K-12 Education: State and Selected Teachers' Use of Kindergarten Readiness Information

GAO-24-106552 Q&A Report to Congressional Requesters September 17, 2024

Why This Matters

The early elementary school years are widely understood to be critical to a child developing a strong foundation for future academic success. Children arrive at kindergarten from diverse settings and experiences, and not all of them are "kindergarten ready." Kindergarten readiness refers to the skills and abilities needed to succeed in school, including social and emotional development, language acquisition, physical well-being, and motor skills.

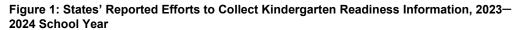
The Department of Education estimated that about 3.3 million children enrolled in public kindergarten in fall 2024; however, kindergarten is not universally required. States determine whether school districts must offer kindergarten and whether kindergarten attendance is mandatory. States also have discretion regarding whether, and how, to assess children's kindergarten readiness. Consequently, little is known about kindergarten readiness levels nationwide.

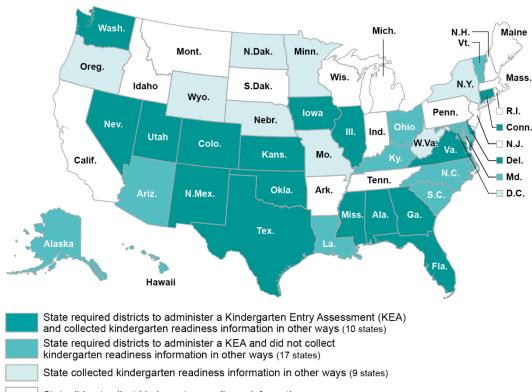
We were asked to provide information about which states assess children's readiness to learn upon entering kindergarten.¹ For this report, we surveyed state education and early childhood officials in all 50 states and the District of Columbia on how they collect and use kindergarten readiness information for children attending public schools. Throughout this report, we refer to all 51 survey respondents as states. We also held discussion groups with kindergarten teachers in six states to provide information about their experiences with administering and using assessments in kindergarten, among other topics.

Key Takeaways

- According to our survey of all 50 states and the District of Columbia, 27 states reported they required school districts to administer a formal kindergarten entry assessment (KEA) during the 2023–2024 school year.
- Of the 22 states that analyzed statewide KEA data, most reported using their analysis to inform the public (17) or meet state legislative requirements (16).
- In all six discussion groups we held with kindergarten teachers, teachers talked about how administering assessments during kindergarten is time consuming and impedes instructional time. All six groups also noted that assessments administered early in the kindergarten year typically need to be conducted one-on-one.
- In all six groups, teachers discussed using kindergarten readiness information to identify students' skill levels and determine if additional supports were needed. Four of these groups also expressed concerns about the relevance of kindergarten readiness information from the state-required KEA for instruction and whether it provided accurate results for some students.

What are kindergarten entry assessments (KEA)?	KEAs examine children's readiness to learn in a classroom setting by providing a snapshot of children's development near the beginning of the kindergarten school year. They are one way states and districts can collect information about kindergarten readiness. KEAs can include both observational and individual assessments. Most state-required KEAs encompass multiple developmental areas—often called domains—such as physical well-being, social and emotional development, language, and cognition. KEAs are sometimes referred to as kindergarten readiness assessments, kindergarten screeners, or kindergarten surveys.
To what extent do states collect information about kindergarten readiness?	Overall, about two-thirds of states (36) collected some information about kindergarten readiness in the 2023–2024 school year, according to our survey of all 50 states and the District of Columbia (see fig. 1). About half of states (27) reported they required school districts to administer a KEA. Of these states, 10 also collected additional kindergarten readiness information in other ways. For example, officials in Alaska, Louisiana, and Ohio reported collecting additional information through literacy assessments.





State did not collect kindergarten readiness information (15 states)

Source: GAO analysis of survey data. | GAO-24-106552

Notes: There is no federal requirement for districts to assess kindergarten readiness for all kindergarten students. All 50 states and the District of Columbia responded to our survey.

Nine states did not require districts to administer a KEA but collected kindergarten readiness information in other ways. For example, Minnesota and West Virginia officials indicated they collected information by measuring progress, over the course of the pre-kindergarten school year, of children attending public pre-kindergarten programs. An Oregon official also reported collecting information through conversations with family members as part of a pilot program. One of these states (Minnesota) also indicated that a KEA requirement will take effect in the 2025–2026 school year.

States have discretion regarding whether to assess children's kindergarten readiness, and our survey found that 15 states did not collect any kindergarten readiness information at the state level. When asked why they did not collect kindergarten readiness information, the most common reasons cited were the lack of a legal requirement or that it was local districts' responsibility.

What information do states with KEAs typically collect?

States varied in what content they require districts to assess and how much flexibility districts have in which assessment tool to use, according to our survey (see table 1). The 27 states with KEAs typically required districts to assess multiple domains of kindergarten readiness, especially early literacy, early math, language skills, and social and emotional development, according to our survey. Twenty states indicated that they required all districts to administer the same KEA. The remaining seven states reported granting districts varying degrees of flexibility in selecting a KEA.

Table 1: Kindergarten Entry Assessment (KEA) Requirements within the 27 States That Reported Requiring Districts to Administer a KEA, 2023–2024 School Year

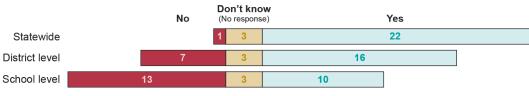
	Number of states	Percentage of states
Required domain		
Early literacy	20	74%
Early math	17	63%
Language skills	17	63%
Social and emotional development	16	59%
Physical health and motor development	13	48%
Approaches toward learning and thinking	12	44%
Number of specific domains states require districts to assess		
0	3	11%
1	5	19%
2–3	4	15%
4 or more	15	56%
Total	27	100%
KEA selection requirements		
Districts are required to conduct the same state-approved KEA	20	74%
Districts are required to choose a KEA from a state-approved list	4	15%
Districts may select any KEA or develop their own	3	11%
Total	27	100%

Notes: All 50 states and the District of Columbia responded to our survey. Percentages may not total 100 percent due to rounding.

How do states analyze KEA data?

More states analyzed KEA data statewide (22) than at the district (16) or school level (10), according to our survey (see fig. 2). For example, Maryland calculates the percentage of kindergarteners across the state who demonstrated readiness overall and average scores for each KEA domain. Similarly, Alaska calculates the percentage of students across the state who consistently met all developmental goals measured by the KEA.

Figure 2: Number of States That Reported Analyzing Kindergarten Entry Assessment (KEA) Data at Various Levels, 2022–2023 School Year



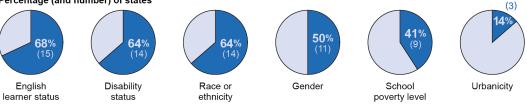
Source: GAO analysis of survey data. | GAO-24-106552

Notes: All 50 states and the District of Columbia responded to our survey. This figure captures information from 26 states that reported receiving KEA data for the 2022–2023 school year from over 10 percent of districts. We chose this school year because, at the time of our survey, states might not have had the opportunity to analyze data for the 2023–2024 school year.

Statewide analyses primarily focused on student characteristics (see fig. 3). For example, around two-thirds of the 22 states that conduct statewide analyses reported examining differences in kindergarten readiness by English learner status, disability status, or race or ethnicity.

Figure 3: Extent to Which the 22 States That Reported Analyzing Kindergarten Entry Assessment (KEA) Data at the State Level Examined Various School or Student Characteristics, 2022–2023 School Year

Percentage (and number) of states



Source: GAO analysis of survey data. | GAO-24-106552

Notes: All 50 states and the District of Columbia responded to our survey. We asked about states' analysis of 2022–2023 school year data because, at the time of our survey, they might not have had the opportunity to analyze data for the 2023–2024 school year.

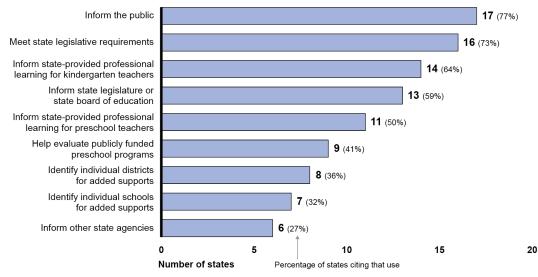
Smaller percentages of these 22 states analyzed differences in kindergarten readiness by school characteristics. For example, around 40 percent reported examining differences in kindergarten readiness by school poverty level. In addition, 14 percent said they examined differences across rural, suburban, and urban schools.

Some of the 22 states that analyze statewide data reported experiencing challenges in collecting and analyzing KEA data. Specifically, seven of these states reported challenges obtaining data from districts or schools. Three states that do not analyze statewide data also reported this challenge. In addition, half of the 22 states that analyzed KEA data said they had experienced analysis challenges due to inconsistent data. For example, officials from four states said they cannot aggregate data because, in their state, districts are allowed to use different assessments. Officials from another state noted that ongoing professional development and support are essential to ensure kindergarten teachers rate students' abilities consistently. Finally, around one-third of these 22 states reported they had experienced challenges analyzing KEA data due to inaccurate data from districts or schools.

For what purposes do states use KEA information?

About three-quarters of the 22 states that analyzed KEA data described using it to inform the public. A similar percentage reported using KEA data to meet state legislative requirements (see fig. 4). About half of the 22 states described using it to inform professional development for preschool teachers.

Figure 4: How the 22 States That Analyzed Kindergarten Entry Assessment (KEA) Data Reported Using It, 2022–2023 School Year



Source: GAO analysis of survey data. | GAO-24-106552

Note: All 50 states and the District of Columbia responded to our survey.

What challenges do teachers report facing in administering assessments to kindergarteners? In all our discussion groups—which were held with kindergarten teachers in six states that reported requiring KEAs—teachers described how administering multiple assessments in the kindergarten year is time consuming, impedes instruction, or requires teaching of new skills for some assessments.

Administering multiple assessments can be time consuming. All six discussion groups reported administering other assessments in addition to the state-required KEA. Five groups also noted that doing so early in the kindergarten year can be challenging. For example, one group said that it is very difficult to administer multiple assessments, such as the state KEA and district-required early reading and math tests, when teachers are trying to establish classroom routines and introduce kids to school. Another group discussed how spending time administering multiple assessments takes teachers away from their students.



What teachers said about the challenges of administering multiple assessments:

"If I test . . . then I am not teaching. I know that that is important, and I know that we have to drive our instruction with data, but it's . . . so many [assessment] instruments. [I am] constantly in a state of . . . being away from them because I am testing them."

"So, as a teacher, we [want to] set down . . . the rules and just the classroom environment, and it's hard when we're being taken away or we have to set up blocks of time set aside to pull kids one-on-one [for assessments] when we should be modeling classroom expectations and routines."

Source: GAO discussion groups with kindergarten teachers in public K-12 schools. | GAO-24-106552

Note: The selected comments reflect themes discussed by teachers in GAO discussion groups and are not generalizable.

Discussion groups noted that schools have used different approaches that mitigated the amount of time needed to administer multiple assessments to kindergarteners. For example, five discussion groups said that their school uses an alternative schedule at the beginning of the year, such as bringing kindergarteners in before school starts to complete assessments or having teachers devote the first few days of school to assessing students.

Administering assessments can impede instruction. Six discussion groups talked about how assessments administered early in the kindergarten year typically need to be conducted one-on-one, which can take time away from providing instruction to the full class. For example, one group discussed needing to sit one-on-one with students taking the test to keep them focused, redirecting as necessary, and giving them breaks as needed. Another group described giving busy work that can be completed independently to other students while assessing students one-on-one.

At the beginning of the school year, teachers also must balance assessments with developmental needs, such as helping students acclimate to a new environment, according to one group. Five groups noted that their schools used some strategies that reduce the time teachers need to administer tests one-onone to kindergarteners, such as having reading specialists or other staff administer assessments early in the kindergarten year.



What teachers said about assessing kindergarteners at the beginning of the school year:

"It's all one-on-one, which it obviously has to be. But it does take a lot of time. And you have to sit with the child, and you know not every child responds quickly. And you know it's . . . a lot of one-on-one time, and you're . . . pulled away from instruction."

"And we literally are teaching young people, young humans, how to work in a new space that they've not been in. And we're evaluating . . . which kids don't have the kind of emotional regulation or independence skills that they need. And we're trying to keep them from peeing their pants."

Source: GAO discussion groups with kindergarten teachers in public K-12 schools. | GAO-24-106552

Note: The selected comments reflect themes discussed by teachers in GAO discussion groups and are not generalizable.

Kindergarteners may need to learn technology used for some

assessments. Four groups reported that kindergarteners faced challenges with the technology used to administer some tests. For example, one group discussed first having to teach their kindergarteners basic computer skills, such as how to use a track pad, before the testing began. Similarly, another group talked about how taking a test on a computer can be extremely difficult for students who have never used one before.

How do teachers report using kindergarten readiness information to support student learning?

In all six discussion groups, teachers reported using kindergarten readiness information to provide additional supports to some children, assign children to learning groups, or identify students' baseline skill levels.

Providing additional supports to some children. All six discussion groups described using kindergarten readiness information to identify students who need additional supports. For example, one group discussed how students who fall

below a certain benchmark score receive 30 extra minutes of reading or math instruction every day. Six groups also talked about using the information to tailor supports to student needs. For example, one group discussed using kindergarten readiness information to tailor learning goals for students who may test high in some areas of literacy, such as letter names and sounds, but cannot read because they do not understand a key concept, such as vowels or rhyming.

	 What teachers said about using kindergarten readiness information to support student learning: "It is great because there are some kids who kind of come in without a lot of background knowledge. Not all of our kids go to preschool. But they're little sponges, and we hit the ground running, and they take off and you know, we kind [of] get them caught up really fast because of that assessment data." "It can provide an opportunity for us to target them for early intervention to ensure that they are ready [for] the next grade level." Source: GAO discussion groups with kindergarten teachers in public K-12 schools. J GAO-24-106552 Note: The selected comments reflect themes discussed by teachers in GAO discussion groups and are not generalizable.
	 Assigning learning groups. Six groups reported using kindergarten readiness information to assign kindergarteners to learning groups, such as reading groups. As discussed in one group, grouping children of similar skill levels together allows teachers to differentiate instruction to their individual abilities. Identifying baseline skill levels. Six groups talked about using kindergarten readiness information to understand students' baseline skill levels in a variety of areas, such as literacy or emotional regulation. One group explained that understanding baseline skill levels can help teachers track students' growth during the school year.
What challenges do teachers report with using information from assessments?	In all six discussion groups, teachers described several challenges with using information from assessments, including concerns about relevance for instruction or accuracy. Assessment information may not be relevant for instruction. Four groups expressed concerns about the relevance of kindergarten readiness information from the state-required KEA for instruction. For example, one group said that information captured by the state-required KEA was not specific enough to help guide instruction. Another group talked about how it takes significant time to document the developmental levels of all kindergarteners. The group noted that it would be more helpful to identify which kids are not developing at the same rate as their peers because this would help their teachers quickly determine how to get them on track. Two other groups noted that assessments that focus only on academics may exclude information that is relevant for instruction. For example, one group pointed out that key skills for kindergarten, such as social-emotional regulation, coping skills, and the ability to work with peers, are often overlooked because the state KEA only assesses academic skills. ²

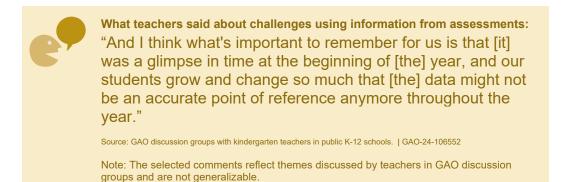


What teachers said about challenges using information from assessments: "The challenge is . . . thinking that those scores on numbers and letters are going to tell the whole picture. And it really is very, very little. . . . We say they came straight from their living room, right? That's no problem. The challenge is those kids who are not ready to learn emotionally . . . They don't have the regulation. . . . So if we're only looking at that one piece of data . . . it really is not telling very much."

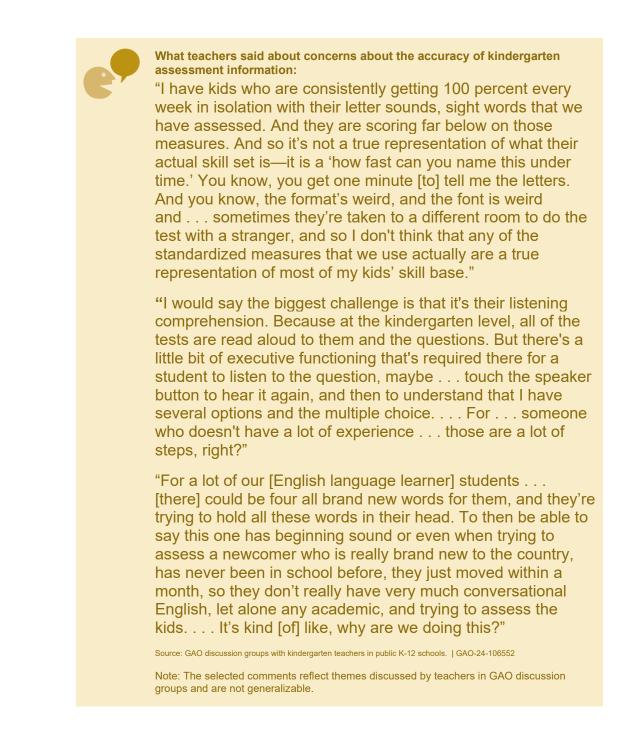
Source: GAO discussion groups with kindergarten teachers in public K-12 schools. | GAO-24-106552

Note: The selected comments reflect themes discussed by teachers in GAO discussion groups and are not generalizable.

Assessment information may not accurately represent students' skills. Four groups also noted that some of the assessments are administered a month or more after classes begin, so the results are not always an accurate representation of baseline skills, given how quickly kindergarteners learn. For example, one teacher reported administering the entry assessment over the first 60 days of school, and she questioned whether the results represented her students' baseline skills when they entered kindergarten versus what they had learned in class during those first two months. Similarly, another group noted that assessment data quickly become outdated due to how rapidly young children learn.



All six discussion groups expressed concerns about the accuracy of kindergarten assessment information for some students. For example, three groups told us that some kindergarteners take longer to feel comfortable with the school staff administering the test. This can affect their responses on a timed test, according to two of these groups. Similarly, three groups said that for kindergarteners less familiar with the technology used to administer the assessment, scores may reflect lack of skill with the technology rather than what they know about the content in the assessments. Three groups also said that assessments may not be valid for kindergarteners who are English learners due to language barriers. Teachers in two of these groups also noted that assessments may not accurately measure what English-speaking students know if they have low listening comprehension skills or if the assessment uses different terms from what students learned in preschool.



Agency Comments	We provided a draft of this report to the Department of Education for review and comment. Education did not have any comments on the report.
How GAO Did This Study	State survey . We administered a survey to state education and early childhood officials using Qualtrics software. The web-based survey was sent to officials in all 50 states and the District of Columbia in November 2023. We achieved a 100 percent response rate and closed the survey in February 2024. The survey asked questions about a range of topics, including whether states require districts to conduct a KEA; whether states collect information about kindergarten readiness in other ways; how states analyze and use KEA data; and what, if any, challenges they face. To obtain the most recent information available, we asked states about their KEA requirements for the current school year when we fielded our survey (2023–2024). Because states might not yet have analyzed KEA data

for that year, we also asked about how they analyzed KEA data for the previous school year (2022–2023). Because we surveyed officials from all states, our survey had no sampling error. We conducted pretests with officials from five states to check for the clarity of questions and flow of the survey. We revised the survey based on feedback from those pretests.

For the survey, we defined KEAs as assessments administered to students around the beginning of kindergarten to measure children's development, knowledge, or skills at the beginning of the school year. This did not include assessments or screeners administered to preschool or pre-kindergarten students. We asked states completing our survey that administer multiple assessments at the beginning of the kindergarten year to answer based on the assessment that measures children's development, knowledge, or skills across the most domains. We used student eligibility for free or reduced-price lunch, district or school eligibility for Title I funds, and community poverty rates as proxies for school poverty.³

In the report, we sometimes use the term "most" to describe the number of states. When we say "most," we mean at least half of the states referenced.

Discussion groups with kindergarten teachers. We held discussion groups with a total of 30 kindergarten teachers with one group in each of the following states: Alaska, Arizona, Illinois, Iowa, Maryland, and North Carolina. We chose these six states for geographic diversity among states that had KEA requirements. We randomly selected kindergarten teachers within our six selected states from a database of teacher contact information. We sent invitations to those randomly selected teachers until we met our goal of recruiting six to eight potential participants for each group. During these discussion groups, we asked teachers to describe how their school assesses kindergarten readiness, how they use kindergarten readiness information to support student learning, and any challenges they face in assessing and using kindergarten readiness information, among other things. We conducted a pretest of our discussion group questions with a kindergarten teacher and revised the questions based on feedback we received.

To analyze discussion group information, we first developed categories related to teachers' experiences assessing kindergarten readiness, such as ways they used assessment information and challenges they experienced. Next, we identified themes that emerged in teachers' responses within those categories. To determine prevalence, we counted the number of groups for which one or more teachers within the group provided a perspective illustrating these themes. Finally, we selected specific quotes and examples to illustrate the key themes that were discussed in multiple groups.

To conduct this work, we also reviewed relevant federal laws. Because external data do not materially affect our findings, we determined a data reliability assessment was not necessary for this review.

We conducted this performance audit from January 2023 to September 2024 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

List of Addressees	The Honorable Tom Cole House of Representatives The Honorable Blake Moore House of Representatives	
	GAO Contact Information	For more information, contact: Jacqueline M. Nowicki, Director, Education, Workforce, and Income Security Issues at, NowickiJ@gao.gov, (202) 512-7215.
	Sarah Kaczmarek, Acting Managing Director, Public Affairs, KaczmarekS@gao.gov, (202) 512-4800.	
	A. Nicole Clowers, Managing Director, Congressional Relations, ClowersA@gao.gov, (202) 512-4400.	
	Staff Acknowledgments: In addition to the contact named above, Jennifer Gregory (Assistant Director), Amy MacDonald (Analyst-in-Charge), Maria Gadel, and Smon Tesfaldet made key contributions to this report. Also contributing to this report were Madeline Barch, Maggie Baucom, James Bennett, Elizabeth Calderon, Kirsten Lauber, Abigail Loxton, John Mingus, Jessica Orr, Lindsay Shapray, Alexandra Squitieri, and Eve Weisberg.	
	Connect with GAO on Facebook, Flickr, Twitter, and YouTube. Subscribe to our RSS Feeds or Email Updates. Listen to our Podcasts.	
	Visit GAO on the web at https://www.gao.gov.	
	This work of the United States may include copyrighted material, details at https://www.gao.gov/copyright.	
Endnotes		
Litunotes	¹ This request was originally made by Representative Tom Cole when he was Ranking Member of the House Appropriations Subcommittee on Labor, Health and Human Services, Education and Related Agencies, and Representative Blake Moore.	
	² Our survey found that only two states limit their KEA to literacy, and another state limits its KEA to only literacy and math.	
	³ The Department of Agriculture's National School Lunch Program provides low-cost or free lunches to children in schools. School districts and schools with high numbers or percentages of children from low income families may receive financial assistance from the federal apvergment under Title	

from low-income families may receive financial assistance from the federal government under Title I, Part A of the Elementary and Secondary Education Act of 1965, as amended.