



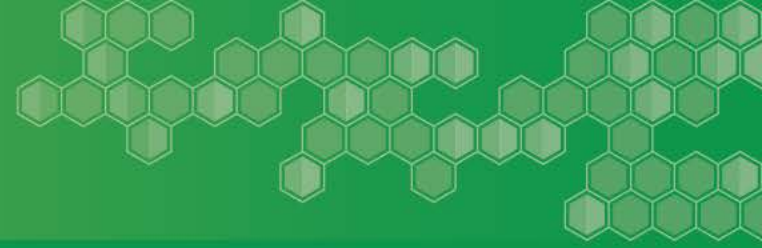
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**COLORADO**  
Department of Education

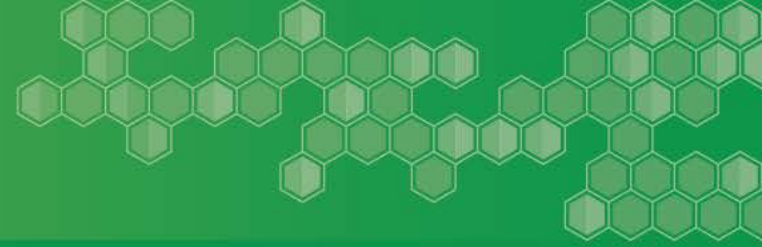
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# 2022 State Accountability Studies

December 2, 2021



- Current Context and Looking to Accountability in 2022
- CDE Estimates on Data 2022 Availability and Impact
  - Data available by Framework Performance Indicator
  - Projections for Insufficient State Data Plan Type Assignments
  - Impact Study of Mock Framework Calculations
    - Description of Analysis
    - Analysis of Impact on Overall Ratings (including breakdowns by school level and by the accountability clock)
    - Analysis of Impact on % of Points
    - Analysis of Impact on Growth Indicator
    - Analysis of Participation Bands
    - Summary of Findings
- Contact Information



- Current policy landscape for fall 2022
  - Full state assessment schedule in spring 2022
  - Performance frameworks resume in fall 2022
  - Elementary and Secondary Education Act (ESEA) identification process resumes in fall 2022
- Consideration for 2022 frameworks
  - We are still in a pandemic and trying to move toward recovery
  - Many data elements will be available, but growth will be more limited (e.g., alternating grades/content area schedule in 2021, cannot offer 3-year frameworks).

# What Data Will be Available in 2022-23: Anticipating Performance Frameworks

Performance Indicator	Weight	Availability for 2022 Frameworks
<b>Academic Achievement</b>	<b>40% Elementary &amp; Middle Schools</b>  <b>30% High Schools &amp; Districts</b>	Yes, assuming participation in spring 2022 assessment is adequate
<b>Academic Growth</b>	<b>60% Elementary &amp; Middle Schools</b>  <b>40% High Schools &amp; Districts</b>	To some degree
<b>Postsecondary and Workforce Readiness</b>	<b>30% High Schools &amp; Districts</b>	Yes, assuming participation in spring 2022 assessment is adequate

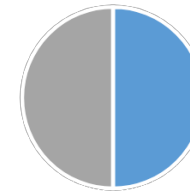
## 1-Year Growth Availability in 2022

### Elementary



2 out of 4 possible grades/content available: 4<sup>th</sup> grade CMAS English/Language Arts and 5<sup>th</sup> grade Math

### Middle



3 out of 6 possible grades/content available: 6<sup>th</sup> and 8<sup>th</sup> grade CMAS English/Language Arts and 7<sup>th</sup> grade Math

### High



5 out of 5 possible grades/content available: 10<sup>th</sup>-11<sup>th</sup> grade PSAT/SAT Evidence Based Reading and Writing and 9 – 11<sup>th</sup> grade Math (Note: 8-9<sup>th</sup> grade growth in ELA/EBRW has not been historically released due to construct alignment issues)

■ Available  
■ Not Available

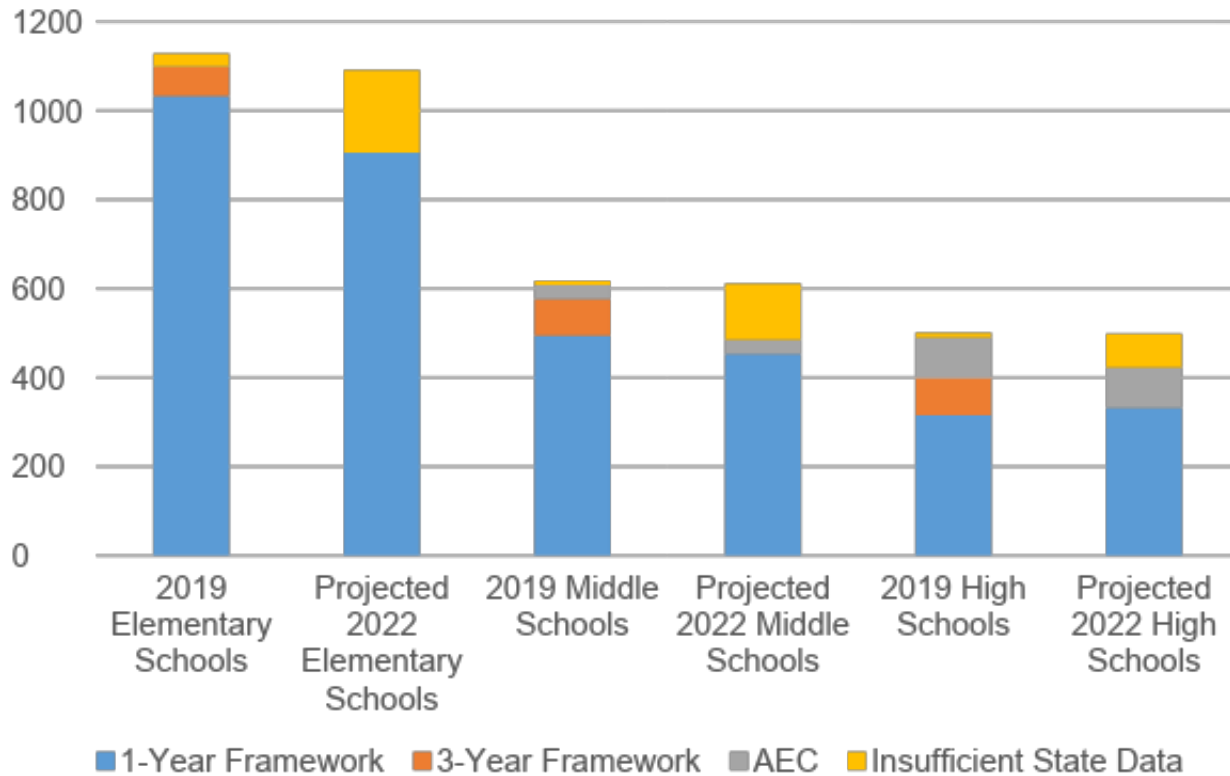


# Projected Impact of Plan Type Assignment due to Data Availability (explanation for slide 6)

- To calculate growth, a student must have two consecutive years of test data. Students without 2021 achievement results were not aggregated into 2022 growth data projections at the school level.
- To ensure data privacy, CDE only reports aggregate growth calculations that represent 20 or more total students. Without 2022 assessment results, CDE's projections provide a conservative estimate of the number of schools not meeting the minimum growth reporting requirements.
- Because of interruptions in data, CDE cannot calculate 3-year frameworks in 2022. This impacts smaller schools and districts that cannot meet the data privacy reporting requirements with a 1-year framework.
- Projections include a slightly revised calculation in the methodology from past practice. These ISD projections included schools that met the minimum reporting thresholds for achievement (at least 16 students) but not the growth (at least 20 students) in 2021.
- Low participation rates were not considered in the projections and may impact the accuracy and availability of performance framework ratings.

# Projected Impact of Plan Type Assignment due to Data Availability - Insufficient State Data (ISD)

School Estimates of Insufficient State Data Assignment



**Summary of Increases in ISD**

Elementary Projection: From 30 (2019) to at least 187 Schools (2022)

Middle Projection: From 10 (2019) to at least 128 Schools (2022)

High Projection: From 12 (2019) to at least 77 Schools (2022)

These estimates are based upon 2021 state assessment data. Because 2022 assessment data is not available yet, ISD plan types could be higher if participation is low.



# Description of 2022 Mock Framework Impact Analysis

- Using historical 2019 school and district performance framework data, CDE analyzed the impact of the more limited dataset that will be available in 2022.
- The 2019 complete-data set (growth and overall framework ratings) was compared against a modified 2019 data set mocked-up to include only the growth sub-indicators expected to be available in 2022 (referred to as Mock 2022 ratings).
- Mock 2022 ratings did not include WIDA ACCESS On Track Growth or the READ bonus point as they are not expected to be available in 2022.
- All other data points and calculation methodologies were held consistent.
- This study is modelling the impact of these missing data elements. It is not predictive of results in 2022.

# 2022 Data Availability for Elementary and Middle Schools

## 2022 Growth Data Availability - Elementary

4<sup>th</sup> Grade English/Language Arts

~~4<sup>th</sup> Grade Math~~

~~5<sup>th</sup> Grade ELA~~

5<sup>th</sup> Grade Math

## 2022 Growth Data Availability - Middle School

6<sup>th</sup> Grade ELA

~~6<sup>th</sup> Math~~

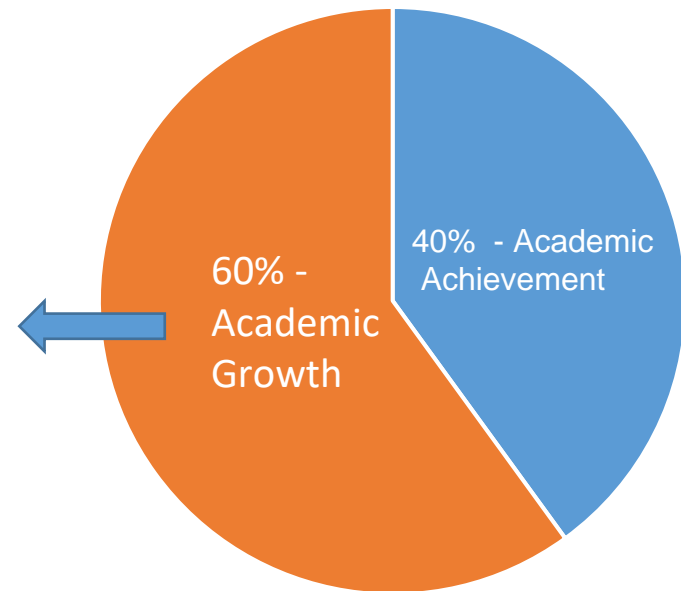
~~7<sup>th</sup> Grade ELA~~

7<sup>th</sup> Grade Math

8<sup>th</sup> Grade ELA

~~8<sup>th</sup> Grade Math~~

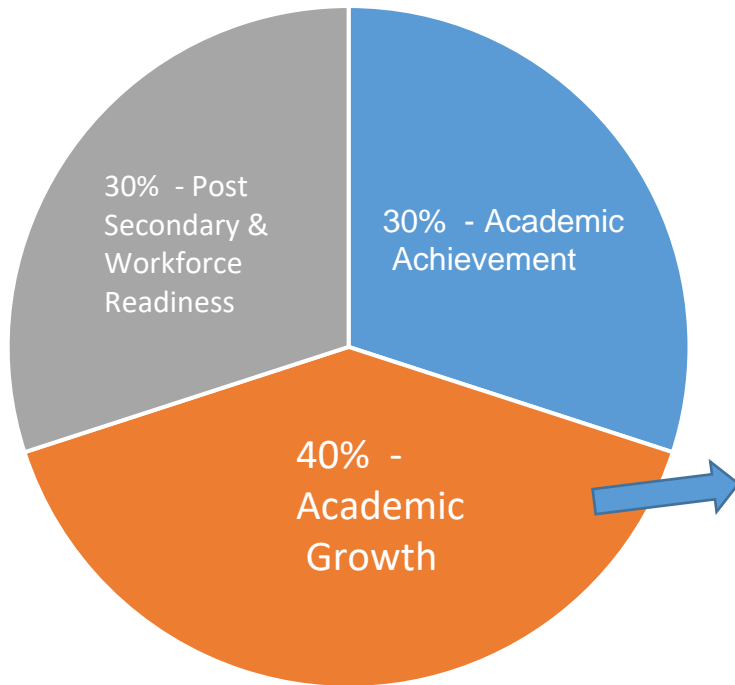
## Elementary and Middle School Weightings





# 2022 Data Availability for High Schools and Districts

## High Schools and Districts



## 2022 Growth Data Availability – High School

~~9<sup>th</sup> Grade Evidence Based Reading & Writing\*~~

9<sup>th</sup> Math

10<sup>th</sup> Grade EBRW

10<sup>th</sup> Grade Math

11<sup>th</sup> Grade EBRW

11<sup>th</sup> Grade Math

## 2022 Growth Data Availability – Districts

Available: 4<sup>th</sup> g ELA, 5<sup>th</sup> g Math, 6<sup>th</sup> g ELA, 7<sup>th</sup> g Math, 8<sup>th</sup> g ELA, 9<sup>th</sup> g Math, 10<sup>th</sup> g EBRW, 10<sup>th</sup> g Math, 11<sup>th</sup> g EBRW, 11<sup>th</sup> g Math

Not Available: 4<sup>th</sup> g Math, 5<sup>th</sup> g ELA, 6<sup>th</sup> g Math, 7<sup>th</sup> g ELA, 8<sup>th</sup> g Math, 9<sup>th</sup> g EBRW

# 2022 Mock Framework Impact Analysis: Important Notes

- 2019 participation rates were considerably higher than those from 2021. Participation rates for 2022 are not yet known.
- The following impact analysis does NOT adjust for the lower participation rates in 2021. However, CDE separately analyzed rating outcomes based upon participation rate bands ( $\geq 85\%$ ,  $\geq 75\%$  and  $< 85\%$ , and  $< 75\%$ ) to get an estimate of the ratings changes potentially due to lower student participation and representativeness.

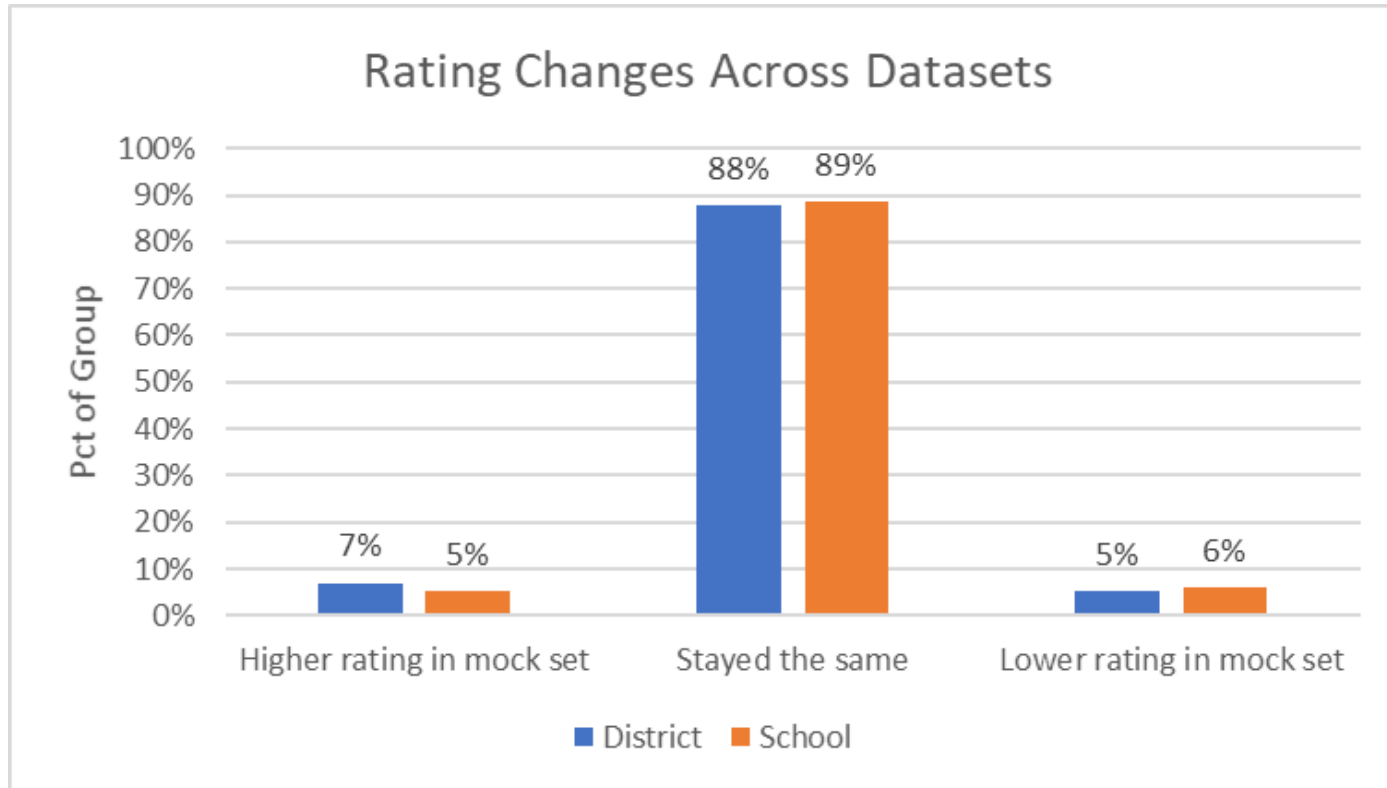
# 2022 Mock Framework Impact Analysis: District & School Overall Rating Changes

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands



- Just under 90% of districts and schools kept the same framework rating when using the Mock 2022 data set.
- Approximately 7-5% districts/schools increased their rating; Approximately 6-5% districts/schools decreased their rating.

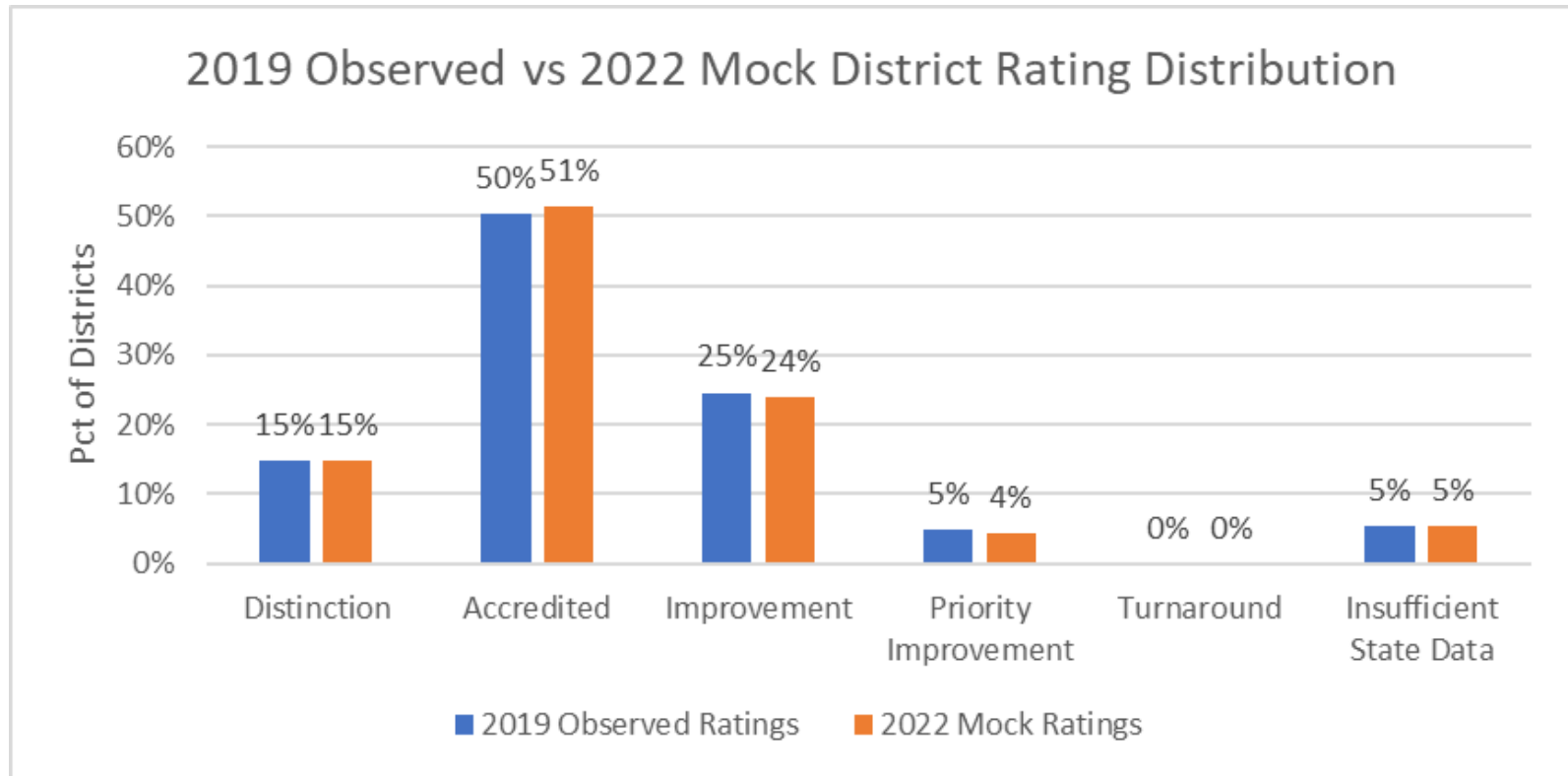
# 2022 Mock Framework Impact Analysis: District Overall Ratings

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands



- The proportions of districts falling into each rating category are nearly identical between 2019 and the mock 2022.

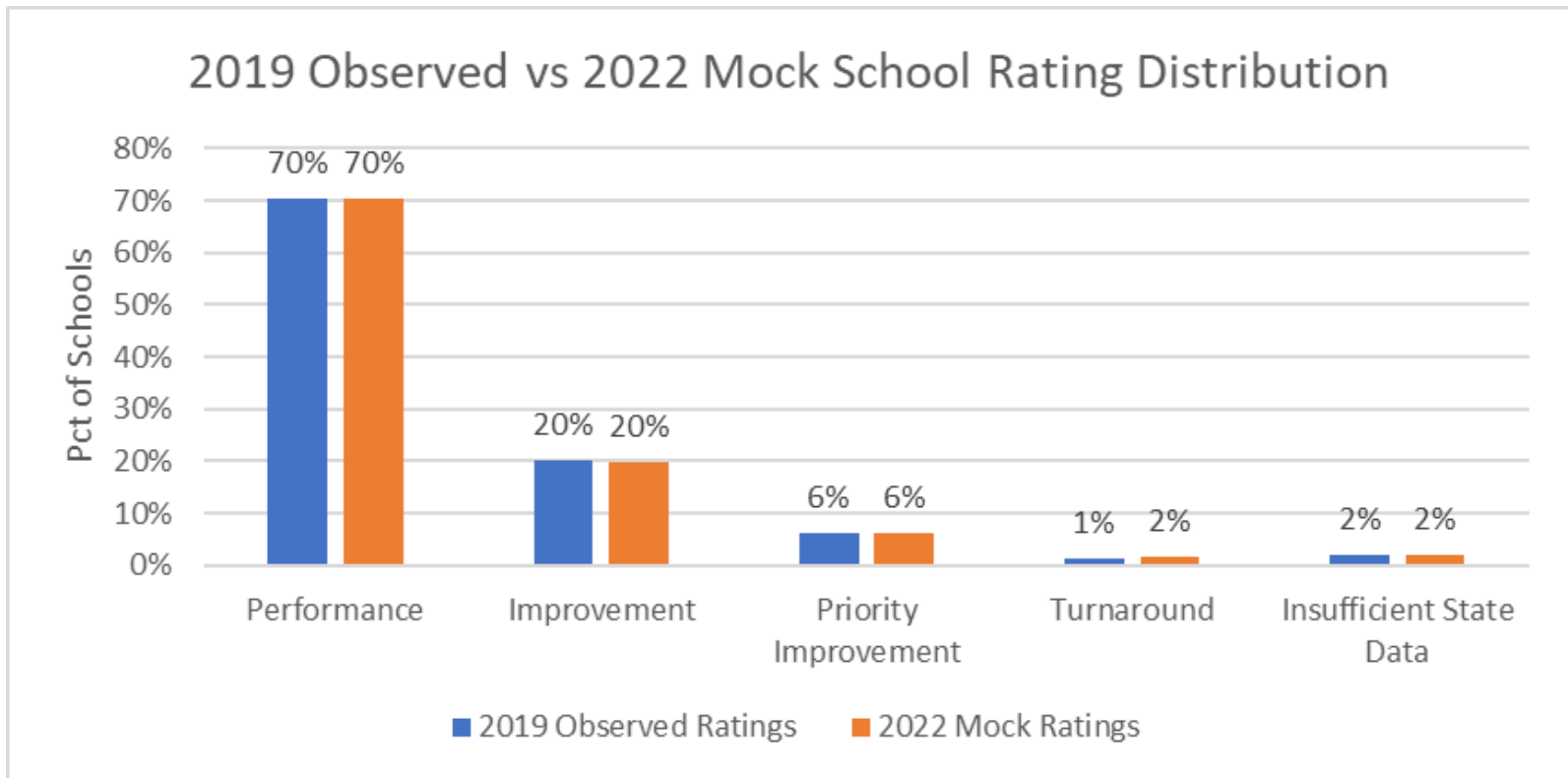
# 2022 Mock Framework Impact Analysis: School Overall Ratings

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands



- The proportions of schools falling into each rating category are also nearly identical.

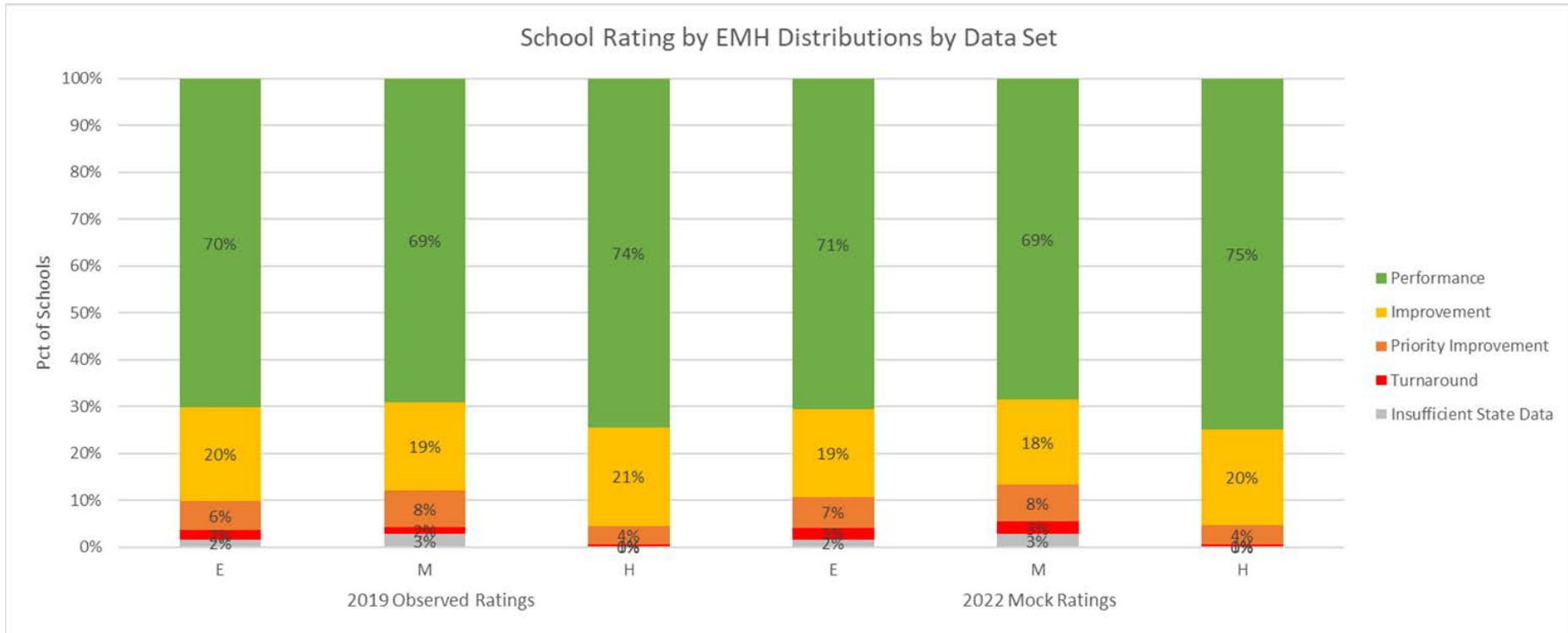
# 2022 Mock Framework Impact Analysis: School Overall Ratings by EMH Level

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands



- The proportions of schools falling into each rating category are consistent across all EMH levels.



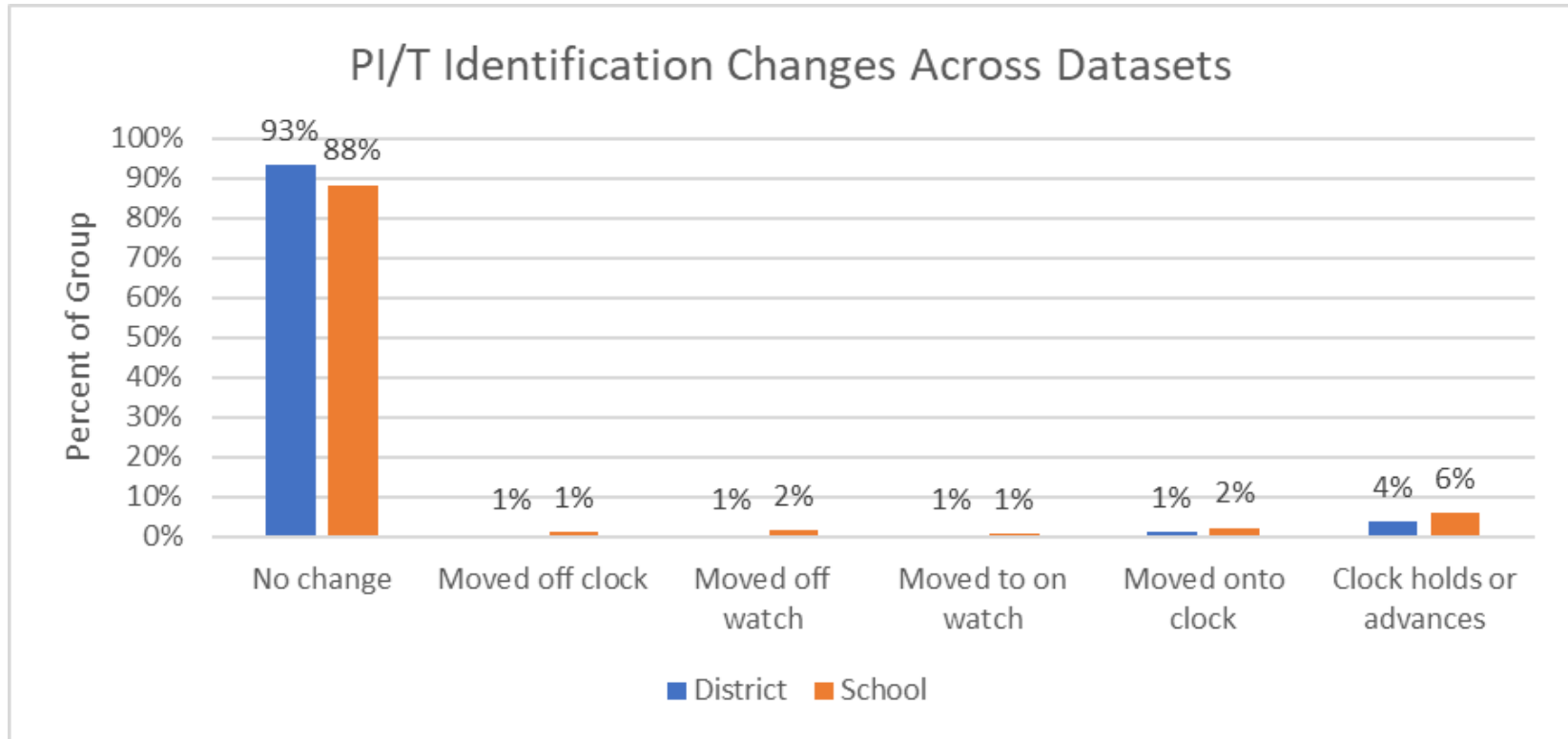
# 2022 Mock Framework Impact Analysis: Priority Improvement & Turnaround Clock Changes

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands



- 93% of districts and 88% of schools kept the same clock status using the limited mock 2022 data set.

# 2022 Mock Framework Impact Analysis: Correlations in Percent of Framework Points Earned

Overall Rating
<b>% of Points Earned</b>
Growth Indicator
Participation Bands

	2019 Observed Rating	Count	Correlation
<b>District</b>	<b>All Districts</b>	<b>173</b>	<b>0.991</b>
	Distinction	27	0.955
	Accredited	92	0.935
	Improvement	45	0.946
	Priority Improvement	9	0.939
	Turnaround	0	NA
<b>School</b>	<b>All Schools</b>	<b>1647</b>	<b>0.976</b>
	Performance	1182	0.961
	Improvement	339	0.875
	Priority Improvement	104	0.821
	Turnaround	22	0.931

*Note: ISD districts and schools were excluded from the All Schools and All Districts aggregations.*

- CDE ran correlations on the total percent of points earned between the observed 2019 ratings and the Mock 2022 ratings.
- Very strong correlations were found for both districts (0.991) and schools (0.976) when looking at all framework rating categories combined.
- Correlations within individual rating categories were slightly lower than the overall rating correlations. Schools with Priority Improvement and Improvement schools were the lowest, but the correlations are still strong.
- The threshold for the accountability clock is between Priority Improvement and Improvement.





# 2022 Mock Framework Impact Analysis: Correlations in Percent of Framework Points Earned Schools by EMH Level

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands

	2019 Observed Rating	Count	Correlation
<b>E</b>	<i>All Schools</i>	1059	0.966
	Performance	756	0.945
	Improvement	215	0.766
	Priority Improvement	67	0.841
	Turnaround	21	0.822
<b>M</b>	<i>All Schools</i>	542	0.972
	Performance	385	0.951
	Improvement	105	0.812
	Priority Improvement	43	0.766
	Turnaround	9	NA
<b>H</b>	<i>All Schools</i>	387	0.999
	Performance	288	0.999
	Improvement	82	0.997
	Priority Improvement	15	0.999
	Turnaround	2	NA

*Note: ISD schools/districts excluded from all schools/districts group.*

- CDE ran correlations on the total percent of points earned between the observed 2019 ratings and the Mock 2022 ratings for schools by school levels (elementary, middle, high school).
- Very strong correlations were found for all three EMH levels when looking at all framework rating categories combined.
- Correlations within individual rating categories were slightly lower than the overall rating correlations. Schools with Priority Improvement and Improvement schools were the lowest, but the correlations are still strong.
- High schools had much stronger correlations between datasets than elementary or middle schools.



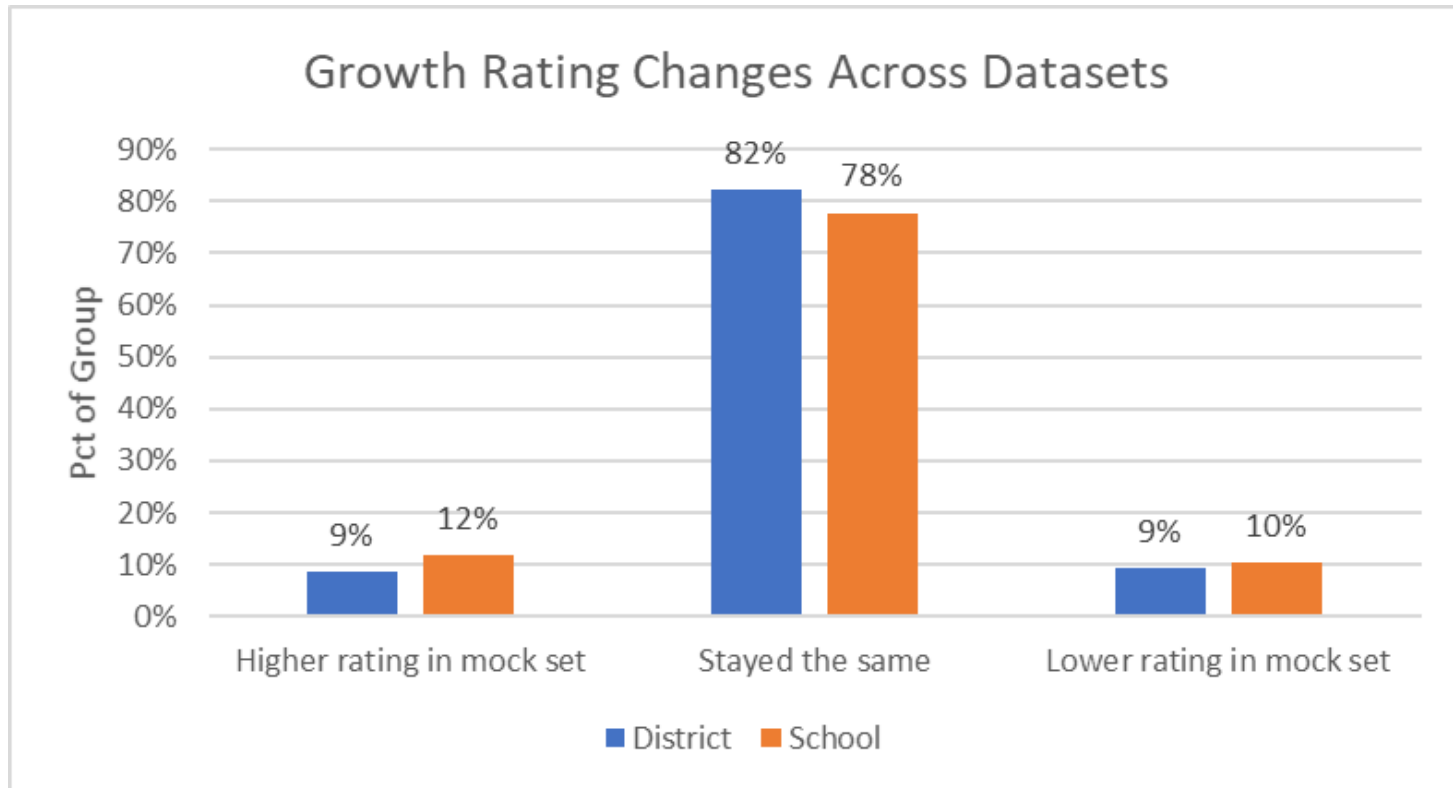
# 2022 Mock Framework Impact Analysis: District & School Growth Rating Changes

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands



- Around 80% of districts and schools kept the same growth rating when using the limited mock 2022 data set.
- Approximately equal proportions (9-12%) of districts and schools increased or decreased one or more rating categories.

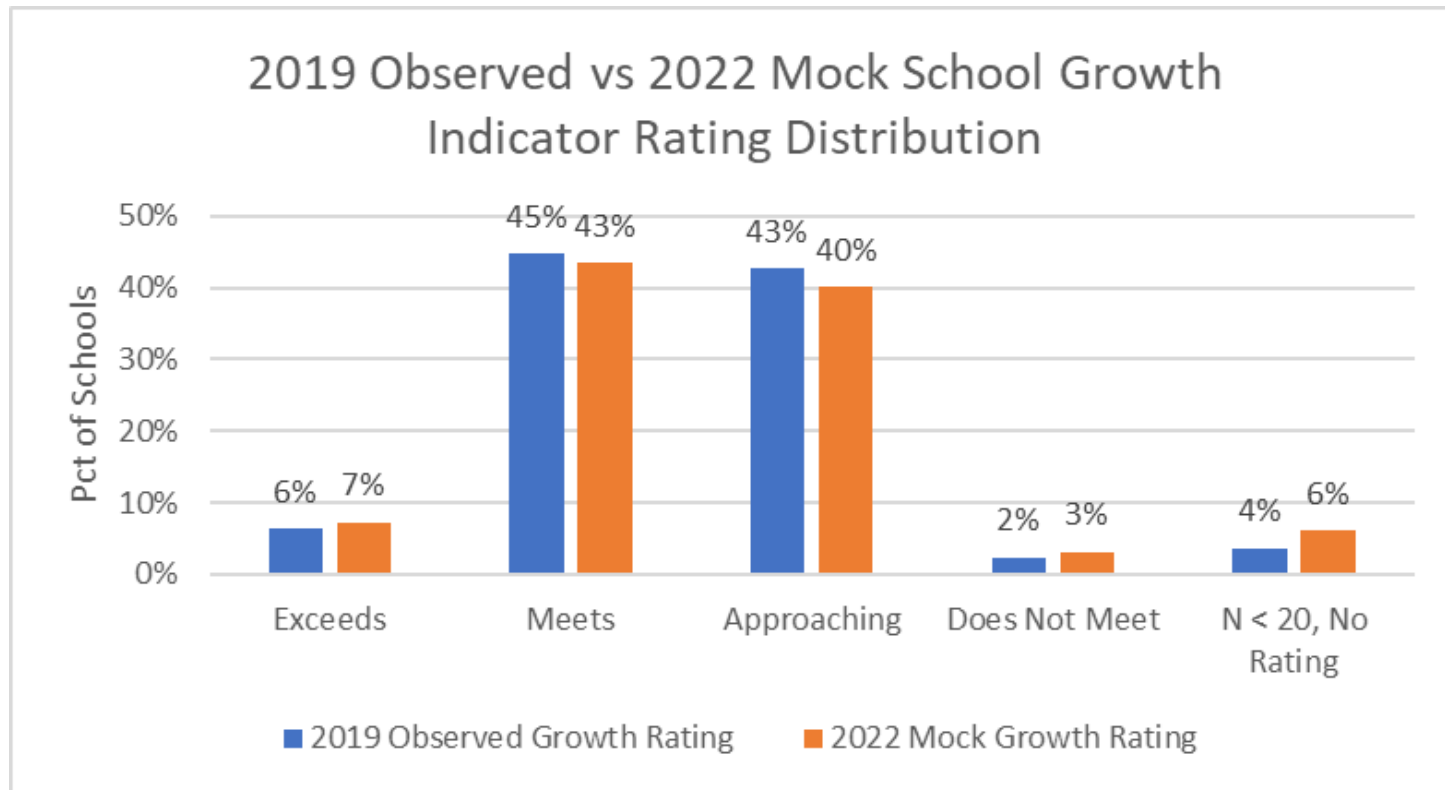
# 2022 Mock Framework Impact Analysis: School Growth Indicator Ratings

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands



- Just like for districts, there were slight variations in the proportions of schools falling into each growth rating category.
- The biggest difference was in the “approaching” category (3%).

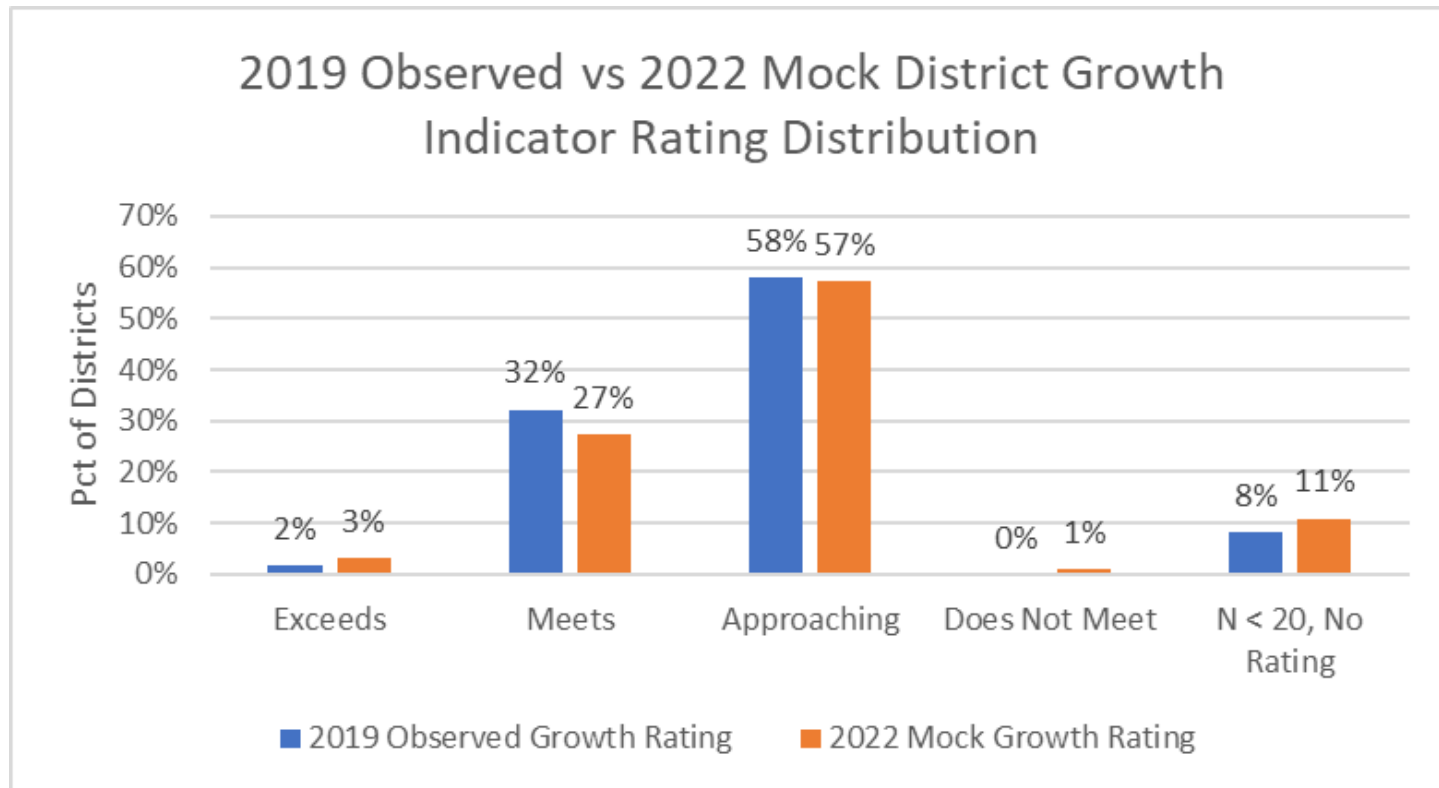
# 2022 Mock Framework Impact Analysis: District Growth Indicator Ratings

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands



- There were slight variations in the proportion of districts falling into each growth rating category.
- The “Meets” and “N<20, No Rating” saw the biggest changes of 3-5%.

# 2022 Mock Framework Impact Analysis: Correlations in Percent of Growth Points Earned

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands

Correlation in Percent of Growth Points Earned			
	2019 Observed Rating	Count	Correlation
<b>District</b>	<b>All Districts</b>	<b>163</b>	<b>0.850</b>
	Exceeds	2	NA
	Meets	57	0.710
	Approaching	104	0.657
	Does Not Meet	0	NA
<b>School</b>	<b>All Schools</b>	<b>1580</b>	<b>0.849</b>
	Exceeds	102	0.383
	Meets	733	0.556
	Approaching	707	0.635
	Does Not Meet	38	0.477

*Note: Schools with no rating in either data set are excluded.*

- CDE ran correlations on the percent of growth points earned between the observed 2019 ratings and the Mock 2022 ratings.
- Fairly strong correlations were found for both districts (0.850) and schools (0.849) when looking at all growth rating categories combined.
- Correlations within individual rating categories were lower and varied considerably for schools.



# 2022 Mock Framework Impact Analysis: Overall Ratings by Test Participation Band

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands

- Many stakeholders have asked the question: *How would the lower rates of student test participation in 2021 and possibly for 2022 impact the accuracy and consistency of overall framework ratings?*
- As part of the historical 2019 analysis, districts and schools were grouped together into the following bands by participation rate:
  - At or above 85.0% participation
  - At or above 75.0% participation but below 85.0% participation
  - Below 75.0% participation
- These bands were informed by previous CDE and CADRE analyses indicating that 85% is generally sufficient for representative participation and results. 75% is a slightly less rigorous but still reasonable bar if additional attention is paid to representativeness.

# 2022 Mock Framework Impact Analysis: Overall Ratings by Test Participation Band

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands

- Higher 2019 participation rates mean that fewer districts and schools fall into the lower bands than were seen in 2021 and possibly for 2022.

Distribution of Participation Bands			
Data Set	Participation Band	Count	Percent
Districts (N=183)	ABOVE 85%	162	89%
	75% TO 85%	7	4%
	BELOW 75%	14	8%
Schools (N=1,682)	ABOVE 85%	1584	94%
	75% TO 85%	50	3%
	BELOW 75%	48	3%

- These small n-counts may limit the applicability of this historical analysis to project potential outcomes for fall 2022 performance frameworks.
- It may be helpful to continue investigating the impacts of lower test participation rates on producing representative framework ratings using the 2021 and potentially simulated and/or imputed data sets.

# Impact of Participation – Looking to 2021 and 2022

- The interaction of participation is important to note. Participation in 2021 was lower than typical years. Participation in 2022 is not yet known.

## 2021 CMAS Participation Summary

Grade - Required Test	2021 Participation	2019 Participation
Third - English language arts	76.2%	96.9%
Fourth - Math	75.7%	96.9%
Fifth - ELA	74.4%	96.2%
Sixth - Math	68.6%	94.9%
Seventh - ELA	63.7%	92.4%
Eighth - Math	57.9%	88.8%



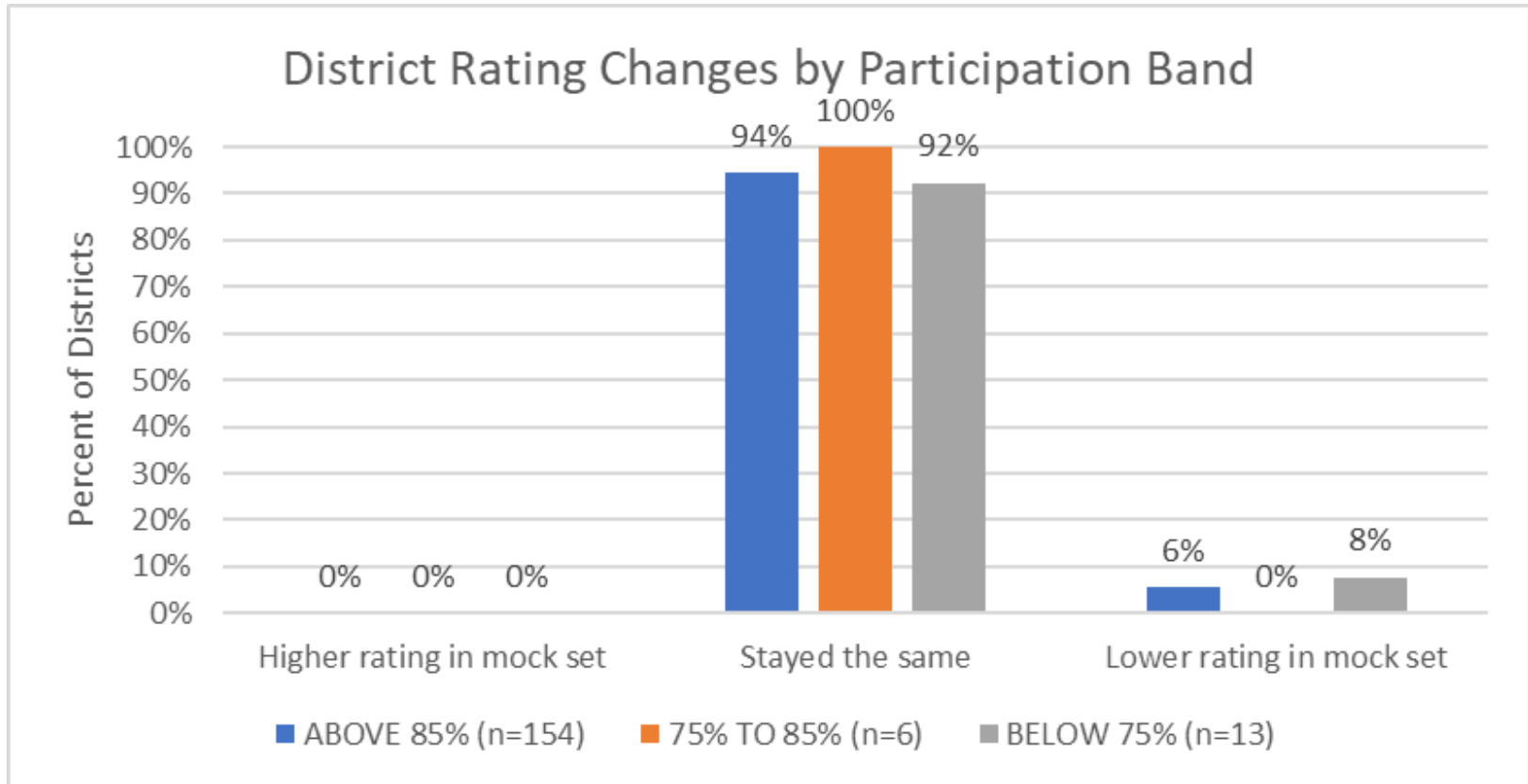
# 2022 Mock Framework Impact Analysis: Change in District Rating by Test Participation Band

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands



- More than 90% of districts received the same rating in the mock 2022 data set, regardless of the student participation rate.

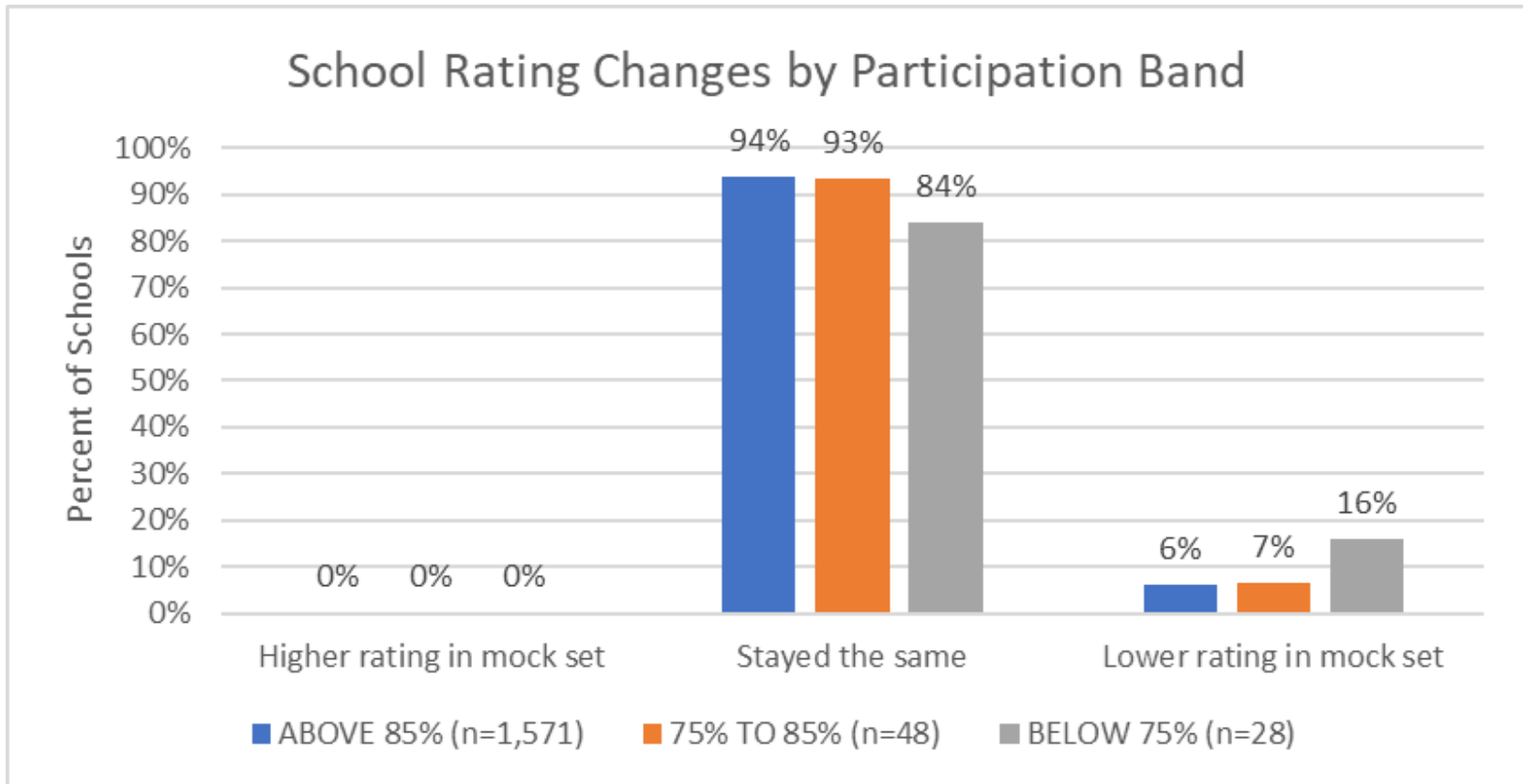
# 2022 Mock Framework Impact Analysis: Change in School Rating by Test Participation Band

Overall Rating

% of Points Earned

Growth Indicator

Participation Bands



- The majority of schools received the same rating with the 2022 mock data set. However, schools with less than 75% participation had an increased likelihood of receiving a lower framework rating.



# 2022 Mock Framework Impact Analysis: Summary of Findings

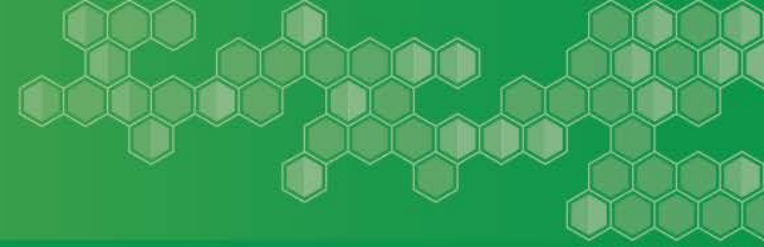
Based upon a comparison of the 2019 accountability data and 2022 Mock data:

- Just under 90% of schools and districts received the same overall framework rating when using the limited mock 2022 dataset. About 5% increased their rating; about 5% decreased their rating.
- Around 80% of schools and districts received the same growth indicator rating.
- Schools with less than 75% test participation were about 10% more likely to experience an overall framework rating decrease than schools with higher levels of participation.

# 2022 Mock Framework Impact Analysis: Summary of Findings (continued)

- The lower rates of test participation in 2021, and possibly for 2022, make the results from this historical analysis difficult to extrapolate forward. It may be helpful to investigate the potential impact of low participation on any possible framework ratings for fall 2022.
- Note: While the correlation of results are strong, note that on-going reduced assessments would limit the ability to calculate growth information.

# Thanks!



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