Readying Our State: How Kindergarten Readiness Inventories Can Benefit California

POLICY BRIEF
March 2020

FIRST 5 CENTER FOR CHILDREN'S POLICY

ACKNOWLEDGEMENTS

This brief was developed by the First 5 Center for Children's Policy. The primary authors are Limor Zimskind and Sarah Crow; interviews and background research for this paper were conducted by Limor Zimskind. Research support was provided by Alexandra Parma and Cinthia Diaz. Editing and communications support were provided by Jess Berthold.

The authors thank the many experts who were interviewed for this report, and those who offered comments and insights on drafts, including:

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A special thanks to Deborah Stipek, Professor, Graduate School of Education, Stanford University, for her keen eye during her review of this paper.

This research was supported by Tipping Point Community, whose Kara Dukakis, Senior Program Officer - Early Childhood; Jamie Austin, Senior Director of Impact; and Jacob Leos-Urbel, Insights & Analytics Manager offered thoughtful comments throughout the process.

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Executive Summary

Readying Our State: How Kindergarten Readiness Inventories Can Benefit California describes why and how California should develop a strategy to collect and use kindergarten readiness data across the state. By examining the ways Kindergarten Readiness Inventories (KRIs) have been employed by individual California counties and other states, this paper makes the case for their thoughtful use across California, in order to improve school outcomes and direct funding for new and planned early childhood programs.

Kindergarten readiness is a major predictor of later academic success. Research suggests that third- and eighth-grade test scores in low-income districts in California lag behind national counterparts because children start out less ready for school in our state. Nationwide, children from households with low income enter school with fewer skills than their more advantaged peers, and children of color are less likely to be ready, as well.

There is a national trend toward states adopting KRIs to improve classroom instruction and to gain an understanding of the population at an aggregate level to support policy making. Data from KRIs have been used to inform state policy decisions about early learning resources and systems, and to provide information about kindergarten readiness of important subgroups, in places like Washington, Oregon, and Maryland.

Twenty-five California counties are using KRI tools, and these counties have used data for a variety of purposes, including improving community resources and informing local funding decisions and initiatives. Most California counties are not systematically administering a KRI, however, and would need additional support and resources to do so. Given the power that KRI data provide to improve school and community support for young learners, California should allocate funding to ensure every county collects this data.

Beyond use at the county level, California lacks data at the state level that provide a full picture of its education system, or of disparities in school readiness and achievement. Statewide data collection could offer the ability to link data from pre-kindergarten to third grade math and reading scores and social emotional readiness; to link pre-kindergarten data to other systems, like health; to map progress from year to year by various geographic levels; and to offer systems-level insights into the benefits of various kinds of programs and investments.

California should pursue a statewide approach to collecting county-level kindergarten readiness data, based on county experiences. The state's planning and policymaking processes would be improved by the creation of a statewide approach that collects comparable data, this would also help state and local governments address the greatest inequities that exist within communities. As part of the process, the state should engage a wide range of stakeholders, ensure KRI tools appropriately measure Dual Language Learners and children with special needs, include parent information, and use flexible reporting.

Introduction and Purpose

Children, naturally curious and eager to learn, arrive at the first day of kindergarten with differing experiences and assets, which affect their experience in the classroom. In fact, children's long-term academic success is heavily dependent on how well they have been set up to succeed in kindergarten, often referred to as their level of "readiness." California may be doing a particularly poor job preparing its students for success in school. One study found that California's students in low-income school districts start out with low rates of readiness, resulting in lower third- and eighth-grade test scores than their counterparts in the rest of the country.[1]

Nationwide, lower levels of readiness at school entry in early numeracy, early literacy, and social-emotional skills often predict difficulties in later academic performance.[2] There are critical equity issues related to school readiness, as well. Children from households with low income enter school with fewer skills than their more advantaged peers,[3] and children of color are less likely to be ready, as well.[4] Children who enter kindergarten ready for school are far more likely to master basic academic and social skills by age 11 than children who do not (82% vs. 45%), according to one study.[5]

As a means of addressing inequities and improving overall readiness, Kindergarten Readiness Inventory (KRI) tools are often used to understand the kindergarten population, as well as to highlight a community's strengths and weaknesses in preparing children to enter school.* These tools have risen in popularity over the last 10 years, as expectations for academic learning in kindergarten have grown.[6]

According to recent studies, 35 states implement, or are in the process of implementing, some statewide methodology to collect data on kindergartners' readiness levels.[7] California's efforts to understand its kindergarten population, by contrast, are conducted by only some counties, using different tools and methodologies, resulting in incomparable data. This uneven approach and lack of data have several consequences. For one, California does not have an accurate, comprehensive picture of early learners, including their needs and assets, which could drive and improve state investments. Secondly, counties that have not been able to implement a KRI may be missing opportunities to build partnerships across sectors that could result in improved readiness and better services for families. As California's governor, Gavin Newsom, seeks to expand and improve systems that serve children and families, now is the time to reassess the possibility of collecting kindergarten readiness data across California. California as a state, and the counties that are responsible for many of the services that affect a child's readiness for school, should identify a methodology that allows both levels of governance to understand the population of young children as they enter the school system, and design smart services that improve children's longer-term health, well-being, and academic outcomes.

* This paper uses the term Kindergarten Readiness Inventory because it conveys a developmentally appropriate tool, whereas "assessment" can have the implication 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, among others. This paper uses the terms "school readiness" and "kindergarten readiness" interchangeably.

The purpose of this paper is to describe some key lessons from county-led KRI efforts, and experiences in other states, in order to inform and motivate discussions about a new statewide strategy in California. Information gathered for this report comes from a review of the available literature as well as interviews with leaders at the state and county level in California who have experience and knowledge of KRIs. Included are interviews with leaders at five county First 5 commissions: Alameda, Los Angeles, Monterey, Orange, and San Francisco. Each of these counties has implemented one of the major inventory tools. Additional interviews were conducted with a range of experts and advocates with historical knowledge of prior efforts to implement a tool statewide.

DEFINING KINDERGARTEN READINESS

Being ready for kindergarten encompasses much more than having some basic literacy or numeracy knowledge. It includes the ability to listen and ask questions, express thoughts and communicate with others, and demonstrate some self-regulation. Readiness for school also involves being curious and eager to learn, knowing how to share and take turns, having experience with books, and having a basic understanding of how words combine to make a sentence.[8] Children with access to high-quality early learning opportunities, parks, books, and adults who support their emotional growth and attachment are most likely to arrive at kindergarten with this set of skills. A wide range of individuals and agencies—including parents and caretakers, child care providers, social services, and community resources—all play a role in helping to ensure children are ready for school.

Education leaders have laid out general parameters for measuring a child's assets as she enters kindergarten, based on research about readiness tools. They recommend KRIs be completed by kindergarten teachers, and paired with a survey of parents and teachers if possible. KRIs should be appropriate for the population, including being culturally and linguistically responsive, and collect information on multiple areas of child development. Those development areas should include: physical well-being/motor development, social-emotional development, approaches to learning,* language and literacy development, and cognition and general knowledge.[9, 10]

The resulting data can be used for many purposes, and may be important to many stakeholders. KRIs provide snapshots of children's school readiness, and allow for the analysis of differences between subgroups and over time. They can also help to motivate and inform legislators and decision-makers about future investments so that they are targeted to meet the needs of neighborhoods with the lowest rates of school readiness, and improve equity. They can provide important information to the K-12 system about how best to support their incoming students. And they can provide an opportunity to bring teachers and administrators from the school system together with early educators to close identified gaps.

There are ways in which the data should not be used, however. Researchers caution that KRIs should be used only for the purpose for which they were designed.[11] As stated by one county leader, KRIs are best "used as a flashlight, not a hammer."

* This domain includes showing initiative and curiosity, engagement and persistence, and reasoning and problem-solving. See NRC 2008 for more information.

USES OF KRIs TO AVOID:[12]

- **Avoid making child-level predictions or decisions about academics.** In general, KRIs should not be used to make decisions about the details of an individual child's education. Specifically, they should not be used as high-stakes testing or to hold children back from entering kindergarten. In fact, children who have vulnerabilities identified by KRIs may benefit the most from a kindergarten experience.[13]
- **Avoid assessing individual sites.** KRIs measure children's skills and abilities, not the outcomes of specific interventions, such as a preschool. Children's early developmental years are affected by a wide range of experiences. KRIs are not designed to be used as an evaluation of any particular experience.
- **Avoid evaluating teacher performance.** KRIs should also not be used to assess kindergarten or preschool teachers' performance. Rather, KRIs assess students' readiness for kindergarten.

FORMATIVE VS. SUMMATIVE TOOLS

There are two categories of KRIs, which achieve different purposes. KRIs that provide classroom-level assessments to help teachers diagnose the overall strengths and weaknesses of their students are called **"formative."** These tools provide teachers with data about the assets and challenges of their classroom, and therefore can help them tailor their instruction to address the needs of their students. In order for formative tools to be useful to teachers in this way, analysis of the data must be returned to them as quickly as possible in the same academic year, and in a format that is actionable and which they have been trained to use. Critics of this approach posit that it is rare for these criteria to be met. However, when properly executed, a formative approach provides the possibility of offering kindergarten teachers a useful tool to understand the classroom and meet the needs of their students. For these reasons, districts that implement a KRI may prefer a formative tool.[14] Frequently used formative tools in California include the Desired Results Developmental Profile (DRDP), Kindergarten Student Entry Profile (KSEP), and Kindergarten Observation Form (KOF). (See Appendix for more detail on these tools).

Data collection tools that gather an entire system's (population level or census tract) information are called **"summative."** Summative KRIs support a population-level understanding of children's readiness for school, measuring developmental changes or trends in populations of children at different levels of geography. Although summative KRIs are administered by kindergarten teachers, classroom data are aggregated to a geographic level, and school- or classroom-level reports are not made available. These tools allow stakeholders to target policies and resources, for example where to place a park or open a new childcare center. The most commonly used summative tool in California is the Early

Development Instrument (EDI). The EDI is administered in the second half of the school year once teachers have had a chance to observe their students and the students have settled into the school year. EDI results are not reported back until the beginning of the following school year. Because the tool is designed to be a population-level inventory, results are considered valid for three years, and some communities use a sample of classrooms rather than administer the tool for every child. Proponents of this approach argue that this population-level focus takes the onus of kindergarten readiness off of the individual student or classroom teacher, and places it more appropriately on the community.

Some tools are used for both purposes. Counties that use formative tools report aggregating the data to the district and county level to aid in local-level planning. For example, Bay Area counties use the KOF and typically offer classroom-level data back to participating schools during the same school year in which the tool was administered. Aggregated to the school district level, findings have indicated the regions that have the lowest rates of readiness. Analysis suggests that a child's health and well-being, as well as access to preschool, are the leading factors in school readiness. First 5s and their partners use these data to influence a wide range of community partners.

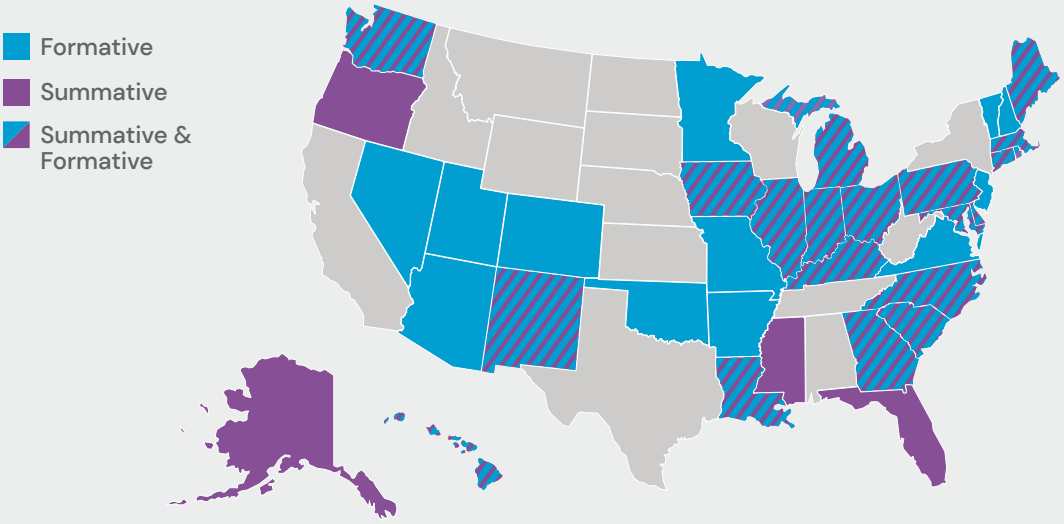
National Landscape

Thirty-five states have implemented statewide KRIs that focus on social and emotional development in addition to literacy and math, according to recent estimates.[15, 16] Many of these states have passed legislation mandating that districts collect readiness data from their kindergarten classes in order to address readiness gaps. A majority of the states have developed KRI tools specifically for their state; eight states have implemented Teaching Strategies GOLD®; and the rest have adopted an existing tool.[17, 18]

Nationally, KRIs are often designed and used to improve classroom experience, and to identify gaps in children's skills. A common primary purpose for these efforts is to ensure that teachers and administrators have data that help them to tailor instruction based on student need. Districts use KRI data to help shape parent-teacher interactions, and to inform the continuous quality improvement of schools.[19]

There is a national trend toward the adoption of KRIs with both summative and formative applications, reflecting states' interest in improving classroom instruction while also gaining an understanding of the population at an aggregate level to support policy making.[20] At a state level, data from KRIs have been used to inform policy decisions about early learning resources and systems, and provide information about kindergarten readiness of important subgroups, and over time. For example, officials in Washington State have disaggregated their KRI results to highlight issues of racial inequity and gaps in access to preschool experiences across districts. These results were used to roll out professional development

FIGURE 1: TYPE OF KRI USED, BY STATE



resources to preschool and kindergarten teachers statewide as well as education materials to parents.[21] Oregon is using its KRI data to develop a multi-year measurement strategy linking children's health to kindergarten readiness.[22] Maryland's statewide KRI data are reported to the state's legislative body, the General Assembly, and is used to increase awareness of the need for early childhood programs among policymakers, school leaders, and the public. This reporting has helped support increased public investment in early learning in Maryland, and scores there have consistently risen over time.[23]

LESSONS FROM IMPLEMENTING STATEWIDE KRIs

States that have implemented a statewide KRI over the past several years have lessons that may be helpful to California.

Choosing a tool. States considered multiple criteria to select among the various KRI tools available. Leading considerations included reliability and validity, appropriateness for all students, usefulness for informing classroom instruction, usefulness for informing early learning policies and program improvement, feasibility of administration by teachers, and cost.

Starting the process. States generally piloted their KRI in order to assess the reliability and validity of the assessment items, gauge implementation feasibility, and identify teacher training needs. Following the testing period, the instruments were revised and modifications were made to the training protocols, procedures, and resources. Finally, states provided training on administering the KRI through webinars, in-person presentations, and train-the-trainer models. In order to ensure consistent collection of data, teachers were required to complete a proficiency exam before administering the KRIs.[24]

Maintaining communication. States encountered some challenges at the district and school level with implementing KRIs, specifically related to administering the tool with Dual Language Learners (DLL) and students with disabilities, knowing how to use KRI results to inform instruction, and sharing KRI data with parents. Interviewees suggested that state officials could address these challenges by providing explicit training on these topics, offering on-site coaching, and tailoring reports to help educators use and share the data. Moreover, states found that communicating clearly and up front with teachers and community stakeholders about the intended uses of KRI results was critical. If the data is intended to improve classroom instruction, teachers should know when to expect data back and understand how to use it. Messages about the purpose of KRIs should be simple and straightforward to encourage statewide districts, schools, ECE providers, and parents to maximize the administration and use of KRI data.[25]

Three states – Arkansas, Colorado and Minnesota – offer districts a choice in the tool they use, though all districts are required to administer some sort of assessment, per state law.[26] The focus of these assessments is on individual school improvement, and not on creating summative data reports at the state level. For example, Arkansas state law requires districts to measure kindergarten readiness but the purpose of these assessments is to improve instruction for young learners based on the results.[27] The state does not attempt to aggregate the data across the three available tools.[28] Colorado also passed a state law requiring all students in public school to be assessed in kindergarten, with the goal of informing the development of an individual school readiness plan.[29] Minnesota recently changed its process from one statewide tool to a local choice based on a menu of approved tools, which schools administer on a voluntary basis. The resulting data, therefore, are not representative of the state as a whole, or of any particular subgroup, and should not be used to generalize about the general population or compared from year to year.[30]

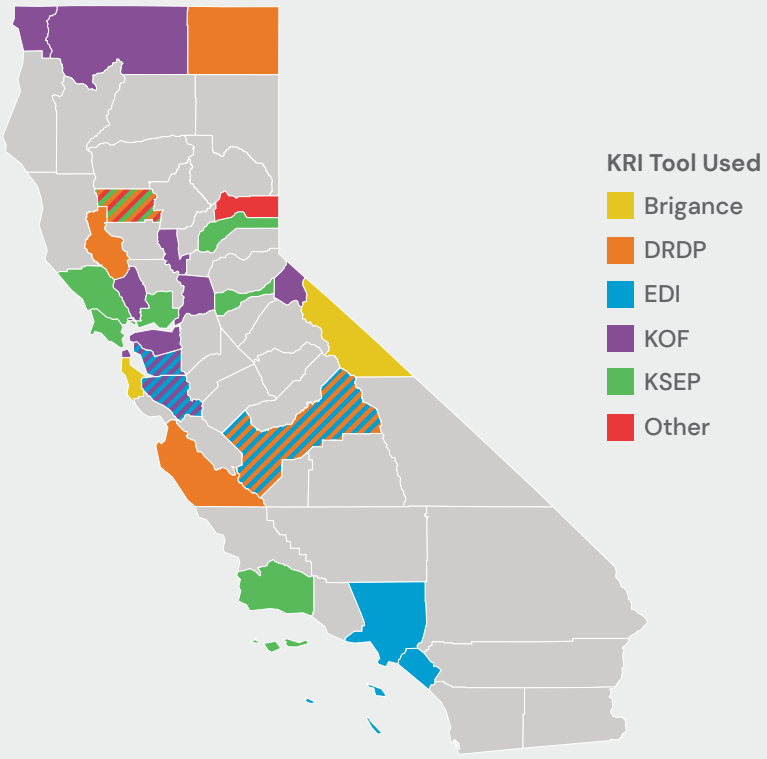
California State and County Experience

Throughout the last 15 years, kindergarten readiness efforts have advanced at both the state and county levels in California. In the early and mid-2000s, First 5 California introduced the School Readiness Initiative. Through this initiative, county First 5s received funding to partner with school districts to implement the Kindergarten Entry Profile (KEP), which consisted of a teacher-completed assessment of kindergartners in the classroom using the Modified Desired Results Developmental Profile (MDRDP) as well as parent interviews.[31] Many counties participated, though a relatively small number of California kindergartners were assessed. In 2006-2007, children from 57 counties and 123 schools participated, resulting in almost 8,000 child assessments.[32] Although the use of the KEP was short-lived, it introduced the participating counties to the DRDP tool and also to the potential of collecting KRI data.

Over the years, early childhood advocates and education leaders have made several pushes to legislate the collection of statewide KRI data. Data from a statewide assessment would allow the state to develop a clear, intentional path to readiness starting from preschool, and to understand the domains in which young learners need the most support. State Superintendent Tom Torlakson called for the "statewide use of a developmentally appropriate school readiness assessment tool" throughout California in the Department of Education's Blueprint for Great Schools Version 2.0.[33] However, in 2013 Governor Jerry Brown indicated a preference for data to be collected and used locally, rather than statewide, and declined to commit state funds to statewide data collection. Although the federal Race to the Top – Early Learning Challenge (RTT-ELC) grant program offered California the opportunity to implement a statewide KRI in 2013, California's application included plans for counties to opt in, rather than the statewide, mandated approach that many other states pursued. The most recent attempt to explore a KRI was in 2016, when Assembly member Rob Bonta introduced AB 2410, which would have established a California Committee of Kindergarten Readiness, to develop a definition for kindergarten readiness. The bill was estimated to cost $1.4 million over two years, and ultimately died during the appropriations process.

During this time, several counties picked up the mantle and implemented their own KRIs locally. Currently, 25 California counties (43%) have some type of KRI in place, whether it is a countywide assessment, a randomized sample of schools in the county, or specific areas with place-based initiatives.[34] These efforts largely have been funded by First 5s, which have a declining revenue source. About 55% of the state's kindergartners live in the counties with KRIs, indicating a strong foundation already in place to implement KRIs statewide and a potential tipping point toward a broader, more systemic approach. Because of the diversity of approaches used at the county level, including differences in identified purpose, tool, frequency of administration, breadth of data collection, etc., it is not possible to aggregate KRI data across counties at this time.

FIGURE 2: TYPE OF KRI USED IN CALIFORNIA, BY COUNTY



California county leaders interviewed for this paper offered several lessons related to successful implementation of a KRI at the county level. They include:

- **Build strong relationships with partners and districts.** First 5s have found that building and maintaining strong local relationships is critical to getting a local KRI underway. They have built trust with the school districts, principals, teachers, parents, and other local influencers. Some counties have established advisory committees to create ways for stakeholders to communicate and plan together, comprising the county First 5, community members, evaluators, and other stakeholders who have an interest in KRI data. These committees have created an important platform for sharing ideas, perspectives, and approaches, as well as course correcting when needed.
- **Communicate and dispel misunderstandings.** Related to the need to build relationships, counties describe the need to communicate widely to ensure all invested parties have a shared understanding of tools' strengths and weaknesses, including any issues of bias; how data should and should not be used; and plans for community-level data dissemination and use.
- **Provide technical assistance.** County leaders describe the need for some entity, like the county First 5, to help districts implement the tool and use the data effectively. This may include developing reports and presentations and taking the lead in organizing stakeholders to understand and make use of the KRI results.

California counties that administer KRIs report that those using a formative tool are generally using it for both formative and summative purposes. They hear anecdotally that teachers appreciate the ability to access information about their classroom and put it into use. The ways that these formative data have affected the classroom experience for children has not been measured, and is beyond the scope of this paper.

First 5s are largely focused on how the resulting data can also be used to improve the community. They are interested in focusing the attention away from children's achievement or lack thereof, and examining instead the community resources available to families. For example, Alameda County framed its most recent KRI on 1) readiness of children and families, 2) readiness of communities, and 3) readiness of schools. The methodology was expanded to include additional questions on the Parent Information Form that captured indicators of safety, sense of community, and resources available in the neighborhood. Researchers also convened two parent focus groups to provide input on the resources families need to help improve success in school.

County KRI leaders identified many achievements based on using aggregated KRI data. Examples of these achievements include:

- **Bringing together diverse constituencies.** KRI data better equip counties to have conversations about the importance of investing in early childhood with their local policy partners and non-0 to 5 partners, such as business councils (including Chambers of Commerce), and between school districts and cities. KRIs make the case for undertaking these cross-systems conversations as they provide an important data point that marks the beginning of a child's school-to-career continuum. In Pasadena (Los Angeles County), the city and district came together around the EDI results and they are implementing strategies to support children across the age continuum.

- **Highlighting disparities.** First 5 San Francisco's KRI data revealed large disparities by race/ethnicity as well as other inequities. As a result, First 5 made a significant communication push to use the data as a call to action and to start conversations around institutionalized racism and bias.

- **Improving community resources.** In Orange County, EDI results showed the Laguna Beach Unified School District that their young children were vulnerable in the areas of fine and gross motor skills. As a result, they revamped a preschool playground with equipment that was tailored to develop children's fine and gross motor skills.

- **Increasing local funding decisions and initiatives.** After implementing the EDI, the Santa Ana Unified School District (Orange County) allocated $3 million for early childhood programming in its Local Control Action Plan (LCAP), and embedded early childhood benchmarks as part of the Superintendent's evaluation. Local foundations are also using EDI results to inform community investments. Similarly, First 5 Monterey shares zip-code level data with local leaders so that they can advocate for more local funding through LCAPs and use the data in grant applications. The data were also used to launch and measure progress for the community-wide (collective impact) Early Childhood Development Initiative – Bright Beginnings.

- **Initiating new funding proposals.** Alameda County used its KOF data to support a local ballot initiative and to make the case for additional preschool slots and higher wages for childcare providers.

COSTS OF KRIs

Typical expenditures for county KRIs include:

- Teacher stipends and/or substitute teacher time
- Third-party contracts to implement, analyze, and provide data
- Reports and other materials
- Staff time for technical assistance and support

Counties with long-standing processes and large school populations may benefit from efficiencies of scale with respect to teacher training and costs related to analysis and reporting. However, teacher stipend costs depend on the number of classrooms that participate and can greatly affect the overall cost a county faces. As a result, creating an apples-to-apples comparison of costs across counties and tools is challenging.

However, as an example, Orange County administers the EDI on a rolling three-year basis so that no school administers the tool more than once every three years, but the pool of data includes all schools in the county. Between the 2015/16 and 2018/19 school years, it collected over 29,000 records at a total cost of $971,000. Its estimated per-student cost was $33.29, including teacher training and stipends, data collection and analysis, and a contract with UCLA, the local license holder of the EDI.

Recommendations and Conclusion

As the examples highlighted here demonstrate, counties have used KRI data to great effect. When thoughtfully implemented, KRI tools provide critical data that describe children's readiness for school once they are in kindergarten. The resulting analysis can then suggest actions for connecting individual learners to services, supporting early childhood programs and services, and assisting wide-ranging community planning efforts.

Yet most California counties are not systematically administering a KRI. If all counties had the resources and support to do so, they would likely benefit from community planning efforts grounded by relevant, recent data about young learners; they would be equipped with data to help them make funding decisions and advocate for additional resources in the communities that need them most; and they could use the data to help early childhood educators and school districts collaborate and coordinate. Given the power that KRI data provides to improve school and community support for young learners, California should do more to ensure every county collects this data.

We recommend that the state allocate funding to support kindergarten readiness data collection in every county. To improve school outcomes and direct funding for new and planned early childhood programs, California should follow the example of other states and pursue a strategy for collecting kindergarten readiness data across the state.

Beyond use at the county level, California lacks data that provide a full picture of its education system, including child care and preschool, and disparities in readiness and achievement across the state and among subpopulations. This data would be rich and important for state-level policy making that is meant to improve child outcomes.

Comprehensive data at the state level require common data collection tools or elements, however, and significant portions of the state have made critical investments in different approaches. In some cases, long and thoughtful stakeholder engagement processes helped to determine the tools that counties implemented, and they may resist making a change. At the same time, some counties suggested they have less allegiance to the tools they have used in the past, and would consider adopting a new tool if there were reasons to do so. **In other words, state leadership may offer a pathway towards reducing the number of tools currently in use.**

We recommend that the state identify a data collection approach that works for the state and for counties. The methodology that will be most successful is one that is driven by careful consideration of how the state plans to leverage data from across its diverse counties—which will determine whether formative or summative tools are most appropriate—balanced with the needs of counties to choose the tool that best meets their needs at the local level.

Depending on how the data collection effort is designed, it could offer the state the ability to link data from pre-kindergarten to third-grade math and reading scores and social emotional readiness; to link pre-kindergarten data to other systems, like health; to map progress from year to year by various geographic levels; and to offer systems-level insights into the benefits of various kinds of programs and investments. The state's new investment in a Cradle to Career Data System presents an opportunity and reason for carefully mapping the collection of kindergarten readiness data. Implementing such an effort in California will require careful planning and likely years of testing and stakeholder involvement. With the Administration's interest in early childhood planning and systems, **now is the time to begin that process.**

With creative planning and coordination, the needs of the state and the counties could complement one another. State/county partnerships could leverage existing county momentum and funding, and also meet the needs of the state. The planning for a statewide tool should include a discussion of these partnerships and whether or not a sampling strategy is appropriate in certain parts of the state.

California should learn from other state experiences and consider multiple criteria in evaluating KRI tools, including the tools' reliability and validity, appropriateness for all students, usefulness in classroom instruction, usefulness for early learning policies and program improvement, feasibility of administration by teachers, and cost.[35] One important consideration is California's large population of kindergartners, which provides the state more "buying power" in selecting a tool or tools. If none of the widely-available tools fits the state's needs, California should explore modifications with the tool developers.

Additionally, those interviewed for this paper offered several consistent pieces of advice about how best to move towards statewide data collection. As such, the state should carefully consider:

- **Engaging a wide range of stakeholders.** The process for determining the answers to these complex questions should involve a wide range of stakeholders and systems leaders, including First 5s, County Offices of Education, teachers' unions, parents' groups, early childhood teachers, administrators, advocates, and school districts. Ensuring shared ownership and understanding of decision-making will go a long way in addressing concerns and improving the likelihood of success.
- **Ensuring KRI tools appropriately measure Dual Language Learners.** Ensuring KRI tools appropriately measure Dual Language Learners and learners with special needs. With approximately one out of three kindergarteners in California classified as a Dual Language Learner, and one-eighth of public school students receiving special education services, it's critical that the KRI implementation process include additional validity studies using a California population to ensure that tools appropriately assess diverse populations.[36, 37]
- **Including parent information.** Several county leaders emphasized the importance of including a parent interview component or other form of parent input in any kindergarten readiness tool. Information provided by parents or caretakers can provide important context for the kindergarten teachers' observations.
- **Ensuring flexible reporting.** Data collected across the state to inform statewide policy should be reported back to the local level. County agencies should be able to rely on KRI analysis for their local planning and coordination efforts.

APPENDIX: DESCRIPTION OF KEY KRI TOOLS IN CALIFORNIA[38]

The five most commonly used tools in California counties are: Desired Results Developmental Profile (DRDP) (two versions of the DRDP are currently in use: the DRDP-SR for School Readiness and the DRDP-K for Kindergarten), the Early Development Instrument (EDI), the Kindergarten Observation Form (KOF), the Kindergarten Student Entry Profile (KSEP), and the Brigance Early Childhood Screen.

Criteria	DRDP-SR / DRDP-K[39]	EDI[40]	KOF[41]	KSEP[42]	Brigance[43]
California counties using KRI	Glenn, Lake (modified version), Modoc, Monterey	Los Angeles, Orange, Fresno (city), Oakland (city), San Jose (district in city)	Alameda, Alpine, Contra Costa, Del Norte, Napa, San Francisco (adapted model without parent information form), Santa Clara, Siskiyou, Sutter	Amador, Glenn, Marin, Nevada, Santa Barbara, Solano (in pre-K programs), Sonoma	Mono, San Mateo (Big Lift Initiative)
Geographic level of KRI	School, district, zip code, some regional analysis available	Census tract, EDI neighborhood, school district, city, zip, county	School, district, zip code, with potential for analysis by child address	School, district	School, district
Primary purpose: formative or summative	Formative	Summative	Formative	Formative	Formative
Domains / subscales of readiness covered (and number of items)	• Self and Social Development (7) • Self-Regulation (4) • Language and Literacy Development (8) • Mathematical Development (5) • English Language Development (for children who speak a language other than English in the home) (4)	• Physical Health & Well-Being (13) • Social Competence (26) • Emotional Maturity (30) • Language & Cognitive Knowledge (26) • General Knowledge & Communication (8)	• Motor Skills (2) • Self-Regulation (6) • Social Expression (4) • Kindergarten Academics (8)	• Social-Emotional / Behavioral (7) • Physical (3) • Cognitive (6)	• Academic / Cognitive Development (8) • Language Development (2) • Physical Development (3)
Approximate time to complete	15-25 minutes	10-20 minutes	10 minutes	7-10 minutes	10-15 minutes
Type of assessment	Teacher observation	Teacher observation	Teacher observation	Teacher observation	Direct assessment
KRI developers	West Ed/University of California-Berkeley	Offord Center at McMaster University (local license held by UCLA)	Applied Survey Research (ASR)	University of California- Santa Barbara	Curriculum Associates
Parent survey	Yes	No	Yes	No	No

Criteria	DRDP-SR/DRDP-K[39]	EDI[40]	KOF[41]	KSEP[42]	Brigance[43]
Teacher feedback form	Yes	Yes	Yes	No	No
Timing of administration	Within first 60 calendar days of school year	Second half of school year	Within first 3 to 4 weeks into school year	Within first 3 weeks of school year	Within first 3 to 6 weeks of school year
Predictive of 3rd grade achievement on standardized tests (ST) and behavior (predictive validity)	Provides valid and reliable psychometric measurement of individual children's development. However, no predictive validity studies of later test achievements.[44, 45]	Correlation between various 3rd grade ST scores and EDI domain scores range from .19 to .46. Children coded as "on track-top" (top 25th percentile) on EDI were 87% (math) and 83% (ELA) likely to be proficient in 3rd grade standardized tests.[46]	Correlation between 3rd grade ST scores and KOF domain scores ranging from .21 to .49; between and ST scores and KOF overall scores ranging from 0.35 to .42. Longitudinal studies showed that 68% of KOF overall highest scores were predictive of proficiency in the ST.[47]	KSEP scores rated at kindergarten entry as fully mastered were moderately correlated with reading fluency across grades 1 and 2 and the ELA portion of 2nd grade ST.[48]	Local, longitudinal data demonstrate that the Brigance is predicting later achievement in early elementary. In children who were average and above on the Brigance in San Mateo at kindergarten entry, 76% were reading at grade level at end of 2nd grade. In contrast, among children who scored below average or worse on the Brigance at kindergarten entry, only 35% were reading at grade level at end of 2nd grade.
Additional notes	Aligned with California's Common Core State Standards and California Preschool Learning Foundations	Mapping capabilities at different geographic levels	Administered during first few weeks of school year, allowing teachers to receive results in timely manner	Administered during first few weeks of school year, allowing teachers to receive results in timely manner	Does not include domains to measure social and emotional development, which is a domain recommended in NEGP's definition of school readiness

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