

Research Brief

Lexile® and Quantile® Norms

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Participants

19,898,345 students in Reading, K – 12
17,102,664 students in Math, K – 12

Key Findings

- The 2026 Lexile® and Quantile® norms provide a national reference for interpreting student reading and mathematics performance across grades K–12, with the sample weighted to align with the distribution of students across the four NCES Census regions.
- Because Lexile and Quantile measures are reported on universal scales, results from both interim and summative assessments were combined to develop norms across Fall, Winter, and Spring norming periods, providing a comprehensive picture of student performance throughout the school year.
- Lexile and Quantile performance in Grades 11 and 12 does not demonstrate increases relative to prior grades, consistent with findings from the National Assessment of Educational Progress (NAEP). The norms retain these observed patterns, as they reflect observed student performance during 2021–2025.



Objective

The K–12 education landscape has changed considerably since the Lexile® and Quantile® norms were last updated in 2020. Student achievement shifts over time in response to changes in educational standards, instructional practices, and learning opportunities, as well as major disruptions to schooling, such as natural disasters or the COVID-19 pandemic. Just as pediatric growth charts are periodically revised, assessment norms need to be updated so that comparisons reflect today's students. Other assessment programs update their norms regularly as well; for example, NWEA updates its MAP Growth norms every few years (NWEA, 2025).

Norms show how a student's reading or mathematics performance compares with that of other students in a defined comparison group in the same grade and testing season. Lexile and Quantile norms provide percentile ranks, separately for each grade and for Fall, Winter, and Spring. For example, a student at the 60th percentile in the fall of grade 4 scored higher than about 60 percent of fourth graders in the comparison group who were tested in the Fall.

These comparisons can inform screening, progress monitoring, and instructional planning when considered alongside assessment results, classroom performance, and other relevant information. However, changes in percentile ranks do not directly measure individual growth, and these norms do not indicate how much an individual student's Lexile or Quantile measure is expected to change over time. Percentile ranks also carry uncertainty because they are estimated from a sample of students (Oosterhuis et al., 2017), so small differences between a student's percentile rank and a benchmark should therefore be interpreted cautiously. Norms also do not indicate whether a student has met state or local proficiency standards. They should not be used to make high-stakes accountability decisions or determine special education eligibility.

To give educators, students, families, and other stakeholders current reference points for interpreting Lexile and Quantile measures, the 2026 update had two objectives:

- To update the norms using more recent data and a substantially larger sample than was used for the 2020 norms.
- To describe how the performance of students with Lexile or Quantile measures has changed since 2020.

The 2026 sample comprises students across the United States who received a Lexile or a Quantile measure. To better reflect the geographic distribution of the U.S. student population, results were weighted so that each of the four regions defined by the National Center for Education Statistics (Northeast, Midwest, South, and West) is represented in proportion to its share of U.S. students. Because the comparison group includes only students with reported Lexile or Quantile measures, it may not match the full U.S. student population in every respect.



Methods

Sample Size and Composition

The 2026 norming sample included reading and mathematics student performance data from the 2020-2021 school year through the 2024-2025 school year. The reading sample comprised 19,898,345 K-12 students, while the mathematics sample comprised 17,102,664 K-12 students. All 50 states and the District of Columbia were reflected in both samples. Student counts by school year are presented in Table 1.

Table 1
Student Counts by School Year (N = 37,001,009)

Subject	2021	2022	2023	2024	2025	Total
Math	1,001,965	1,216,219	5,690,971	1,157,763	8,035,746	17,102,664
Reading	1,564,873	1,158,092	6,337,057	1,155,770	9,682,553	19,898,345
Total	2,566,838	2,374,311	12,028,028	2,313,533	17,718,299	37,001,009

The year-by-year variability of these counts is a reflection of the fact that these norms are based primarily on the data that was shared with MetaMetrics pursuant to studies that it conducted with states and corporate partners. The counts for the 2021 and 2022 school years in Table 1 are low, likely due to the impact of the COVID-19 pandemic on assessment administration and reporting, while 2024 was low simply due to business cycle fluctuations. Student counts by grade are presented in Table 2.

Table 2
Student Counts by Grade (N = 37,001,009)

Subject	Math	Reading	Total
Kindergarten	79,489	5,757	85,246
Grade 1	215,461	98,756	314,217
Grade 2	273,440	269,251	542,691
Grade 3	2,438,122	2,653,398	5,091,520
Grade 4	2,429,870	2,646,331	5,076,201
Grade 5	2,451,564	2,677,950	5,129,514
Grade 6	2,446,265	2,691,966	5,138,231
Grade 7	2,313,058	2,709,277	5,022,335



Subject	Math	Reading	Total
Grade 8	2,494,211	2,742,590	5,236,801
Grade 9	1,177,815	1,168,525	2,346,340
Grade 10	225,900	1,399,007	1,624,907
Grade 11	528,539	757,409	1,285,948
Grade 12	28,930	78,128	107,058
Total	17,102,664	19,898,345	37,001,009

Grades 3 through 9 are well represented in the sample, likely because these grades are the primary focus of federal and many state accountability programs. Student counts for grades K through 2 and 10 through 12 are lower, with the high school sample being relatively limited in both mathematics and reading, likely reflecting the absence or reduced availability of state-mandated assessments at the secondary level that are linked to the Lexile and Quantile Frameworks. Nevertheless, the sample sizes for these grades remain sufficiently large to support the estimation of normative measures.

Sample Demographics

The 2026 norming sample was generally representative of the nation with respect to gender, race, English Language Learner (ELL) status, free or reduced-price lunch (FRL) status, and NCES Census region. Demographic data were available for approximately 21–25% of the sample, depending on the variable. Key comparisons to NCES national data are summarized below:

- **Gender:** 49% female and 51% male, closely aligned with NCES figures of 49% and 51% (Fall 2021).
- **Race:** Generally comparable to the NCES distribution (Fall 2022), with Hispanic students somewhat overrepresented and White students somewhat underrepresented in the sample (see Table 3).
- **ELL status:** 22% identified as English learners, approximately twice the nationwide rate of 11% (NCES, Fall 2021).
- **FRL status:** 55% eligible for free or reduced-price lunch, compared to 49% nationwide (NCES, Fall 2021).
- **NCES Census region:** Moderately comparable to the national distribution (Fall 2023), with the South somewhat overrepresented and the Northeast somewhat underrepresented (see Table 4).



Table 3
Racial Composition of the 2026 Norming Sample Compared to NCES (Fall 2022)

Race	Math (%)	Reading (%)	Total (%)	NCES (%)
American Indian	1.70	1.40	1.50	0.90
Asian	4.50	4.80	4.70	5.40
Black	12.40	12.90	12.70	14.90
Hispanic	36.90	38.00	37.50	29.00
Mixed	3.30	3.30	3.30	5.00
Pacific	0.20	0.20	0.20	0.40
White	41.00	39.50	40.20	44.40

Note: Percentages may not total 100% due to rounding.

Table 4
Distribution of the 2026 Norming Sample across NCES Census Regions Compared to NCES (Fall 2023)

NCES Census Region	Math (%)	Reading (%)	Total (%)	NCES (%)
Midwest	24.70	21.10	21.40	20.50
Northeast	4.20	4.40	4.30	15.40
South	50.30	56.10	55.00	40.10
West	20.70	18.40	19.40	24.10

Note. Percentages may not total 100% due to rounding.

Data Sources and Processing

De-identified student assessment data linked to the Lexile and Quantile Frameworks were collected from multiple sources, including linking studies, state-reported data, and partner assessments. MetaMetrics implemented standard procedures to ensure the security of all data transfers, the quality of the data, and the integrity of the norming datasets. Data were filtered to include only records from states that had granted permission for use and could be associated with an NCES Census region based on the state identified in the record. To account for differences in sample representation across regions, records were weighted to align with the distribution of students by grade and NCES Census region as reported in the NCES Common Core of Data for the 2022-2023 school year. This weighting ensured that the sum of weighted student counts for each subject, grade, and region combination matched the corresponding NCES census counts.



PROCEDURE

Following data processing, assessment records were organized by grade and norming period for the development of the K–12 norms. Test administrations were assigned to Fall, Winter, or Spring based on the timing of the assessment within the school year. Separate norming distributions were developed for each grade and norming period for Lexile and Quantile measures. The resulting grade-by-period groups served as the basis for estimating normative distributions and percentile ranks described in the Statistical Analyses section.

MEASURES

The Lexile Framework for Reading provides a scientific approach to measuring reader ability and text complexity on the same scale, enabling students to be matched with material that challenges but does not frustrate them, thereby promoting a lifelong love of reading (MetaMetrics, Inc., 2022a). Similarly, the Quantile Framework for Mathematics provides a scientific approach to measuring mathematical ability and the difficulty of mathematical concepts and applications on the same scale, enabling educators to assign mathematical material that students are prepared to master (MetaMetrics, Inc., 2022b).

A Lexile reading measure is expressed as a numeric value followed by an “L” (e.g., 900L), whereas a Quantile measure is expressed as a numeric value followed by a “Q” (e.g., 850Q). Lexile measures that fall below zero are reported using the BR (Beginning Reader) designation (e.g., BR150L) rather than a negative number. Similarly, Quantile measures below zero are reported using the EM (Emerging Mathematician) designation (e.g., EM200Q).

In addition to facilitating the matching of K-12 students with materials of appropriate difficulty, the Lexile and Quantile Frameworks have been applied to measuring the difficulty of text and mathematical concepts that students will encounter after high school graduation. These measures serve to establish college and career readiness expectations.

Statistical Analyses

The weighted data were used to construct empirical norms for the three periods within the school year: Fall, Winter, and Spring. Consistent with established approaches in K–12 educational norm development, smoothing procedures were used to reduce sampling variability and produce stable, interpretable norm distributions across percentiles, grades, and norming periods. Polynomial and regression-based smoothing approaches have similarly been used in educational norming studies to reduce irregularities in empirical percentile distributions and model performance across grades and testing periods (NWEA, 2025; Shin & Xu, 2023).

Norming Periods

Test administrations were classified into three norming periods based on when assessments were administered during the school year: Fall (August through November), Winter (December through February), and Spring (March through July). To represent the timing of assessment more continuously across the school year, each norming period was assigned a fractional grade value based on the



average administration date within that period: September 8 (Fall), January 14 (Winter), and April 26 (Spring). Spring served as the reference point, with its grade value corresponding to the enrolled grade, while Fall and Winter grade values were adjusted to reflect their earlier positions in the school year.

Smoothing Procedures

A three-step smoothing process was applied to the empirical norm distributions. First, within each grade and norming period, linear regression was used to smooth Lexile and Quantile measures across percentiles (which had been converted to normal deviates) and reduce irregularities in the empirical distributions. Second, within each grade and percentile, quadratic regression was used to smooth Lexile and Quantile measures across norming periods. This step reduced irregularities across adjacent grades and periods and supported estimation for grade-by-period combinations with limited or unavailable sample data, including Kindergarten and Grade 1 in the Spring norming period. Third, a final within-grade and norming-period linear smoothing step was applied to preserve monotonicity, so that higher percentile ranks corresponded to higher Lexile or Quantile measures.

These procedures produced the final smoothed norm distributions used to establish percentile-based reference values for each grade, subject, and norming period. These reference values were used to create a table for each grade where, for each Lexile or Quantile measure, the Fall, Winter, and Spring percentiles associated with that measure were presented. In addition, each percentile was converted into its corresponding normal curve equivalent (NCE). All analyses were conducted using R (version 4.5.1; R Core Team, 2025).

Results and Discussion

The 2026 Lexile and Quantile norms tables have been constructed to provide percentile ranks and NCEs associated with Lexile and Quantile measures for students in Kindergarten through Grade 12 across three norming periods: Fall, Winter, and Spring. Lexile and Quantile grade level charts based on these tables can be found on the Lexile & Quantile Hub at <https://hub.lexile.com/lexile-grade-level-charts/> and <https://hub.lexile.com/quantile-grade-level-charts/>, respectively.

The 2026 norms are generally lower than the 2020 norms, echoing downward trends reported in national studies of educational performance, including the National Assessment of Educational Progress (NAEP) and the Stanford Education Data Archive (SEDA). Differences between the 2026 and 2020 norms are also larger among lower-performing students, a pattern similarly reported in NAEP and SEDA data.

Across Kindergarten through Grade 10, Lexile and Quantile measures generally increase across successive grade levels. The differences between adjacent grades are generally larger in the elementary grades and become smaller in the middle and early high school grades. These patterns describe differences in performance across grade-level norming groups and should not be interpreted as estimates of individual student growth.



In Grades 11 and 12, Lexile and Quantile measures show relatively little additional increase and, for some grade, norming-period, and percentile combinations, slight declines relative to earlier grades. Similar patterns have been observed in recent national assessment results. For example, average Grade 12 NAEP mathematics and reading scores in 2024 were lower than their respective 2019 averages (National Center for Education Statistics, 2025a, 2025b). The high school patterns observed in the Lexile and Quantile data were retained rather than adjusted to impose an increasing trajectory across grades. Smoothing procedures were used to reduce irregularities in the empirical distributions and preserve monotonicity within the norm distributions, but not to impose between-grade increases that were not supported by the observed data.

Limitations

The 2026 norms are based on a large, geographically diverse sample that was weighted by grade and U.S. Census region to better align with the national student population. However, the sample was not selected through a probability-based national sampling design, and demographic information was available for only a subset of students. As a result, additional demographic characteristics could not be incorporated into the weighting process.

Student counts were lower during the 2020–2021 and 2021–2022 school years, which coincided with disruptions to schooling and assessment administration associated with the COVID-19 pandemic. Sample sizes were also smaller in the high school grades, particularly Grades 11 and 12. These factors should be considered when interpreting norms for those grades and years, particularly where estimates are based on smaller samples. Because both the MetaMetrics and partner norms show flat or declining performance in some upper high school grades, caution is warranted when using Grade 11 and Grade 12 norms for goal setting. For such applications, Grade 10 may provide a more useful higher-performance reference point.

Conclusion

The 2026 Lexile and Quantile norms provide a descriptive national reference for interpreting student performance. They enable educators, assessment providers, and state agencies to compare a student's performance with that of peers in the same grade and norming period nationwide. The norms can support instructional decision-making and provide context for understanding student performance relative to national patterns. They are not intended for high-stakes accountability decisions, which require evidence and methodologies specifically designed to support those uses.



References

MetaMetrics, Inc. (2022a). *The Lexile® Framework for Reading: Development and validity evidence* [Technical Report].

MetaMetrics, Inc. (2022b). *The Quantile® Framework for Mathematics: Development and validity evidence* [Technical Report].

National Center for Education Statistics. (2025a). *2024 NAEP mathematics assessment: Grade 12 results for the nation* (NCES 2024221). U.S. Department of Education, Institute of Education Sciences.

National Center for Education Statistics. (2025b). *2024 NAEP reading assessment: Grade 12 results for the nation* (NCES 2024223). U.S. Department of Education, Institute of Education Sciences.

NWEA. (2025). *2025 MAP Growth norms technical manual* (Version 2025.1.0). HMH Education Company.

Oosterhuis, H. E. M., van der Ark, L. A., & Sijtsma, K. (2017). Standard errors and confidence intervals of norm statistics for educational and psychological tests. *Psychometrika*, 82(3), 559–588.

<https://doi.org/10.1007/s11336-016-9535-8>.

R Core Team. (2025). *R: A language and environment for statistical computing* [Computer software]. R Foundation for Statistical Computing. <https://www.r-project.org/>

Shin, M., & Xu, J.-R. (2023). *The 2023 PreACT norming study* (ACT Research Technical Brief R2325). ACT, Inc.



MetaMetrics® is an award-winning edtech company that provides the global standard for measuring literacy and numeracy. The Lexile® and Quantile® Frameworks connect students' reading and math abilities to the complexity of content on the same scale, making learning more personalized. Millions of learners receive our measures, turning individual moments of assessment into meaningful connections that empower learning. For over 40 years, our research-based, consistent, and actionable measures have been trusted by educators, publishers, assessment providers, and policymakers worldwide. Leveraging the most advanced language models and learning theory, MetaMetrics continues to innovate solutions for a wide range of applications, including early reading, career-connected learning, and literacy frameworks for non-English languages. Lexile and Quantile measures increase engagement with learning across the education ecosystem, inspiring everyone to build life skills for a brighter tomorrow.

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