COLORADO

Department of Education

Colorado Growth Model Webinar

Accountability & Data Analysis Unit

August 16, 2019

Growth Webinar (Aug 15, 10:00-11:30)

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 2019 release.

Agenda

- Why is student growth data important?
- The Colorado growth model
- What is growth?
  - SGP/MGP
  - Growth Pathways for 2019
- 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." It is a normative comparison of change.
- 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 us scale scores from as many prior years as possible (whenever possible).

Student Growth Percentile Calculation Heuristic

Medium 3rd grade score (700)

706 707 708 693 723

High 3rd grade score (725)

718 707 720 705 730

Colorado 4th Graders

Low 3rd grade score (675)

681 707 695 670 735

'Heuristic' slides adopted with permission from Julie O'Brian at the Center for Transforming Teaching and Learning

Student Growth Percentile Calculation Heuristic

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High 3rd grade score (725)

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Low 3rd grade score (675)

681 707 695 670 735

Student Growth Percentile Calculation Heuristic

Medium 3rd grade score (700)

693	706	707	708	723
11	31	50	58	86

High 3rd grade score (725)

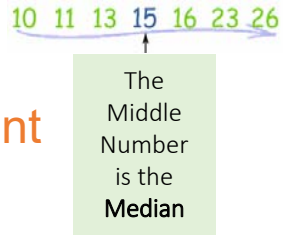
705	707	718	720	730
19	24	52	64	99

Low 3rd grade score (675)

670	681	695	707	735
35	39	61	82	95

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

Raider Elementary School

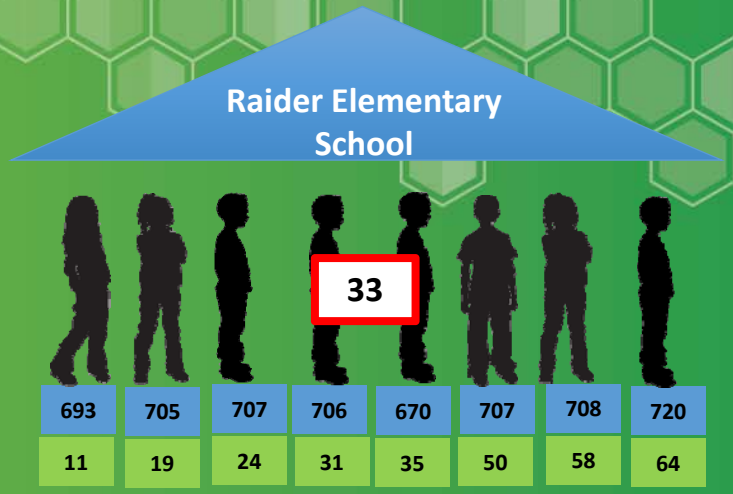
706	670	707	693	705	720	707	708
31	35	50	11	19	64	24	58

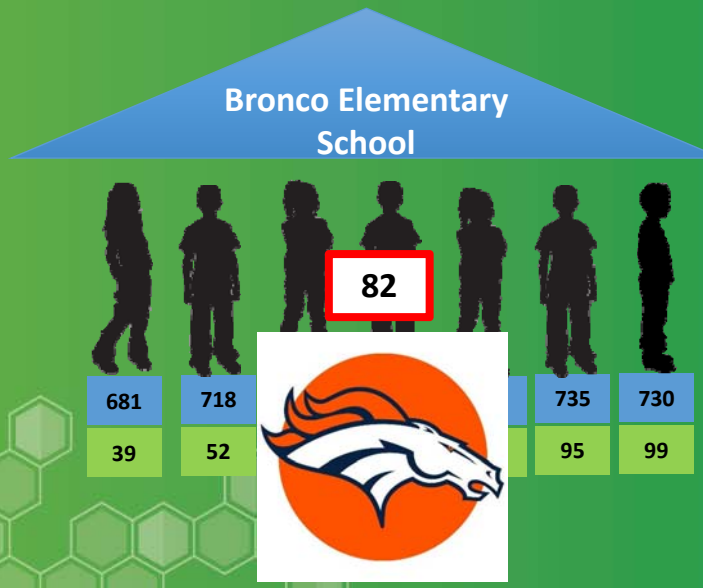
Bronco Elementary School

730	723	695	707	735	681	718
99	86	61	82	95	39	52

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

How do we look at student growth?

2018-2019 Student Grade Level	2017 State Assessment*		2018 State Assessment*		2019 State Assessment
4			CMAS Grade 3	⇨	CMAS Grade 4
5	CMAS Grade 3	⇨	CMAS Grade 4	⇨	CMAS Grade 5
6	CMAS Grade 4	⇨	CMAS Grade 5	⇨	CMAS Grade 6
7	CMAS Grade 5	⇨	CMAS Grade 6	⇨	CMAS Grade 7
8	CMAS Grade 6	⇨	CMAS Grade 7	⇨	CMAS Grade 8
9	CMAS Grade 7	⇨	CMAS Grade 8	⇨	PSAT 9**
10	CMAS Grade 8	⇨	PSAT 9**	⇨	PSAT 10
11	CMAS Grade 9	⇨	PSAT 10**	⇨	SAT 11

* Middle and high school math pathways are not represented in this graphic.
** No growth will be reported crossing from CMAS ELA to PSAT EBRW due to differences in the assessment constructs

Data, Reports, & Resources

What is is available/coming soon?

Available Now

- CMAS Student Detail files
  - Available to district accountability contacts via Syncplicity
- All schools, districts, state summary for CMAS growth (Excel Workbook)
  - Includes overall performance and performance by level.
  - Posted here: http://www.cde.state.co.us/accountability/growthmodelsummarydata
- Individual school and district summary reports
  - One-page CMAS reports for districts and schools that include median growth percentiles overall, by grade, and by disaggregated groups by year (i.e. 2017, 2018 and 2019). Also, comparison data for the district and state are included.
  - Posted here: http://www.cde.state.co.us/schoolview/coloradogrowthmodel
- Individual student growth reports
  - These reports have been prepared for parents to explain the performance and growth of their students on the CMAS PARCC assessments.

Coming Soon

- SAT Student Detail files, State Summary Files, and Summary Reports
  - The SAT detail files and summary reports will be released to district with the state performance framework data on the 21st. The growth summary files and reports will be publically posted on the 26th.

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 GROW

Growth metrics provide another vi
indication of what happens in-betw

Growth rates for individual student
student's growth percentile (rangi
and district growth rates are deter
Percentiles (MGP) are calculated fo
groups. Please note that growth ra
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 — 50.0 — 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	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
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 N							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?

- 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.

- 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).

Other Growth Caveats

- 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?