



Ohio

Annual Report on the Kindergarten Readiness Assessment

OFFICE OF EARLY LEARNING AND SCHOOL READINESS

FALL 2016 ADMINISTRATION

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Executive Summary

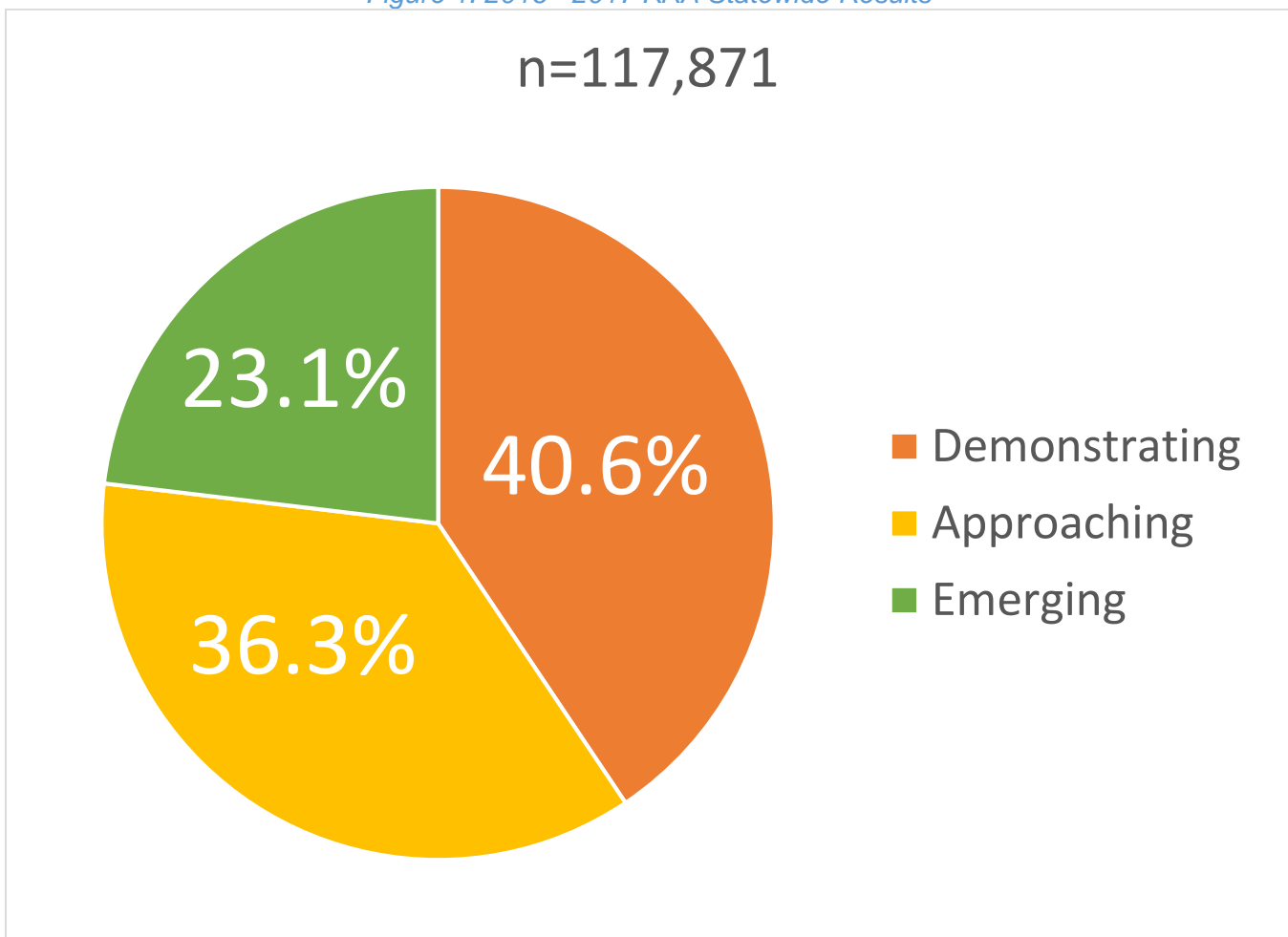
In August 2016, Ohio school districts began a third administration of the Kindergarten Readiness Assessment (KRA). This assessment provides a new way of looking at kindergarten readiness in Ohio. The KRA continues to support teachers' learning about their students, as well as to help teachers understand how they might modify their classroom instruction to support student learning. This report includes results from the third administration of the KRA in Ohio.

The KRA addresses the essential areas of development for children. The KRA takes place during the first few months of school and includes questions that students answer, as well as questions where children are observed in their classrooms while doing activities or interacting with other children.



The KRA includes 50 questions that address a child's growth and development in four main areas: Language and Literacy, Social Foundations, Mathematics, and Physical Well-Being and Motor Development. When the KRA was administered in 2014, there were 63 questions on the assessment. After the first administration of the KRA, the test was shortened. As a result, 50 items were scored and reported reflected in this 2016 – 2017 KRA Annual Report.

Figure 1. 2016 - 2017 KRA Statewide Results



Based on this assessment, 40.6 percent (47,836) of Ohio's kindergarten students were **Demonstrating Readiness**, meaning they entered kindergarten with sufficient skills, knowledge and abilities to engage with kindergarten-level instruction. An additional 36.3 percent (42,756) of these children were **Approaching Readiness** and needed supports to be able to engage with kindergarten-level instruction. As many as 23.1 percent (27,279) of children were **Emerging in Readiness**, meaning they needed significant support to engage in kindergarten-level instruction.

Among the 117,871 kindergarten students in Ohio in fall 2016 who took the complete Kindergarten Readiness Assessment, the subgroups that were most likely to demonstrate readiness to engage with kindergarten-level instruction include girls, and white non-Hispanic children. Children with disabilities were more likely to score in the emerging readiness category overall, as compared to their typical counterparts. The same is true of children with limited English proficiency as compared to their English proficient counterpart. Children in families with higher incomes demonstrated readiness at higher levels than their economically disadvantaged peers overall.

Results for each public-school district and community school in Ohio area are [available here](#) and include overall readiness scores, as well as the four sub-areas of Language and Literacy, Social Foundations, Mathematics, and Physical Development and Well-Being.

The results of the state's third administration of the KRA tell a story of growth and improvement. There are economic and demographic differences in how prepared students are to engage in kindergarten-level instruction at the start of their academic careers. If teachers know what children's relative strengths and needed supports are, it will increase the likelihood of every child succeeding in his early years of school. The information provided across the essential domains of school readiness provides a picture of each student for his or her teacher that he or she can use to best support each child. The information that the Kindergarten Readiness Assessment provides, tells us that we are on our way to ensuring supports are in place so that every Ohio child will enjoy and succeed in school.

Questions about this report can be emailed to KRAHelp@education.ohio.gov.

1. Purpose of the KRA

Ohio's KRA measures school readiness aligned to Ohio's Early Learning and Development Standards (birth to kindergarten) and is intended to be used by teachers to improve outcomes for all kindergarten children enrolled in public or community schools. The purpose of the KRA is to provide information to stakeholders at the local, regional and state levels about how well-prepared children are for kindergarten. By making aggregated assessment reports available in the Ready for Kindergarten Online system at the individual, classroom, school and district levels, the KRA can inform policy, research and educational decisions. Families, caregivers, and kindergarten teachers will learn about each child's skills, learning and developmental needs, so teachers can identify strengths and areas of support needed for each child.

The purpose of assessment in early childhood education is to facilitate instruction. Instruction is more effective when the child is approached where he or she is in the learning process. The information collected from the assessment helps families and teachers work as partners to help children succeed in kindergarten. The administration and use of the assessment provide critical evidence for a teacher to tailor instruction to effectively support children's development (Snow, 2011). In early childhood, it is important to monitor a child's growth and development closely because young children change so rapidly in a short amount of time.



2. Structure of Ohio's Kindergarten Readiness Assessment

The Kindergarten Readiness Assessment in Ohio is a 50-item formative assessment which is completed by the student by answering questions and demonstrating skills observed by his teacher as part of his regular school day activities and instruction. Teachers have between the first day of school and Nov. 1 of each fall to record their observations for each child. An overall scaled score is calculated so that each child will have a score between 202 and 298. After the assessment is complete, each student will receive a score of overall readiness in one of the following categories:

Demonstrating Readiness describes students who received an overall score between 270 and 298. These children demonstrated foundational skills and behaviors that prepare them for instruction based on Ohio's kindergarten standards.

Approaching Readiness describes students who received an overall score between 258 and 269. These children demonstrated some of the foundational skills and behaviors that prepare them for instruction based on Ohio's kindergarten standards.

Emerging Readiness describes students who received an overall score between 202 and 257. These children demonstrated minimal skills and behaviors that prepare them for instruction based on Ohio's kindergarten standards.

2.1 Areas Assessed

The KRA measures for different areas of development: Language and Literacy, Mathematics, Social Foundations and Physical Development and Well-Being. Each of these areas contributes to a child's readiness to engage in kindergarten-level instruction.

Children's abilities to participate in complex sociodramatic play supports their development of language and literacy skills and is associated with later school achievement (Rubin, Bukowski & Parker, 2006). Phonological awareness predicts reading success (Whitehurst, 1999). Research further indicates that evidence of early mathematics skills predicts academic success in all areas in later grades (Duncan, et al., 2007). Sanders (2002) demonstrated a connection between regular physical activity and increased capacity for learning. These and other studies led the developers of the KRA to focus on the four areas assessed: Social Foundations, Mathematics, Physical Well-Being and Motor Development, and Language and Literacy.

2.2 Social Foundations, Mathematics, and Physical Well-Being and Motor Development

The KRA measures the areas of Social Foundations, Mathematics, and Physical Well-Being and Motor Development. Social Foundations assesses skills such as seeking out adults for help, ability to persist in tasks and rule following. Mathematics assesses skills which are needed for kindergarten math instruction like sorting, classifying, counting and completing groups of objects. And Physical Well-Being and Motor Development lets the teacher know how ready each child is for using writing tools, large muscle coordination, balance and following basic safety rules.

Unlike the Language and Literacy area of the KRA, the areas above do not have cut scores that determine on track or not on track. This means that there is no expected level of readiness in these three areas of the assessment. Instead, the scores in each of these areas alerts the teacher to the relative strengths or needs for each child's development and overall readiness for the multi-dimensional kindergarten curriculum. Stated another way, a child who scores higher in mathematics than language and literacy indicates that the child may be further along in her foundational development in mathematics than she is in her language and literacy. This information can then guide both teachers and families to support the child in areas which promote further growth and development.



2.3 Language and Literacy

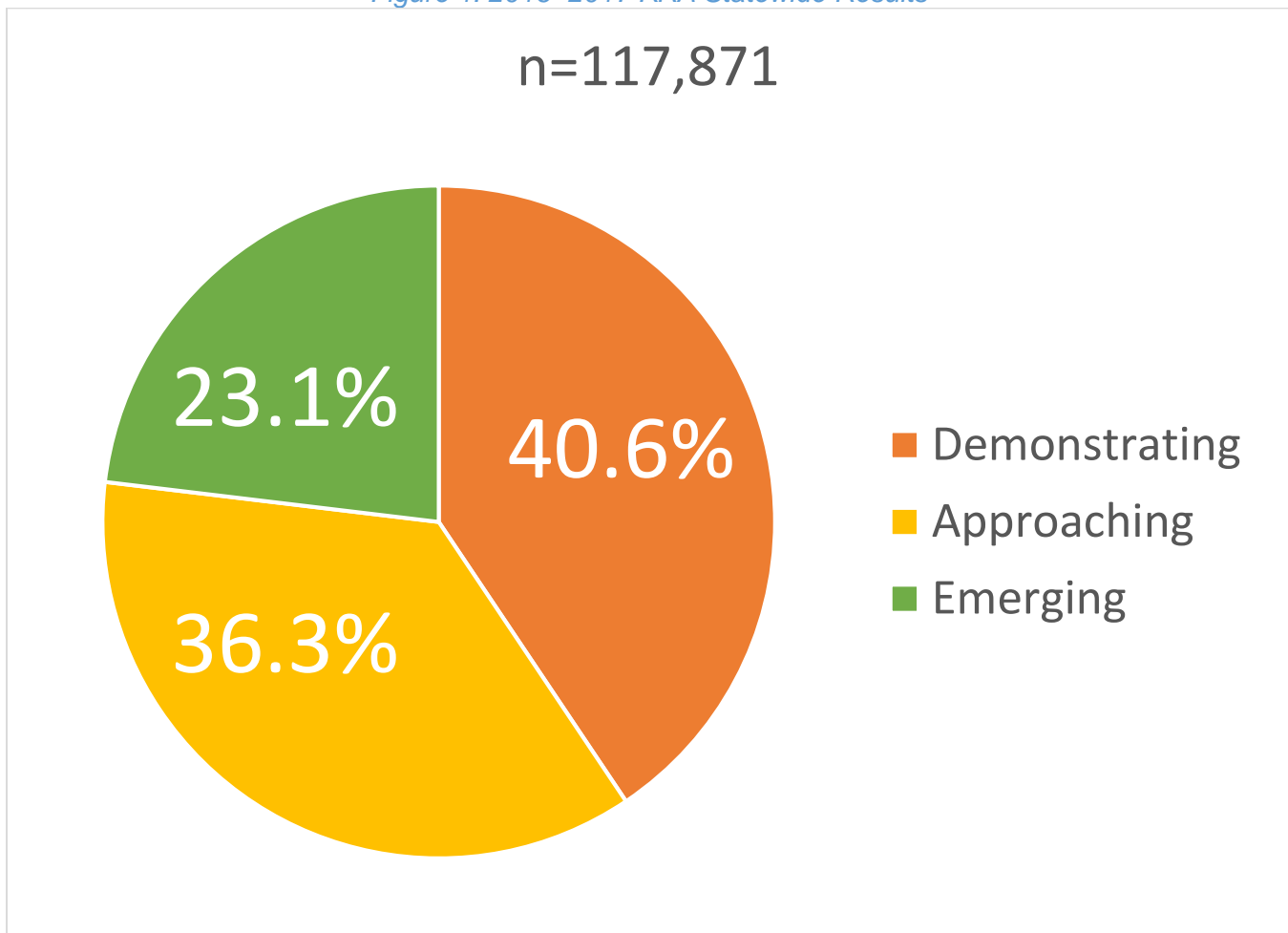
Language and Literacy is also measured by the KRA. In this domain of school readiness, children are assessed for their skills in writing, reading, letter recognition, speaking and listening. Research shows that children who do not gain basic reading skills by the end of third grade struggle to succeed in higher grades, where they learn mostly by reading. Under Ohio's law for the Third Grade Reading Guarantee, all third graders must attain a designated level on the reading section of the grade 3 English language arts test to be promoted to fourth grade (ORC 3313.608). Additionally, starting in kindergarten, children's reading skills must be assessed using a reading diagnostic every year. The KRA must be administered to all first-time kindergarten students enrolled in public school districts and community schools and may be used to meet the requirements of a reading diagnostic test for the Third Grade Reading Guarantee.

The Language and Literacy area of the KRA may be used for the Kindergarten diagnostic requirement of the Third Grade Reading Guarantee because it measures students' skills in the areas of early reading, letter recognition and using words in conversations. Scores of 263 or higher are on track for proficiency in reading by third grade, while scores of 262 or lower are not on track. When a child's score is not on track, the teacher, district and school must create a plan to help the child get on track as soon as possible. For more information, please go [here](#).

3. 2016-2017 State Results

Between the first day of school and the first of November 2016, 117,871 kindergarten students in Ohio public or community schools took the complete Kindergarten Readiness Assessment. Figure 1 below shows where these students were in their overall kindergarten readiness.

Figure 1. 2016- 2017 KRA Statewide Results



Data Note: Children who were taking kindergarten for a second time were excluded from the data. Students who did not receive an overall score because the test was not fully administered also were excluded from these data. Other data excluded were scores deemed invalid (had values outside the possible range of values) or students with no reported KRA item scores.

Based on this assessment, 40.6 percent (47,836) of Ohio’s kindergarten students were **Demonstrating Readiness**, meaning they entered kindergarten with sufficient skills, knowledge and abilities to engage with kindergarten-level instruction. An additional 36.3 percent (42,756) of these children were **Approaching Readiness** and needed supports to be able to engage with kindergarten-level instruction. As many as 23.1 percent (27,279) of children were **Emerging in Readiness**, meaning they needed significant support to engage in kindergarten-level instruction.

For individual districts, these data are available on the department’s website [here](#). Using the tool online, districts can find these same statistics for their own district, as well as compare their results with other district-level results.

In the data available, the KRA Language and Literacy sub scores are provided to show on track and not on track status for kindergarten students. Districts may use other diagnostic reading assessments when they report this information to the state. Therefore, the data presented here may not match the data included in the district’s Ohio School Report Card.

3.1 State Average in Overall Readiness

The average overall score for those students who took the KRA in fall 2016 was 266.5 which is very close to the cut score for Demonstrating Readiness, which is 270. The average is lower than the highest performance level because more children in Ohio are entering kindergarten without the skills needed to engage in kindergarten-level instruction than with those skills.

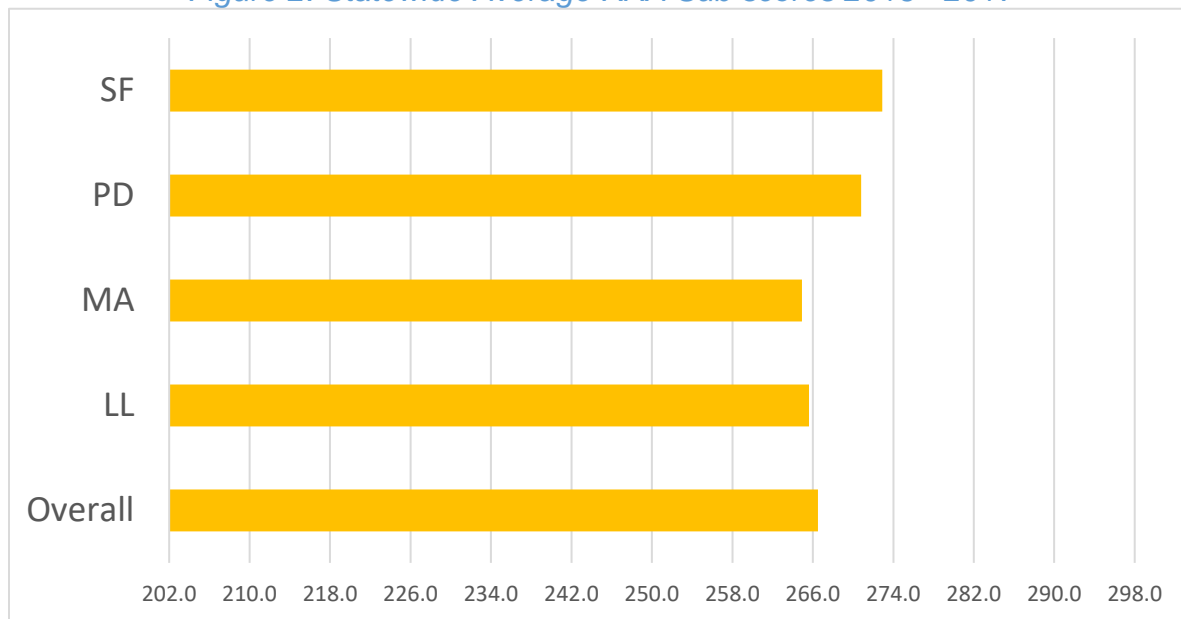
3.2 State Average in Subscores

The average subscores for those students who took the KRA in fall 2016 are as follows:

- Language and Literacy – 265.6
- Social Foundations – 272.9
- Mathematics – 264.9
- Physical Well-Being & Motor Development – 270.8

While there are no cut scores for performance in these areas, the average performance of children in these areas is above the midpoint of the performance ranges. Figure 2, below, shows the statewide average sub scores for all four areas assessed on the KRA.

Figure 2. Statewide Average KRA Sub scores 2016 - 2017



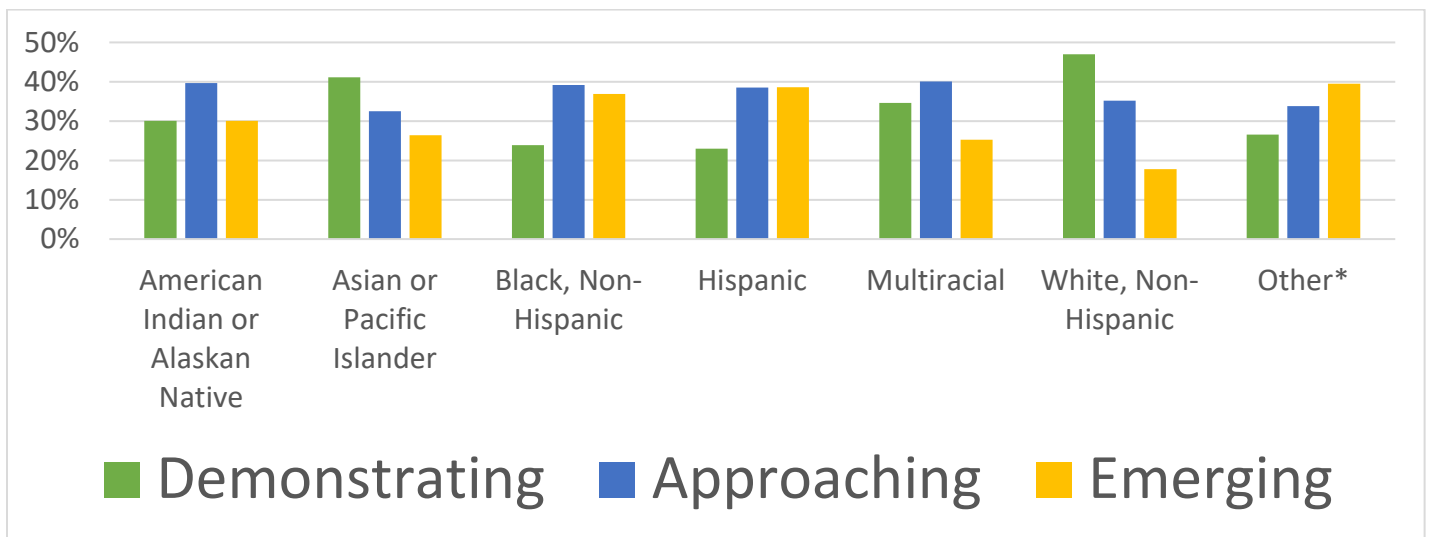
Data Note: SF = Social Foundations, PD = Physical Development and Well-Being, MA = Mathematics, LL = Language and Literacy, Overall = Overall Scaled Score

3.3 KRA and Student Demographics

Kindergarten Readiness Assessment results were then analyzed by demographic or descriptive characteristics of student groups. Anytime there were fewer than ten students in a category or group, the data were masked to protect identities.

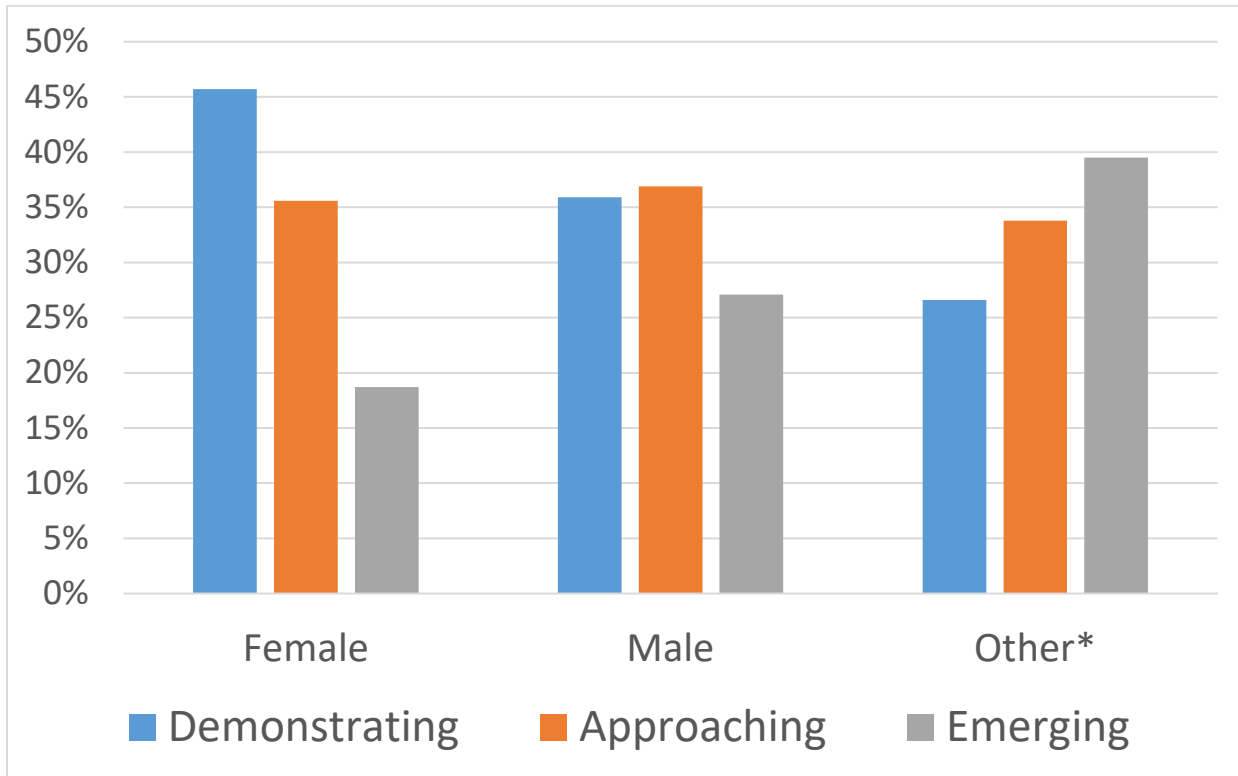
Student Ethnicity. Figure 4 shows that Asian and White, non-Hispanic students were more likely to score in Demonstrating Readiness than their Black, non-Hispanic, American Indian or Alaskan Native, Multiracial and Pacific Islander peers. All Ohio kindergarteners who are nonwhite, non-Hispanic, except for children who are Asian; were more likely to be Approaching Readiness, while children who were Hispanic were almost equally as likely to be either Approaching or Emerging Readiness at the start of their kindergarten year. The “Other” category in this and future graphs represents children whose demographic data was missing or not reported to the Ohio Department of Education.

Figure 4. Performance Levels by Ethnicity Statewide KRA 2016 - 2017 Results



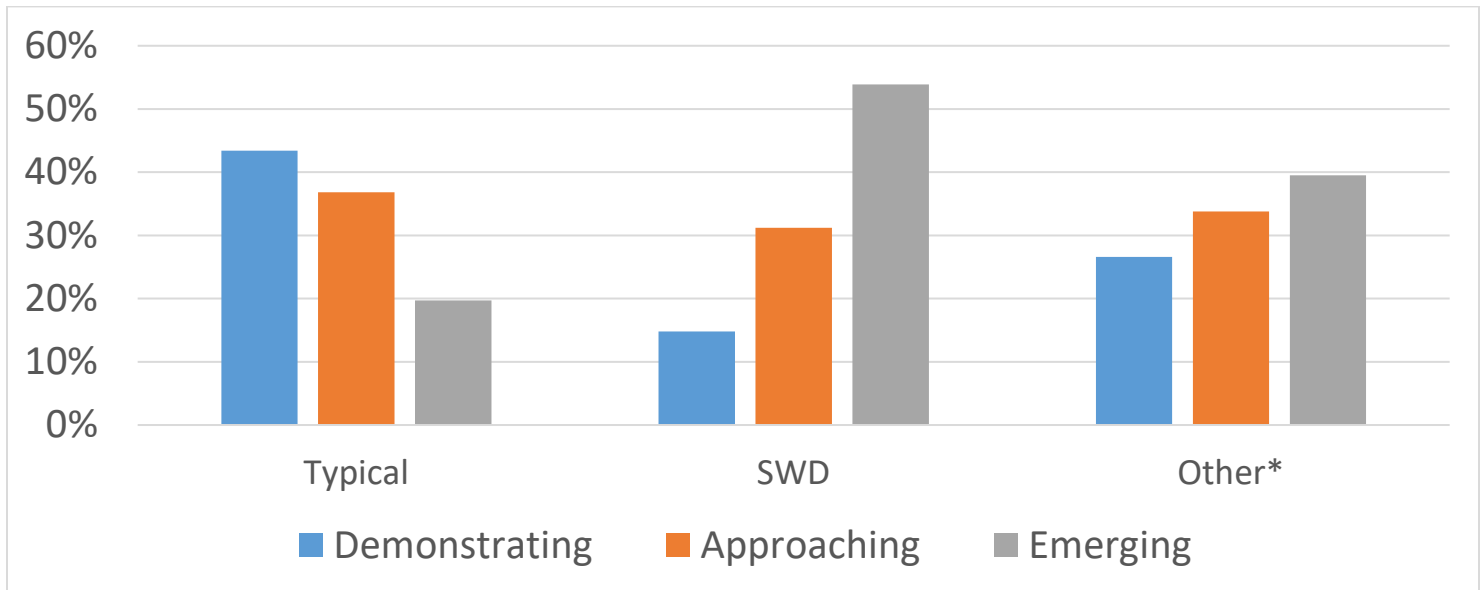
Gender. Looking at the statewide KRA data by gender, Figure 5 shows that girls were more likely than boys to be Demonstrating Readiness, while boys were more likely to start kindergarten Approaching Readiness. Other denotes when the specific demographic data were not reported to the Ohio Department of Education.

Figure 5. Performance Levels by Gender Statewide KRA 2016 Results



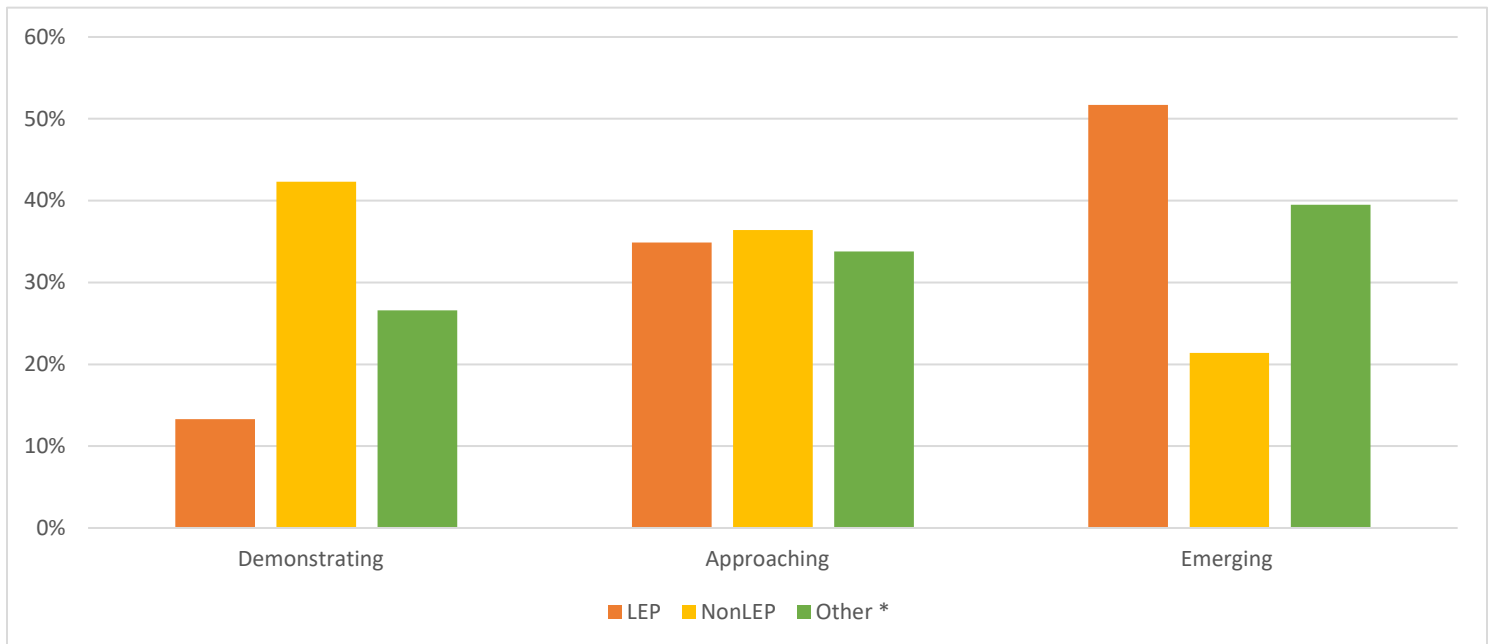
Children with Disabilities. Figure 6 shows that students without disabilities have a nearly identical likelihood of starting kindergarten either Demonstrating and Approaching Readiness, while children with disabilities were most likely to score in the Emerging Readiness category.

Figure 6. Performance Levels for Children with Disabilities Statewide KRA 2016 Results



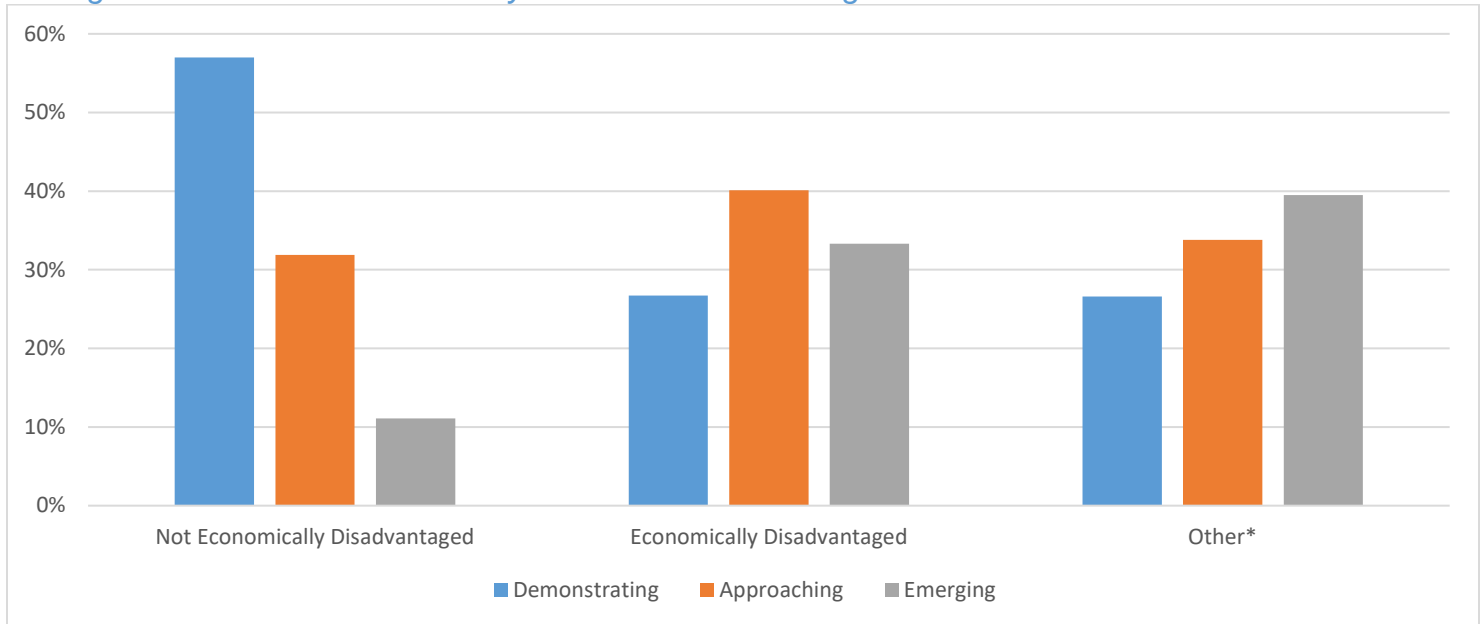
Limited English Proficiency. Children who are identified as limited English proficient in Kindergarten were likely to have scored in the Emerging Readiness performance level than children not identified as limited English proficient in Kindergarten.

Figure 7. Performance Levels for students with LEP Statewide KRA 2016 Results



***Economic Disadvantage.** Figure 8 shows that students who are not economically disadvantaged are more likely to score in Demonstrating Readiness, while students who are economically disadvantaged were more likely to score in the Approaching Readiness level.

Figure 8. Performance Levels by Economic Disadvantage Statewide KRA 2016 Results



**Economically Disadvantage can be defined when as student is eligible to receive free or reduced-priced lunch through the United States Department of Agriculture (USDA) National School Lunch Program; Student is a resident of a household in which a member is eligible for free or reduced-lunch through the USDA National School Lunch Program; Student is known to be a recipient of or whose guardians are known to be recipients of public assistance; or Student’s parents or guardians have completed a Title I student income form and meet the income guidelines specified) with students who are not economically disadvantaged.*

4. Conclusions and Future Reports

This report contains some analyses of the statewide data from the 2016-2017 administration of the KRA. Data from the 2017-2018 administration of the KRA will be reported in spring 2018. The Ohio Department of Education will release data from the KRA each year, after it has been collected by the state from public and community schools. Comparisons to some of the analyses presented here will be included in the next annual report of the KRA.

As mentioned at the beginning of this report, assessment in early education is essential to promote growth and development. For young children, assessment does not look the same as it does for older children. Assessment in early education is much less intrusive and should feel like children are in class and engaging with peers and the teacher rather than taking a sit-down test.



The Kindergarten Readiness Assessment is the first early childhood assessment used in Ohio that looks at the whole child. The Kindergarten Readiness Assessment is the first to recognize the importance of a child’s development across the essential domains of school readiness. The research is clear that all areas of development are interconnected; a fact even more pronounced in young children. A delay in development in a seemingly unrelated area could impact a student’s ability to achieve academically later in life.

The results of the state's third census administration of the Kindergarten Readiness Assessment tell the story that we anticipated. We know that prior experience plays a significant role in a child's readiness to engage in kindergarten-level instruction upon entering kindergarten. We also know that access to high quality preschool experiences is limited for children in poverty, children with disabilities, children who are English Language Learners and children who are not white non-Hispanic or Asian. These facts are born out in the data. Ohio is already making efforts to address this issue with its Step Up to Quality rating system to ensure that preschool programs are providing high-quality experiences to children and with its Early Childhood Education Grant to provide funding for children in low-income families to be able to access high quality preschool experiences.

We are learning a great deal about what the children of Ohio know and are able to do when they come to school to start their education. This knowledge will inform teachers, families and communities who can take actions to support the growth and development of all the young children in Ohio. When we support early childhood education, we maximize the likelihood that all Ohio's children will start school ready to learn. By ensuring that, we give our youngest citizens the chance to succeed and excel in both school and life.

References

Duncan, G. J., C. J. Dowsett, A. Claessens, K. Magnuson, A.C. Huston, P. Klebanov, L. S. Pagani, L. Feinstein, M. Engel, and J. Brooks-Gunn. 2007. School readiness and later achievement. *Developmental Psychology* 43 (6): 1428-46.

Helm, J. H. (n.d.). Best practices in assessment in early childhood education. Resources for Early Childhood. Retrieved from <http://rec.ohiorc.org/Research/Reference/Briefs.aspx>.

Rubin, K. H., W. Bukowski, & J. Parker. 2006. Temperament. In *Handbook of child psychology, Vol. 3: Social, emotional, and personality development*, 6th ed., ed. N. Eisenberg, 571-645. New York: John Wiley & Sons.

Sanders, S. W. 2002. *Active for live: Developmentally appropriate movement programs for young children*. Washington, DC: NAEYC.

Snow, K. 2011. Developing kindergarten readiness and other large-scale assessment systems: Necessary considerations in the assessment of young children. Washington, DC: National Association for the Education of Young Children.

Whitehurst, G. J. 1999. The role of inside-out skills in reading readiness of children from low-income families. In *From prereaders to readers: The role of phonological processing skills in at risk and typically developing children*, chaired by C. Lonigan. Symposium conducted at the biennial meeting of the Society for Research in Child Development, April 15-18, Albuquerque, NM.

