Shifting from Single-Focused Tiered Systems to the Integrated Multi-Tiered Systems of Support Framework: A Review of State Every Student Succeeds Act Plans

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ABSTRACT

Tiered intervention models have evolved in the last two decades as growing research emphasizes shifting from single-focused tiered systems such as Positive Behavioral Interventions and Support (PBIS) and Response to Intervention (RtI) to the integrated Multi-Tiered Systems of Support (MTSS) framework. In 2015, federal leaders included the general term *multi-tiered systems of support* in the reauthorization of the Every Student Succeeds Act. However, little is known about how states interpreted this inclusion into their plans or selected the integrated MTSS framework as a highly effective practice. The purpose of this quantitative, descriptive case study was to conduct a comprehensive review of all 52 state departments of education's ESSA Consolidated State Plans to determine the level of inclusion of MTSS in state policy. Specifically, the study identified the inclusion of MTSS as an evidence-based intervention that state educational agencies use to support school divisions in implementing to improve school conditions for learning, improve educators' skills, and provide effective transitions for students. The study examined the degree to which state leaders included technical assistance in implementing MTSS for schools identified for comprehensive or targeted support and improvement. Data collection consisted of downloading approved ESSA plans from state departments of education websites and reviewing each plan using an identical process. Data were categorized and analyzed using descriptive statistics. The analysis found inconsistency and variability in the tiered systems states selected to include in their state ESSA plan. Most states have not fully shifted from using single-focus tiered systems to the integrated MTSS framework.

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GENERAL AUDIENCE ABSTRACT

Tiered intervention models have evolved in the last two decades as growing research emphasizes shifting from tiered systems focused on behavior or academics to an integrated framework called Multi-Tiered Systems of Support (MTSS). In 2015, federal leaders included the general term *multi-tiered systems of support* in the reauthorization of the Every Student Succeeds Act. However, little is known about how states interpreted this inclusion into their plans or included the integrated MTSS framework as an effective practice supported by state leaders. The purpose of this quantitative, descriptive case study was to conduct a comprehensive review of all 52 state departments of education's ESSA Consolidated State Plans to determine the level of inclusion of MTSS in state policy. Specifically, the study identified the inclusion of MTSS as an effective practice that state educational agencies use to support divisions in implementing to improve school conditions for learning, improve educators' skills, and provide effective transitions for students. The study examined the degree to which state leaders included targeted support in implementing MTSS for consistently underperforming schools as defined by the state. Data collection consisted of downloading approved ESSA plans from state departments of education websites and reviewing each plan using an identical process. Data were categorized and analyzed using descriptive statistics. The analysis found inconsistency and variability in the tiered systems states selected to include in their state ESSA plan. Most states have not fully shifted from using single-focus tiered systems to the integrated MTSS framework.

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Chapter 1

Introduction

Overview of Study

This research aimed to provide a comprehensive review of the Every Student Succeeds Act (ESSA) state plans to understand states' interpretation and response to the inclusion of the general term *multi-tiered systems of support* in federal policy. This quantitative, descriptive case study reviewed all 52 federally approved state plans that have met ESSA requirements. The study examined the extent to which state leaders included the integrated MTSS framework in their ESSA state plans when responding to federal requirements in the following sections: Title I: Continued Support for School and Local Educational Agency (LEA) Improvement, School Conditions & Transitions, and Title II: Improving Skills of Educators. Additionally, the study examined the degree to which state leaders included technical assistance in implementing MTSS for schools identified for comprehensive or targeted support and improvement. These findings provide a national understanding of state policies that include guidance to LEAs interested in implementing MTSS, provide insight into the evolution of the integrated framework, and inform future research and policy.

Until recently, state educational agencies (SEAs) often adopted either the well-researched Positive Behavioral Interventions and Supports (PBIS) or Response to Intervention (RtI) framework to support student learning. Based on their selection, states provided guidance and regulated policies and practices to support LEAs in the implementation process (Berkeley et al., 2020). Two research studies, Briesch et al. (2020) and Berkeley et al. (2020), captured these choices, which aimed to identify the tiered intervention model included in state guidance as of 2017. Both research teams collected data from state departments of education websites and

categorized results based on a state's use of terminology. In both studies, the researchers found evidence that all states had some tiered model in place to systematically support students, and some states were moving toward adopting the integrated MTSS model; specifically, Berkeley et al. identified 21 state departments of education websites listing some type of MTSS as the state tiered intervention model. At the time of publication, these two studies provided a comprehensive understanding of the guidance states provided to LEAs. However, since their research, the U.S. Department of Education (USDOE) has required states to submit a consolidated plan based on ESSA regulations. These regulations, coupled with ESSA's inclusion of the general term *multi-tiered systems of support* may have impacted the tiered framework states chose to support. Therefore, the study provides current data on the national landscape of SEAs choosing the MTSS framework as their tiered model to support students based on their inclusion of MTSS in their ESSA state plan.

Historical Perspective

Federal and state leaders play a critical role in the public school system by establishing systems and structures that promote equitable educational opportunities for all students. At the federal level, leaders provide legislation, guidance, and policies to state and local school divisions; however, under the 10th Amendment, the USDOE is limited in mandating which educational policies state and local leaders institute (Ed.gov, 2010). When the USDOE was first formed in 1979, Congress specified:

> *No provision of a program administered by the Secretary or by any other officer of the Department shall be construed to authorize the Secretary or any such officer to exercise any direction, supervision, or control over the curriculum, program of instruction, administration, or personnel of any educational institution, school, or school system,*

> *over any accrediting agency or association, or over the selection or content of library resources, textbooks, or other instructional materials by any educational institution or school system, except to the extent authorized by law.* (Section 103[b], Public Law 96-88) (Ed.gov, 2010).

Despite these limitations, groundbreaking work has emerged from the USDOE, transforming the educational landscape and the work of states and local school divisions.

Noteworthy changes began with the 1965 signing of the Elementary and Secondary Education Act (ESEA) and continued to evolve to the reauthorization of ESSA, signed in 2015. With each policy passed by federal leaders, policies transitioned from focusing on financial regulations to student achievement and school improvement. For example, while ESEA focused on designating funds to support impoverished students in primary and secondary educational settings, the Education for All Handicapped Children Act required states to provide equal access to education for children with disabilities (USDOE, n.d.). In 1990, the Individuals with Disabilities Education Act (IDEA) expanded the focus from just access to education for all students to access to the same curriculum, thereby increasing the standards for special education instructors (IDEA, 1990). In subsequent reauthorizations of IDEA, specific language was included endorsing the use of tiered intervention systems to support students: PBIS in 1997 and RtI in 2004 (IDEA, 1997 & 2004).

As these policy shifts occurred, schools looked to state and federal leaders to provide guidance on how to implement these systematic intervention models to meet federal requirements. Federal leaders recognized this need for guidance and established grants to disseminate and provide technical assistance to states and LEAs in developing and implementing equitable systems to organize evidence-based interventions (Charlton et al., 2018). In part, these

grants funded the establishment of two national technical assistance centers: The Center on PBIS and the RtI Technical Assistance Center (OSEP Ideas that Work, n.d.; Charlton et al., 2018). During the initial years, schools tended to adopt PBIS to support students with behavioral disorders and RtI as both "an alternative process for identification of students with learning disabilities" and to support students' academic needs (Berkeley et al., 2020, p. 332; Sugai & Simonsen, 2012). However, growing research indicated that singular frameworks only addressed part of the gap in student outcomes. To fully meet the needs of all students, schools had to implement both frameworks, which put a strain on human and funding resources (Kern & Yell, 2020). To reduce this strain, in 2009, The National Associate of School Psychologists (NASP) Position Statement recommended a single, integrated, tiered framework to address students' academic, social, emotional, and behavioral needs, which came to be known as MTSS (Utley & Obiakor, 2015).

In 2015, when ESSA was reauthorized, federal leaders made two decisions relevant to this study. One, leaders recognized the research on tiered frameworks and included the general term *multi-tiered system of support* in policy. Specifically, ESSA *Section 2103, Local Use of Funds* (2015), encouraged the "use of a multi-tiered system of supports to organize services for students with disabilities, improve targeted literacy instruction, and support English-language learners" (Charlton et al., 2018, p. 191). Two, federal leaders shifted much of the government's role in creating accountability measures to SEAs, emphasizing state and local autonomy. While this shift allowed states to "have more flexibility in educational planning for students" (Kaul & Davis, 2018, p. 159), state leaders were also responsible for interpreting federal policies to guide their state accountability systems, funding sources, and to help schools and districts improve (Weinstock et al., 2019). This shift resulted in states having to play an important role in the

choice of tiered frameworks to include in policy and the type of implementation guidance to provide to LEAs (Berkeley et al., 2020).

Statement of the Problem

National data on student academic and behavioral outcomes indicate a need for states and local schools to create systematic approaches to increase teacher capacity to meet the needs of students. For example, according to the 2016 ESSA Fact Sheet published by the USDOE, "disturbing achievement gaps for historically underserved students persist- and in far too many schools, those students continue to have less access to the resources and support they need to thrive in the classroom and beyond" (ed.gov, 2016, p. 1). In 2021, the Office of Civil Rights reported that while there was a 2% decline in exclusionary discipline practices nationally in public schools from 2015–16 to the 2017–18 school year, there was an increase in three types of discipline practices: school-related arrests, expulsions with educational services, and referrals to law enforcement (USDOE, 2021). Finally, and most recently, in June of 2023, the National Assessment Governing Board released a report detailing the decline of reading and mathematics scores for fourth and eighth graders and the rise of chronic absenteeism (www.nagb.gov).

Research has shown that the integrated MTSS framework can be an effective systematic approach for schools as they work to address the needs of students (Pas et al., 2019; Simonsen et al., 2012; Swain-Bradway et al., 2019). When implemented with fidelity, MTSS provides the structure for schools to create proactive systems that offer students a continuum of academic, behavioral, and social-emotional supports, resulting in improved student outcomes and closing achievement gaps (Goodman et al., 2019). However, implementation is a complex process and takes time (NIRN, n.d.). Schools have reported that state guidance and technical support are essential to their ability to implement MTSS effectively and efficiently, but unfortunately, both

are currently lacking (Charlton et al., 2018). Moreover, researchers have found that even when there is state guidance, there is inconsistency in state leader's understanding of MTSS and the type of support they provide LEAs.

Therefore, there is a gap between the research on the effectiveness of MTSS to improve student outcomes and the guidance provided to schools on how to implement the practice successfully. Federal and state agencies play a role in minimizing this gap, according to Briesch et al. (2020), who stated, "One means of shortening the latency between evidence availability and use is by making practices or initiatives a priority at the policy levels" (p. 133). When ESSA was reauthorized, federal policy leaders took the first step by including the general term *multi-tiered systems of support* in ESSA. This study aimed to discover how states interpreted this general use of the term and took steps to minimize the gap by including the integrated MTSS framework in their state plans.

Significance of Study

The significance of this study was two-fold: it contributes to existing literature, and the results are timely in guiding future federal policy. First, this study aimed to contribute to the existing literature on state-level support for LEAs in adopting and implementing tiered systems of support by addressing the gap between research and guidance specific to the integrated framework, MTSS. This study also extends two research studies conducted by Briesch et al. and Berkeley et al. in 2020, who examined state-level guidance for LEAs collected from state departments of education websites on PBIS or RtI. Additionally, this study adds to the current research on states' interpretation of ESSA as systematic reviews have been conducted on the areas of equity, Title II, Comprehensive Support and Improvement schools, and the SEA's role

and responsibility in supporting schools (Chu, 2018; Kaul & Davis, 2018; Meyers et al., 2022; VanGronigen et al., 2022).

Second, while ESSA was scheduled for reauthorization in 2021-22, reauthorization did not occur (Debray et al., 2022). Therefore, an opportunity currently exists for federal leaders to re-envision their role in "promoting quality educational opportunities" based on data from the last 8 years (Debray et al., 2022, p. 3). If federal leaders find that data indicate MTSS has positively impacted student outcomes, federal leaders could codify MTSS in the next iteration of ESSA. This codification could set the stage for states and schools to bridge the perceived gaps between the academic and behavioral frameworks of RtI and PBIS and eliminate the need for schools to support the implementation of two different frameworks (Choi et al., 2019).

Purpose of Study

The purpose of this study was to conduct a comprehensive review of all 52 state departments of education's ESSA Consolidated State Plans to determine the level of inclusion of MTSS in state policy. Specifically, the study identified the inclusion of MTSS as an evidence-based intervention that SEAs will support divisions in implementing to improve school conditions for learning, improve educators' skills, and provide effective transitions for students. Additionally, the study examined the degree to which state leaders included technical assistance in implementing MTSS for schools identified for comprehensive or targeted support and improvement. These findings provide a national understanding of the current gap in state guidance available to LEAs interested in implementing MTSS.

Justification of Study

State departments of education are responsible for creating guidance for local school districts in meeting state and federal requirements. This guidance can be found in ESSA state

plans, state departments of education websites, and other resources. School districts look to available state guidance when creating their own district objectives as they "seldom have time to fully identify the long- and short-term consequences of policies to develop customized responses before implementation" (Tienken, 2022, p. 147). This guidance is also important since school districts spend considerable human and financial resources each year on practices that do not always result in improvements (Castillo, 2018). The comprehensive review will provide a national understanding of the depth and breadth of state support for MTSS and could inform future policies.

Conceptual Framework

As shown in Figure 1, this study's conceptual framework highlights state leaders' role in interpreting federal policy and guiding LEAs in the adoption and implementation process of MTSS. The framework was developed using themes that emerged from a review of relevant literature that found MTSS positively impacts student outcomes when implemented with fidelity (Pas et al., 2019; Simonsen et al., 2012; Swain-Bradway et al., 2019).

Figure 1

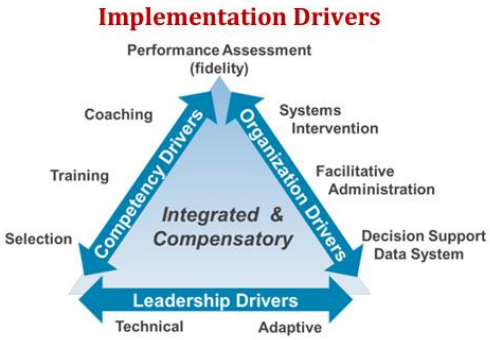
Conceptual Framework

The conceptual framework is based on the Implementation Driver Framework, in Figure 2, created by researchers at the National Implementation Research Network (NIRN). Researchers identified three drivers essential to the successful implementation of practices such as MTSS: *competency, organization, and leadership* (Fixsen et al. 2013). According to McIntosh &

Goodman (2016), “Each driver is instrumental in guiding the implementation process through designing and enhancing school environments so that practices are implemented fully, and outcomes are measurably improved” (p. 205). Goodman et al. (2019) found that when these three drivers are in place, an educator’s ability to implement MTSS with fidelity increases along with the likelihood of student success.

Figure 2

Implementation Drivers



While this model can be applied at a school, division, state, or federal level, this study focused on state-level leadership. The state level was chosen as research has found that SEAs “play a critical role in the implementation fidelity, sustainability, and scale-up of MTSS” (Goodman et al., 2019, p.1). Since ESSA state plans are the data source for this study, only the *leadership* and *competency drivers* were examined, as these data could be extracted from state plans. The two drivers are defined as follows:

> *Competency drivers*- “are mechanisms to create and sustain hospitable organizational and system environments for effective services” (Fixsen et al., 2013, p. 2). The competency drivers include selecting evidence-based practices (EBPs) and carefully selecting staff who provide high-quality, aligned professional development, training, and ongoing coaching (Arden et al., 2017; Charlton et al., 2018; Mason et al., 2019).

> *Leadership Driver*- "focuses on providing the right leadership strategies for the types of leadership challenges. These leadership challenges often emerge as part of the change management process needed to make decisions, provide guidance, and support organizational functioning" (Fixsen et al., 2013, p. 2).

The leadership driver sets the stage for the vision, management, and coordination of effective strategies for long-term planning and high-priority practices (McIntosh & Goodman, 2016). ESSA state plans are representative of the vision state leaders hold around educational practices, such as MTSS, and student learning. The competency driver includes the selection of evidence-based practices like MTSS, and the technical assistance provided to LEAs in the implementation process.

The conceptual framework in Figure 1 clarified the research questions and guided the data collection and analysis process. ESSA state plans were examined for the inclusion of MTSS by state leaders based on the interpretation of federal policy, and the technical assistance provided to school divisions around implementation. These data were analyzed to understand how state leaders have responded to the research on the effectiveness of implementing an integrated MTSS framework.

Definition of Terms

The following terms and definitions outlined in Table 1 are key to the study.

Table 1

Definition of Terms

Term	Definition
Achievement gap	*Achievement gap* refers to "when one group of students (e.g., students grouped by race/ethnicity, gender) outperforms another group, and the difference in average scores for the two groups is statistically significant (i.e., larger than the margin of error)" (NCES, n.d., Achievement Gaps section, para. 1).
Multi-Tiered Systems of Support (MTSS)	*Multi-Tiered Systems of Support* (MTSS) are "A proactive and preventative framework that integrates data and instruction to maximize student achievement and support students' social, emotional, and behavior needs from a strengths-based perspective. MTSS offers a framework for educators to engage in data-based decision-making related to program improvement, high-quality instruction and intervention, social and emotional learning, and positive behavioral supports necessary to ensure positive outcomes for districts, schools, teachers, and students" (American Institute of Research [AIR], 2023, Education section, para. 1).
General Term m*ulti-tiered system of support*	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" (ESSA, 2015, p. 295).
Positive Behavioral Interventions and Supports (PBIS)	*Positive Behavioral Interventions and Supports* (PBIS) is "an evidence-based, tiered framework for supporting students' behavioral, academic, emotional, and mental health (Center on PBIS, n.d., What is PBIS section, para. 1). Schoolwide Positive Behavioral Interventions and Supports (SWPBIS) is also used when referring to Tier 1 PBIS.
Response to Intervention (RtI)	*Response to Intervention* refers to "a multi-tier approach to the early identification and support of students with learning and behavior needs" (RtI Action Network, n.d., What is RTI section, para. 1).
Technical assistance	*Technical assistance* is "the process of providing targeted support to an organization with a development need or problem, which is typically delivered over an extended period of time" (CDC, n.d., p. 1).
School district	A *school district* is "a unit for administration of a public-school system often comprising several towns within a state" (Merriam-Webster, 2023). In Virginia, public school systems are referred to as school divisions. For this research, the terms school district and school division will be used interchangeably.

Limitations/Delimitations

While the study highlighted the inclusion of the integrated MTSS framework and the technical assistance by state departments of education, limitations and delimitations should be

noted. Limitations are areas outside the researcher's control but may affect the study results, while delimitations represent study boundaries created by the researcher (Roberts & Hyatt, 2019). In this study, three limitations are of note. First, there was an inability to prove the accuracy of state-level reports compared to what is happening in the state around MTSS implementation. Second, some ESSA state plans may have lacked the depth and content to conduct a thorough analysis. Third, the results were limited to the specific sections used in this research. The MTSS framework may be included in other sections of ESSA state plans but were not accounted for in this study. Conversely, three delimitations have been identified. First, this study was limited to approved ESSA Consolidated State Plans at the time of IRB approval and may not reflect subsequent amendments submitted to the USDOE for review and approval. Second, this study only accounted for the information in a state's plan and did not account for guidance states may provide through other avenues, such as state departments of education websites, state technical centers, or other universally accessible platforms. Related, this study only captured publicly available content and did not account for information to which this researcher did not have access.

Summary

The integrated MTSS framework is an effective approach to improving student outcomes by combining several tiered frameworks into one coherent, combined system. Federal policy leaders recognized using tiered supports to close achievement gaps and included the general term *multi-tiered systems of support* in ESSA, signed in 2015. Each SEA was provided a new latitude to define and identify policies to address achievement gaps in response to ESSA. States were given a choice in determining which evidence-based interventions to support and fund. This

study aimed to identify the level of inclusion of the integrated MTSS framework by states and the type of technical assistance offered to LEAs as measured by their ESSA state plans.

Overview of Study

This dissertation is presented in five chapters. Chapter 1 served as an overview of the research study. In Chapter 2, a review of the current literature was conducted to provide a comprehensive review of the emergence of the integrated MTSS framework in the educational field, the role of state leaders in policy development, and the importance of technical assistance in the implementation process. Chapter 3 details the quantitative methodology implemented in the study, including the research questions, instrument design, data collection procedures, and data analysis process. The results of the data analysis are presented in Chapter 4. Finally, Chapter 5 includes the findings, implications for practice, and recommendations for further research.

Chapter 2

Review of the Literature

This literature review examined the shift in education from using single-focus tiered systems to the integrated MTSS framework to support students' academic and behavioral needs. The review sought to identify key factors in the MTSS implementation process and the impact effective MTSS systems have on student outcomes. While the general term *multi-tiered systems of support* is often used to describe any tiered system, including the behavior framework, PBIS, and the academic framework, RtI, this review focused on the integrated MTSS framework, encompassing both PBIS and RtI. Four questions guided the literature review process:

- What factors lead to higher rates of implementation?
- How does policy impact MTSS adoption and implementation rates?
- What is the state's role in supporting school divisions in adopting and implementing MTSS?
- Does implementation of MTSS lead to greater student behavior and academic outcomes?

The review was organized into four sections: two focused on research and two on practice. Specifically, the first section explored the development of MTSS and the rationale for implementing the comprehensive framework. The second section examined the research on the implementation process and included the science of implementation, the drivers that support implementation, and the stages of implementation commonly experienced by schools. The third section addressed federal and state leaders' role in including and supporting evidence-based interventions. Finally, the fourth section focused on research from previous state-wide studies to demonstrate MTSS's impact on student outcomes.

Search Process

The literature review represented a comprehensive overview of the current research on the adoption, implementation, and impact on student outcomes of the integrated MTSS framework. Additionally, the study focused on federal policies and state guidance provided to school divisions on tiered systems. A broad search utilizing the Virginia Tech Library and Google Scholar databases began in the fall of 2021. The search engine used the following terms: *MTSS, Multi-Tiered System of Supports, Virginia Tiered System of Supports, Superintendent Perceptions of Multi-Tiered Systems of Support, Multi-Tiered Systems Academic and Behavioral Success, Response to Intervention, Positive Behavioral Interventions and Supports*, and the *Every Student Succeeds Act*. The results were limited to scholarly articles from 2011 to June 2023. The search yielded multiple peer-reviewed articles and dissertations on the implementation and outcomes of multi-tiered systems. The review also revealed that the three acronyms of PBIS, RtI, and MTSS and the general term *multi-tiered systems of support* were frequently used interchangeably in research studies and implementation briefs. To address the inconsistent use of terms, studies were scanned and marked as PBIS if the study only included behavior, RtI if the study only included academics, and MTSS if the study included academics and behavior, or the term was used in a general sense.

Initially, 86 articles were chosen for a full review. As the topic narrowed, inclusion and exclusion criteria were created to determine the most relevant literature for this review. Studies were included if they focused explicitly on the integrated MTSS framework or used the term MTSS in conjunction with PBIS or RtI. Studies focusing only on PBIS or RtI were excluded from the review unless they included research on general implementation measures. Based on these criteria, 45 studies were chosen. The retrieved articles' reference lists were also reviewed,

and relevant articles were identified. Articles and publications were searched based on the title and author using various search engines. Two research studies from 2005 were included based on their significance to this review. In addition to research articles, key pieces of federal and state legislation, policy, and reports were gathered from national organizations and educational websites, including the USDOE. While the inclusion and exclusion criteria effectively narrowed the types of research articles that were relevant to the review, the three terms MTSS, PBIS, RtI, and the general term *multi-tiered system of support* still surfaced. For this literature review, the terms defined in Chapter 1 were used when referring to each tiered system.

MTSS Overview

Tiered intervention models provide a continuum of evidence-based practices to support students' academic and behavioral needs (Goodman et al., 2019). When schools adopt a tiered system, they engage in systems change work rooted in the research of implementation and prevention science (pbis.org, n.d.). Implementation science requires data, progress monitoring tools, and evidence-based practices empirically supported and aligned with student needs (Freeman et al., 2015). Prevention science focuses on reducing risk factors and enhancing protective factors to improve students' well-being (npscoalition.org, n.d.). By adopting and implementing tiered systems and engaging in the work of systems change, schools hope to, in part, address the educational needs of all students, especially at-risk students, through early identification, early intervention, and resource allocation.

Conception of MTSS

While commonalities exist among all tiered systems, there has been a shift in education to move from single-focused models to an integrated MTSS framework (Utley & Obiakor, 2015). Educators credit this shift to the research of Dr. Hill Walker, a professor of special

education at the University of Oregon (Swenson et al., 2017). According to the research by Swenson et al. (2017), Dr. Walker was interested in moving away from the academic practice of "remediation" to a system of "prevention." They found he believed that an integrated multi-tiered system of support designed to organize academic and behavioral resources and interventions would allow educators to intervene early and match students with the necessary support. The study also noted that Dr. Walker examined the work of the Institute of Medicine, which emphasized a three-tiered prevention model and applied it to the field of education. His theory of MTSS complimented the foundational work of the RtI and PBIS tiered frameworks adopted by experts in education in the 1980s (Freeman et al., 2015; Charlton et al., 2018). In 1996, Dr. Walker's MTSS model was introduced in the *Journal of Emotional and Behavioral Disorders*, and the integrated MTSS framework emerged on the educational scene. Since then, states and organizations have developed their own models and definitions of MTSS; however, this literature review will use the definition developed by the AIR. This definition was chosen as AIR has provided technical assistance in implementing MTSS to school districts nationwide through its Center on MTSS. The AIR (2023) defines MTSS as follows:

> MTSS is a proactive and preventative framework that integrates data and instruction to maximize student achievement and support students' social, emotional, and behavioral needs from a strengths-based perspective. MTSS offers a framework for educators to engage in data-based decision-making related to program improvement, high-quality instruction and intervention, social and emotional learning, and positive behavioral supports necessary to ensure positive outcomes for districts, schools, teachers, and students. (Education section, para. 1)

Rationale for MTSS

The integrated MTSS framework provides the structure for schools “to address students' academic, behavioral, and socioemotional needs” (Castillo et al., 2018, p. 1) through the implementation of a single framework and bridges the perceived gaps between PBIS and RtI (Choi et al., 2019; pbis.org, n.d.). This integration of multi-tiered systems is essential, according to research by McIntosh and Goodman (2016) and Erickson et al. (2012). These researchers argued that schools have had difficulty implementing siloed tiered systems while knowing academic and social behavior problems are interrelated and require coordinated services. They, along with Sailor et al. (2021), contended that the MTSS framework offers schools a unified instructional framework that is more effective and efficient at supporting all students. Furthermore, McIntosh and Goodman argued that using a common language and integrated systems is essential in providing coordinated professional development, coaching, and evaluation, leading to a more effective and efficient method to support students. This strategic unification of systems is possible since the two frameworks have precise alignment between the essential components and processes (Wackerle-Hollman et al., 2021). When schools successfully unify their systems, “MTSS offers the potential to create systemic change, which results in improved academic and social outcomes for all learners” (Averill et al., 2013, p. 2).

Researchers and national organizations, including the National Association of School Psychologists (NASP), have endorsed using the integrated MTSS framework to address the academic, social, emotional, and behavioral development of children and youth (Utley & Obiakor, 2015). However, the road from research to practice can be complicated as the implementation process is complex and requires a systematic change in educators’ practices (NIRN, n.d.). To understand the complexities, the next section reviews the implementation

process. This examination lays the foundation for federal and state leaders' role in MTSS scale-up efforts.

MTSS Implementation Process

As schools move from research to practice, educators must have the knowledge, skills, and resources to implement MTSS as intended for it to be effective and sustained over time (Goodman & Bohanon, 2018). Considerable research has been conducted on the implementation process, including the science of implementation, drivers that support the implementation process, and stages of implementation commonly experienced by schools (Fixsen et al., 2005; Freeman et al., 2015). These findings are explored in the next section, along with available tools to measure implementation fidelity.

Implementation Science

The MTSS implementation process is rooted in the theory of implementation science (pbis.org, n.d.). Implementation science has gained traction recently as educators have accepted this approach as an effective method of addressing challenges and engaging in the work of systems level change (Cunningham & Osworth, 2021). One national organization leading the work in implementation science is NIRN. In the monograph published by NIRN, *Implementation Research: A Synthesis of the Literature*, Fixsen et al. (2005) identified the following key elements that are most important for systematic change to occur and produce positive outcomes in frameworks such as MTSS.

- Carefully selected practitioners to receive coordinated training, coaching, and frequent performance assessments.
- Organizations provide the infrastructure necessary for timely training, skillful supervision and coaching, and regular process and outcome evaluations.

- Communities and consumers are fully involved in the selection and evaluation of programs and practices.
- State and federal funding avenues, policies, and regulations create a hospital environment for implementation and program operations. (p. vi)

Based on this guidance, Castillo et al. (2018) found that schools adopting MTSS should begin the implementation process by providing training and coaching to a select team who will lead implementation efforts in the school. The researchers further reported that school leaders must create the infrastructure for the select team to engage and lead the implementation process. This infrastructure includes designated time, funding, and policies that support the work of systems change. Once the infrastructure is in place, the team creates a system to organize current assessments, instruction, and data-based decision making into a single framework (Castillo et al., 2018). The team is also responsible for selecting and organizing evidence-based interventions that increase with intensity and frequency at each tier (Berkeley et al., 2009). This step in the process is critical to the overall success of the model, as the team should select evidence-based interventions that meet the unique needs of the school and the individual students (Fixsen et al., 2005; Mason et al., 2019). At each tier, the MTSS team gathers data from multiple sources, including assessment and discipline data, to determine student needs and implement appropriate interventions. Students who need additional support are matched with a Tier 2 or Tier 3 intervention. Then, the team continuously uses data to monitor the implementation and impact of the interventions on students (Berkeley et al., 2009; Burns et al., 2005). This systematic data analysis process is essential as the school engages in the comprehensive systems change process (Arden et al., 2017). Finally, the team creates implementation plans to include critical elements and a realistic timeline to ensure the framework can be sustained over time.

Implementation Drivers

To support schools through the key implementation elements, NIRN identified three strategic implementation drivers critical to the process of systems-level change (Fixsen et al., 2013). These implementation drivers were categorized as *competency, organization,* and *leadership*, as outlined in Figure 2.

Leadership Drivers. The leadership driver encompasses both technical and adaptive leadership. Technical leadership is closely related to management and includes established procedures, while adaptive leadership refers to guiding others through complex change (Eagle et al., 2015).

Competency Drivers. The competency drivers include selecting evidence-based practices (EBPs) and carefully selecting staff who will provide high-quality, aligned professional development, training, and ongoing coaching (Arden et al., 2017; Charlton et al., 2018; Mason et al., 2019).

Organizational Drivers. The organizational drivers focus on the structures needed to support implementation, including facilitative administration, decision-support data systems, and systems intervention (NIRN, 2018). School teams must have time and a system to access and analyze student data to meet their students' needs effectively and efficiently.

These three implementation drivers are vital in building the capacity of educators to implement the integrated MTSS framework and sustain the infrastructure overtime (Fixsen et al., 2013). Leadership teams can use this model initially when deciding whether to adopt MTSS as a state policy, division priority or a school practice, or to assess their implementation components throughout the process.

Implementation Stages

According to the research, schools engaging in implementation science should expect to experience four stages: *exploration, installation, initial implementation,* and *full implementation* (Freeman et al., 2015). During the exploration stage, teams usually engage in a needs assessment activity to identify gaps in their systems and assess whether a proposed evidence-based practice or program matches their identified need(s). Once the decision is made, the team will move into the installation phase, where teams begin building the infrastructure or system necessary to support the evidence-based practice. This phase may include allocating resources, hiring additional staff, developing policy, and securing adequate time. Next, the team will enter the initial implementation phase, where practice change occurs. This phase is often the most complex of the four phases, as team members are pushed to examine and often change practices entrenched in the existing system. Next, the team enters full implementation, and the new practices become integrated into the organizational structure. It is in this phase that innovation becomes an accepted practice. Once full implementation is in place, organizations will move into two additional stages of *innovation* where team members can refine and expand their practices before moving into *sustainability,* where the practice continues to be effective. Typically, systems-level change develops over 2-4+ years (NIRN, 2005).

Fidelity of Implementation

A key element of the implementation stages is the team's evaluation of their process (Arden et al., 2017). According to Arden et al. (2017), at each stage, school teams assess their progress and fidelity of implementation. "Evaluation is an important component of any systemic change effort because it can enable implementation teams to determine whether an innovation is achieving the desired effect" (p. 275). To aid in this annual assessment process, the Office of

Special Education Programs (OSEP) Technical Assistance Center on PBIS created the following reliable, valid, and efficient measurement tools to measure the implementation of tiered intervention systems: The School-Wide Implementation Review (SIR), the Schoolwide Evaluation Tool (SET), and the Tiered Fidelity Inventory (TFI) (Pas et al., 2019; pbis.org). Teams use the assessment data to examine the strengths and gaps of their system, identify root causes of inequitable outcomes, and plan for changes in their implementation (Swain-Bradway et al., 2019). Schools only reach full implementation status when they have systems to support the sustained use of practices, analysis of data, and ongoing evaluation of outcomes and have established long-range implementation plans (Goodman & Bohanon, 2018).

The research on implementing the integrated MTSS framework is well documented; however, Berkeley et al. (2020) found that the "success of education initiatives is ultimately dependent on the knowledge and preparedness of education stakeholders on the ground who are responsible for implementation" (p. 333). Federal and state leaders can play a role in preparing educators by creating policies that communicate a vision for where educational practices should be moving and by creating guidance documents to build a shared understanding of how to support local implementation (NIRN, 2010).

Federal Policy

The inclusion of tiered systems of support in federal policy dates to the late 1990s when the Individuals with Disabilities Education Act (IDEA) called on states and schools to provide early interventions to students (I-MTSS Research Network, 2023) and contained specific language that endorsed the use of PBIS and then later RtI (IDEA, 1997 & 2004). This inclusion prompted the funding of two national technical centers: The Center on PBIS and the RtI Technical Assistance Center (Charlton et al., 2018; OSEP Ideas that Work, n.d.). Both centers

were created to provide leadership, technical assistance, and financial support to state and LEAs in developing systems to support early interventions through equitable tiered system. Although not mandated by legislation, many states adopted the work of these centers and created implementation guidance for school divisions. The inclusion of specific tiered models in federal policy at the turn of the century was instrumental in the scale-up efforts of both states and schools.

Over a decade later, in December 2015, President Obama signed ESSA into Public Law 114-9 and included for the first time in federal legislation the general term *multi-tiered system of support.* The term was defined in ESSA (2015) 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" (p. 295). This inclusion suggested federal leaders shifted their endorsement from single-focused tiered intervention models to an integrated model. However, the general term *multi-tiered system of support* only appeared in lowercase letters with no specific mention of the integrated MTSS framework adopted by the USDOE's Office of Special Education Programs. The federal government's use of the general term left states responsible for interpreting policy language when choosing which tiered model to include in their ESSA state plans.

Federal leaders did not require states to include the integrated MTSS framework or any other framework in their state plans as ESSA provided states flexibility in identifying evidence-based interventions that fit their local needs (Fien et al., 2021). Still, there are opportunities within the policy where states could have interpreted policy language and included a tiered system in their designation of funds. According to Chu (2019), the USDOE mandates SEAs "to explicate in their consolidated ESSA plans how they are planning to use federal funds and

funded programs to reduce equity gaps and monitor, evaluate, and report the progress through an accountability system" (p. 3). For example, *Section 2103, Local Uses of Funds,* provided "language encouraging the use of a multi-tiered system of supports to organize services for students with disabilities, improve targeted literacy instruction, and support English-language learners" (Charlton et al., 2018, p. 191). Also, *Section 1003* requires states to set aside a portion of their Title I, Part A funds to support school districts in improving low-performing schools, and states could have chosen the MTSS framework as one option to include (ESSA, 2015).

Briesch et al. (2020) suggested that clear and specific guidance from the national level could help move states and schools toward a more unified approach to supporting students. This is especially true when considering the shift from single-topic tiered systems to the integrated MTSS framework. Sailor et al. (2021) found that "a coherent educational system relies on the ability to effectively link school, regional, state, and federal resources in efficient and innovative ways that support the transformation of MTSS" (p. 27).

State Leadership and Technical Assistance

During policy revisions, such as ESSA, state leaders play a crucial rule in informing and guiding schools as there is a "need for many schools to reshape their policies, systems, and practices" to meet the new legislative demands (Choi et al., 2019, p. 15). When schools engage in the policy and revision process, state leadership and technical assistance are essential. First, local "school leaders seldom have time to fully identify the long- and short-term consequences of policies to develop customized responses before implementation" (Tienken, 2022, p. 147). Second, schools often face the challenge of adopting multiple initiatives simultaneously. Without state guidance, they may experience redundancy or misalignment of practices, ineffective implementation, or conflicting philosophies (Colorado Department of Education, 2017).

Therefore, schools rely on current state guidance to "develop, implement, and evaluate comprehensive programs and activities" to address the needs of all students (ESSA, 2015, p. 127).

The ESSA (2015) policy's inclusion of the general term *multi-tiered system of support* provided states with an opportunity to create policy that included technical assistance and allocation of resources for schools to implement tiered systems of support (Berkeley et al., 2020; Junge & Krvaric, 2017). Prior to ESSA, researchers found that many states adopted state-tiered models for schools to organize and deliver preventive and responsive interventions to students with identified needs, including guidance, coaching, training, and resource coordination (Berkley et al., 2009; Freeman & Newcomer, 2015). However, there was a great deal of variability in the tiered model adopted and in the type of technical assistance provided to schools in implementation (Briesch et al., 2020; Junge & Krvaric, 2017; Knoff et al., 2020). In states without guidance, LEAs were left on their own to choose practices that may not be have been as effective as others, or they may have faced barriers to implementation since they did not have the necessary infrastructure or support from state leaders (Charlton et al., 2018). With the reauthorization of ESSA, state leaders had the opportunity to minimize this variability by exclusively selecting the integrated MTSS framework as an effective approach to improving student outcomes and providing guidance through "information, direction, policy, and procedures that advise the implementation of MTSS within districts and schools" (Goodman et al., 2019, p. 1). This guidance would have addressed the findings from a 2018 study by Charlton et al. (2018) that found LEA leaders reported they would have been better equipped to adopt the integrated MTSS framework if state leaders "created a common foundation and inclusive language to unify MTSS with related state-level initiatives" (p. 196).

State Adoption and Implementation of MTSS

Even before ESSA, state leaders played a critical role in adopting, implementing, and sustaining tiered intervention systems through their policy development, coordination of resources, and alignment of practices (Charlton et al., 2018; Goodman et al., 2019). The National Center for Learning Disabilities reported that at least 40 states have adopted and support a version of a multi-tiered system of support (Jones, 2021); yet, according to Berkley et al. (2009), that number is closer to 47 when considering statewide models that include RtI. While state adoption rates are relatively high, each state's ability to interpret and implement policy has resulted in inconsistencies in the type of guidance states provide (Berkeley et al., 2020; Mellard et al., 2011). Though, there has been some movement by states to adopt the integrated MTSS framework. For example, in 2008, the Kansas State Department of Education launched a statewide initiative to organize student interventions by combining the frameworks of PBIS and RtI (Sailor et al., 2021). Kansas was an early adopter of MTSS and since then, other states have adopted their version of the integrated framework.

To understand current state guidance further, two research studies were examined and findings related specifically to this study were extracted. In 2017, Briesch et al. (2020) and Berkeley et al. (2020) conducted systematic reviews of state departments of education websites. Briesch et al.'s research searched for agency documents that mentioned a behavioral multi-tiered system and excluded guidance specific to academics only. In contrast, Berkeley et al. did not concentrate on a single focus area, such as academics or behavior, instead they searched for guidance that included implementation of Tier 2 and Tier 3 supports. Their search used the following keywords: "*tiered support, response to intervention, response to instruction, RTI, multi-tiered system of support, multi-tiered support,* and *MTSS*" (p. 334). Briesch et al. found

that 17 states listed procedural guidance on their websites for an integrated MTSS system, while Berkley et al.'s search found 21 states offered guidance on implementing Tier 2 and Tier 3 supports within an integrated MTSS framework. Both reviews noted variability in state guidance and inconsistent use of terms. Additionally, Berkeley et al. (2020) found "continued variation in how states are communicating about tiered systems on such matters as the role of tiered systems in schoolwide prevention frameworks, meeting special education requirements, and aligning multiple systems within schools" (p. 332). This variance in state guidance may impact the rate at which schools adopt and implement the integrated MTSS framework.

In an earlier study by Charlton et al. (2018), the scale-up efforts to increase adoption rates of MTSS by states were examined. The researchers conducted a qualitative study consisting of interviews with 27 state leaders to identify specific factors that were found to help or hinder state leaders. Charlton et al. found that 59% of the participants indicated that cross-disciplinary leadership on the state-level MTSS team was one of the most critical factors in scaling up efforts. Additionally, participants stated the following factors helped in their scale-up efforts: access to national technical centers, regional professional development, support from IHEs (Institutes of Higher Education), consistent language and practices used by all state MTSS team members, consultation with external partners, access to funding, aligned initiatives, effective data systems, and using student outcomes to drive planning and evaluation. Similarly, Harms et al. (2019) found that when state departments of education manage and support data systems, state agencies can make informed decisions on the type of technical assistance schools need. Conversely, respondents reported that the following strategies hindered their scale-up efforts: competition of priorities, philosophies, and practices within state organizations, ineffective professional development models, turnover rates, varying levels of readiness in the district and school

personnel, limited funding, inadequate data evaluation systems, and lack of support and leadership from state leaders, including state superintendents (Charlton et al., 2018). Sugai and Horner (2020) suggested state scale-up efforts could be improved "by providing building-level, district-level, and state-level teams with strategies for (a) selecting effective practices, (b) organizing the systems to support these practices, and (c) using a state-based implementation process" (p. 122). In addition, implementing local model demonstration sites could help in the scaling-up efforts of both SEAs and LEAs to leverage the success of these demonstrations and achieve larger-scale implementation.

Factors Impacting Implementation

Schools implementing the integrated MTSS framework may face barriers throughout the implementation process, leading them to believe that MTSS is ineffective. However, Goodman and Bohanon (2018) found that schools reporting that MTSS does not work often misapplied the framework. This inaccuracy in implementation may be attributed to several factors, including teacher efficacy, principal leadership, and access to expertise in the field (Sugai & Horner, 2020). In a study by Mason et al. (2019), teachers reported the following obstacles in implementation: "(1) lack of adequate training, (2) lack of time to plan and implement MTSS, (3) insufficient resources and staff support, (4) the process being too long and cumbersome, (5) the high level of documentation needed to implement" (p. 207). Bartholomew and de Jong (2017) noted that secondary principals reported that their lack of knowledge of tiered models and the critical implementation components led to a significant issue when evaluating their systems and planning for improvement.

Federal and state leaders can play a role in reducing barriers reported by schools by designating funding to support the implementation of MTSS. For example, federal leaders could

designate USDOE grants under ESSA to states and IHE grants to researchers to support implementing fully integrated tiered systems (Sailor et al., 2021). According to Sailor et al. (2021), if states received this funding to support MTSS, it could "put MTSS on track to be a transformational practice in American schools" (p. 36). In addition to state and IHE grants, federal leaders can continue to fund OSEP and the Office of Elementary and Secondary Education (OESE) to support the work of national technical assistance centers (pbis.org, 2018). Charlton et al, (2018) found this funding allocation from federal and state leaders is critical as schools have reported that access to funding and resources impacts their ability to implement the integrated MTSS framework successfully.

Collaborative relationships between IHEs, regional professional development providers, national technical assistance centers, and state and federal policymakers are necessary for implementers of MTSS to have the knowledge and skills to be effective (Charlton et al., 2018). Specifically, stakeholder collaboration in defining common terminology, the alignment of practices, data collection, professional development, and the identification of common goals can lead to greater efficacy among implementers and more efficient systems (Berkeley et al., 2020; McIntosh & Goodman, 2016). When stakeholders are successful at minimizing the hindering factors for schools, schools are better equipped to implement MTSS with fidelity resulting in greater student outcomes for all students.

Student Outcomes

Student outcomes "provide the long-term evidence of whether your efforts are working or not" (Goodman & Bohanon, 2018, p. 3). While this literature review yielded limited research on the impact of an integrated MTSS framework on student outcomes, three studies and one state report were found that reviewed the relationship between state technical supports, school

implementation, and student outcomes in the states of Illinois, Maryland, Wisconsin, and Virginia in relation to the state's version of a multi-tiered system. The state technical centers for Illinois and Maryland use the term PBIS, but the researchers studied the impact of a tiered system on both behavior and academic outcomes. Wisconsin's technical center is based on RtI, but the center created a model framework for an integrated multi-tiered system. Finally, Virginia's Tiered System of Support framework integrates academic, behavioral, and mental wellness supports into one system (vtss-ric.vcu.edu, n.d.).

First, in 2012, Simonsen et al. explored the impact of SWPBS on academics and behavior in 428 Illinois schools in a longitudinal study across seven school years (from 2000-2008). During the study, Illinois' schools received training and support through the Illinois PBIS Network, which included on- and off-site technical assistance. The study included implementation levels as a variable. Overall, the research was favorable, "revealing maintenance or improvement in outcomes over time for all schools in the fidelity of SWPBS implementation" and a relationship to better student outcomes (Simonsen et al., 2012, p. 10). Elementary schools made the most significant gains in implementation (81% of the elementary schools in the study were implementing SWPBS with high fidelity), while high schools had the lowest rates of implementation (31%). When considering OSS (School Suspensions), schools implementing SWPBS with fidelity had significantly lower rates of suspension and 17% fewer days missed. Regarding academic outcomes, there was no statistically significant difference in reading outcomes between high and low implementers. Conversely, there was a significant difference in mathematics scores, with high implementers yielding higher scores measured by state assessments (Simonsen et al., 2012).

Second, a 2018 longitudinal study by Pas et al. (2019) examined the effects of Maryland's scale-up implementation efforts of implementing PBIS, universal, tier 1 practices measured by student behavioral (proximal) outcomes and academic (distal) proficiency. The quasi-experimental study included a sample of 1316 schools, of which 859 received training and support from the Maryland SW-PBIS Initiative, which focused on creating systems and procedures to prevent and respond to disruptive behavior (Pas et al., 2019). The study examined whether schools receiving state support had high levels of sustained implementation and if state training was associated with improved student outcomes. The study found that schools trained under the state initiative demonstrated adequate fidelity in implementation. Additionally, the study found that student outcomes were statistically significant for multiple years in the elementary schools for suspension rates and academic scores (reading and writing) compared to non-trained schools. The results of secondary schools were less consistent. However, the researchers did see positive academic, behavioral, and attendance outcomes in schools that had received training (Pas et al., 2019).

Third, Wisconsin created its state model of MTSS, MLSS, a multi-level system of support framework supported by the state's technical center, the Wisconsin RtI Center (Swain-Bradway et al., 2019). The center provides technical support to schools in implementation, and their work is aligned with the state's vision for increasing equitable outcomes for all students (Swain-Bradway et al., 2019). In 2016-17, 81% of the schools in the state had received training from the technical center in Tier 1/Universal SWPBIS, Reviewing Universal Reading, and Building Culturally Responsive Systems. In a recent study by Swain-Bradway et al. (2019), fidelity rates of Wisconsin school divisions implementing an integrated MTSS framework, and their student outcomes were examined. The researchers found school divisions implementing an

integrated MTSS framework with fidelity had 2,204 fewer students receiving out-of-school suspensions (OSS) between 2009-10 and 2015-16 and had increased academic outcomes, with 1,058 additional students (7.28%) meeting or exceeding Measures of Academic Progress (MAP) reading benchmarks between 2011-12 and 2014-15. The researchers also found that schools implementing behavior and reading-focused equitable MTSS frameworks with fidelity had increased academic achievement over time, with 1,058 additional students (7.28%) meeting or exceeding Measures of Academic Progress (MAP) reading benchmarks between 2011-12 and 2014-15 (Swain-Bradway et al., 2019).

Finally, Virginias Department of Education (VDOE) developed its version of MTSS, Virginia Tiered Systems of Support (VTSS), in the fall of 2012. That first year, 13 Virginia school divisions joined the VTSS cohort. According to the 2019 VTSS Annual Report, as of 2019, 550 schools in 54 divisions implement MTSS and receive technical support from the state (Saimre et al., 2019). The annual report reviewed changes in discipline rates between the academic years 2017-18 and 2018-19. In addition, the annual report also looked at Standards of Learning state-wide assessments and graduation rates for schools implementing VTSS during the 2018-19 academic year. The report found schools had a 9% decrease in office discipline referrals for general education students and a 2% decrease for students with disabilities. Out-of-school suspensions also decreased by 4% for general education students and 8% for students with disabilities. Regarding academic achievement rates, the report found that English Reading Standards of Learning (SOL) pass rates remained consistent or improved for 67% of the schools. Mathematics SOL pass rates remained consistent or improved for 92% of the schools. The report did not provide beginning and ending pass rate numbers. Finally, the report examined graduation rates and found that, on average, schools implementing VTSS perform

above the state rate. In all four studies, the researchers found that schools implementing MTSS that receive state support and have high implementation rates experience positive student outcomes. Additional research is needed on the type of state support that is most impactful and the outcomes of different student groups.

Summary

This literature review aimed to discover relevant research on the theory of the integrated MTSS framework and the federal and state government's role in adopting and implementing the tiered framework by LEAs. Additionally, the review aimed to examine the impact of MTSS on student outcomes. The literature review found that before ESSA, each state's ability to interpret policy led to variance in guidance and technical support provided to LEAs in the implementation of tiered frameworks (Berkeley et al., 2020; Briesch et al., 2020). However, the review revealed that the 2015 signing of ESSA included the general term *multi-tiered systems of support* as an evidence-based intervention effective in improving student outcomes. Currently, there is a gap in literature on whether the inclusion of the general term *multi-tiered systems of support* has led to a shared understanding by states of tiered frameworks and a common understanding of the type of guidance and technical support that is most effective for LEAs in the implementation process.

It is noted that the search process yielded a great degree of depth and breadth of research on PBIS and RtI, but in comparison, there is limited research on the integrated MTSS framework. Gaps in the current literature include key factors that lead to more effective implementation of an integrated framework, the type of state guidance that is most effective, the impact of MTSS on outcomes of all students and student groups, and the effectiveness of schools to support and deliver Tier 2 and Tier 3 interventions. This lack of research may be attributed to the relative newness of MTSS in education compared to the other single-focused tiered systems.

Chapter 3

Methodology

Purpose of the Study

This study's purpose is to conduct a comprehensive review of all 52 state departments of education's ESSA Consolidated State Plans to determine the level of inclusion of MTSS in state policy. Specifically, the study identified the inclusion of MTSS as an evidence-based intervention that SEAs will support divisions in implementing to improve school conditions for learning, improve educators' skills, and provide effective transitions for students. Additionally, the study examined the degree to which state leaders included technical assistance in implementing MTSS for schools identified for comprehensive or targeted support and improvement. Since Goodman et al. (2019) found LEAs are more effective at meeting the needs of students when states align educational policies and assist in the accurate and consistent implementation of practices, the findings of this study will provide a national understanding of the current extent states have included MTSS in their policies and provided assistance in implementation.

Researcher's Professional Background and Assumptions

According to Creswell and Poth (2018), researchers "always bring certain beliefs and philosophical assumptions" to their research and must be "aware of these assumptions and beliefs" when conducting research studies (p. 15). Interest in this proposed topic stems from the researcher's position as division MTSS coordinator and designated lead for the division's participation in the Virginia Tiered Systems of Support (VTSS) cohort. As a VTSS cohort member, the associated division receives technical assistance and grant funding from the state to

implement the MTSS framework. Professional beliefs will be monitored throughout the process to account for philosophical assumptions.

Research Questions

This study will examine state adoption rates of the integrated MTSS framework by reviewing ESSA state plans to determine how SEAs have included MTSS at the policy level. The research questions are as follows:

1. How do SEAs interpret the federal government's use of the general *term multi-tiered systems of support* in ESSA policy in their state plans?
2. To what extent do SEAs include MTSS as an evidence-based intervention to support LEAs receiving assistance under Title I, Part A, to improve school conditions for student learning (USDOE, 2017)?
3. To what extent do SEAs include MTSS as an evidence-based intervention to support LEAs receiving assistance under Title I, Part A, to support school transitions (USDOE, 2017)?
4. To what extent do SEAs include the use of MTSS by LEAs receiving assistance under Title II, Part A, to improve the skills of educators (USDOE, 2017)?
5. To what extent do SEAs provide technical assistance in implementing MTSS to schools identified for comprehensive or targeted support and improvement?

The inclusion of Title I and Title II funds in this study is based on research that indicates the implementation of MTSS can meet the purpose of each grant as defined by ESSA (2015):

- *Section 1001*: "Title I, Part A is to provide all children significant opportunity to receive a fair, equitable, and high-quality education, and to close educational achievement gaps."

- *Section 2001*: “Title II, Part A is to provide grants to SEAs and LEAs to increase student achievement, improve the quality and effectiveness of teachers and school leaders, and increase the number of teachers and leaders who are effective in improving student achievement.”

According to the USDOE (n.d.), Title I funds may be used to implement school-wide intervention models such as MTSS.

Research Design

This study was a non-experimental, quantitative case study that used descriptive statistics to summarize the findings. According to Trochim et al. (2014), descriptive studies “are designed primarily to document what is going on or what exists” (p. 14). This study was also cross-sectional as it captured the current state of approved ESSA Consolidated State Plans. Each state plan was reviewed using an identical process to identify the guidance states provide LEAs in implementing practices that support student outcomes, specifically the integrated MTSS framework. Collected data were categorized and analyzed using descriptive statistics. Descriptive statistics were chosen based on the need only to describe and summarize the data sets (Howell, 2013).

Data Sources

Existing data from each ESSA state plan found on a state’s department of education website served as an individual data source for this study. The ESSA policy required each state to submit a plan based on the Revised State Template for the Consolidated State Plan provided by the USDOE (Cunningham & Osworth, 2021). Each state plan was required to pass through a peer-review process, and as of September 2018, all plans were approved. Since each state plan went through the same approval process, there was consistency in the structure of the plan which

allowed for a systematic review of data (Cunningham & Osworth, 2021). Additionally, one benefit of using existing data in ESSA state plans was that the data were not impacted by the research process.

A complete target population sampling method analyzed all 52 plans, including all 50 states, the District of Columbia, and Puerto Rico. Target population sampling was chosen as it is recommended when the research goal is to learn about all participants in a particular group (Patton, 2015) and has been used by previous researchers who have conducted systematic reviews of ESSA state plans on equity, Title II, Comprehensive Support and Improvement schools and the SEAs role and responsibility in supporting schools (Chu, 2019; Kaul & Davis, 2018; Meyers et al., 2022; VanGronigen et al., 2022).

Data Collection Procedures

Before data collection, all necessary steps to meet the ethical and regulatory responsibilities outlined by Virginia Tech's Human Research Protection Program were met. In September 2021, the CITI training on Social and Behavioral Research was completed (see Appendix A). Since the study did not include human subjects, the Research Determination Form was uploaded to the Institutional Review Board (IRB) Protocol Management System for review. The form was approved, and no further submissions were required (see Appendix C). Upon permission to proceed, approved ESSA Consolidated State Plans found on state departments of education websites were downloaded and files were saved and organized on the researcher's hard drive.

Once ESSA state plans were downloaded and reviewed, researcher-created instruments were used to collect detailed data aligned with the related research questions through a 2-part process. Part 1 addressed the first research question; how do SEAs interpret the federal

government's use of the general term *multi-tiered systems of support* in ESSA policy in their state plans? Plans were coded based on whether the plan includes MTSS, or another tiered framework such as PBIS or RtI, or one of the general terms for tiered systems. To gather these data, plans were examined for the following keywords using the search feature: *MTSS, multi-tiered systems of support, PBIS, positive behavior, RTI, response to intervention, tiered systems, and tiered support.* Next, plans were coded based on information included in the following two program areas included in the USDOE ESSA state plan template: Section A: Title I, Part A: Improving Basic Programs Operated by LEAs and Section D, Title II, Part A: Supporting Effective Instruction (USDOE, 2021). Specifically, the following four sections were examined: (a) "Technical Assistance" (Section A, 4, viii, e), (b) "School Conditions" (Section A, 6, i, ii, iii), (c) "School Transitions" (Section A, 7), and (d) "Improving Skills of Educators" (Section D, 4). In cases where states did not use the USDOE ESSA state template, plans were manually searched for sections that explicitly include technical assistance and guidance on the integrated MTSS framework.

In Part 2 of the data collection procedure, plans that met the criteria in Part 1 were reviewed using an open coding process to identify themes in how SEAs included support to LEAs in implementing MTSS. Data were gathered from the same two program areas in Part 1, Section A, Title I, Part A: Improving Basic Programs Operated by LEAs, and Section D, Title II, Part A: Supporting Effective Instruction.

Instrument Design and Validation

According to Patton (2015), "Validity in quantitative research depends on careful instrument construction to ensure that the instrument measures what it is supposed to measure" (p. 22). To achieve validity in the measurement tool, the data collection instruments were

designed to align with the guiding questions from the ESSA state plan template guidelines using a similar process as Meyers et al. (2022). For Part 1, each prompt from the Revised ESSA State Plan Guidance Document (USDOE, 2017) that aligned with one of the five research questions was used to create a data collection instrument (see Table 2).

Table 2

Alignment of Study's Guiding Questions to State Planning Document

Revised ESSA State Plan Guidance Document (USDOE, 2017)	Guiding Questions
"Describe the technical assistance the State will provide to each LEA in the State serving a significant number or percentage of schools identified for comprehensive or targeted support and improvement" (p. 13).	Do SEAs provide technical assistance in MTSS to schools identified for comprehensive or targeted support and improvement? (RQ5)
"Describe how the SEA agency will support LEAs receiving assistance under Title I, Part A to improve school conditions for student learning, including through reducing (i) incidences of bullying and harassment; (ii) the overuse of discipline practices that remove students from the classroom; and (iii) the use of aversive behavioral interventions that compromise student health and safety" (p. 14).	Do SEAs support LEAs in implementing MTSS under Title I in improving school conditions for student learning? (RQ2)
"Describe how the State will support LEAs receiving assistance under Title I, Part A in meeting the needs of students at all levels of schooling (particularly students in the middle grades and high school), including how the State will work with such LEAs to provide effective transitions of students to middle grades and high school to decrease the risk of students dropping out" (p. 14).	Do SEAs support LEAs in implementing MTSS to provide effective transitions of students? (RQ3)
"Describe how the SEA will improve the skills of teachers, principals, or other school leaders in order to enable them to identify students with specific learning needs, particularly children with disabilities, English learners, students who are gifted and talented, and students with low literacy levels, and provide instruction based on the needs of such students" (p. 17).	Do SEAs support LEAs in implementing MTSS to improve educators' skills to support all students' needs better? (RQ4)

The resulting instrument (see Appendix C) allowed for the retrieved data to be collected, coded, and analyzed. For Part 2 of the data collection process, the instrument (see Appendix D) was created to support an open coding process to identify the extent states supported LEAs in the

implementation of MTSS. To ensure validity and reliability of both instruments, each state plan was reviewed and evaluated in a standardized manner using a prescribed procedure, and results were checked for accuracy by two independent doctoral students.

Confidential and Ethical Treatment of Data

All data collected during the research process was recorded and password-protected on a Microsoft Excel spreadsheet. The data were securely stored on the researcher's Virginia Tech Google Drive, backed up on an external drive, and shared with the advisor. Data will be stored for 3 years after the successful completion of the dissertation, after which they will be destroyed.

Data Analysis Techniques

This research was a non-experimental, quantitative case study; its findings summarized using descriptive statistics to answer the identified research questions. Descriptive statistics were chosen since the study's purpose was to describe the data sets captured from ESSA state plans (Howell, 2013). The data were described, patterns identified, and outliers detected. Additionally, the data were analyzed to identify year-over-year shifts in practice of states in supporting MTSS. All findings are organized in summary tables in Chapter 4.

Summary

Chapter 3 provided an overview of the research design, data collection procedures, and the data analysis process. The method included downloading all 52 state departments of education's ESSA Consolidated State Plans submitted to the USDOE and using the search feature to locate predetermined key terms. Results were categorized and coded based on set criteria, and data were analyzed based on emerging themes.

Chapter 4

Data Analysis and Findings

Introduction

This quantitative, descriptive case study reviewed all 52 state departments of education's ESSA Consolidated State Plans to determine the level of inclusion of the integrated MTSS framework in state policy. Specifically, the study identified the inclusion of MTSS as an evidence-based intervention that SEAs will support divisions in implementing to improve school conditions for learning, improve educators' skills, and provide effective transitions for students. Additionally, the study examined the degree to which state leaders included technical assistance in implementing MTSS for schools identified for comprehensive or targeted support and improvement. The data gained from this study will contribute to the existing literature on state-level support for LEAs in adopting the integrated MTSS framework. The following research questions guided the study:

1. How do SEAs interpret the federal government's use of the general term *multi-tiered systems of support* in ESSA policy in their state plans?
2. To what extent do SEAs include MTSS as an evidence-based intervention to support LEAs receiving assistance under Title I, Part A, to improve school conditions for student learning (USDOE, 2017)?
3. To what extent do SEAs include MTSS as an evidence-based intervention to support LEAs receiving assistance under Title I, Part A, to support school transitions (USDOE, 2017)?
4. To what extent do SEAs include the use of MTSS by LEAs receiving assistance under Title II, Part A, to improve the skills of educators (USDOE, 2017)?

5. To what extent do SEAs provide technical assistance in implementing MTSS to schools identified for comprehensive or targeted support and improvement?

Data were retrieved from ESSA state plans downloaded from each state department of education's website between November 2023 and December 2023. They comprised the most recently amended plans submitted to and approved by the federal government. All plans were reviewed and evaluated twice to ensure accuracy. Additionally, plan evaluation reliability was assessed by two independent researchers. The evaluation process included the researcher's training and modeling of procedures before the plans were independently evaluated. Once the evaluations were completed, results were assessed for consistency in findings, and interrater reliability was found to be high.

Data Analysis by Research Question

Research Question 1

How do SEAs interpret the federal government's use of the general term *multi-tiered systems of support* in ESSA policy in their state plans? Research Question 1 aimed to determine whether ESSA state plans include MTSS or another tiered framework such as PBIS or RtI. To gather these data, the search feature was used to examine plans for the following keywords: *MTSS, multi-tiered systems of support, PBIS, positive behavior, RTI, response to intervention, tiered systems, and tiered support.* If keywords were included in the state's documentation to meet ESSA requirements, each included keyword was recorded in Table 3. In cases where keywords were only included in the auxiliary sections such as the advisory board comments, they were not listed in the table. The frequency in which keywords appeared was not collected. The table represents all keywords which appeared at least once in the state's plan.

Table 3

Tiered System of Support Included in ESSA State Plan

State	MTSS	PBIS/PBS	RtI	General term: multi-tiered systems of support	General term: positive behavioral supports	No tiered system included
AK	X	X	X			
AL	X	X	X			
AR		X	X	X		
AZ	X				X	
CA	X	X		X		
CO	X	X	X			
CT	X		X	X		
DC		X	X			
DE		X*	X			
FL	X					
GA		X		X		
HI			X	X	X	
IA	X	X				
ID		X	X	X		
IL			X			
IN	X		X		X	
KS	X				X	
KY	X*	X	X	X		
LA		X				
MA		X			X	
MD		X		X		
ME						X
MI	X	X				
MN		X				
MO	X	X			X	
MS	X	X			X	
MT	X		X			
NC	X					
ND	X					
NE	X	X	X			
NH	X			X		
NJ	X*	X	X	X		
NM		X	X			
NV						X
NY		X	X	X		

(continued)

Table 3 *(cont.)*

State	MTSS	PBIS/PBS	RtI	General term: multi-tiered systems of support	General term: positive behavioral supports	No tiered system included
OH	X	X		X		
OK	X*	X	X		X	
OR	X	X	X			
PA	X	X				
PR		X				
RI	X					
SC			X		X	
SD	X	X	X			
TN	X	X	X			
TX				X	X	
UT	X			X	X	
VA	X*					
VT	X	X				
WA	X	X	X			
WI		X	X	X		
WV		X		X		
WY	X	X	X			
Number and %	32/52 (62%)	36/52 (69%)	27/52 (52%)	16/52 (31%)	11/52 (21%)	2/52 (4%)

Note. *Indicates state-specific model.

Based on the evaluation of all 52 ESSA state plans, 32 plans (62%) included the integrated MTSS framework. Alaska was included in this count although it only referred to MTSS when mentioning a 2017 Alaska RTI/MTSS state-funded conference for educators. Only five states (10%) (FL, NC, ND, RI, and VA) exclusively included MTSS in their plans; the other 29 states (56%) included MTSS with some combination of PBIS, RtI, or a general term to refer to a tiered system of support. Of the 29 plans (56%) that included MTSS, 14 states (27%) included all three frameworks: MTSS, PBIS, and RtI. Conversely, two states (4%) (ME and NV) did not mention any tiered system. Three states (6%) modified the acronym MTSS and created a state model: NJ (NJTSS), OK (OTISS), and VA (VTSS). Seven states (13%) included language on the state's move from single-tiered frameworks (RtI or PBIS) to an integrated MTSS

framework; these states included CA, CO, IN, MS, NC, NJ, and RI. However, although these seven states included specific language in their movement towards an integrated MTSS framework, six of them (12%) also had PBIS, RtI, or both in their plan.

Research Question 2

To what extent do SEAs include MTSS as an evidence-based intervention to support LEAs receiving assistance under Title I, Part A, to improve school conditions for student learning? Research Question 2 aimed to identify if states included MTSS as an evidence-based intervention to improve school conditions for student learning and decrease incidences of bullying, the overuse of discipline practices, the use of aversive behavioral interventions. Using the exact keywords in Research Question 1, data were recorded if any of the keywords appeared in *ESEA section 1111(g)(1)(C), School Conditions.* Like Research Question 1, the frequency of keywords was not recorded, nor was the specific subsection i, ii, or iii identified. Instead, only the keyword included in the section was documented. For states that did not use the ESSA state plan template, plans were manually searched for sections that explicitly described *school conditions for learning*.

Based on the evaluation of all 52 ESSA state plans, 27 plans (52%) included the MTSS framework as an evidence-based intervention to improve school conditions. Seven plans (13%) (NC, ND, NH, RI, TN, VA, and WA) included MTSS exclusively, while 20 plans (38%) included some combination of MTSS and another tiered framework. The sole use of PBIS appeared in 11 plans (21%), while the combination of PBIS and another tiered framework was documented in 32 plans (62%). In this section, six plans (12%) included no tiered framework, while three states (6%) only used a general term. While RtI is an academic tiered framework, it

Table 4

School Conditions for Learning

Title I, Part A: Improving Basic Programs Operated by LEAs 6. School Conditions (*ESEA section 1111*(*g*)(*1*)(*C*)): (i) incidences of bullying and harassment; (ii) the overuse of discipline practices that remove students from the classroom; and (iii) the use of aversive behavioral interventions that compromise student health and safety. (USDOE, 2017)	
Tiered System	State
MTSS only	NC, ND, NH, RI, TN, VA, WA
PBIS only	AK, AL, DE, LA, MA, MN, NY, OH, PR, VT, WV
MTSS and PBIS	CA, CO, GA, IA, ID, IN, KS, MD, MI, MO, MS, OK, UT, WY
MTSS and RtI	MT, NJ, SD
PBIS and RtI	AR, DC, HI, NM
MTSS, PBIS, and RtI*	KY, OR, WI
General terms (multi-tiered systems of support or positive behavior supports)	AZ, SC, TX
None	CT, FL, IL, ME, NV, PA

Note. *Includes the general terms multi-tiered system of support and positive behavioral supports.

was included in 10 plans (19%) as an effective practice in creating positive school conditions for learning.

The seven plans (13%) that exclusively included MTSS were further examined for emerging themes. Four plans (8%) listed MTSS as an effective framework to address students' academic, behavioral, and social-emotional needs. Three plans (6%) referred to MTSS as a proactive, preventative, and positive framework. Additionally, two plans (4%) stated that the MTSS framework is a framework for continuous improvement. Finally, ND and RI included specific language in this section regarding their state's efforts to integrate the PBIS and RtI frameworks into a unified system.

Research Question 3

To what extent do SEAs include MTSS as an evidence-based intervention to support LEAs receiving assistance under Title I, Part A, to support school transitions? Research Question 3 aimed to identify if states included using MTSS as an evidence-based intervention to meet student needs at all levels of schooling, including providing effective transitions for middle and high school students and decreasing the risk of dropping out. Using the exact keywords in Research Question 1 and 2, data were recorded if any of the keywords appeared in *ESEA section 1111(g)(1)(D), School Transitions.* Like previous research questions, the frequency of keywords was not recorded; only the keywords included in the section were recorded. For states that did not use the ESSA state plan template, plans were manually searched for sections that explicitly described *school transitions*.

Table 5

School Transitions

Title I, Part A: Improving Basic Programs Operated by LEAs
7. School Transitions (*ESEA section 1111*(*g*)(*1*)(*D*)). (USDOE, 2017)

Tiered System	State
MTSS only	AZ, CA, KS, MI, MS, MT, NC, SD, VA
PBIS only	PR
RtI only	HI
MTSS and PBIS	IA, VT
MTSS and RtI	WA
PBIS and RtI	NM
MTSS, PBIS, and RtI*	
General terms (multi-tiered systems of support or positive behavior supports)	
None	AK, AL, AR, CO, CT, DC, DE, FL, GA, ID, IL, IN, KY, LA, MA, MD, ME, MN, MO, ND, NE, NH, NJ, NV, NY, OH, OK, OR, PA, RI, SC, TN, TX, UT, WV, WI, WY

Note. *includes the general terms *multi-tiered system of support* and *positive behavioral supports*.

Based on the evaluation of all 52 ESSA state plans, 12 plans (23%) included the MTSS framework as an evidence-based intervention to support students transitioning from middle and high school and for decreasing the risk of students dropping out of school. Nine plans (17%) (AZ, CA, KS, MI, MS, MT, NC, SD, and VA) included MTSS exclusively, while three plans (6%) included a combination of MTSS and another tiered framework. No plan had all three frameworks (MTSS, PBIS, and RtI) in this section of their ESSA state plan, and 37 plans (71%) did not mention a tiered support system.

The nine plans (17%) that exclusively included MTSS were further examined for emerging themes. While all nine plans had the MTSS framework, three (6%) specifically mentioned using MTSS in conjunction with data from state early warning systems (KS, MT, and SD). In addition to using early warning systems data, KS, SD, and MS (6%) included the use of behavioral data within the MTSS framework to create systems and structures to support students as they transition and decrease the risk of dropping out.

Research Question 4

To what extent do SEAs include the use of MTSS by LEAs receiving assistance under Title II, Part A, to improve the skills of educators? Research Question 4 aimed to identify if states included the use of MTSS to improve the skills of educators to enable them to identify students with specific learning needs and provide instruction based on students' needs. Using the exact keywords in Research Question 1, 2, and 3, data were recorded if any of the keywords appeared in *ESEA section 2101(d)(2)(J), Skills of Educators.* Like the previous research questions, the frequency of keywords was not recorded; only the keywords included in the section were recorded. For states that did not use the ESSA state plan template, plans were manually searched for sections that explicitly described *supporting skills of educators*.

Table 6

Skills of Educators

Title I, Part A: Improving Basic Programs Operated by LEAs 4. Skills of Educators (*ESEA section 2101*(*d*)(*2*)(*J*)). (USDOE, 2017)	
Tiered System	State
MTSS only	CA, FL, IA, KS, MI, MT, NC, OH, OR, PA, RI, UT, VA, VT, WA
PBIS only	MA, NY
RtI only	CT, DE, HI, WI
MTSS and PBIS	KY, MS
MTSS and RtI	AK, NE, NJ
PBIS and RtI	CO, DC
MTSS, PBIS, and RtI*	AR, SD
General terms (multi-tiered systems of support or positive behavior supports)	MO, WV
None	AL, AZ, GA, ID, IL, IN, LA, MD, ME, MN, ND, NH, NM, NV, OK, PR, SC, TN, TX, WY

Note. *Includes the general terms *multi-tiered system of support* and *positive behavioral supports*.

Based on the evaluation of all 52 ESSA state plans, 22 plans (42%) included the MTSS framework for improving educators' skills in identifying students with specific needs and providing instruction based on the identified student needs. Fifteen plans (29%) (CA, FL, IA, KS, MI, MT, NC, OH, OR, PA, RI, UT, VT, VA, and WA) included MTSS exclusively, while seven plans (13%) included some combination of MTSS and another tiered framework. Twenty plans (38%) included no tiered framework in this section, while two (4%) included the general term.

The 15 plans (29%) that exclusively included MTSS were further examined for emerging themes. Five plans (10%) included training and technical assistance from the state to LEAs and educators in implementing MTSS (IA, KS, MT, PA, and VT). Four plans (8%) specifically include increasing the skills of educators to respond rapidly to students' needs and creating a continuum of evidence-based interventions.

Research Question 5

To what extent do SEAs provide technical assistance in implementing MTSS to schools identified for comprehensive or targeted support and improvement? Research Question 5 aimed to identify if states include MTSS in the technical assistance they provide to LEAs who serve a significant percentage of schools identified for comprehensive or targeted support and improvement. Using the exact keywords in Research Question 1 through 4, data were recorded if any of the keywords appeared in *ESEA section 1111(d)(3)(A), Continued Support for School and LEA Improvement.* Like the previous research questions, the frequency of keywords was not recorded; only those included in the Technical Assistance section were recorded. For states that did not use the ESSA state plan template, plans were manually searched for sections that explicitly described *technical assistance* for schools identified for comprehensive or targeted school support and improvement.

Based on the evaluation of all 52 ESSA state plans, 15 plans (29%) included MTSS as part of the technical assistance the state will provide LEAs with a significant percentage of schools identified for comprehensive or targeted support and improvement. The MTSS framework was identified exclusively in 11 plans (21%) (AL, AZ, CO, FL, IA, IN, MI, NC, ND, OR, and WY). In comparison, three plans (6%) had some combination of MTSS and another tiered framework. No plan included all three frameworks (MTSS, PBIS, and RtI), and 30 plans (58%) did not mention a tiered support system.

Table 7

Technical Assistance

Title I, Part A: Improving Basic Programs Operated by LEAs
4. Statewide Accountability System and School Support and Improvement Activities (*ESEA section 1111*(*d*)(*3*)(*A*)):
(viii) continued support for school and LEA improvement
e. Technical assistance. (USDOE, 2017)

Tiered System	State
MTSS only	AL, AZ, CO, FL, IA, IN, MI, NC, ND, OR, WY
PBIS only	AK, MN, NJ
RtI only	ID, WI
MTSS and PBIS*	KS, PA, WA
MTSS and RtI	
PBIS and RtI	OK
MTSS, PBIS, and RtI*	
General terms (multi-tiered systems of support or positive behavior supports)	HI, MA
None	AR, CA, CT, DC, DE, GA, IL, KY, LA, MD, ME, MO, MS, MT, NE, NH, NM, NV, NY, OH, PR, RI, SC, SD, TN, TX, UT, VA, VT, WV

Note. *Includes the general terms *multi-tiered system of support* and *positive behavioral supports*.

The 11 plans (21%) that exclusively included MTSS were further examined for emerging themes. Five plans (10%) included the language of *evidence-based interventions* in conjunction with MTSS. Three plans (6%) refer to resource allocation and funding for LEAs to support MTSS implementation. Wyoming requires school districts with a majority of schools identified for comprehensive or targeted support to implement MTSS. Finally, ND's plan asserts that all schools will implement MTSS while engaging in the continuous improvement process.

Overall, six plans (12%) included a tiered system in each of the four identified sections for this research (HI, IA, KS, MI, NC, and WA). North Carolina was the only state that both included MTSS exclusively in their plan and identified MTSS as an evidence-based intervention in each identified section. Additionally, NC included MTSS as part of its plan to provide technical assistance to schools identified for comprehensive or targeted support. Research

Question 1 found ME and NV to be the only states that did not include any tiered system in their plan. However, it is also of note that while IL included RtI in their plan, it did not include it in any of the four identified sections. A tiered system appeared most frequently in the *School Conditions* section of ESSA (*N* = 46, 88%) and the fewest in *School Transitions* (*N* = 15, 29%).

Table 8

Summary Table

State	ESSA state plan	Title I: Part A			Title II: Part A
	Tiered system	Technical assistance	School conditions	School transitions	Skills of educators
AK	M, P, R	P	P	-	M, R
AL	M, P, R	M	P	-	-
AR	P, R, GT-M	-	P, R	-	P, R, GT-M
AZ	M, GT-P	M	GT-P	M	-
CA	M, P, GT-M	-	M, P	M	M
CO	M, P, R	M	M, P	-	P, R
CT	M, R, GT-M	-	-	-	R
DC	P, R	-	P, R	-	P, R
DE	P, R	-	P	-	R
FL	M	M	-	-	M
GA	P, GT-M	-	P, GT-M	-	-
HI	R, GT-M, Gt-P	GT-M	P, R	R	R
IA	M, P	M	M, P	M, P	M
ID	P, R, GT-M	R	M, P	-	-
IL	R	-	-	-	-
IN	M, R, GT-P	M	M, GT-P	-	-
KS	M, GT-P	M, GT-P	M, GT-P	M	M
KY	M, P, R, GT-M	-	M, P, R	-	M, P
LA	P	-	P	-	-
MA	P, GT-P	GT-P	P	-	P
MD	P, GT-M	-	M, P	-	-
ME	-	-	-	-	-
MI	M, P	M	M, P	M	M
MN	P	P	P	-	-
MO	M, P	-	M, P	-	GT-P
MS	M, P, GT-P	-	M, GT-P	M	M, P
MT	M, R	-	M, R	M	M

(continued)

Table 8 *(cont.)*

State	ESSA state plan	Title I: Part A			Title II: Part A
	Tiered system	Technical assistance	School conditions	School transitions	Skills of educators
NC	M	M	M	M	M
ND	M	M	M	-	-
NE	M, P, R	-	M, P, R	-	M, R
NH	M, GT-M	-	M	-	-
NJ	M, P, R, GT-M	P	M, R	-	M, R
NM	P, R	-	P, R	P, R	-
NV	-	-	-	-	-
NY	P, R, GT-M	-	P	-	P
OH	M, P, GT-M	-	P	-	M
OK	M, P, R, GT-P	P, R	M, GT-P	-	-
OR	M, P, R	M	M, P, R	-	M
PA	M, P	M, P	-	-	M
PR	P	-	P	P	-
RI	M	-	M	-	M
SC	R, GT-P	-	GT-P	-	-
SD	M, P, R	-	M, R	M	M, P, R
TN	M, P, R	-	M	-	-
TX	GT-M, GT-P	-	GT-M, GT-P	-	-
UT	M, GT-M, GT-P	-	GT-M, GT-P	-	M
VA	M	-	M	M	M
VT	M, P	-	P	M, P	M
WA	M, P, R	M, P	M	M, R	M
WI	P, R, GT-M	R	P, R, GT-M	-	R
WV	P, GT-M	-	P	-	GT-M
WY	M, P, R	M	M, P	-	-
Total	52	22	46	15	32

Note. M = Multi-Tiered Systems of Support; P = Positive Behavioral Interventions and Supports; R = Response to Intervention; GT-M= General term of Multi-Tiered Systems of Support; GT-P = General term of Positive Behavior Interventions. The table is organized in chronological order according to how each topic appears in the ESSA state template.

Summary

This chapter provided the data analysis for this quantitative, descriptive case study. All 52 ESSA state plans were downloaded and analyzed based on the five research questions. The MTSS framework was included in 32 of the 52 plans (62%); however, only five plans (10%) used the integrated framework exclusively. Additionally, MTSS was included as an evidence-

based intervention in all four identified ESSA sections at least 23% (N = 12) of the time, with the most significant inclusion for *School Conditions* (52%). Chapter 5 discusses the themes and significant findings developed from the research, provides implications for practitioners, and makes recommendations for future research.

Chapter 5

Summary and Conclusions

Chapter 5 begins with the study's purpose, the research questions driving it, and the methodology. Next, a discussion of the findings is presented along with implications for practice and suggestions for future research. Finally, the chapter concludes with the researcher's reflection on the process and experience.

The purpose of this study was to conduct a comprehensive review of all 52 state departments of education's ESSA Consolidated State Plans to determine the level of inclusion of MTSS in state policy. Specifically, the study identified the inclusion of MTSS as an evidence-based intervention that SEAs will support divisions in implementing to improve school conditions for learning, improve educators' skills, and provide effective transitions for students. Additionally, the study examined the degree to which state leaders included technical assistance in implementing MTSS for schools identified for comprehensive or targeted support and improvement. The study sought to examine the following research questions:

1. How do SEAs interpret the federal government's use of the general term *multi-tiered systems of support* in ESSA policy in their state plans?
2. To what extent do SEAs include MTSS as an evidence-based intervention to support LEAs receiving assistance under Title I, Part A, to improve school conditions for student learning (USDOE, 2017)?
3. To what extent do SEAs include MTSS as an evidence-based intervention to support LEAs receiving assistance under Title I, Part A, to support school transitions (USDOE, 2017)?

4. To what extent do SEAs include the use of MTSS by LEAs receiving assistance under Title II, Part A, to improve the skills of educators (USDOE, 2017)?
5. To what extent do SEAs provide technical assistance in implementing MTSS to schools identified for comprehensive or targeted support and improvement?

Summary of Findings

Chapter 4 of this study provided data and tables illustrating the results of the data collected and analyzed from all 52 ESSA state plans. Overall, the MTSS framework was included in 32 of the 52 plans (62%); however, only five (10%) used the integrated framework exclusively. Additionally, MTSS was included as an evidence-based intervention in all four identified ESSA sections at least 23% (N = 12) of the time, with the most significant inclusion for *School Conditions* (52%). These data, along with others from Chapter 4, are the basis of the findings, which are supported by the research from Chapter 2 and explained in the following section.

Discussion of Findings

After analyzing the data related to the research questions, four findings became evident. Those findings are identified, explained, and related to prior research in the following paragraphs.

Finding 1

States have not fully shifted from single-focus tiered systems to the integrated MTSS framework. Instead, they continue to use PBIS, RtI, or a combination of frameworks. Since Berkeley et al. (2020) reported their findings on state procedural guidance of tiered systems of support; the number of states supporting an integrated MTSS framework increased by 65% from 21 states in 2017 to 32 identified in this study. Additionally, seven states (13%) included

language in their plan for their move from a single-tiered framework to the integrated MTSS framework. While these data suggest that states are shifting from a single-focused tiered framework to the integrated MTSS framework, this study found that only five plans (10%) exclusively included MTSS in their state plans. Of the other 27 plans (52%), over half the states (N = 29) included a combination of tiered frameworks, and over a quarter (N = 14) included all three frameworks, MTSS, PBIS, and RtI. This study's findings indicate that while states are committed to using tiered frameworks, they have not fully shifted to adopting the integrated MTSS framework as a state model. The 65% increase in the adoption of MTSS signifies a trend by states to adopt the integrated framework. However, the continued use of multiple frameworks in a single plan suggests that there is a gap between the recommended shift to an integrated framework by researchers and national organizations (Utley & Obiakor, 2015) and states' adoption of the framework.

Finding 2

States provide various guidance on the type of tiered system to implement to improve school conditions for student learning. All but six states (12%) included a tiered framework to improve school conditions for student learning, the highest use of a tiered system in any of the four sections examined in this study. While 27 plans (52%) included MTSS as a highly effective practice to support school conditions for student learning, 21 states (40%) included some combination of tiered systems. The 27 states that did include MTSS represent a 63% increase in the tiered model selected by states to support student behavior as compared to the research of Briesch et al. (2020) who found that only 17 states provided procedural guidance on MTSS that explicitly included language on supporting student behavior.

Eighteen states (35%) selected a single-tiered framework to improve school conditions, but 11 (21%) chose PBIS rather than MTSS. Interestingly, while this study examined *ESEA section 1111(g)(1)(C), School Conditions,* which required states to identify how they would support LEAS in implementing evidence-based practices to address incidences of bullying and harassment, the overuse of discipline practices, and the use of adverse behavioral interventions, RtI, the academic tiered framework, was included in 10 plans (19%). The inclusion of the academic tiered framework, RtI, in this section that relates to supporting student behavior, suggests that states may be misapplying tiered frameworks. Additionally, the results of this study demonstrate that Berkeley et al.'s (2020) previous finding that there was significant variation in the tiered models states selected still exists.

Finding 3

States are not consistent in the inclusion of tiered systems to improve the skills of educators to identify students with specific learning needs and provide instruction based on students' needs. Almost two-thirds of the states (*N* = 32, 62%) included some tiered system in *ESEA section 2101(d)(2)(J), Skills of Educators* to improve educators' skills in identifying students with specific needs and providing targeted instruction. However, just over a third of the states (*N* = 20, 38%) did not include any tiered system in this section. During the advent of tiered systems, schools tended to adopt the RtI framework as both "an alternative process for identification of students with learning disabilities" and to support students' academic needs (Berkeley et al., 2020, p. 332; Sugai & Simonsen, 2012). However, this study found that only 11 states (21%) included RtI exclusively or included a combination of RtI with another tiered system as the evidence-based framework in this section. The 15 states (29%) that included MTSS exclusively are the largest group in this data set, but the data demonstrates that

inconsistency in states' use of tiered systems to improve the skills of educators to support students with disabilities exists. The data from this study confirmed the research of Berkeley et al. (2020), who found “continued variation in how states are communicating about tiered systems on such matters as the role of tiered systems in schoolwide prevention frameworks, meeting special education requirements, and aligning multiple systems within schools” (p. 332).

Finding 4

Most states did not mention providing LEAs with technical assistance in adopting and implementing MTSS for schools identified as needing support. This study found that just over half of the states (*N* = 30, 58%) did not include any tiered system in their plan as an evidence-based practice that the state would support LEAs in implementing to close the achievement gaps and increase student outcomes in schools identified for comprehensive or targeted support and improvement. Of the states that included MTSS exclusively (*N* = 11, 21%), only one state, ND, included the requirement of all schools to implement MTSS while engaging in the continuous improvement process. Since Charlton et al. (2018) found that schools reported that state guidance and technical support are essential to their ability to implement MTSS with fidelity, the lack of technical assistance included in state plans may hinder LEAs ability to implement MTSS effectively and efficiently.

Implications for Practice

The following implications are associated with the findings identified in this research and align with this study's conceptual framework, which proposed that federal policy impacted state leaders' selection to include the evidence-based framework, MTSS, in their state plans. The results of this study have implications for federal leaders and educational researchers.

Implication 1

Federal leaders should consider policies, guidance, and technical assistance to assist states and LEAs in transitioning to an integrated MTSS framework. This implication is associated with Finding 1, 2, 3, and 4. State leaders look to federal policy to inform their state policies and practices used to support LEAs in meeting the needs of all students. Research showed that when specific language and guidance on tiered models were included in policy, PBIS (IDEA, 1997) and RtI (IDEA, 2004), state adoption rates increased (Berkeley et al., 2020). However, the current federal educational policy, ESSA, did not include a specific tiered model, and the data from this study revealed that without clear guidance, states chose varied and sometimes multiple tiered models. To support SEAs in transitioning to the integrated MTSS framework, federal leaders should include specific language in the next reauthorization of ESSA on the use of MTSS as an evidence-based practice to improve student outcomes. Additionally, federal leaders should provide guidance and technical assistance to SEAs and LEAs in the form of resources, funding, and model blueprints that could be disseminated through federal technical centers. Federal policy, guidance and technical assistance will aid in creating consistent practices across states and will minimize the strain on SEA and LEA resources (Kern & Yell, 2020).

Implication 2

Federal and state educational policy leaders should explore research on the effectiveness of MTSS to improve student outcomes. This implication is associated with Finding 2, 3, and 4. Each of these three findings revealed that states are choosing various tiered systems to improve student outcomes. Often, their selections include two or more frameworks used to support a single outcome, such as improved school conditions. These data suggest a lack of knowledge and inconsistency in federal and state leaders' understanding of MTSS. Moreover,

leaders may not be aware of current research that has found that when implemented with fidelity, the integrated MTSS framework can be an effective systematic approach for schools as they work to address the needs of students (Pas et al., 2019; Simonsen et al., 2012; Swain-Bradway et al., 2019).

Implication 3

Researchers should continue to add to the body of research that explores the impact of integrated systems on student outcomes. This implication is associated with Finding 2, 3, and 4. The three findings revealed that there is a lack of consensus across states on which tiered model to use to improve student outcomes. This lack of consensus confirms Briesch et al.'s (2020) finding that "additional research is warranted to understand which procedures facilitate the most effective and efficient decision-making, and thus have the greatest impact on student outcomes" (p. 142). Researchers should continue to explore, in general, the impact of MTSS on student outcomes, but also the impact of tiered systems across different contexts. For example, states need evidence that tiered systems implemented with fidelity equally impact student outcomes in all grade levels, all settings (rural, urban, and suburban), and all populations. Also, researchers should focus on the effective implementation factors and procedures that contribute to increased implementation and greater student outcomes.

Implication 4

Federal leaders should provide a detailed template for state leaders to use when responding to federal policy and creating state plans. The template should make explicit the expectation of states to adopt an integrated tiered system. This implication is associated with Finding 1, 2, 3, and 4. Federal leaders should be more specific in their expectations of states in selecting and providing guidance to LEAs in the implementation of tiered systems. In the

recent reauthorization of ESSA (2015), federal leaders used the general term *multi-tiered systems of support* in the policy. They encouraged the use of tiered systems "to organize services for students with disabilities, improve targeted literacy instruction, and support English-language learners" (Charlton et al., 2018, p. 191). Still, the legislation did not require states to include a tiered system in their state plan. The ESSA policy also provided more state autonomy in selecting evidence-based interventions than previous federal policies. This lack of expectation and increased flexibility is evident in the federal leader's choice only to include the general term in policy and the omission of any mention of requiring states to include a tiered system in the ESSA Consolidated State Plan template or the criteria for federal approval. In the next reauthorization of ESSA, federal leaders should provide clear expectations and guidance for states on selecting the integrated MTSS framework as part of their state plans.

Implication 5

Federal leaders should provide more direct guidance and technical assistance on the value of using the MTSS framework to support all students' needs, including those receiving special education services. This implication is associated with Finding 1, 2, 3, and 4. To increase the selection and fidelity of implementation of MTSS by LEAs to improve student outcomes, the two implementation drivers, *Competency* and *Leadership*, highlighted in this study's Conceptual Framework (see Figure 1), must be in place. First, federal leaders should provide a vision of the value of using MTSS to support all students, including those receiving special education services, and second, federal leaders should provide technical assistance and coaching (competency driver) to support SEAs and LEAs in the implementation.

The integrated MTSS framework is designed to support all students through early identification and intervention. However, there is a disconnect among the beliefs of some

educators on the role of tiered interventions in special education. Federal leaders can minimize this disconnect through guidance and direct technical assistance.

Suggestions for Future Studies

This study revealed that states have not fully shifted to the integrated MTSS framework, and inconsistency in language still exists when referring to when and how to use tiered systems of support to improve student outcomes. Moreover, few state leaders include technical support in implementing MTSS in their state plans for schools identified for continuous or targeted school improvement. Suggestions for future research include:

1. Conduct a similar review of state plans after the next reauthorization of ESSA to determine if there is any progress in states shifting to the integrated MTSS framework.
2. Conduct a study to gain insight into state educational leaders' perspectives in writing policy to understand their knowledge of MTSS and why they adopted specific tiered models.
3. Interview district educational leaders to gain insight into their adoption and implementation rates of MTSS based on state policy.
4. Expand the research beyond the inclusion of MTSS in state plans to the actual technical assistance provided to LEAs in implementing MTSS.
5. Review district plans to identify how LEAs addressed specific state priorities (MTSS) in their plans.

Chapter Summary

Chapter 5 provided a summary of key findings and implications based on the comprehensive review of all 52 state departments of education’s ESSA Consolidated State Plans

for the level of inclusion of MTSS in state policy. Findings were discussed, implications presented, and recommendations for future studies offered. In Summary, this study revealed that there is a gap between the recommended shift by researchers and national organizations to an integrated MTSS framework and states' adoption of the MTSS framework, as only five states included the sole use of the integrated MTSS framework in their ESSA state plans.

Personal Reflections

In reflecting on what I learned from this research study, it is apparent that the educational system is uniquely intertwined, and the responsibility of creating equitable learning environments where all students can learn extends beyond the walls of our local schools. Federal policy, state leadership, and educational research all impact the decisions made by school divisions and the educational experience students receive.

As a researcher and an educator, I have grown considerably in this dissertation process. I am grateful to have had this opportunity to learn and explore educational leadership and policy under the guidance of the faculty of Virginia Tech. While this may be the end of this chapter, I know I have only begun the journey.

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Appendix A

Collaborative Institutional Training Initiative

CITI PROGRAM

Completion Date 11-Sep-2021
Expiration Date 10-Sep-2024
Record ID 44971273

This is to certify that:

Erica Gervais

Not valid for renewal of certification through CME.

Has completed the following CITI Program course:

Social & Behavioral Research
(Curriculum Group)
Social & Behavioral Research
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Virginia Polytechnic Institute & State University (Virginia Tech)

CITI
Collaborative Institutional Training Initiative

101 NE 3rd Avenue, Suite 320
Fort Lauderdale, FL 33301 US
www.citiprogram.org

Verify at www.citiprogram.org/verify/?w64538b04-0c1a-477a-b81c-8f1a4d9d9217-44971273

Appendix B

IRB Approval

Division of Scholarly Integrity and Research Compliance
Institutional Review Board
North End Center, Suite 4120 (MC 0497)
300 Turner Street NW
Blacksburg, Virginia 24061
540/231-3732
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MEMORANDUM

DATE:	November 13, 2023
TO:	Carol S Cash, Erica Karcagi Gervais
FROM:	Virginia Tech Institutional Review Board (FWA00000572)
PROTOCOL TITLE:	A Review of State Every Student Succeeds Act Plans for the Inclusion of Multi-Tiered Systems of Support
IRB NUMBER:	**23-1184**

Based on the submitted project description and items listed in the Special Instructions section found on Page 2, the Virginia Tech Human Research Protection Program (HRPP) has determined that the proposed activity is not research involving human subjects as defined by HHS and FDA regulations.

Further review and approval by the Virginia Tech Human Research Protection Program (HRPP) is not required because this is not human research. This determination applies only to the activities described in the submitted project description and does not apply should any changes be made. If changes are made you must immediately submit an Amendment to the HRPP for a new determination. Your amendment must include a description of the changes and you must upload all revised documents. At that time, the HRPP will review the submission activities to confirm the original "Not Human Subjects Research" decision or to advise if a new application must be made.

If there are additional undisclosed components that you feel merit a change in this initial determination, please contact our office for a consultation.

Please be aware that receiving a "Not Human Subjects Research" Determination is not the same as IRB review and approval of the activity. You are NOT to use IRB consent forms or templates for these activities. If you have any questions, please contact the Virginia Tech HRPP office at 540-231-3732 or irb@vt.edu.

PROTOCOL INFORMATION:

Determined As:	**Not Human Subjects Research**
Protocol Determination Date:	**November 13, 2023**

ASSOCIATED FUNDING:

The table on the following page indicates whether grant proposals are related to this protocol, and which of the listed proposals, if any, have been compared to this protocol, if required.

Appendix C

Model for Part 1 Data Coding

State	Included in Plan:	Do SEAs provide technical assistance:	Do SEAs support LEAs in implementing MTSS under Title 1 in:		
			Improving School Conditions	Providing Effective School Transitions	Improving Skills of Educators
	• M • P • R • GT-M • GT-P • -	Yes (Y) No (N)	Yes (Y) No (N)	Yes (Y) No (N)	Yes (Y) No (N)
State 1					
State 2					
State 3					
State 4					

Note. M = Multi-Tiered Systems of Support; P = Positive Behavioral Interventions and Supports; R = Response to Intervention; GT-M= General term of Multi-Tiered Systems of Support; GT-P = General term of Positive Behavior Interventions; (-) = Not included.

Appendix D

Model for Part 2 Data Coding

States Meeting Criteria from Part 1	Type of Technical Assistance	How is MTSS used as a strategy in the areas of:		
		School Conditions	School Transitions	Improving the Skills of Educators
State 1				
State 2				
State 3				
State 4				