

Cincinnati Public Schools

Kindergarten Readiness Assessment Revised (KRA-R) Outcomes for 2021-2022

Prepared by INNOVATIONS in Community Research and Program Evaluation at Cincinnati Children's Hospital Medical Center in partnership with Cincinnati Public Schools, United Way of Greater Cincinnati - Success By 6® (April 2022)

The Cincinnati Public Schools (CPS) district administered the Ohio Kindergarten Readiness Assessment Revised (KRA-R) and Acadience Reading (K-6) assessment to the 2021-22 Kindergarten class in the fall of 2021, during the COVID-19 pandemic. KRA-R measures academic readiness and literacy skills as well as Social Foundations (socio-emotional development), Mathematics, Physical Well-Being, and Motor Development. Assessments were completed by 2,577 CPS kindergarteners in 2021-22. This report focuses on KRA-R composite scores (overall kindergarten readiness score) and the Language and Literacy subtest scores of students assessed. The KRA-R measures readiness through performance levels: Emerging Readiness (Scores of 0-257), Approaching Readiness (Scores of 258-269), and Demonstrating Readiness (Scores at or above 270). A scaled score of 263 and above on the Language and Literacy subtest indicates that a student is "On Track" for literacy by third grade. The Acadience Reading (K-6) assessment measures reading proficiency using reading composite scores and benchmark status: Well Below Benchmark (Scores of 0-12), Below Benchmark (Scores of 13-25), At Benchmark (Scores of 26-37), and Above Benchmark (Scores of 38+). Data included in this report were provided by CPS and analyzed by INNOVATIONS in Community Research and Program Evaluation of Cincinnati Children's Hospital Medical Center in partnership with CPS. The results below illustrate districtwide performance on the assessment specific to composite scores and assessment benchmarks for understanding students' On Track status in literacy.

Demographic Characteristics of 2021-22 Kindergartners

- 50.1% Male and 49.9% Female
- 57.7% Black/African-American
- 22.8% White
- 9.0% Hispanic
- 9.3% Multi-Racial
- 1.2% Other/Unknown Race

Socioeconomic Status (SES)* of 2021-22 Kindergartners

- SES data acquired for 2,569 (99.7% of KRA-R Cohort)
- 33.1% SES 1
- 27.5% SES 2
- 25.5% SES 3
- 13.9% SES 4

CPS Preschool Experience of 2021-22 Kindergartners

- Among students with complete Kindergarten assessments, 38.2% had documented CPS preschool experience prior to Kindergarten.
- CPS preschool dosage data indicate that 11.3% of the 2021-22 cohort had 1 year of CPS preschool experience and 26.9% had two years.

KRA-R Performance of 2021-22 CPS Kindergartners

KRA-R Overall:

- 30.1% Demonstrating Readiness
- 35.5% Approaching Readiness
- 34.4% Emerging Readiness
- Average scaled score of 262.8 (SD = 14.5)

KRA-R Language and Literacy Subtest:

- 42.3% On Track for literacy by third grade
- Average scaled score of 261.3 (SD = 17.3)

CPS KRA-R Performance by SES*

- Students who live in neighborhoods with higher concentrations of SES* risk factors (SES 1 and 2) scored lower than their higher SES (SES 3 and 4) counterparts (Figures 2-3).

Figure 1. KRA-R Results: 2021-22 CPS Kindergartners

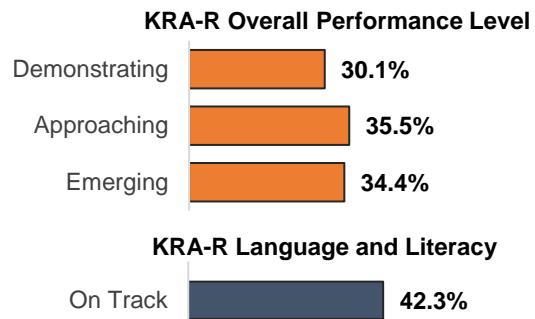


Figure 2. KRA-R Performance Levels by SES* (2021-22)

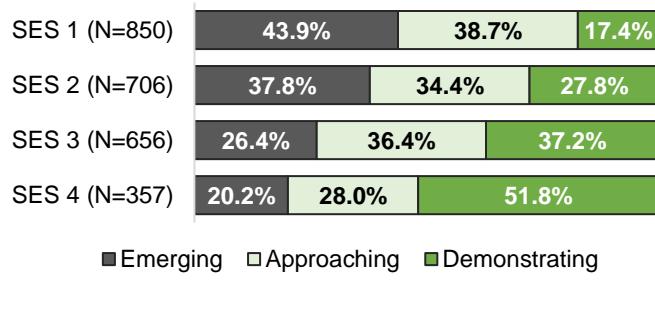
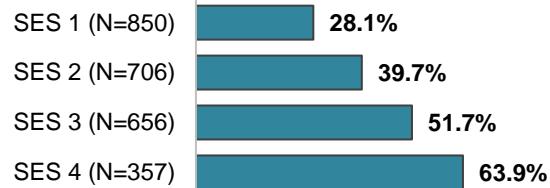


Figure 3. Percent On Track in KRA-R Literacy by SES* (2021-22)



*Socioeconomic status (SES) was estimated via student neighborhood of residence using the classification system (SES Quartiles 1-4) illustrated in The Social Areas of Cincinnati (5th Ed.; Maloney & Auffrey, 2013). Lower quartiles (SES 1 and 2) represent students living in neighborhoods with a higher concentration socioeconomic risk factors as measured by the 2019 American Community Survey – 5 Year Estimates.



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CPS KRA-R Performance by CPS Preschool Experience

- Students with Documented CPS Preschool experience were Approaching or Demonstrating Readiness (Figure 4) and On Track in literacy (Figure 5) at a higher frequency than students with all other experiences.**

KRA-R and Acadience Reading (K-6) Relationship

- In 2020-21, the CPS district administered Acadience Reading (K-6) assessments to measure reading proficiency among kindergartners in lieu of the KRA-R.
- In 2021-22, CPS Kindergartners were administered both the KRA-R and Acadience Reading (K-6) assessment. This provided the opportunity to explore the relationship between Acadience Reading and KRA-R results.
- Acadience Reading (K-6) scores explained 46.5% of the variability in overall KRA-R scores and 48.6% of Language and Literacy scores.
- 55.2% of students At or Above Benchmark on the Acadience Reading (K-6) Demonstrated Readiness on the overall KRA-R compared to 8.6% of those Below Benchmark (Figure 6).
- 72.3% of students At or Above Benchmark were On Track in KRA-R Literacy compared to 16.9% of students Below Benchmark (Figure 7).

Acadience Reading Performance by School Year

- CPS kindergartners who completed the Acadience Reading (K-6) assessment in 2021-22 were compared to the Acadience Reading (K-6) cohort of 2020-21.
- Students in the 2021-22 cohort scored At or Above Benchmark at a frequency of 46.2% (Figure 8); 4.3 percentage points lower than the 2020-21 cohort (50.5%).

Differences between Pre-Pandemic (2019-20 KRA) and Pandemic (2021-22 KRA-R) Kindergarten Readiness

- CPS kindergartners On Track for literacy decreased by 14.9 percentage points from 57.2% in 2019-20 to 42.3% in 2021-22.
- The proportion of students On Track decreased since 2019-20 within SES 1, 2, 3, and 4 by 12.0, 12.4, 11.4, and 14.7 percentage points, respectively.
- Students with Documented CPS Preschool Experience decreased 15.9 percentage points since 2019-20, and students with all other experiences** decreased 14.6 percentage points.

Figure 4. KRA-R Performance Levels by CPS Preschool Experience (2021-22)

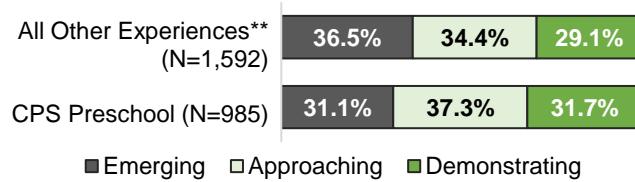


Figure 5. Percent On Track in KRA-R Literacy by CPS Preschool Experience (2021-22)



**Students with no documented CPS preschool experience. These students may or may not have attended non-CPS preschool programs prior to enrolling in kindergarten.

Figure 6. KRA-R Performance Levels by Acadience Reading Benchmark (2021-22)

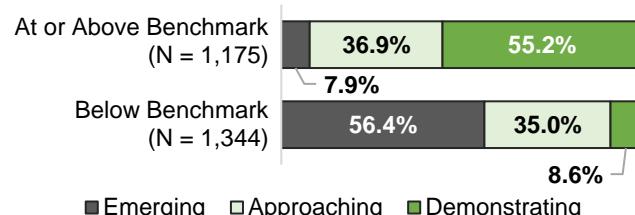


Figure 7. Percent On Track in KRA-R Literacy by Acadience Reading Benchmark Status (2021-22)

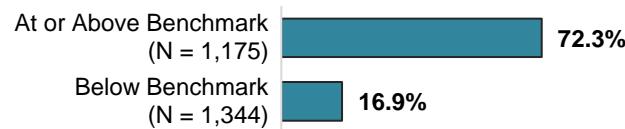
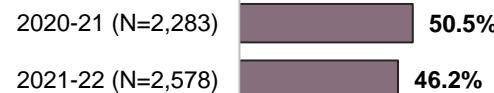


Figure 8. Percent At or Above Acadience Reading Benchmark: 2-Year Comparison



Summary: CPS KRA-R 2021-22 results show that 34.4% of students were Emerging, 35.5% were Approaching, and 30.1% were Demonstrating Readiness. On the Language and Literacy subtest, 42.3% of students were considered On Track for literacy in third grade. A higher percentage of students with Documented CPS Preschool Experience were On Track on the Language and Literacy subtest compared with students with All Other Experiences. The supplemental Acadience Reading analysis demonstrated that the assessment is a good predictor for On Track KRA-R Language and Literacy scores. The comparison of 2021-22 to 2020-21 Acadience Reading results indicated that the 2021-22 cohort less frequently scored At or Above the Acadience Reading Benchmark (46.2%) than their 2020-21 counterparts (50.5%).

Next Steps: Identifying and removing barriers to preschool enrollment and retention in quality preschool is critical to achieving kindergarten readiness, especially for low-income children. Quality preschool provides an enhanced learning environment, instructional enrichment, and social support, which prepare a child for success in kindergarten and beyond.¹ As the COVID-19 pandemic persists, it is important to support the holistic development of every child and to determine if additional support is needed to address their academic, social, emotional, and developmental needs. A strategic approach may also be needed to better assess the impact of the pandemic on families and to ensure that those with high-level needs receive systems-level resources and interventions.

¹ Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M. R., Espinosa, L. M., Gormley, W. T., Ludwig, J., Magnuson, K. A., Phillips, D., Zaslow, M. J. (2013). Investing in our future: The evidence base on preschool education. Foundation for Child Development and Society for Research in Child Development.



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