Research Report



State-Level Perspectives on Kindergarten Readiness

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POLICY INFORMATION CENTER





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RESEARCH REPORT

State-Level Perspectives on Kindergarten Readiness

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Kindergarten readiness has received significant attention in recent years in response to concerns regarding preparing young children for school and beyond and mitigating persistent achievement gaps. Currently, there is little consensus around what factors drive and define kindergarten readiness. In this study, we sought to expand understanding of perspectives on how kindergarten readiness is defined, the role of early learning standards for defining kindergarten readiness, views about the implications of defining kindergarten readiness, and the utility of state definitions for guiding kindergarten readiness practices. Data sources included surveys, focus groups and interviews with individuals representing state early childhood education agencies, and existing state kindergarten readiness definitions. Collective study findings indicated that there is evidence of persisting variation in perspectives on how to define kindergarten readiness, reflecting continuing tension about the construct's meaning. Although state policy makers tend to view kindergarten readiness through a developmental lens rather than as a ready-or-not statement, they also emphasize the role of child attributes such as age or skills and knowledge outlined in early learning standards. Additionally, participants reported both positive views and apprehension around adopting a common definition to guide efforts to promote readiness. This investigation underscores the need for further consideration of adopting a universal, multifaceted kindergarten readiness definition that calls attention to the role of child and environmental inputs as a starting point for preparing all young children for school.

Keywords Kindergarten readiness; school readiness; early childhood education; kindergarten readiness definitions; kindergarten; early learning standards

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Nearly three decades ago, Kagan (1990) called attention to the conceptual and practical challenges surrounding the construct of kindergarten readiness and urged the early childhood education (ECE) field to address this issue for the sake of enabling all young children to transition to school equipped to learn and succeed. Despite the passage of time and noteworthy efforts to inform and align perspectives on defining and fostering readiness prior to school entry (e.g., the National Education Goals Panel [NEGP, 1994] Goal 1 work¹ and the National School Readiness Indicators Initiative [Rhode Island KIDS COUNT, 2005]²), the field still has not adopted a common, developmentally appropriate readiness definition to guide preparation of all young children for school (Auck & Atchison, 2016; Cappelloni, 2013; Farran, 2011; Powell, 2010; Sabol & Pianta, 2017; Texas Early Learning Council, 2011). This issue remains particularly salient in the context of current early education policy efforts that emphasize preparing young children for an increasingly rigorous, academically focused kindergarten (Bassok, Latham, & Rorem, 2016; Brown, 2013; Falchi & Friedman, 2015; Stipek, 2006). The lack of a common frame for defining and fostering kindergarten readiness prompts consideration of current perspectives, given continuing concerns about inequitable investments and practices that support young children's preparation for school (Friedman-Krauss et al., 2018; Goodlett & D'Amico, 2014; U.S. Department of Education, 2015).

Although not all states mandate kindergarten attendance, kindergarten marks a critical school entry point for many young children and is thus an important focus for efforts delineating what readiness for school entails (Diffey, 2018; U.S. Census Bureau, 2017). Presently, the stakes are high for ensuring that all young children are prepared to succeed once they begin formal schooling. We know that all young children have the capacity to learn and build skills before entering kindergarten (Center on the Developing Child at Harvard University, 2016; National Research Council, 2000), yet opportunities that foster and support learning and development of young children are not equitably distributed (Barnett & Friedman-Krauss, 2016; U.S. Department of Education, 2015). Numerous individual and environmental markers, in particular socioeconomic disadvantage and racial and ethnic minority membership, determine young children's exposure

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to quality early learning experiences and resources and contribute to persistent gaps in key academic knowledge and skills (Bassok & Galdo, 2016; Garcia, 2015; Hirsh-Pasek et al., 2015; Judge, 2013; Park & McHugh, 2014; The Annie E. Casey Foundation, 2017; U.S. Department of Education, Institute of Education Sciences, and National Center for Education Statistics, 2017). As the demographic profile in the United States shifts to include an increasingly diverse number of atrisk young children, it becomes critical to reflect on how we frame kindergarten readiness to ensure that stakeholders are equipped to address children's varying needs and capacities (Espinosa, 2013; Migration Policy Institute, 2017; Reid & Kagan, 2015).

Following the enactment of the No Child Left Behind Act of 2001 (NCLB, 2002), a marked shift toward both expanded access to high-quality preschool and increased accountability has come to define perspectives on the primary drivers of kindergarten readiness (Brown & Lan, 2015; Cascio & Whitmore-Schanzenbach, 2013; Sabol & Pianta, 2017; Stipek, 2006). Significant investments in increasing Head Start and state-funded preschool programming (Barnett et al., 2017; Parker, Atchison, & Workman, 2016; U.S. Department of Education and U.S. Department of Health and Human Services, 2016, 2018), establishing Quality Rating and Improvement Systems (QRIS) to ensure high-quality ECE (Build Initiative & Child Trends, 2016), and a persisting emphasis on family engagement (Dahlin, 2016; Office of Head Start, 2017) highlight the role of school and family in shaping children's readiness for school. Yet, the Good Start Grow Smart Initiative (White House, 2002) and Race to the Top-Early Learning Challenge (U.S. Department of Education and U.S. Department of Health and Human Services, 2011) ushered in a growing reliance on early learning standards to focus teaching and learning and on kindergarten entry assessments to measure new kindergarten students' skills and knowledge (Kagan, 2012; National Conference of State Legislatures [NCSL], 2014). Although these mechanisms are intended to improve preparation for kindergarten and enable schools to be ready to meet young children where they are (Children Now, 2009; DeBruin-Parecki & Slutzky, 2016; Ritchie, Clifford, Malloy, Cobb, & Crawford, 2010), the heavy emphasis on meeting benchmarks and demonstrating proficiency at school entry can propagate conflicting messages about the meaning of kindergarten readiness and focus of kindergarten readiness practices (Brown, 2010, 2013; Council of Chief State School Officers [CCSSO], 2011).

Given continuing state oversight over the administration of ECE and implementation of kindergarten readiness practices, we report here the results of surveys, focus groups, and interviews conducted with individuals in leadership positions across ECE state agencies, as well as an analysis of state kindergarten readiness definitions. This study aims to build understanding of views about the features that define kindergarten readiness, ways early learning standards shape conceptualizations of kindergarten readiness, implications of defining kindergarten readiness for the ECE field and young children, and the utility of kindergarten readiness definitions for informing efforts to prepare young children for school. By exploring these topics, we hope that this research can help to reorient perspectives on defining kindergarten readiness and inform conversations among ECE stakeholders about the value of adopting a universal definition of kindergarten readiness and the need to establish a unified vision to guide equitable and developmentally appropriate kindergarten readiness practices.

To set the stage for the study's results, we first briefly summarize theoretical perspectives on kindergarten readiness, key policies and investments aimed at fostering kindergarten readiness, and review prior research related to kindergarten readiness. After sharing the study's findings, we highlight key conclusions from our research to guide future dialogue and research on the topic.

Prevalent Theoretical Perspectives

Kindergarten readiness is typically defined or framed through one of two prevalent theoretical perspectives (Kagan, 1990; Snow, 2006). The child-focused, nativist perspective emphasizes the singular role of children's characteristics or capacity to demonstrate skills and knowledge deemed important at school entry (Gesell, 1933; Meisels, 1999). Young children's individualized biological timelines determine whether they have reached a state of maturity necessary to meet the demands of formal schooling. Reflective of the nativist perspective, school entry age eligibility dates deem young children to be legally eligible to start school when they reach a certain age (Saluja, Scott-Little, & Clifford, 2000; Texas Early Learning Council, 2011). Forty-four states plus the District of Columbia require young children to be 5 years old before a state-specific cutoff date to enter kindergarten (Diffey, 2018).

Alternatively, ecological or interactionist frameworks emphasize the role of child attributes in combination with the key interrelated contexts within which young children develop and learn (e.g., family, school, community) as noted by

Bronfenbrenner and Morris (2006) and Rimm-Kaufman and Pianta (2000). Although young children's knowledge and skills play a key role in their capacity to benefit from early learning experiences, this perspective calls attention to the various external factors or bidirectional interactions with the environment that shape children's readiness, in particular in the context of guided learning and social, community, and cultural norms (Graue, 2006; Meisels, 1999). The NEGP Goal 1 readiness definition, which emphasizes five interconnected developmental domains, high-quality ECE, and the family, and position statements of the National Association for the Education of Young Children (NAEYC, 2009b),³ Head Start (Office of Head Start, 2017),⁴ the National Governors Association (NGA, 2005),⁵ and the American Academy of Pediatrics (High, 2008)⁶ reflect the ecological perspective.

Research on Defining Kindergarten Readiness

Prior research on kindergarten readiness illustrates the differing focus of these two theoretical perspectives. Further, these studies have typically examined either stakeholder beliefs or features of children and their environment as predictors of readiness for school.

For example, one set of studies examines ECE stakeholders' beliefs to gauge what factors are perceived as important for preparing young children for school. To date, these studies have primarily examined beliefs among parents and ECE educators and have varied widely in the methods used to capture this information (e.g., Abry, Latham, Bassok, & LoCasale-Crouch, 2015; Lara-Cinisomo, Fuligni, Ritchie, Howes, & Karoly, 2008; West, 1993). Early research in this area involved parents and teachers rating the importance of a fixed set of child-level indicators of readiness; findings suggested that these stakeholders agree about the importance of noncognitive features such as young children's health, communication skills, and approach to learning but disagree about the role of academic skills and knowledge (Piotrkowski, Botsko, & Matthews, 2000; West, 1993). Investigations using qualitative methods further substantiate views about the significance of children's skills, knowledge, and behaviors across multiple developmental domains for kindergarten readiness (Hatcher, Nuner, & Paulsel, 2012; Lara-Cinisomo et al., 2008; Piker & Kimmel, 2018; Wesley & Buysse, 2003), while also eliciting a more comprehensive view of kindergarten readiness that indicates the role of nonchild factors. Parents and educators cite school (e.g., high-quality preschool, early teacher-child relationships), family (e.g., school-family communication, parents' engagement in learning at home, parent education), and community (e.g., providing preventative health resources) as supporting readiness (Belfield & Garcia, 2014; Brown & Lan, 2015; Gill, Winters, & Friedman, 2006; Hatcher et al., 2012; Lara-Cinisomo et al., 2008; Wesley & Buysse, 2003).

Another research base provides evidence that child attributes and environmental inputs are predictors of measured patterns of kindergarten readiness. Some studies suggest that variation in young children's characteristics explains differences in their readiness for school (Linder, Ramey, & Zambak, 2013). In particular, children demonstrate they are better prepared for school if they are older when they start school (Dhuey, Figlio, Karbownik, & Roth, 2017; Fletcher & Kim, 2016), exhibit stronger cognitive and social-emotional skills in preschool (Denham, Bassett, Zinsser, & Wyatt, 2014; McWayne, Cheung, Wright, & Hahs-Vaughn, 2012), are in better health (Currie, 2005; Janus & Duku, 2007), or are White, from higher SES families, and native English speakers (Garcia, 2015; Han, Lee, & Waldfogel, 2012; Isaacs, 2012). Additional studies highlight differences in the characteristics and capacity of key environmental contexts such as family and ECE programs to support young children's preparation for school (Linder et al., 2013). Children demonstrate better readiness for kindergarten if they attended a higher quality, center-based preschool program (Auger, Farkas, Burchinal, Duncan, & Vandell, 2014; Coley, Votruba-Drzal, Collins, & Cook, 2016; Yoshikawa et al., 2013); experienced responsive, positive parenting; have highly engaged parents; and live in a home that supports learning during preschool (Brooks-Gunn & Markman, 2005; Van Voorhis, Maier, Epstein, & Lloyd, 2013). Investigations have also illustrated how child attributes and their environment co-occur to shape readiness for kindergarten, such as through interactions between race/ethnicity and familial resources/stability (Mollborn, 2016; Rimm-Kaufman & Pianta, 2000). Moreover, multifaceted ECE programs that target whole child learning and development, provide support and training for parents, and afford access to health care and additional community services have been shown to be associated with better readiness for school (Campbell & Ramey, 1994; Heckman & Masterov, 2007; Reynolds, Ou, & Topitzes, 2004; U.S. Department of Health and Human Services and Administration for Children and Families, 2010). To summarize, collective empirical evidence on stakeholder beliefs and measured predictors of kindergarten readiness point to an ecological and multifaceted construct.

States' Efforts to Inform and Promote Kindergarten Readiness

In the years following the enactment of the NCLB Act of 2001 (NCLB, 2002), there was an increase in the number of states with a kindergarten readiness definition and a set of early learning standards for preschool (DeBruin-Parecki & Slutzky, 2016; Scott-Little, 2010; Texas Early Learning Council, 2011). State definitions were developed for the purpose of informing and complementing kindergarten readiness goals and practices and the content in state assessment tools (Saluja et al., 2000; Texas Early Learning Council, 2011). Likewise, early learning standards were adopted to center teaching and children's early learning experiences on the fundamental skills and knowledge deemed necessary to be successful in kindergarten (Kagan, 2012). Yet, although the purported purpose of these standards and definitions is to inform school readiness practices and potentially shape individual beliefs about how to define and foster kindergarten readiness, research does not yet make clear the connection between these mechanisms and stakeholders' perspectives (Brown, 2010, 2013; Goodlett & D'Amico, 2014).

State Definitions and Kindergarten Readiness

Between 2000 and 2011, 21 states adopted a kindergarten readiness definition (Texas Early Learning Council, 2011). A 2011 review of U.S state definitions revealed variation in their content focus and length. Definitions were found to reference either only children's characteristics (e.g., developmental domains), only environmental inputs or supports (e.g., family), or a combination of children's characteristics and features of their environment (Texas Early Learning Council, 2011). Unlike early definitions that simply stated school entry age requirements, more recently written definitions were noted as reflecting advancements in child development research, including detail about readiness components and processes and an emphasis on addressing children's individualized needs. In recent years, states have continued to either adopt a new definition or update their existing definitions, in line with shifting state kindergarten readiness policies (Auck & Atchison, 2016).

Although states implement a myriad of kindergarten readiness practices (e.g., family engagement, standards-based teaching and learning, high-quality preschool, kindergarten entry assessments) that often reflect an ecological perspective (Bronfenbrenner & Morris, 2006; Friedman-Krauss et al., 2018; NCSL, 2014; Stark, 2010), limited research has been conducted to date to illustrate the connection between a state's kindergarten readiness definition and efforts to promote readiness for kindergarten. Two case studies (Brown, 2010, 2013) conducted with ECE stakeholders working in Texas—a state with a definition that focuses predominantly on building proficiency in children's skills and knowledge in preparation for later achievement testing⁷ (Texas Early Learning Council, 2011)—revealed how the strong emphasis on accountability and building academic proficiency narrowed their conceptualizations of readiness and incited a shift away from developmentally appropriate practice. This was the case even within Head Start programs, which typically adhere to an ecological model of kindergarten readiness (NAEYC, 2009b; Office of Head Start, 2017).

State Early Learning Standards and Kindergarten Readiness

Some states still do not have a kindergarten readiness definition, and other states may not use their existing state definition as a point of reference (Auck & Atchison, 2016; Texas Early Learning Council, 2011). On one hand, a state definition may not be deemed necessary if local school districts and communities have discretion to develop their own definition and kindergarten readiness practices (NGA, 2005). Alternatively, there is a growing consensus that benchmarks for kindergarten entry or states' preschool learning standards serve as a proxy for defining kindergarten readiness (Auck & Atchison, 2016; Regenstein, Connors, Romero-Jurado, & Weiner, 2017; Saluja et al., 2000; Scott-Little, Kagan, & Frelow, 2006).

Indeed, a recent survey (DeBruin-Parecki & Slutzky, 2016) indicated that all 50 states and the District of Columbia have developed preschool learning standards to outline the skills, knowledge, and behaviors believed to be critical at kindergarten entry (Daily, Burkhauser, & Halle, 2010; Scott-Little, 2010). Preschool learning standards are highly valued within ECE for their perceived role in supporting numerous practices that foster kindergarten readiness, in particular improving teaching and learning across the levels of ECE (Bogard & Takanishi, 2005; DeBruin-Parecki & Slutzky, 2016; Kagan, 2012; National Association of Elementary School Principals [NAESP], 2011). Yet, although they are increasingly used in place of kindergarten readiness definitions (Auck & Atchison, 2016; Scott-Little et al., 2006), their adoption and utilization are not without issue (Brown, 2010, 2013; Nitecki & Chung, 2013).

For example, wide variability in standards' content, depth, and organization persists. Additionally, early childhood educators report difficulty incorporating standards into their teaching despite available professional development and support materials, which hinders the use of learning standards for fostering kindergarten readiness in the classroom (DeBruin-Parecki & Slutzky, 2016; DellaMattera, 2010; Neuman & Roskos, 2005; Regenstein, 2013; Scott-Little et al., 2006; Scott-Little, Lesko, Martella, & Milburn, 2007). The larger looming concern is that heightened attention on meeting learning standards benchmarks and building proficiency in the skills and knowledge outlined, in particular academic content, may impede educators from exposing young children to developmentally appropriate learning experiences, drive unfair expectations for young children to meet by school entry, or result in labeling young children as not ready for school (Brown & Pickard, 2014; CCSSO, 2011; Falchi & Friedman, 2015; NAEYC, 2009a; NAEYC & National Association of Early Childhood Specialists in State Departments of Education, 2009; National Research Council, 2008; Stipek, 2006). This issue is especially troubling when considering the increased adoption of tools that measure and assess standards content and call attention to children's characteristics and status at school entry as key contributors of kindergarten readiness (Auck & Atchison, 2016; Docket & Perry, 2009; Hustedt, Buell, Hallam, & Pinder, 2018; Regenstein et al., 2017; Snow, 2011).

Implications of Adopting Uniform Kindergarten Readiness Definitions

Although defining kindergarten readiness serves to focus attention on the key components feeding into young children's readiness, another key issue to consider is the implication of achieving consensus around what the concept means. Studies suggest that stakeholders hold inconsistent beliefs about what constitutes kindergarten readiness, with this disagreement having negative implications for young children (Abry et al., 2015; Hatcher et al., 2012; Piotrkowski et al., 2000; Wesley & Buysse, 2003; West, 1993). Piker and Kimmel (2018) reported that ECE teachers ranked the skills needed for school success differently for all children versus dual language learners. Additionally, Abry et al. (2015) found that when preschool and kindergarten teachers hold divergent views about the importance of academic, interpersonal, and self-regulatory competence, their students, in particular those from low SES families, demonstrate poorer cognitive and noncognitive skills in kindergarten.

As Graue (2006) noted, "[W]hen we use different readiness for different children, we open the door for inequality in the name of responding to difference. It is a convoluted outcome of the tyranny of good intentions" (p. 49). From this perspective, the need for a unified vision of defining kindergarten readiness is magnified when considering how divergent views result in inconsistent teaching and learning across young children (Brown, 2010; Goodlett & D'Amico, 2014). Given the ECE system, which is demarcated by an array of standards, program models, and disparate funding, it is important to gauge stakeholders' views on defining kindergarten readiness for the sake of clarifying the term's meaning and applicability for informing early learning (Barnett & Friedman-Krauss, 2016; Friedman-Krauss et al., 2018; Kagan & Tarrant, 2010; Pianta, Barnett, Burchinal, & Thornburg, 2009; U.S. Department of Education, 2015).

Yet, it is unclear whether stakeholders would want to define kindergarten readiness for all young children through one universal definition. One can surmise that establishing a common definition could be perceived as helping to create shared meaning about the construct and a common language to ground stakeholders' work to foster kindergarten readiness (Ackerman & Barnett, 2005; Evans, 2013; Goodlett & D'Amico, 2014; Rhode Island KIDS COUNT, 2005; Snow, 2006). There may also be apprehension around adopting the wrong type of definition, especially given the current policy context, which continues to emphasize accountability and the need for educators to prepare young children for the increased rigor of the early elementary grades (Bassok et al., 2016; Brown & Lan, 2015; CCSSO, 2011; Falchi & Friedman, 2015; NAEYC, 2015; Nitecki & Chung, 2013). Case studies reporting how ECE teachers and stakeholders feel pressured to align their work with a definition centered on academics and preparation for later K–12 high stakes testing illustrates how the manner in which kindergarten readiness is defined can have negative implications for teaching and learning (Brown, 2010, 2013; Brown & Pickard, 2014).

Furthermore, there is continuing debate about whether we can or should define and approach readiness the same for all children, given their diversity and interest in defining kindergarten readiness based on local needs, resources, and priorities (Farran, 2011; Graue, 2006; NAEYC, 2009b; NGA, 2005; Powell, 2010; Texas Early Learning Council, 2011). DeBruin-Parecki and Slutzky (2016) reported that state ECE officials both voiced some apprehension about the idea of establishing universal or national standards to guide teaching and learning for all children and also expressed how national preschool learning standards could foster equity. Similarly, we will explore perspectives on the value of a universal definition of kindergarten readiness for guiding equitable learning opportunities prior to kindergarten.

The Current Study

Prior research suggests that ECE stakeholders define kindergarten readiness as including characteristics of both children and their environment, but we know little about the extent of variation in current state-level stakeholder perceptions and U.S. state definitions. Additionally, although kindergarten readiness definitions can serve as a point of guidance for developing and implementing kindergarten readiness practices, it is unclear whether universal definitions would be viewed as helpful for the field. Although tools such as early learning standards have gained prominence in the ECE field for outlining direct indicators of expected skills, knowledge, and behaviors at school entry, their role in shaping perspectives on defining kindergarten readiness is uncertain. Research on the role of existing state definitions in guiding efforts to foster readiness is also lacking. Accordingly, the following research questions guided our study:

- 1. What features define kindergarten readiness from the perspective of state policymakers?
- 2. How does the perception of early learning standards shape views on defining kindergarten readiness?
- 3. What are the perceived implications of defining kindergarten readiness for young children and the ECE field?
- 4. How are state definitions perceived to link to efforts to promote readiness for kindergarten?

Overview of Methodology and Analyses

We used multiple sources of data for this study and completed data collection with individuals in leadership roles within state agencies in early learning or ECE in two phases. In Phase 1 (February 2014 and September 2014), we conducted an online survey, focus groups, and interviews. For Phase 2 (August 2016 and December 2016), we conducted follow-up surveys and interviews with a second sample of representatives working in similar positions within state early learning agencies. Existing U.S. state kindergarten readiness definitions identified through an online search between June 2016 and September 2016 were included as an additional data source.

To address Research Question 1, we used Phase 1 focus group and interview data and state definitions. We addressed Research Question 2 with Phase 1 survey, focus group, and interview data. Research Question 3 was addressed using Phase 1 focus group and interview data and Phase 2 interviews. Finally, we used Phase 2 survey and interview items to address Research Question 4.

Phase 1 Sample and Recruitment

Phase 1 data collection included an online survey, focus groups, and one-on-one interviews and was conducted as part of a national study on preschool learning standards and kindergarten readiness (DeBruin-Parecki & Slutzky, 2016). The Phase 1 sample was recruited to first complete the online survey. We sought to identify officials working in agencies focused on early learning across the 50 U.S. states, five U.S. territories, and the District of Columbia who were knowledgeable about pre–K standards development, implementation, and alignment as well as state perspectives on defining kindergarten and the preferred skills children need at kindergarten entry. Recruitment efforts included online searches of state agency early learning division websites and staff directories and phone calls and emails to vet prospective participants. Fifty-six individuals agreed to complete the online survey. During survey administration, 53 recruited participants representing 48 states, four territories, and the District of Columbia completed the online survey. Example job titles for Phase 1 online survey participants included executive director; office of early learning director; division of child care and ECE, early learning standards coordinator; ECE specialist II; and associate director of ECE.

We next invited these 53 online survey participants to partake in one of five geographically diverse focus groups and one-on-one interviews. Fifteen of the original 53 survey respondents participated in both focus groups and interviews, 14 individuals participated in survey plus focus groups, and 21 individuals completed the survey plus interviews. A total of 21 individuals participated in focus groups, with an average of four participants per focus group. Twenty-five in-person or telephone interviews were completed.

Seven of the 21 focus group participants and four of the 25 interview participants were recruited after the online survey was completed. These individuals who were screened prior to participation were recruited at the request of 11 online survey participants who were unavailable to participate further in focus groups or interviews. Phase 1 demographics for online survey, focus group, and interview samples are displayed in Table 1.

Table 1 Sample Demographics for Phase 1 Online Survey, Focus Group, and Interview Participants

| Demographics | Online survey $(n = 53)$ | Focus groups $(n=21)$ | Interviews $(n = 25)$ |
|---------------------------------------|--------------------------|-----------------------|-----------------------|
| Gender | | | |
| % Female | 90% | 100% | 88% |
| % Male | 10% | 0% | 12% |
| Race | | | |
| % Caucasian | 94% | 95% | 96% |
| % African American | 0% | 0% | 0% |
| % Asian or Asian American | 0% | 0% | 0% |
| % Native Hawaiian or Pacific Islander | 4% | 0% | 0% |
| % Other/missing | 2% | 5% | 4% |
| Ethnicity | | | |
| % Hispanic/Latino | 2% | 9% | 4% |
| % Not Hispanic/Latino | 98% | 91% | 96% |
| Education level | | | |
| % Bachelor's degree | 13% | 4% | 12% |
| % Master's degree or higher | 87% | 96% | 88% |
| Licensed teachers | | | |
| % Licensed teachers | 77% | 76% | 88% |
| % Not licensed teachers | 23% | 24% | 12% |
| Years in ECE | | | |
| % 0 – 3 years | 2% | 0% | 0% |
| % 4 – 6 years | 6% | 0% | 0% |
| % 7 – 10 years | 4% | 0% | 4% |
| % 11 – 15 years | 4% | 14% | 12% |
| % 16-20 years | 15% | 19% | 16% |
| % 21 – 25 years | 13% | 24% | 36% |
| % 26 – 30 years | 19% | 5% | 0% |
| % 31+ years | 37% | 38% | 32% |

Phase 2 Sample and Recruitment

For Phase 2, we conducted follow-up data collection to build on insights and prior findings about defining kindergarten readiness that emerged during Phase 1. We aimed to recruit a sample of individuals for Phase 2 similar to those who participated in Phase 1. Specifically, prospective participants would work in agencies focused on early learning or ECE across the 50 U.S. states and in the District of Columbia and would be knowledgeable about their respective states' kindergarten readiness definitions and policies and kindergarten entry assessment. The Phase 1 sample list served as a starting point for Phase 2 sample recruitment. Fourteen of these individuals agreed to continue their participation as part of our Phase 2 follow-up. We conducted an online search of state early learning agencies to compile a list for the remaining states where the Phase 1 participant was no longer available or was not the best individual to discuss his or her state's respective kindergarten readiness definition and policies.

Forty-eight of the 51 identified prospective respondents in the 50 states and DC agreed to complete the survey and received via email a consent form and brief survey that included items on kindergarten readiness and demographics. The final Phase 2 survey sample included a total of 42 individuals who completed surveys for 41 U.S. states and the District of Columbia. Example job titles for Phase 2 participants included director of the division of child care and ECE, kindergarten and school readiness manager, administrator of the office of early childhood, Head Start collaboration director, and pre-K program manager.

Once survey respondents returned their completed surveys, we recontacted them to request further participation in a brief telephone interview. We aimed to complete interviews with a similar number of participants representing states with and without a kindergarten readiness definition. A subsample of 20 survey respondents agreed, and we conducted 10 interviews in states with a kindergarten readiness definition and 10 interviews in states without a definition. Phase 2 sample demographics are displayed in Table 2. Sample participation across Phases 1 and 2 is summarized in Figure 1.

Table 2 Sample Demographics for Phase 2 Follow-Up Survey and Interview Participants

| Demographics | Email survey $(n = 42)$ | Interviews $(n=20)$ |
|---------------------------------------|-------------------------|---------------------|
| | (12) | (11 = 20) |
| Gender | | |
| % Female | 88% | 95% |
| % Male | 12% | 5% |
| Race | | |
| % Caucasian | 93% | 95% |
| % African American | 2% | 0% |
| % Asian or Asian American | 5% | 5% |
| % Native Hawaiian or Pacific Islander | 0% | 0% |
| % Other | 0% | 0% |
| Ethnicity | | |
| % Hispanic/Latino | 3% | 6% |
| % Not Hispanic/Latino | 97% | 94% |
| Education level | | |
| % Bachelor's degree | 11% | 15% |
| % Master's degree or higher | 89% | 85% |
| Licensed teachers | | |
| % Licensed teachers | 73% | 80% |
| % Not licensed teachers | 27% | 20% |
| Years in ECE ^a | | |
| % 0 – 3 years | 0% | 0% |
| % 4-8 years | 12% | 15% |
| % 9 – 13 years | 12% | 15% |
| % 14 – 19 years | 26% | 20% |
| % 20 – 29 years | 24% | 20% |
| % 30+ years | 26% | 30% |

^aResponse choices were modified for this item in the follow-up data collection and other data collected informally at national ECE conferences and not reported here.

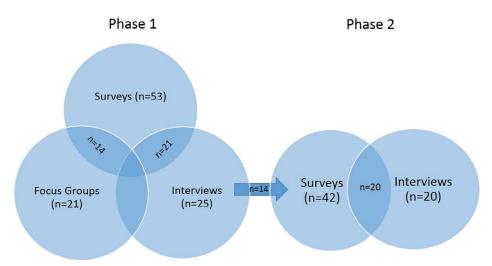


Figure 1 Overview of Phase 1 and 2 samples. Fifty-three individuals completed Phase 1 online surveys, with several participants continuing in the study to participate in focus groups (n = 14) and interviews (n = 21). A total of 21 individuals participated in focus groups, and 25 participants completed interviews during Phase 1. Eleven individuals who participated in Phase 1 focus groups or interviews started the study after online survey administration. Fourteen individuals participated in both Phases 1 and 2 of data collection. The Phase 2 survey sample included 42 participants. Twenty of these individuals also completed telephone interviews.

Measures Used in This Report

All Phase 1 and 2 measures were reviewed and approved by the Educational Testing Service Prior Review of Research Committee prior to data collection. See Appendix A for all items included in this report.

Phase 1 Items

Phase 1 data included online survey items, focus group questions, and interview questions. Data collected in Phase 1 and used in this report have not been previously published elsewhere (DeBruin-Parecki & Slutzky, 2016). First, in one online survey item, we asked survey respondents to indicate on a 5-point scale how strongly they viewed the link between pre-K Age 4 literacy standards and young children's readiness to start school.

We also used data from three focus group questions in this report. Focus group participants first discussed the implications of defining kindergarten readiness. In response to a second question, focus group participants discussed their perspectives on the value of linking mastery of pre-K literacy standards and kindergarten readiness. The third focus group question involved a collaborative activity where participants worked together in small groups to first discuss what factors define kindergarten readiness and then draw a pie chart or illustration with descriptive text to represent their collaborative kindergarten readiness definition. Participants had the flexibility to select the elements included and decide how much space each element would take up in the pie chart, as reflected by the size of each piece within the larger pie chart or the percentage assigned to each element.

The three interview questions included in this report focused on describing factors that would reflect a multifaceted definition of kindergarten readiness, discussing the impacts of a multifaceted definition of kindergarten readiness, and discussing how linking preschool and kindergarten standards relates to preparing children for kindergarten. We included five Phase 1 demographic items in this report.

Phase 2 Items

Phase 2 data were gathered through brief surveys and telephone interviews. We developed a five-item survey focused on state kindergarten readiness definitions and kindergarten entry assessments. These survey items were organized in two sets of items, with respondents (n = 42) selecting which set of items to complete based on their self-reported determination regarding the existence of a kindergarten readiness definition for their respective state. Survey participants who reported the existence of a state definition (n = 22) completed three survey items. For one item included in this report, respondents described how their states' definition components guide how young children become ready for kindergarten. Survey participants who reported no existing state definition (n = 20) completed two questions, which were both included in this report. In response to these items, participants discussed why there is no existing definition and described how they promote readiness without using a state definition.

Each of the 20 participants who completed interviews were asked a total of five questions. Four items are included in this report. We asked all participants the same set of three questions, with the additional fourth item differing based on respondents reporting an existing state kindergarten readiness definition. All 20 interviewees completed three questions about how defining kindergarten readiness affects equity for children and the potential advantages and disadvantages of adopting a universal definition of kindergarten readiness. For the fourth question, interview participants who reported an existing state definition were asked which elements of the state definition received the most emphasis, whereas interview participants reporting no state definition described how the state works with families, communities, and schools to ready children for kindergarten.

Online Search for State Kindergarten Readiness Definitions

At the same time that Phase 2 data were gathered, we also conducted an online search to locate any preexisting kinder-garten readiness definitions for each U.S. state and the District of Columbia. The search for definitions included examinations of early learning and K-12 content on state education websites or other websites for state agencies focused on ECE, child care, or children and families, as well as additional key word searches using state names and the terms kindergarten readiness or school readiness definition. In order to count content as a definition, identified text needed to

indicate that kindergarten readiness was being defined or described and needed to be accompanied by a description of definition elements. State agencies, legislative bodies, or another convening group including ECE experts and other stakeholders needed to author definitions. Definition content could be written or illustrated and located either within a document or posted on an agency website. The definition search was completed in two steps, including a research assistant compiling an initial list and a study author reviewing and confirming the set of definitions to ensure search results were accurate. We noted each definition and link to the definition source and summed all identified state kindergarten readiness definitions.

Data Processing and Analysis

Prior to analysis, all qualitative data collected through the Phase 1 or Phase 2 surveys, focus groups and interviews were audiotaped and transcribed verbatim. Open-ended survey responses and transcripts from focus groups and interviews were uploaded into the NVivo 10 program for qualitative analysis. Additionally, text from focus group pie chart kindergarten readiness definitions and from identified state kindergarten readiness definitions was entered into Microsoft Excel for qualitative coding. Closed-ended survey responses (i.e., the Phase 1 online survey item about meeting learning standards and readiness at kindergarten and all demographic items) were entered into SPSS software and summarized using frequency counts.

We used the constant comparative method of qualitative analysis (Glaser, 1965; Glaser & Strauss, 1999) to derive themes and identify text that provided support for themes for all sources of qualitative data, including open-ended survey responses, focus group and interview transcripts, and text in focus group pie chart and state kindergarten readiness definitions. This method entails repeated reading and comparison of all pieces of data for a particular item or question to develop categories that apply meaning to the data. This iterative coding process aims to fully describe or ground the data in theory by identifying multiple salient themes that are frequently referenced by codes or supportive text in the data. Themes that emerge during initial stages of analysis guide the selection of codes or text that support inclusion of the theme in the analysis. Multiple rounds of refining theme lists and selecting codes that appropriately and collectively support themes often precedes establishing a final set of themes and supporting codes.

With the exception of Phase 2 interview data, which was coded by one study author and a research colleague who is proficient in qualitative analysis, the two report authors coded all data. In all cases, the qualitative coding process involved each coder first independently reading all data for each question and developing initial sets of themes for each question. Next, the two coders met to discuss and refine themes and establish an agreed-upon theme list and theme definitions. Using the theme list to guide further coding, coders then independently selected text within the data to provide support for identified themes. Coders met again to review all coding, which typically resulted in further refining of themes and an additional round of coding or settling upon a final set of codes that best supported established themes and occurred frequently (e.g., in more than two interviews or focus groups) within the data or set of responses. The goal of our coding process was to reach 100% agreement on theme descriptions and the set of supporting codes for final themes. Intercoder reliability in later stages of coding was moderate to strong (e.g., kappa of .71 or higher for interview questions), as indicated by analysis of overlap in coding to theme across coders (McHugh, 2012).

The report authors employed a similar analytical methodology to the analysis of all content within kindergarten readiness definitions developed during Phase 1 focus groups and all identified state kindergarten readiness definitions. The unit of analysis within definitions was any text included, in the form of words, phrases, or sentences that could be coded to reflect a particular theme. We completed coding through an iterative process in which coders independently reviewed the complete list of text within each set of definitions (i.e., focus group pie charts and state definitions), developed lists of categories or themes, met to refine and establish categories to guide further independent coding, and then together reviewed and identified a set of final codes that supported each final category or theme. The richness of data in focus group pie charts enabled us to code multiple references to assess theme salience across definitions; final themes for pie chart definitions needed to be represented in at least two definitions and by a minimum of four codes or references. We coded Phase 1 focus group pie chart definitions first and then used the final set of themes that emerged as a guide for analysis of state definitions. State definition content was typically in the form of long sentences or paragraphs and better suited for identifying whether a theme was present or not.

After we completed the thematic coding of definitions, we conducted additional coding to decipher which theoretical perspective (i.e., nativist or ecological) was reflected based on the set of themes identified for each definition. Using the

set of themes that emerged from the previous step of qualitative analysis, we determined whether individual definitions should be coded as nativist or ecological. We coded definitions as reflecting a nativist perspective when prior coding revealed that a definition reflected only themes or categories associated with children or their characteristics as features defining kindergarten readiness (e.g., cognitive skills or knowledge, whole child). Alternatively, we coded definitions as reflecting an ecological perspective when prior coding indicated that a definition included child-focused themes as well as themes referencing nonchild or environmental features (e.g., school or family).

Finally, following qualitative coding of focus group pie chart and state kindergarten readiness definitions, we used frequency counts to quantify how many definitions reflected each identified theme. For pie chart definitions, we also summed the total number of references to each theme to indicate theme importance within the set of illustrated pie chart definitions. We ranked the overall frequency of references to a theme by dividing the total number of references for a single theme by the total number of references to all themes combined. Theme importance for state definitions reflected the number and percentage of all definitions coded for each theme. We summed the total number of focus group pie chart and state definitions coded as either reflecting the ecological or nativist theoretical perspective.

Study Findings

We organized the presentation of findings on state levels of perspectives on kindergarten readiness around the following four research questions:

- 1. What features define kindergarten readiness from the perspective of state policymakers?
- 2. How does the perception of early learning standards shape views on defining kindergarten readiness?
- 3. What are the perceived implications of defining kindergarten readiness for young children and the ECE field?
- 4. How are state definitions perceived to link to efforts to promote readiness for kindergarten?

What Features Define Kindergarten Readiness?

Our first research question examined perspectives on the meaning of the kindergarten readiness construct and was informed by data from the Phase 1 focus group participants (n = 21), Phase 1 interview participants (n = 25), and state kindergarten readiness definitions (n = 31). As is described next, our analyses of these data sources revealed that both the nativist and ecological theoretical perspectives were evident.

Characteristics of Phase 1 Focus Group and State Kindergarten Readiness Definitions

As part of a Phase 1 focus group activity, nine small groups of participants (n = 21) collaboratively developed nine pie charts to represent their views on what contributes to kindergarten readiness (see Figure 2 for two example kindergarten readiness definition pie charts). The nine themes that emerged from our analysis are described in Table 3.

We summarized the total number and frequency of references to each of the nine themes coded within the nine focus group definitions (see Table 4). Theme rank indicates the overall frequency of references to a theme across all codes. We identified a total of 184 codes or references to the nine themes. Codes most frequently referenced the theme school (27%), followed by cognitive features (14%), family (13%), noncognitive features (10%), and community (10%) as factors contributing to kindergarten readiness. To a lesser extent, pie charts referenced diversity (9%), the child (7%), multilevel policy (5%), and supporting health (4%).

Additionally, we summarized the number of definitions reflecting each theme. The themes school and family were represented in all nine pie chart definitions (100%). The next most common themes represented in pie chart definitions were community (89%), noncognitive and the child (67%), and cognitive (56%). Less than half of definitions reflected the themes of diversity and supporting health (44%) and multilevel policy (22%). Collectively, we identified wide variation across pie chart definitions in the content of references to each theme, in addition to how many definitions referenced each theme at all.

We also coded the combination of themes represented in each definition to assess which theoretical perspective was reflected. All nine pie charts were coded as ecological because they all referenced both features of children and their environment.



Figure 2 Two examples of kindergarten readiness pie charts developed collaboratively during focus groups.

Table 3 Descriptions of Themes That Emerged From Analysis of Kindergarten Readiness Illustrations

| Theme | Theme description |
|---------------------|---|
| School ^a | Early childhood education refers to both preschool and early elementary education experiences and influences. School system features and processes are important, including educators, administrators, program quality, and processes and mechanisms related to achieving quality (e.g., professional development, parent engagement, using learning standards) |
| Community | Local system of social institutions, neighborhoods, resources, and customs and cultures that support and |
| | shape the capacity of schools and families in preparing young children for school |
| Family | The home environment, family unit, experiences and interactions with family members, characteristics, |
| | resources, and expectations of parents shape young children's capacity to be ready |
| Cognitive | Academics, cognitive domains of development and learning (e.g., math and literacy), and children's skills |
| | and knowledge in such areas |
| Noncognitive | Nonacademic domains of development and learning (e.g., physical development and social-emotional development) and children's skills, knowledge, and behaviors in such areas |
| Child | Refers to the whole child and his/her general experiences rather than certain characteristics or skills |
| Supporting health | Contexts such as community and family provide access to important resources that promote healthy outcomes in young children |
| Diversity | The process of preparing young children and their families for formal school applies to various populations of |
| • | children and families and calls for sensitive, developmentally appropriate, and individualized instruction |
| Multilevel policy | Broader system oversight, evaluation, recommendations, and communication that drive local education pro- |
| , | gramming |

 $\it Note.$ Theme rank indicates the overall frequency of references to a theme across all codes.

State Definitions

Next, our analysis of the 31 U.S. state definitions identified through our online search (see Appendix B for the state readiness definition list) revealed the factors referenced as contributing to kindergarten readiness. Eight of the nine themes identified in the focus group definitions were also evident across state definitions (see Table 5). The majority of state definitions referenced school (71%), the child (71%), family (65%), community (58%), and cognitive features (55%). Less than half of state definitions included references to noncognitive features (48%), diversity (39%), and supporting health

^aWe decided to use a broad theme to represent references to the school environment and features of schools or early education programs that applied to both preschool and kindergarten.

Table 4 Thematic Analysis of Text in Kindergarten Readiness Pie Charts Developed by Focus Group Participants

| Theme | Total reference count | Total reference % | Rank based on reference % | Number of definitions | % of definitions |
|-------------------|-----------------------|-------------------|---------------------------|-----------------------|------------------|
| School | 49 | 27% | 1 | 9 | 100% |
| Cognitive | 25 | 14% | 2 | 5 | 56% |
| Family | 24 | 13% | 3 | 9 | 100% |
| Noncognitive | 19 | 10% | 4 | 6 | 67% |
| Community | 18 | 10% | 5 | 8 | 89% |
| Diversity | 17 | 9% | 6 | 4 | 44% |
| Child | 12 | 7% | 7 | 6 | 67% |
| Multilevel policy | 9 | 5% | 8 | 2 | 22% |
| Supporting health | 8 | 4% | 9 | 4 | 44% |

Note. Two percent (three) references were categorized as noncodable text. Example descriptors for themes include school: teacher quality, early childhood education program), cognitive (cognitive development, math), family (parent education, home environment); noncognitive: (social – emotional development, self-regulation), community (ready communities, parks), diversity (culture, race), child (ready children; early learning experiences), multilevel policy (state capacity to serve diverse needs, quality rating and improvement systems), supporting health (access to preventative health, pediatrician).

Table 5 Thematic Analysis of Publicly Accessible State Definitions of Kindergarten Readiness

| Theme | Number of definitions | % of definitions | Rank |
|-------------------|-----------------------|------------------|------|
| School | 22 | 71% | 1 |
| Child | 22 | 71% | 1 |
| Family | 20 | 65% | 3 |
| Community | 18 | 58% | 4 |
| Cognitive | 17 | 55% | 5 |
| Noncognitive | 15 | 48% | 6 |
| Diversity | 12 | 39% | 7 |
| Supporting health | 7 | 23% | 8 |

(23%). Similar to the focus group definitions, state definitions varied regarding which themes were referenced and the content of references in each definition.

We also coded each state definition to examine which theoretical perspective was reflected. Twenty-three of 31 definitions (74%) referenced both children and environmental supports, reflecting the ecological perspective. The remaining eight state definitions (26%) solely referenced children and their characteristics as contributors to kindergarten readiness. We coded these definitions as reflecting a child-focused or nativist perspective. The remaining eight state of the remaining eight state definitions as reflecting a child-focused or nativist perspective.

Collectively, results from our analysis of focus group and state definitions suggested that kindergarten readiness is often defined through an ecological lens. Most definitions we analyzed included frequent references to characteristics of children and environmental supports, with the exception of a quarter of state definitions that only referenced children and their characteristics. We found wide variation across all definitions, as definitions rarely included the same descriptive content to reference identified themes or the same set of themes representing what contributes to kindergarten readiness. In turn, our data suggested inconsistency in defining kindergarten readiness.

Broader Insights on Kindergarten Readiness From Phase 1 Focus Group Discussions and Post-Focus Group Interviews

In addition to analyzing definitions to identify common features of kindergarten readiness, we also analyzed Phase 1 interviews (n = 25) and discussion captured during and after a focus group activity where participants (n = 21) developed their kindergarten readiness definitions to provide additional insights into ECE state policy makers' perspectives on kindergarten readiness. First, three takeaways emerged from analysis of these Phase 1 focus group (n = 21) discussions (see Table 6). The first theme reflected how focus group participants view kindergarten readiness as a process that supports children's preparation for school rather than as a dichotomous indicator of children being ready or not ready to

Table 6 Additional Insights From Phase 1 Focus Group Dialogue Captured During Development of Kindergarten Readiness Definitions

| Theme | Example quote |
|---|---|
| Kindergarten readiness does not mean ready or not | Children's readiness, even though that makes us feel not all that great, |
| | because we don't think it's a yes or no thing. |
| Some components of kindergarten readiness are | I would like to see family characteristics really decrease. That should not be |
| beyond our control | the primary thing that determines your readiness for school. To offset |
| · | that—but you're never going to get rid of it completely, I don't think |
| Definition components are interconnected in | It's like I start to see it [kindergarten readiness] in little pieces like this and |
| shaping kindergarten readiness | then you realize no, it's all connected. |

Table 7 Can You Describe the Factors That Contribute to Kindergarten Readiness in Your State Beyond Just Skills and Proficiency as Part of a Multifaceted Model?

| Themes | Example quote | |
|---|---|--|
| Emphasizing the whole child rather than particular skills, knowledge, and behaviors | The heart and soul of kindergarten readiness has got to be a comprehensive approach. It cannot be the skills on the backs of children. One, if we are going to have a discussion about children, we have to be having a discussion about the whole child. That is socioemotional health, as well as the skills, for cognitive and academic. | |
| Approaching readiness from a developmental perspective | hopefully differentiating and recognizing where each child is when they do enter the program, and we're trying to meet them where they are and then move them forward. | |
| Age determines readiness | We don't actually have a definition of kindergarten readiness, and that is somewhat intentional in that we—kindergarten readiness, for us, is you have turned age 5 by September 1st, so you will be coming to kindergarten. | |

start school. The second theme indicated that focus group participants view some elements involved in promoting kindergarten readiness as less malleable or beyond our control. This point ties to the final theme, which suggested that various definition components are viewed as interconnected and need to be collectively considered as we promote kindergarten readiness.

For one Phase 1 interview question, participants (n = 25) described factors they viewed as making up a multifaceted definition. Three themes emerged from analysis of this question (see Table 7). On one hand, two themes reinforced the importance of emphasizing the whole child and framing children's learning and development along a continuum to ensure a developmentally appropriate approach. Alternatively, the third theme emphasized the role of children's age in dictating whether young children are prepared for school.

In sum, these additional data inform a broader perspective on the meaning of kindergarten readiness and how to promote it. Notably, state early learning officials emphasized the interconnected nature of factors contributing to kindergarten readiness and highlighted the need to approach kindergarten readiness through a developmentally appropriate frame.

How Do Early Learning Standards Shape Views on Defining Kindergarten Readiness?

Our second research question examined perspectives on how early learning standards shape views on kindergarten readiness. We used three data sources to address this second study focus, including one Phase 1 survey item (n = 53), one Phase 1 focus group question (n = 21), and one Phase 1 interview question (n = 25). The first two items focused on preschool literacy standards, whereas the third item assessed broader alignment across preschool and kindergarten learning standards.

First, in response to the Phase 1 survey question about whether meeting pre-K literacy standards signifies being ready to start school, the majority of participants (60%) agreed that meeting these benchmarks is associated with being ready

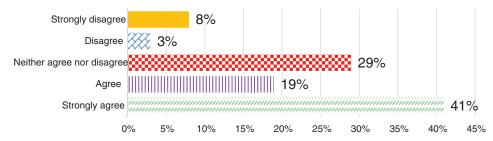


Figure 3 Patterns of agreement with the following statement: A child who meets the pre-K age 4 literacy standards is ready for kindergarten. The figure displays responses from Phase 1 standards study survey respondents (n = 53).

Table 8 Discuss Why It May Be of Value to Link Mastery of Pre-K Age 4 Literacy Standards and Kindergarten Readiness

| Themes | Example quote |
|--|--|
| Highlighting the connection between pre-K and K promotes a smoother transition for children | Having things flow together—not that any of this has to dictate exactly what you're doing, but give you that big picture of the sequence of what the children should learn, both where they're going, where they've come from. |
| Aligns expectations and improves communication among ECE educators | Understanding the status of a child's development at kindergarten entry is important. It can inform instruction, it can guide learning, it can help identify gaps. |
| Important to recognize developmental continuum of growth rather than only mastery of standards content | To me, if mastery is a focus, it has to be accompanied by the appropriate and developmentally appropriate supports and an understanding of a developmental continuum. If you're just looking at mastery of this skill and you don't understand all the precursors that hopefully come in the Early Learning Standard, you can be focusing away on the mastery of this, but the kids aren't ready to address that yet. It has to be accompanied by all these. |

for kindergarten, whereas the remaining 40% of responses indicated a neutral stance (29%) or disagreement (11%). See Figure 3. This variation suggested that respondents consider factors beyond skill proficiency when thinking about kindergarten readiness.

Second, to expand on this topic, we asked Phase 1 focus group participants to discuss why it is important to link mastery of pre-K Age 4 literacy standards and kindergarten readiness. Some respondents had also completed the survey question displayed in Figure 3, with their responses ranging from disagreement to agreement. The three themes that emerged for this focus group question collectively reflect both sides of this issue (see Table 8). Two themes reflected the perceived value of this link, including that it helps connect pre-K and kindergarten to provide a smoother transition to kindergarten for young children and strengthens alignment and communication between preschool and kindergarten educators. A third theme reflected a different perspective, suggesting that we should not overemphasize the term *mastery* or that children must meet expectations in a specified timeframe, as this may detract from the need to recognize children's individual growth trajectories or the continuum of learning and development.

Finally, we asked Phase 1 interview participants to share their perspectives on the value of pre-K and kindergarten learning standards alignment for supporting kindergarten readiness. Two themes emerged, indicating the positive implications of aligning preschool and kindergarten standards (see Table 9). These themes suggested that standards alignment helps educators across levels of ECE understand the continuum of expectations for teaching and learning and supports improved communication and collaboration between them.

In sum, results in this section illustrate perspectives on the role of early learning standards for supporting young children's readiness for school. We learned that meeting expectations outlined in preschool literacy standards is viewed as important for kindergarten readiness. Our data also suggested that pre – K to K – 12 learning standards alignment is viewed as supporting ECE educators as they prepare young children for kindergarten. These findings underscored the value of

Table 9 Does Linking Pre-K and Kindergarten Standards (Kindergarten Common Core State Standards) Contribute to Better Preparing Children for Kindergarten?

| Themes | Example quote |
|--|---|
| Informs teacher knowledge and practice across levels of ECE | It's important for preschool teachers and kindergarten teachers to understand what the other does. They really need to know what the expectations are for kindergarten, and kindergarten teachers need to have confidence that preschool teachers |
| | are working to support children to be ready for the curriculum that's going to be in place in kindergarten. |
| Fosters collaboration and communication between pre–K and primary grades | It [alignment] creates an opportunity for the two worlds to be communicating with one another, having those relationships established, that rapport built, which can do nothing but enhance future generations. |

Table 10 What Are the Implications of How States Define or Do Not Define Kindergarten Readiness for Children and Teachers?

| Themes | Example quote |
|---|---|
| Definitions emphasize to educators and other stakeholders what is important to focus on | Whatever the definition—implies what is valued or important. I think once you do that, people pay attention to that and put a lot of emphasis on that. |
| Definitions support development of shared expectations for teachers and children | If we have this state definition that's comprehensive, we can have shared meaning regarding expectations of young children, the comprehensive approach versus just isolated, as many families think ABCs, 123 s and that's it, it's much more than that. |
| Definitions inform the focus of professional development and teaching practice | In defining things, because definitions drive instruction and sometimes it can be interpreted a little bit too literally and then too narrowly, we risk at times that—just like we know teachers teach to the test—teachers will teach to the standards. We have to be cautious in how we write them that this isn't like all you do. It's that whole, this is a document, now how do you implement it and how you practice and what's the best practice of that. |
| Definitions can drive funding and resource allocation | When we don't have something defined, states can lose funding when it comes to grants. Not having a clear definition allows for programs to deem what they consider kindergarten readiness. |

framing learning standards content as part of a learning continuum rather than focusing attention exclusively on meeting standards benchmarks by school entry in connection to kindergarten readiness.

What Are the Perceived Implications of Defining Kindergarten Readiness?

Our third research question focused on participants' perspectives on the value of defining kindergarten readiness. The data sources used in this section included one Phase 1 focus group (n = 21) question, two Phase 1 interview (n = 25) questions, and three Phase 2 interview (n = 20) questions. Findings illustrate views toward having a definition and regarding the feasibility of establishing and adopting one universal kindergarten readiness definition.

First, findings that emerged from analysis of the Phase 1 focus group and interview questions summarized perspectives on perceived implications of defining kindergarten readiness.

Four themes emerged from Phase 1 focus group participants' discussion about the implications of defining or not defining kindergarten readiness for young children and ECE teachers (see Table 10). We learned that having a kindergarten readiness definition is viewed as having multiple broad impacts, including informing the focus of stakeholder efforts to promote readiness, enabling shared expectations among educators, informing the focus of teacher practice and professional development, and influencing how resources are allocated.

For the Phase 1 interview question (i.e., a follow-up to the question summarized in Table 7), participants described their views on the possible impacts of having a multifaceted definition of readiness that incorporates factors beyond children's skills and knowledge. As summarized in Table 11, two themes emerged. One indicated that a multifaceted definition could

Table 11 Can You Describe the Impacts of Having Factors That Contribute to Kindergarten Readiness in Your State Beyond Just Skills and Proficiency as Part of a Multifaceted Definition?

| Themes | Example quote |
|--|--|
| Promotes a comprehensive model of readiness the emphasizes child and nonchild factors Informs expectations about teaching and learning | Just by reading the definition, you realize we're talking about children, families, schools, and communities; it is not about discrete items that they know. I think the understanding of how play and rigorous academics can connect and coincide in the same space and enhance each other so that children can be kindergarten ready. What do we really expect and need of our children? What can they do and still have fun? Learning is fun. What child doesn't love to learn to read, really? |

Table 12 What Would Be the Advantages or Disadvantages of Having One Definition of Kindergarten Readiness for All Children?

| Theme | Example quote |
|---|---|
| Advantages | |
| Common understanding and vision across ECE | We thought that by creating a definition, not only would this lend the advantage of starting to outline what is developmentally appropriate and what are appropriate expectations for children. It also starts providing a baseline and the foundation for everybody to refer to. |
| Uniform efforts to promote readiness across ECE | By having one explicit definition of kindergarten readiness, one would assume that there would be a common understanding of the term and more uniformity with respect to the way in which services and supports are delivered. |
| Fosters equity if definition is inclusive in its vision | So in creating one formal definition across the nation, I would hope that it would allow for the flexibility that we in [state] really appreciate for our kids, knowing that everyone is coming in from very diverse backgrounds and very diverse circumstances and we need to all be thinking about you know what village is it going to take to raise that child and not how that child can be meeting our bar. |
| Disadvantages | Č |
| One definition cannot adequately address diversity | The fear is around having a one-size-fits-all anything is the great diversity in our state and meeting the needs of individual children from different areas of our state, some more metropolitan, some more rural. We have quite a bit of diversity and so I think that's the fear that if we have that definition that it may not provide the ability to individualize and support communities where they feel they need to be focused. |

help foster the adoption of a comprehensive model of readiness that emphasizes various child and nonchild factors that interact to promote kindergarten readiness. The second theme suggested that a definition can inform expectations about what teachers should teach and what young children should learn.

Second, findings for the three Phase 2 interview items summarized what we found regarding perspectives on adopting a universal definition of kindergarten readiness. Analysis of the Phase 2 interview questions focused on the possible advantages and disadvantages of having one definition to inform readiness practices targeting all young children revealed three perceived advantages and one perceived disadvantage (see Table 12). The three advantages of adopting a universal definition included helping establish a uniform vision and common understanding around the meaning of kindergarten readiness, helping to streamline efforts to promote readiness so that they would be more uniform across ECE, and improving equity among young children. The perceived disadvantage was the perceived lack of feasibility of one definition addressing the diverse needs and capacities across young children.

Finally, participants responded to a Phase 2 interview question about whether having a formal state definition can impact equity for young children. The two themes and example quotes that emerged from analysis of interview responses are displayed in Table 13. One theme indicated that having one state definition could promote equity through unifying understanding about the meaning of readiness and driving consistent kindergarten readiness approaches within ECE across the same state. The second theme indicated that kindergarten readiness definitions are viewed as

Table 13 How Does Having or Not Having a Formal State Definition of Kindergarten Readiness Affect Equity for Children? Can You Explain Why One Definition Might or Might Not Work for All Children?

| Theme | Example quote |
|---|---|
| Having one definition unifies under- | Equity is an issue that we are always talking on and always dealing with. I think it will |
| standing of readiness and efforts to | differently help to gather work so we are all the same page. And when we think about |
| promote readiness | how we can make things good for all children no matter where they live or their family |
| | income or whatever their circumstances, I think it will be really important for us to |
| | have that one definition that we've all worked on that we have all agreed upon to guide |
| | our work. I think it will make a difference as we work towards equity issues that not |
| | only us but every state faces. |
| Factors other than a readiness definition | I think in [state] the bigger piece of equity is that we have four-year-old kindergarten |
| promote equity | in our school funding system. So, any four-year-old is able to attend, from the school |
| | perspective. Because the criteria aren't based on income or developmental level, it is |
| | equal for everybody. Everybody can get that opportunity. |

one of multiple mechanisms, including early learning standards and access to high-quality preschool, that can drive equity.

Collective findings in this section suggested that kindergarten readiness definitions are viewed positively for their potential to improve and focus teaching practice and professional development through shared expectations and drawing attention to the various child and nonchild factors that support kindergarten readiness. Our data indicated mixed reactions toward adoption of a universal definition, as themes indicated that although a universal definition may align perspectives and efforts to foster kindergarten readiness among ECE educators and promote equity, it would need to be inclusive and able to address the diversity among young children.

How Are State Definitions Linked to Efforts to Promote Readiness for Kindergarten?

Finally, we used four Phase 2 items to address the study's fourth research question regarding perspectives about state definitions guiding efforts to promote readiness for school. We asked respondents who reported that their state had an articulated definition to respond to a Phase 2 survey item (n = 22) and a Phase 2 interview question (n = 10). Respondents who reported that their respective state did not have a definition also completed one Phase 2 survey item (n = 20) and one Phase 2 interview (n = 10).

For the first of two questions posed to Phase 2 respondents representing states with a definition, participants described how they viewed their state definition guiding efforts to prepare young children for school. Analysis of responses to this Phase 2 survey item (n = 22) revealed two themes, which are summarized in Table 14. The first theme indicated that state definitions are viewed as supporting comprehensive kindergarten readiness efforts that emphasize collaboration across key environmental supports such as schools, family, and communities; although respondents repeatedly indicated that multiple entities worked together, they did not elaborate to clarify what they meant by collaboration practices. The second theme suggested that state definitions are viewed as supporting developmentally appropriate teaching and learning because they reinforce expectations for skills, knowledge, and behaviors outlined in state early learning standards.

In response to the second question posed to Phase 2 participants representing states with a definition, they discussed whether they place more emphasis on particular components of their state readiness definition. Four themes were identified for this Phase 2 interview question (n = 10; see Table 15). The first theme suggested that definitions are viewed in their entirety as a guide for supporting kindergarten readiness because the sum of components within a definition is more important than the separate components. Yet, the three other themes that emerged indicated that significant emphasis is placed on age at school entry, supporting children's health, and supporting development of the whole child.

The final two questions were posed to the Phase 2 participants representing states without a definition to further build understanding of perspectives on the utility of state kindergarten readiness definitions. First, analysis of the Phase 2 survey item, identified four themes (see Table 16). Participants were asked to explain why their respective state did not have a definition and whether the state plans to develop a definition in the future. The first theme suggested that in the absence of a state definition, early learning standards are used to guide efforts to promote readiness for kindergarten. Two themes

Table 14 Please Explain How Your State's Definition of Kindergarten Readiness Guides How Children Become Ready for Kindergarten. Are the Components of the Definition Practical to Implement?

| Theme | Example quote |
|--|---|
| Definition emphasizes collaboration among community, school, and family promote to readiness, but implementation is vague Provides expectations for what children should know and be able to do, typically in relation to early learning standards | In the broader perspective of promoting school achievement, we promote parents, communities, and schools working together to assure that children have quality opportunities and experiences before they enter school. Our definition of kindergarten readiness provides guidance across all the domains of learning, including the academic domains of math and literacy as well as approaches to learning and social/emotional development. Each of the components are stated very clearly, and are each practical to implement. |

Table 15 In Your Definition of Kindergarten Readiness, Do You Place More Emphasis on Particular Parts of the Definition? Why or Why Not?

| Theme | Example quote |
|--|--|
| Whole is greater than the parts | The definition of "school readiness" can only be considered in its entirety. Instead of defining school readiness solely as a set of traits within an individual child, my state |
| | has approached readiness as a responsibility of the family, school, and community. In addition to considering where the child is in his/her development, in order for a child |
| | to have successful learning experiences, the school must be able to provide rich and |
| | meaningful learning experiences which are developmentally appropriate, and families must provide a safe, healthy, and nurturing home environment. |
| Important to emphasize the whole child | We are trying to be very, very intentional to talk about how a child is ready based on a whole child snapshot and not just how many letters they know or how far they can |
| Age at school entry | count. The main thing for us in schools is age. There is no other emphasis on anything but age. |
| Address health needs | We really have a focus on health as well so that every child has a medical home that someone is following them. Even dentals now because if your mouth hurts you, you can't learn. |

Table 16 If Your State Does Not Have a Formal Definition of Kindergarten Readiness, Why Is This So? Is Your State Planning on Creating a Definition of Kindergarten Readiness? If So, When?

| Theme | Example quote |
|--|--|
| Learning standards or developmental guidelines are used in place of a definition | [State] has not adopted a formal statement of kindergarten readiness. Instead, the Early Learning and Development Standards articulate the skills, knowledge and behaviors which define kindergarten readiness. |
| If kindergarten in not mandatory, a definition is not needed | School attendance is not mandatory until 1st grade. |
| Definitions are developed locally to reflect and address the needs of local school districts Multiple states have strong interest in developing definitions in the future | At this time, [state] does not have a formal definition of kindergarten readiness; this primarily defined at a local level in school districts. It is our hope that we will create a formal definition of kindergarten readiness in the near future. However, no timeline has been established as of yet. |

indicated that states' definitions are not needed because kindergarten is not mandatory and because local definitions need to be developed to meet and address the needs of a specific community. The final theme reflected positive views toward a state definition, given discussion about developing one in the future.

Second, in response to the question posed to Phase 2 interview respondents in states without an existing readiness definition (n = 10), participants described how they work with families and communities and schools to ready children for kindergarten. Three themes emerged for this item (see Table 17). The first theme suggested that early learning standards are used by stakeholders to foster kindergarten readiness in the absence of a state definition. A second theme indicated

Table 17 Since Your State Does Not Have a Definition of Kindergarten Readiness, How Do You Work With Families and Communities and Schools to Ready Children for Kindergarten?

| Theme | Example quote |
|---|---|
| Readiness efforts are determined locally | Currently, each district and/or school is gathering data, supporting parents, providing |
| | those processes at the local level. That local level could be district. We do have some |
| | districts that we are becoming aware of that have plans, definitions and plans for sup- |
| | porting that definition districtwide. We have some school districts that have even left |
| | that up to their school building level, which necessitates in the mind of the office of |
| | public instruction a need for some direction. |
| Use early learning standards as a founda- | We have the early learning guidelines which have eight rubrics, one of which is first steps |
| tion for fostering readiness | for Kinder. We work with the schools in the districts and parents around that, letting |
| | them see that those skills in those rubric levels are the skills that are expected as the |
| | child goes in to kindergarten. |
| Inform and engage families | I know that there is a big family involvement piece through our preschool for all program. |
| | And of course, our birth to three is home based, working with families and their chil- |
| | dren. Part of what they do as a home visitor would be to do a family assessment and |
| | then help families find resources. Ultimately their children have better opportunities. |

that decision-making at the local level determines kindergarten readiness efforts. Finally, the third theme indicated that informing and engaging families about what it takes to prepare young children for school was an important readiness practice.

In sum, findings in this section suggested mixed views about the usefulness of state definitions of kindergarten readiness. We learned that state definitions are perceived as useful for driving collaboration between key readiness supports such as families, schools, and communities and reinforcing key learning and behavior expectations. Yet, various factors were cited as important despite having a state definition, including age at school entry, mandates on kindergarten attendance, early learning standards, and local decision-making.

Discussion

We examined perspectives on kindergarten readiness among state-level administrators and analyzed existing state kindergarten readiness definitions to broaden our understanding of the features that define kindergarten readiness, the extent to which early learning standards shape conceptualizations of kindergarten readiness, perceived implications of having a kindergarten readiness definition for young children and the ECE field, and the ways that state definitions are viewed as linked to efforts to promote readiness. Our collective findings revealed evidence of both nativist and ecological perspectives and wide variation in the features viewed to define kindergarten readiness. Additionally, state policy makers reported both positive views and apprehension toward adopting definitions to inform kindergarten readiness practices. These results are salient when considering the current policy context, which emphasizes expanded access to high-quality preschool as a means to promote readiness, especially given the growing diversity of at-risk children entering our nation's schools (Barnett et al., 2017; Garcia, 2015; Migration Policy Institute, 2017).

Variation in Perspectives on Defining Kindergarten Readiness Persists

Looking across the study's findings, a key conclusion is the persisting lack of consensus around the kindergarten readiness construct, which suggests that very little has changed since Kagan's (1990) call to action years ago. Our analysis revealed wide inconsistencies in the sets of factors or themes identified across state policy makers' definitions and state-level definitions. No two definitions we analyzed were the same. Further, conflicting viewpoints emerged regarding how kindergarten readiness is framed—as a status of ready or not defined by children's attributes or rather as a process of supporting children's development and learning within the context of family, school, and community (Meisels, 1999; Sabol & Pianta, 2017).

More specifically, study results mirrored prior research to indicate that young children's readiness for school is commonly framed through an ecological perspective (e.g., Bronfenbrenner & Morris, 2006; Linder et al., 2013; Mollborn, 2016;

NAEYC, 2009b; NEGP, 1994; Office of Head Start, 2017) and though a developmental lens (Rimm-Kaufman & Pianta, 2000). This reflects an emphasis on defining kindergarten readiness with the whole child in mind, approaching young children's readiness for school as falling along a developmental continuum and including language within kindergarten readiness definitions that draws attention to young children's diverse needs and capacities and the role of communities, families, and schools to address them (Graue, 2006; NEGP, 1994; Wesley & Buysse, 2003). In turn, some data indicated the viewpoint that a developmental lens can reorient stakeholder perspectives toward the process of meeting all young children where they are by leveraging standards alignment, building collective knowledge among ECE educators, and prioritizing individualized instruction; in addition, this perspective could incite increased investment in equitable inputs and resources to support all areas of learning and development (Ackerman & Barnett, 2005; Ackerman & Tazi, 2015; DeBruin-Parecki & Slutzky, 2016; Friedman-Krauss & Barnett, 2013; NAEYC, 2009a, 2009b, 2015; Reid & Kagan, 2015; Tout, Halle, Daily, Albertson-Junkans, & Moodie, 2013).

At the same time, our analyses of study data also suggested evidence of a continuing pull toward a nativist perspective of kindergarten readiness, likely as a result of salient policy that calls attention to children's attributes or kindergarten readiness as a status of ready or not (Meisels, 1999; U.S. Department of Education & U.S. Department of Health and Human Services, 2011; White House, 2002). For example, nearly a quarter of the existing state definitions we analyzed referenced characteristics of children as determinants of kindergarten readiness. Additionally, both age and early learning standards were repeatedly cited as integral factors describing what it means to be ready for kindergarten, suggesting that they are viewed as a proxy for a state definition despite their limited capacity to inform kindergarten readiness on a broader scale (DeBruin-Parecki & Slutzky, 2016; Diffey, 2018; Regenstein et al., 2017; Scott-Little et al., 2006). Reconciliation among ECE stakeholders to move the field toward a consensus around the meaning of kindergarten readiness could help prevent uneven approaches to foster readiness (Abry et al., 2015; Ackerman & Barnett, 2005; Goodlett & D'Amico, 2014; Hustedt et al., 2018; U.S. Department of Education, 2015).

Although State-Level Stakeholders See Value in Defining Kindergarten Readiness, They Express Apprehension Toward Adopting a Universal Definition

Another issue for which there does not appear to be consensus among ECE policy makers is the need to adopt a common definition to inform kindergarten readiness. On one hand, participants shared positive views toward multifaceted kindergarten readiness definitions as useful for informing various processes that support children's readiness for school, including focusing teaching practice, professional development, and resource allocation, driving collaboration between the community, school, and family and enabling an aligned approach among ECE educators through shared expectations for teaching and learning (Kagan & Rigby, 2003; NAEYC, 2009b; Rhode Island KIDS COUNT, 2005). Moreover, they discussed the potential for a universal definition of kindergarten readiness as a uniform starting point to support a common vision and development of best practices that can ensure all young children are afforded equitable early learning experiences prior to kindergarten (DeBruin-Parecki & Slutzky, 2016; Goodlett & D'Amico, 2014; Kagan, 1990; Reid & Kagan, 2015).

Yet, the data also indicated that state policy makers are concerned about the challenges involved in developing an inclusive universal definition that could adequately address diversity across young children and the divergent needs and priorities across states. For example, some state officials maintain the notion that a definition is unnecessary if state policy does not mandate that young children start school in kindergarten, despite most states requiring local school districts to offer kindergarten and a large number of young children starting school in kindergarten (Diffey, 2018; U.S. Census Bureau, 2017). Additionally, state policy makers' perspectives echoed a 2005 NGA report on school readiness, which emphasized how local diversity should not be addressed with a one-size-fits-all policy approach. Our findings suggested that state policy makers may not view state definitions as an essential mechanism for guiding kindergarten readiness because local education agencies are often allowed to develop their own local definitions and kindergarten readiness practices. However, further consideration of providing a common definition as a broad starting point to guide local development of definitions and kindergarten readiness practices is warranted, given the value of calling attention to the various inputs that support developmentally appropriate and equitable efforts to promote readiness prior to school entry (Abry et al., 2015; Goodlett & D'Amico, 2014; Graue, 2006; NAEYC, 2009b).

Limitations and Future Directions

Although this study provided new insights about state policy makers' perspectives on the factors that define kinder-garten readiness and the utility of definitions, three study limitations are worth noting. First, the study sample was composed only of representatives working in state education agencies who were similar in background and experience, which limits our ability to generalize our findings to the larger community of ECE stakeholders, including teachers, parents, and researchers. Future research, particularly studies that explore the sources or mechanisms informing stakeholder's perspectives as well as views on using a common multifaceted kindergarten readiness definition to guide efforts to foster readiness, should include these additional stakeholders as a means for informing pedagogical practices and funding decisions across the nation.

A second study limitation pertains to the state kindergarten readiness definitions we analyzed. We limited our sample of state definitions to those which were publicly accessible or could be located through an online search of state agency ECE websites and documents. However, we learned from follow-up survey and interview responses that a small number of states reported having kindergarten readiness definitions that we could not locate in our own search, whereas in other states, what we identified as a kindergarten readiness definition was not regarded by participants as an official state definition. As a result, our findings may not have fully captured all states' developed kindergarten readiness definitions and call into question what constitutes a kindergarten readiness definition. Should we count only definitions that have been formally adopted by the state and state ECE agencies, been codified, or are accessible through online search? Future research could further explore this issue to assess whether ECE stakeholders who are motivated to utilize an existing state definition to guide their work have access to one.

Finally, although we learned that state kindergarten readiness definitions are viewed as useful at a broader level as part of kindergarten readiness efforts, our data collection did not allow us to draw conclusions about how definitions inform specific kindergarten readiness practices. Additional research that directly assesses links between state definition content and state kindergarten readiness policies could shed light on whether existing state definitions are actionable or include components that directly inform kindergarten readiness practices.

Conclusion

This investigation examined state-level administrators' perspectives on kindergarten readiness as well as the focus of existing state definitions of this important construct. Our research highlights a common tendency to frame kindergarten readiness through an ecological and developmental lens as well as positive views toward using definitions to inform efforts to promote readiness. Yet, the results of the study also suggested variations in how kindergarten readiness is defined at the state level, which may reflect an increasing focus in U.S. public policy over the past 2 decades toward building academic proficiency in preparation for the rigor of kindergarten. In turn, we reinforce the need for ECE stakeholders to consider the frame of reference used when investing in and planning kindergarten readiness practices and to also consider the potential value of using a universal definition to unify views and efforts to equitably prepare all young children for kindergarten.

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Notes

1 Goal 1 stated that all children in America will start school ready to learn by the year 2000. To guide Goal 1 work, the National Education Goals Panel outlined a multidimensional model of kindergarten readiness that included five key interconnected

- domains of development (i.e., health and physical development, social and emotional development, approaches to learning, language and literacy development, and cognition and general knowledge) and stressed the role of key developmental contexts such as high-quality preschool programs and the family. The NEGP work underscored the need to consider processes and influences prior to school entry that shape young children's capacity for meeting the demands of formal schooling as part of a broader definition of kindergarten readiness (NEGP, 1994).
- 2 The National School Readiness Indicators Initiative involved a 17-state partnership that created The Ready Child Equation (i.e., Ready Children + Ready Communities + Ready Services + Ready Schools = Children Ready for School) along with measurable indicators that map onto the separate components of the equation (Rhode Island KIDS COUNT, 2005).
- 3 NAEYC views school readiness as not only referring to children, but also to families, early environments, schools, and communities. Children's skills and development are fostered through interactions with other people and environments, especially family, prior to school entry (2009b).
- 4 Head Start views school readiness as children being ready for school, families being ready to support their children's learning, and schools being ready for children. "Physical, cognitive, social, and emotional development are all viewed as essential for school readiness and children possess the skills, knowledge, and attitudes necessary for success in school and for later learning and life" (Office of Head Start, 2017, p. 1).
- 5 The NGA views Ready States, Ready Schools, Ready Communities, and Ready Families as integral for fostering Ready Children (2005).
- 6 The American Academy of Pediatrics defines school readiness as including "the readiness of the individual child, the school's readiness for children, and the ability of the family and community to support optimal early child development," (High, 2008, p. e1008).
- 7 Texas defines kindergarten readiness as a child being able to function competently in a school environment in areas of early language and literacy, mathematics, and social skills as objectively measured by state-approved assessment instruments.
- 8 Designation of interviews conducted in states with or without a kindergarten readiness definition was determined by respondents' survey data.
- 9 Only state definitions located through our online search and fitting our criteria for a kindergarten readiness definition were included in analyses. In a small number of states, follow-up data collection respondents provided a definition that was not readily accessible or did not fit our criteria or did not recognize any available information as including an official state definition.
- 10 "School-ready children have the social and academic knowledge, skills, and behaviors for school success and lifelong learning. Kindergarten readiness occurs when families, schools, and communities support and serve ALL children, so they are successful in school and in life." [Ecological perspective example]
- 11 "Term that refers to a child being able to function competently in a school environment in the areas of early language and literacy, mathematics, and social skills as objectively measured by state-approved assessment instruments." [Nativist perspective example]

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Appendix A: Collected Data Items Included in This Report

Phase 1 Data Collection Items Included in Report and Gathered through Surveys, Focus Groups, and Interviews

Online Survey Item

Indicate your level of agreement with the following statement: A child who meets the goals stated in the pre-K Age 4 literacy standards is ready to move on to kindergarten. Response choices included *strongly agree*, *agree*, *neither agree nor disagree*, *disagree*, and *strongly disagree*.

Focus Group Items

- 1. What are the implications of how states define or do not define Kindergarten Readiness for children and teachers?
- 2. Discuss why it may be of value to link mastery of Pre-K Age 4 Literacy Standards and Kindergarten Readiness.
- 3. Despite the heavy emphasis placed on Pre K Learning Standards, Kindergarten Readiness is also thought to be determined by many factors. On the paper provided, fill in the circle to create a pie chart that shows us how important the different factors, including early learning standards, are that contribute to Kindergarten Readiness. Please elaborate about or provide details for the labels you include in your pie charts.

Interview Items

- 1. Can you describe the factors that contribute to Kindergarten Readiness in your state beyond just skills and proficiency?
- 2. Can you describe the impacts of having factors that contribute to Kindergarten Readiness in your state beyond just skills and proficiency as part of a multifaceted definition?
- 3. Linking Pre K and Kindergarten standards such as the K CCSS contributes to better preparing children for Kindergarten. Do you agree or disagree with this statement? Please explain why.

Demographic Items

- 1. What is your gender?
 - a. Male
 - b. Female
- 2. What is your race?
 - a. Black or African American
 - b. American Indian or Alaskan Native
 - c. Asian or Asian American
 - d. Native Hawaiian or Pacific Islander
 - e. White or Caucasian
 - f. Two or More Races
 - g. Other: Please specify _____

- 3. What is your ethnicity?
 - a. Hispanic or Latino
 - b. Not Hispanic or Latino
- 4. Please indicate your highest level of educational attainment.
 - a. Associate's degree
 - b. Bachelor's degree
 - c. Master's degree
 - d. Advanced professional degree (EdD, PhD, MD, or JD)
- 5. Are you a licensed teacher?
 - a. Yes
 - b. No
- 6. Please indicate how many years you have worked in the field of early childhood.
 - a. Less than 1 year
 - b. 1-3 years
 - c. 4-6 years
 - d. 7-10 years
 - e. 11-15 years
 - f. 16-20 years
 - g. 21-25 years
 - h. 26-30 years
 - i. 31+ years
- 7. Which state or territory do you represent?
- 8. In which department/agency do you work?
- 9. What is your professional title?
- 10. How long have you been in your current position?
 - a. Less than 1 year
 - b. 1-3 years
 - c. 4-6 years
 - d. 7-10 years
 - e. 11-15 years
 - f. 16-20 years
 - g. 21 25 years
 - h. 26-30 years
 - i. 31+ years

Phase 2 Data Collection Items Included in Report and Gathered Through Follow-Up Surveys and Interviews

Survey—State Has a Definition of School Readiness

1. Please explain how your definition of Kindergarten Readiness guides how children become ready for Kindergarten. Is each of the components of the definition practical to implement? Why or why not?

or

Survey—State Does Not Have a Definition of School Readiness

2. If your state doesn't have a formal definition of kindergarten readiness, why is this so? Is your state planning on creating a definition of kindergarten readiness?

Interviews

1a. In your definition of Kindergarten Readiness, do you place more emphasis on particular parts of the definition? Why or why not? (*State Has a Definition of School Readiness*)

or

- 1b. Since you don't have a definition of Kindergarten Readiness, how do you work with families and communities and schools to ready children for kindergarten? (*State Does Not Have a Definition of School Readiness*)
- 2. How does having or not having a formal state definition of Kindergarten Readiness affect equity for children? Can you explain why one definition might or might not work for all children?
- 3. What would be the advantages of having one definition of Kindergarten Readiness for all children?
- 4. What would be the disadvantages of having one definition of Kindergarten Readiness for all children?

Demographic Items

- 1 What is your gender?

 a Male
 - b Female
 - c Other
 - d Prefer not to respond
- 2 What is your race?
 - a Black or African American
 - b American Indian or Alaskan Native
 - c Asian or Asian American
 - d Native Hawaiian or Pacific Islander
 - e White or Caucasian
 - f Other: Please specify _____
- 3 What is your ethnicity?
 - a Hispanic/Latino(a)
 - b Not Hispanic/Latino(a)
- 4 Please indicate your highest level of educational attainment.
 - a Associate's degree
 - b Bachelor's degree
 - c Master's degree
 - d Advanced professional degree (EdD, PhD, MD, or JD)
- 5 Are you a licensed teacher?
 - a Yes
 - b No
- 6 Please indicate how many years you have worked in the field of early childhood.
 - a Less than 1 year
 - b 1-3 years
 - c 4-6 years
 - d 7-10 years
 - e 11-15 years
 - f 16-20 years
 - g 21-25 years
 - h 26-30 years
 - i 31+ years

- 7 In which department/agency do you work?
- 8 What is your job title?
- 9 How long have you been in your current position?
 - a Less than 1 year
 - b 1-3 years
 - c 4-6 years
 - d 7-10 years
 - e 11 15 years
 - f 16-20 years
 - g 21 25 years
 - h 26-30 years
 - i 31+ years

Appendix B: Definitions of Kindergarten Readiness Across U.S. States and District of Columbia

Table B1 U.S. States and District of Columbia Identified as Having or Not Having a Publicly Accessible Definition of Readiness

| Have definition | No definition |
|--|---|
| AL AZ AR CO DC DE GA HI ID IN KS KY LA MD MN MO MS | AK CA CT FL IA IL MA ME MI MT NJ ND NY OH OK OR |
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|------------------------------|--|--|---|
| U.S. state/territory name | State kindergarten readiness definition | Definition source | Link to state definition |
| Alabama | An enthusiasm for learning, an ability to function in a social setting, age-appropriate communication and problem-solving skills, age-appropriate physical and emotional skills, and optimal health | Alabama Department of Early Childhood Education | http://children.alabama.gov/ first-class/ |
| Arizona | Arizona's young children will demonstrate school readiness through the Essential Domains of Language and Literacy development, Cognition and General Knowledge (including early mathemat- | Arizona Department of Health Services | https://cms.azed.gov/ home/GetDocumentFile? id=58cb12e21130c015e06fa91f |
| | ics and early scientific development), Approaches to Learning (curiosity, initiative, persistence, creativity, problem-solving and confidence), Physical Well-Being and Motor Development and Self-Regulation of Attention and Emotion (including Social and Emotional Development). Intentional development of skills and | | |
| Arkansas | knowledge in these domains establishes a critical foundation for children to engage in and benefit from opportunities to learn. School ready children have the social and academic knowledge, | Division of Child Care and Early | http://arbetterbeginnings.com/ |
| | skills, and behaviors for school success and lifelong learning. School readiness occurs when families, schools, and communities support and serve ALL children, so they are successful in | Childhood Education & Arkansas Early Childhood Commission | sites/default/files/pdf_files/ Kindergarten%20readiness.pdf |
| Colorado | school and in life. School readiness describes both the preparedness of a child to engage in and benefit from learning experiences and the ability of a school to meet the needs of all students enrolled in publicly funded preschool or kindergarten. School readiness is enhanced | Colorado Department of Education | https://www.cde.state .co.us/schoolreadiness/ updatedschoolreadinessguidance |
| | when schools, tamilies, and community service providers work collaboratively to ensure that every child is ready for higher levels of learning in academic content. | | |
| District of Columbia | School readiness means a child's mastery of approved early learning standards in the domains of language and literacy, mathematical thinking, social and emotional development, scientific inquiry, social studies, amproaches to learning, and health | The Office of State Superintendent of DC | http://mpdc.dc.gov/sites/default/ files/dc/sites/oca/publication/ attachments/DME14.pdf |
| Delaware | Ready Families + Ready Communities + Ready Services + Ready Schools = Children Ready for School | Delaware Early Childhood Council | http://decc.delaware.gov/ files/2012/02/Kindergarten- Readiness-Issue-Brief.pdf |

| Table B2 Continued | | | |
|---------------------------|---|---|--|
| U.S. state/territory name | State kindergarten readiness definition | Definition source | Link to state definition |
| Georgia | A child's readiness for school is when possible health barriers that block learning have been detected, suspected physical or mental disabilities have been addressed, enthusiasm, curiosity, and persistence towardlearning is demonstrated, feelings of both selfand others are recognized, social and interpersonal skills are emerging, communication with others is effective, early literacy skills are evident, and a general knowledge about the world, things, | Georgia Department of Early Care and Learning | http://www.decal.ga.gov/prek/ schoolreadiness.aspx |
| Hawaii | Young children are ready to have successful learning experiences in school when there is a positive interaction among the child's developmental characteristics, school practices, and family and | Aloha United Way | http://uhfamily.hawaii.edu/ publications/brochures/ SchoolReadinessHawaii.pdf |
| Idaho | The EC3 supports a definition of school readiness that encompasses the development of the whole child and the integral roles of family, culture, early childhood programs, school, and community. | Department of Health and Welfare/ The Idaho Early Childhood Coordinating Council | http://healthandwelfare.idaho.gov/Portals/0/Children/InfantToddlerProgram/EICC/ |
| Indiana | "In Indiana, we work together so that every child can develop to his or her fullest potential socially, emotionally, physically, cognitively, and academically. Through growth in all of these domains, the child will become a healthy, capable, competent, and powerful learner." | Indiana Department of Education | https://www.doe.in.gov/sites/ default/files/earlylearning/ foundations-2015-august-12.pdf |
| Kansas | School readiness occurs within a broad context that includes the four components of community, educational environment, family, and the individual child. | Kansas Department of Health and Environment/Kansas State Department of Education | https://www.ksde.org/Portals/0/ ECSETS/FactSheets/FactSheet- KindergartenReadiness.pdf |
| Kentucky | School readiness means that each child enters school ready to engage in and benefit from early learning experiences that best promote the child's success and ability to be Ready to Grow, Ready to Learn & Ready to Succeed. | Governor's Office of Early Childhood; Kentucky Department of Education; the Governor's Task Force on Early Childhood Development and Education; the Cabinet for Health and Family Services; Kentucky Head Start Association | https://education.ky.gov/ curriculum/conpro/prim- pre/Pages/School-Readiness- Definition.aspx |

| Table B2 Continued | | | |
|---------------------------|--|---|---|
| U.S. state/territory name | State kindergarten readiness definition | Definition source | Link to state definition |
| Louisiana | At the beginning of kindergarten, it is expected that children will demonstrate: > Cognitive abilities, which include knowledge and skills in: • early literacy, such as phonological awareness, print concepts, alphabetic understanding, vocabulary, listening comprehension, and emergent writing • basic numeracy concepts, such as rote counting and number awareness, sorting, classifying, comparing, patterning, and spatial relationships > Basic science concepts, such as making observations, exploring the world using their senses, and using appropriate scientific vocabulary related to topics > Basic social studies concepts, such as self-awareness and their relationship to family and community, and an awareness of money and time > response to and participation in music, movement, visual and dramatic arts experiences and activities > abilities, either assisted or unassisted, that show an awareness of health, hygiene, and environmental hazards, in addition to gross and fine motor skills > social and emotional competencies, including self-regulation, self-identity, self-reliance, respect for others, and interpersonal skills > approaches to learning, such as reasoning and problem-solving, engagement, persistence, and | Louisiana Department of Education | https://www.louisianabelieves .com/docs/early-childhood/ brochurekindergarten- readiness-definition-(english) .pdf?sfvrsn=3 |
| Maryland | "School Readiness" means the stage of early development that enables an individual child to engage in and benefit from early learning experiences. As a result of family nurturing and interactions with others, a young child in this stage has reached certain levels of social and emotional development, cognition and knowledge, language development, and physical well-being and motor development. School readiness acknowledges individual approaches towardlearning as well as the unique experiences and | Maryland State Department of Education | http://mdk12.msde.maryland .gov/instruction/ensure/mmsr/ mmsrkframeworkandstandards .pdf |
| Minnesota | According to Minnesota statute, a child is ready for kindergarten when he/she: •Is at least 5 years of age by September 1st of the child's enrollment year (Minnesota Statutes, section 120A.20). •Has received early childhood screening (Minnesota Statutes, section 121A.17). •Has received medically acceptable immunizations (Minnesota Statutes, section 121A.15). | Minnesota Department of Education | https://education.mn.gov/MDE/ fam/elsprog/sch/ |

| Table B2 Continued | | | |
|---------------------------|--|---|---|
| U.S. state/territory name | State kindergarten readiness definition | Definition source | Link to state definition |
| Mississippi Missouri | At the beginning of kindergarten, it is expected that children will demonstrate knowledge and skills in the areas of early literacy and early numeracy, as objectively measured by a score in the Late Emergent level with a scale score of (TBD*) or above on the stateapproved Kindergarten Readiness Assessment Instrument, Star Early Literacy and Numeracy. School readiness is a combination of readiness among children, families, schools and communities: • For children, school readiness means being prepared in key dimensions of early learning and development (social and emotional, language and literacy, cognitive, motor, health and physical well-being, and positive attitudes and behaviors toward learning.) • For families, it means an understanding of their children's current level of development and how to encourage them, as well as a supportive partnership with the school and an understanding of the school system their children will enter. • For schools, it means providing a welcoming and accepting environment for all children and having professional educators who consistently advance student growth and achievement while working in partnership with families. • For | Mississippi Department of Education Department of Elementary and Secondary Education/Office of Early and Extended Learning | https://districtaccess.mde.k12.ms .us/curriculumandInstruction/ EarlyChildhood/Kindergarten- Readiness-Assessment- Implementation-Plan-2014 .07.01.pdf https://dese.mo.gov/sites/default/ files/eel-el-2019-Missouri- School-Readiness-Definition.pdf |
| Nebraska | communities, it means supporting schools, families and valuing the critical role of early learning. Ready children have families who support their children's learning, | Nebraska Department of | http://www.education.ne.gov/ |
| Nevada | children the year they are age-eligible to attend kindergarten. Ready Families + Ready Educators + Ready Schools + Ready Communities + Ready Systems = Children Are Ready for School | hood) Nevada Early Childhood Advisory Council | booklet.pdf http://www.leg.state.nv.us/ Interim/76th2011/Exhibits/ |
| New Hampshire | Children possessing the skills, knowledge, and attitudes necessary for success in school and for later learning and life. Kindergarten readiness is a shared collaboration between families, schools, and communities promoting student success. | New Hampshire Department of Education, New Hampshire Head Start State Collaboration Office, and New Hampshire Head Start | Education/E081612E-1.pdf http://education.nh.gov/ instruction/curriculum/ documents/kindergarten- readiness.pdf |
| New Mexico | Ready Communities that support Ready Families with access to Ready Pre–K Programs that work collaboratively with Ready Schools | Directors Association Children, Youth & Families Department and the Public Education Department | https://www.newmexicoprek. org/material-library/#205- english-1519163421 |

| U.S. state/territory name | State kindergarten readiness definition | Definition source | Link to state definition |
|---------------------------|--|--|---|
| North Carolina | 1. the condition of children as they enter school, based on five areas of development and learning: health and physical development, social and emotional development, approaches toward learning, language development and communication, and cognition and general knowledge. 2. the capacity of schools to educate all children who come to kindergarten, regardless of their condition. Kindergarten teachers, classrooms, and principals are important in determining schools, readiness for children | University of North Carolina at Chapel Hill | http://fpg.unc.edu/sites/fpg.unc .edu/files/resources/reports-and- policy-briefs/FPG_NCSRA_ summary_report.pdf |
| Pennsylvania | Readiness should be flexibly and broadly defined, taking into account multiple components including: A child's comprehensive set of skills (cognitive and noncognitive); The teacher's and school's ability to meet the needs of all children. This includes a focus on reflective practice (learning environment, pedagogy, school structures); The family's readiness to share information and advocate for their child; and . The community's readiness to | Pennsylvania Department of Education | http://www.education.pa.gov/ Documents/K-12/Assessment %20and%20Accountability/ Kindergarten%20Entry %20Inventory/KEI%20readiness %20flyer.pdf |
| Tennessee | provide services to ensure positive learning environments. The state's children will be ready to succeed in school only when families, communities, and schools work together on their behalf throughout the early childhood years. | Tennessee Department of Education | https://www.kidcentraltn.com/education/school-readiness/tennessee-s-school-readiness- |
| Texas | Term that refers to a child being able to function competently in a school environment in the areas of early language and literacy, mathematics, and social skills as objectively measured by state- | Texas Early Learning Council | model.html http://earlylearningtexas.org/ media/10138/trends%20in %20school%20readiness%20final |
| Vermont | approved assessment manufactus. Vermont's concept of children's readiness is multidimensional; it includes social and emotional development, communication, physical health, as well as cognitive development, knowledge, and approaches to learning (e.g., enthusiasm for learning, persistence, curiosity). Vermont's concept also reflects the belief that "school readiness" is interactional: children need to be ready for schools, and schools need to be ready to accommodate the diverse needs of children. | Vermont Agency of Education | http://education.vermont .gov/student-support/early- education/assessment |
| Virginia | Describes the capabilities of children, their families, schools, and communities that will best promote student success in kindergarten and beyond. | Virginia Department of Education | http://www.doe.virginia.gov/instruction/early_childhood/school_readiness/va_school_readiness_definition.pdf |

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| Table |

| U.S. state/territory name | State kindergarten readiness definition | Definition source | Link to state definition |
|---------------------------|---|--|---|
| Washington | Ready children + Ready schools + Ready parents and families + Ready communities | Washington State Department of Early Learning | http://www.k12.wa.us/ EarlyLearning/pubdocs/ EarlyLearninginWAPublicSchools |
| West Virginia | School readiness is a process of assuring children have access to the best available resources prior to entering first grade. Available resources support children and their families and focus on maximizing children's holistic development from birth. Acknowledging that each child's development is significantly impacted by previous experiences, school readiness also entails the capacity of schools and programs to welcome families and be prepared to serve all children effectively within the developmental domains of health and physical development, social and emotional development, language and communication, cognition and general knowledge, and individual approaches to learning. | West Virginia Department of Education | https://wwde.state.wv.us/oel/school- readiness.php |
| Wisconsin | While all children are ready for school by virtue of having attained the chronological age for school entry as established by the state, school readiness refers to the conditions that promote their readiness to succeed in school. Three conditions were identified as most relevant to promoting school readiness: Responsive families and communities; Receptive schools; and Ready children. The conditions that promote school readiness includes access for all young children to quality early care and education, parent support, and availability of adequate nutrition and health care for all young children. The receptiveness of schools as they serve children—this includes the presence of transition policies from home to the formal school environment, continuity between early care and education settings and schools, schools' commitment to the success of all children—this includes children's proficiency in developmentally appropriate competencies and skills across the five dimensions of early development and learning (health and physical development, social and emotional development, approaches to learning, language and literacy development, and cognitive skills and general knowledge) | Adopted by the Governor's Early Childhood Advisory Committee 2009 from the Wisconsin Council on Children and Families, Inc. The Wisconsin School Readiness Indicators Initiative Steering Committee 2003 | https://dpi.wi.gov/sites/default/files/ imce/early-childhood/pdf/Wisconsin %20School%20Readiness%20Indicator %20Initiative.pdf |
| Wyoming | Ready Families + Ready Health + Ready Early Care and Education + Ready Schools + Ready Communities = Ready Children. | Wyoming Early Childhood Advisory Council | https://www.wyoleg.gov/ InterimCommittee/2013/ 04Rpt0603Appendix21.pdf |

Note. This list includes only state definitions identified through online search as of September 2016; results were not verified with state agency representatives. For multiple states, the original source and website link were no longer available or valid at the time of publication. Current links for the same content are provided in this table.

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