

SPOTLIGHT

Engaging Kids through STEM

What do you do when you see that math scores keep holding your students back? At Gray Middle School, math teacher Phill Schmitt gets busy engaging students' hands as well as their minds.

"If kids get disengaged for too long, they get bored," Schmitt said. "The next thing you know, they're behind."

Schmitt believes hands-on STEM education (that's Science, Technology, Engineering and Math), has the power to re-engage. "I learned more geometry in cabinetry than I ever did in geometry class," Schmitt explained.

Schmitt takes learning beyond school hours, where his MESA (Math, Engineering, Science Achievement) club has grown from eight students to more than 90! That dedication is part of why Schmitt was named Washington's 2017 Mona Bailey Outstanding MESA Teacher.

MESA's programs aim to improve both racial and gender diversity in STEM fields. Half of Gray's group is girls and the club reflects Gray's diverse makeup. Schmitt champions that diversity: "No matter what the species, diversity solves problems."



MIDDLE SCHOOL EIGHTH GRADE MATH

KEY FINDINGS

Gains Hold Steady, Gaps Widen

Last year's math gains have remained steady as we measure the percentage of 8th graders passing algebra or geometry with a C or better. White and Asian students and those not in poverty have seen the largest gains and this has led to wider gaps for other Students of Color.

Data-Driven Takeaways

- The 8th grade math gap between poverty and non-poverty students has decreased slightly to 21% in 2016-17, with just 60% of students in poverty achieving a C or better.
- Looking at gender, it is notable that female students are still performing better than their male peers (73% vs. 65%). This disparity has persisted since baseline (2014-15) for this indicator.
- By race, we see students of color are 11 to 20 points below their White peers, except for Asian students. This has led to a gap increase for Native American (+8), Black (+7), Pacific Islander (+5), and Multiracial students (+5).
- By school, we see strong gains by First Creek, Truman, and Meeker (up 19, 17, and 14 points respectively). However, Stewart, Jason Lee, and Gaudrone have each seen large declines (down 33, 20, and 14 points respectively).

GET INVOLVED!

- **Invite** families and students to hands-on STEAM nights in schools throughout the school year.
- **Link up** with the eight Tacoma elementary, middle, and high schools participating in PLU's Tacoma MESA (Math Engineering Technology Achievement) program.
- **Engage in** STEAM-related summer learning and recreation opportunities at GraduateTacoma.org/STEAM.

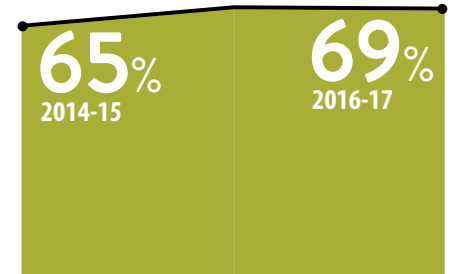
GAP CHANGE: Represents the ▲ increase or ▼ decrease in the achievement gap between 1) Students of Color and White students and 2) between students in poverty and those not in poverty, baseline to current.



DATA TRENDS

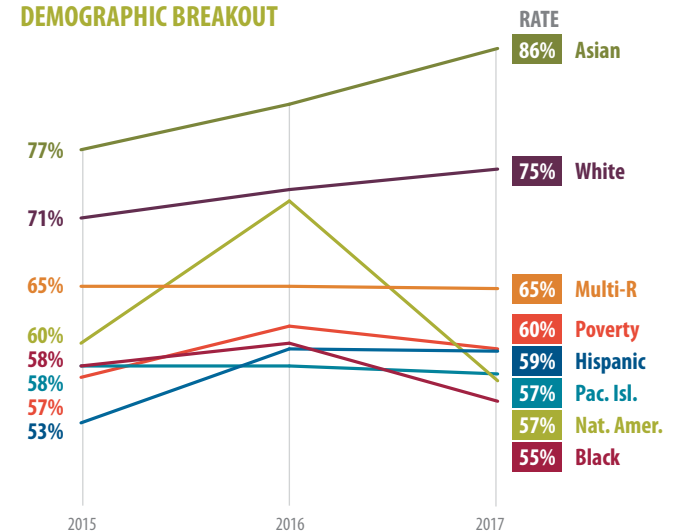
BASELINE TO CURRENT

Passing algebra or geometry



AIMING HIGHER GOAL: Increase the percentage of eighth graders who pass algebra or geometry with a C or better.

DEMOGRAPHIC BREAKOUT



Data Source: TPS