

STAR Framework

ACT/SAT College Ready Benchmark
and DC Percentile Threshold

AP/IB Participation and
Performance



July 17, 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 how we developed the **business rules** related to:
 - ACT/SAT College Ready Benchmark
 - ACT/SAT DC Percentile Threshold
 - AP/IB Participation
 - AP/IB Performance
- 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 |
| • June 23 (cancelled) | • 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 20**. OSSE will provide a summary of feedback received on today's session by **July 24**.



Agenda

- **Overview of the STAR framework**
 - Timeline
 - Domains and metrics
 - STAR Frameworks
- **Deep Dive**
 - ACT/SAT College Ready Benchmark
 - ACT/SAT DC Percentile Threshold
 - AP/IB Participation
 - AP/IB Performance
- **Identify questions and next steps**



Overview of STAR Framework



Timeline

- **June 14 to August 1-** STAR Framework LEA Meetings and feedback
- The last three meetings will address the following topics:

July 21	1:30 – 3:30 p.m.	806	90+ Attendance
			Attendance Growth
			Re-Enrollment
			In-Seat Attendance
July 24	1 – 3 p.m.	806	Growth to Proficiency
			PARCC: Eligible Participants Deep Dive
July 27	8 – 11 a.m.	Grand Hall	Floors and Targets Part II
			Economically Disadvantaged Students: Part II

- **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

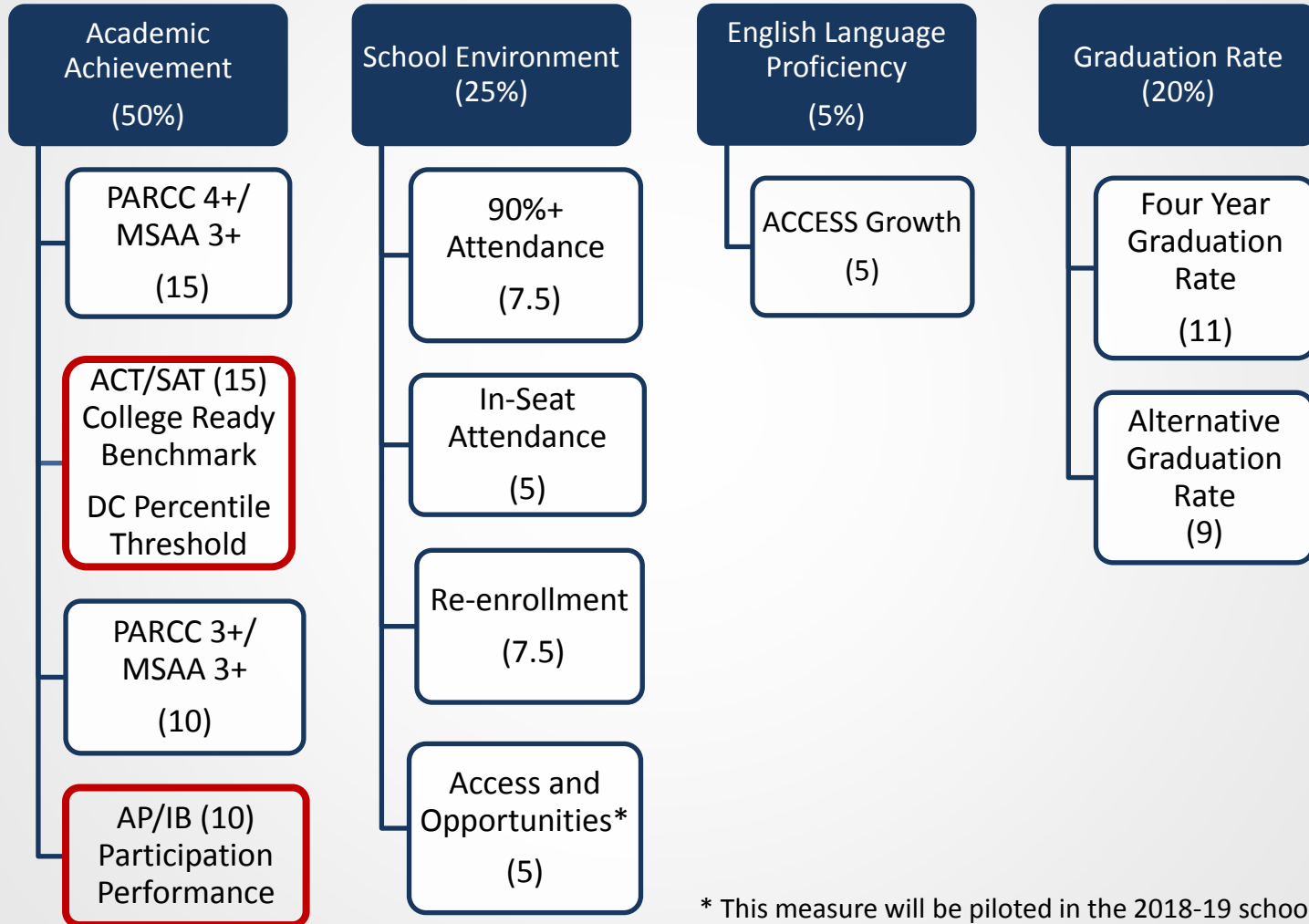


Domains and Metrics

Domain	Metric
Academic Achievement	<ul style="list-style-type: none">• PARCC 4+/MSAA 3+• PARCC 3+/MSAA 3+• SAT & ACT Performance• AP & IB Participation• AP & IB Performance
Academic Growth	<ul style="list-style-type: none">• Norm-Referenced Growth Measure: Median Growth Percentile• Criterion-Referenced Growth Measure: Growth to Proficiency
Graduation Rate	<ul style="list-style-type: none">• 4-Year ACGR• Alternative Graduation Metric
School Environment	<ul style="list-style-type: none">• Addressing Chronic Absenteeism: Best of 90+ Attendance or Growth• In-Seat Attendance• Re-Enrollment• CLASS (pre-K only)• Access and Opportunity
English Language Proficiency	<ul style="list-style-type: none">• ACCESS Growth



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.



Deep Dive: ACT/SAT



ACT/SAT: Overview

- The **ACT/SAT College Ready Benchmark** is defined as the percentage of students meeting or exceeding the college ready benchmark on the ACT/SAT.
- The **ACT/SAT DC Percentile Threshold** is defined as the percentage of students meeting or exceeding a percentile threshold, which is currently set at the 50th percentile.
- OSSE **pays for all 11th and 12th graders** to take the SAT on pre-specified testing days as well as makeup administrations if students miss those days.
- OSSE values both student **performance and participation** while ensuring **schools are not repeatedly penalized** more than once for students who exit, including students who drop out.
- OSSE has received feedback from LEAs about the importance of making these **metrics as consistent as possible**.
- Floors and targets will be set at the **10/90 percentiles**.



ACT/SAT: Overview

	College Ready Benchmark	Superscore
SAT	The SAT college ready benchmark is set by the College Board . A student must obtain at least a 530 on the Math section and at least a 480 on the ELA section.	A student's superscore is determined based on the combined highest score on each subsection of the SAT across all dates that the student took the test.
ACT	There is currently no overall College Ready benchmark for the ACT . Benchmarks are set for each subject but not for the composite score.	A student's superscore is determined based on the highest average of the individual section scores across all dates the student took the ACT.



ACT/SAT College Ready Benchmark: Hypothetical Point Calculation

Formula: Possible Points * $\frac{(\text{Actual Score} - \text{Floor})}{(\text{Target} - \text{Floor})}$

Hypothetical Score:

Floor: 1%

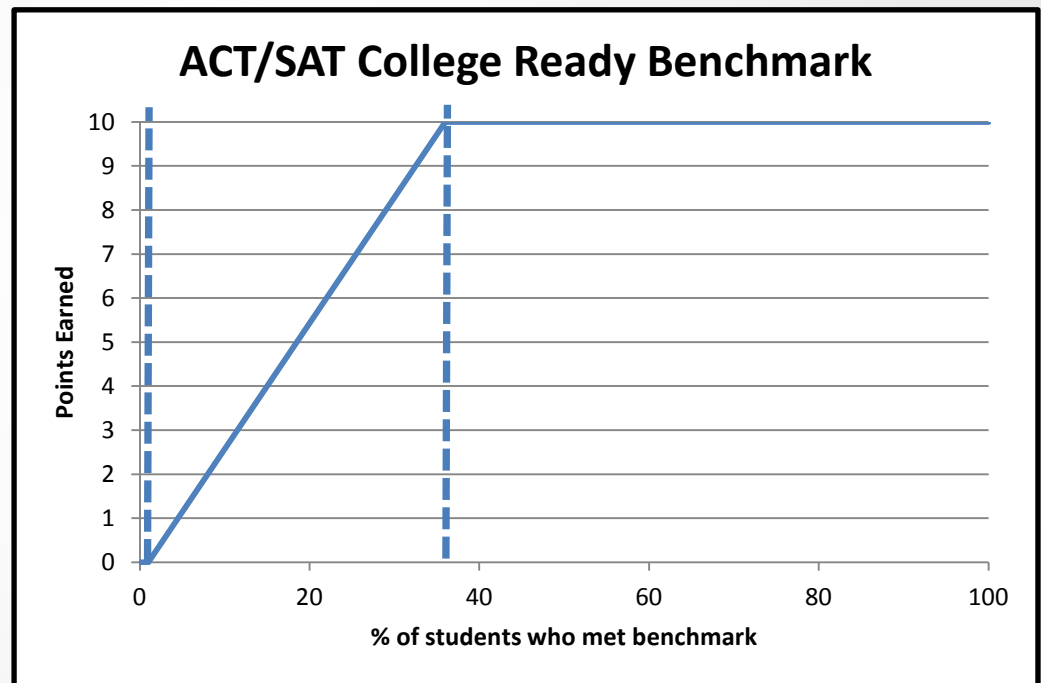
Target: 36%

LEA score: 20% of students met or exceeded the benchmark

$$10 \text{ points} * \frac{(20 - 1)}{(36 - 1)} =$$

$$10 \text{ points} * \frac{19}{35} =$$

$$10 \text{ points} * 0.543 = 5.4 \text{ points}$$





ACT/SAT: Overview

To calculate **ACT/SAT College Ready Benchmark** and **DC Percentile Threshold** metrics, OSSE will address the following issues:

- Which students should be captured in the **denominator**?
- Which students should be captured in the **numerator**?
- Where should OSSE set the **ACT College Ready Benchmark**?
- How should we handle students who **take the SAT and the ACT**?
- How should we **set the percentile threshold** for ACT/SAT?



ACT/SAT: Business Rules

In determining which students to capture in the **denominator**, OSSE recommends:

- **Recommendation:** ACGR cohort minus students who exited in 9th or 10th grade
- **Rationale:**
 - ACGR cohort is a validated population of students
 - Addresses LEA concerns around the need to consider participation
 - Does not penalize schools for students who exited prior to years when they have greater opportunity to take the ACT or SAT
- **Trade offs:** Schools will not receive credit for students who exit in 11th or 12th grade



ACT/SAT: Business Rules

- **Other options considered for the denominator:**
 - Number of 11th and 12th grade test takers
 - Number of 12th grade test takers
 - Number of 11th and 12th students
 - Number of 12th grade students
- **Rationale for not choosing these options:**
 - Test takers do not account for participation
 - Does not account for high performing 11th graders who do not retest in 12th grade
 - Does not allow for inclusion of 11th grade test takers, when many students test
 - For 11th and 12th grade populations, students' scores could be counted twice
 - These populations are not currently validated or have a full academic year attribution



ACT/SAT: Business Rules

In determining which students to capture in the **numerator**, OSSE recommends:

- **Recommendation:** Number of students in ACGR cohort, minus students who exited in 9th or 10th grade, meeting/exceeding the college ready benchmark or the 50th percentile
- **Rationale:**
 - ACGR cohort is a validated population of students
 - Gives credit to schools with students who meet/exceed the college ready benchmark or the 50th percentile before 11th grade
- **Trade offs:**
 - Could give credit to schools for students who took an ACT/SAT exam at a different school if students change schools after taking the test
 - Schools would not get credit for a students who meet/exceed the college ready benchmark or the 50th percentile before 11th grade **and** exited the school



ACT/SAT: Business Rules

- **Other options considered for the numerator:**
 - Number of 11th and 12th grade test takers meeting/exceeding the college ready benchmark or the 50th percentile
 - Number of 12th grade test takers meeting/exceeding the college ready benchmark or the 50th percentile
- **Rationale for not choosing these options:**
 - Does not give schools credit for students who meet/exceed to the college ready benchmark or the 50th percentile before 11th grade
 - Does not account for 11th grade test takers when many students test



ACT/SAT: Business Rules

In determining how to set the **ACT College Ready Benchmark**, OSSE recommends:

- **Recommendation:** Use the ACT Composite score of 19 as the College Ready Benchmark
- **Rationale:** Research indicates that the ACT Composite score of 19 is aligned with a 75 percent likelihood of earning at least a C in first year college courses
- **Trade offs:** ACT does not officially recommend a college ready benchmark for the composite score; however, a score of 19 aligns with the standard we have set for the SAT threshold



ACT/SAT: Business Rules

- **Other options considered:**
 - Composite score of 20: Based on research indicating that a score of 20 corresponds to a 50 percent likelihood of earning at least a 2.67 or B in first year college courses
 - Composite score of 23: Based on research indicating that a score of 23 corresponds to a 50 percent likelihood of earning at least a 3.00 or B in first year college courses
- **Rationale for not choosing these options:** 19 is an ambitious target that supports that students will not need remedial coursework in college



ACT/SAT: Business Rules

In determining how to handle students who take **both the ACT and SAT**, OSSE recommends:

- **Recommendation:** Count student only once
 - If both scores meet benchmark or threshold, count student once in numerator and denominator
 - If one score meets benchmark or threshold, count student once in numerator and denominator
 - If neither score meets benchmark or threshold count student once in denominator
- **Rationale:** Aligns with how we define the denominator (only counting a student once) such that the numerator isn't being artificially inflated
- **Trade offs:** Does not give a school credit if a student did well on both tests



ACT/SAT: Business Rules

- **Other options considered:** Count the student more than once if he/she took the ACT and SAT
- **Rationale for not choosing:** This metric is intended to measure the percentage of students who meet/exceed the college ready benchmark or 50th percentile, not the number of tests



ACT/SAT: Business Rules

In determining how to **set the ACT/SAT Percentile threshold**, OSSE recommends:

- **Recommendation:** Use the national 50th percentile for ACT/SAT
- **Rationale:**
 - Provides a more robust universe of scores from which to calculate the 50th percentile
 - Aligns with stated ESSA goal to become the “fastest improving state and city in the nation in student achievement outcomes”
 - Addressed LEA concern that calculating the 50th percentile for ACT within DC will result in a comparing a limited set of LEAs to each other
- **Trade offs:** Using a national median as the threshold will likely produce lower scores for DC schools; however, schools will receive points based on their relative position to each other



ACT/SAT: Business Rules

- **Other options considered:** Use DC's 50th percentile for ACT/SAT
- **Rationale for not choosing:**
 - There is insufficient participation for ACT in DC to make DC's percentile meaningful
 - Does not align with DC's goal of becoming the fastest improving state and city in the nation



ACT/SAT: Summary

Decision	Recommendation
ACT/SAT denominator	ACGR cohort minus students who exited in 9th or 10th grade
ACT/SAT numerator	Number of students in ACGR cohort, minus students who exited in 9 th or 10 th grade, meeting/exceeding the college ready benchmark or the 50 th percentile
Where to set the ACT college ready benchmark	Composite score of 19
How to handle students who take both tests	Only count the student once
How to set the percentile threshold	Use national 50 th percentile



Deep Dive: AP/IB Participation Metric



AP/IB Participation: Overview

- The **AP/IB Participation metric** is defined as the percentage of students taking at least one AP or IB exam.
- Unlike the ACT/SAT college ready benchmark and DC percentile threshold, **AP/IB participation is measured separately** from performance.
- OSSE measures participation and performance **separately** because, unlike SAT, OSSE does not pay for AP/IB exams for everyone and wants to support **access to advanced coursework** to promote college and career readiness.
- Some schools in DC offer AP/IB courses and exams in high school as **early as 9th grade**.
- Floors and targets will be set at the **10/90 percentiles**.



AP/IB Participation: : Hypothetical Point Calculation

Formula: Possible Points * $\frac{(\text{Actual Score} - \text{Floor})}{(\text{Target} - \text{Floor})}$

Hypothetical Score:

Floor: 1%

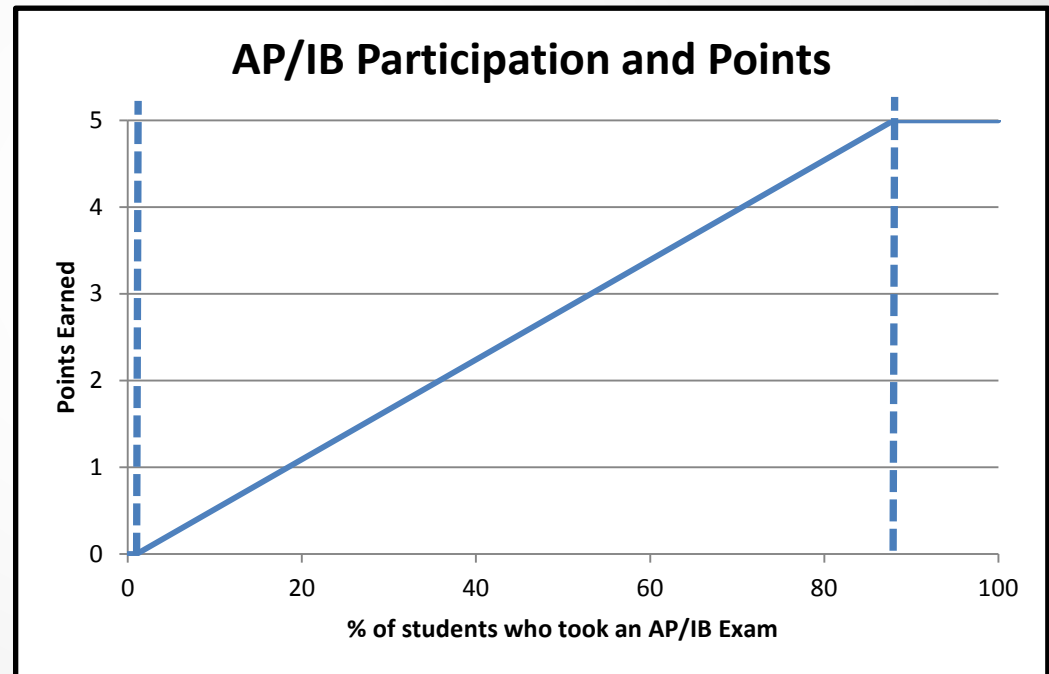
Target: 88%

LEA score: 50% of students took AP/IB exam

$$5 \text{ points} * \frac{(50 - 1)}{(88 - 1)} =$$

$$5 \text{ points} * \frac{49}{87} =$$

$$5 \text{ points} * 0.563 = 2.8 \text{ points}$$





AP/IB Participation: Overview

To calculate the **AP/IB participation metric**, OSSE will address the following issues:

- Which students should be included in the **denominator**?
- Which students should be included in the **numerator**?



AP/IB Participation: Business Rules

In determining which students to include in the **denominator**, OSSE recommends:

- **Recommendation:** ACGR cohort minus students who exited in 9th or 10th grade
- **Rationale:**
 - ACGR cohort is a validated population of students
 - Does not penalize schools for students who exit prior to years when they have greater opportunity to take AP or IB exams
 - Aligns with ACT/SAT measures
- **Trade offs:**
 - Penalizes schools for students who exit in 11th or 12th grade
 - Could give credit to schools for students who took an AP/IB exam at a different school



AP/IB Participation: Business Rules

- **Other options considered for the denominator:**
 - Number of 11th and 12th grade students
 - Number of 12th grade students
 - ACGR
- **Rationale for not choosing:**
 - These populations are not currently validated or have a full academic year attribution
 - Does not allow for inclusion of 11th grade test takers, when many students test
 - Penalizes schools again for students who exit



AP/IB Participation: Business Rules

In determining which students to include in the **numerator**, OSSE recommends:

- **Recommendation:** ACGR cohort, minus students who exited in 9th or 10th grade, who ever took an AP/IB test
- **Rationale:**
 - ACGR cohort is a validated population of students
 - Does not penalize schools for students who exit prior to years when they have greater opportunity to take AP or IB exams
 - Aligns with ACT/SAT metrics
- **Trade offs:**
 - Could give credit to schools for students who took an AP/IB exam at a different school
 - Schools would not get credit for students who take AP/IB exams before 11th grade **and** exit schools



AP/IB Participation: Business Rules

- **Other options considered for the numerator:**
 - Number of 11th and 12th grade test takers
 - Number of 12th grade test takers
- **Rationale for not choosing:** Does not give schools credit for students who take an AP/IB exam prior to 11th or 12th grade



AP/IB Participation Summary

Decision	Recommendation
Denominator	ACGR cohort minus students who exited in 9th or 10th grade
Numerator	Number of students in ACGR cohort, minus students who exited in 9 th or 10 th grade, who take an AP/IB exam



Deep Dive: AP/IB Performance Metric



AP/IB Performance: Overview

- The **AP/IB Performance** is defined as the percentage of students scoring 3+ on at least one AP exam and/or 4+ on at least one IB exam.
- Unlike the ACT/SAT college ready benchmark and DC percentile threshold, **AP/IB performance is measured separately** from performance.
- OSSE measures participation and performance **separately** because, unlike SAT, OSSE does not pay for AP/IB exams for everyone and wants to support **access to advanced coursework** to promote college and career readiness.
- Some schools in DC offer AP/IB courses and exams in high school as **early as 9th grade**.
- Floors and targets will be set at the **10/90 percentiles**.



AP/IB Performance: Hypothetical Point Calculation

Formula: Possible Points * $\frac{(\text{Actual Score} - \text{Floor})}{(\text{Target} - \text{Floor})}$

Hypothetical Score:

Floor: 1.4%

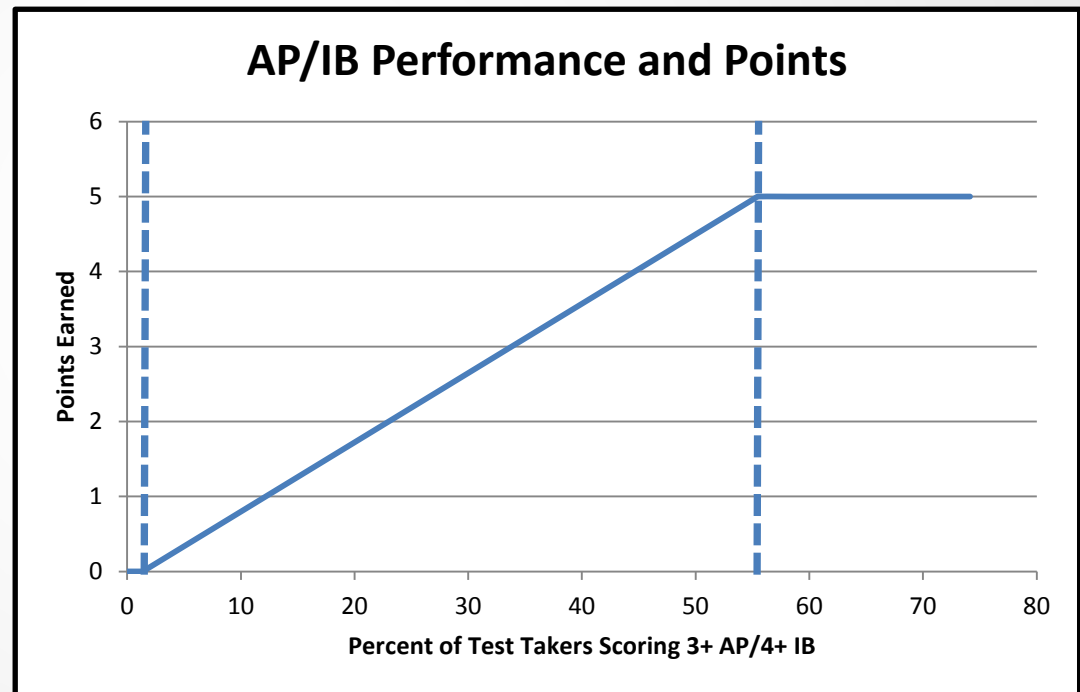
Target: 55.5%

LEA score: 10% of students met or exceeded the benchmark

$$5 \text{ points} * \frac{(10 - 1.4)}{(55.5 - 1.4)} =$$

$$5 \text{ points} * \frac{8.6}{54.1} =$$

$$5 \text{ points} * 0.159 = 0.795 \text{ points}$$





AP/IB Performance: Overview

To calculate the **AP/IB performance metric**, OSSE will address the following issues:

- Which students should be included in the **denominator**?
- Which students should be included in the **numerator**?
- How should we address schools who **do not have any students** take an AP or IB exam?



AP/IB Performance: Business Rules

In determining which students to include in the **denominator**, OSSE recommends:

- **Recommendation:** All students that took at least one AP/IB exam during the school year
- **Rationale:** Doesn't penalize schools whose students do not have access to AP/IB courses
- **Trade offs:** Does not give credit to schools for students who score 3+ on more than one AP exam or who score 4+ on more than one IB exam



AP/IB Performance: Business Rules

- **Other options considered:**
 - ACGR cohort
 - 12th grade students
 - 11th and 12th grade students
- **Rationale for not choosing:**
 - Participation is accounted for in a separate metric
 - Does not give schools credit for all of their students take an AP or IB test



AP/IB Performance: Business Rules

In determining which students to include in the **numerator**, OSSE recommends:

- **Recommendation:** All students that took at least one AP/IB test during the school year and scored 3+ on at least one AP exam or 4+ on at least one IB exam in the same year
- **Rationale:** Gives credit to schools for any student who scores 3+ on at least one AP exam or 4+ on at least one IB exam
- **Trade offs:** Does not give credit to schools for students who score 3+ on more than one AP exam or who score 4+ on more than one IB exam



AP/IB Performance: Business Rules

- **Other options considered:**
 - Number of 11th and 12th grade AP/IB test takers who scored 3+ on an AP exam or 4+ on an IB exam
 - Number of 12th grade AP/IB test takers who scored 3+ on an AP exam or 4+ on an IB exam
- **Rationale for not choosing:** Does not give schools credit for all of their students who score 3+ on at least one AP exam or 4+ on at least one IB exam



AP/IB Performance: Business Rules

In determining how to handle schools that **do not have any students take** an AP or IB exam, OSSE recommends:

- **Recommendation:** Drop this metric from a school's framework
- **Rationale:**
 - Consistent with the treatment of other metrics in which there are fewer than ten students
 - Does not penalize schools that do not offer AP or IB courses twice
- **Trade offs:** Potentially create an incentive for schools that are just starting an AP or IB program or have low AP or IB exam scores to discontinue their program as this metric would be removed from their framework and lower the maximum points possible



AP/IB Performance: Business Rules

- **Other options considered:** Give zero points to a school that does not have any students who take an AP or IB exam
- **Rationale for not choosing:**
 - Penalizes schools twice for not having an AP or IB program
 - Inconsistent with how other metrics are treated that have fewer than ten students



AP/IB Performance: Summary

Decision	Recommendation
Denominator	All students that took at least one AP/IB exam during the school year
Numerator	All students that took at least one AP/IB test during the school year and scored 3+ on at least one AP exam or 4+ on at least one IB exam in the same year
Schools that do not have any students take an AP or IB exam	Drop this metric



Questions and Next Steps



Ways to Stay Engaged

- Provide feedback on today's session by **COB July 20**.
- Send questions, concerns, and additional feedback to OSSE.ESSA@dc.gov.
- Access and review today's presentation as well as prior materials and notes on www.osse.dc.gov/essa.