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Summary of State Policies Related to School Readiness Assessment Practices

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Abstract

This study summarizes state-level policies surrounding school readiness assessment. A search was conducted to collect and code school readiness policies to document key components of assessment practices in each state, such as if the assessments were mandated or recommended, timing of assessment, measures used, domains of functioning assessed, and the role of school psychologists in assessment. Results indicated that 44 states (86%) use school readiness assessments state-wide, with 34 states fully implementing and 10 states piloting a school readiness measure. Despite this widespread use, only about half of states included guidance related to how to respond to assessment data or students identified as at-risk in their policy documents. In addition, findings indicate that only four states mentioned involvement of school psychologists or other student support personnel in implementation of these assessments. Implications of this study on early childhood assessment policy and directions for future research are discussed.

Summary of State Policies Related to School Readiness Assessment Practices

Available data indicate that early childhood education has expanded significantly over the past two decades. The National Institute of Early Education Research (NIEER) has tracked changes in preschool enrollment and funding since the early 2000's and has documented significant growth over time. Data from the 2016-2017 school year indicate that state funding for public preschool was about $7.6 billion, representing approximately a $4 billion increase since 2002 (Friedman-Krauss et al., 2018). In addition, NIEER estimates that the number of four-year-old children enrolled in public preschool has increased by nearly 20% in the last 15 years (Friedman-Krauss et al., 2018). As the number of students receiving early childhood education continues to grow, meeting the needs of these young students is a major focus of education policy and practice. Specifically, educational leadership and policy makers have shown interest in assessing young learners' skills upon school entry, including the extent to which they are 'ready' for school experiences (Regenstein, Connors, Romero-Jurado, & Weiner, 2017). Therefore, it is important that these leaders understand options in school readiness assessment, and the landscape of early childhood student evaluation.

What is School Readiness?

School readiness (SR) is described broadly as the degree to which children are prepared to successfully engage in and benefit from formal school experiences (Gullo, 2015; Guhn, Janus, & Hertzman, 2007; Snow, 2006). In the past, children were considered ready for school simply when they reached the age of five (Pianta, Cox, & Snow, 2007; Texas Early Learning Council, 2007). This maturational perspective was the predominant approach until recent decades (Texas Early Learning Council, 2007). However, over time, conceptualizations of SR have shifted from a primarily maturational approach to a more multi-dimensional understanding of readiness

(Gullo, 2015; Snow, 2006; Texas Early Learning Council, 2007). This shift in perspective is attributed in part to the high variability of skills and knowledge demonstrated in students entering school at age five (Gullo, 2015; Regenstein et al., 2017). Although a universally accepted definition of SR does not yet exist (Ackerman & Barnett, 2005; Sabol & Pianta, 2017), most SR definitions include not only academic skills but also consider physical development and social, emotional, and behavioral functioning (Hanover Research, 2013; Guhn et al., 2007; Montes, Lotyczewski, Halterman, & Hightower, 2012). This multi-disciplinary focus considers the range of skills that may contribute to a student's ability to participate in and benefit from school experiences. For example, research has indicated that students considered ready for school typically exhibit fine motor (Grissmer, Grimm, Aiyer, Murrah, & Steele, 2010), attentional regulation (Grissmer et al., 2010), self-regulation (Razza & Raymond, 2013), social (Ziv, 2013), and social-emotional (Quirk, Dowdy, Goldstein, & Carnazzo, 2017) skills.

In addition to individual student abilities, SR is influenced by the external environment, such as socioeconomic status and parent education level (Gullo, 2015; Montes et al., 2012; Regenstein et al., 2017). Previous research suggests that low socioeconomic status can negatively influence children's SR (Gullo, 2015; Hair, Halle, Terry-Humen, Lavelle, & Calkins, 2006; Lloyd & Hertzman, 2009; Manfra, 2018; Pianta, Cox, & Snow, 2007). These findings highlight the importance of considering social, family, and community factors when conceptualizing and evaluating SR. Thus, many definitions consider not only student readiness but also the readiness of the school, family, and community to support skill and knowledge development as the student enters school (Ackerman & Barnett, 2005; High & the Committee on Early Childhood, Adoption, and Dependent Care and Council on School Health, 2008; Montes et al., 2012; Regenstein et al., 2017; Texas Early Learning Council, 2011). Readiness of the school

can refer to policies and practices that guide teaching children at various developmental stages, whereas readiness of the family and community can refer to preparedness and resources available to support a child's development (Montes et al., 2012). These individual and environmental factors relate both to one another and to student outcomes (Snow, 2006).

School Readiness and Long-Term Outcomes

Current early childhood research has documented connections between SR and later student achievement. In regard to academic skills, measures of SR are associated with overall academic success in second (Paganti, Fitzpatrick, Archambault, & Janosz, 2010), third (Duncan et al., 2007; Romano, Babchishin, Pagani, & Kohen, 2010), and fifth grades (Duncan et al., 2007). Research has also documented connections between SR and more distal outcomes, such as academic achievement at age 15 (Goble, Pianta, & Sabol, 2018). SR is also associated with core academic achievement, including reading and math skills, in elementary school (Duncan et al., 2007; Edyburn et al., 2017; Grissmer et al., 2010; Romano et al., 2010), middle school (Duncan et al., 2007; Goble et al., 2018), and early high school (Duncan et al., 2007; Goble et al., 2018). In addition, researchers have established relationships between SR and a reduced likelihood of grade retention (Davoudzadeh, McTernan, & Grimm, 2015) and decreased rates of high school dropout (Duncan et al., 2007). Multiple studies connecting SR to long-term outcomes have demonstrated significant effects even when adjusting for demographic factors, although in some cases the effect significantly decreased when controlling for factors such as school demographics, quality of the home environment, and classroom quality (Duncan et al., 2007; Goble et al., 2018; Gullo, 2015). This again highlights the importance of taking an ecological approach to understanding SR.

Previous research has also documented relationships between higher levels of SR and later social, emotional, and behavioral functioning, such as reduced incidence of physical aggression, anxiety, depression, and hyperactivity (Romano et al., 2010). SR is associated with social skills, which are in turn related to high levels of academic achievement (Sabol & Pianta, 2012). SR is also significantly related to later executive functioning, attention (Duncan et al., 2007; Paganti et al., 2010), and working memory skills (Goble et al., 2018; Sabol & Pianta, 2012).

School Readiness Assessment

Given the connections between SR and important long-term outcomes, school leadership and educational policy makers are increasingly interested in evaluating and assessing SR in young students (Sabol & Pianta, 2017; Saluja, Scott-Little, & Clifford, 2000). However, there is a great deal of variability in assessments used to evaluate SR due to the range of definitions and conceptualizations of readiness (Gullo, 2015; Sabol & Pianta, 2017). Despite this variability, commonalities exist across SR assessments. For example, SR assessments typically rely on data provided by teachers, as opposed to parents or other adults (Regenstein et al., 2017; Sabol & Pianta, 2017). Data are obtained for each student by administering a performance-based assessment or assessing student functioning via observation. Observational assessments typically involve the teacher completing a rating scale of each child's ability after observing and interacting with the student during the first few weeks of school, whereas performance-based assessments usually involve individual assessment and completion of tasks one-on-one with the evaluator (Ackerman & Coley, 2012).

Multiple domains of functioning are typically evaluated in addition to academic abilities (Sabol & Pianta, 2017). In particular, some sources suggest that at least five multifaceted

domains of functioning should be evaluated. Theses domains are derived from the National Education Goals Panel (Gullo, 2015; Hanover Research, 2013; Sabol & Pianta, 2017) and include physical well-being and development, social and emotional development, language and literacy development, approaches to learning, and general cognitive abilities (Hanover Research, 2013; High & the Committee on Early Childhood, Adoption, and Dependent Care and Council on School Health, 2008; Sabol & Pianta, 2017).

The anticipated purpose of the SR assessment influences assessment procedures chosen by states or districts, which then influences how the assessment is used in practice. It is recommended that SR assessments not be used for high-stakes decision making, such as failing to permit students to enter kindergarten or determining special education eligibility (Ackerman & Barnett, 2005; High & the Committee on Early Childhood, Adoption, and Dependent Care and Council on School Health, 2008; Regenstein et al., 2017). Instead, SR assessment results are often used to guide instruction and intervention within the classroom, and to respond to the student need as determined by SR assessment results. In some cases, SR assessment results will also inform systems-level decision-making at the building, district, and/or state-level through an understanding of the readiness of the student population as a whole. Further, SR assessments have been used as accountability systems and rating programs; however this practice is considered controversial for many reasons, including that student ability is variable during early childhood, and many SR assessments are not necessarily designed for accountability decision making (Regenstein et al., 2017).

Education Policy and School Readiness Assessment

Education policy plays an important role in SR assessment. SR assessment can provide valuable data that may impact funding and systems-level planning, and therefore many states

have developed state-level policies for use of these assessments in schools (Daily, Burkhauser, & Halle, 2010; Saluja et al., 2000; Stedron & Berger, 2010). Many states choose to implement state-wide SR assessment procedures, rather than leaving the decision to participate up to individual districts (Daily et al., 2010; Saluja et al., 2000; Stedron & Berger, 2010). In addition, federal initiatives highlighting the importance of SR and SR assessment, including funding from the Race to the Top Early Learning Challenge (RTT-ELC; US Department of Education, 2018) and the Enhanced Assessment Grants program (EAG; US Department of Education, 2013), have impacted the growth of state-wide SR assessment. Given that state-level policymakers play a large role in decision-making for early childhood education (Santos, 2013), understanding policy may be important for understanding implementation of SR assessments.

Several reviews have previously been conducted to document state-level policies related to SR assessment practices. For example, Saluja, Scott-Little, and Clifford (2000) conducted interviews with stakeholders in each state to determine the existence of assessment practices related to kindergarten entry. A total of 18 states had an SR assessment procedure—with 13 states implementing an SR assessment, and five requiring SR assessments but allowing local school districts to decide how to best conduct assessments within their districts. Further, 26 states did not have a statewide SR procedure, but representatives interviewed reported that school districts could choose to independently implement SR assessment procedures. Finally, 16 states reported that they were developing SR assessment procedures, and representatives from six states reported that their state did not conduct SR assessments.

Another review by Daily, Burkhauser, and Halle (2010) summarized state-level policies and practices related to early childhood SR assessment, along with the purposes of SR assessment. According to their review, 29 states had a procedure for SR assessment whereas 21

did not have statewide SR assessment guidelines or practices. This review also documented the purposes of assessment outlined in state-level policies—a majority of states (22 of the 29) engaged in SR assessment to screen or differentiate instruction for individual students. A smaller proportion of states (7 of the 29) used the data for systems-wide monitoring of the number of students that are "school-ready." Only one state reported using SR assessment for monitoring both individual and system-wide readiness. Further, of the 29 states using SR assessments, 18 used a common statewide assessment whereas 11 allowed districts to select an assessment tool. Assessments were often multi-disciplinary in nature, with 14 states using a multi-domain assessment. Eleven states evaluated only literacy, and only two states evaluated only literacy and math.

Another review of state-level policies related to SR practices was published in 2010 on behalf of the National Conference of State Legislators (NCSL). Their review was originally published in 2010 (Stedron & Berger, 2010) and then updated in 2014 (NCSL, 2014). The 2010 report found that 25 states had a kindergarten assessment and four states were in the process of implementing an assessment. Of the 25 states, 10 assessed reading abilities only and 11 assessed at least five domains of functioning (Stedron & Berger, 2010). The 2014 report placed a greater emphasis on legislation and regulation involving SR and found that 34 states and the District of Colombia had a statue or regulation related to SR. Fourteen of those states passed new legislation related to SR assessment since 2010 (NCSL, 2014).

Other research has investigated not only whether schools utilize an SR assessment procedure, but if these assessments are associated with student outcomes. In 2016, the Institute of Educational Science (IES) issued a report through the Regional Educational Laboratory Program on connections between use of kindergarten entry assessments and achievement

(Shields et al., 2016). This study used data from the Early Childhood Longitudinal Study (ECLS-K) 2010 cohort to investigate connections between use of kindergarten entry assessments and achievement. Findings indicated that 73% of schools represented in the sample used a kindergarten entry assessment as reported by administrators. Results indicated that there were no significant differences in schools that implemented kindergarten entry assessments and those that did not based on demographic factors, such as number of students receiving free and reduced lunch, urban versus rural setting, and school size. However, use of these assessments was not significantly associated with achievement in reading or math as measured during spring of the kindergarten year. This is despite the fact that 93 percent of schools reported using kindergarten entry assessments to differentiate or individualize instruction.

The purpose of the present study was to provide an updated review of state-level guidance related to school readiness assessment. Although previous reviews of SR assessment policy and practices have been conducted, the most recently published review (Shields et al., 2016) used data from the 2010-2011 school year. Given that the landscape of early childhood assessment policy and practices changes rapidly, an updated review of SR policies is needed. Our primary goal was to document changes in state-level policies and recommendations since the Daily and colleagues (2010), NCSL (2010 & 2014), and Shields (2016) reviews. We also sought to document specific components of SR policies, including whether assessment was mandated or recommended, when assessment occurred, types of measures used, and domains assessed. In addition, we documented who was responsible for conducting the assessment, and what training they received on administering the assessment and responding to SR data. Further, no previous reviews have evaluated the role of school psychologists and other student support personnel in SR assessments. Therefore, we sought to expand on prior work to include additional

focus on the extent to which state-level SR policies included student support personnel in the planning, implementation, and evaluation of SR assessments.

Method

Policy Document Identification

An initial search to identify state-level policy documents related to SR assessment, kindergarten entry assessment, and preschool screening practices was conducted during the summer of 2016. Two research assistants independently conducted Google searches and searches of state department of education websites for the 50 states and the District of Columbia (51 jurisdictions in total). Search terms included “school readiness”; “kindergarten readiness”; “kindergarten screening”; “preschool screening”; “kindergarten entry assessment”; and “early readiness assessment.” Any documents or webpages including relevant information about SR assessment were saved in PDF format and cataloged in an Excel spreadsheet. The spreadsheets from the two independent searches were then merged, and any duplicate entries and associated documents were removed.

Additional searches were conducted in January 2018 to identify any updated documents since the initial search for the 2017-2018 year. Of the 44 states with SR assessment procedures, 31 (70%) had documents with guidance for the 2017-2018 school year available on their state department of education websites. For states with no updated documents for the 2017-2018 school year (n = 13, 30%), we utilized documents from the most recent school year available, which was most often the 2016-2017 school year.

Inclusion Criteria

Policy documents were included in our review if the state’s description of the assessment aligned with our inclusion criteria definition of SR assessment. Given the general consensus that

SR is a multi-dimensional construct (Guhn et al., 2007; Sobol & Pianta, 2017), we did not consider states to be implementing an SR assessment if they conducted an assessment evaluating only one domain of functioning, such as early reading or literacy skills. The following specific inclusion criteria were utilized to determine if an assessment procedure met our criteria for SR assessments: (a) the assessment occurs in preschool or kindergarten exclusively, (b) the assessment targets general populations, (c) the assessment measures multiple skills across domains of functioning, and (d) the assessment states that the purpose of the assessment is to evaluate SR. The following exclusion criteria were used: (a) the assessment occurs across multiple grade levels, not exclusively preschool and kindergarten (e.g., reading screening administered across multiple grade levels), (b) the assessment is implemented only with specific populations, such as special education students, (c) the assessment measures skills in only one domain (e.g., reading or early literacy screening), and (d) the assessment does not explicitly state that the purpose of the assessment is to evaluate SR. In addition, documents were reviewed only if they were created by or specifically for the state department of education. For example, if a third party wrote an article about a state's implementation of a kindergarten readiness assessment, that document was not included in our review because it was not produced by the state department of education and is therefore not a policy or policy guidance document.

Document Coding Procedures

A coding scheme was developed to identify key features of SR assessment practices. As part of the coding process, all documents collected for a state were considered and coded collectively rather than coding each document individually. Coders were instructed to first review all of the documents for a state during the initial search to determine if the SR assessment procedure met inclusion criteria. If the state did not have an SR assessment procedure or the

early childhood assessment did not meet inclusion criteria, that information was entered into the study database, but no further information was coded. If the state's assessment met inclusion criteria, research assistants completed the full coding scheme, which included documenting if the assessment practices were mandated or recommended, the type of assessment used, the domains evaluated by the assessment (e.g., reading, language, math, etc.), the staff responsible for administering the assessment and training, and responses to SR assessment data. The full coding scheme is available from the first author upon request.

Six graduate research assistants were trained in-person on the inclusion/exclusion criteria for policy documents and coding procedures during one two-hour session. After this initial training, each member of the research team was assigned to code one state independently for additional practice. All coders were assigned the same state, and after completing the coding separately and independently, the group met to compare coding results and discuss any discrepancies. Each coder was assigned four to six states each and was instructed to proceed with independently coding each state. The research team held regular meetings to review coding progress and resolve any coding disagreements. Approximately halfway through the coding process, all coders were again assigned to code the same state (different than the one used in the initial training) and met to discuss any discrepancies. This was in an effort to avoid drift in the coding procedures after the initial training.

After the team completed coding for all 51 jurisdictions, 20% (n = 10) of the states were randomly selected for double coding to assess interrater reliability in ratings. The documents for each of these states were then re-coded independently by a member of the research team other than the original rater. Meetings were held as needed to discuss discrepancies and come to consensus. Upon reviewing the assessment type (standardized versus state developed measures)

item in the coding worksheet, the reliability coders discovered that the codes for assessment type needed to be revised to accurately document the different assessment formats used across states. The coding scheme for assessment type was revised, and then two graduate assistants re-coded all 51 jurisdictions for the presence of an SR assessment (fully implementing, piloting, or no SR assessment) and the assessment type. For all other items, interrater reliability was estimated to be 82% across raters. In addition, any state that the original coder deemed to not have an SR assessment was double coded to confirm that the state did not have an assessment procedure that met inclusion criteria.

Results

In Figure 1 and Table 1, results are presented regarding the status of state-level SR assessment policies at the time of this review. Based on the policy documents reviewed, 44 states (86% of the 51 jurisdictions reviewed) had an SR assessment practice mentioned in state-level policy documents. Of these 44 states, 10 states were piloting SR assessments and 34 were fully implementing SR assessment procedures. Piloting was conceptualized as states that were implementing or testing an SR assessment procedure with a limited number of districts or evaluators (e.g., teachers could opt in to participate with their class), but were not utilizing assessments in all districts or schools in the state. A state was considered to be ‘fully implementing’ an SR assessment if all districts in the state had the opportunity to utilize the assessment procedure. Of the 34 states fully implementing SR assessments, 23 states (68%) mandated that schools conduct the readiness assessment, while 12 (35% of states fully implementing or piloting SR measures) recommended but did not specifically require or mandate the use of SR assessments. Seven states (14%) did not have an SR assessment procedure that met inclusion criteria. Data related to timing of SR assessments or when students engage in SR

assessment also are included in Table 1. SR measures were most frequently administered in kindergarten, with 28 states (64% of states fully implementing of piloting SR assessments) conducting SR assessments in this timeframe. Ten states (22%) used SR assessment procedures in both preschool and kindergarten, whereas six (14%) utilized SR assessments with only preschool students.

Tools Used in SR Assessment

In Table 2, the types of assessments that are used in SR assessment are presented—observational and performance-based. Twenty-five (57%) of states piloting or fully implementing SR assessments utilized observational or indirect assessments (n = 25, 57%). Eight of these states (18%) utilized performance-based assessments, and 11 states (25%) used assessments that included both observational and performance-based elements. In Table 2, the domains assessed by SR assessments are included. The domains most frequently assessed are social/emotional/behavioral functioning, physical/motor development, and language skills. Creativity was the least frequently assessed area, with only five states piloting or fully implementing SR assessments (11%) evaluating this domain.

In Table 3, more specific information is presented about the assessment tools outlined in state-level policies for use in SR assessment. In this table, states were counted twice if students were assessed both in preschool and kindergarten using different measures (i.e., once for the preschool measure and again for the kindergarten measure). Fifteen of the states piloting or implementing an SR measure (34%) utilized standardized assessments, which were conceptualized as a tool purchased from a publishing company or other source that was not specifically designed for that state. The most commonly used standardized assessment tools were Teaching Strategies GOLD (Heroman, Burts, Berke, & Bickart, 2010; Lambert, Kim, Taylor, &

McGee, 2010) and the Brigance Early Childhood Screen (Brigance, 2010). Other standardized assessments used by states included the Qualls Early Learning Inventory (Qualls, Hoover, Dunbar, & Frisbie, 2003), Developmental Indicators for the Assessment of Learning (Mardell-Czudnowski & Goldenberg, 1998), STARS Early Literacy Assessment (Renaissance Learning, 2009), the Early Learning Scale (Riley-Ayers, Boyd, & Frede, 2008), and the Ages and Stages Questionnaire (Squires, Bricker, Heo, & Twombly, 2002). Of the states utilizing an SR assessment measure, twelve states (27%) used assessments specifically developed for use in their state; examples include the Oregon Kindergarten Assessment (Office of Teaching, Learning, & Assessment, Oregon Department of Education, 2017), Texas Kindergarten Entry Assessment (Children's Learning Institute, n.d.), and New Hampshire Kindergarten Readiness Indicators (New Hampshire Department of Education, 2014). Nine states (20%) used an assessment tool developed by a consortium of states working to collaborate on SR assessment. Five of these states utilized the Kindergarten Readiness Assessment, which was developed by a consortium led by the Ohio and Maryland State Departments of Education (Maryland State Department of Education, 2017). The other four states implemented a measure developed by a consortium led by North Carolina who originally developed the measure (BUILD Initiative, n.d.). Five states (11%) offered districts a choice of measures that could be used to implement SR assessment procedures. Two states used multiple measures in their statewide implementation of SR assessments. For example, Vermont specified use of Teaching Strategies GOLD along with a state-developed SR measure, in their policy documents. Finally, two states were categorized as "other" because they did not fit into any of the other assessment type categories. This includes Virginia, who conducted SR assessments with support from and tools developed by the University of Virginia, and Maine who, according to policy documents reviewed, utilized

Teaching Strategies GOLD but was also transitioning to using the North Carolina Consortium Assessment in some districts. States using the Desired Results Developmental Profile (California Department of Education, 2010) were also coded as "other," since the measure was originally developed for the state of California but is now also being used in other states such as Missouri.

Assessment Administration

The coding scheme developed for this study also included identifying the personnel responsible for implementing and administering SR assessments. SR assessment data is most commonly collected by students' classroom teachers; they are responsible for the administration of SR assessments in 38 out of 44 states (86%) implementing or piloting SR assessments. In six states, policy documents indicated that other parties could administer or collect SR data, including volunteers, substitute teachers, or other school staff who are trained to use the assessment. In addition, in Kansas, the assessment used is observation-based, but parents are noted as the first choice to complete the observational rating, with teachers as the second choice.

The study team also collected data related to training for assessors. Of the states implementing or piloting SR assessments, 37 states (84%) included information about training assessors in their policy documents. Of those, the format of training varied, with 11 states offering online training, seven referencing in person training, and 11 states offering both online and in person training. Eight states indicated that training would be conducted but did not specify the format (online or in person) or additional details about the training. Policy documents were also coded if there was mention of school psychologist involvement in SR assessment. Only four states (9%) mentioned school psychologist or student support personnel involvement in SR assessment procedures. Most frequently, they were mentioned as potential evaluators to conduct

assessments but were not noted as being specifically involved in interpreting or responding to data.

Response to Screening Data

In Table 5, state-level policy specified responses to screening data are presented. Of the 44 states implementing or piloting SR measures, 22 (50%) did not explicitly specify a response to student screening or assessment data. Of the 21 states that did indicate a response to screening, the most common responses were to provide tiered interventions or supports (n = 10) and/or notify parents or guardians (n = 10). Only two states specified that students should be referred for further testing. Four states' responses to SR data were coded as "not specified"; this includes general statements that school staff should respond to screening data without providing specific recommendations of how to respond.

Discussion

The goal of the present study was to provide an updated summary of state-level policies related to SR assessment. The results of our policy document search and review indicate that a majority of states are using SR assessment practices, with 44 out of 51 jurisdictions (86%) piloting or fully implementing SR assessment practices that met our inclusion criteria. Of the states fully implementing SR assessments, a majority (65%) included statements in their policy documents specifically mandating use of SR assessments. Only seven states did not have statewide assessment practices in line with our definition. Despite not meeting our inclusion criteria, many of these states were engaging in some kind of early childhood assessment, most often early literacy screening/assessment or preschool developmental screening.

These findings indicate nationwide growth in SR assessment practices. As summarized in Figure 2, the findings of previous studies and the present study depict growth in the number of states with statewide SR assessments in place. Although there are slight differences between

these studies in terms of methodology, SR assessment definitions, and constructs evaluated, an estimate of the growth in early childhood readiness assessment nationwide can be found in Figure 2. For example, during the 2009-2010 school year only 29 states had statewide SR assessment procedures (Daily et al., 2010) compared to 44 states identified in the current review.

One aspect of SR assessment documented in our coding scheme was the timing of assessments. Although many states use the terms interchangeably, differences exist between SR assessments and kindergarten readiness or entrance assessments. Kindergarten readiness assessments take place after a student enters kindergarten, but SR assessments may be broader in scope. The focus of our review was not strictly kindergarten readiness but school readiness; thus, our policy search was not limited to kindergarten entrance assessments and included assessments occurring prior to starting kindergarten. We found that states varied in when they administered SR assessments based on whether they conceptualized their assessment procedures as school or kindergarten readiness. The results of our review indicate that SR assessments take place primarily in kindergarten, but some states administered SR assessments in both public preschool and kindergarten settings. A small minority of six states administered SR in preschool and not in kindergarten.

Among states implementing SR assessments, there was variability in the kinds of assessment tools used. Observational or indirect measures were most frequently utilized; this frequently involved asking the teacher to observe a student over the first few weeks of school and then complete a rating form for each student based on these observations (Ackerman & Coley, 2012). Few states mentioned use of assessments relying exclusively on performance-based measures. Our review also found that classroom teachers are most frequently the school staff members responsible for SR assessment administration and data collection. Given the many

demands on classroom teachers, it makes sense that few states utilized performance-based measures due to the resources required to individually administer these assessments. Some experts assert that observation-based tools are advantageous because they provide a 'context' for understanding a student's skill level that direct, performance-based measures may not (Ackerman & Coley, 2012). Given the importance of understanding cultural, family, and community factors impacting readiness (Montes et al., 2012; Snow, 2006), observation-based assessment may be better able to capture environmental context and other relevant factors when considering a student's SR abilities.

In terms of domains assessed through SR assessments, language, motor/physical development, and social, emotional, and/or behavioral functioning were most frequently evaluated. Overall, our findings indicate that many states using SR measures have expanded beyond assessing strictly cognitive and academic skills and are including evaluation of domains such as social, emotional, and behavioral functioning, early executive functioning skills, and approaches to learning. In fact, social, emotional, and behavioral assessment was more frequently targeted by SR assessments than early reading or math skills. This is aligned with a multi-dimensional conceptualization of SR that includes not only academic ability, but also other domains of functioning that impact school performance. In addition, the inclusion of social, emotional, and behavioral domains in SR assessment is encouraging given previous research connecting early social skills (Sabol & Pianta, 2012) and attentional ability (Claessens, Duncan, & Engle, 2009; Duncan et al., 2007; Duncan & Magnuson, 2011) to later academic, social, and emotional outcomes.

Although states have expanded use of SR assessment practices, policies around responding to student assessment data remain limited. Only about half of the states implementing

SR assessment procedures provided guidance on responding to screening data or how to use assessment data to inform decision making. Although SR assessments are not intended to be diagnostic or evaluative measures, or to be used for high-stakes decision making (Regenstein et al., 2017), the data could be used to flag those students who may be at risk for academic, social, emotional, or behavioral concerns. Based on the results of SR assessments, teachers may be able to provide supports such as differentiated instruction or intervention to respond to student needs (Gullo, 2015; Regenstein et al., 2017). This lack of guidance related to response is particularly concerning given the importance and potential of early intervention to improve outcomes for students who may be at risk (Nierengarten, 2018; VanDerHeyden & Snyder, 2006). This is also consistent with Shields and colleagues (2016), who found that use of kindergarten entry or school readiness assessments was not associated with outcomes in reading or math assessments. If school teams are largely not provided with guidance on how to utilize SR assessments in data-based decision making, it is not surprising that assessments may not be associated with improved outcomes. It is important that school staff implementing SR measures have clear guidance related to the purpose of assessment and response to assessment data to best meet student needs.

We also sought to evaluate if policy documents outlined a role for student support personnel—such as school psychologists, social workers, or counselors—in SR assessment. We found that few policy documents mentioned a role for student support personnel in supporting SR assessments. Four states did mention support staff in their policy documents and indicated that these personnel could be involved in administering assessments, but none mentioned a role for interpreting and responding to assessment data. Student support providers and behavioral support staff receive training in child development, assessment, and data-based decision making, and could be valuable assets in the administration of SR assessments and interpretation of

assessment data. In addition, many support staff, such as social workers and counselors, have explicit training on connecting and developing relationships with families and communities (American School Counselor Association, n.d.; Frey et al., 2013). Their backgrounds on family and community engagement could support the facilitation of the SR assessment process and sharing assessment results with stakeholders. In sum, student support providers have the potential to be valuable members of multi-disciplinary SR assessment teams, but are currently under-utilized in the SR assessment process.

Limitations

The current findings must be interpreted in light of limitations of the study. First, our understanding of policy was limited to state-level documents that were publicly available online. There may be internal policy or training documents that provide additional information related to implementation of SR assessment practices that were not available through our searches. In addition, our searches were restricted to state-level policy documents, and we did not include district-level policy guidance documents which may have contained additional information about training, implementation, response to assessment data, and roles for support staff. Another limitation is that the present study only evaluated policies related to the assessments. We cannot evaluate whether districts are actually implementing these assessment procedures, or the fidelity of implementation of these assessments, without further evaluation.

Future Directions

The landscape related to SR assessment is rapidly changing and shifting. During our review, we noted that several states were implementing one assessment practice while also developing new assessments or participating in multi-state SR consortiums to develop new measures (BUILD, n.d.; Maryland State Department of Education, 2017). Therefore, evaluations

like the present study will need to be repeated to document changes in policy and implementation. In addition, it may be helpful to conduct follow-up interviews with representatives from state departments of education to determine if our coding of the state's SR assessment policy is consistent with their current practices and whether there have been any changes in the SR approaches since we collected our policy documents. Future studies should also seek to evaluate the extent to which school districts implement state-level policy guidance related to SR assessment with fidelity. Given the limited guidance related to responding to SR assessment data, future studies should also investigate how school staff utilize SR data in responding to student needs at the individual student, classroom, and building levels.

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Table 1

Implementation and timing of school readiness assessment procedures

	n (%)
State fully implementing SR measure	34 (66.67%)
Mandated	22 (43.14%)
Recommended	12 (23.53%)
State piloting SR measure	10 (19.61%)
No SR assessment in place	7 (13.73%)
Timing of assessments	
Kindergarten	28 (64%)
Both preschool and kindergarten	10 (25%)
Preschool	6 (11%)

Note. SR = school readiness

Table 2

School readiness assessment tools mentioned in state-level policy

	n (%)
Measure type	
Observational tool	25 (57%)
Both performance and observational tools	11 (25%)
Performance-based	8 (18%)
Domains assessed	
Social, emotional, behavioral functioning	41 (93%)
Language	40 (91%)
Physical development/health, motor functioning	39 (89%)
Literacy/reading	37 (84%)
Approaches to learning/executive functioning	30 (68%)
Early math skills	29 (66%)
Overall cognitive functioning	25 (57%)
Creativity	5 (11%)

Table 3

Types of school readiness assessments used

Assessment types	*n* (%)
Standardized assessment	15 (29%)
Teaching Strategies GOLD	5
Brigance	2
Other standardized assessment tools	6
State developed	12 (23%)
Consortium Assessment Tool	9 (17%)
Kindergarten Readiness Assessment	5
North Carolina Consortium Tool	4
District choice	5 (10%)
Multiple measures	2 (4%)
Other	4 (9%)

Table 4

Assessment administration

	n (%)
Party responsible for administration	
Teacher	38 (86%)
Other	6 (14%)
Training for assessors	37 (84%)
Online	11
In person	7
Both online and in person	11
Setting of training not specified	8

Table 5

Responses to assessment data

	n (%)
Response to screening data indicated	21 (48%)
Refer to tiered intervention	9
Notify parents/family	9
Refer for further assessment	2
Not specified	4
No response to screening data mentioned	22 (50%)

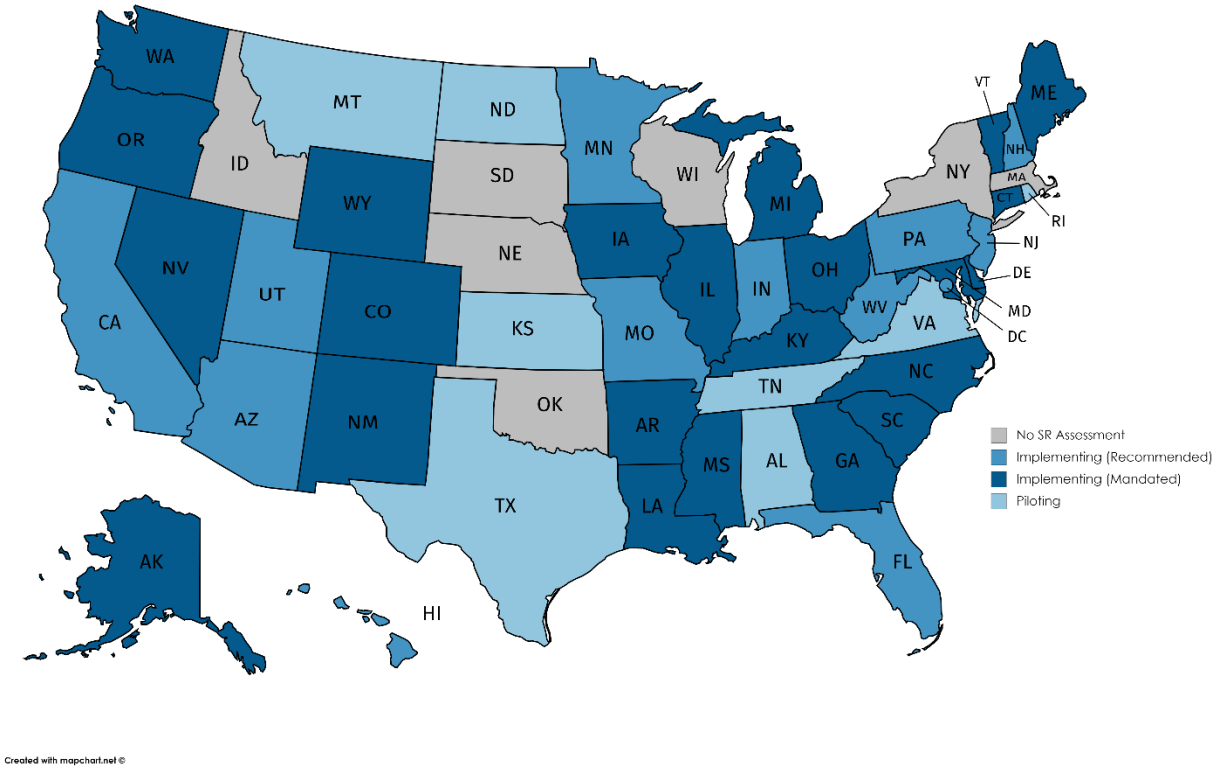

Figure 1. Summary of state-level implementation and mandate of SR assessments

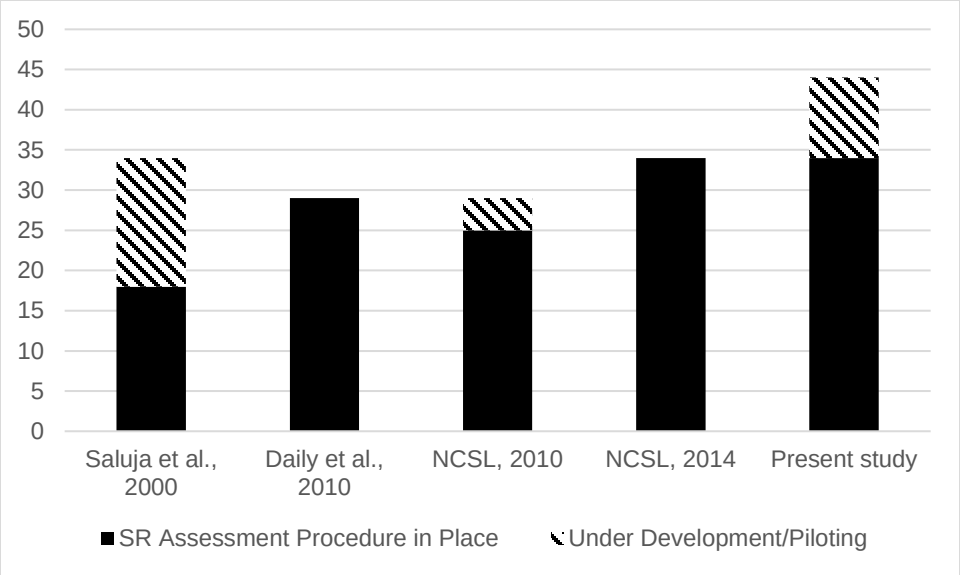

Figure 2. Summary of growth in state-wide use of school readiness assessments. This figure summarizes growth in SR assessment as documented by previous research (Daily et al., 2010; NCSL, 2014; Saluja et al., 2000; Stedron & Berger, 2010) and the present study. However, caution should be noted when interpreting this figure as these studies differed in methodology (e.g., interviews versus policy document review) and definitions of SR.