



COLORADO
Department of Education

Growth 101 Webinar

August 12, 2022

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Accountability Support Manager
Accountability & Continuous Improvement Unit

Welcome & Introductions

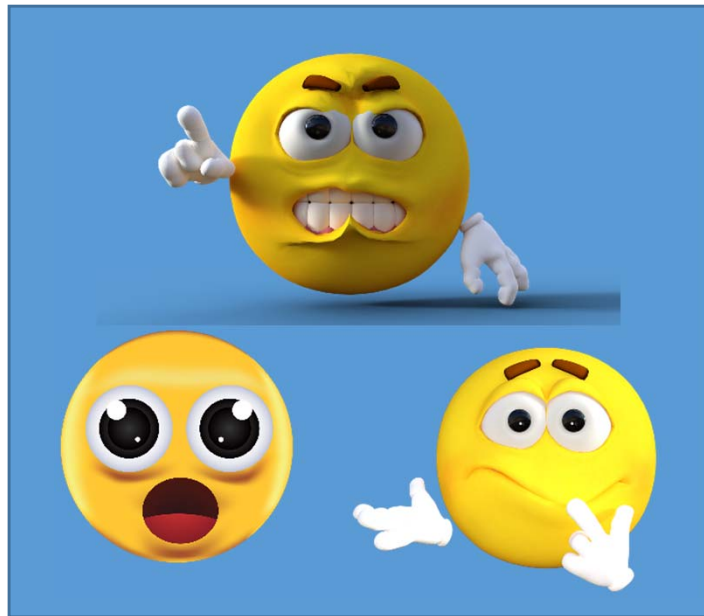
- Presenter Introduction....
 - Dan Jorgensen, PhD, Accountability Support Manager
 - 7-years district central office, 11-years CDE, 8-year school board member with many years as a program evaluator/researcher.



Ice Breaker & Meeting Norms

Zoom Icebreaker.....

Name (if not visible), district/organization and emoji of your day so far.....



Meeting Norms

This webinar is being recorded. Slides and the recording will be posted to the [CDE website](#). Q&A at the end of this session won't be recorded.

Please mute your sound if you are not speaking.

Use the chat feature to ask questions throughout the presentation. I will take pause breaks to answer chat questions.

Webinar Topics

This webinar will address the following topics:

- ❖ Why is student growth data important?
- ❖ What is the Colorado Growth Model?
- ❖ How is Growth determined?
 - ❖ SGP/MGP
 - ❖ Cohort vs Baseline Growth
 - ❖ Growth Pathways for 2022
- ❖ What growth 'caveats' should I know?
- ❖ What data, reports, and resources are available?
- ❖ Questions

The Why, What and How of Student Growth

Why is student growth data important?

- ✓ 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.
- ✓ Tracking state, district and school progress in pandemic recovery.



What is the Colorado Student Growth Model?

- 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. Also, growth is calculated for WIDA-ACCESS based on the overall score.
- 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.
- Can be re-normed each year (cohort) and compare to a previous year (baseline).



How do we determine Student Growth Percentiles?

- 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). Calculations **typically** use **as many** sequential scores as are available for every student.
- Current student growth percentiles use scale scores from as many prior years as possible (whenever possible).

Student Growth Percentile: Cohort Growth 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



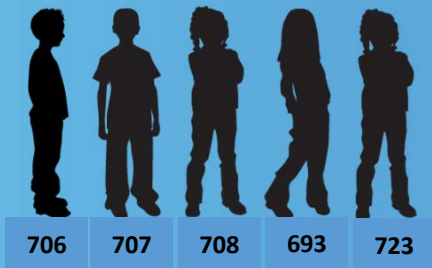
Low 3rd grade score (675)



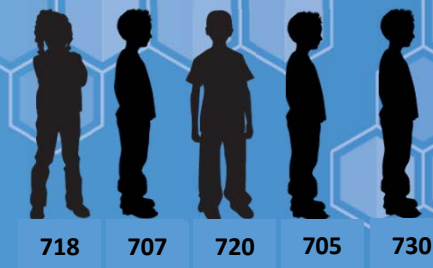
681 707 695 670 735

Student Growth Percentile: Cohort Growth Calculation Heuristic

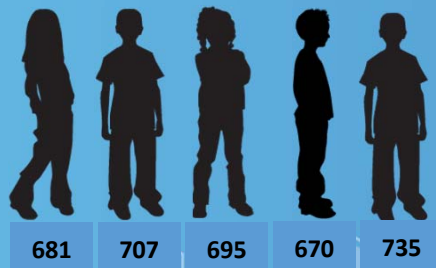
Medium 3rd grade score (700)



High 3rd grade score (725)

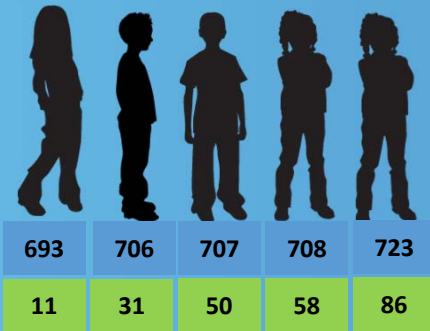


Low 3rd grade score (675)

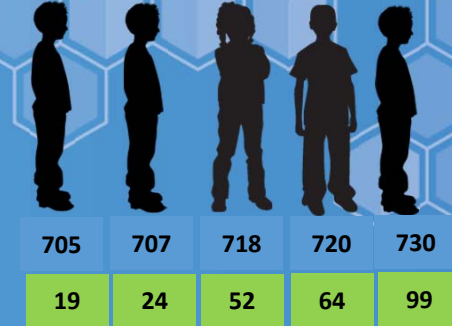


Student Growth Percentile: Cohort Growth Calculation Heuristic

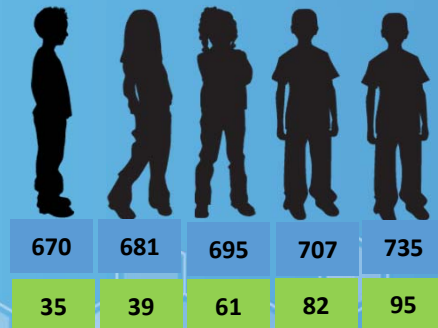
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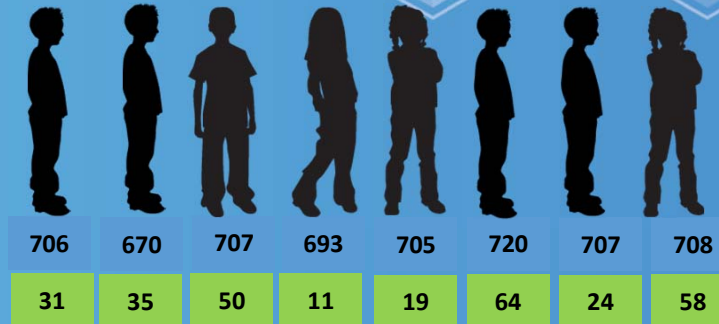


How do we determine Median Growth Percentiles (MGPs)?

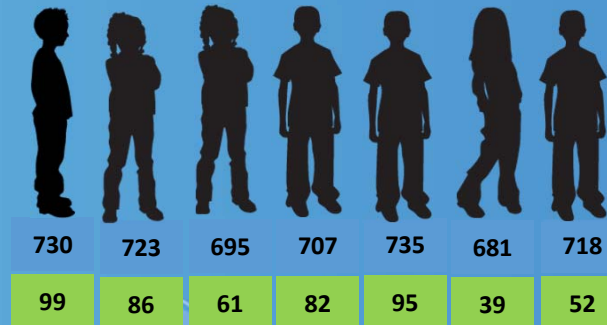
- The median growth percentile (MGP): tells us how well a group of students is growing in comparison with other groups. The MGP tells us how much growth that a group as a whole is achieving.
 - The metric provided is the “median” of the student growth percentiles for that disaggregated group – the **median 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

Raider Elementary School



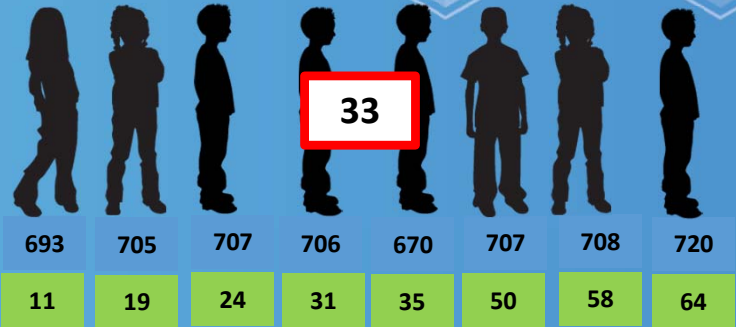
Bronco Elementary School



Students
grouped by
School

School Median Growth Percentile Calculation Heuristic

Raider Elementary School



In Order
by Student Growth
Percentile within
Schools

Bronco Elementary School



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

What about Baseline Growth?

- **Baseline-referenced growth** compares a student's progress against a baseline historical academic peer group—i.e. a student's score is compared to what would have been expected for students testing prior to the pandemic. So, may serve as a better measure of pandemic recovery.
- Cohort referenced growth indicates how students have progressed in comparison to current statewide academic trends while baseline growth indicates how much progress students made in comparison to pre-pandemic expectations and whether this progress is accelerating or decelerating.
- Baseline growth is included for informational purposes, to help track recovery toward pre-pandemic norms. Due to the pandemic test administration pause, baseline growth for 2021 captures 2019 to 2021 student data while baseline growth for 2022 captures 2021 to 2022 student data.

Growth Pathways for 2022

21-22 Student Grade Level	2021* State Assessment		2022 State Assessment
4	CMAS Gr 3 - ELA	→	CMAS Gr 4 – ELA
5	CMAS Gr 4 – Math	→	CMAS Gr 5 – Math
6	CMAS Gr 5 – ELA	→	CMAS Gr 6 – ELA
7	CMAS Gr 6 – Math	→	CMAS Gr 7 – Math
8	CMAS Gr 7 – ELA	→	CMAS Gr 8 – ELA
9	CMAS Gr 8 – Math	→	PSAT 9**-EBRW & Math
10	PSAT 9 – EBRW & Math	→	PSAT 10 – EBRW & Math
11	PSAT 10 – EBRW & Math	→	SAT 11 – EBRW & Math

*Due to the alternate CMAS testing schedule in 2021, students in grades 3, 5, and 7 took only ELA, and students in grades 4, 6, 8 took only Math. This results in limited growth availability for 2022.

**No growth will be reported crossing from CMAS ELA to PSAT EBRW due to differences in assessment constructs.



Other Growth Caveats- For Your Information!

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' or 50th percentile growth does not necessarily indicate sufficient growth to achieve grade level expectations.

What years of data are used for Baseline-Growth Calculations?

- Due to canceled 2020 assessments, 2021 baseline growth is skip-year from 2019 to 2021, and then baseline skip-year norming group was from 2017 to 2019
- For 2022, consecutive year growth is calculated from 2021 (tested grades) to 2022 and the baseline norming group was from 2018 to 2019

ELP Growth (ACCESS) information

- Data from 2019 to 2022 are all directly comparable as ACCESS was tested at all grade levels every year
- Using cohort SGP data for the ACCESS MGP measure. Baseline growth data available for comparison purposes
- Cut scores for the ACCESS on track metric have been re-normed using 2022 data, as had been previously planned



How is growth reported on the 2022 Performance Frameworks?

- Cohort-referenced growth will be used for framework calculations and weights will remain constant. Baseline-referenced growth is provided for informational purposes only.
- Growth participation rates will be reported on the 2022 performance frameworks. This calculation represents how representative the reported growth results are likely to be of the eligible student population.

ACADEMIC GROWTH						
Subject	Student Group	Count	Participation Rate	Median Growth Percentile/ Rate	Pts Earned/ Eligible	Rating
CMAS - English Language Arts	All Students	1,671	100%	54.0	6.00/8	Meets
	English Learners	61	100%	56.0	0.75/1	Meets
	Free/Reduced-Price Lunch Eligible	221	100%	53.0	0.75/1	Meets
	Minority Students	471	100%	54.0	0.75/1	Meets
	Students with Disabilities	138	100%	43.0	0.50/1	Approaching
CMAS - Math	All Students	1,548	100%	49.0	4.00/8	Approaching
	English Learners	59	100%	60.0	0.75/1	Meets
	Free/Reduced-Price Lunch Eligible	235	100%	51.0	0.75/1	Meets
	Minority Students	446	100%	51.0	0.75/1	Meets
	Students with Disabilities	140	100%	46.0	0.50/1	Approaching
English Language Proficiency	English Language Proficiency	162	-	66.0	2.00/2	Exceeds
	On Track to EL Proficiency	163	-	76.1%	2.00/2	Exceeds
TOTAL	TOTAL	*	-	*	19.50/28	Meets

This column on the 2022 frameworks represents the growth participation rate.

Data, Reports, & Resources



What is available now or coming soon?

- **CMAS, PSAT/SAT, ACCESS Student Detail & Summary files**
 - Available to district accountability contacts via Syncplicity
- **Individual student CMAS growth reports**
 - These reports have been prepared for parents to explain the performance and growth of their students on the CMAS PARCC assessments.
- **Growth Visualizations**
 - Achievement, Growth, & PWR data now available in the UIP online system in the data narrative tab.
 - Additional public visualizations will be made available next week.
- **All schools, districts, state summary for CMAS and P/SAT growth**
 - Includes overall performance and performance by level.
 - To be posted here: <http://www.cde.state.co.us/accountability/growthmodelsummarydata>








Syncplicity log-in: <https://my.syncplicity.com/>.

Permissions are granted to all Superintendent assigned accountability contacts.

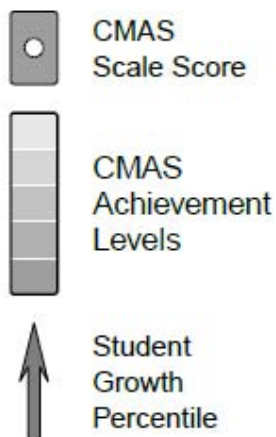
Files

All Files ▸ Accountability_Contact_2055 ▸ Growth ▸ 2022 CMAS_SAT Growth



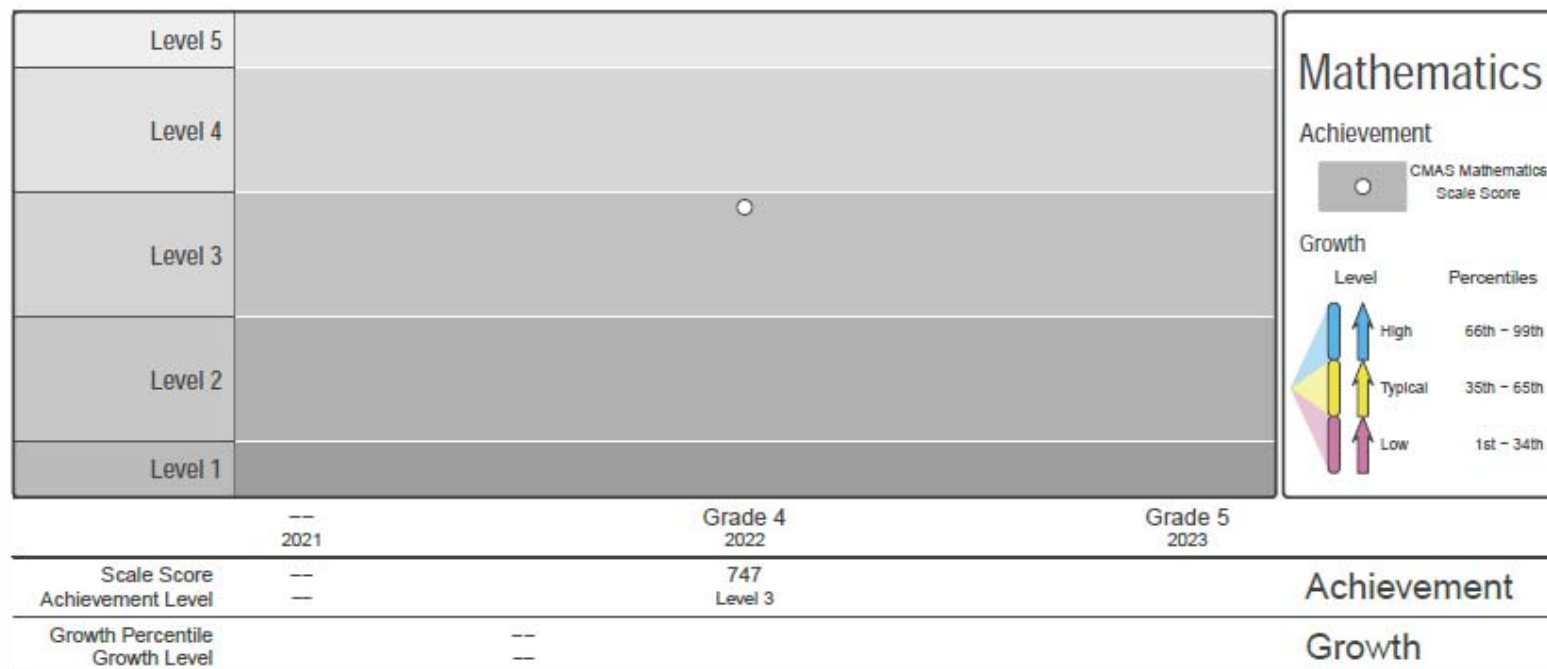
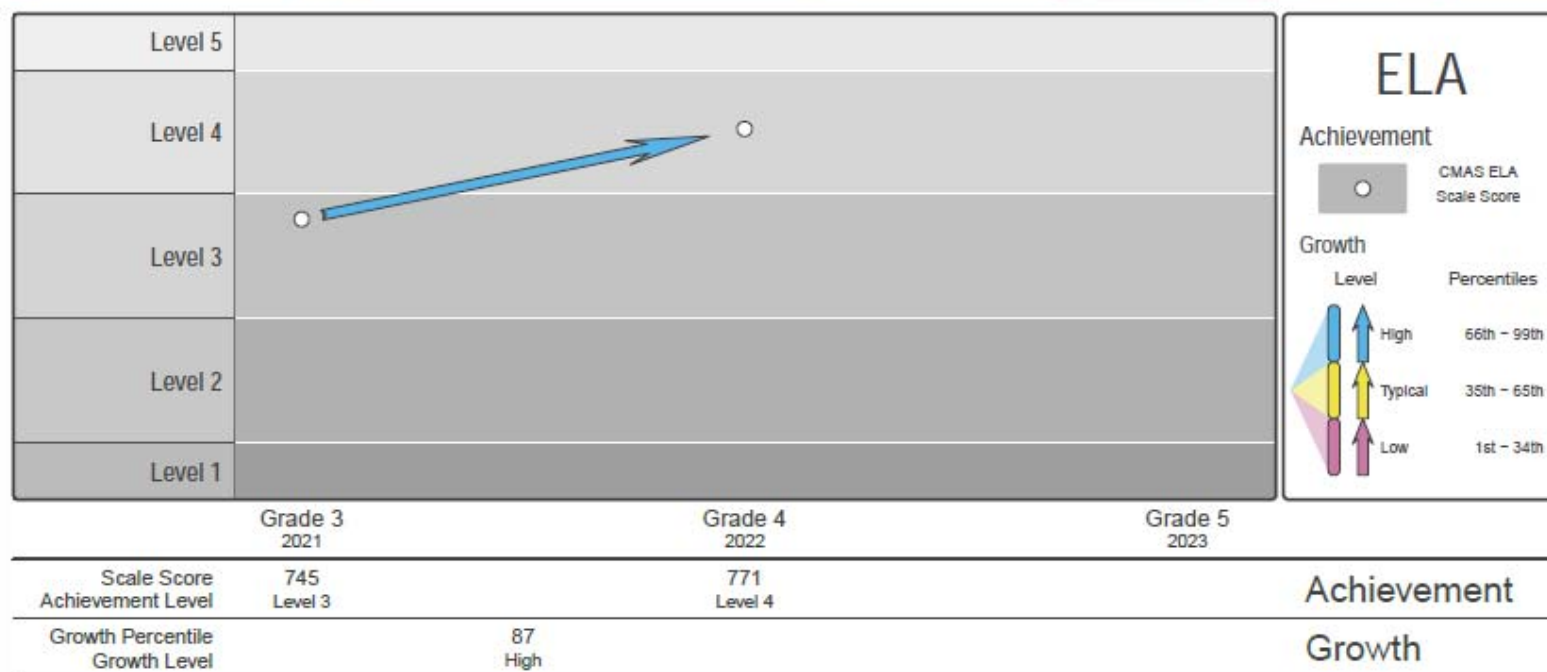
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<input type="checkbox"/>	 2055_ADA_GROWTH_SUMMARY_SAT_2022.xlsx	8 days ago	Excel worksheet
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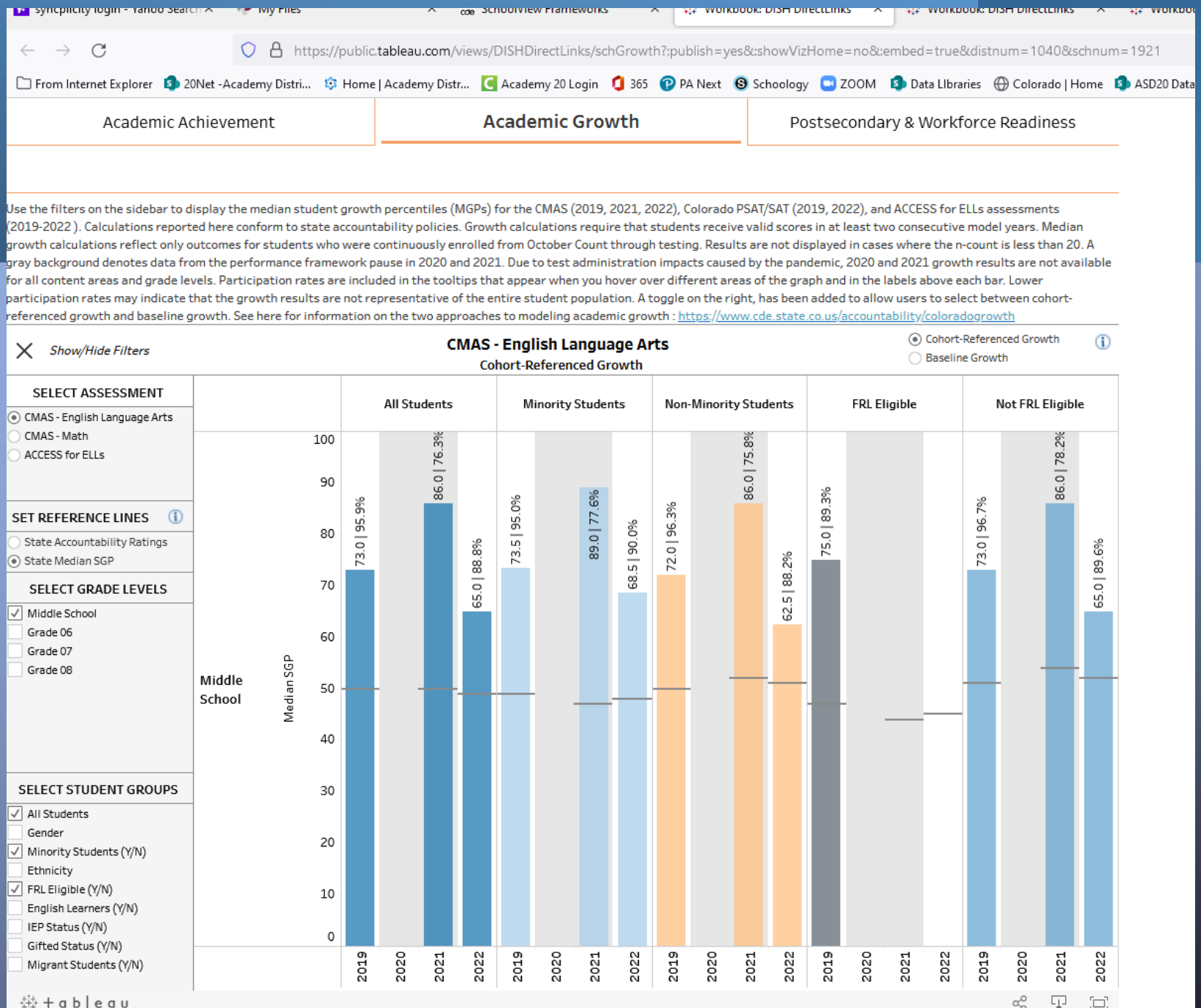
How to interpret this student growth & achievement report



Suggested Uses

- Review past growth to assess student academic progress toward CMAS achievement goals.
- Develop remediation or enrichment plans based on rate of growth needed to reach higher CMAS achievement levels.
- Identify the rate of progress needed in order to reach or maintain benchmark status on the CMAS next year.





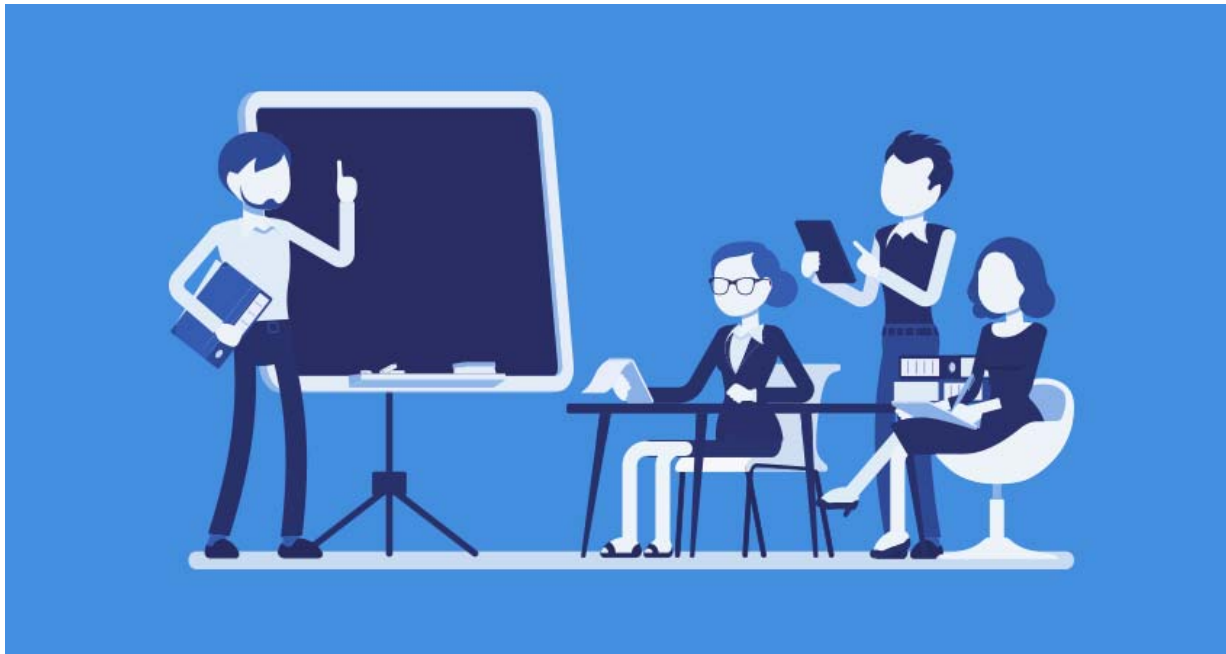
<http://www.cde.state.co.us/uip/uip-online-system>

What is not (or may not) be available?

- **Certain students may not have growth percentiles**
 - Due to missing data resulting from the disrupted testing during the pandemic.
 - Also, atypical (e.g. student retention) and twice-accelerated pathways won't typically have growth. If your student detail files lack growth percentiles.
- **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.
- **Individual school and district summary reports (aka Orange & Blue Reports)**
 - One-page CMAS reports for districts and schools that include median growth percentiles overall, by grade, and by disaggregated groups by year. Due to missing data and technical design considerations these reports weren't generated. We anticipate the return of these reports with next years release.
- **On Track Growth**
 - On Track Growth results for CMAS or PSAT/SAT content assessments weren't produced due to the need for additional years of growth data for calculations.

Resources & Training

- Upcoming trainings will be announced in the Scoop, the CDE newsletter.
 - 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/accountability/coloradogrowthmodel>
- Dan Jorgensen, PhD via e-mail at: jorgensen_d@cde.state.co.us



Questions

