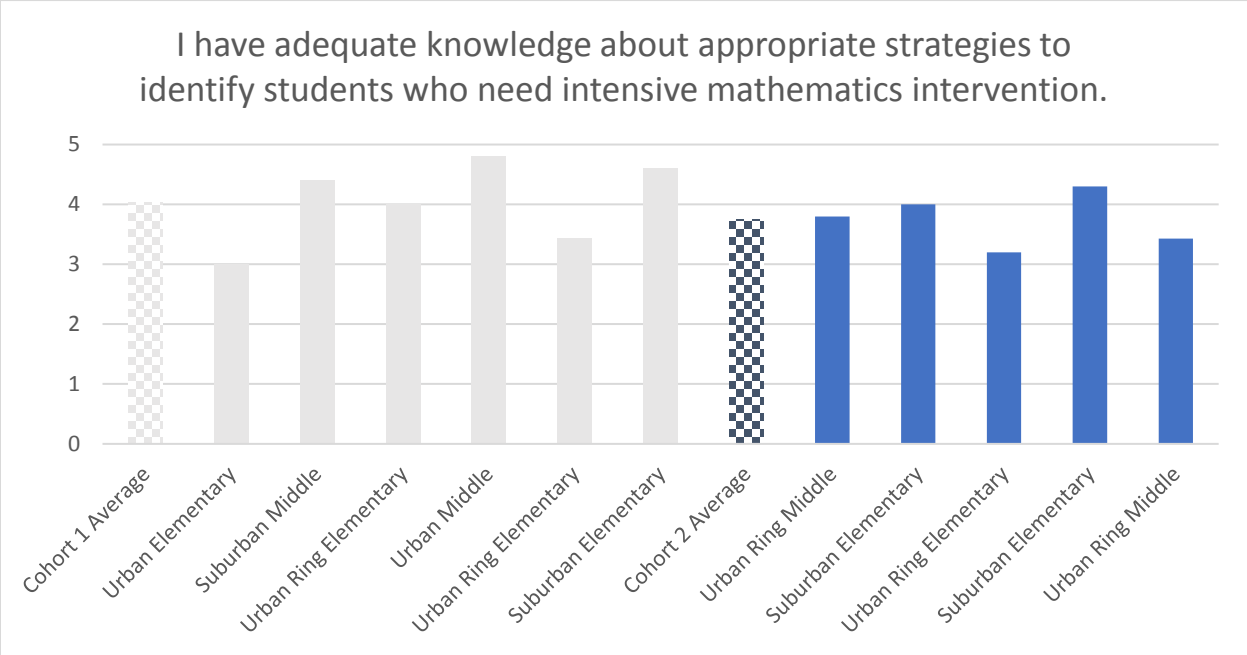


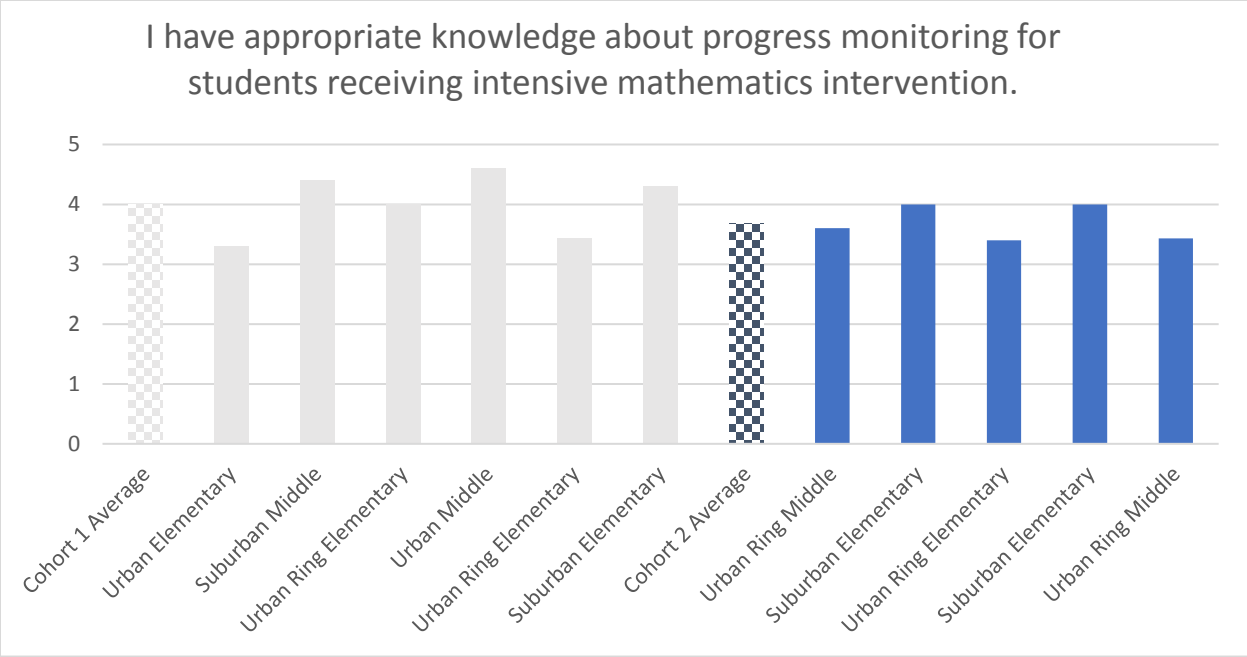
Intensive Intervention Knowledge

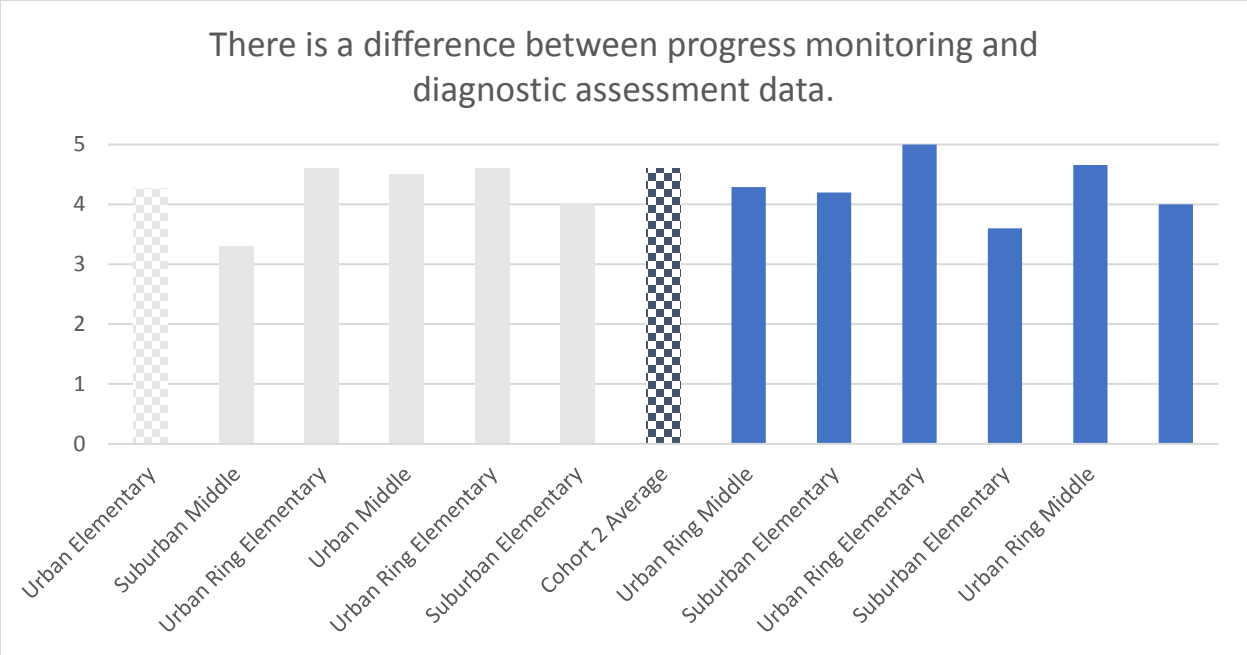
The indicators in this section were rated from 0 (strongly disagree) to 5 (strongly agree)

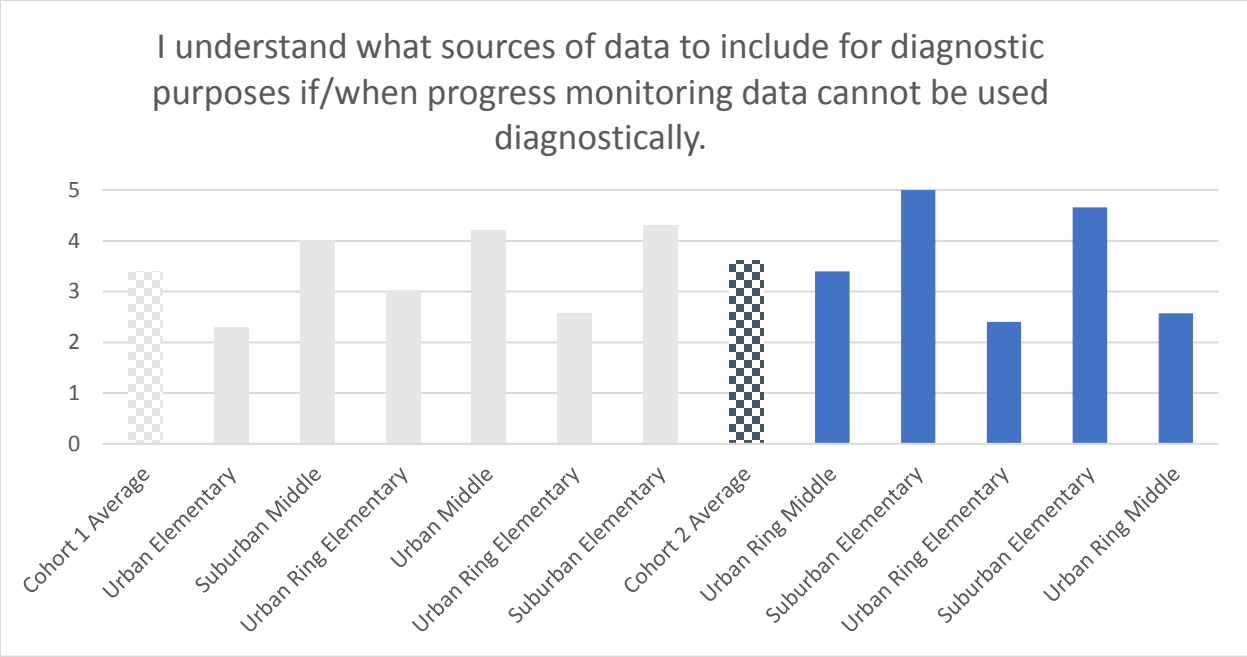


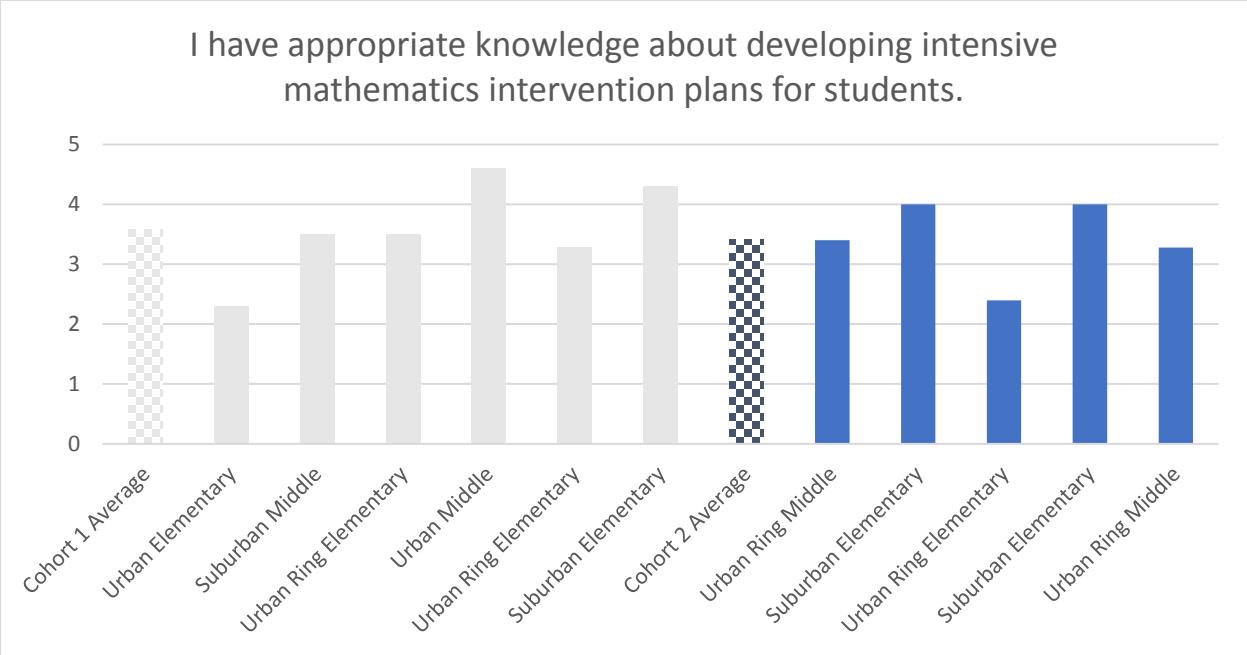

I have adequate knowledge about the necessary school practices to support intensive mathematics intervention
5
4
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle


I have adequate knowledge about appropriate strategies to identify students who need intensive mathematics intervention.
5
4
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

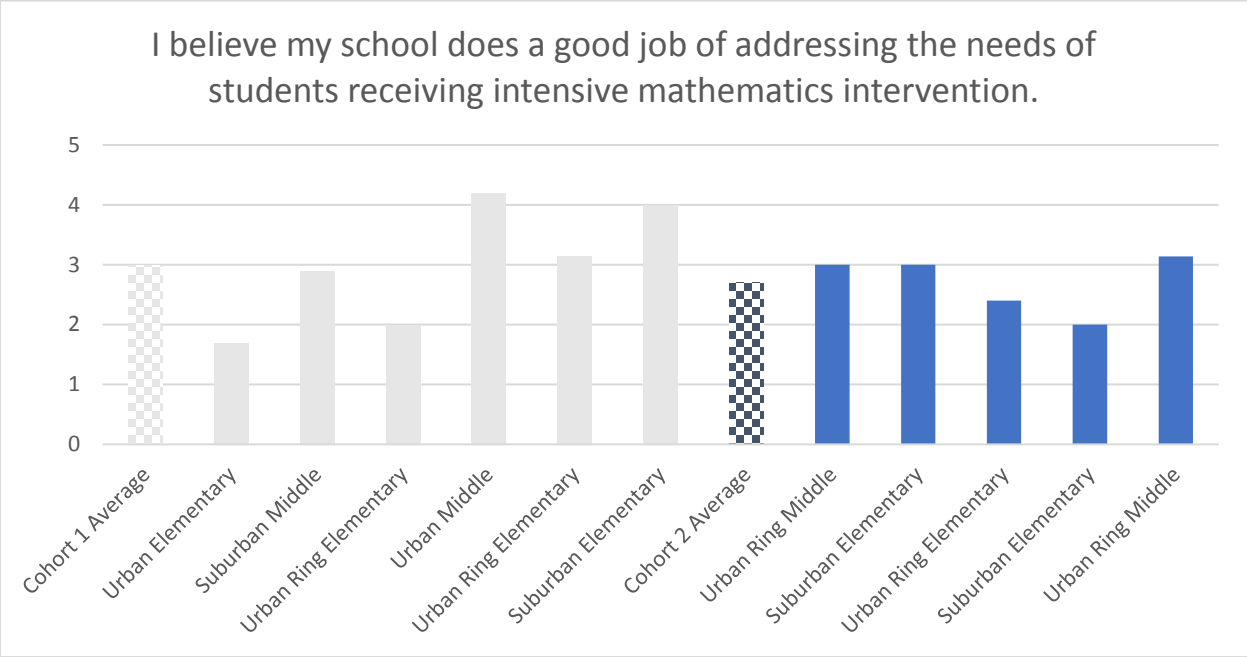

I have appropriate knowledge about progress monitoring for students receiving intensive mathematics intervention.
5
4
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

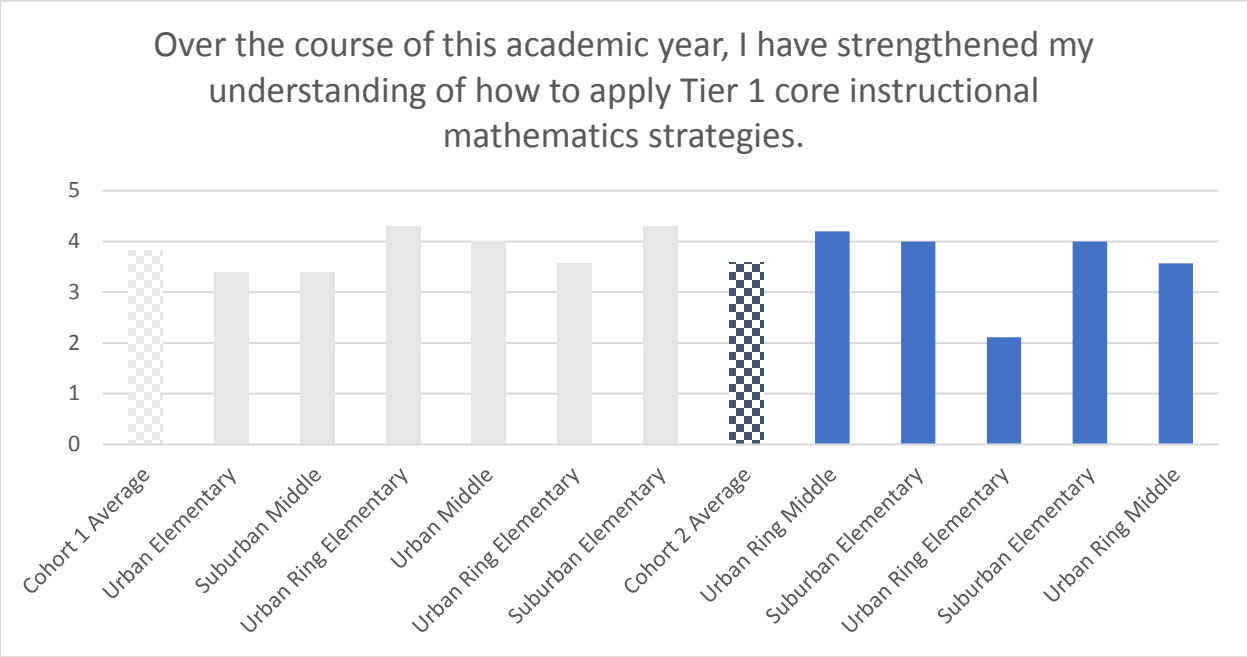

There is a difference between progress monitoring and diagnostic assessment data.
5
4
3
2
1
0
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

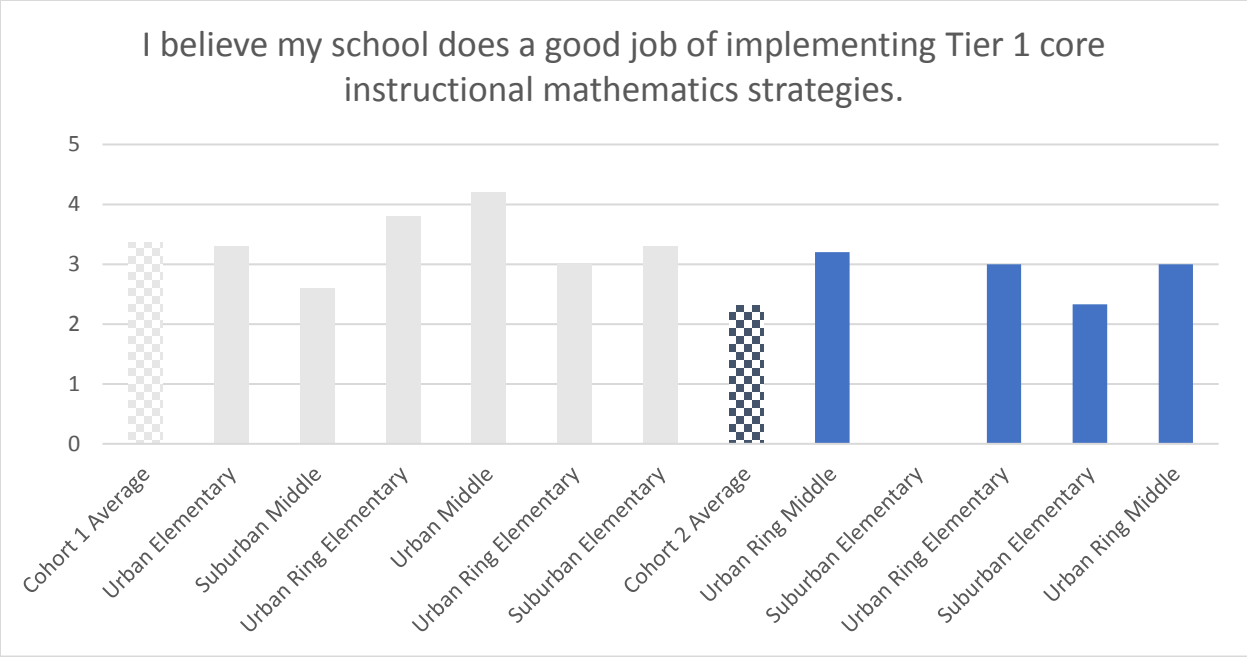

I understand what sources of data to include for diagnostic purposes if/when progress monitoring data cannot be used diagnostically.
5
4
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

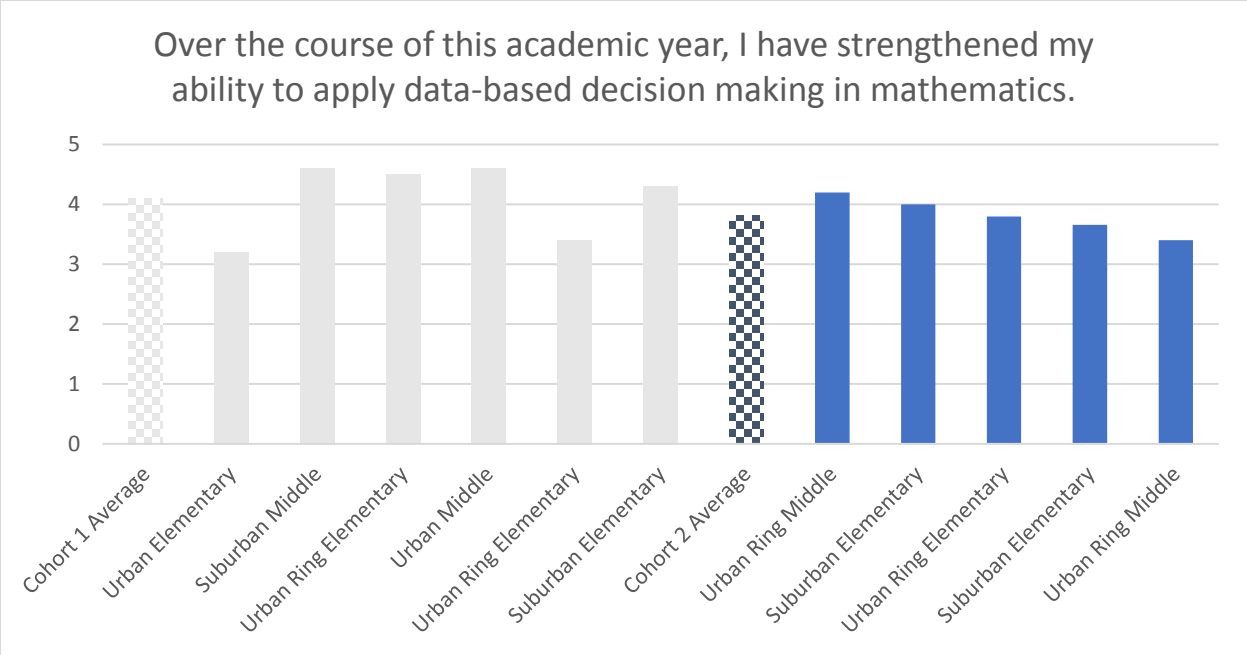

I have appropriate knowledge about developing intensive mathematics intervention plans for students.
5
4
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle

General Perceptions About Math Instruction and Intervention






I believe my school does a good job of implementing Tier 1 core instructional mathematics strategies.
5
4
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle


Over the course of this academic year, I have strengthened my ability to apply data-based decision making in mathematics.
5
4
3
2
1
0
Cohort 1 Average
Urban Elementary
Suburban Middle
Urban Ring Elementary
Urban Middle
Urban Ring Elementary
Suburban Elementary
Cohort 2 Average
Urban Ring Middle
Suburban Elementary
Urban Ring Elementary
Suburban Elementary
Urban Ring Middle