

# Technical Advisory Panel for Longitudinal Growth Colorado Growth Model and Educator Effectiveness: Implementation Recommendations

## Background

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The Technical Advisory Panel for Longitudinal Growth (TAP) engaged in a work session on May 23<sup>rd</sup>, 2013 to answer a series of questions related to the application of the Colorado Growth Model (CGM) to educator evaluation determinations. This document summarizes their responses to these questions. It's being provided as a supplemental resource to inform local education agency work related to the use of CGM results within Educator Evaluation systems.

## What are CGM results? How should the CGM results be used in educator evaluation?

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- Colorado Growth Model results include Student Growth Percentiles and Median Growth Percentiles from state assessments.
- **The TAP recommends using the Colorado Growth Model only in combination with other measures (i.e. as required by SB191) and only in cases where a school district has appropriate evidence of the suitability of the scores underlying the growth model results (e.g. see performance targets question).**
- It is also recommended that for group and individual attribution ratings, Adequate Growth Percentiles (including Catch Up, Keep Up, and Move Up statistics) should not factor into growth or effectiveness ratings.
- If a district chooses to use School Performance Frameworks and District Performance Frameworks academic growth indicator ratings, districts should consider implications of using Adequate Growth Percentiles (i.e. they set unequal growth targets based on prior years' student achievement). Instead, a district might choose to use a state-wide rank percentile of Median Growth Percentiles by level (EMH) and content (e.g. Math, Reading) at the school attribution level.

## How can Student Growth Percentiles be aggregated for use in educator evaluation?

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- *Educator level median growth percentiles?* **The TAP does not recommend using individually attributed Median Growth Percentiles at the educator level at this time.**
- *Multiple years?* If a district chooses to use individual MGP's the TAP does not recommend using one-year of data. The TAP recommends that it is appropriate to use at least 2 years of Median Growth Percentiles, given the research on their stability over time, taking into consideration major fluctuations in data, trends, and student population served.
- *Impact of N sizes?* MGP's based on a small number of students may not reliably estimate the amount of growth a teacher's students would typically make had there been a larger sample from which to estimate teacher effectiveness<sup>1</sup>. The TAP recommends that judgments made based on Median Growth Percentiles should be informed by confidence intervals associated with MGPs.
- **Although the TAP does not recommend individual attribution at this time, districts that choose to use aggregations of Student Growth Percentiles at the individual attribution level should develop evidence to show that scores are aggregated over a sufficient number of students and across an appropriate number of years, and are based on fair measures that are highly aligned to the enacted curriculum, yield scores demonstrated to fairly measure growth over time, and are accurately and fairly attributed to the contribution of individual educators.**

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## What should the cut points be for educator level Median Growth Percentiles?

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<sup>1</sup>The caution expressed above regarding N size applies to any aggregation of Student Growth Percentiles, not just MGP's. Districts that choose to use other aggregation techniques, such as statistical modeling options that estimate the amount of measurable student growth associated with teacher-to-teacher differences as opposed to student-to-student differences (e.g. Hierarchical Linear Modeling or HLM) may consider use of reliability estimates associated with the "Teacher's Effects" being computed. The use of confidence intervals and/or reliability estimates can mitigate the danger of extreme Growth Ratings due to small sample sizes.

- It is recommended that districts wishing to adopt cut points should **proceed cautiously**, and gather evidence supporting the validity of inferences made regarding educator effectiveness associated with the proposed cut points.

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### **Can/should aggregated Median Growth Percentiles for different content areas be combined or treated discretely?**

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- The TAP is of the opinion that growth percentiles provide information relative to each content area and therefore content areas should be examined separately.

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### **Can Student Growth Percentiles (SGPs) be used to set performance targets? Can Median Growth Percentiles be used to set performance targets?**

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- The Student Growth Percentiles are recommended to be used only at the aggregate level and not at the individual student level.
- The TAP recommends that it may be appropriate to use Median Growth Percentiles for group attributed performance targets, as long as scores are aggregated over a sufficient number of students and across an appropriate number of years, and are based on fair measures that are highly aligned to the enacted curriculum and yield scores demonstrated to fairly measure growth over time and are accurately and fairly attributed to the contribution of groups of educators.

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### **Does the Colorado Growth Model communicate gains in learning? A year's growth?**

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- The Colorado Growth Model communicates normative information about scale score movement relative to content tested on state assessments. Inferences from results about learning are dependent upon technical properties of tests and test scores being used within a growth model.