Improving Racial Equity in Kindergarten Readiness Inventory Efforts

FIRST 5 CENTER FOR CHILDREN’S POLICY

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Executive Summary

Children’s long-term success in school is heavily dependent on how well they have been set up to succeed in kindergarten. Researchers, educators, and policymakers alike acknowledge the value of assessing children’s knowledge and skills in kindergarten.

Kindergarten Readiness Inventory (KRI) tools are often used to help local leaders understand the kindergarten population, as well as to highlight a community’s strengths and weaknesses in preparing children to enter school. In addition to identifying children’s abilities and needs, KRIs have demonstrated value in guiding educator practice and informing decision-making regarding policies and resource investment.

While KRI tools can offer significant insights to guide practice and inform policies and investments, they can only do so if they are reliable, valid, and appropriate for all children. This includes children with learning differences or disabilities, and diverse cultural, linguistic, racial, ethnic, and socioeconomic backgrounds. Early childhood and education leaders have raised questions about whether kindergarten readiness frameworks, standards, and inventories adequately reflect and cultivate equity, and inclusion.
This brief summarizes a literature review and key informant interviews with 32 KRI developers, early childhood advocates, educators, and researchers, focused on:

1. Strengths and challenges of Kindergarten Readiness Inventory (KRI) tools and measurement practices with an equity lens; and

2. Potential strategies and considerations for embedding principles of racial equity into a statewide approach and tool to measure kindergarten readiness.

Through this research, four key considerations emerged to help local early childhood and education leaders, state policy makers and others create more equity-focused systems for California’s families.

EQUITY CONSIDERATION 1: CONSIDER CULTURAL AND LINGUISTIC BIASES IN INSTRUMENT DESIGN.
Although KRI testing generally includes diverse samples of children, and researchers analyze and disaggregate data by race, ethnicity and other demographics, bias may still be present in KRI design. This bias may hinder the ability of a KRI to accurately reflect school readiness levels of children across cultures and languages. Cultural and linguistic biases in KRI design may lead to inaccurate measurements of what diverse learners know and can do.

EQUITY CONSIDERATION 2: ADDRESS IMPLICIT BIAS IN IMPLEMENTATION PRACTICES.
Unlike assessments in third grade and later where students interact directly with tests, KRIs are completed by intermediary assessors (typically teachers) and rely heavily on their observations of children’s skills during classroom activities. This opens the door to bias in assessment. In particular, interviewees worried how implicit bias might adversely affect assessments of social-emotional development, if teachers are not equipped with an understanding of cultural variations.

EQUITY CONSIDERATION 3: REFINE THE SCOPE OF KRI ASSESSMENTS.
Some KRIs are used to inform classroom instruction and others yield more population-based data for policy work that is not tied to individual children or classrooms. Others choose KRIs because of their implementation features, such as ease of use, or access to training or data analysis. Given the varied purposes of different tools, there is concern that some communities use tools in unintended ways, impacting their reliability and accuracy.

EQUITY CONSIDERATION 4: AUTHENTICALLY ENGAGE PARENTS, FAMILY, AND CAREGIVERS TO WORK TOWARD RACIAL EQUITY.
Existing KRI tools vary in the degree they intentionally involve parents throughout the process—from instrument design, to data collection, to data analysis and making meaning of the results. Some KRIs are administered only by teachers, with no or minimal parent engagement; some ask parents to complete their own surveys; and some invest in engaging parents and guardians in co-design, data analysis, and sense-making. Parent engagement has drawn attention specifically because of its potential for increasing equity and parent and community capacity to advocate for systems change.
IMPLICATIONS

Without a unified statewide approach that captures information about early learning needs and strengths for all its youngest residents, California may never be able to truly advance equity in supporting children’s optimal academic and developmental outcomes.

Should California follow the example set by other states and develop a unified approach to collecting kindergarten readiness data, it must do so with a racial equity lens. The considerations presented in this brief can, and should, apply to any potential statewide approach. At the state level, implementing these considerations could include:

» Developing consistent guidance and providing resources to accelerate enhancements to the design and implementation of KRIs with an explicit focus on equity and inclusion. Improvements could include more comprehensive training for assessors, more thoughtful and intentional parent engagement, and stronger data analysis.

» Ensuring those involved in developing or updating KRI tools incorporate validation and pilot testing of measures with racial equity dimensions in place, including more non-white, multilingual parents and teachers in the testing process.

» Soliciting learning from the K-12 space about their efforts on assessment, especially of DLLs, using a race/equity lens.

» Exploring and adapting the implicit bias trainings and equity-informed interventions that already exist in early learning settings for KRI purposes.

Collecting kindergarten readiness data across the state is essential to understanding how California’s youngest learners are doing. However, the adoption of a statewide strategy requires attention to racial equity and must be paired with investments that address structural forces leading to educational disparities. Such an approach would powerfully show California’s commitment to making the systems affecting children’s and families’ lives more just.
Children’s long-term success in school is heavily dependent on how well they have been set up to succeed in kindergarten.¹ Researchers, educators, and policymakers alike acknowledge the value of assessing children’s knowledge and skills in kindergarten.

Kindergarten Readiness Inventory (KRI)² tools are often used to help local leaders understand the kindergarten population, as well as to highlight a community’s strengths and weaknesses in preparing children to enter school. Numerous KRIs have been developed over the years to measure children’s readiness to enter kindergarten and be successful in a range of domains associated with later academic success.³ In addition to identifying children’s abilities and needs, KRIs have demonstrated value in guiding educator practice and informing decision-making regarding policies and resource investment.⁴

Because of this value, many states have adopted statewide KRIs to collect data on kindergarteners’ school readiness. California has yet to do so.⁵ In the absence of a statewide strategy, many First 5s have led local KRI efforts across California, which have helped guide investments at the local level. Counties vary in the KRI tools they use and sometimes collect data for different purposes, making county-to-county comparisons infeasible. These uncoordinated efforts may result in missed opportunities to help children who are at risk of struggling in school and may pose a challenge to statewide advocacy efforts to increase state investments for early childhood, as there are very little data available about how California’s early learners are doing.
While KRI tools can offer significant insights to guide practice and inform policies and investments, they can only do so if they are reliable, valid, and appropriate for all children. This includes children with learning differences or disabilities, and diverse cultural, linguistic, racial, ethnic, and socioeconomic backgrounds. Early childhood and education leaders have raised questions about whether kindergarten readiness frameworks, standards, and inventories adequately reflect and cultivate equity, and inclusion.

In the interest of pursuing policies that improve the outcomes of all children, with race, equity, diversity and inclusion at the center, the First 5 Center commissioned research about the racial equity considerations of KRIs. This brief summarizes a literature review and key informant interviews with thirty-two KRI developers, early childhood advocates, educators, and researchers, focused on:

1. Strengths and challenges of Kindergarten Readiness Inventory (KRI) tools and measurement practices with an equity lens; and
2. Potential strategies and considerations for embedding principles of racial equity into a statewide approach and tool to measure kindergarten readiness.

Efforts by First 5 Alameda and First 5 Monterey to embed racial equity principles into KRI approaches are also included in this analysis.

The literature review, interviews, and local examples in this project identified common KRI equity concerns and ways to address these concerns. Four key considerations emerged to help local early childhood and education leaders, state policy makers and others create more equity-focused systems for California’s families.

**EQUITY CONSIDERATION 1: CONSIDER CULTURAL AND LINGUISTIC BIASES IN INSTRUMENT DESIGN.**

Although KRI testing generally includes diverse samples of children, and researchers analyze and disaggregate data by race, ethnicity and other demographics, bias may still be present in KRI design. This bias may hinder the ability of a KRI to accurately reflect school readiness levels of children across cultures and languages.

KRIs are generally constructed by and for English speakers first, and then translated into other languages. Certain words, objects, or concepts that form the basis of KRIs may be more commonly used and understood in families that are white, speak English as their primary language, and/or have lived in the United States for a long time. These cultural and linguistic biases in KRI design may lead to inaccurate measurements of what diverse learners know and can do.
The most common concern about instrument design bias expressed in interviews was about KRI appropriateness and reliability for Dual Language Learners (DLLs) or multilingual learners. California has the largest English learner (EL) student population in the nation, with DLLs composing 60% of children ages birth to five. KRI developers and implementers alike described efforts to adapt tools into other languages, particularly Spanish. Some described efforts to conduct assessments in the student’s primary language. While these are steps in the right direction, many interviewees believe that translating English KRI tools or instructions into other languages is not enough to mitigate bias, as the structure of certain languages (like Chinese and Arabic) is fundamentally different from English, and even Spanish.

Beyond concerns about tool design language and translations, there are also concerns about the reliability of assessing children’s skills in a non–primary language. For example, some KRIs ask teachers to assess a student’s ability to follow a two-step instruction—such as, hang up your coat and push in your chair. For such items, language and communication differences between the assessor and the child may be clouding the assessment. If a child speaks Spanish at home, she may be able to follow this instruction in Spanish easily. But, in English, she may struggle to do so and the teacher may see the child as unable to complete a developmentally appropriate task. As one interviewee noted, “Are they unable to follow two-step directions, or are they unable to understand what you’re saying?” Measures that are language–dependent to assess something other than language may not be reliable.

As new tools and versions are developed, more explicit, rigorous attention to racial equity (including validation and pilot testing of measures) would help address the identified gaps and concerns about how KRIs have been developed and implemented. A greater variety of nonwhite, multilingual parents, teachers, administrators, and researchers with various socioeconomic and cultural backgrounds, and rural as well as urban populations, should be included in this process.

**EQUITY CONSIDERATION 2: ADDRESS IMPLICIT BIAS IN IMPLEMENTATION PRACTICES.**

Unlike assessments in third grade and later where students interact directly with tests, KRIs are completed by intermediary assessors (typically teachers) and rely heavily on their observations of children’s skills during classroom activities. Although KRI developers have conducted studies to ensure the reliability and validity of their tools, observation–based KRIs are inherently more subjective than direct assessments of task–based items such as identifying colors or numbers. This opens the door to bias in assessment.

Like all people, teachers are subject to implicit biases associated with race, ethnicity, language, gender, economic status, ability, and religious affiliation, which can affect their perceptions of student behavior, development, and academic performance, as well as their relationships with students and families. For example, the disproportionately higher rates of suspension and expulsion of preschool children of color—particularly Black children—is a symptom of racial implicit bias in the early education system that extends into the K–12 system.
In particular, interviewees worried how implicit bias might adversely affect assessments of social-emotional development, if teachers are not equipped with an understanding of cultural variations. For example, behaviors accepted in one culture (e.g., dancing and singing whenever people gather) might collide with norms about quiet time in classrooms, leading to criticism, exclusionary discipline, or bias in a teacher’s assessment. Similarly, some KRLs include items that prompt teachers to assess whether a child is dressed appropriately for the weather or whether a child appears tired. While KRL items such as these may provide useful insights about non-academic factors influencing children’s learning, they also create the possibility for dominant cultural norms to influence teachers’ perceptions of what “dressed appropriately” or “appears tired” means. These types of measures could be subject not just to bias in general, but explicitly to racial bias.

School districts are increasingly implementing implicit bias training, in which teachers and administrators explore their own biases. In some cases, implicit bias training is built into the training specific to using a KRL tool. In other cases, implicit bias training is more general. Respondents reported there is not yet a consistent approach, or even a shared commitment across all levels of the educational system, to explore this issue more deeply.

Statewide standards about implicit bias training in the educational system may be a key starting point to address implicit bias in KRL implementation, as well as to support equitable practices more generally in the classroom. Policymakers and researchers may also consider exploring and adapting the implicit bias trainings and equity-informed interventions that already exist in early learning settings for KRL purposes. For example, the Infant and Early Childhood Mental Health Consultation model has been shown to impact early childhood professionals’ beliefs, attitudes, and practices to reduce racial and gender disparities in children’s preschool experiences.\textsuperscript{14}
EQUITY CONSIDERATION 3: REFINE THE SCOPE OF KRI ASSESSMENTS.

One of the reasons districts and counties choose different KRI tools is because they have different goals. Some KRIs are used to inform classroom instruction and others yield more population-based data for policy work that is not tied to individual children or classrooms. Others choose KRIs because of their implementation features, such as ease of use, or access to training or data analysis. Given the varied purposes of different tools, there is concern that some communities use tools in unintended ways, impacting their reliability and accuracy. According to respondents, this sometimes happens because of pushback from teachers, parents, or administrators who want the tool to serve a different purpose than that for which it was intended. Using point-in-time KRI data to pinpoint exactly where a child is relative to their peers in a classroom, for example, is inappropriate because children develop so rapidly, especially with effective instruction. Moreover, because children’s scores are influenced by a range of factors outside school settings, using KRI data to compare individual children could result in bias, with families or communities feeling the blame for lower scores when, in reality, the lower scores reflect a systemic lack of access to resources.\(^{15}\)

Beyond the different purposes of these tools and whether they are appropriately used, several interviewees observed that the current scope of school readiness is too narrow. “The way we talk about kindergarten readiness is about the child and the family,” one noted. “But it should really go in the other direction ... whether schools are ready for the child, not whether the child is ready for school.” A few interviewees worried that if structural forces, like structural racism, are not addressed, then outcomes will stay the same regardless of the KRI. Respondents felt that, in addition to assessing children, KRIs should measure the readiness of families, schools, and communities to support early learning, and be paired with investments to dismantle structural racism in communities and educational systems.

Several communities and states have already demonstrated a shift in thinking about readiness beyond just the child assessment. This is reflected in ECDataWorks’ Expanded School Readiness Framework (2018) and reporting guide, which poses important questions that school readiness data can answer: \(^{16}\)

1. **Ready Students:** How prepared are the children to enter and succeed in school? What supports do children need?
2. **Ready Schools:** What programs and services are in place to help support and provide educational opportunities for students? What resources exist to help support and build teacher capacity? What is being done to engage families and build parental capacity to support children?
3. **Ready Communities:** What support and programs are in place to provide early learning opportunities for children before they enter school? For which areas of development can the community provide more intentional support to the children served prior to kindergarten entry? What professional development activities and resources are in place to support the workforce? What supports and programs are in place for parents?
“We need to contextualize [children’s readiness] in many different ways. So, we use a suite of tools to help us understand the context and ask whether schools and communities are ready for all children.”
—Jenn Rigney, Director of Evaluation at First 5 Monterey

First 5 Monterey’s KRI, School Systems Readiness, reflects a similar expanded definition of school readiness. Starting with their 2006 kindergarten readiness assessment, First 5 Monterey has redesigned their kindergarten readiness approach, acknowledging that tools measuring children’s readiness will not lead to equitable learning environments and outcomes on their own. Originally building off the strategies from the National Education Goals Panel “Ready Schools” approach, First 5 Monterey assembled a multi-level suite of tools to strengthen schools’ readiness, including surveys for kindergarten parents and teachers, transitional-kindergarten and preschool teachers, and most recently, a school-administrator survey. As they continue to progress on their own REDI journey, First 5 Monterey continually seeks to improve their School Systems Readiness approach. This past year, for example, they are reworking their survey questions by applying a framework that: centers equity, diversity, and belonging; decenters whiteness; and builds off an awareness of the history and harms of racism and structural inequity.
EQUITY CONSIDERATION 4: AUTHENTICALLY ENGAGE PARENTS, FAMILY, AND CAREGIVERS TO WORK TOWARD RACIAL EQUITY.

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More conventional evaluation strategies have also been more critically examined through an equity lens in recent years. Policymakers and researchers are increasingly recognizing how data collection and analysis processes were created within systems, institutions, and structures shaped by white supremacy culture and systemic racism, without the voices of those with lived experience who could preempt harmful policies or identify needed supports and services. Collecting more data is not sufficient. Rather, expanded data strategies must:

» be combined with an equity-centered community engagement framework that integrates data to understand and meet community needs;

» increase equitable access to resources; and

» be useful and accessible for not only policymakers and researchers, but also for families and providers.

First 5 Alameda has been exploring ways to adopt a more participatory approach to their KRI practices and have convened a thirty-member Research Advisory Group for their 2021 assessment. Half of this group consists of parents or caregivers who are paid for their time; the other half includes systems and community leaders, ECE providers, and teachers. With the help of an external, equity-focused facilitator, the Research Advisory Group advises all aspects of the study design, including the research questions, the survey design and sample, and the analysis and dissemination of findings and recommendations.

“This year we have significantly changed our methodology and process from past years ... The changes are really rooted, in large part, in our desire to have a more equity-informed approach to our kindergarten readiness assessment and is part of a continuing evolution that we’ve made at First 5 Alameda County in our work.”

—Laura Schroeder, Senior Administrator for Data and Evaluation at First 5 Alameda
Implications

The considerations presented above provide food for thought for California counties as they embed equity principles into their existing KRI approaches or consider implementing a KRI tool for the first time. While these county-level assessments provide important—and increasingly more equity-informed—insights into better preparing young children for kindergarten, the insights differ from county-to-county and are inherently limited to the local level. Without a unified statewide approach that captures information about early learning needs and strengths for all its youngest residents, California may never be able to truly advance equity in supporting children's optimal academic and developmental outcomes.

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Endnotes


2. This paper uses the term Kindergarten Readiness Inventory because it conveys a developmentally appropriate tool, whereas “assessment” can imply that it is referring to a pencil-and-paper test. Other reports and research use various terms for similar discussions, including Kindergarten Readiness Assessment, Kindergarten Entry Assessment, Kindergarten Profile, and Kindergarten Observation Form, among others. This paper uses the terms “school readiness” and “kindergarten readiness” interchangeably.


7. Comments and quotes generated from the key informant interviews are not attributed to specific individuals, as interviewees were assured their comments would remain confidential and anonymous to encourage candor in the interviews.


19. Ibid.