



STAR Framework

Attendance and Re-Enrollment Metrics

July 21, 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:
 - In-Seat Attendance
 - Addressing Chronic Absenteeism
 - Re-Enrollment
- 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 26**. OSSE will provide a summary of feedback received on today's session by **July 28**.



Agenda

- **Overview of the STAR framework**
 - Timeline
 - Domains and metrics
 - STAR Frameworks
- **Deep Dive**
 - In-Seat Attendance
 - Addressing Chronic Absenteeism
 - Re-Enrollment
- **Identify questions and next steps**



Overview of STAR Framework



Timeline

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

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

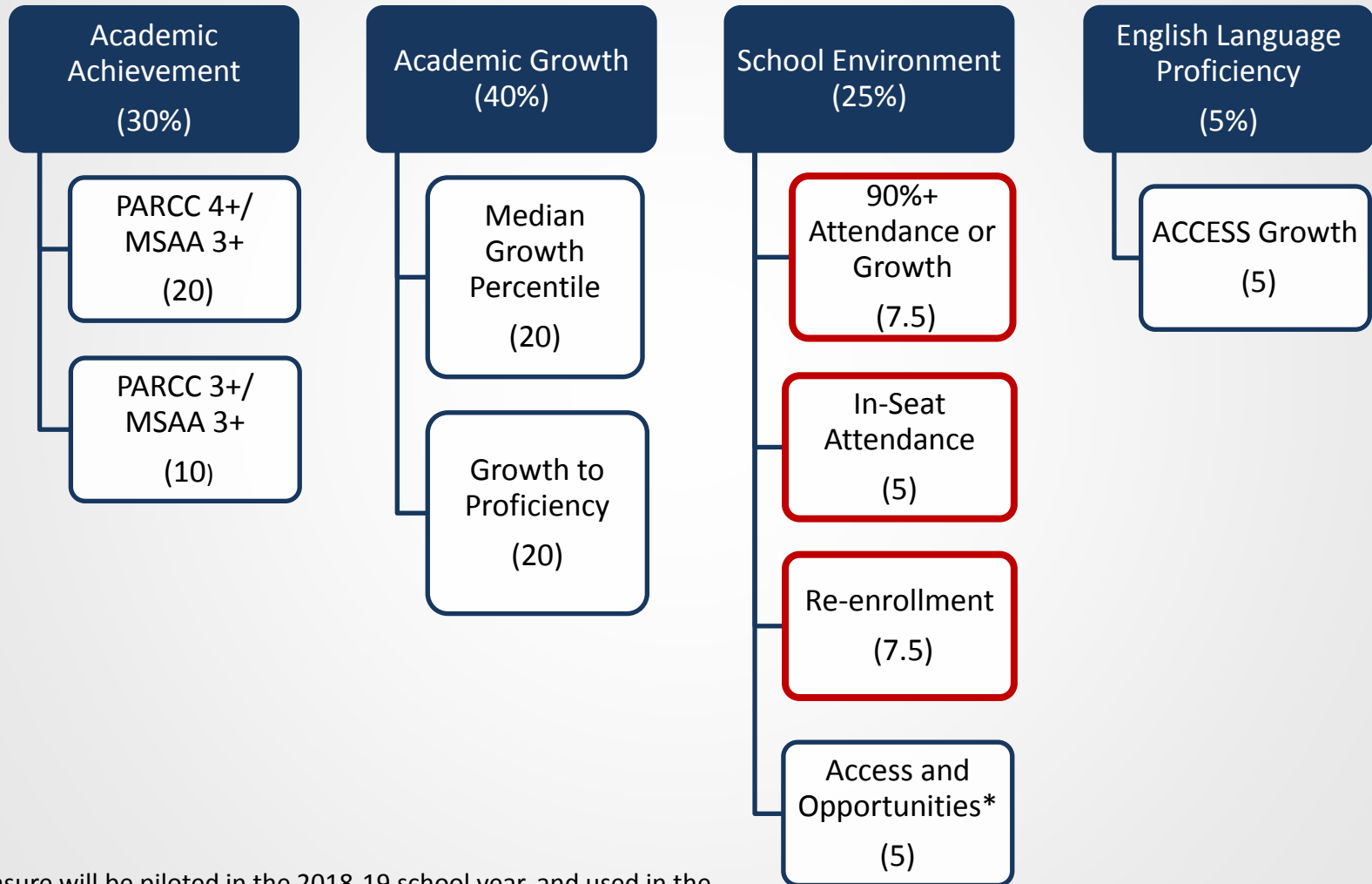


Domains and Metrics

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



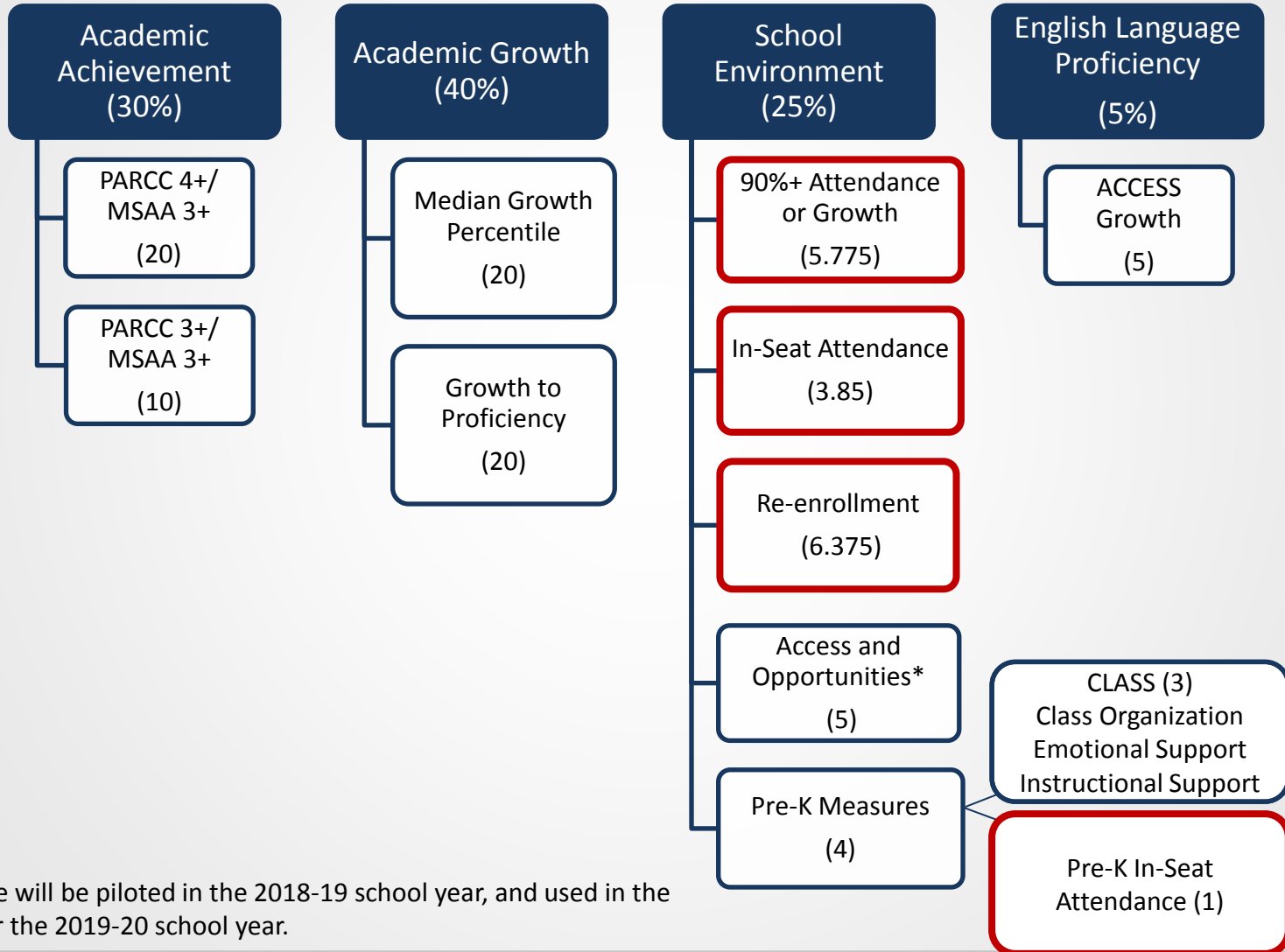
STAR Framework: Elementary Schools without Pre-Kindergarten



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



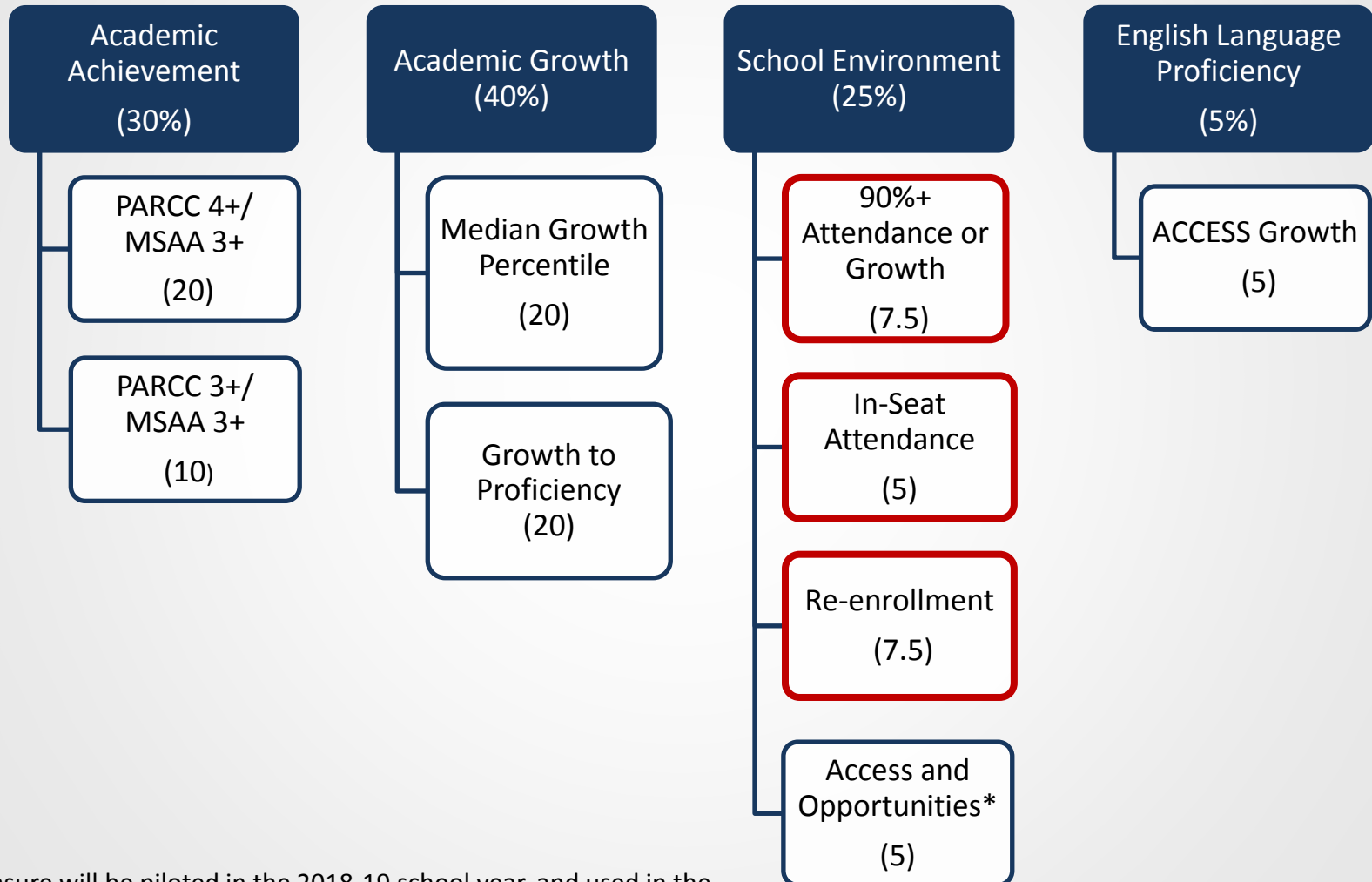
STAR Framework: Elementary Schools with Pre-Kindergarten



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



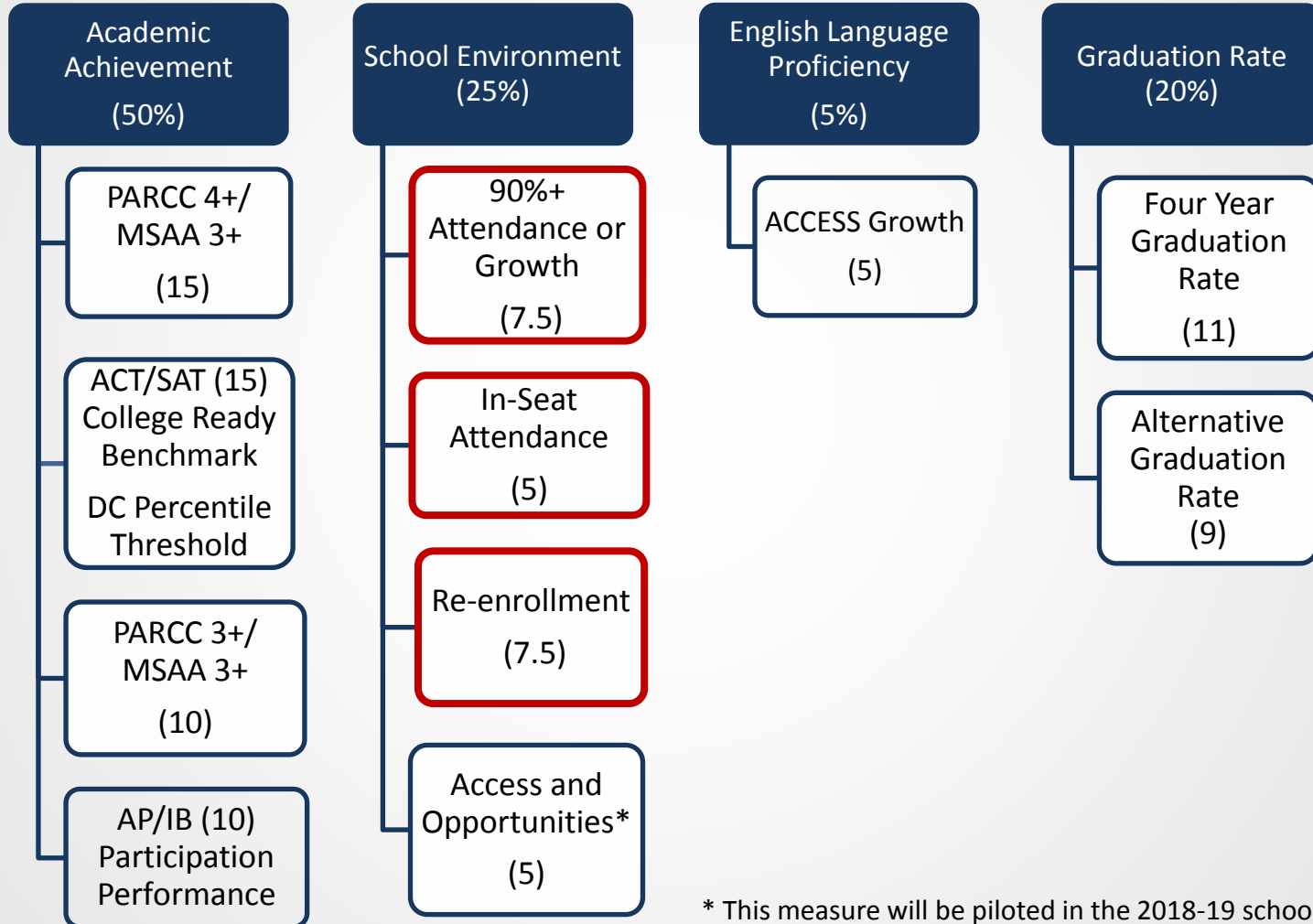
STAR Framework: Middle Schools



* 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.



Deep Dive: Attendance Metrics



Attendance Metrics: Overview

- The STAR framework gives points for **attendance** in two ways:
 - In-Seat Attendance (ISA)
 - Addressing Chronic Absenteeism
- The **In-Seat Attendance** (ISA) metric is the school-level average of daily student attendance rates and includes both excused and unexcused absences.
- Addressing Chronic Absenteeism awards points for the **best of one** of two metrics:
 - **90+ Attendance**
 - **Growth**
- Floors and targets for each of the attendance metrics will be set using the **10/90 percentiles** while using a **maximum floor** for in-seat attendance.



Attendance Metrics: Overview

- During school year 2014-15 and 2015-16, attendance data was collected as a **year-end file**, provided by DCPS and PCSB. The file provided contained a record for each student on each day, with either an “absent” or “present” value.
- Beginning in school year 2016-17, attendance is collected on a **daily basis via LEAs’ student information systems (SIS)**, which provides OSSE with attendance data in real-time.
- **Collaboration** between LEAs and OSSE is critical to ensure that attendance data is accurately reported in the STAR Framework ratings.
- As this is a new data source, OSSE will work with LEAs to strengthen and document **data management policies and practices** given the new uses of this information.



In-Seat Attendance: Overview

- In-Seat Attendance is a measure that describes the **average daily attendance rate**.
- In-Seat Attendance rates have historically been calculated as part of ***Equity Reports***.

Calculation:

$$\frac{\text{Number of days in which students were present at the school}}{\text{Number of days in which students were enrolled at the school}}$$



In-Seat Attendance: Hypothetical Point Calculation

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

Hypothetical Score:

Floor: 88%

Target: 97%

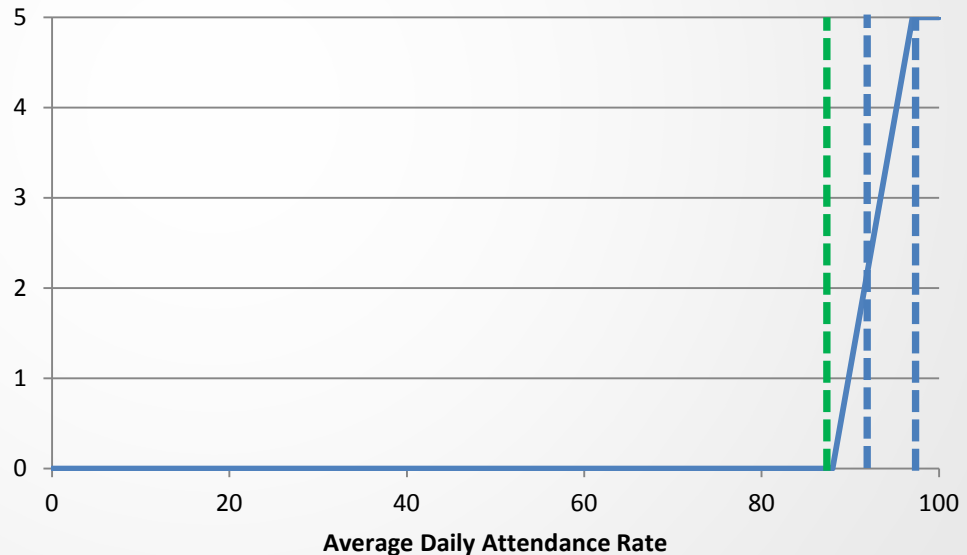
School score: 95% average
daily attendance rate

$$5 \text{ points} * \frac{(95 - 88)}{(97 - 88)} =$$

$$5 \text{ points} * \frac{7}{9} =$$

$$5 \text{ points} * 0.778 = 3.89 \text{ points}$$

In-Seat Attendance





Addressing Chronic Absenteeism: Overview

- 90+ Attendance and Growth in 90+ Attendance (Growth) differ from in-seat attendance in that they **measure student-level attendance patterns**, as opposed to the average attendance across a school.
- OSSE will **run both metrics for all subgroups** and allocate points for the metric that results in the most points for **each subgroup within the school**.
- **90+ Attendance** represents the proportion of students that have attended the school 90% or more of the days enrolled that school year.
- **Growth** is the student attendance growth percentile for the median student at a school. A student's attendance growth percentile measures how a student's access to instructional time in the current school year compared with DC students who had a similar attendance rate in the previous year.
- Students must be enrolled at a school for at **least ten days at one school** to be included in the Addressing Chronic Absenteeism metrics.



90+ Attendance: Overview

- 90+ Percent Attendance metric represents the **inverse of chronic absenteeism**
- It reflects the percentage of enrolled students who were present/in attendance for **90% or more of enrolled days**

Calculation:

$$\frac{\text{\# of students who were present on at least 90\% of the days in which they were enrolled in school}}{\text{\# of students who were enrolled for at least 10 days with attendance records at the school}}$$



90+ Attendance: Hypothetical Point Calculation

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

Hypothetical Score:

Floor: 70%

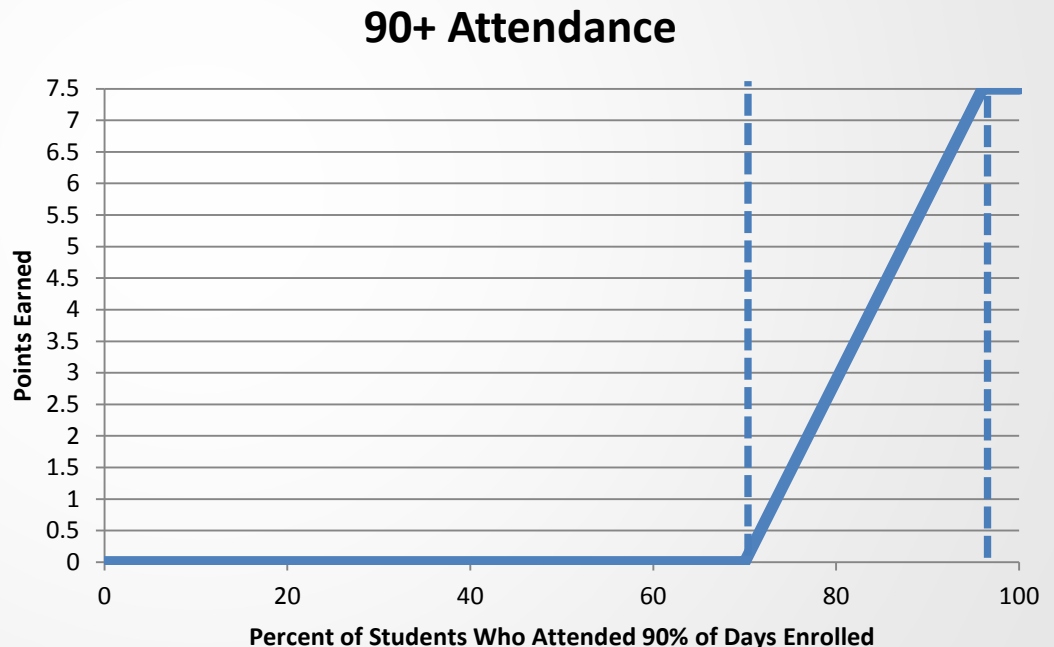
Target: 96%

School score: 85% of students attended school at least 90 percent of days enrolled

$$7.5 \text{ points} * \frac{(85 - 70)}{(96 - 70)} =$$

$$7.5 \text{ points} * \frac{15}{26} =$$

$$7.5 \text{ points} * 0.577 = 4.3 \text{ points}$$





Growth: Overview

Growth is determined by calculating **Student Growth Percentiles (SGPs)** which represent each student's relative growth in attendance from the previous year to the current year:

- Students' change in growth is compared to other **DC students of the same grade level** and with a similar past attendance record.
- The following table is used to **determine how students are compared** using prior chronic absenteeism:

Satisfactory Attendance	Students who missed 0%-4.99% of school days
At-Risk Attendance	Students who missed 5%-9.99% of school days
Moderate Chronic Absence	Students who missed 10%-19.99% of school days
Severe Chronic Absence	Students who missed 20%-29.99% of school days
Profound Chronic Absence	Students missing 30% or more of school days



Growth: Overview

- SGPs **reflect grade-level differences in attendance**, so a high school student who attended school more frequently than the previous year can have a high SGP despite imperfect attendance.
- Using SGPs can encourage schools to work **on improving all students' attendance**, not just those who are on the cusp of 90% attendance.
- Once the SGPs are calculated for each student, **Median Growth Percentiles (MGPs)** are calculated for each school.
- MGPs are the median SGP of the *all students* group and students in each applicable subgroup.
- An MGP over 50 suggests that most students in a school have better attendance growth than similar students across DC.



Growth: Hypothetical Point Calculation

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

Hypothetical Score:

Floor: 34%

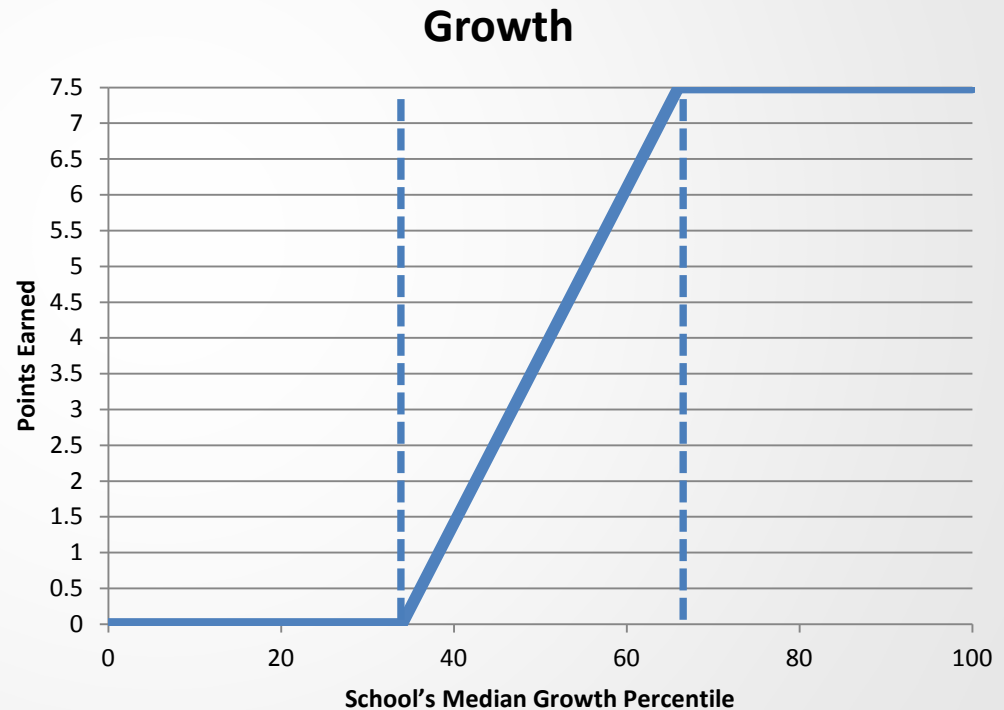
Target: 66%

School score: 55th
percentile for Growth

$$7.5 \text{ points} * \frac{(55 - 34)}{(66 - 34)} =$$

$$7.5 \text{ points} * \frac{21}{32} =$$

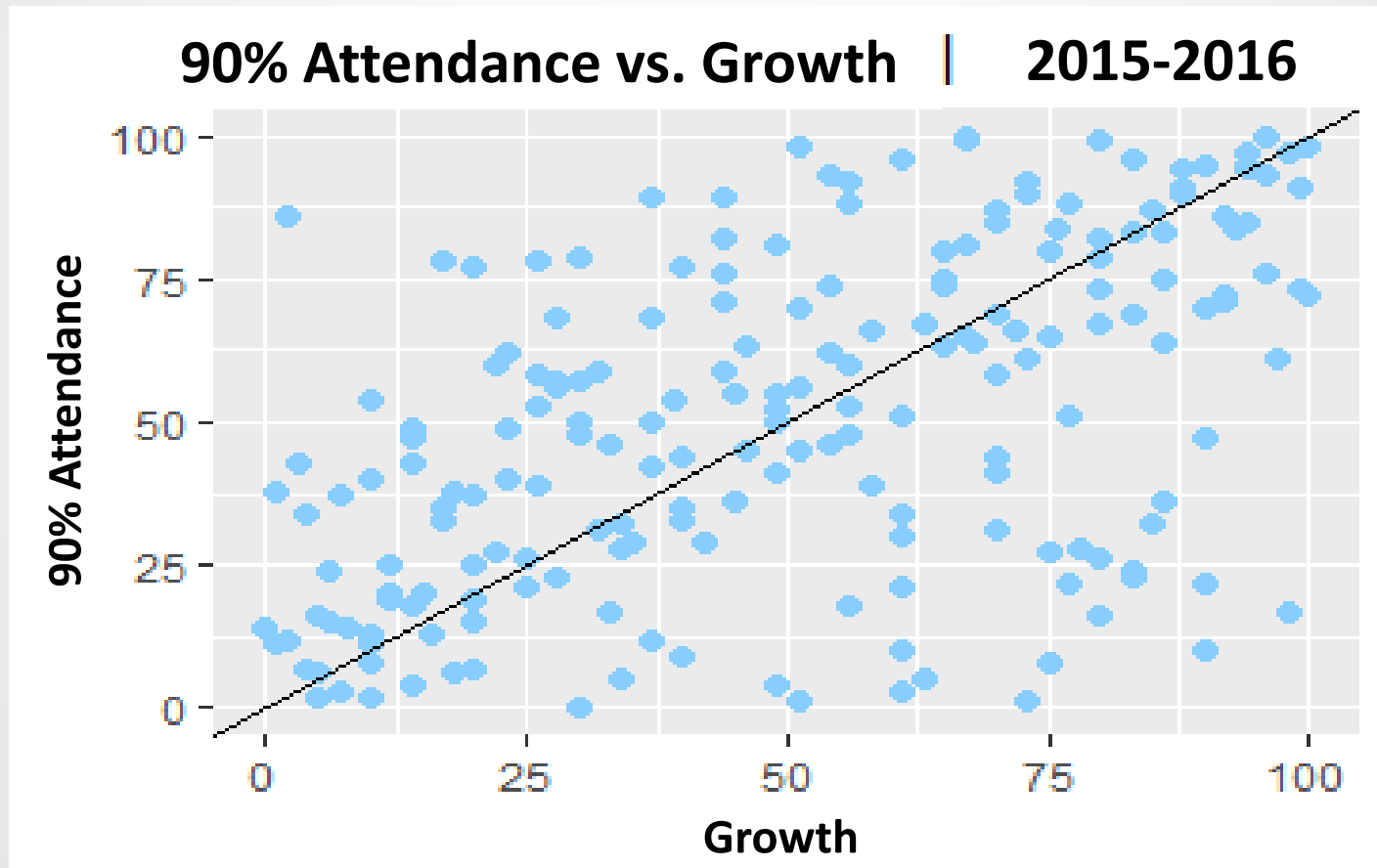
$$7.5 \text{ points} * 0.656 = 4.9 \text{ points}$$





90+ Attendance vs. Growth

This following figure shows how schools perform better on 90+ attendance or growth.





Addressing Chronic Absenteeism: Example Determination

Below is an example of a school's STAR Framework scores for both the 90+ Attendance and Growth metrics for each subgroup.

90+ Attendance Metric	Subgroup	Growth Metric
2.16	All Students	5.35
1.97	American Indian or Alaskan Native	4.26
7.23	Asian	6.85
3.54	Black	5.30
7.18	Hawaiian or Pacific Islander	4.35
3.69	Hispanic	5.40
2.99	More Than One Race	5.20
6.91	White	5.30
1.43	Economically Disadvantaged	4.36
2.96	English Learners	5.78
3.57	Student With Disabilities	5.09



Attendance Metrics: Overview

To calculate **attendance metrics**, OSSE will address the following issues:

Overall	Should we include attendance records of students who are not of compulsory age ?
	How do we address attendance records that conflict with enrollment periods ?
	How do we treat enrollment days for which schools do not submit attendance data ?
90+ and Growth	Which school(s) is/are held accountable for a student who does not spend the whole year at a particular school?
Growth Only	What is the grade level used as a comparison for students who change grades during the school year?
	How many years of data do we use to calculate the attendance growth metric?



Attendance Metrics: Business Rules

In determining if we should include attendance records of students **who are not of compulsory age**, OSSE recommends:

- **Recommendation:** Include all attendance records regardless of age
- **Rationale:**
 - LEAs are funded for students regardless of compulsory age status
 - Easy to explain to the public
 - Aligned with the accountability goal to focus on all students
- **Trade offs:** *Equity Reports* use attendance records from compulsory aged students to calculate ISA



Attendance Metrics: Business Rules

- **Other options considered:**
 - Include attendance records of students who were of compulsory age at the beginning of the school year
 - Include attendance records of compulsory aged students by considering the student's birth date and date of attendance record
- **Rationale for not choosing these options:** Does not reflect the attendance of all students for whom schools are providing education services



Attendance Metrics: Business Rules

In determining how we address attendance records that **conflict with enrollment periods**, OSSE recommends:

- **Recommendation:** Calculate based on attendance records during verified enrollment periods in the demographic certification
- **Rationale:**
 - The verified enrollment period is used for all other public reporting
 - All students in this file have certified demographics, making it possible to break out attendance results by subgroup
 - Aligns with DCPS and PCSB in-seat attendance metrics
- **Trade offs:** Using only enrollment begin- and end-dates may exclude valid attendance records



Attendance Metrics: Business Rules

- **Other option considered:** Calculate based on attendance records, including attendance records that were sent outside of the enrollment period
- **Rationale for not choosing these options:**
 - Data are not currently verified by LEAs
 - Does not align with DCPS and PCSB in-seat attendance metrics



Attendance Metrics: Business Rules

In determining how we treat enrollment days for **schools that do not submit attendance data**, OSSE recommends:

- **Recommendation:** Count missing data as absences
- **Rationale:**
 - Prevents masking low attendance by not submitting data
 - Encourages schools to submit accurate enrollment and attendance data
 - Qlik already flags errors if included in attendance but not enrolled
 - Easy to explain to parents and the public
- **Trade offs:**
 - Change in how data have been previously reported, so historical data will not align with this new calculation
 - Schools that do not submit data will be disproportionately affected



Attendance Metrics: Business Rules

- **Other option considered:**
 - Count missing data as being in attendance
 - Omit data from numerator and denominator
- **Rationale for not choosing these options:**
 - Masks low attendance by omitting data
 - Does not address data management issues



90+ Attendance and Growth: Business Rules

In determining which **school(s) is/are held accountable** for a student who does not spend the whole year at a particular school, OSSE recommends:

- **Recommendation:** All schools at which the student is enrolled (stage 5) for at least 10 days are held accountable for that student's time at their school
- **Rationale:**
 - All schools have the incentive to encourage high attendance
 - Schools are held accountable for the time that a student was enrolled in their school
- **Trade offs:**
 - One student could affect the metrics of multiple schools
 - Student's growth may have large fluctuations due to variability in number of days of enrollment
 - Data for a partial school year is weighted equally to that of a whole school year of attendance



90+ Attendance and Growth: Business Rules

- **Other option considered:**
 - All schools that the student attends are held accountable for that student's time at their school, but the student is weighted according to the portion of the year they were enrolled at the school out of all of their time in any DC school
 - The school where the student spent the most number of days is held accountable for that student's attendance at their school, as long as they were in attendance for at least 10 days
- **Rationale for not choosing these options:** Does not hold each school accountable for the entire time a student is enrolled



Growth: Business Rules

In determining the grade level used as a comparison for students who change grades during the school year, OSSE recommends:

- **Recommendation:** Compare students to other students in the same grade based on their grade as of the year-end demographic certification (consistent with assessment grade)
- **Rationale:**
 - Data is certified by LEAs
 - Data is based on the grade the student was enrolled in for the majority of the year
- **Trade offs:** None
- **Other option considered:** Compare students to other students in the same grade based on their grade as of the enrollment audit.
- **Rationale for not choosing these options:** Inconsistent with year-end and testing grade level



Growth: Business Rules

In determining how many years of data we use to calculate the attendance growth metric, OSSE recommends:

- **Recommendation:** Compare attendance only to the previous year
- **Rationale:**
 - Using median growth percentile would reduce individual fluctuations among subgroup members
 - Rewards schools for making annual progress in attendance
 - Multiple years of prior data are not currently available for all students
 - Consistent with PARCC Median Growth Percentile (MGP) determination
- **Trade offs:** Data may fluctuate slightly from year to year



Growth: Business Rules

- **Other option considered:** Compare attendance to the previous two or three years
- **Rationale for not choosing these options:**
 - Multiple years of prior data are not currently available
 - Requiring multiple years of data would drop more students due to lack of data
 - Inconsistent with PARCC Median Growth Percentile (MGP) determination



Attendance Metrics: Summary

Overall	Include students who are not of compulsory age ?	Include all attendance records regardless of age
	How to address records that conflict with enrollment periods ?	Calculate based on verified attendance records
	How do we treat missing attendance data ?	Count missing data as absences
90+ and Growth	Which school(s) is/are held accountable for a student who transfers?	All schools at which the student is enrolled (stage 5) for at least 10 days
Growth Only	What is the grade level used as a comparison for students who change grades during the school year?	Compare students to other students in the same grade based on of the year-end demographic certification
	How many years of data are used to calculate attendance growth?	Compare attendance only to the previous year



Deep Dive:

Re-Enrollment



Re-enrollment: Overview

- Students and families choosing to return to their school each year is one signal of **positive school environment**.
- The **re-enrollment metric** is defined as the percentage of students who are able to re-enroll in the same school and actually choose to re-enroll.
- The metric is calculated based on the **percentage of students enrolled in year one who re-enroll in year two**, excluding students enrolled in terminal grades.
- A student must be enrolled for **at least ten days** to be included in this metric.
- Students will be excluded from this metric using the **same business rules in ACGR**, including students who move out of state, become wards of the state, or pass away.



Re-Enrollment: Hypothetical Point Calculation

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

Hypothetical Score:

Floor: 70%

Target: 89%

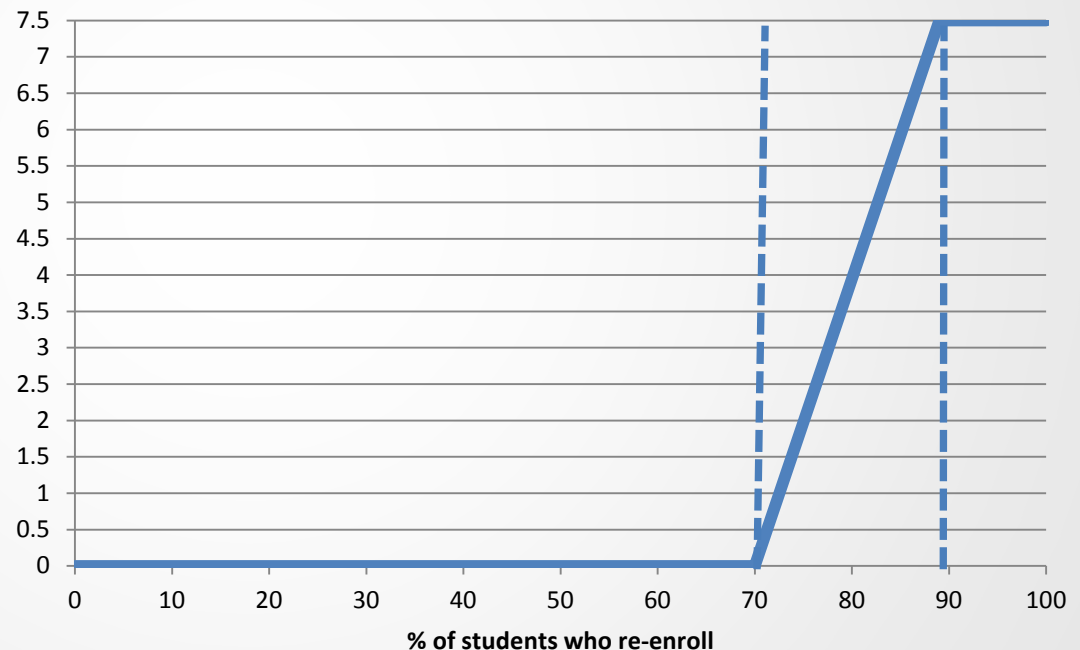
School score: 85% student re-enrollment rate

$$7.5 \text{ points} * \frac{(85 - 70)}{(89 - 70)} =$$

$$7.5 \text{ points} * \frac{15}{19} =$$

$$7.5 \text{ points} * 0.789 = 5.92 \text{ points}$$

Re-Enrollment





Re-enrollment: Overview

To calculate the **re-enrollment metric**, OSSE will address the following issues:

- Which **enrollment dates** are used to determine re-enrollment?
- Are **students who repeat a grade** counted toward re-enrollment?
- How is **adding a grade** to a school's grade configuration handled?
- How is **dropping a grade** from a school's configuration handled?
- Are students who **move within the state but away from their in-boundary** school (or other school) included in the student universe?
- Are students with **involuntary exits** included in the student universe?



Re-enrollment: Business Rules

In determining which **enrollment dates** are used to determine re-enrollment, OSSE recommends:

- **Recommendation:** Ever-enrolled in year one to re-enrolled in the year two enrollment audit
- **Rationale:**
 - Verified student information
 - Encourages schools to work on retention year-round and not just over the summer
 - Includes all students' attended schools
 - Accounts for school climate by including more types of transfers than just beginning-of-year school choice
- **Trade offs:** Schools with high residential mobility may rank lower on this metric as they have many students who enter and leave their schools, which is outside of their control



Re-enrollment: Business Rules

- **Other options considered:**
 - Audit-to-audit
 - Audit or first enrollment, if entering DC system after audit, to audit
 - End-of-year to audit
 - First-enrollment-ever to first-enrollment-ever
 - Randomly selected date
- **Rationale for not choosing:**
 - May not account for year-round retention
 - Did not reward schools who receive and retain a student mid-year



Re-enrollment: Business Rules

In determining whether students who **repeat a grade** are counted toward re-enrollment, OSSE recommends:

- **Recommendation:** Students who repeat a grade should be counted toward re-enrollment
- **Rationale:** Reflective of school environment in that students who repeat a grade still re-enroll at the same school
- **Trade offs:** None
- **Other options considered:** Remove students who repeat a grade
- **Rationale for not choosing:** Does not give schools credit for students who choose to re-enroll in the same school for the repeated grade



Re-enrollment: Business Rules

In determining how to handle **adding a grade** to a school's configuration, OSSE recommends:

- **Recommendation:** Include all currently enrolled students who are eligible to move into the newly added grade(s)
- **Rationale:** Aligns with the goal of the metric as these students still have the choice to re-enroll in the current school
- **Trade offs:**
 - Newly added grades could have lower capacity, so not all students would be able to re-enroll
 - Parents may opt to send their child to a school that has a more established track record with the newly added grade



Re-enrollment: Business Rules

- **Other options considered:** Do not include the newly added grade(s) in the first years of operation
- **Rationale for not choosing:** Does not give schools credit for students who choose to re-enroll in the same school for the newly added grade(s)



Re-enrollment: Business Rules

In determining how to handle **dropping a terminal grade** from a school's configuration, OSSE recommends:

- **Recommendation:** Use the new terminal grade to determine which students are included for re-enrollment
- **Rationale:** As long as students have the option for re-enrollment at a school, they should be included in the metric
- **Trade offs:** If parents know that their grade will be discontinued or that their student may not be able to stay in school as long as originally planned, they may be more likely to transfer
- **Other options considered:** Use the old terminal grade to determine which students are included for re-enrollment
- **Rationale for not choosing:** If students do not have the option for re-enrollment in a school, they should not be included in the metric



Re-enrollment: Business Rules

In determining whether **students who move within state but away from their in-boundary school** included in the student universe, OSSE recommends:

- **Recommendation:** Include students who move (change residential address) within DC
- **Rationale:**
 - Encourages schools to retain students regardless of mobility, which provides stability to students
 - OSSE lacks information to determine a student's in-boundary school
- **Trade offs:**
 - Does not account for research that identifies geography as a key school choice factor
 - Does not consider that students may no longer be eligible to attend their former in-boundary school
 - Penalizes schools that educate students with high residential mobility



Re-enrollment: Business Rules

- **Other options considered:**
 - Exclude students who move from one ward to another from student universe
 - Exclude students attending an in-boundary school from student universe if their in-boundary school changes
- **Rationale for not choosing:** Data limitations do not currently provide information on reason for changes in school enrollment; however, OSSE will continue to explore options to account for this reason students do not re-enroll



Re-enrollment: Business Rules

In determining whether students with **involuntary exits** included in the student universe, OSSE recommends:

- **Recommendation:** Include students with involuntary exits
- **Rationale:**
 - Schools have incentives to resolve immunization and residency verifications before enrollment audit
 - Schools are held accountable for school environment, which influences disciplinary and attendance-based reasons for exit
 - More students are accounted for in metric
- **Trade offs:** Schools may be held accountable for some exit reasons over which they have minimal control



Re-enrollment: Business Rules

- **Other options considered:** Exclude students with involuntary exits from student universe
- **Rationale for not choosing:** Does not hold schools accountable for their school environments



Re-enrollment Summary

Decision	Recommendation
Which enrollment dates are used to determine re-enrollment	Ever enrolled (year one) and enrollment audit (year two)
Whether to include students who repeat a grade	Count towards re-enrollment
How to address when schools add a grade	Include students eligible to move into newly added grade(s)
How to address when schools drop a terminal grade	Redefine the terminal grade to reflect the new configuration
How to address students who move residences within DC	Include in the metric
How to address students with involuntary exits	Include in the metric



Questions and Next Steps



Ways to Stay Engaged

- Provide feedback on today's session by **COB July 26**.
- 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.