

Trends and Gaps in Reading Achievement across Kindergarten and Grade 1 in Two Illinois School Districts

To assess education progress in the early grades and identify achievement gaps, this study examined reading achievement data for kindergarten and grade 1 students in two districts in Illinois: District U–46 (Elgin Area Schools) and District 186 (Springfield Public Schools). Drawing on a different reading assessment in each district, the study team documented reading achievement in these two early grades for two kindergarten cohorts (2016/17 for District U–46 and 2017/18 for District 186) and examined disparities in achievement for several student demographic groups. In particular, the study identified gaps in reading achievement at different time points in kindergarten and grade 1 by students’ race/ethnicity, eligibility for the national school lunch program (an indicator of poverty), English learner status, participation in special education, and gender. The findings can enhance alliance members’ understanding of reading achievement trends and gaps and can inform district administrators’, policymakers’, and educators’ decisions about which students could benefit from additional reading supports. In addition, the findings can motivate conversations about the root causes of inequities in reading achievement and how to resolve them.

Why this study?

A 2019 study documented gaps in language and literacy at kindergarten entry in Illinois by student race/ethnicity, eligibility for the national school lunch program (an indicator of poverty), English learner status, and participation in special education.¹ Members of the Midwest Early Childhood Education Research Alliance of the Regional Educational Laboratory Midwest conducted the current study to better understand the reading achievement of kindergarten and grade 1 students and to identify gaps in reading achievement between students in various demographic groups. The findings can enhance alliance members’ understanding of reading achievement trends and gaps and can inform district administrators’, policymakers’, and educators’ decisions about which students could benefit from additional reading supports. In addition, these findings can motivate conversations about the root causes of inequities in reading achievement and how to resolve them.

What was studied and how?

The study analyzed student records and reading assessment data for two cohorts of kindergarten and grade 1 students—the 2016/17 kindergarten cohort in District U–46 (Elgin Area Schools) and the 2017/18 kindergarten cohort in District 186 (Springfield Public Schools)—to answer two research questions:

1. How much does student reading achievement change across kindergarten and grade 1?
2. How much do changes in reading achievement differ by student demographic groups across kindergarten and grade 1?

1. Bowdon, J., Dahlke, K., Yang, R., Pan, J., Marcus, J., & Lemieux, C. (2019). *Children’s knowledge and skills at kindergarten entry in Illinois: Results from the first statewide administration of the Kindergarten Individual Development Survey* (REL 2020–012). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Midwest. <https://eric.ed.gov/?id=ED599357>.

The two districts used different assessments to determine reading achievement. District U–46 used the Fountas and Pinnell Benchmark Assessment System—a formative reading assessment administered by teachers—to assess the reading proficiency of kindergarten and grade 1 students on a scale from A to Z.² District U–46 expects students to receive a level C rating in winter of kindergarten, a level D rating in spring of kindergarten, a level F rating in winter of grade 1, and a level J rating in spring of grade 1. District 186 used the Measures of Academic Progress for Primary Grades assessment, a nationally normed adaptive assessment that is appropriate for universal screening and growth measurement of students’ reading achievement.³

The District U–46 sample consisted of a total of 2,703 students with assessment results at any time point: 2,396 students in winter of kindergarten, 2,420 students in spring of kindergarten, 2,586 students in winter of grade 1, and 2,582 students in spring of grade 1. The District 186 sample consisted of a total of 928 students with assessment results at any time point: 927 students in fall of kindergarten, 947 in winter of kindergarten, 927 in spring of kindergarten, 930 in fall of grade 1, 929 in winter of grade 1, and 928 in spring of grade 1.

The study examined trends and gaps in reading achievement of each district’s cohort of kindergarten students across kindergarten and grade 1, as well as differences in reading achievement across student demographic groups (race/ethnicity, eligibility for the national school lunch program, English learner status, special education status, and gender).⁴ Separate analyses were performed for each district because of differences in the outcome measures and dates of the study period. District U–46 used a discrete, categorical measure (proficient or not proficient), while District 186 used a continuous measure.

Findings

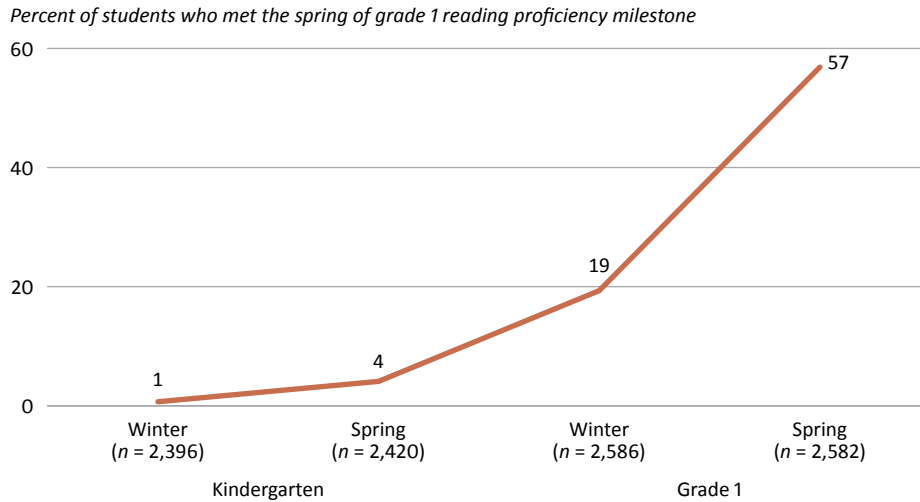
- **In District U–46 reading proficiency for the 2016/17 kindergarten cohort increased across kindergarten and grade 1, with more than half the students meeting the district’s spring of grade 1 reading proficiency milestone by the end of grade 1.** In District U–46 the percentage of students who met the spring of grade 1 reading proficiency milestone (level J) increased over time, culminating in 57 percent of students meeting the milestone by the end of grade 1 (figure 1).
- **In District U–46 the percentage of students who met the district’s spring of grade 1 reading proficiency milestone by the end of grade 1 was higher for Asian and White students than for students of other races/ethnicities and higher for students who were not eligible for the national school lunch program, for students who were not English learner students, and for students who were not in special education than for students who were.** Higher percentages of Asian students (73 percent) and White students (61 percent) than of Hispanic students (55 percent) and Black students (37 percent) met the spring of grade 1 reading proficiency milestone by the end of grade 1. The percentage of students who met the milestone was higher for students not eligible for the national school lunch program (65 percent) than for students who were (52 percent), for students who were not English learner students (61 percent) than for students who were (53 percent), and for students who were not in special education (60 percent) than for students who were (28 percent).
- **In District 186 reading achievement for the 2017/18 kindergarten cohort increased across kindergarten and grade 1 at rates similar to those observed in a national sample used to establish normal development.** Average Rasch unit scores on the Measures of Academic Progress for Primary Grades increased across time points and were similar to national norms (figure 2). National norms allow for the comparison of District 186 students’ scores with those of a national sample of students who took the same assessment in a prior academic year. The average score increased by 34 points across the two years in District 186 and by 37 points in the sample used to establish national norms. The difference in reading scores was 0.07 standard deviation units

2. Fountas, I. C., & Pinnell, G. S. (2007). *Fountas and Pinnell Benchmark Assessment System 1: Grades K–2, levels A–N*. Heinemann.

3. Northwest Evaluation Association. (2009). *Technical manual for measures of academic progress and measures of academic progress for primary grades*.

4. District 186 has few English learner students in its districts and did not provide data on students’ English learner status. Therefore, the study team did not estimate scores separately for this student demographic group.

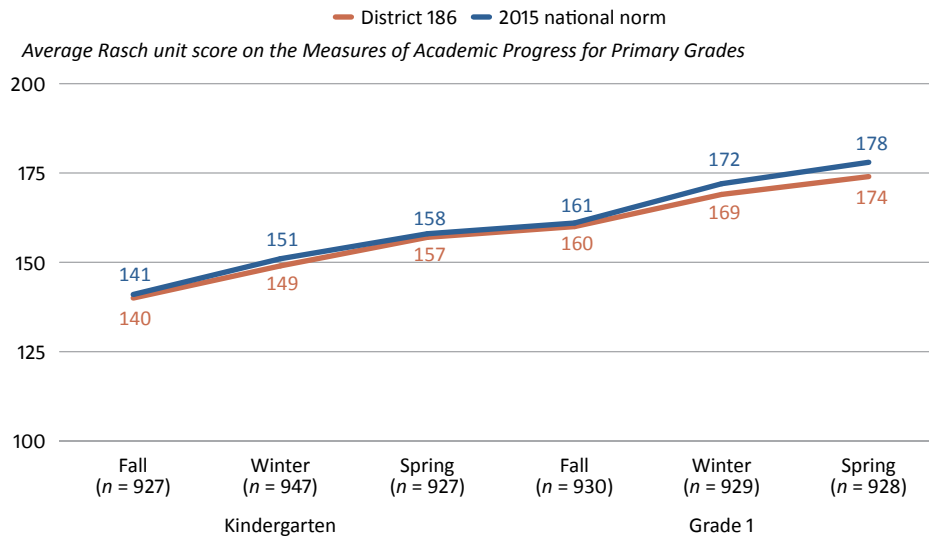
Figure 1. By the end of grade 1, 57 percent of students in District U–46 in Illinois met the spring of grade 1 reading proficiency milestone (level J), part of a rising trend in reading proficiency, 2016/17–2017/18



Note: Students could meet the proficiency milestone in either the English or the Spanish version of the Fountas and Pinnell Benchmark Assessment System. The sample included all kindergarten students in 2016/17 and grade 1 students in 2017/18 in 40 schools who took an assessment at any of the time points covered even if they did not take an assessment at every time point.

Source: Authors’ analysis using assessment data for 2016/17–2017/18 from District U–46.

Figure 2. Average reading scores on the Measures of Academic Progress for Primary Grades in District 186 in Illinois were similar to national norms and rose for students from fall of kindergarten to spring of grade 1, 2017/18–2018/19



Note: The sample included kindergarten students in the 2017/18 school year and grade 1 students in the 2018/19 school year in 23 schools who took a reading assessment at any time point.

Source: Authors’ analysis using assessment data for 2017/18–2018/19 from District 186 and national norms data for the Measures of Academic Progress for Primary Grades from Thum, Y. M., & Hauser, C. H. (2015). *NWEA 2015 MAP norms for student and school achievement status and growth*. NWEA Research Report. NWEA.

(equivalent to 14 days of instruction) in fall of kindergarten and 0.27 standard deviation units (equivalent to 51 days of instruction) in spring of grade 1.

- **In District 186 gaps in average reading scores across kindergarten and grade 1 widened between student groups defined by race/ethnicity, eligibility for the national school lunch program, and special education status and narrowed between male and female students.** The gap in average reading scores on the Measures of Academic Progress for Primary Grades between Asian students and Black students widened from 1.04 standard deviation units (equivalent to 194 days of instruction) in fall of kindergarten to 1.39 standard deviation units (equivalent to 259 days of instruction) by spring of grade 1. The gap in scores between Asian students and Hispanic students widened from 0.49 standard deviation units (equivalent to 91 days of instruction) in fall of kindergarten to 0.82 standard deviation units (equivalent to 151 days of instruction) by spring of grade 1. The gap in scores between White students and Black students widened from 0.57 standard deviation units (equivalent to 105 days of instruction) in fall of kindergarten to 0.72 standard deviation units (equivalent to 133 days of instruction) by spring of grade 1.

The gap in average reading scores between students in District 186 who were eligible for the national school lunch program and students who were not eligible widened from 0.23 standard deviation units (equivalent to 43 days of instruction) in fall of kindergarten to 0.52 standard deviation units (equivalent to 97 days of instruction) by spring of grade 1. The gap between these two groups widened from 0.23 standard deviation units (equivalent to 43 days of instruction) in fall of kindergarten and to 0.52 standard deviation units (equivalent to 97 days of instruction) by spring of grade 1. The gap in average reading scores between students in special education and students not in special education widened from 0.18 standard deviation units (equivalent to 34 days of instruction) in fall of kindergarten to 0.59 standard deviation units (equivalent to 110 days of instruction) by spring of grade 1. Female students had higher reading achievement scores than male students. The gap narrowed from 0.18 standard deviation units (equivalent to 33 days of instruction) in fall of kindergarten to 0.12 standard deviation units (equivalent to 22 days of instruction) by spring of grade 1.

Implications

The current study builds on a 2019 study by the Midwest Early Childhood Education Research Alliance that found gaps in language and literacy skills between student demographic groups in Illinois—including Black and Hispanic students relative to Asian and White students, students eligible for the national school lunch program relative to those not eligible, and English learner students relative to non-English learner students—even before children enter kindergarten.⁵ The current study demonstrates that gaps in reading proficiency were still present at the end of grade 1 in District U-46 and that gaps in reading achievement existed in fall of kindergarten in District 186 and widened through grade 1.

Policymakers can use these findings to advocate for increased supports before and during elementary school to close reading achievement gaps. District leaders might consider collaborating with other state and local agencies and community organizations to offer opportunities for children not currently in Head Start or public prekindergarten programs to gain exposure to print and language. In addition, district leaders can use the results of this study to motivate conversations about the root causes of the growing inequalities in reading achievement. District leaders might want to investigate whether there are differences between or within schools in instruction and in how curricula are delivered or whether other factors are associated with the differences in reading achievement between key groups. Based on the results of that investigation, district leaders might consider providing additional books, professional development, or literacy coaches to schools that serve higher concentrations of Black or Hispanic students, students eligible for the national school lunch program, English learner students, and students in special education.

5. Bowdon et al., 2019.

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Lewis Presser, A., Lavigne, H., Bowdon, J., Lemieux, C., Zhang, X., & Xia, J. (2021). *Trends and gaps in reading achievement across kindergarten and grade 1 in two Illinois school districts* (REL 2021–058). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Midwest.