

Student Achievement in BVSD

Can any of you reading this explain what “Median Growth Percentile” means?

If you can't, don't worry, because you have lots of company.

Here's a short and somewhat simplified explanation (leaving out the uglier math). Assume your child starts a 1600 meter race with 99 other runners, and finishes 25th. Compared to the other runners, that places her or him in the 75th percentile, with 99 being the top and zero the bottom.

Now let's further assume that your child ran with four friends, who finished in the 35th, 42nd, 55th, 62nd, and 75th percentiles. The median (mid-point) percentile for this group of runners is the 55th.

So should your child apply for a college track scholarship?

On the basis of the race percentile alone, there is no way to answer that question. Why? Because the race percentile is a measure of your child's relative, not absolute performance. For the latter, you would have to know their actual time in the race, and compare it to the absolute standard that is required to be considered for a track scholarship. If your child ran a 4:05 then D1 schools will come knocking. But if your child ran a 10 minute 1600, they won't.

This analogy makes a critical point. When school district staff waxes eloquent about Median Growth Percentiles remember this: They tell you nothing about the absolute state of student achievement, or how fast it is improving on an absolute basis. In fact, apparently impressive MGPs can hide more disturbing truths.

The following table shows the percent of BVSD students who met or exceeded grade-level state standards in Math and English Language Arts over the past three years. In the last row, we've added the Median Growth Percentiles for the 2016 to 2017 period, and below

that, we note test participation rates.

Math

Pct Meets or Exceeds State Standards

	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8*
2015 CMAS	59	52	55	46	37	12
2016 CMAS	58	53	57	50	36	24
2017 CMAS	56	51	54	49	39	18
2016-17 MGP		51	51	41	48	58
2015 Participation	92%	89%	89%	86%	79%	71%
2016 Participation	92%	91%	87%	78%	72%	55%
2017 Participation	91%	91%	87%	77%	67%	56%

**Grade 8 results are for the 50% of students who take grade level math assessment, rather than higher level math assessment*

English Language Arts

Pct Meets or Exceeds State Standards

	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
2015 CMAS	70	60	62	58	59	52
2016 CMAS	57	64	62	60	58	54
2017 CMAS	58	63	65	58	61	57
2016-17 MGP		56	52	45	39	42

This table makes a number of points.

First, where participation rates are high, just under half of BVSD students failed to meet state math standards – and roughly 4 in 10 failed to meet state English Language Arts standards. This result is not all due to poverty – only 21% of BVSD students are on free and reduced lunch.

Second, roughly half of BVSD 8th graders take the grade-level rather than advanced math assessment. Their performance is deeply worrying, especially in a world where technology is rapidly improving and STEM skills are now critical in many jobs.

Third, there is minimal evidence of any improvement in BVSD’s performance over the past three years, and in Grade 3 ELA a concerning drop in results.

Finally, the data make clear how foolish it is to only rely on Median Growth Percentiles to judge district performance. Consider the

highlighted example in the table. On the 2016 CMAS, 58 percent of BVSD third graders met or exceeded state math standards. But on the 2017 CMAS, only 51 percent of BVSD fourth graders met state standards – a decline of 7 percent. Yet this negative performance placed BVSD in the 51st Median “Growth” Percentile. Contrary to popular belief, this is not a cause for celebration.

To return to our previous discussion of MGPs, what this really means is that BVSD was in the middle of a group of very slow runners who failed to keep up with the grade-to-grade increase in the rigor of state math standards.

Finally, consider the performance of BVSD students on the ACT assessment that every 11th grader took in 2016 (before Colorado switched to the SAT). Thirty-nine percent did not meet the reading benchmark for college and career readiness. Forty-one did not meet the math benchmark. And forty-six percent failed to meet the science benchmark.

According to a recent report, “86% of Colorado parents surveyed believe their child is on track to meet the goals and expectations for learning at his or her grade level” (*Hearts and Minds of Parents in an Uncertain World* by Learning Heroes).

Unfortunately, if present trends continue, far too many BVSD parents are one day going to be shocked, either when they are told their children can’t access high school content, they don’t get into their target college, or they learn that they need to pay for non-credit remedial courses.