All Means All…Maybe: MTSS Policy and Practice Across States in the United States

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Across the United States, State Education Agencies (SEAs) are using tiered strategies, such as Multi-Tiered System of Supports (MTSS) frameworks, to ensure that all students, including diverse learners, receive equal, high-quality education. However, little is known about the extent to which SEAs are encouraging use of MTSS to address the needs of students with moderate-to-severe cognitive disabilities. The present study aimed to examine how SEAs conceptualize and support the implementation of MTSS as an approach to inclusionary education. Data were collected through interviews with key informants in SEAs across 19 states. Members of the research team identified and coded portions of interview transcripts that related to legal requirements for MTSS at the state level, local control as an enabler of or impediment to states' MTSS work, and levels of inclusiveness in MTSS provisions. Three criteria emerged as important to MTSS inclusiveness: (1) inclusiveness in the espoused MTSS scope; (2) extensiveness of inclusive MTSS practices; and (3) specific application of MTSS to students with significant cognitive disabilities. Analyses showed variability across states regarding their commitment to an MTSS approach across the three domains of inclusiveness. Findings showed the value of developing and disseminating MTSS models offering tiered support for all students and the need for SEA offices to engage in collaborative efforts to support the implementation of inclusive MTSS models. The study also raised questions about the role of rhetoric (i.e., "All means all") in promoting or hindering increased inclusiveness in MTSS implementation.

Keywords: Multi-tiered System of Supports; Inclusive Education; Policy; Significant Cognitive Disability

Background and Problem Statement

Across the United States, education agencies are using tiered strategies for addressing the needs of diverse learners. In particular, the educational framework known as Multi-Tiered System of Supports (MTSS) is increasingly being implemented to ensure that all students, including those with a variety of special needs, receive equal, high-quality education (Sailor et al., 2021, p. 36). Pechacek and Ehlers (2019) describe MTSS as a framework with a tiered infrastructure that uses data to customize instructional provisions to meet each student's needs and augments high-quality instruction in general education classrooms with extra interventions—additional instructional resources or supports. MTSS has been shown to have a direct and positive influence on students' academic, social, and behavioral outcomes (Choi et al., 2019; McIntosh & Goodman, 2016; Sailor, et al., 2021).

MTSS has been implemented in school districts across the United States to counteract entrenched policies that resulted in the exclusion of students with disabilities and other learning challenges from general education curricula and classrooms. The MTSS framework, in theory, offers individualized support to all students. This needs-based approach makes MTSS useful for all students, including students with complex needs or moderate or severe disabilities.

Nevertheless, students with complex needs, such as those with significant cognitive disabilities, often have been, and continue to be, overlooked in districts that implement MTSS. As Thurlow and colleagues (2020) pointed out:

> Students with the most significant cognitive disabilities often are not included in this framework even though they should be. When a group of students with disabilities is not included in an MTSS framework, the foundational concept of all students being general education students first, with special education services supplementary, is eroded. (p. 1).

Sharing Thurlow's perspective, Agran and colleagues (2020) argued that wide-scale implementation of MTSS could support inclusion in general education classrooms of students with more severe disabilities. They noted that the typical approach, however, is to automatically place these students in more restrictive settings for indefinite and potentially prolonged periods of their school lives. This typical approach limits opportunities for students with moderate-to-severe disabilities to become valued members of their school communities, interact with same-aged peers and participate in challenging learning experiences (Agran et al., 2020). As well it limits the extent to which students without disabilities can obtain the academic and social benefits of interacting with students with disabilities.

Despite its promise, the use of MTSS with students with disabilities, especially those with moderate-to-severe disabilities, is quite limited across the United States (Thurlow et al., 2020). Arguably, efforts to increase its use with these students will remain limited unless school districts receive clear guidance about how to apply MTSS in this way (e.g., Fuchs et al., 2010), as well as encouragement and support for doing so. State education agencies (SEAs) are the logical providers of such guidance, encouragement, and support (Weiss & McGuinn, 2016).

Little is known, however, about the extent to which SEAs are taking on this responsibility. In fact, as our review of related literature shows, some states are currently engaged in efforts to define MTSS, link it to *or* distinguish it from response-to-intervention (RTI), and, in some cases, encourage district-level implementation with students with mild learning challenges (e.g., Hawes et al., 2020). Almost no evidence yet speaks to the extent to which (or ways in which) SEAs are encouraging the use of MTSS to address the needs of students with moderate-to-severe disabilities or to increase the extent to which these students are included in general education classrooms.

The current study attempted to fill this gap by answering the following research questions:

1. In what ways do SEAs conceptualize MTSS as an approach to inclusionary education?
2. In what ways do SEAs align MTSS with procedures for determining special education eligibility?

3. In what ways do SEAs incorporate special education interventions (e.g., high-leverage practices for students with disabilities) into their MTSS frameworks?
4. In what ways do SEAs support the district-level implementation of MTSS for students with moderate-to-severe disabilities, including those with significant cognitive disabilities?

Related Literature

Literature that contextualizes the current study considers four topics: the history of MTSS, definitions of MTSS, the use of MTSS with students with disabilities, and state-level promotion of and support for MTSS. The sections below explore literature pertinent to each topic.

History of MTSS

Before MTSS and related tiered initiatives (e.g., Positive Behavioral Interventions and Supports—PBIS) became widely adopted, identification of students with disabilities involved a "wait and see" approach in which general education teachers observed students' struggles and eventually referred struggling students for testing and possible placement in special education programs. With the "wait and see" approach, eligibility determinations were often based on psychological tests that lacked a direct connection to classroom expectations and performance indicators and rarely addressed the interaction between students' needs and their responses to support (Agran et al., 2020).

An alternative to the "wait and see" approach was included as a provision of the Individuals with Disabilities Act (IDEA, 2004). This approach, known as Response to Intervention (or RTI), involved a systematic process for providing varying levels of support to students with specific learning disabilities and then assessing those students' performance in general education classrooms with appropriate scaffolds in place (Berkeley et al., 2020). With this approach, only students for whom RTI interventions were unsuccessful would be considered for placement in special education programs (e.g., Sailor, 2009).

At approximately the same time (i.e., the late 1990s, early 2000s), a similar model (Positive Behavioral Interventions and Supports—PBIS[1]) focusing on behavioral education and interventions received federal funding and began to gain traction (e.g., Safran & Oswald, 2003). Like RTI, it used a tiered approach to scaffolding as the mechanism for providing support and changing the learning environment to better meet the student's needs, thereby keeping students' challenges from turning into serious problems. Like RTI, PBIS required educators to change how they viewed and responded to students' academic and behavioral challenges.

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[1] *Originally this approach was called Positive Behavior Supports (PBS) and its use as a schoolwide strategy led to its renaming as School-Wide Positive Behavioral Interventions and Supports (SWPBIS), which was soon shortened to PBIS.*

The MTSS model represented an extension of RTI and PBIS to include all students who were struggling to make progress in general education classrooms, not just students who were suspected of having specific learning disabilities or behavior problems (IRIS Center, 2019; Thurlow, et al, 2020). Early adopters of MTSS often treated it as a schoolwide framework most applicable to general education students who *did not* qualify for special education services. The idea that improvement of education for these students would promote educational improvement more broadly contributed to some educators' belief that MTSS could function as a problem-solving model with applicability to school improvement in general. Through its positioning as a problem-solving model, moreover, MTSS was seen by some as an "umbrella term for transformational school reform that fully integrates behavioral, social, and emotional interventions" (Sailor et al., 2021, pp. 26-27).

Over the past 15 years, and especially following the endorsement of MTSS in the *Every Student Succeeds Act* (ESSA, 2015), states have started to elaborate MTSS models and to guide local education agencies (LEAs) in the implementation of these models. A common state-level approach has involved the replacement of older RTI and PBIS frameworks with a unified MTSS framework as a strategy to ensure that both academic and behavioral needs are addressed within the same support system (Berkeley et al, 2020; Sailor, 2009; Sailor et al., 2021). Taking this approach, Kansas was the first state to call its model *MTSS*, describing it as a "framework to create a single system that *has the availability of multiple supports for all students*" (Kansas Department of Education, 2010, p. 1).

Definitions of MTSS

MTSS has been defined in a variety of ways by educators and education theorists. States adopting this initiative have offered their own definitions. In general, definitions of MTSS describe it as a prevention-based framework offering a continuum of supports to promote positive academic and behavioral outcomes for students who are exhibiting learning challenges (Briesch et al., 2017, 2019; Fuchs & Fuchs, 2006; Sugai & Horner, 2002; Walker, et al., 2018).[2]

Most definitions also describe MTSS as a framework in which high-quality instruction is provided to all students, and universal screening is conducted to identify students who are not meeting expected benchmarks. In keeping with the MTSS framework, struggling students are provided with additional support, either in small groups or individually. Students' progress is monitored to assess their response to instruction and interventions, and support levels and methods are adjusted in consideration of performance-monitoring data.

Federal legislation and initiatives have also provided definitions of MTSS. ESSA defined MTSS as "a comprehensive continuum of evidence-based, systemic practices to support a rapid response to student's needs, with regular observation to facilitate data-based instructional decision making" (Title IX, Sec. 8002(33)). The IRIS Center is a federally-funded center dedicated to using evidence-based practices and interventions to improve education outcomes for all children, especially those with disabilities. It defined MTSS as "a model or approach to

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[2] The term itself varies across definitions and discussions. It is variously called "multi-tier," "multi-tiered," or "multitiered." It is sometimes called a "system of supports" and other times "systems of support."

instruction that provides increasingly intensive and individualized levels of support for academics (e.g. response to intervention or RTI) and for behavior (e.g. Positive Behavioral Interventions and Supports or PBIS)" (IRIS Center, 2019).

Tiers

Across the board, definitions of MTSS describe it as an additive tiered model, with instruction and support increasing in intensity to meet the more complex needs of some students.[3] The typical graphic accompanying many definitions depicts a triangle that is divided into three tiers. At the base is the tier largest in area, Tier 1, which applies to the general student population, that is, *all students*. The next tier, Tier 2, serves those (proportionally fewer) students who may benefit from additional help in some areas. Tier 3, at the top of the pyramid, serves those students (proportionally even fewer) needing additional specialized and individualized instruction. Tier 1 thus equates to universal support, Tier 2 to targeted support, and Tier 3 to intensive support. With this tiered model, students receive Tier 2 and Tier 3 instruction and intervention in addition to, not instead of, the Tier 1 universal supports support (Sailor et al., 2021; Thurlow, 2020).

Data-based Instructional Decision Making

In most definitions of MTSS, tiered intervention responds to information about students' academic or behavioral performance. Using practices elaborated over time through the RTI and PBIS models, MTSS relies on student assessment data to guide decisions about instructional responses—including universal, targeted, and intensive interventions (e.g., Hayes & Lillenstein, 2015). Definitions of MTSS and descriptions of its features often talk about three types of assessment: screening, diagnostic testing, and progress monitoring (e.g., Mellard et al., 2009).

- Many definitions of MTSS indicate that the model requires frequent universal screening of all students (Sailor, et al., 2021). This systematic approach is intended to help educators identify students whose learning challenges indicate that they would benefit from additional support.

- Definitions also mention *diagnostic assessment* as a way for educators to find out more about students' capacities and needs. This information enables educators to pinpoint the instructional strategies and interventions that would most likely address the specific learning and behavioral challenges experienced by individual students.

- *Progress monitoring* is another assessment approach that is mentioned in definitions of MTSS. Progress monitoring is intended as a frequent type of targeted assessment that enables educators to see how well instructional strategies and interventions are working. Progress monitoring data provide a basis for making decisions about the maintenance or fading of interventions, the intensification or deintensification of interventions, or the change from one intervention to another.

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[3] That is, as needs intensify, a progressively smaller proportion of the student population.

Scope

Definitions of MTSS vary in scope, with some viewing MTSS narrowly and others quite broadly (Berkeley et al., 2020). Among the narrower definitions are those that retain RTI terminology and intent, that is, either as a method for limiting the over-referral of students with specific learning disabilities or as a method for qualifying students with specific learning disabilities for special education services. Somewhat broader are definitions that apply MTSS to all students but treat MTSS as an intervention model only (Berkeley et al., 2020). The broadest definitions consider MTSS to be a systems-level improvement strategy—what the CEEDAR Center depicts as "an umbrella" strategy (Arvedson et al., 2020; Telfer, n.d.).

In the CEEDAR framework, MTSS is the umbrella that encompasses a wide variety of school improvement methods. These include: (a) a tiered approach to instruction and intervention, (b) professional development of educators, (c) educator teams, (d) PBIS, (e) curriculum designed according to the principles of Universal Design for Learning (UDL), (f) parental action, and (g) school and community collaboration.

Not all broad models are equally encompassing; however, some can be readily incorporated into existing school and district improvement frameworks. Table 1 below illustrates model features that distinguish broader from narrower conceptions of MTSS.

Table 1
MTSS Features

Feature	Narrower Conception	Broader Conception
Applicability to students	Applicable only to general education students or applicable only to students suspected of having a specific learning disability	Applicable to all students
Applicability to domains of learning	RTI /MTSS applies to academic learning; PBIS applies to behavior	MTSS is inclusive of all learning (e.g., academic, social-emotional, and behavioral)
Use of the general education curriculum	MTSS construes targeted and intensive supports as alternatives to the general education curriculum; Tier 2 and 3 interventions can replace Tier 1 instruction	MTSS bases all instruction and intervention (even intensive support) on the general education curriculum; Tiers 2 and 3 augment Tier 1 instruction, never replace it.
Student grouping	Tier 1 is construed as whole group instruction, Tier 2 as small group instruction, and Tier 3 as one-on-one instruction	Interventions are responsive to individual needs. Each student's needs determine the intensity, extensiveness, and nature of the Tier 2 or Tier 3 interventions provided to that

		student. Groups of students who all have similar needs might participate in interventions together, but MTSS is not a strategy for grouping students.

Use of MTSS with Students with Disabilities

As illustrated in various studies, different conceptions of MTSS treat students with disabilities in different ways (Berkeley et al., 2020; Mahoney, 2020; Miciak & Fletcher, 2020; Thurlow et al., 2020). Three approaches characterize these differing conceptions: (a) using MTSS as the basis for identifying students with disabilities (particularly those with specific learning disabilities), (b) using MTSS as a strategy for increasing inclusion and potentially at the same time limiting the need to identify students as having disabilities and (c) using MTSS to serve students with disabilities irrespective of instructional setting.

Identification of Students with Disabilities

With its roots in RTI, MTSS continues in some places to be used for identifying students with disabilities; especially specific learning disabilities. In 2012, Zirkel identified 14 states in which RTI was mandated to play a role in the identification of specific learning disabilities, either across the board, at some grade levels, or in some academic areas. In some states, the applicable policies appear to be permissive, allowing districts to decide whether to use this approach (Hudson & McKenzie, 2016; Zirkel, 2012). According to Hudson and McKenzie (2016), however, few commonalities characterize this approach to the identification of specific learning disabilities, with inconsistencies in policy and implementation limiting the degree to which efficacy can be measured. As these authors noted,

> Despite its widespread adoption, RTI remains largely unexamined for the results its proponents believe it will (or at least should) produce in regard to SLD [specific learning disability] identification. The apparent gaps in quality assurance among many states and LEAs related to the procedures used and data collected contribute to differing perceptions among administrative personnel such as state directors of special education, and hence, exacerbate the difficulty in substantiating the impact of RTI. (Hudson & McKenzie, p. 43)

Even with its challenges, the use of RTI (or MTSS) as the basis for establishing eligibility for specific learning disabilities is still recommended (e.g., Miciak & Fletcher, 2020). Fuchs and Fuchs (2009) argued, however, that the value of using this approach would be greatly enhanced through the adoption of a unified model across states, districts, and schools.

Inclusion of Students with Disabilities

Because of its focus on prevention and rapid intervention, MTSS can be used to keep students with learning challenges from being identified as having disabilities or, relatedly, to enable identified students to remain in general education classrooms for longer periods of time (e.g., Leytham et al., 2021). A growing body of evidence suggests that spending longer periods of time in general education classrooms with same-aged peers promotes learning among students with disabilities, including their learning of academics, pro-social behaviors, and communication strategies (Agran et al., 2020). This finding applies even among students with significant disabilities (Gee et al., 2020; Thurlow et al., 2020). Studies of tiered approaches, in fact, show that evidence-based instruction provided in general education environments can transform the schooling experience and improve schooling outcomes for students with severe disabilities and complex needs (Agran et al., 2020; Mahoney, 2020; Sailor et al., 2021). As Mahoney (2020) noted, however, the extent and fidelity of teachers' use of *evidence-based practices* determines the degree to which core instruction and tiered interventions achieve their intended purposes.

One other finding that speaks to the benefits of MTSS for students with significant disabilities relates to challenges in the behavioral domain. Because students with significant disabilities often face such challenges, educators sometimes use these students' inappropriate behaviors as a justification for the decision to exclude them from general education environments (e.g., McGuire & Meadan, 2022). Interventions such as those offered through tiered models that support rapid improvement in students' behavior increase the likelihood that students with complex needs (e.g., significant cognitive disabilities) will be included with same-aged peers in general education environments.

Serving Students with Disabilities Irrespective of Setting

A third way that MTSS can serve students with disabilities is through its use across general and special education settings. With this approach, tiered supports are made available to students no matter where their education takes place (e.g., McDaniel et al, 2014). This approach often involves extensive collaboration among general and special educators (Solari et al., 2017; Thurlow et al., 2020). As Thurlow and colleagues argued,

> To realize an MTSS framework that meets the needs of all students in a school, including those with the most significant cognitive disabilities, the framework has to include aligned general education and special education delivery systems where supplemental special education supports simplify, magnify, and possibly modify what is taught in general education. (Thurlow et al., 2020, p. 5)

State-level Promotion of and Support for MTSS

A final, though very small, body of literature—literature on state-level promotion and support for MTSS—helps contextualize the current study. It does so by showing how states interpret MTSS in general. Arguably, a state's general interpretation of MTSS informs its guidance to school districts regarding the aims, models, and intended beneficiaries of tiered intervention in that

state. Students with extensive support needs (including significant cognitive disabilities) may or may not be intended beneficiaries depending on the state's interpretation.

Berkeley and colleagues' (2020) study, which reviewed state education agency (SEA) websites, provides the most recent overview of similarities and differences in states' interpretations. According to the study:

- Seventeen of the 50 SEAs in the study described their tiered models as RTI models. All but one of these had models with three tiers, while Georgia's model had four.[4] Other features of these models differed as well, including their focus on culturally responsive pedagogy, their use of the model for academics only or for both academics and behavior, and their conception of how MTSS and RTI are related.

- Twenty-one states had MTSS models, and these differed from one another in significant ways. Some states, for instance, distinguished MTSS from RTI, while others did not mention RTI at all. Two states provided general guidance for MTSS implementation but few specifics, and others elaborated detailed statewide models addressing both academics and behavior.

- Five states treated RTI and MTSS as synonymous. For example, Iowa's website referred to "multi-tiered systems of support (MTSS)…otherwise known as response to intervention or RTI" (Iowa Department of Education, 2017 as cited in Berkeley et al., 2020).

- Finally, four states developed their own unique multi-tiered systems, referred to as neither RTI nor MTSS. For instance, the Kentucky model was called the Kentucky System of Intervention, or KSI (Kentucky Department of Education, 2012 as cited by Berkeley et al., 2020).

In general, Berkeley and colleagues' study revealed an increasingly wide adoption of multi-tiered systems of support (MTSS) models across states. But it also showed considerable variation in how states interpret MTSS.

An earlier nationwide study focusing on MTSS with a behavioral focus only (MTSS-B)), also examined SEA websites (Briesch, 2017, 2019). The study addressed five questions relating to:

1. The types of social, emotional, and behavioral interventions that should be used with students identified as at-risk for or exhibiting behavioral challenges;
2. Appropriate measures to use in progress monitoring for behavioral concerns;
3. The frequency with which behavioral progress monitoring data should be collected;
4. The frequency with which behavioral progress monitoring data should be reviewed; and
5. The decision rule(s) that should be used for evaluating response to behavioral interventions. (Briesch, 2019, p. 9)

Similar to what the Berkeley study found, Briesch and colleagues observed wide variability across states. They noted that only three states provided guidance relating to all five of the

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[4] Subsequent to Berkeley and colleagues' study, Georgia changes to a three-tiered model.

research questions. The researchers concluded that national guidelines would be helpful as a basis for informing SEAs' interpretations of MTSS-B provisions. This conclusion mirrors what Fuchs and Fuchs (2009) recommended with respect to the use of RTI for identifying students with specific learning disabilities, namely the need for guidance from federal officials specifying what MTSS/RTI is and how it should be used.

Inferences from the Related Literature

The related literature offered three insights that have direct applicability to the current study. First, the literature identified features of MTSS that, in theory, could provide significant benefits to students with significant cognitive disabilities. These benefits include improved management of behavioral challenges and increased access to general education environments.

Second, the literature revealed that some interpretations of MTSS might result in practices that limit the access that students with significant cognitive disabilities have to the benefits of MTSS. The interpretations that are most likely to have this effect are (a) those that view MTSS primarily as an identification method for students with SLD and specific learning disabilities, and (b) those that construe MTSS as an intervention approach that applies only to students who receive all their instruction in general education classrooms from general education teachers.

Finally, the literature provided evidence suggesting that MTSS is in its infancy and remains an untested strategy. This inference is supported by the fact that tremendous variability characterizes the ways MTSS has been defined and implemented in different states and districts. The considerable variability in interpretation and implementation limits the extent to which findings about the impact of MTSS in any given setting can be generalized. As a strategy at an early stage of development, MTSS may not yet be well positioned for use with especially complex populations of students, such as students with significant cognitive disabilities. The current study may, as a result, want to orient to developmental differences in the conceptions and implementation of MTSS across states as a starting point for investigating nascent opportunities for implementing the strategy with especially challenging groups of students.

Methods

This study examined how SEAs conceptualize MTSS specifically in relation to its use with students with significant cognitive disabilities. This discussion considers the overall methodology guiding data collection and analysis. Then it provides detailed descriptions of the methods used for Phase One and Phase Two of the research.

Methodology

This study used qualitative interviewing and the review of documentary evidence (namely, SEA websites) to address research questions relating to how different SEAs conceptualize MTSS, specifically in relation to its use with students with significant cognitive disabilities. SEA websites were the primary source of evidence for Phase One, and transcripts from interviews were the primary sources of evidence for Phase Two. Although the data were mostly discursive

in nature, some were amenable to quantification. As a result, some quantitative analyses were performed in an effort to provide greater depth to the overall understanding of emergent themes.

Data Collection

As noted above, data for this study were collected in two phases. In Phase One, following the approach used by Berkeley and colleagues (2020), the researchers reviewed all the information that could be found on SEA websites (from the 50 states in the United States and the District of Columbia) regarding each state's MTSS guidance to districts in publicly available materials. The purpose of this review was to identify the subset of states that were sufficiently engaged with MTSS efforts to suggest their possible receptivity to ensuring that students with disabilities (including those with significant cognitive disabilities have access to MTSS services and supports.

To identify the online material for review, the researchers used a two-step process. The first step was to search each SEA website for the terms: "MTSS" and "Multi-Tier."[5] If these searches did not lead to any state-produced content (as opposed to material produced by other organizations and presented without context or explanation), a search was then conducted in Google using the terms "State name AND MTSS" and "State Name AND Multi-Tier." In all cases this search process led to a web page that was either the SEA's primary page for the topic or the page of a state-funded partner that served as a primary source of MTSS information and technical assistance in that state. This method provided a result for all the states, including those that do not use a variation of MTSS in the name of their tiered support program. For example, Georgia calls its system, the "Georgia System of Tiered Supports for Students" and Alaska uses the term "Response to Instruction/Intervention." If the SEA or partner site did not specify whether MTSS was included in the state legislative code, additional searches were conducted using webpages providing information about the state's legislative code.

Once a primary page was identified, the researchers followed links to gather as much additional content as possible. Examples of such content included additional web pages, slide sets, and published guidance documents. If a webinar or other training led to the production of videos that were available from the primary source page, these were included. However, material that was found only on a video repository, such as YouTube, but that could not be traced back to the SEA's or partner's website was excluded.

Because webpages can change at any time, all webpages were identified by link, and a PDF copy was made. Documents were downloaded, and video links were copied. Once all the content for each state had been identified, the researchers reviewed it. Table 2 below, provides an overview of the information collected from the SEA websites.

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[5] The search term "Multi-Tier" was used because it would also capture "Multi-Tiered".

Table 2
Phase One State Information Collection: Probes and Possible Responses

Probe	Possible Responses
Is MTSS mentioned in state code?	Yes, No, RTI, (state term), PBIS (state term)
Is MTSS included in the state code?	Yes, No, No-C (state code does not mention MTSS but state ties MTSS to some aspect of state code)
Does the state require the use of MTSS?	Yes, No, Implied, Unclear
If yes, under what circumstances is it required?	*Describe circumstances*
Is MTSS applicable to academics, behavior, social-emotional learning, and/or other (if other, what)?	Academics, Behavior, social-emotional learning , *and any other elements state identifies*, Unclear
Is MTSS considered a comprehensive school improvement model?	Yes, No, Unclear
What is the percentage of students per tier?	*List percentages given,* Unclear
Do all students have access to Tier 1?	Yes, Yes (implied), Unclear
Is Tier II specified as delivered in a small group?	Yes, Yes-Option, Unclear
If Tier II is specified as delivered in small groups is this for academics, behavior, Social Emotional Learning and/or other?	Academics, Behavior, Social Emotional Learning, *and any other elements state identifies*, Unclear
Can Tier II replace core instruction?	No, No-Implied, Unclear
Can Tier III replace core instruction?	No, No-Implied
Does Tier III require a specialized teacher?	Yes, No, May, Unclear
Is MTSS used to decide about special education referral?	Can/may be used, Can for specific learning disabilities, Can/may be used but cannot be used to delay, Yes for specific learning disabilities, No, Yes, Unclear
Is MTSS available to students with disabilities?	Yes, Yes-implied, Unclear
Is MTSS available to students identified as gifted talented /needing enrichment?	Yes, Yes-implied, Unclear
Do SEA materials on MTSS include information on IDEA responsibilities and rights?	Yes, No

Drawing on the related literature, particularly Agran, and colleagues (2020), the researchers set the following criteria as the screen for adequate receptivity to a conception of MTSS that was inclusive of students with significant cognitive disabilities:

1. States indicating that all students have access to Tier I. Acceptable answers were "yes" and "yes-implied."

2. States indicating that MTSS is available to students with disabilities. Acceptable answers were "yes" and "yes-implied."[6]

As discussed further in the Results section below, the content of the SEA websites was so variable that many of the questions, such as whether MTSS was required by the state, were left unanswered on some sites. Additionally, states that did not explicate in their public materials their positions on either of the screening questions were excluded, even if recorded and archived training materials suggested an answer. The rationale for this decision was that, unless the information could be found in an official publication (such as a website or guidance document), it might represent the perspective of a particular presenter rather than the official perspective of the SEA.

Phase One resulted in the identification of 33 states that the researchers would approach to participate in Phase Two data collection. A member of the research team developed a list of potential key informants. The starting point for identifying a key informant in each state involved communicating with the person listed as the contact for MTSS on the SEA or partner website. If no name was given on the site, the research team used other information on the SEA website to identify the administrator with oversight for the department that appeared to have primary responsibility for MTSS. Approval for the Phase Two data collection via contact with SEA or partner personnel was obtained through the Ohio University Institutional Review Board (IRB).

The Principal Investigator for Phase Two sent emails to each of the identified key informants in the 33 states. The emails asked these individuals if they would be willing to participate in a recorded interview. If no response was received, a second email was sent, followed by a phone call from a member of the research team. At any stage in this process, if an individual agreed to the interview, the research team scheduled it. The researchers also answered any questions that potential interviewees raised. Of the 33 states identified, 19 states agreed to participate, three explicitly declined, and the rest did not respond even though multiple attempts to contact them were made.

The 19 participating states were represented by at least one informant from each who agreed to be interviewed. Interviews were conducted between December 2021 and March 2022. Fifteen states had a single person participate, and four states arranged group interviews. Among the 15 single interviewees, 13 were employed as members of their SEA's staff. The other two interviewees in this group were employed by the SEA's partner organization. Two of the group interviews were with SEA staff members only and the other two were with SEA staff and staff from a partner organization. Table 3, below, provides the interview questions and the prompts.

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[6] Another way of thinking about an inclusive MTSS is how such a system serves students identified as gifted/talented or needing enrichment. In this study, the researchers did not look at this group after this stage. However, all the states that did include these students in their conception of MTSS also indicated that the system included students with disabilities.

Table 3
Interview Questions and Prompts

Interview Questions	Specific Prompts
Can you give me some general background about how your state is defining and using its MTSS policy or guidelines?	• Are districts and schools in the state required to use a MTSS model? What policy specifies this requirement? • Are districts and schools in the state required to use the state's MTSS model? How is their use of the model monitored? • What domains of the educational program does the state's MTSS model cover (e.g., academics, behavior, social-emotional development)? • How much flexibility do districts have to deviate from the state's model? In what ways do district MTSS models in the state actually differ from the state model? • How was the state's MTSS model developed? • Who was involved? • When was the relevant policy or guidance document completed? • How does the state model define the tiers in the model and the percentage of students who are expected to be served at each tier?
How are students with disabilities included in your state's MTSS policy or guidelines?	• What about students with significant cognitive disabilities--are they served by the model? • Why do you think your state applies MTSS to students with disabilities in the way that it does?
Does your office or other offices in your SEA provide support to districts and schools to help them serve students with severe cognitive disabilities using the state's MTSS model?	• What are those supports?
What other information can you provide?	• As part of this project, we are developing profiles on each of the states that met our criteria for a potentially inclusion-friendly[7] approach to MTSS. I would like to ask you about a few things based on what we found on the website. • Based on your professional experience, what has your state (or another state) done at the policy level to make MTSS more inclusive of students with severe cognitive disabilities? • Are there tools or resources you would like to have access to that would help you in your work to make MTSS more inclusive?

Note: Additional prompts were added as needed for clarification

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[7] In an effort to limit social desirability bias, the term "inclusion-friendly" as used in Phase One of the study was not explained to interviewees. Interviewees knew they were in what the researchers thought of as "inclusion-friendly" states but were not provided with specifics about how that determination had been made.

Prior to the interviews, all participants received a copy of the IRB approved Informed Consent Information. At the beginning of the interview, the researcher confirmed that the material had been received, read, and understood. Participants were asked to consent to the interview and to the use of verbatim quotes. Four participants asked to review any direct quotes that the researchers might use if the state's name were mentioned, and three requested that direct quotes that identify the state not be used. Interviews lasted between 21 and 60 minutes. All interviews were conducted using Zoom, and verbatim transcripts were made from the audio files. These transcripts served as the data source for the qualitative and quantitative analyses conducted in Phase Two of the study.

Data Analysis

The team began data analysis for Part Two of the study by identifying those portions of interview transcripts that fit within two *a priori* categories, both of which related to state context: legal requirements for MTSS at the state level and local control as an enabler of or impediment to states' MTSS work. Additional analysis of data within the first category differentiated among states that were required by law to use MTSS; those whose requirements were less stringent, appearing in regulations and guidance documents; and those with no requirements.

Following the analysis of the contextual data, the members of the research team read all transcripts to distinguish states by their levels of inclusiveness in MTSS provisions. They met several times to resolve differences in their individual ratings and to identify a common set of criteria for making such ratings. Out of these discussions, three criteria emerged as important: (a) inclusiveness in the espoused MTSS *scope* (strong, moderate, weak); (b) extensiveness of inclusive MTSS *practices* (extensive, moderately extensive; limited); and (c) specific application of MTSS to students with *significant cognitive disabilities* (strong, moderate, weak).

Coding of transcripts using the nine categories (i.e., codes for each of the three levels of each of the three criteria) took place next with the qualitative research software, Dedoose. Table 4 shows the number of states to which each code was applied and the total number of excerpts tagged with each of the nine codes.

Table 4
State Categorization Codes

	Number of States	Total Number of Excerpts
Inclusive MTSS scope strong	12	54
Inclusive MTSS scope moderate	14	19
Inclusive MTSS scope weak	9	22
Extensive MTSS practices strong	6	26
Extensive MTSS practices moderate	15	43
Extensive MTSS practices weak	8	19
Inclusive of students with significant cognitive disabilities strong	5	15
Inclusive of students with significant cognitive disabilities moderate	5	7

Inclusive of students with significant cognitive disabilities weak	12	22

To make quantitative analyses possible, the researchers used the nine codes to place states on a continuum from those using MTSS extensively in inclusive ways to those using MTSS less extensively and in less inclusive ways. The researchers made these determinations by placing evidence of level across the three criteria in appropriate cells on a matrix and awarding a rating of "3" for evidence of strong performance, "2" for evidence of moderate performance, and "1" for evidence of weak performance. Many states showed evidence in more than one level of a criterion, so an average rating was used. For instance, when a state had some evidence of strong performance and some evidence of moderate performance, the numerical rating was 2.5. Ratings across the three criteria were then averaged, so each state ended up with an overall rating.

Additional codes were also applied at this time using Dedoose. Nine codes with 10 or more excerpts each were used to support further analysis. These codes were: breaking down silos, local control, continuous improvement, MTSS mandate, high-quality Tier 1 instruction, no mandate, inclusive rhetoric, response to intervention (RTI), and inconsistent implementation.

Using matrices for comparing states across the three levels of the three criteria, the researchers derived one emergent theme, "All Means All." This theme incorporated two subthemes: one related to the level and one relating to performance criteria. Finally, the researchers used Spearman Rho correlations to examine relationships between overall performance levels and various salient practices.

Findings

This section first presents findings from Phase One of the study; then, it turns to Phase Two findings. The final section of the paper discusses these findings, interprets them in consideration of the related research, and offers recommendations.

Phase One

As described above, in the first phase of this work, the researchers reviewed the websites of the 50 states and the District of Columbia. At the time of our review, 46 states used a variation of the term "multi-tiered" in describing a program that involved some variation of a tiered approach to intervention and support services that should, in theory, be available to all students. Variations on the term, "MTSS" included the terms "multi-level" and "multi-layer;" sometimes, the state's name was also included. One state used the term, "PBIS," and four states used the term "RTI," even though their web pages described an approach that appeared to be broader than PBIS or RTI per se.

Using the criteria described in the previous section, we identified 33 states that appeared likely to be "inclusion-friendly" to students with significant cognitive disabilities. These states included: Alabama, Alaska, Arizona, California, Colorado, Delaware, Georgia, Hawaii, Indiana, Iowa, Kentucky, Maine, Massachusetts, Michigan, Mississippi, Montana, Nebraska, Nevada, New

Jersey, New Mexico, New York, North Carolina, North Dakota, Pennsylvania, Rhode Island, South Carolina, Tennessee, Utah, Vermont, Washington, West Virginia, Wisconsin, and Wyoming. Nineteen of these states agreed to an interview: Alabama, Arizona, Colorado, Georgia, Indiana, Iowa, Maine, Massachusetts, Michigan, Mississippi, New Jersey, New Mexico, North Dakota, Pennsylvania, South Carolina, Vermont, Washington, West Virginia, and Wisconsin.

Phase Two

The discussion of Phase Two findings starts by presenting the results of analyses using two *a priori* categories: state definition and conceptualization of MTSS and inclusion of students with disabilities in MTSS provisions. These results draw attention to the state-level context circumscribing MTSS model development and implementation.

Presentation of the thematic results based on inductive coding and categorization of data then follows, with a discussion of the study's overarching theme, *All Means All,* and its pertinent subthemes. The final discussion of Phase Two findings reports on quantitative analyses that substantiate the results of qualitative data analyses.

Contextual Findings: State-level Influences

Interview data pointed to two features of context that influenced states' ability to construe MTSS as a strategy for addressing the needs of all students, including students with significant cognitive disabilities. These contextual features appeared to inform how SEA staff understood their agency's role. These were the legal requirements for MTSS at the state level and the influence of local control on SEAs' MTSS work.

Legal Requirements for MTSS at the State Level. Although, as part of the Phase-One work, the researchers tried to identify state-level MTSS requirements, websites were not always a good source of such information. Therefore, as part of Phase-Two interviews, the researchers asked participants about any such requirements. The responses fell into three categories: (a) no legal requirement identified; (b) a limited set of requirements for MTSS or something like MTSS that was used to support a broad MTSS framework; and (c) a legal requirement to implement a broad MTSS framework. Table 5 shows the number of participating states in each of the three categories. Six states had no MTSS requirement identified, nine states had a limited MTSS requirement, and four states had a legal requirement to implement a broad framework.

Table 5
State-level Requirements for MTSS

Requirement	Number of Participating States
No Requirement Identified	6
Limited Requirement	9
Legal Requirement to Implement a Broad Framework	4

As the table shows, four states had legislation requiring MTSS. Vermont legislation, for instance, required districts to provide a tiered system of support and use problem-solving teams. Although the term "MTSS" was not used in the legislation, the SEA called the requirement, "the Vermont Multi-Tiered System of Supports." The legislation required districts to complete an annual report of their MTSS work and a self-assessment of their progress with MTSS implementation. The expectation was that the SEA would use data from these sources as the basis for planning professional development statewide.

New Mexico also required MTSS implementation. Its education code stated:

The school and school district shall follow the multi-layered system of supports (MLSS), which is a three-layer model of student intervention as a proactive system for early intervention for students who demonstrate a need for educational support for learning or behavior. All students shall have access to layer 1, 2, and 3 interventions without a need to convene a SAT team or a referral to special education or related services.[8]

In nine of the participating states, MTSS was not required by law, but some features of MTSS were specified in regulatory or guidance documents. Alabama provided one example of this approach. Its SEA was in the process of developing guidance for MTSS implementation and support for two MTSS provisions: a Response to Instruction (RTI) system and problem-solving teams. Even though Alabama viewed MTSS as just an "initiative," the SEA anticipated full statewide implementation by the 2026-2027 school year.

Colorado appeared to have a limited requirement as well, and an interviewee from that state described the evolution of MTSS from its beginnings as a pilot program to its development as a well-established platform of resources that can be accessed by anyone in the state or nationally. Although Colorado lacked a formal requirement for MTSS implementation, other requirements in that state (e.g., drop-out prevention requirements) implicated tiered interventions and supports.

Even in the states requiring MTSS or something similar, LEAs were not mandated to adopt a particular MTSS model. Instead, they were required to use certain MTSS provisions, such as a three-tiered support system. Requirements in these states were more likely to prescribe SEA roles and responsibilities, mandating, for instance, that the SEA develop and disseminate guidance documents and provide support to LEAs. In some states, the provision of tiered supports was prescribed through recently adopted "dyslexia legislation."

Local Control as an Influence on States' MTSS Work. For more than half of the participants (N = 12), questions about the character of state-level MTSS requirements elicited comments about local control. In their comments, participants characterized "local control" as an important factor influencing their SEA's relationship with LEAs. But participants' perspectives differed somewhat regarding the way local control influenced the SEA-district relationship.

Interviewees in most states where local control was mentioned saw it as an impediment to implementing an MTSS model statewide. The following quote illustrates this perspective.

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[8] NMAC, 6.29.1.9

> Schools and districts have … local flexibility…. So that's one of the—the big challenges that our organization is facing right now. We have a great framework, we have some really good products, and good professional learning out there, but it's a matter of getting these teachers, these leaders within the districts, to build that framework to fit their specific needs. (Interview, 1/21/2022)

Interestingly, local control was mentioned in states that varied in terms of the extent of their MTSS requirements. Even where there was an MTSS mandate, most states experienced local control as a limitation on efforts to scale-up MTSS adoption. As an interviewee from one of these states put it, "But in the end, our local districts have local school boards that make decisions…." According to an interviewee from another of these states, "We are a local-control state, and so we provide guidance and recommendations from the state level, but we cannot mandate any one curriculum or approach or program." In these states, the mandate applied to the SEA (e.g., a requirement to support district adoption of MTSS), not to local districts. As one participant noted,

> [State] is a local-control state, and so as a result, there is no specific law for schools and districts to adopt [framework name]. However, it is a wonderful model for a district to work within, so it does mean that they need to think about what their system of supports looks like. And so, our schools and districts are all over the board in terms of what their systems look like. (Interview, 3/21/2022)

In at least one state, however, the SEA saw its role as helping districts use local control productively. In discussing the SEA's efforts to promote a useful data system for districts to use in their MTSS work, the interviewee from that state noted,

> Then going back to local control, you know, so having systems that schools and districts can access that combine the IEP data with progress monitoring data and things, you know, I think we—there's barriers we can still remove for districts, that we haven't yet. (Interview, 1/18/2022)

The Overall Impact of State Context. Among participating states (i.e., states where MTSS was likely to be used inclusively with students with significant cognitive disabilities), local control seemed to be a more powerful influence than the existence of an MTSS mandate. Notably, local control restrained state legislatures from imposing requirements on districts and schools. In states with MTSS mandates, requirements were directed toward the SEA.

Irrespective of the existence of an MTSS mandate or a tradition of strong local control, SEA personnel in participating states tended to construe their role as supportive rather than directive. They devoted attention, therefore, to developing and disseminating potentially useful MTSS models and providing guidance (e.g., through documents, PD, and coaching) for implementing these models. They did not anticipate that the SEA would be requiring districts to use a particular MTSS model or that their roles would involve monitoring district compliance with an MTSS requirement.

Thematic Findings: All Means All

Qualitative data analysis identified one comprehensive theme—*all means all*. The name of the theme came from a catchphrase for inclusiveness that was either used explicitly or expressed implicitly by interviewees in all participating states to describe their MTSS work. In fact, the idea was even referenced by interviewees in states where inclusive practices were not a feature of actual MTSS work. Thus, the phrase represented a pervasive sentiment, but one that different clusters of states talked about and acted upon in different ways.

In states with the deepest commitment to an inclusive version of MTSS, interviewees described SEA discussions and activities that were taking place intentionally to operationalize "all means all." The quote below illustrates this type of response:

> So, some of the discussions we've been having [relate to] students with severe cognitive disabilities, but you can also broaden that to concerns around more sensory deficits overall…. There are some things [that] cut across all disabilities. But, so, for example, for the deaf community, how—how do we connect? And we also know that there is a wide variety…with cognitive disabilities. (Interview, 1/13/2022)

Interviewees from states with the most superficial commitment to an inclusive version of MTSS talked about "all means all" as the "company line" (Interview, 1/11/2022) and "probably the right thing to do" (Interview, 1/11/2022)
Most states were in the middle—committed to the idea of inclusiveness but struggling to find ways to operationalize it, especially in districts. One comment captures the spirit of this perspective.

> We're really promoting the belief that all students learn, all students are every staff member's responsibility, and most students should have most of their needs met in universal [instruction]. Like, that's the goal…. Now, we do still have some public schools that have—they're serving students more separately than we'd like, but, you know, we're—we're certainly on a continuum. Everyone's not in the same place with their implementation. (Interview, 1/22/2022).

To understand differences in how "all means all" was discussed and operationalized in the MTSS work in different states, the research team categorized states based on their relative commitment to MTSS inclusiveness. The team created categories relating to criteria in three domains, each with three levels of inclusiveness. Table 6 presents the three levels across the three domains and defines each through an ideal characterization. The discussion following the Table describes two subthemes that illuminate distinctions between states at each of the three levels of inclusiveness and evidence within each of the three inclusiveness domains.

Table 6
Domains and Levels

Domain/Level	Inclusive to a High Degree	Inclusive to a Moderate Degree	Inclusive to a Limited Degree
Scope	Interviewees spoke explicitly about their commitment to ensuring that MTSS would apply to all needs of all students.	Interviewees noted that MTSS was supposed to apply to all students but was not yet clearly earmarked for all needs or all groups of students.	Interviewees used the phrase "all means all" but indicated that MTSS applied just to some needs or certain groups of students or certain schools and districts.
Actions	Interviewees described initiatives that would help districts use MTSS on behalf of the students with significant cognitive disabilities.	Interviewees described initiatives that would help districts use MTSS on behalf of the students with disabilities, but not necessarily with significant cognitive disabilities.	Interviewees described initiatives that would help districts use MTSS on behalf of the students in general (but not necessarily students with disabilities).
Involvement of students with significant cognitive disabilities	Interviewees provided specific examples of how MTSS implementation addressed the needs of students with significant cognitive disabilities.	Interviewees provided examples of how MTSS implementation could be used to address the needs of students with significant cognitive disabilities.	Interviewees did not seem to be able to conceptualize how MTSS might be used with students with significant cognitive disabilities.

States at Three Levels of Inclusiveness. Categorization using criteria in the three inclusiveness domains identified five states as "inclusive in their MTSS implementation to a high degree," six as "inclusive … to a moderate degree," and eight as "inclusive … to a limited degree." In comparison to their less inclusive counterparts, states in the high category had been using MTSS for longer, had a broader definition of MTSS, and were working directly with districts to help them implement MTSS in effective and inclusive ways. Interviewees from these states also saw the benefits of supporting students with significant cognitive disabilities through a universally accessible tiered system of supports.

By contrast, states in the moderately inclusive group were working to support broader types of inclusion, such as the inclusion of students with significant disabilities in general education classrooms. At the same time, these states were also beginning to advocate the inclusion of students with high-incidence disabilities (such as specific learning disabilities) in MTSS

programs. A quote from one such state shows how a participant characterized the SEA's MTSS work:

> I think what we try to do when we provide training/technical assistance is talk about a shared toolkit between special ed and general ed. So, we do talk about a seamless system of service delivery…in practice we see that the field, you know, continues to lag behind, and that kids with severe disabilities, are—are still waiting to be included, within the confines of—of general education, while we talk about [a tiered system], the use of [tiered-system] methodologies for high-incidence disabilities—specifically specific learning disabilities… (Interview, 3/1/2022)

In the least inclusive states, SEAs were just beginning to develop MTSS models or were recommending the use of their MTSS models only in districts that had been judged as "needing improvement" by the SEA. Interviewees in these states were also trying to figure out how to change practice in districts that were using MTSS in exclusionary ways (e.g., as a gateway to special education identification and placement). According to one interviewee,

> I think from my perspective, it's—it is still…when students make it to Tier Three, then they are typically being referred to for special education evaluation. There's nothing that prohibits a school from having a student in any one of those three tiers without doing an evaluation on that student, you know, to determine they're eligible for special education. But I think the consensus… [is that] once a student get[s] to that third tier, then the schools think, we've done all of these interventions and…still not making progress with that student, so that is our next step, is to conduct the evaluation. (Interview, 1/26/2022)

Inclusiveness Criteria Across Three Domains. The research team used three inclusiveness domains (each coded at three levels, as discussed above): inclusive scope, inclusive action, and inclusive work on behalf of students with significant cognitive disabilities. In terms of salience, the codes flagging the three levels related to scope were more salient than those related to actions and inclusive work with students with significant cognitive disabilities (95 excerpts coded in contrast to 87 excerpts and 40 excerpts, respectively).

As indicated in Table 6 above, scope codes drew attention to differences in espoused commitment. States with long histories of working to implement MTSS and broad definitions of MTSS, that is, definitions focusing on more than just academics and behavior, were coded as more inclusive in scope than states with shorter histories and narrower definitions. Also coded as more inclusive in scope were states where interviewees talked about SEA efforts to learn about inclusive approaches to MTSS from other states, national centers, and expert consultants. States with short or very short (e.g., just starting) histories of implementation, narrow definitions (e.g., RTI only), or with cursory use of MTSS (e.g., as a strategy for schools failing to meet accountability standards) were coded as having more minimal espoused commitment. Two quotes show the contrast. The first is from a state with a long history of implementing a broad version of MTSS—a state, in fact, that SEA personnel from other states referred to as an exemplar. The second is from a state with a short history of implementation, narrow definition, and restricted view of MTSS applicability.

So that intentionality of thinking of students on a continuum and receiving levels of support, whether it's for the most significant cognitive disabilities all the way up to gifted students. But [State] operates under the framework…[of] equitable multi-level systems of support. [The framework provides the state's] vision for an integrated system of developmental, academic, behavioral, and mental health supports. And we want to include educators and learners within that framework, being mindful of the whole child and considering the system, and then attending to equitable access, opportunity, and outcomes. (Interview, 3/21/2022)

[MTSS is] an initiative from School Support and Improvement. So, the work that we do is under that umbrella within our unit, and it's not a state initiative. But it really came from our schools that have been identified as either comprehensive support and improvement school or a targeted support and improvement school and their comprehensive needs assessment of lacking in instructional infrastructure to support all students all the time. So, that's where we started having a conversation of what professional learning opportunities can we provide to support our schools in improvement. (Interview, 11/24/2021)

Action codes also distinguished between states that used more and less robust MTSS models. Actions in the strong-MTSS states included: extensive professional learning opportunities relating to MTSS, extensive coaching of districts in MTSS use, high levels of state funding for MTSS implementation, numerous tools to assist district implementation, collaboration between general education and special education in the development of content standards, systemic efforts to use MTSS equitably across different student groups, interaction with a statewide MTSS advisory group, and dissemination of carefully developed and vetted guidance documents. By contrast, actions in the states with weaker implementation included: early efforts to develop guidance documents, support for MTSS in just a few pilot districts, acceptance of inconsistent use of MTSS across districts, reliance on state accountability tests as screening and progress monitoring tools, and the identification of vendors who might provide professional learning opportunities in districts that were interested in MTSS.

Finally, codes relating to the inclusion of students with significant cognitive disabilities in MTSS arrangements also revealed differences between more and less robust state efforts. Notably, states that saw the inclusion of students with significant cognitive disabilities as important and workable tended to rely on support from national centers (e.g., TIES Center, National Center on Educational Outcomes Center). They also were explicit in their guidance documents about including these students and tended to see MTSS as a way to keep from having to use restrictive practices such as restraint and seclusion. As an interviewee from one of these states noted: "There is a legislation around reducing the use of seclusion and restraint, except for emergency situations. And that talks about, you know, multi-tiered framework for that…. There's policy, and there's also funding associated with it" (Interview, 1/13/2022).

By contrast, states that were not yet including students with significant cognitive disabilities in their MTSS provisions were just beginning to develop MTSS models or were using RTI to funnel students toward special education identification and placement. Two excerpts illustrate the differences in perspective.

The mission of our state's strategic plan for education focuses on "Every child, every chance, every day." That mission cannot be accomplished when you're not ensuring you're inclusive of all students—not just some students. Throughout our implementation guides … [there is discussion of] MTSS with students with disabilities, and actually address… what [Tier 1] should look like with students with disabilities, which includes our students with the most significant cognitive disabilities. And what [MTSS] might look like and the difference between Tiers 1, 2, and 3 for those [students]. (Interview, 12/20/2021)

It hasn't been specific to, you know, talking about a student with significant cognitive disability. It's more of how do we support the students where they're at and help with that growth? And so much of it is just mindset. We spent our first two convenings really just talking about does all mean all? And what evidence—if you believe that—then what evidence do you have that what you say is really taking action on your campus? (Interview, 11/24/2021)

Efforts to Identify Other Explanatory Themes

Considering the pervasiveness of "all means all" language, the researchers revisited the coded data to determine if states with different levels of commitment to MTSS inclusiveness differed in other ways than those discussed above. Using matrices available through Dedoose, the researchers observed that (a) the states that had the most inclusive scope also were likely to use inclusive actions and include students with significant cognitive disabilities in their MTSS arrangements and (b) the states that had the least inclusive scope also were unlikely to use inclusive actions.

The team explored other possible patterns, but only one appeared to be salient—the use of inclusiveness rhetoric (i.e., the superficial use of "all means all" language). The use of such rhetoric appeared to be more common in states that were *less* committed overall to the inclusive use of MTSS. Other possible patterns between overall commitment and various concerns and practices proved elusive. Notably, concern about local control, efforts to break down general-education and special-education silos, inconsistent implementation, intentional collaboration, and attentiveness to strong Tier 1 instruction were salient across all three levels of commitment. Analyses did not support the researchers' conjectures that higher levels of commitment might be associated with stronger efforts to break down silos, collaborate across SEA offices, or focus on high-quality Tier 1 instruction. Nor did they support the speculation that higher levels of commitment might be associated with weaker concern about local control or inconsistent implementation of MTSS. In other words, analyses showed that these concerns and practices were randomly distributed across levels of commitment.

A Spearman Rho correlation of .85 ($p < .001$; see table A1 in the Appendix) substantiated the association between overall levels of commitment to inclusiveness and aggregate ratings on inclusiveness criteria (i.e., inclusive scope, inclusive action, and inclusiveness of students with significant cognitive disabilities. They revealed no significant associations between overall levels of commitment to inclusiveness and other variables (i.e., concern about local control,

inconsistent implementation of MTSS, efforts to break down silos, collaboration across SEA offices, and focus on high-quality Tier 1 instruction). One association, however, came very close to statistical significance (with a *p* value of .053) [9]: the negative association between overall levels of inclusiveness and the use of inclusive rhetoric. In other words, interviewees from states with lower overall commitment to inclusive MTSS tended to use superficial "all means all" rhetoric more than their counterparts in states with higher overall commitment. This association fit with what the research team observed using matrix analysis available through Dedoose.

Discussion

Taken together, results from this study revealed that, even in states that appear receptive to using an inclusive version of MTSS, the challenge of conceptualizing and implementing such an approach seems to involve significant challenges. Only five of the 19 states (i.e., 23%) in the sample, in fact, achieved relatively high levels of inclusiveness in their MTSS work; and in several of those states, conditions were not all that favorable for sustaining the effort. [10] Nevertheless, the five states using MTSS in inclusive ways provided positive outlier examples pointing to what is possible.

Furthermore, the whole continuum of state-level MTSS work suggested steps that might be useful at each stage along the implementation continuum. Table 7 shows how concerns and practices identified by states with varying levels of commitment to inclusive MTSS fit with the four stages of implementation that the National Implementation Research Network (NIRN) has described (e.g., Fixsen et al., 2005).

Table 7
Practices and Concerns Across the Implementation Continuum

Implementation Stage/Level of Commitment	Lower Level	Moderate Level	Higher Level
Exploration	Thinking about moving away from RTI; working to develop an MTSS model; valuing an "all means all" perspective.		
Installation	Providing guidance documents; providing a limited amount of technical assistance (including professional learning	Expanding MTSS to include multiple domains (e.g., academic, behavioral, social-emotional);	

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[9] If we had generated output to two decimal places rather than three, we would have said the association *was* significant.
[10] For example, in three of the five states, local control mediated the through-line between SEA intentions and district implementation. And in two of the five, collaboration across SEA offices was less than optimal because of data-system issues or because silos kept personnel from sharing responsibility for MTSS work.

	opportunities); piloting MTSS models with a very small number of districts.	supporting work in pilot districts; developing guidance documents.	
Initial Implementation		Supporting high-quality Tier 1 instruction for struggling students, including those with high-incidence disabilities.	Collaborating with other states and national organizations to figure out how to serve students with significant cognitive disabilities using MTSS provisions.
Full Implementation			Providing strong support to districts, via PD, coaching, guidance documents, and funding to help them use an inclusive model of MTSS.

Findings from the study also supported MTSS features and implementation practices that earlier research surfaced. First, it showed the value of developing and disseminating MTSS models that make tiered supports available to all students (e.g., McDaniel et al., 2014). Second, it pointed to the need for SEA offices (e.g., offices responsible for special education, general education curriculum, assessment, district improvement, and so on) to collaborate in their efforts to frame and implement inclusive MTSS models (e.g., Solari et al., 2017; Thurlow et al., 2020). Third, it showed the linkage between the use of broader definitions of MTSS and the inclusion of more diverse students under the MTSS umbrella (e.g., Arvedson et al., 2020). Finally, it demonstrated how inclusive models of MTSS reinforce fundamental tenets of the least restrictive environment (LRE) principle, namely that (a) all students are general education students, (b) all educators need to take responsibility for all students, and (c) high-quality instruction and intervention obviate the need to seclude and exclude students with disabilities, including those with significant cognitive disabilities (e.g., Thurlow et al., 2020).

One finding from the study, in particular, also pointed to questions that might guide future research on change toward greater inclusivity. Notably, the finding that the states in early stages of inclusive MTSS work used more rhetoric (especially superficial rhetoric) referencing "all means all" than those in later stages raised questions about how rhetoric might precede, intersect with, or possibly obscure focused action. For example, intentional use of inclusive rhetoric might fuel changes in beliefs, and changes in beliefs might then fuel changes in practice (e.g., Fishbein & Ajzen, 1975). Or rhetoric and action might be mutually supportive so that changes in discourse might both precede and follow changes in practice (e.g., Brown, 2010). Alternatively, insistent rhetoric might function as a smokescreen to mask slow progress toward inclusivity or continuing adherence to traditional practices (e.g., Causton-Theoharis et al., 2008). Research to determine how rhetoric functions within and across contexts to promote or impede increased inclusiveness is hardly trivial, given that (a) inclusiveness ("all means all") rhetoric abounds, (b)

the requirement for inclusion (i.e., the LRE principle) has been reiterated in law for nearly 50 years, and (c) inclusive practice still seems to be in its infancy (e.g., Wehmeyer et al., 2021).

Limitations

Although study findings reflected strong evidence in the data, certain study limitations call for circumspection in the interpretation of findings. First, the researchers hoped to conduct interviews with representatives of 33 states, but only 19 states agreed to participate. Second, reliance on just one representative from most of the participating SEAs to report on SEA perspectives and actions in general limited the ability of the research team to investigate possible differences in perspective within each SEA. Finally, constraints on interviewees' time limited opportunities for the interviewers to follow up on promising ideas as those surfaced in the interviews. Agreement to keep interviews relatively short was, in fact, one way that the researchers were able to convince busy SEA personnel to participate in the study.

Despite these limitations relating to sampling and depth of data, some study findings seem quite secure. Notably, the data offered very strong support for the major finding that inclusive use of MTSS lags behind rhetoric about the need to apply MTSS and related practices in inclusive ways. "All means all" is a rallying cry, but access to MTSS provisions is hardly guaranteed to all, especially to students with complex needs, such as those with significant cognitive disabilities.

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Appendix

Table A1. Correlation Matrix

Correlation Matrix

		Level	Breaking down silos	Local control	Inconsistent implementation	High-quality tier 1	Strong collaboration
Level	Spearman's rho	—					
	p-value	—					
Breaking down silos	Spearman's rho	-0.330	—				
	p-value	0.167	—				
Local control	Spearman's rho	0.190	-0.430	—			
	p-value	0.436	0.066	—			
Inconsistent implementation	Spearman's rho	0.088	0.350	-0.420	—		
	p-value	0.721	0.142	0.073	—		
High-quality tier 1	Spearman's rho	-0.099	0.109	-0.049	0.218	—	
	p-value	0.688	0.658	0.841	0.370	—	
Strong collaboration	Spearman's rho	-0.232	-0.402	-0.094	0.136	0.233	—
	p-value	0.338	0.088	0.703	0.579	0.337	—