

The background of the slide is a composite image. The top-left portion shows a line of yellow school buses with "SCHOOL BUS" written on their fronts. The bottom-left portion shows a classroom with blue walls, decorated with colorful balloons and framed pictures. Several desks and chairs are arranged in the room.

Kentucky Numeracy Counts Act House Bill 162 (2024)

Kentucky General Assembly
House Standing Committee on Education
January 23, 2024

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Office of Teaching and Learning

 Kentucky Department of
E D U C A T I O N

Why Mathematics?

Total number of students below proficient between 2018-2023:

- Grade 4: 140,047
- Grade 5: 140,962
- Grade 6: 150,962
- Grade 7: 154,115
- Grade 8: 159,308

Kentucky Performance Rating of Educational Progress (K-PREP)/ Kentucky Summative Assessment (KSA) Mathematics Outcomes Percent Proficient/Distinguished					
Year	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
2023	42%	41%	38%	37%	36%
2022	39%	38%	38%	38%	36%
2021	33%	31%	29%	28%	27%
2020	-----	-----	-----	-----	-----
2019	47%	52%	47%	47%	45%
2018	47%	52%	48%	47%	46%

2023 Kentucky Summative Assessment (KSA) Grade 4 Mathematics Outcomes by Group

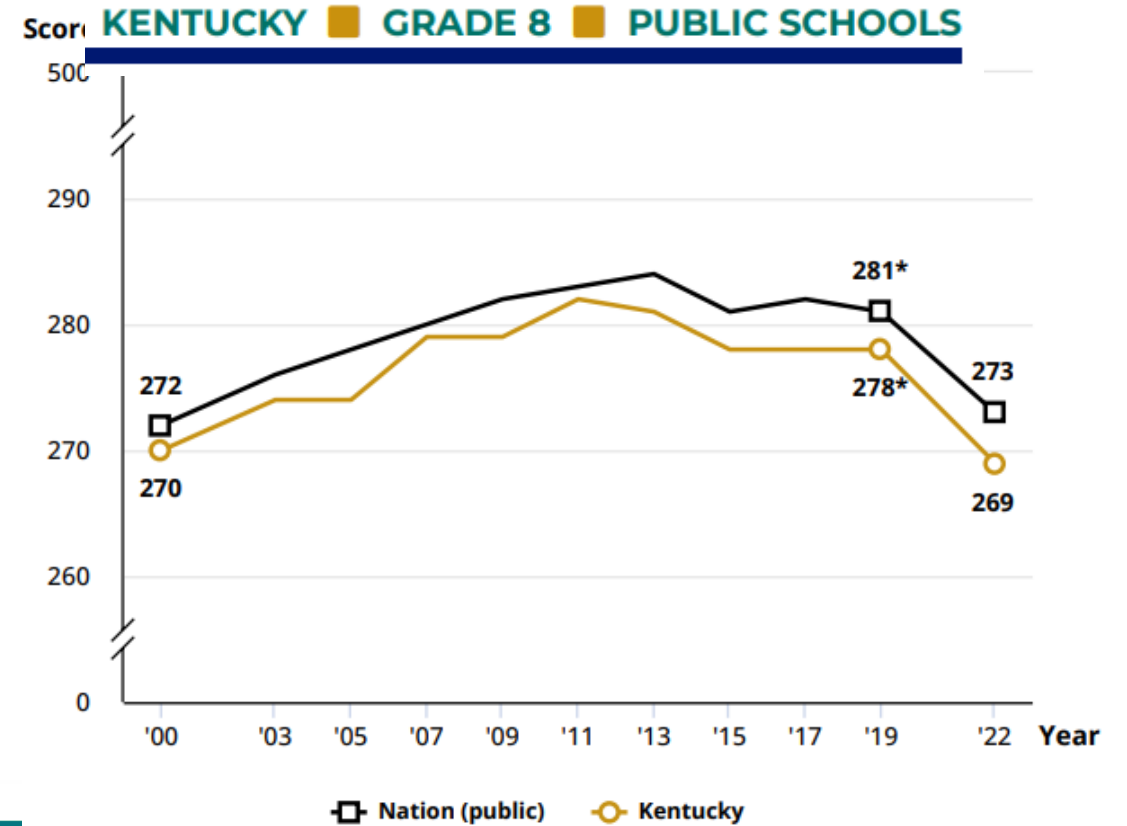
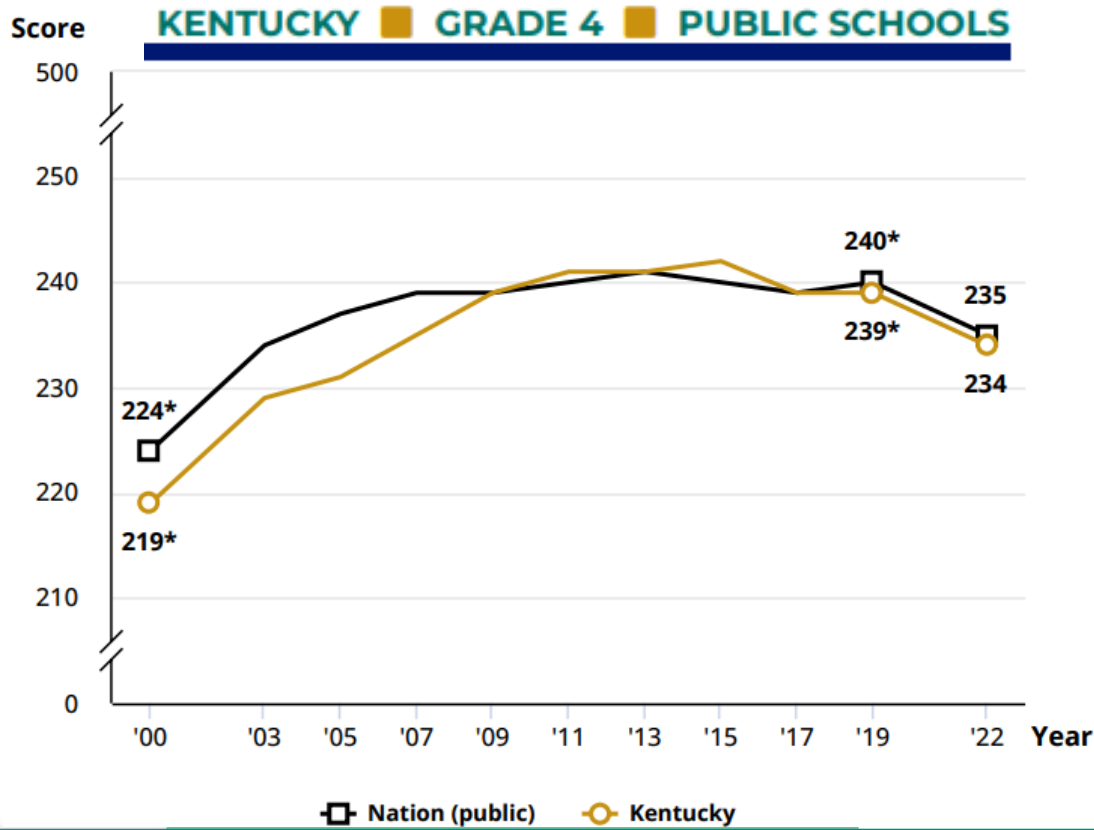
Group	Novice	Apprentice	Proficient/ Distinguished
Grade 4 (all students)	33%	25%	42%
African American	57%	24%	20%
Hispanic/Latino	44%	27%	29%
Economically Disadvantaged	41%	27%	33%
Students with Disabilities (IEP)	53%	24%	23%
English Learner	52%	25%	23%

2023 Kentucky Summative Assessment (KSA) Grade 8 Mathematics Outcomes by Group

Group	Novice	Apprentice	Proficient/ Distinguished
Grade 8 (all students)	36%	28%	36%
African American	58%	27%	15%
Hispanic/Latino	45%	30%	25%
Economically Disadvantaged	45%	30%	25%
Students with Disabilities (IEP)	58%	30%	12%
English Learner	67%	25%	8%

Source: Kentucky Department of Education. Kentucky School Report Card. Retrieved from:
https://www.kyschoolreportcard.com/organization/20/academic_performance/assessment_performance/state_assessments_enrollment?year=2023

- The National Assessment of Educational Progress (NAEP) state data revealed a downward trend for grades 4 and 8 in mathematics outcomes.
- In 2022, Kentucky ranked 32nd in the nation for grade 4 math; 39th for grade 8 math.

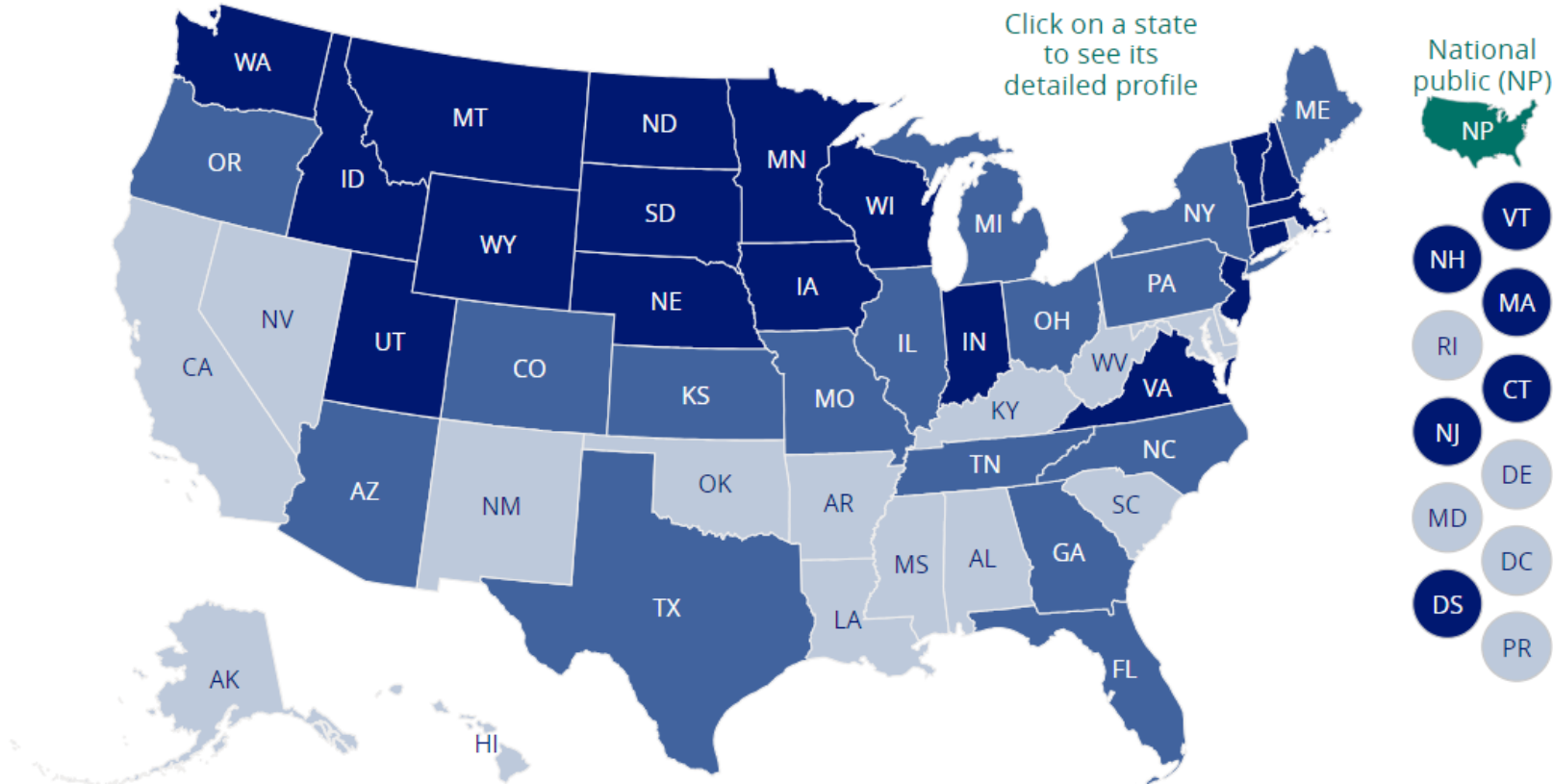


Source: The Nation's Report Card. (2022). NAEP Data Explorer. Retrieved from: <https://www.nationsreportcard.gov/profiles/stateprofile?chort=2&sub=MAT&sj=AL&sfj=NP&st=MN&year=2022R3>

AVERAGE SCALE SCORES



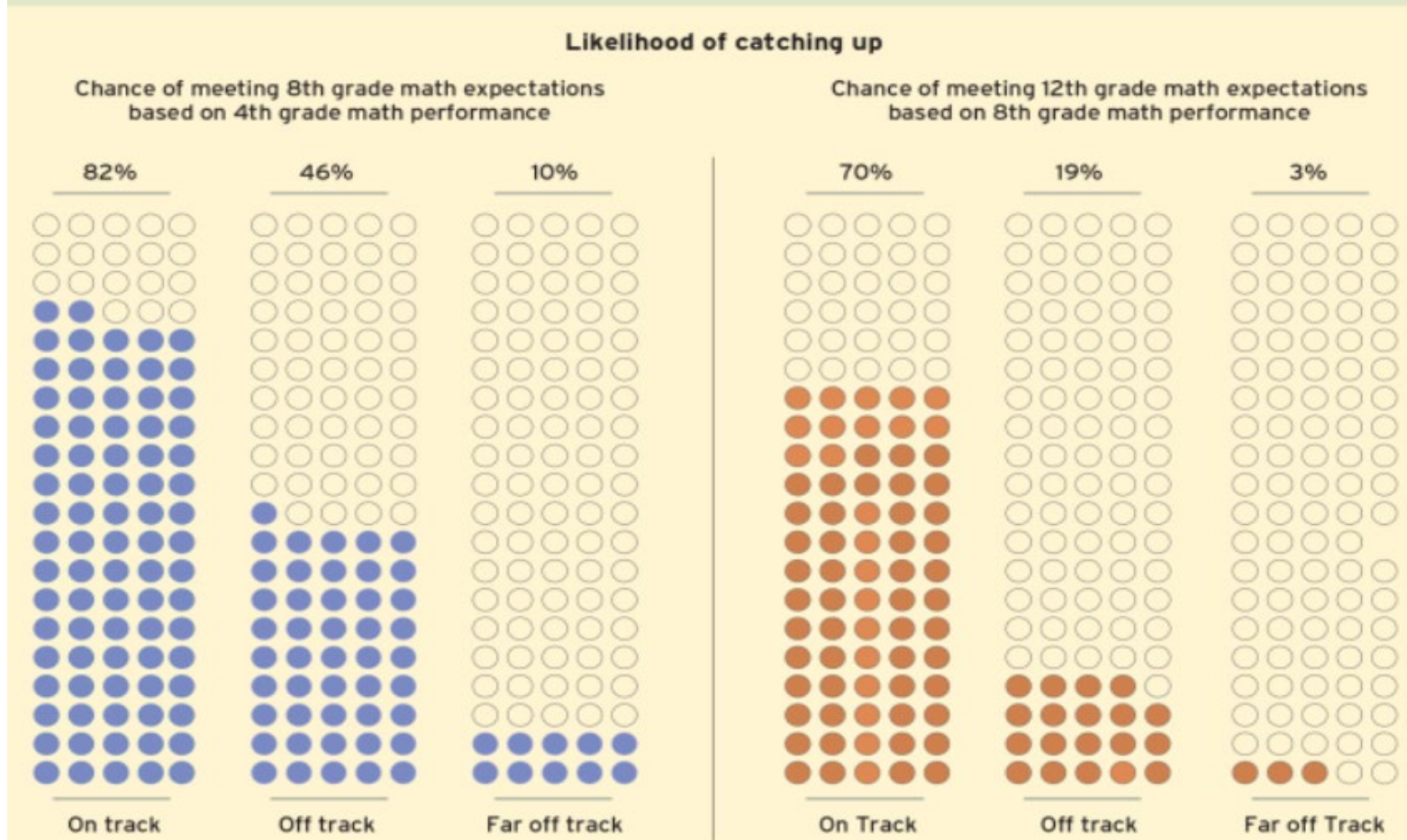
Mathematics, grade 8, Difference in average scale scores between jurisdictions, for all students [TOTAL] = All students, 2022



Why Grades 4-8?

Long-Term Consequences for Unfinished Math Learning (Figure 2)

The majority of students who are behind in math in elementary school stay behind in middle and high school, with the students farthest off-track the least likely to catch up.



Kentucky Numeracy Counts Act 2024 Regular Session: HB 162

Comprehensive actions to improve mathematics outcomes:

- Statewide professional learning supports
- Focus on Tier 1 instruction and increased access to evidence-based high-quality (HQ) instructional resources for all students
- Mathematics Improvement Plan for students needing accelerated progress toward proficiency
- Family and community engagement
- Teacher preparation and certification

Immediate Implementation Upon Effective Date

Per Section 1, it is the intent of the General Assembly that:

Every elementary school:

- Provide **comprehensive schoolwide mathematics instruction** aligned to standards required by KRS 158.6453;
- Provide a **multitiered system of supports** to support and engage students in learning to apply mathematical content and practices at a proficient level **by end of grade 5**;
- Ensure **quality instruction** for mathematics by highly trained teachers and **intervention** by individuals most qualified to provide the intervention.

Every middle and high school:

- Provide a **multitiered system of supports** to support and engage students in learning to apply mathematical content and practices at a proficient level **by end of grade 8**;
- Ensure all students routinely have opportunities to experience **high-quality mathematics instruction**, learn challenging, **grade-level mathematics content and practices** and receive **support to make progress toward proficiency**.

District/School Implementation Timeline

- Per Section 3(7)(a), by **Jan. 1, 2025**, each superintendent shall select:
 - At least one (1) **universal screener** for mathematics that is determined by the department to be valid and reliable to be administered to all students in grades 4-8; and
 - At least one (1) **diagnostic assessment** for mathematics that is determined by the department to be reliable and valid to be administered as part of a multitiered system of supports for students in grades 4-8.
- All **teachers** of students in grades 4-8 shall be **trained** on any mathematics screener and diagnostic prior to administration of the assessment in the **2025-2026 school year**, (7)(c).
- Each superintendent shall adopt a common Tier 1 **high-quality instructional resource** for mathematics that is determined by the department to be reliable, valid, and aligned to math standards required by KRS 158.6453 for grades 4-8 for all schools or a subset of schools, with consultation of affected school councils, (7)(b).

District/School Implementation Timeline

Per Section 3, **beginning with the 2025-2026 school year:**

- Based on the data from the approved screener and diagnostic assessments, a **mathematics improvement plan** shall be developed and implemented by a **mathematics improvement team** for any student in grades 4-8 identified as needing accelerated interventions to progress toward proficient performance in mathematics.
- For identified students, the local district shall provide:
 - Accelerated intervention for students in grades 4-8 using evidence-based mathematics instruction;
 - Intensive instructional services, progress monitoring measures, and supports to students in grades 4-8; and
 - Information on how to encourage mathematics success at home to parents and legal guardians of students identified for accelerated interventions in mathematics in grades 4-8.

Kentucky Department of Education Implementation Timeline

The department shall:

- Collaborate with AdvanceKentucky, the Kentucky Center for Mathematics (KCM), and the Partnership Institute for Math and Science Education Reform (PIMSER) to support educator access to high-quality, evidence-based professional learning, student engagement in grade-level learning aligned to Kentucky academic standards for mathematics, and leadership support networks for the purpose of increasing student outcomes in K-12 mathematics, (Section 1(e)(2)).
- **By Sept. 1, 2025**, if funds are appropriated, the department shall establish teacher academies related to evidence-based practices in instruction, instructional materials, and assessment in mathematics or coaching models for teachers of students in grades 4-8, (Section 3(12)).

The department may:

- Provide grants to local school districts for the purchase of approved high-quality, evidence-based curriculum aligned to K-12 academic standards in mathematics and expenditures for curriculum-based professional learning to implement new high-quality resources for mathematics, (Section 6(4)).

Post-Secondary/Education Professional Standards Board (EPSB) Implementation Timeline

- Requires the Council on Postsecondary Education (CPE) to submit a report summarizing teacher preparation program alignment to the instructional requirements of Section 3 and report program data to an external evaluator for analysis of progress, (Section 2).
- Requires teacher preparation programs for elementary regular education and middle school mathematics education to include evidence-based instructional strategies, department approved high-quality instructional resources, and assessment programming and processes for mathematics, (Section 4).
- Prioritizes field experience placement with teachers who model the above, (Section 4).
- Requires the EPSB to:
 - Develop and maintain a list of approved mathematics teacher preparation tests;
 - Develop an evaluation rubric for observing teacher candidates with a focus on mathematics content and pedagogical knowledge; and
 - Report program data to an external evaluator with the goal of increasing new teacher candidate success in mathematics instruction, (Section 4).