

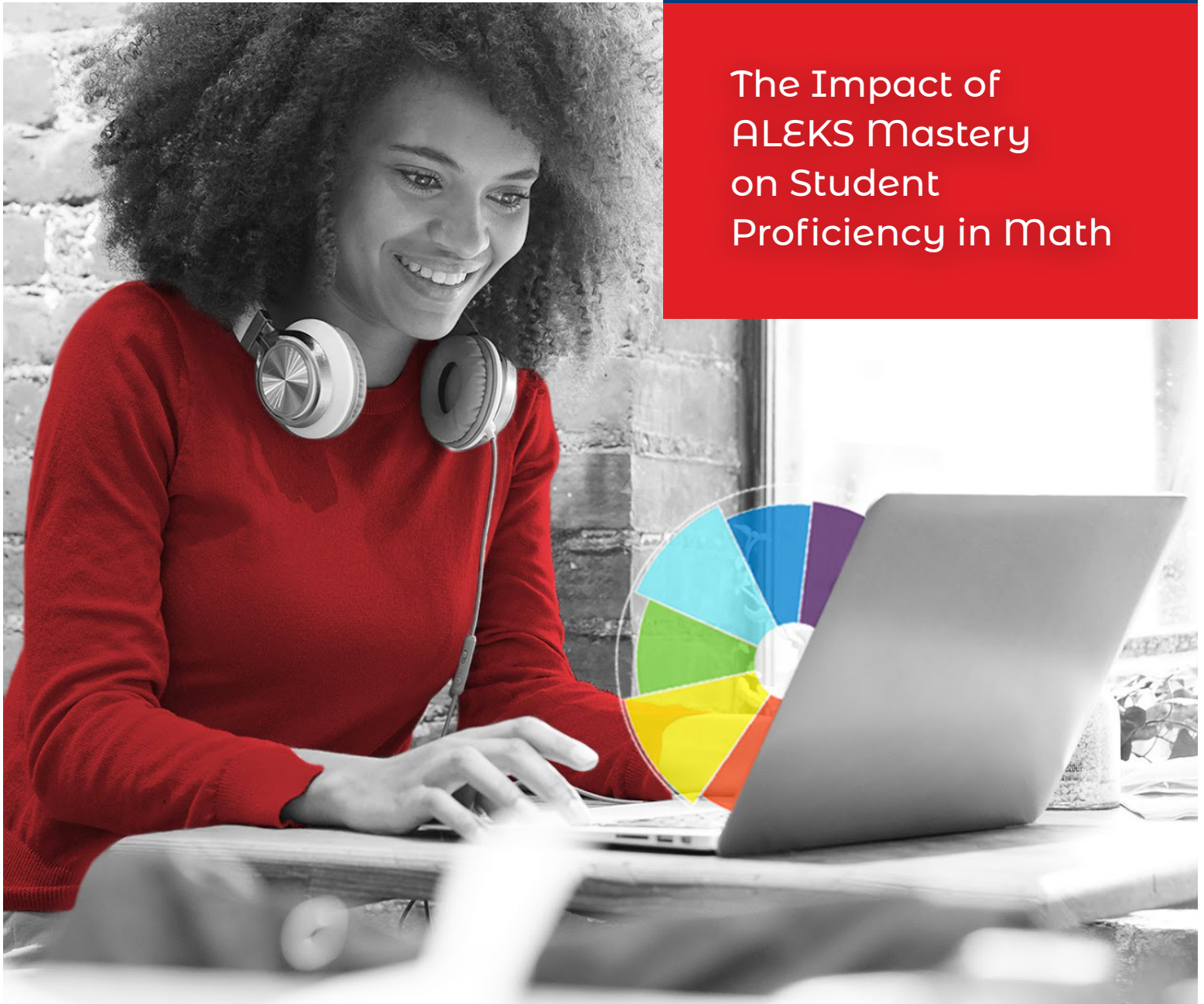


ALEKS[®]

2022 PROFICIENCY STUDY

OUTCOMES REPORT

The Impact of ALEKS Mastery on Student Proficiency in Math



Overview

In 2022, a study was conducted to examine the association between students' ALEKS mastery percent and their proficiency on state math assessments. This report provides a brief overview of the design and results of that study.

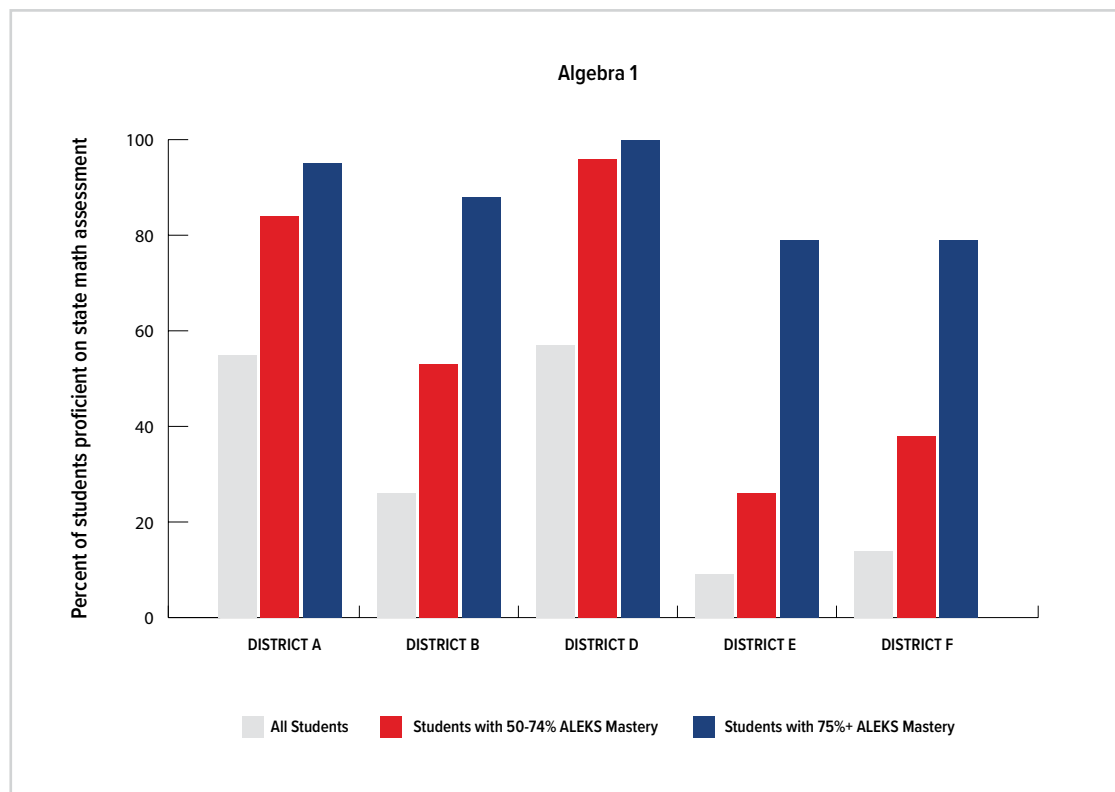
Study Goal: Understand the relationship between students' ALEKS mastery and state assessment proficiency.

Study Participants: Six school districts provided students' ALEKS mastery data and state assessment data.

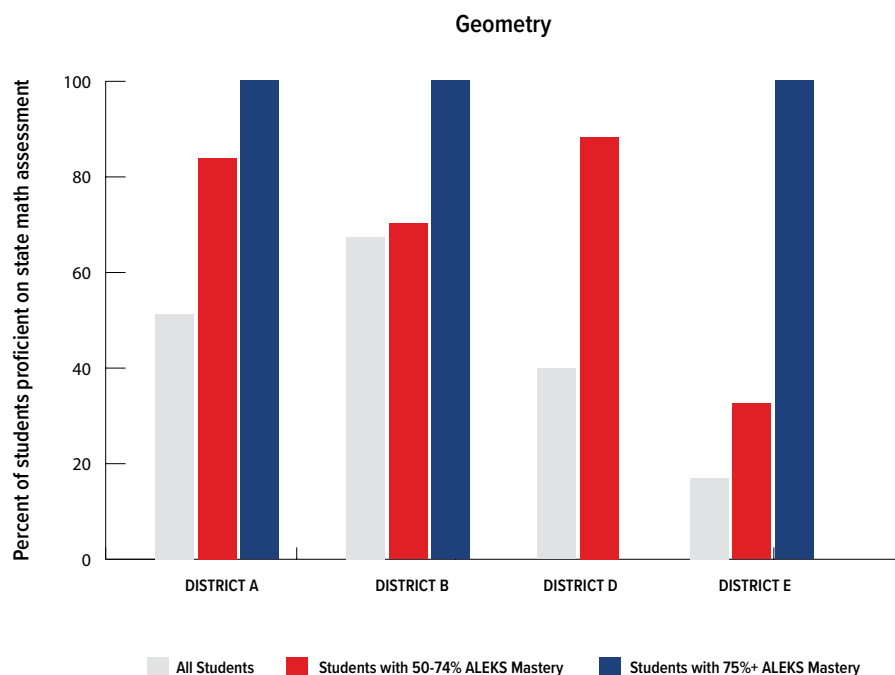
Study Methodology: The following student data was collected from participating districts then matched using a local student identifier:

- ALEKS mastery percent demonstrated in their most recent Knowledge Check, taken within a two-week window of the state math assessment
- Scale score and proficiency level on their Spring 2022 state math assessment

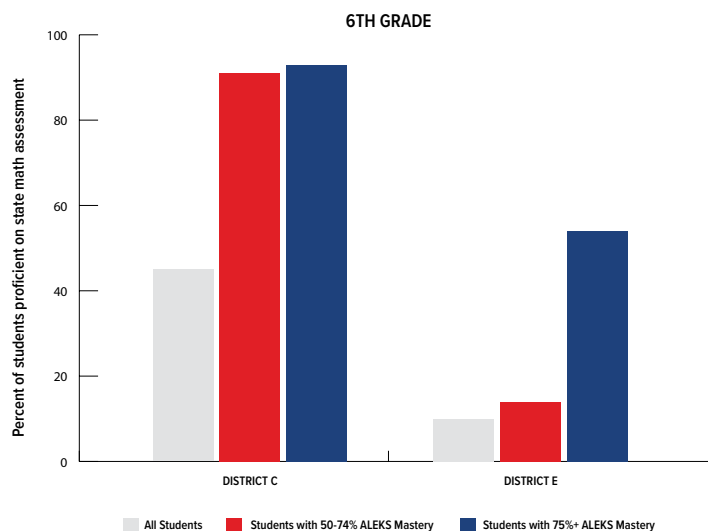
KEY FINDING #1: STUDENTS WHO REACHED 50%-75% ALEKS MASTERY WERE MORE LIKELY TO SCORE PROFICIENT ON THEIR STATE MATH ASSESSMENT.



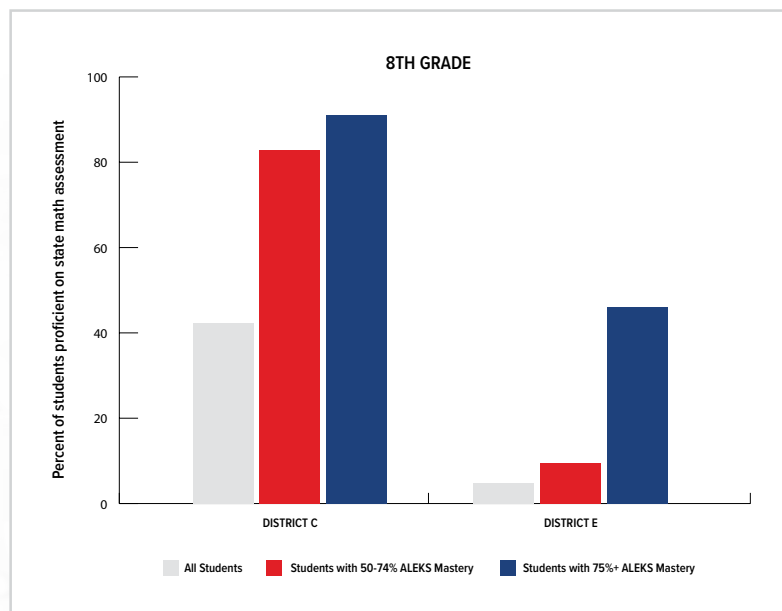
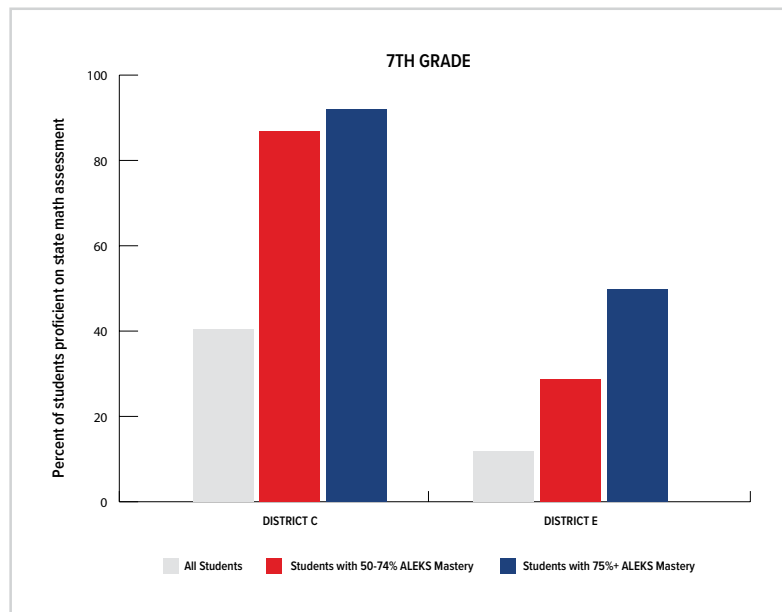
Compared to all students taking the Algebra 1 state assessment in districts A, B, D, E, and F, the proficiency rate was **1.8x** higher for students with 50-74% ALEKS mastery and **2.7x** higher for students with 75%+ ALEKS mastery.



Compared to all students taking the Geometry state assessment in districts A, B, D, and E, the proficiency rate was **1.6x** higher for students with 50-74% ALEKS mastery and **2.3x** higher for students with 75%+ ALEKS mastery.



DISTRICT	REGION	ENROLLMENT	4-YEAR GRADUATION RATE
A	Midwest	11,500	94%
B	Northeast	2,600	93%
C	Southeast	49,000	85%
D	Northeast	4,600	95%
E	Northeast	26,000	79%
F	Northeast	8,000	90%



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KEY FINDING #2: HIGHER ALEKS MASTERY WAS ASSOCIATED WITH BETTER PERFORMANCE ON STATE MATH ASSESSMENTS.

A statistical analysis was conducted to examine the correlation between ALEKS mastery percent and state math assessment score for Algebra 1 and Geometry students with matched data in two states.

- For both states and subject areas, **ALEKS mastery percent was significantly and positively correlated with scale score on the state math assessment**, $p < .001$
- For both states and subject areas, a linear regression analysis with ALEKS mastery percent as a predictor of scale score on the state math assessment was significant, $p < .001$

District A is in a Midwest state

	ALGEBRA 1	GEOMETRY
sample size (number of students)	906	829
r (correlation coefficient)	.61	.72
variance in state assessment score predicted by ALEKS mastery	38%	52%
Each percentage point increase in ALEKS mastery is associated with ____ point increase in state assessment scale score	1.18	1.34

Districts B and D are in a Northeast state

	ALGEBRA 1	GEOMETRY
sample size (number of students)	805	263
r (correlation coefficient)	.49	.70
variance in state assessment score predicted by ALEKS mastery	24%	49%
Each percentage point increase in ALEKS mastery is associated with ____ point increase in state assessment scale score	0.88	0.84

Conclusions

The study conducted on ALEKS, McGraw Hill's adaptive learning program for math and science, found a significant and positive correlation between ALEKS mastery and student proficiency on state math assessments in 2022. The study revealed that students who reached at least 50% ALEKS mastery were also more likely to achieve proficiency on the state math assessments and that higher ALEKS mastery is associated with an increase in scale score. These findings suggest that ALEKS can be effective in helping students develop proficiency in math and that students' ALEKS mastery percentages can help educators monitor progress toward state assessment proficiency.

About ALEKS

Powered by Knowledge Space Theory, ALEKS is a learning accelerator that determines what students know and don't know and guides them on an individualized path to practice topics they are ready to learn. As students make progress in their learning path, they periodically take Knowledge Checks to demonstrate what they have mastered and where they need additional practice. With ALEKS in their classroom, educators can quickly and easily pinpoint students' skill gaps, deliver targeted practice, and track the progress of learning and mastery.



For more information about ALEKS, visit mheonline.com/ALEKS or call 1-800-838-8771.

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