

Growth Webinar (Aug 16, 1:00-2:30)

This webinar will provide a brief conceptual overview of the Colorado Growth Model, including student growth percentiles, median growth percentiles, and an overview of changes in reports and measures associated with the 2018 release. The session will also include time for participants to ask questions.



COLORADO
Department of Education

Colorado Growth Model Webinar

Accountability & Data Analysis Unit

August 16, 2018

Agenda

Why is student growth data important?

The Colorado growth model

What is growth?

- SGP/MGP
- Growth Pathways for 2018

Data, Reports, & Resources

Other Growth Caveats

Resources/Trainings

Questions

Why is student growth data important?

Growth data provides a different and equally important perspective on the academic performance of students, schools and districts.

- ✓ Growth shows how well schools are doing in helping each student progress.
 - All students can show growth – even high performing students
- ✓ Growth data is integral for accountability determinations.
 - Elementary and middle schools: 60% of plan type rating is based on growth.
 - High schools/Districts: 40% of ratings are based on growth.
- ✓ Growth data informs improvement planning within schools and districts.



What is student growth?

- Developed by CDE and the National Center for the Improvement of Educational Assessment. The Growth Model was first used in Colorado in 2009.
- Growth data shows how much progress individual students have made between last year and this year as measured by the CMAS and PSAT/SAT assessments in English language arts and math.
- Student Growth Percentiles are determined by how much students have progressed compared to their “academic peers.”
- Growth data can be summarized for specific groups of students, schools and by district.



Student Growth Percentile

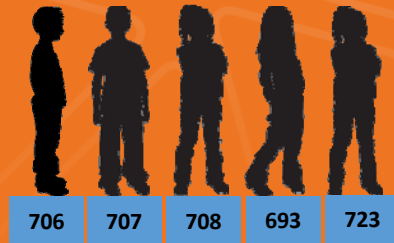
The student growth percentile (SGP): tells us how a student's current test score compares with those of other similar students (students across the state whose previous test scores are similar).

Calculations:

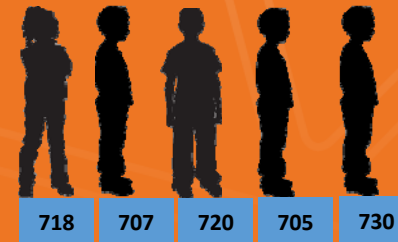
- Individual Student Growth Percentiles are calculated based on **at least two sequential** state assessment scores (known as scale scores). Calculation uses **as many** sequential (no “skip years”) scores as are available for every student.
- When the state assessment changed in (2015), student growth percentiles were NOT calculated based on prior assessment scores (No growth percentiles were provided from TCAP to CMAS).
- Current student growth percentiles in ELA and Math use CMAS scale scores from as many years as possible (whenever possible).

Student Growth Percentile Calculation Heuristic

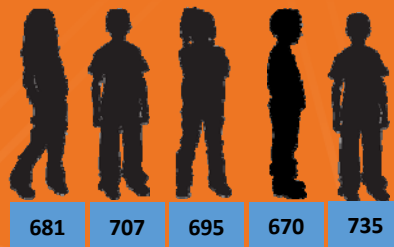
Medium 3rd grade score (700)



High 3rd grade score (725)

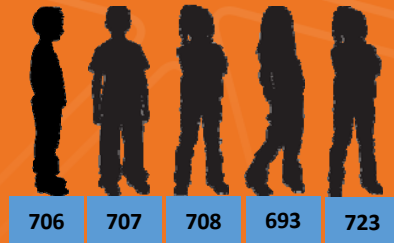


Low 3rd grade score (675)

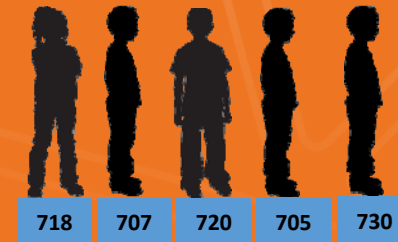


Student Growth Percentile Calculation Heuristic

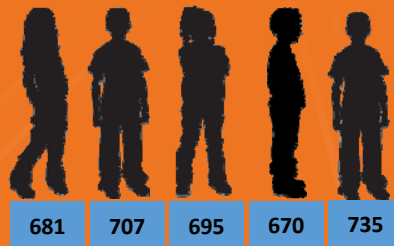
Medium 3rd grade score (700)



High 3rd grade score (725)

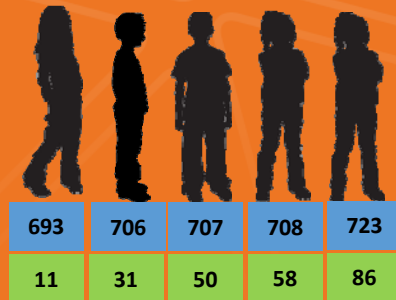


Low 3rd grade score (675)

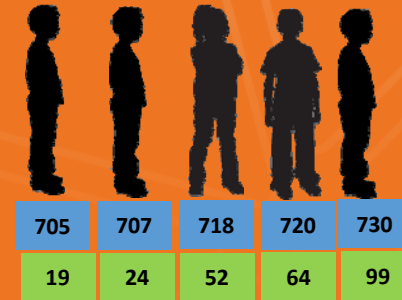


Student Growth Percentile Calculation Heuristic

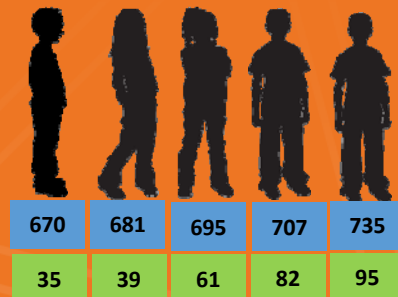
Medium 3rd grade score (700)



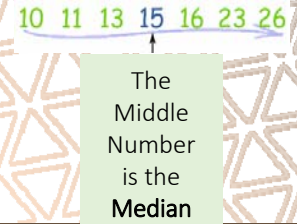
High 3rd grade score (725)



Low 3rd grade score (675)



Median Student Growth Percentile



The median growth percentile (MGP): tells us how well a group of students is growing in comparison with other groups. The MGP tells us how much growth that a group as a whole is achieving.

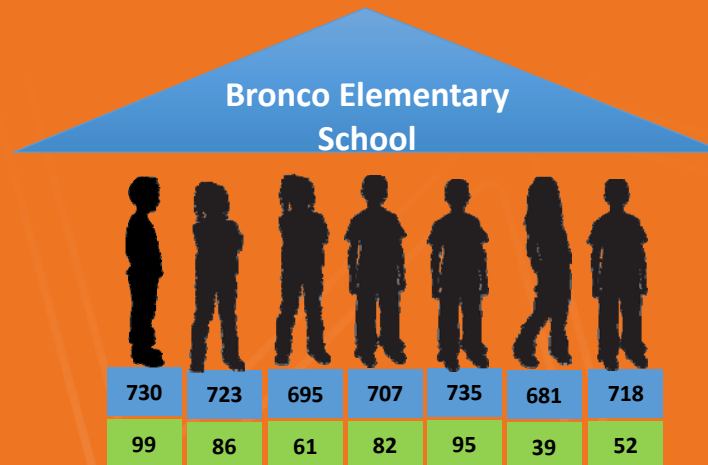
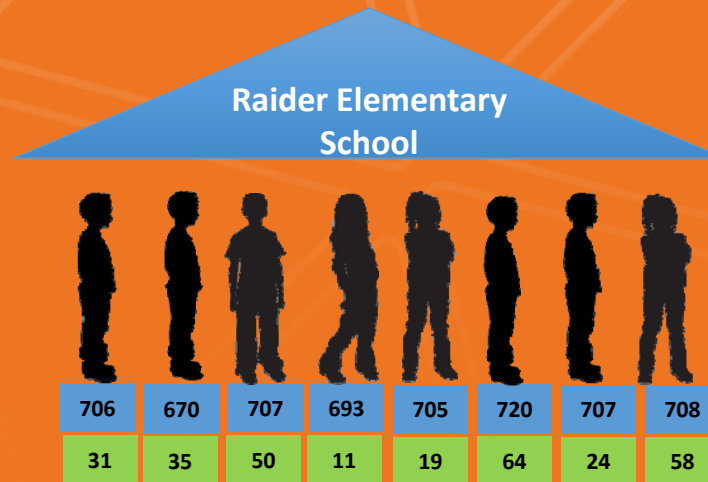
- The metric provided is the “median” of the student growth percentiles for that disaggregated group – the **median student growth percentile**.

Median growth percentiles are calculated by CDE for the following groups:

- State, district, and school (overall and by grade)
- Minority, Migrant, Performance Level, Gifted, FRL, IEP, ELL, and Gender

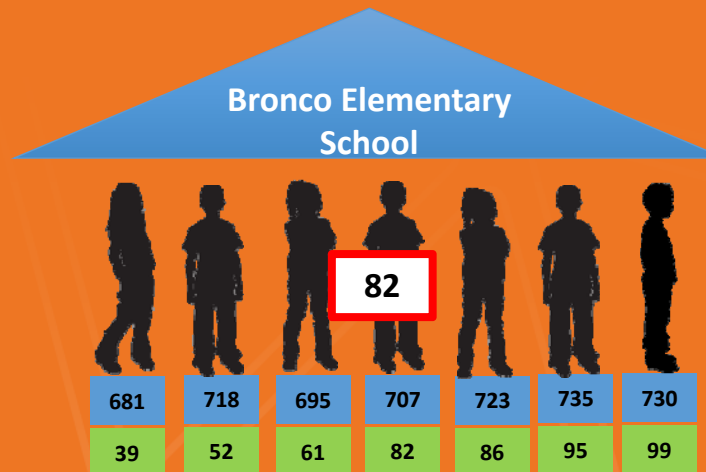
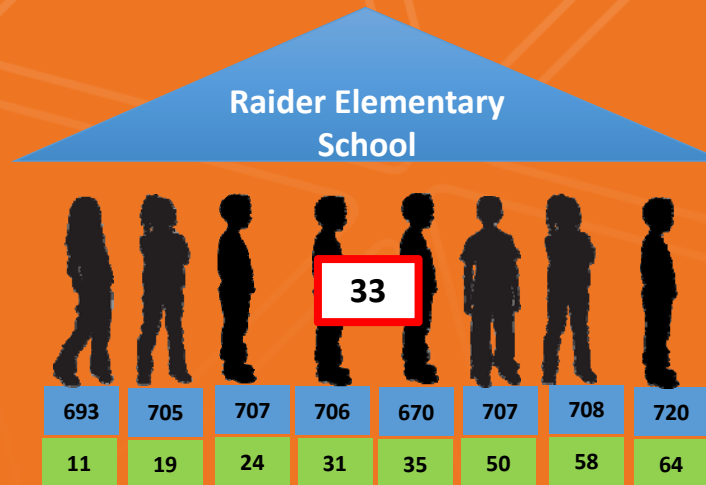
School Median Growth Percentile Calculation Heuristic

Students
grouped by
School



School Median Growth Percentile Calculation Heuristic

In Order
by Student Growth
Percentile within
Schools



How do we look at growth?

Students

Student-level
growth percentiles
(SGPs)
range from 1-99

Schools & Districts

Median growth
percentiles (MGPs)
range from 1-99,
but tend to fall
between 20 and 80

State

Median growth
percentiles (MGPs)
range from 1-99 but
tend to fall
between 40 and 60

2018 Growth Pathways for CMAS & PSAT/SAT

English Language Arts

- Grades 4-11 (CMAS to SAT)

Math

- Grades 4-11 (CMAS to SAT)
- Some pathways were unable to be calculated.

Mathematics (including Math Pathways)

2015	2016	2017	2018
-	-	CMAS g3	CMAS g4
-	CMAS g3	CMAS g4	CMAS g5
CMAS g3	CMAS g4	CMAS g5	CMAS g6
CMAS g4	CMAS g5	CMAS g6	CMAS g7
CMAS g4	CMAS g5	CMAS g6	Algebra I g7
CMAS g5	CMAS g6	CMAS g7	CMAS g8
CMAS g5	CMAS g6	CMAS g7	Algebra I g8
CMAS g5	CMAS g6	CMAS g7	Integrated 1 g8
CMAS g5	CMAS g6	Algebra g7	Geometry g8
CMAS g6	CMAS g7	CMAS g8	PSAT g9
CMAS g6	CMAS g7	Algebra I g8	PSAT g9
CMAS g6	Algebra I g7	Geometry g8	PSAT g9
CMAS g6	CMAS g7	Integrated 1 g8	PSAT g9
CMAS g7	CMAS g8	Algebra I g9	PSAT g10
CMAS g7	Algebra I g8	Geometry g9	PSAT g10
CMAS g7	Geometry g8	Algebra II g9	PSAT g10
CMAS g7	CMAS g8	Integrated 1 g9	PSAT g10
CMAS g8	Algebra I g9	PSAT g10	SAT g11
Algebra I g8	Geometry g9	PSAT g10	SAT g11
CMAS g8	Integrated 1 g9	PSAT g10	SAT g11
Geometry g8	Algebra II g9	PSAT g10	SAT g11

Red pathways we couldn't run. Blue were excluded from calculations.

Data, Reports, & Resources

What is available/coming soon?

Available Now

Student Detail files

- Available to district accountability contacts via Syncplicity

All schools, districts, state summary (Excel Workbook)

- Includes overall performance and performance by level.
- Reflected results are for PSAT/SAT and CMAS.
- Posted here: <http://www.cde.state.co.us/accountability/growthmodelsummarydata>

Individual school and district summary reports

- One-page reports for districts and schools that include median growth percentiles overall, by grade, and by disaggregated groups by year (i.e. 2016, 2017 and 2018). Also, comparison data for the district and state are included.
 - Two sets of reports this year. One for CMAS growth and one for PSAT/SAT growth.
- Posted here: <http://www.cde.state.co.us/schoolview/coloradogrowthmodel>

Coming Soon

Individual student growth reports

- Will be provided to districts in the upcoming month. These reports have been prepared for parents to explain the performance and growth of their students on the CMAS PARCC assessments.



The report header identifies the district/school and growth results (CMAS or PSAT/SAT) reflected in the report.

General Notes:

- The 2018 CMAS growth results presented below reflect 4th to 8th grade median growth percentiles for CMAS Math and English Language Arts where applicable. Prior year results also include 9th grade CMAS growth results. The PSAT/SAT reports include growth results for 9th to 11th grades. The 2018 8th grade CMAS to PSAT9 results are included in the PSAT/SAT growth reports only (i.e. not with the CMAS 2018 results).
- The results included in this report are based on student accountability inclusion rules, the same as are used for the school and district performance frameworks.
- Median Growth Percentiles (MGP) for the district and state in this report are calculated based only on the grade levels that are served by the school not for all students in the district/state.
- The number of students reflected in the data should be considered when interpreting results. Also, growth summary data including student counts is available at: <http://www.cde.state.co.us/accountability/growthmodelsummarydata>

SCHOOL CMAS GROWTH


Growth metrics provide another view of student growth and an indication of what happens in-between.

Growth rates for individual student's growth percentile (range) and district growth rates are determined. Percentiles (MGP) are calculated for groups. Please note that growth rate is the state median growth percentile for any grade, overall, is 50. In rare cases, state median growth percentiles may vary slightly.

English Learners: include former ELL students (FELL) within the 2016 and 2017 results. Former ELL (FELL) students are excluded from 2018 growth calculations.

Non-English Learners: include primary home language other than English students (PHLOTE) who are not designated as ELLS. Starting in 2018, this group also includes FELL students.

Minority: reflects all non-white students.

Median Growth Percentile 1.0  99.0		ENGLISH LANGUAGE ARTS									MATH								
		School			District			State			School			District			State		
		2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
ALL STUDENTS	All Students	58.0	59.0	59.0	51.0	52.0	52.0	50.0	50.0	50.0	58.0	58.0	58.0	50.0	49.0	49.0	50.0	50.0	50.0
GRADE LEVEL	04	59.0	63.0	63.0	54.0	52.0	52.0	50.0	50.0	50.0	71.0	70.5	70.5	55.0	49.0	49.0	50.0	50.0	50.0
	05	58.0	47.0	47.0	49.0	52.0	52.0	50.0	50.0	50.0	54.0	18.0	18.0	45.0	49.0	49.0	50.0	50.0	50.0
ENGLISH LEARNERS	English Learners				56.0	57.0	57.0	49.0	50.0	50.0				57.5	50.5	50.5	47.0	49.0	49.0
	Non-English Learners	58.0	54.0	54.0	51.0	52.0	52.0	50.0	50.0	50.0	57.5	58.0	58.0	50.0	49.0	49.0	51.0	50.0	50.0
FREE AND REDUCED LUNCH (FRL)	FRL Eligible	46.0	48.5	48.5	43.0	49.0	49.0	47.0	47.0	47.0	64.0			42.0	41.5	41.5	46.0	46.0	46.0
	Non-FRL	63.0	55.0	55.0	53.0	52.0	52.0	53.0	53.0	53.0	57.5	59.0	59.0	52.0	51.0	51.0	53.0	53.0	53.0
GENDER	Female	63.0	62.0	62.0	55.0	55.0	55.0	54.0	53.0	53.0	71.5	58.0	58.0	50.0	48.5	48.5	51.0	49.0	49.0
	Male	55.5	44.0	44.0	49.0	47.0	47.0	46.0	47.0	47.0	49.0	58.0	58.0	50.0	50.0	50.0	49.0	51.0	51.0
GIFTED	Gifted and Talented				62.0	61.0	61.0	61.0	62.0	62.0				56.0	56.0	56.0	60.0	60.0	60.0
	Non-Gifted and Talented	58.0	53.0	53.0	50.0	51.0	51.0	49.0	49.0	49.0	61.0	58.0	58.0	49.0	49.0	49.0	49.0	49.0	49.0
INDIVIDUALIZED EDUCATION PLAN ..	On IEP				41.0	44.5	44.5	36.0	38.0	38.0				51.0	41.5	41.5	41.0	42.0	42.0
	Non-IEP	58.0	62.0	62.0	52.0	52.0	52.0	52.0	51.0	51.0	58.0	58.0	58.0	50.0	50.0	50.0	51.0	51.0	51.0
MIGRANT	Migrant							45.0	45.0	45.0							42.0	48.0	48.0
	Non-Migrant	58.0	55.0	55.0	51.0	52.0	52.0	50.0	50.0	50.0	58.0	58.0	58.0	50.0	49.0	49.0	50.0	50.0	50.0
MINORITY	Minority	53.5	61.0	61.0	52.0	51.0	51.0	48.0	48.0	48.0	54.0	58.0	58.0	51.0	51.0	51.0	47.0	48.0	48.0
	Non-Minority	63.0	54.0	54.0	51.0	52.0	52.0	51.0	52.0	52.0	67.0	61.0	61.0	50.0	49.0	49.0	52.0	52.0	52.0
PERFORMANCE LEVEL	At or Above Benchmark	59.0	62.0	62.0	50.0	51.0	51.0	50.0	50.0	50.0	65.5	62.5	62.5	46.0	46.0	46.0	50.0	50.0	50.0
	Below Benchmark	54.5	39.0	39.0	52.0	53.0	53.0	50.0	50.0	50.0	57.0	33.0	33.0	54.0	52.0	52.0	50.0	50.0	50.0
RACE/ETHNICITY	American Indian or Alaska Native							47.0	43.5	43.5							45.0	41.0	41.0
	Asian				62.0	55.0	55.0	59.0	58.0	58.0				62.0	56.0	56.0	60.0	59.0	59.0
	Black				56.0	59.0	59.0	48.0	47.0	47.0				59.0	51.0	51.0	45.0	44.0	44.0
	Hispanic				49.0	48.0	48.0	47.0	47.0	47.0				46.0	51.0	51.0	46.0	47.0	47.0
	White	63.0	54.0	54.0	51.0	52.0	52.0	51.0	52.0	52.0	67.0	61.0	61.0	50.0	49.0	49.0	52.0	52.0	52.0
	Hawaiian/Pacific Islander							52.0	50.0	50.0							58.0	51.0	51.0

Median Growth Percentiles (MGP) for all students within the grades served by the school for the identified assessment and year.

A blank cell indicates that less than 20 student growth percentiles were available to calculate a median for the group.

Below Benchmark: reflects students that did not yet meet, partially meet, or approached grade level expectations (during the prior year) for the identified CMAS assessment. This category is not reflected on PSAT/SAT growth reports.

At or Above Benchmark: reflects students that meet or exceed grade level expectations (during the prior year) for the identified CMAS assessment. This category is not reflected on PSAT/SAT growth reports.

What is not available?

Growth to Standard

- Growth to Standard metrics for English language proficiency and content assessments (CMAS/PSAT/SAT) will be reported for informational purposes separate from the performance frameworks.
- Determinations for including a Growth to Standard measure for points on the 2019 frameworks will be based on feedback from stakeholders.

Small Populations

- Student groups of less than 20 will not be displayed within publicly released growth reports.
 - Student groups of less than 20 will not be displayed within reports.
 - Complimentary suppression rules not needed/used with medians
 - Why different n-size than assessment?
 - Not just PII but also related to reliability of estimates.



Other Growth Caveats

Certain students may not have growth percentiles due to the rarity of the their assessment progressions.

- Atypical and twice-accelerated pathways won't typically have growth. If your reports or student detail files lack growth percentiles it's usually due to insufficient counts or an unusual pathway (e.g. a student was retained).

What is 'typical' growth for groups of students?

- CDE has defined low, typical, and high growth in relation to student level growth only. This helps to explain the concept to stakeholders. For most groups, 'typical' growth does not necessarily indicate sufficient growth.

Resources & Training

Upcoming trainings will be announced in the Scoop, the CDE newsletter.

- Call-in/walk-in appointments on the Growth Model and Performance Frameworks will be available until the end of October upon request
- Training web-page: http://www.cde.state.co.us/uip/uip_training
- On-site training opportunities may also be available upon request

Growth Model Website:

- <http://www.cde.state.co.us/schoolview/coloradogrowthmodel>
- <http://www.cde.state.co.us/accountability/coloradogrowthmodel>

Dan Jorgensen via e-mail at: jorgensen_d@cde.state.co.us





Questions?

A photograph of the word "Questions?" written in a large, cursive, black marker on a sheet of white lined paper. The paper has vertical blue lines. A black marker is visible in the bottom right corner, having just finished writing the word. A long, curved underline is drawn beneath the word.