

RESEARCH BRIEF



Office of Research, Assessment, Data, Accountability, and Reporting



FAST FACTS: Opportunity to Learn – Mathematics by Grade and Student Group

Definition: Students' Mathematics learning experiences.

ODE calculates an **Opportunity to Learn – Mathematics domain score** among 4th, 7th, and 10th graders that has a possible range of 0 to 100. This score is based off students' responses to 12 to 14 items on the [SEED Survey](#) (on a 4-point scale with response options being: Never; Rarely; Sometimes; Often). Example items¹ are:

4 th Grade Example Items	7 th Grade Example Items	10 th Grade Example Items
<p>Think about what you did in your math class this year. How often did you do the following?</p> <ul style="list-style-type: none"> • Work in pairs or small groups to talk about a math problem. • Show multiplication in more than one way. (For example, array, repeated addition, skip-counting, etc., to multiply multidigit numbers like 23 X 17.) 	<p>Think about what you did in your math class this year. How often did you do the following?</p> <ul style="list-style-type: none"> • Connect what you are learning in your math class to math concepts you already learned. • Calculate and use a unit rate to solve math problems. (For example, which is the better deal, a 10-ounce drink for \$1.99 or a 12-ounce drink for \$2.29?) 	<p>Think about what you did in your high school math classes. How often did you do the following?</p> <ul style="list-style-type: none"> • Have a class discussion about a math problem your class is working on. • Solve real-world problems using trigonometric ratios and properties of similar triangles. (For example, a tower casts a shadow that is 60 feet long when the angle of elevation of the sun is 65. How tall is the tower?)

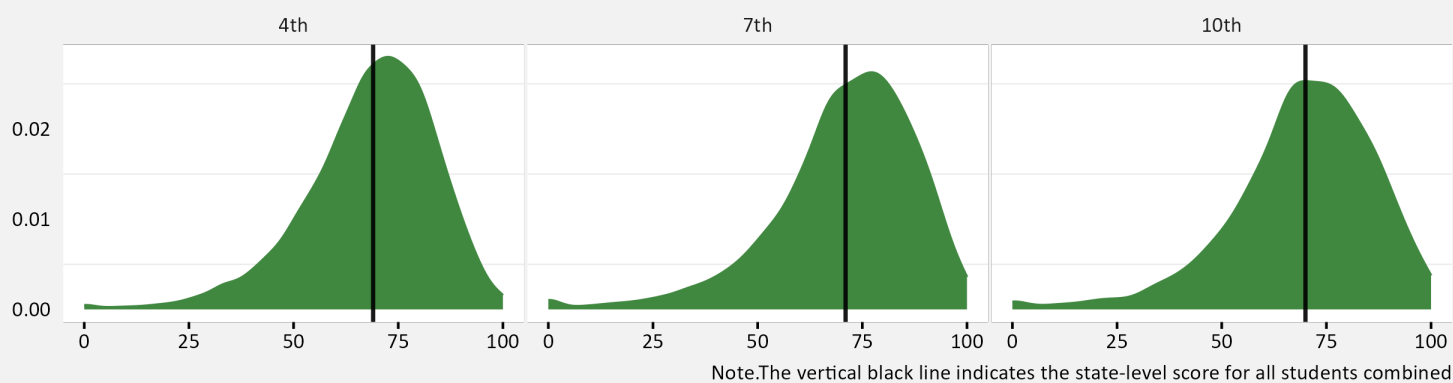
1% of students had a score of 100,
meaning that they had frequent
exposure to all of these learning
opportunities

<1% of students had a score of 0,
meaning that they did not report
exposure to any of the learning
opportunities

¹ The full list of items can be found in [Understanding SEED Domain Scores](#).

Opportunity to Learn – Mathematics increased from 4th to 7th grade and decreased slightly from 7th to 10th grade.

Figure 1: Distribution of Student Domain Scores

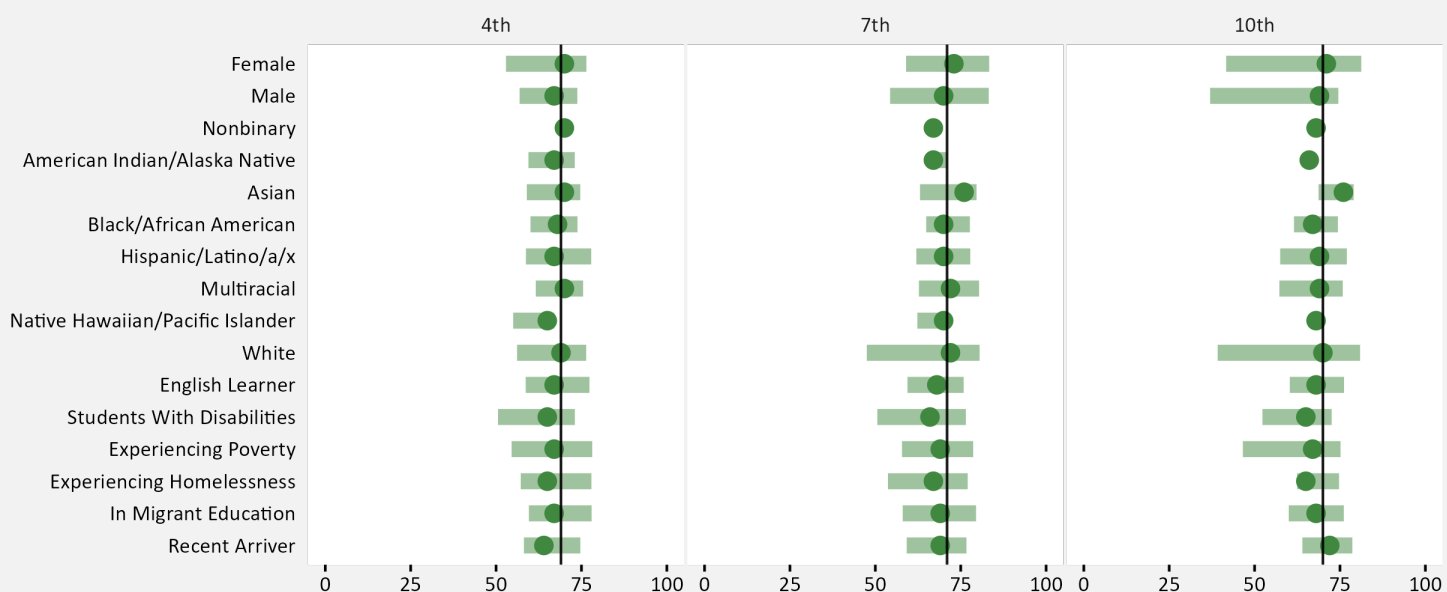


Grade	State Domain Score	Equivalency
4 th	69	Roughly equivalent to responding 'Sometimes' to 11 items and 'Often' to 1 item
7 th	71	Roughly equivalent to responding 'Sometimes' to 11 items and 'Often' to 2 items
10 th	70	Roughly equivalent to responding 'Sometimes' to 12 items and 'Often' to 2 items

Some student groups had lower domain scores across all three grades:

- Male students
- American Indian/Alaska Native students
- Black/African American students
- Hispanic/Latino/a/x students
- Native Hawaiian/Pacific Islander students
- Students who are English learners
- Students with disabilities
- Students experiencing poverty
- Students experiencing homelessness
- Students in migrant education

Figure 2: Domain Score by Student Group



Note: The dark green circle indicates the state-level score for each group, and the light green box indicates the score range across districts in Oregon with at least 10 responses. The vertical black line indicates the state-level score for all students combined.

Resources

SEED Survey

- [SEED Survey](#)
- [Understanding SEED Domain Scores](#)
- [2024-2025 State Level SEED Survey Domain Score Data](#)
- [2024-2025 District Level SEED Survey Domain Score Data](#)

Additional Resources

- [Student Success Plans](#)
- [Math Educator Resources](#)
- [Tribal History/Shared History: Math Resources](#)
- [STEAM Toolkit](#)
- [Math Educator Update](#)
- [Oregon Math Project](#)
- [Cultivating Identity and Belonging in STEAM](#)
- [Oregon Council of Teachers of Mathematics](#)