STAR Framework

PARCC/MSAA Performance, Student Participation, and Growth to Proficiency Metrics

July 24, 2017

Goals of Our Discussion

OSSE seeks to accomplish the following goals:

- Thoughtful, **productive conversation** about STAR Framework and its calculations
- Share our **philosophy** and approach to the following metrics and how we developed the **business rules**:
  - PARCC/MSAA Performance
  - Student Participation
  - Growth to Proficiency
- Gather your **feedback** about pending decision points concerning the STAR Framework and its metrics.

Opportunities for Feedback and Questions

Your feedback is critical throughout this process, so OSSE will provide two mechanisms to provide your thoughts:

- **Attend in-person** accountability system meetings on the following dates:

~~June 14~~	~~June 29~~	~~July 21~~
~~June 16~~	~~July 12~~	**July 24**
~~June 19~~	~~July 14~~	~~July 27 (Cancelled)~~
~~June 23~~	~~July 17~~	

- **Email** your feedback or questions regarding each session to OSSE.ESSA@dc.gov within three business days

Feedback for today's session is due by **COB July 27.** OSSE will provide a summary of feedback received on today's session by **August 1.**

Agenda

- **Overview of the STAR framework**
  - Timeline
  - Domains and metrics
  - Framework weights
- **Metric Deep Dive**
  - PARCC/MSAA Eligible Participants
  - Student Participation
  - Growth to Proficiency
- **Identify questions and next steps**

Overview of STAR Framework

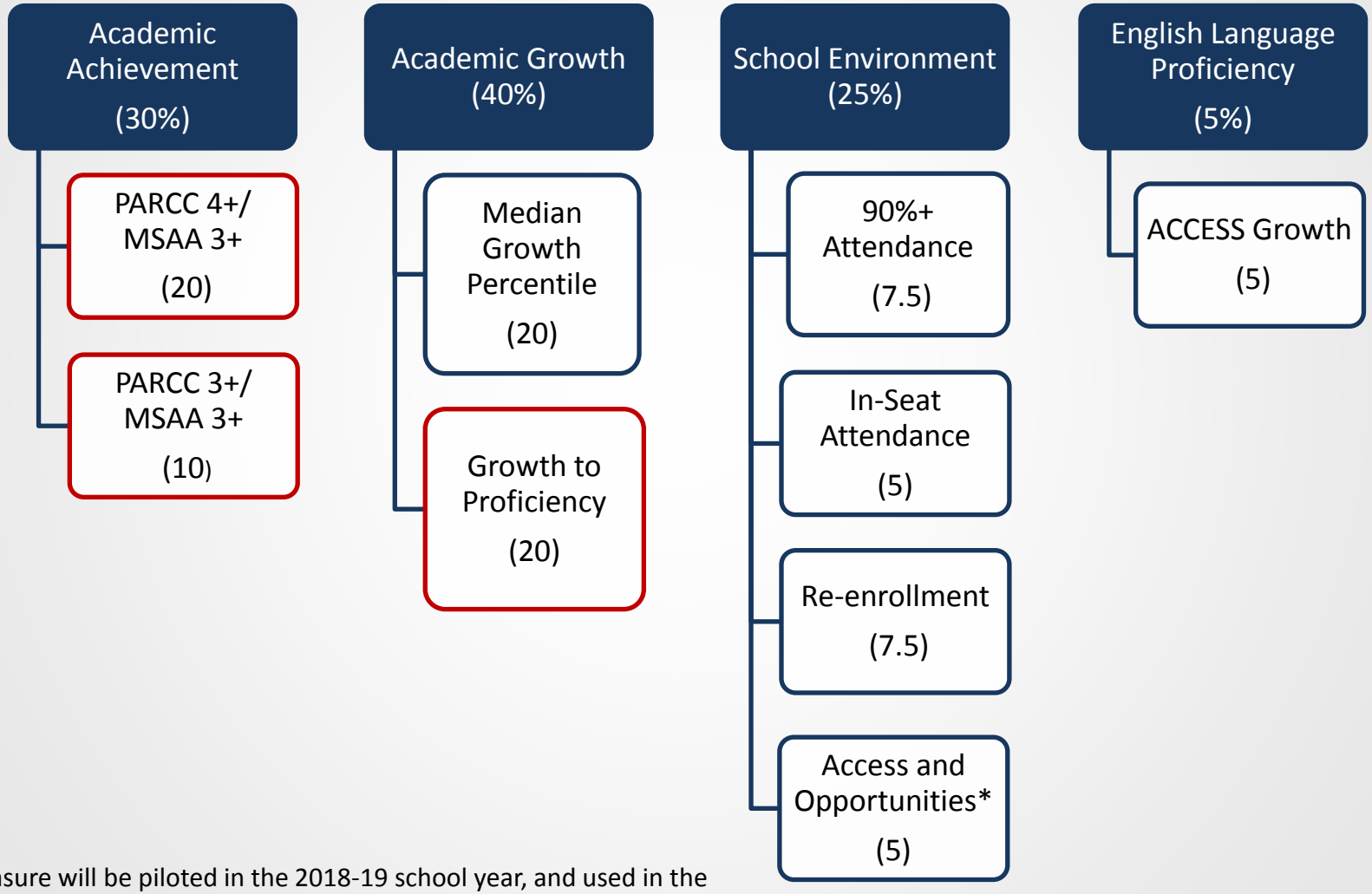
Timeline

- **June 14 to August 1**- STAR Framework LEA Meetings and feedback
- **Fall 2017**- OSSE will conduct an *informational dry run* of the accountability system and provide LEA's with preliminary STAR ratings for SY 2016-17
- **Fall 2018**- STAR Framework fully implemented for SY 2017-18

Domains and Metrics

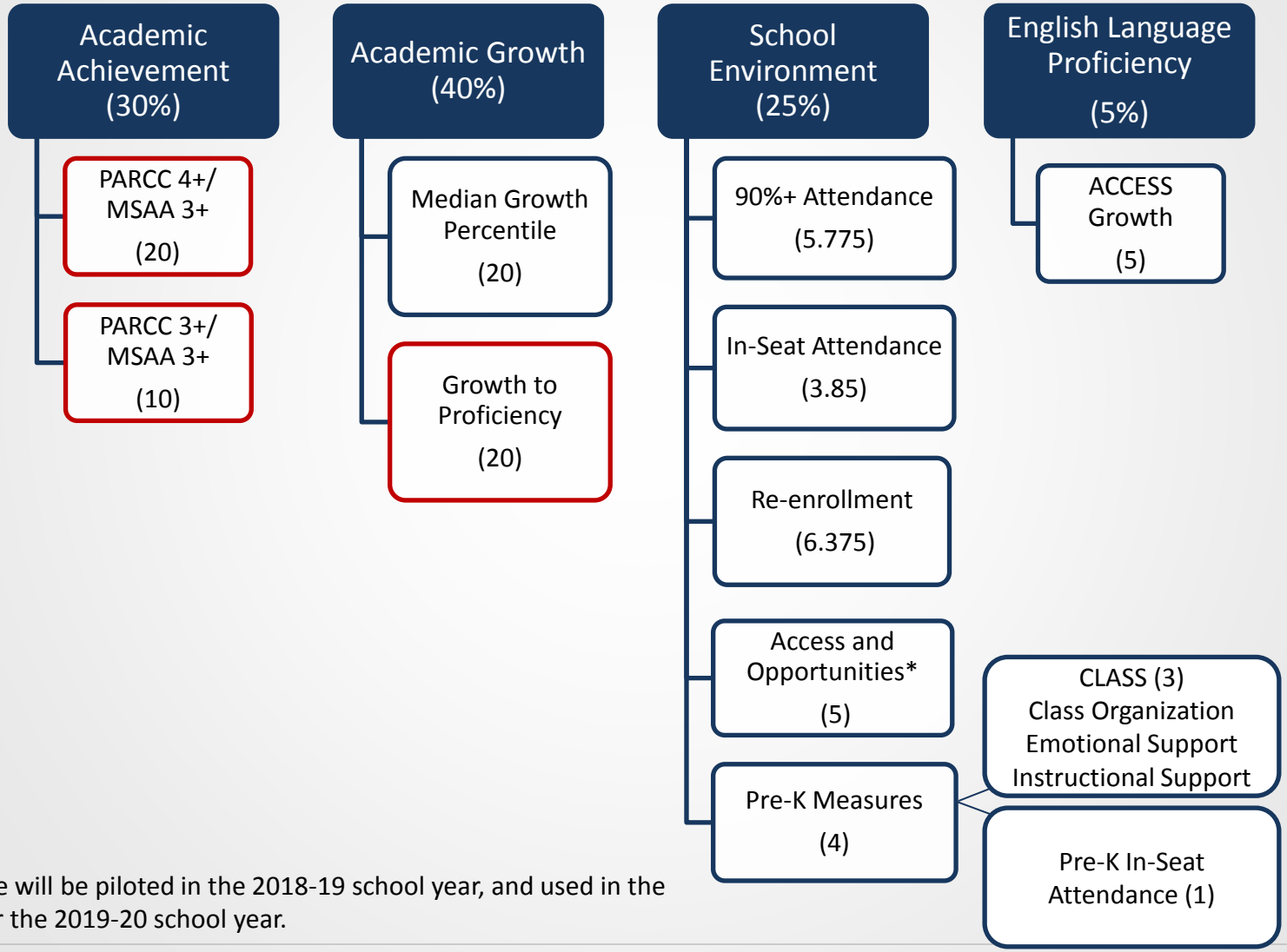
Domain	Metric
Academic Achievement	• PARCC 4+/MSAA 3+ • PARCC 3+/MSAA 3+ • SAT & ACT Performance • AP & IB Participation • AP & IB Performance
Academic Growth	• Norm-Referenced Growth Measure: Median Growth Percentile • Criterion-Referenced Growth Measure: Growth to Proficiency
Graduation Rate	• 4-Year ACGR • Alternative Graduation Metric
School Environment	• Addressing Chronic Absenteeism: Best of 90+ Attendance or Growth • In-Seat Attendance • Re-Enrollment • CLASS (pre-K only) • Access and Opportunity
English Language Proficiency	• ACCESS Growth

STAR Framework: Elementary Schools/K-8 without Pre-Kindergarten



* This measure will be piloted in the 2018-19 school year, and used in the STAR rating for the 2019-20 school year.

STAR Framework: Elementary Schools/K-8 with Pre-Kindergarten



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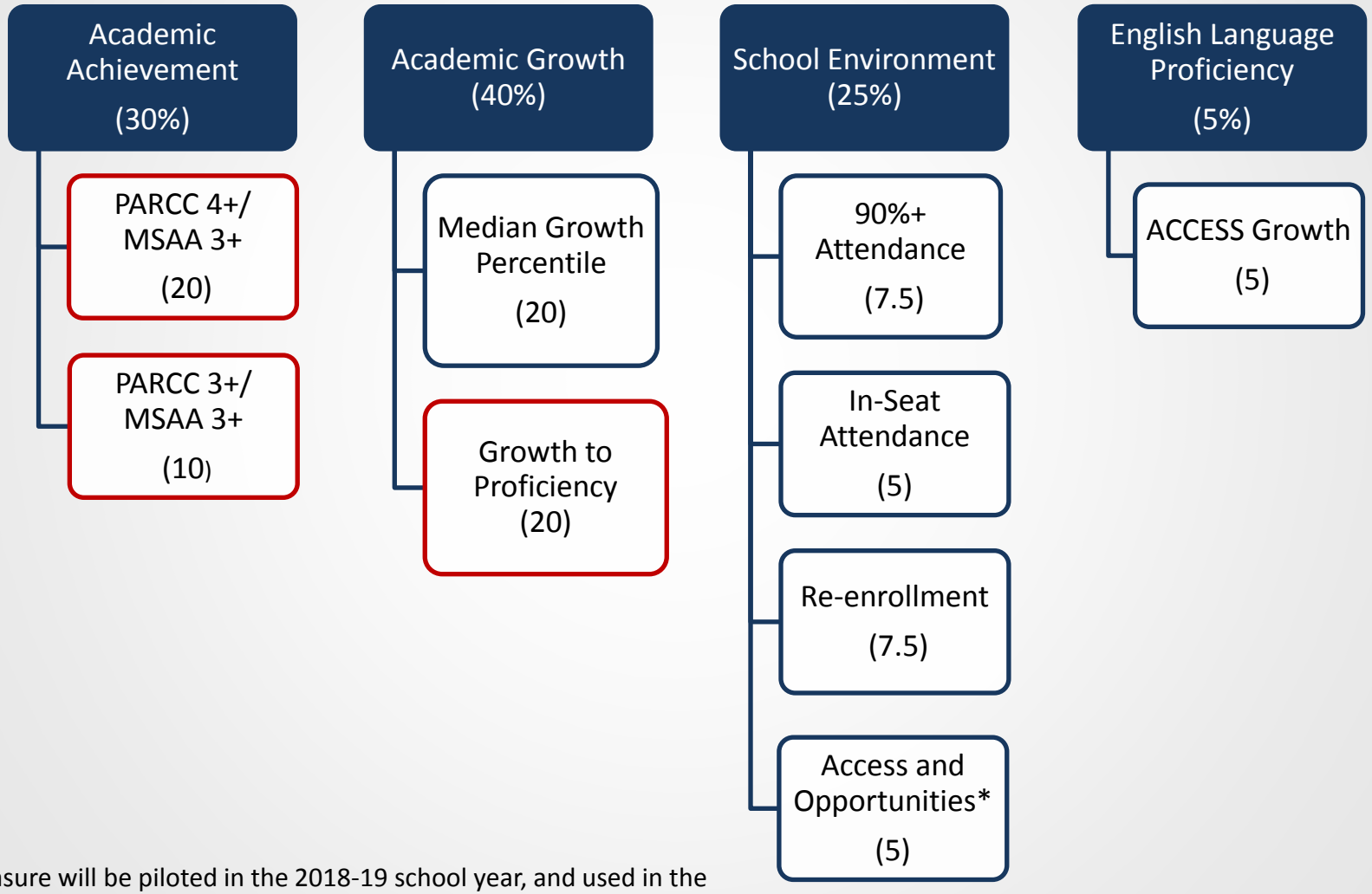
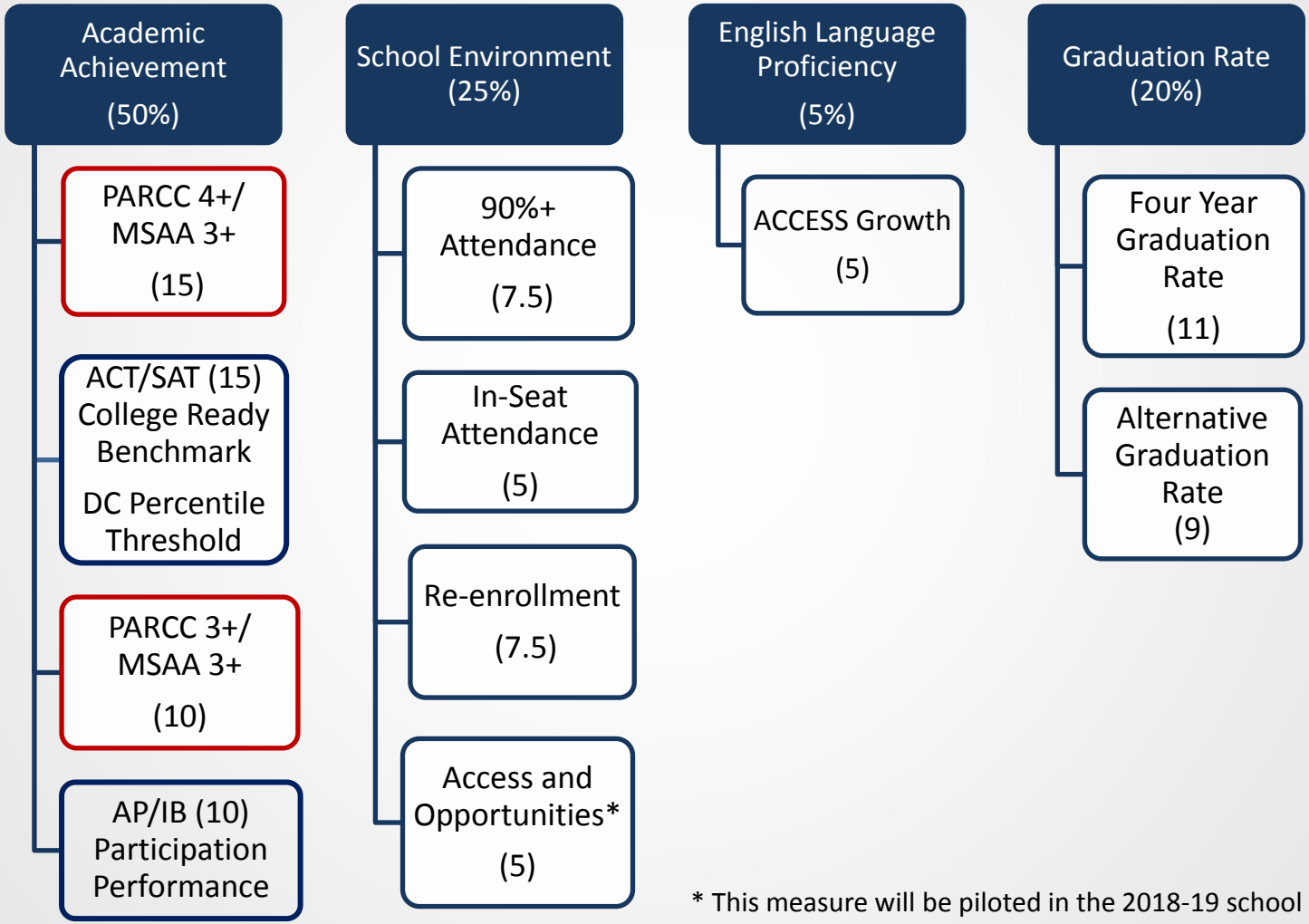
STAR Framework: Middle Schools



* This measure will be piloted in the 2018-19 school year, and used in the STAR rating for the 2019-20 school year.

STAR Framework: High Schools



* This measure will be piloted in the 2018-19 school year, and used in the STAR rating for the 2019-20 school year.

Metric Deep Dive: PARCC/MSAA Performance

PARCC 4+/MSAA 3+: Metric Calculation

PARCC 4+/MSAA 3+ ELA:

$$\frac{\text{Number of Participants in PARCC or MSAA ELA in Student Population Scoring at Performance Levels of 4 or 5 on PARCC; or 3 or 4 on MSAA}}{\text{Number of Participants in PARCC or MSAA ELA in Student Population}}$$

PARCC 4+/MSAA 3+ Mathematics:

$$\frac{\text{Number of Participants in PARCC or MSAA math in Student Population Scoring at Performance Levels of 4 or 5 on PARCC; or 3 or 4 on MSAA}}{\text{Number of Participants in PARCC or MSAA math in Student Population}}$$

PARCC 3+/MSAA 3+: Metric Calculation

PARCC 3+/MSAA 3+ ELA:

$$\frac{\text{Number of Participants in PARCC or MSAA ELA in Student Population Scoring at Performance Levels of 3, 4, or 5 on PARCC; or 3 or 4 on MSAA}}{\text{Number of Participants in PARCC or MSAA ELA in Student Population}}$$

PARCC 3+/MSAA 3+ Mathematics:

$$\frac{\text{Number of Participants in PARCC or MSAA math in Student Population Scoring at Performance Levels of 3, 4, or 5 on PARCC; or 3 or 4 on MSAA}}{\text{Number of Participants in PARCC or MSAA math in Student Population}}$$

PARCC/MSAA Performance Calculation

- OSSE uses the following **eligibility criteria** used to determine participation:
  - Enrolled in a grade or course with a required assessment
  - Minimally enrolled during the school's testing window

    --or--
  - Students are not minimally enrolled during the school's testing window but tested at that school and received a valid score
- The following **exceptions** are applied:
  - Students with an OSSE-approved medical exemption are not included in the numerator or denominator
  - Recently arrived English learners are exempt from taking the PARCC ELA or MSAA ELA and are not included in the denominator
- Students who receive **valid scores** and **meet all participation criteria** will be considered participants

Student Participation

Participation: Overview

- Ensuring student participation in PARCC or MSAA in mathematics and ELA aligns with our core accountability principle to ensure that the accountability system **focuses on the outcomes of all students**.
- Although a metric on the **95 percent participation threshold is not explicitly included** in the STAR Framework, OSSE will explore **reporting** this information and could modify the STAR Framework via its state plan in the future to include a participation metric.
- OSSE requires **quality data** to calculate student participation statewide assessments.
- Currently, OSSE **determines** which students should be participate in **grades 3-8** by uploading rosters for students in these grades who are expected to take PARCC or MSAA.
- Historically, OSSE has relied on **self-reported data** from LEAs to determine student participation in high school.

Participation: Overview

In determining how to **improve student participation calculations**, OSSE considered the following issue:

- How can we **standardize the determination of student participation** for course-based high school assessments?

Participation: Business Rules

In determining how to **standardize the determination of student participation** for course-based high school assessments, OSSE recommends:

- **Recommendation**: OSSE will collect and verify relevant course data from LEAs to determine students who should take PARCC/MSAA course-based high school assessments.
- **Rationale**:
  - Increases accuracy of PARCC/MSAA participation metrics, which is a federal requirement
  - Standardizes implementation of participation business rules for all schools
  - Does not reflect significant policy change
  - Aligns with best practices in other states
- **Trade offs**: Additional data collection and verification

Participation: Business Rules

- **Other options considered:** Continue to rely on self-reported data from LEAs to determine who should take high school PARCC/MSAA assessments
- **Rationale for not choosing these options:**
  - Inconsistent practices for determining student participation between grades 3-8 and high school
  - Not based on best practices in other states
  - Still requires additional data submission from LEAs

Metric Deep Dive: Growth to Proficiency

Growth to Proficiency: Overview

- OSSE committed in its state plan to include a **criterion-based growth** metric in its STAR Framework.
- Growth to Proficiency measures whether students have made **sufficient growth towards proficiency** on their PARCC Math and ELA assessments.
- The purpose of this metric is to measure the percentage of students who meet a scale score **growth target** determined by their previous year scale score.
- OSSE will use **scale scores**, not performance levels, to set growth targets.
- OSSE will set **floors and targets** at the 10/90 percentiles.
- OSSE previously discussed this topic with LEAs on **June 19** and is dedicating more time to this topic based on LEA feedback.

Growth to Proficiency: Input from Prior Meeting

During the previous meeting on this topic, LEAs expressed:

- Of the three methodologies presented, the **hybrid model** is the most promising.
- Having a **limited number of years of PARCC data** is challenging in terms of creating and implementing a criterion-based growth metric.
- Growth targets should be **tailored to individual students** and based on past performance as much as possible.
- Growth targets should also be **ambitious but attainable**.
- The growth to proficiency metric should **not disproportionately affect** schools with high numbers of students who have not scored well on PARCC.
- Growth to proficiency should **measure something distinct** from the PARCC proficiency metric and the MGP metric.

Growth to Proficiency: Input from Prior Meeting

- It is important to look to **other states** when defining this indicator.
- It is also important to **monitor PARCC** and policy changes in other states.
- The growth to proficiency measure should align with the Performance Management Framework (**PMF**) as much as possible
- LEAs requested access to **de-identified data** to create alternative criterion-based growth measures.

Growth to Proficiency: Decisions

In considering LEA feedback as it relates to calculating **growth to proficiency**, OSSE will address the following issues:

- What is the criterion-based growth model **methodology**?
- Which **growth percentile** will be used to set proficiency growth targets?
- How will students who **previously scored proficient** be addressed in this metric?
- How will **growth targets that exceed expected time** a student is enrolled in school be accommodated?
- How will students who **repeat or skip a grade** be addressed in this metric?
- Should **student-level outliers** be removed from the metric?

Growth to Proficiency: Business Rules

In determining the **growth model methodology**, OSSE recommends:

- **Recommendation**: Hybrid model in which students' baseline scores determine the number of years expected to reach to proficiency. The baseline and corresponding growth to proficiency targets will be reset and recalculated each year based on assessment performance
- **Rationale**:
  - Rewards schools for year-by-year growth, regardless of how other students perform
  - Does not penalize schools for lack of growth in previous years
  - Aligned with ACCESS growth except that the baseline is reset every year rather than limited to when a student changes schools
- **Trade offs**: Does not establish a consistent growth target for a student while they are enrolled in the same school

Growth to Proficiency: Business Rules

- **Other options considered:**
  - A student's baseline examine will determine the number of years until that student is expected to reach proficiency, and the baseline will not be reset
  - Allow three years to proficiency for each student regardless of the student's baseline
- **Rationale for not choosing these options:**
  - Do not want to create an incentive for schools to not enroll students who did not meet previous growth targets
  - Unlike language acquisition and ACCESS growth, there is limited research about how long it should take a student to reach proficiency on PARCC
  - Preliminary analysis of data indicate that three years may not be sufficient time to reach proficiency

Growth to Proficiency: Business Rules

Example trajectory of hybrid model

Grade	Scale Score	Score Change	Growth Target	Years to Proficiency	Outcome
3	655	N/A	N/A	5	First year testing
4	683	+28	19	5	Target met
5	700	+17	13	4	Target met
6	715	+15	25	4	Target missed
7	735	+20	7	3	Target met
8	752	+17	5	N/A	Target met; proficiency level 4 achieved.

Growth to Proficiency: Business Rules

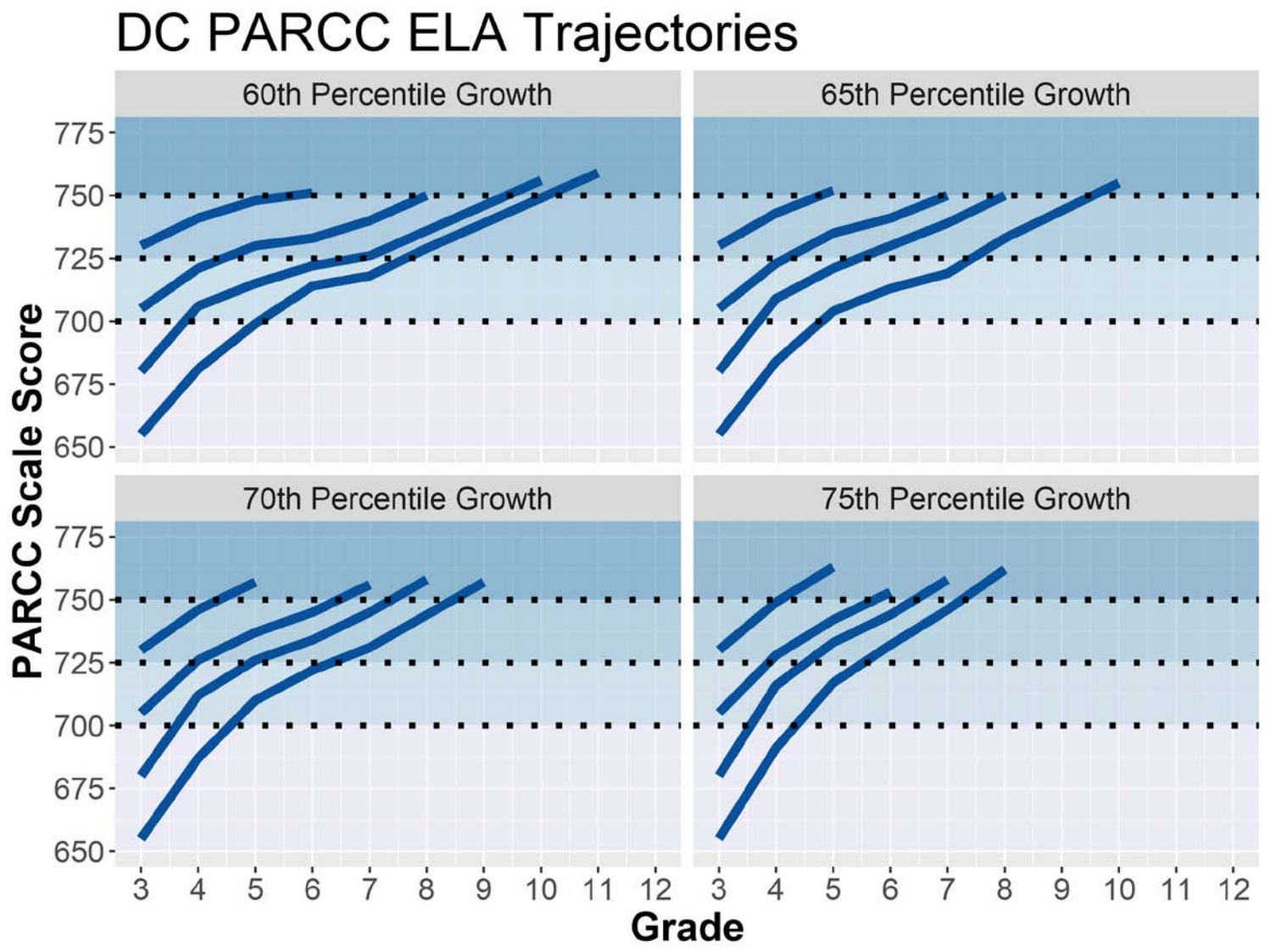
In determining which **growth percentile** should be used to set proficiency growth targets, OSSE recommends:

- **Recommendation**: 75% growth percentile
- **Rationale**:
  - Based on analysis that students must be in this growth percentile to approach or reach proficiency by 8th grade
  - Rewards schools that support growth to proficiency for students that start at performance levels 1-3
  - Aligns with OSSE's goal to become the most rapidly improving state and city in the nation in student achievement outcomes
- **Trade offs**:
  - Does not ensure that students reach proficiency by 8th grade
  - Assumes consistent growth, which may not be true

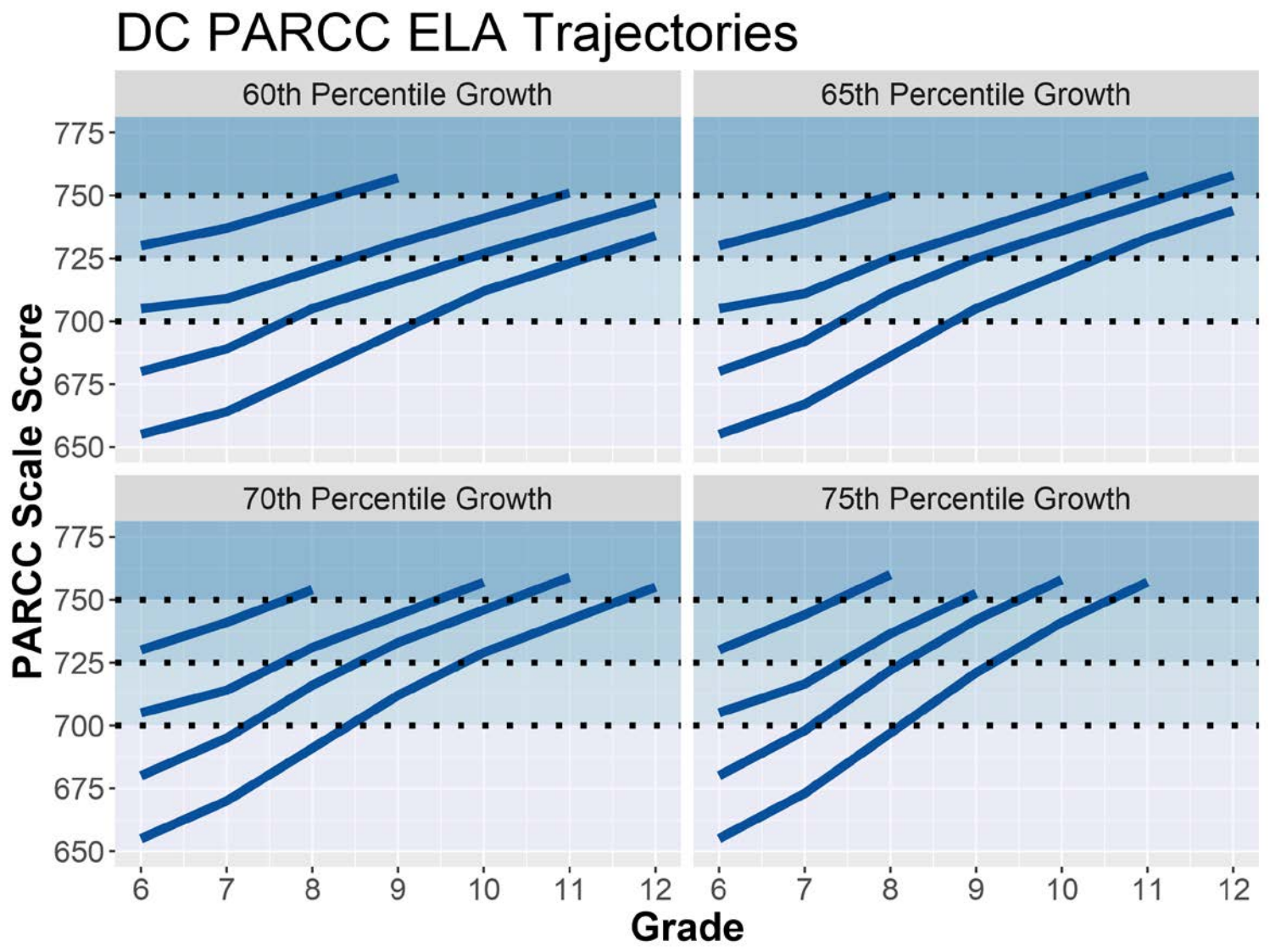
Growth to Proficiency: Business Rules

- **Other options considered**:
  - 70% growth percentile
  - 65% growth percentile
  - 60% growth percentile
  - 50% growth percentile
- **Rationale for not choosing these options**: These growth percentiles are not ambitious enough such that students that start at performance levels 1-3 approach or reach proficiency by 8th grade; however, OSSE will continue to monitor this metric, especially after the dry run and with an additional year of data, to determine if this is the optimum growth percentile

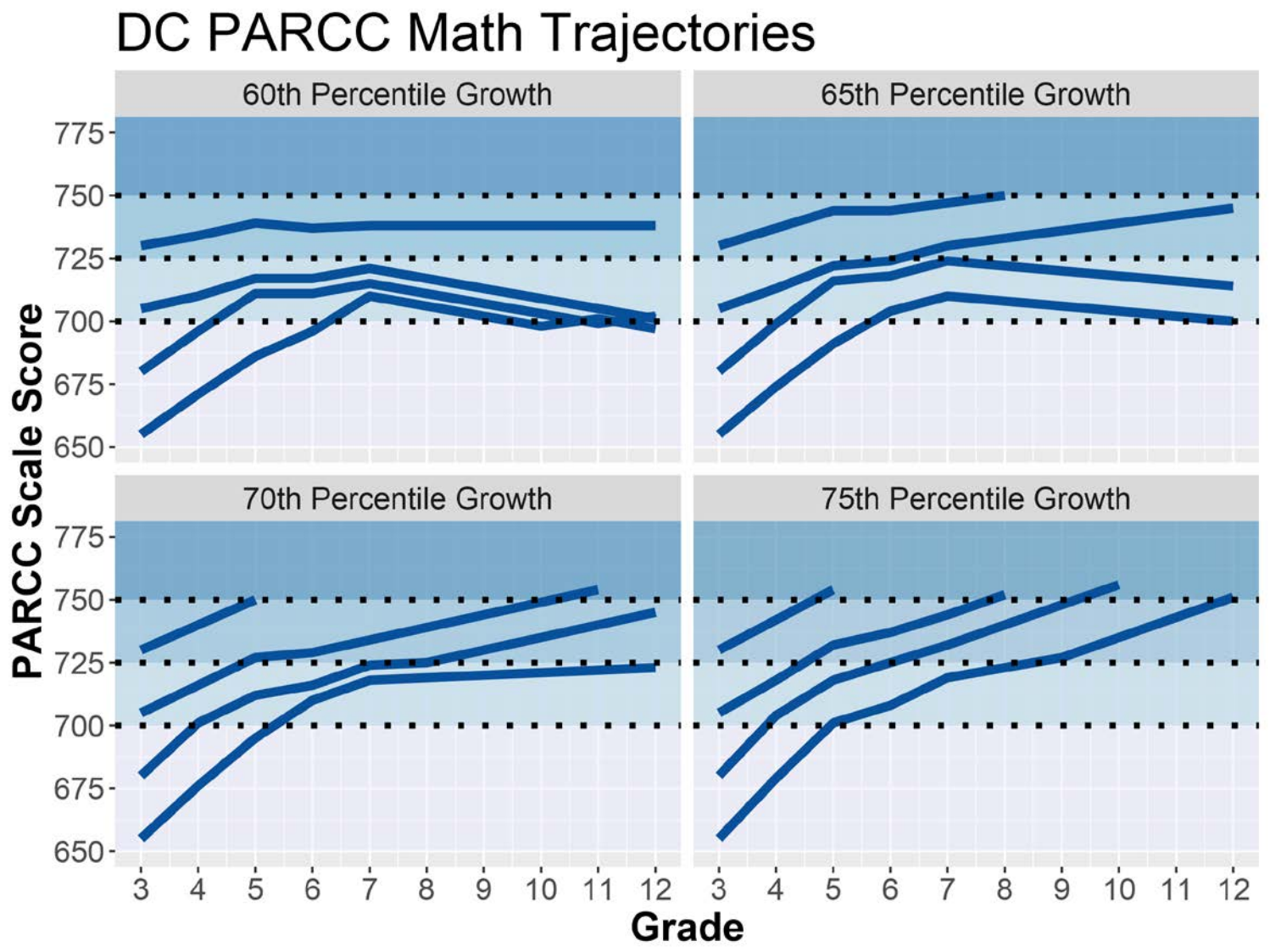
Growth to Proficiency: Business Rules



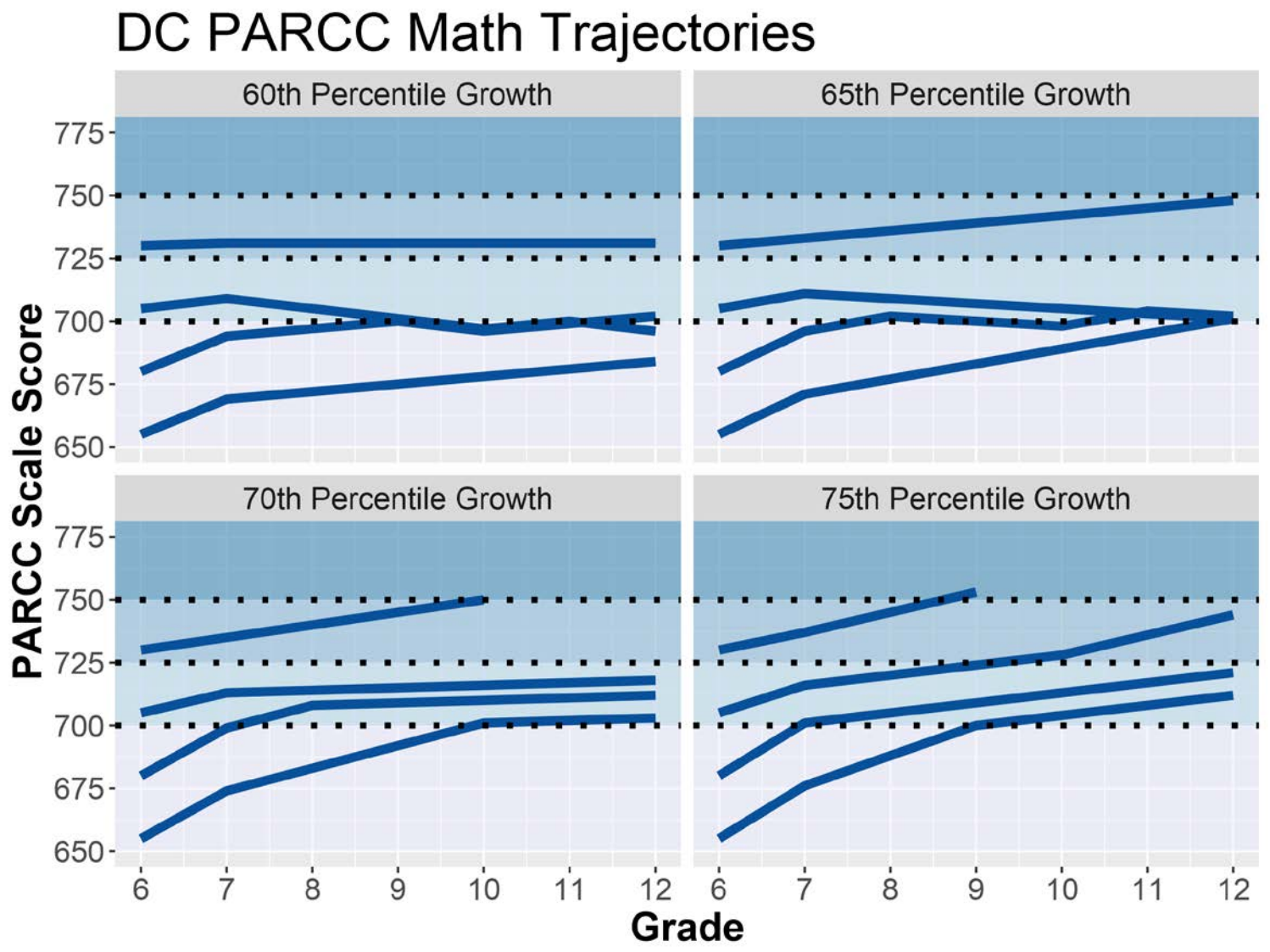
Growth to Proficiency: Business Rules



Growth to Proficiency: Business Rules



Growth to Proficiency: Business Rules



Growth to Proficiency: Business Rules

Setting growth targets at the **75th percentile growth** result in the following expected years of growth to reach proficiency:

Prior Year's PARCC Scale Score	PARCC Performance Level	Years of Growth to PARCC Level 4
650-699	1	5
700-724	2	4
725-749	3	3

Setting growth targets at **the 65th percentile growth** result in the following expected years of growth to reach proficiency:

Prior Year's PARCC Scale Score	PARCC Performance Level	Years of Growth to PARCC Level 4
650-699	1	7
700-724	2	5
725-749	3	3

Growth to Proficiency: Business Rules

In determining how to address **students who previously scored proficient**, OSSE recommends:

- **Recommendation**: Give points for students who continue to grow or at a minimum maintain proficiency and do not give points for students who do not continue to grow or maintain proficiency
- **Rationale**:
  - Only option that continues to reward schools for students who continue to be proficient
  - Reflects LEA feedback that it's possible to see a drop in maintaining proficiency if these students are not included in the metric
- **Trade offs**: Does not reward schools for students who continue to grow and reach performance level five

Growth to Proficiency: Business Rules

- **Other options considered**:
  - Increase growth target by a certain number of scale points after students reach proficiency
  - Increase growth target that requires students to reach performance level five in a set number of years (e.g. three years)
  - Remove previously proficient students from the metric
  - Remove previously proficient students from the metric until they reach performance level five at which point they would be added again
  - Remove previously proficient students from the metric, set floors and targets based on the remaining students students, and add students who were previously proficient until they reach performance level five to give LEAs bonus points

Growth to Proficiency: Business Rules

- **Rationale for not choosing these options**:
  - Removing students from the metric could result in students not maintaining proficiency
  - Do not want to penalize schools if students do not reach their growth target after they reach proficiency
  - Less research on how long it should take a student to reach performance level five
  - Complicated to explain to parents

Growth to Proficiency: Business Rules

In determining how to handle **growth targets that exceed expected time** a student will be enrolled in school, OSSE recommends:

- **Recommendation**: To allow growth targets to exceed expected enrollment period
- **Rationale**:
  - Does not place artificial caps on when a student must reach proficiency
  - Aligns with ACCESS growth business rule
- **Trade offs**: It is possible that a student might not be expected to reach proficiency while they are enrolled in school
- **Other options considered**:
  - Cap number of years based on expected graduation
  - Cap number of years at 10th grade
- **Rationale for not choosing these options**: These artificial caps may not represent achievable goals

Growth to Proficiency: Business Rules

In determining how to handle students who **repeat or skip a grade**, OSSE recommends:

- **Recommendation**: Use previous year's data as basis for growth target
- **Rationale**: Gives credit to schools that ensure that grade repeaters and grade skippers make progress
- **Trade offs:** None
- **Other options considered**: Remove students who repeat or skip a grade from the metric
- **Rationale for not choosing these options**: Schools would not be held accountable for the progress of these students

Growth to Proficiency: Business Rules

In determining if and how to **remove student-level outliers**, OSSE recommends:

- **Recommendation**: Maintain the same business rules for accountability and assessment
- **Rationale**:
  - Consistent with existing PARCC business rules
  - It would be confusing to have different business rules for accountability than for PARCC
  - Attemptedness rules are based on PARCC consortium policy
- **Trade offs**: Outliers will contribute to a school's STAR rating
- **Other options considered**: Create separate exclusion business rules to address outliers
- **Rationale for not choosing these options**: Do not want to have two separate sets of PARCC business rules

Questions and Next Steps

Ways to Stay Engaged

- Provide feedback on today's session by **COB July 27.**
- Send questions, concerns, additional feedback to OSSE.ESSA@dc.gov
- Prior materials and notes available on www.osse.dc.gov/essa

Appendix

PARCC/MSAA Participation Calculation

Participation calculation for Grades 3-8: ELA
of students with a valid summative score in ELA on a required grade-level test
of students minimally enrolled in grades 3-8 during the school's testing window or students who were not minimally enrolled but tested and received a valid score (except for approved medical exemptions, and first year enrolled ELs when ACCESS is administered)

Participation calculation for Grades 3-8: Math
of students with a valid summative score in math/science on a required test (grade level or HS EOC for grades 7 and 8 in math)
of students minimally enrolled in grades 3-8 (math) or grade 5 or 8 (science) during the school's testing window or students who were not minimally enrolled but tested and received a valid score (except for approved medical exemptions)

Participation calculation for HS: ELA
of students with a valid summative score in ELA on a required test
of students minimally enrolled during the school's testing window in a course with a required test or students who were not minimally enrolled but tested and received a valid score (except for approved medical exemptions, and first year enrolled ELs when ACCESS is administered)

Participation calculation for HS: Math
of students with a valid summative score on a required test
of students minimally enrolled during the school's testing window in a course with a required test or students who were not minimally enrolled but tested and received a valid score (except for approved medical exemptions)