

Student Achievement in Cherry Creek

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 Cherry Creek 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	49	41	39	42	40	23
2016 CMAS	53	45	47	38	40	29
2017 CMAS	54	44	45	41	37	29
2016-17 MGP		49	50	47	56	53
2017 Participation	95%	94%	92%	87%	82%	71%
2016 Participation	96%	95%	94%	90%	82%	76%
2015 Participation	96%	95%	93%	88%	81%	69%

**Grade 8 results are for the 72% 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	48	55	52	45	49	51
2016 CMAS	49	58	54	45	51	49
2017 CMAS	50	55	58	46	52	50
2016-17 MGP		52	49	39	48	43

This table makes a number of points.

First, where participation rates are high, fewer than half of Cherry Creek students met 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 30% of Cherry Creek students are on free and reduced lunch.

Second, almost three quarters of Cherry Creek 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 Cherry Creek’s performance over the past three years.

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, 53 percent of

Cherry Creek third graders met or exceeded state math standards. On the 2017 CMAS, only 44 percent of Cherry Creek fourth graders met state standards – a decline of 9 percent. Yet this negative performance placed Cherry Creek in the 49th 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 Cherry Creek 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 Cherry Creek students on the ACT assessment that every 11th grader took in 2016 (before Colorado switched to the SAT). Fifty-three percent did not meet the reading benchmark for college and career readiness. Fifty-five percent did not meet the math benchmark. And fifty-eight 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 Cherry Creek 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.