Annual Measurable Objectives (AMOs)

Clarification of DC's AMO calculations

Introduction

Annual Measurable Objectives (AMOs) are unique yearly targets in reading and mathematics for each subgroup, school and district, as described in DC's Elementary and Secondary Education Act (ESEA) Flexibility Request. The purpose of this document is to clarify the calculations the Office of the State Superintendent of Education (OSSE) uses to set AMOs, particularly in circumstances where a given school or subgroup did not exist in the default AMO baseline year (SY2010-11) or did not reach the threshold for AMO setting in the baseline year, which is 25 or more students. These processes must be approved by the U.S. Department of Education.
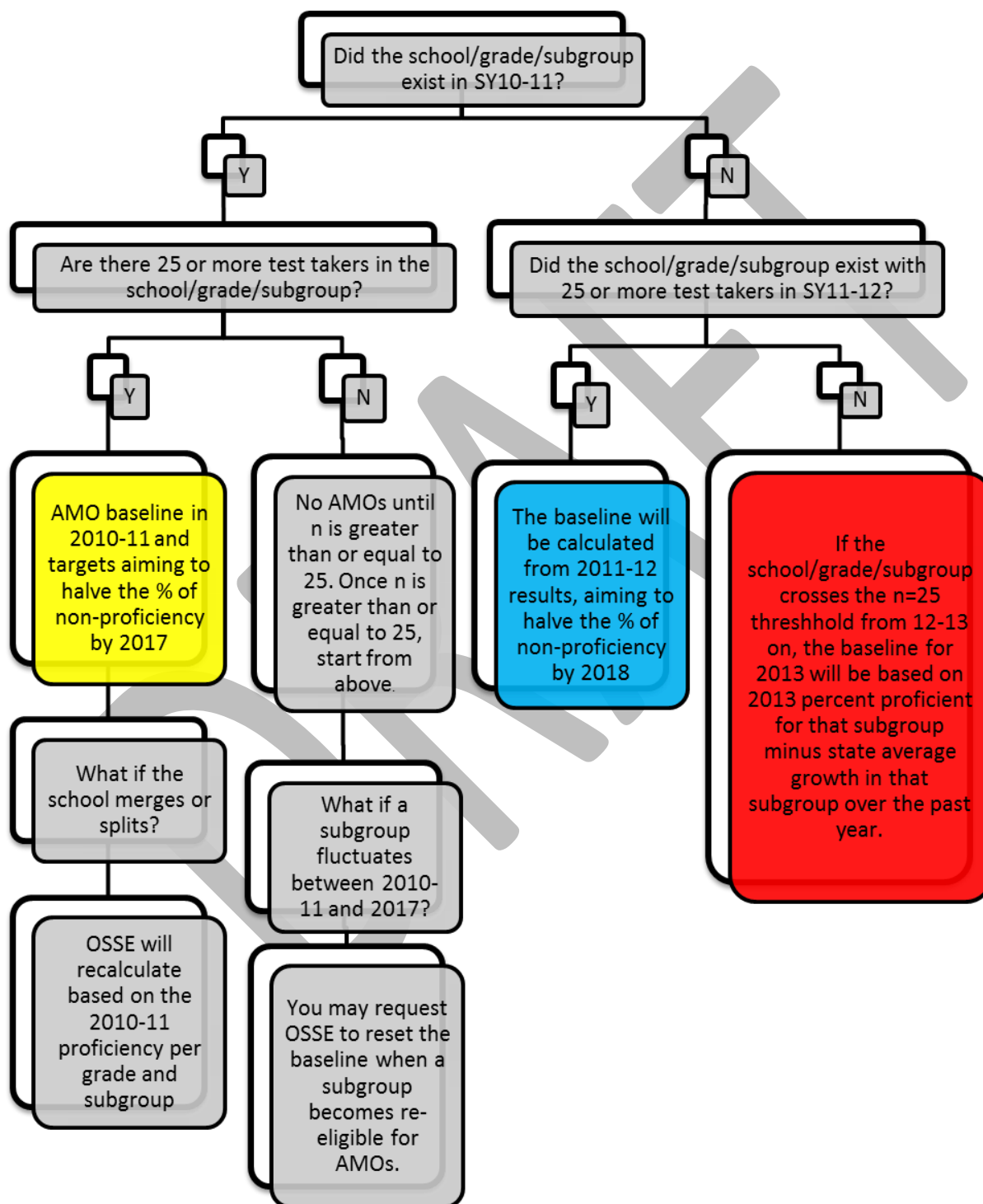
Contents

AMO Decision Tree:

The calculations highlighted in yellow, blue and red below are referenced and explained in detail on pages 3-5.

Did the school/grade/subgroup exist in SY10-11?

Y

Are there 25 or more test takers in the school/grade/subgroup?

Y

AMO baseline in 2010-11 and targets aiming to halve the % of non-proficiency by 2017

What if the school merges or splits?

OSSE will recalculate based on the 2010-11 proficiency per grade and subgroup

N

No AMOs until n is greater than or equal to 25. Once n is greater than or equal to 25, start from above.

What if a subgroup fluctuates between 2010-11 and 2017?

You may request OSSE to reset the baseline when a subgroup becomes re-eligible for AMOs.

N

Did the school/grade/subgroup exist with 25 or more test takers in SY11-12?

Y

The baseline will be calculated from 2011-12 results, aiming to halve the % of non-proficiency by 2018

N

If the school/grade/subgroup crosses the n=25 threshhold from 12-13 on, the baseline for 2013 will be based on 2013 percent proficient for that subgroup minus state average growth in that subgroup over the past year.

Details on AMO Calculations

Note on n-size: In the calculation of AMOs for population subgroups, AMOs are set only if there are 25 or more test takers in the particular subgroup of the school or LEA; Monitored students don't count towards the 25, but only count in calculations when the school has already met the 25 student threshold.

Yellow Calculation, Baseline SY2010-2011: How AMOs are calculated when CAS 2011 n ≥25

This is the calculation shown in yellow on the decision tree. AMOs are set in annual equal increments toward a goal of halving the percentage of test takers in the "all students" group and in each subgroup not proficient by 2017 assessment performance.

Example: CAS 2011 n ≥ 25

A school had 43.4% proficiency in math in 2011. So, 56.6% of test takers are not proficient. Halving 56.6% not proficient in six years would mean reducing the proportion of not proficient students by 28.3 percent by 2017, an incremental change of -4.7 percentage points per year. Conversely, it would mean increasing proficiency from 43.4% to 71.6% by 2017, +4.7 percentage points per year.

SCHOOL INFORMATION	BASELINE		
Subgroup	Math Tested 2011	Math Prof 2011	Math Baseline
All Students	500	43.4%	43.4%

How We Develop AMO Targets:

1. Calculate proficiency gap: 100 – 43.4 = 56.6 non-proficiency
2. Divide in half to get targeted 6 year decrease in non-proficiency: 56.6 / 2 = 28.3
3. Divide by 6 to get annual targeted decrease in non-proficiency: 28.3 / 6 = 4.7

Targets for percent of students proficient in Math at this school:

Math Baseline	Target 2012	Target 2013	Target 2014	Target 2015	Target 2016	Target 2017
43.4%	48.1%	52.8%	57.5%	62.2%	66.9%	71.6%

What would this mean if the school subsequently had 45.9% of students proficient in math in 2012? The school would not meet its AMO in that category.

2012 DC CAS			
Math Tested 2012	Math Prof 2012	Math Target 2012	Met Math AMO 2012
525	45.9%	48.1%	NO

Blue Calculation, Baseline SY2011-2012: How AMOs are calculated when n<25 for CAS 2011 and n≥25 for CAS 2012

This is the calculation shown in blue on the decision tree. If either of the following conditions listed are met, we calculate 6-year AMOs from the current year and truncate the last target year, so that the schools have the same accountability conditions as schools with a baseline in 2011:

    A.   A school subgroup was less than 25 students for SY2010-2011;

    B.   The school is new and did not have SY2010-2011 results.

Example: CAS 2012 n ≥ 25, CAS 2011 n < 25

An LEA with 20 test takers in the "Race: African American" subgroup for Math Tested 2011 will not have a Math Performance 2011 Metric nor a Math Baseline reported, because the LEA did not meet the 25 or more students in the subgroup threshold. The Math Baseline is determined by 2012 DC CAS Math Performance for the subgroup, when the number of African American test takers rises above 25 to 50 in SY2011-2012. Math Baseline Proficiency of 40% has 60% of "Race: African American" test takers not proficient. Halving the 60% not proficient in six years would mean reducing the proportion of not proficient students by 35 percent by 2017, an incremental change of -5.0 percentage points per year. Conversely, it would mean increasing proficiency from 40.0% to 65.0% by 2017, +5.0 percentage points per year.

SCHOOL INFORMATION	BASELINE		
Subgroup	Math Tested 2011	Math Prof 2011	Math Baseline
Race: African American	20	NA	NA

SCHOOL INFORMATION	2012 DC CAS		
Subgroup	Math Tested 2012	Math Prof 2012	Math Baseline
Race: African American	50	40%	40%

How We Develop AMO Targets:

1. Calculate proficiency gap: 100 – 40 = 60 non-proficiency
2. Divide in half to get targeted 6 year decrease in non-proficiency: 60 / 2 = 30.0
3. Divide by 6 to get annual targeted decrease in non-proficiency: 30 / 6 = 5.0

Targets for percent of students proficient in Math at this school:

Math Baseline	Target 2012	Target 2013	Target 2014	Target 2015	Target 2016	Target 2017
40.0%	NA	45.0%	50.0%	55.0%	60.0%	65.0%

What would this mean if the school subsequently had 47.0% of students proficient in math in 2012? The school would meet its AMO in that category.

2013 DC CAS			
Math Tested 2012	Math Prof 2013	Math Target 2013	Met Math AMO 2012
55	47%	45%	Yes

Red Calculation, Baseline SY2012-2013: How AMOs are calculated when n<25 for CAS 2011, n<25 for CAS 2012, and n≥25 for CAS 2013

For schools in their first year of CAS in SY2012-2013 or with a subgroup eligible for AMOs for the first time in SY2012-2013, we would calculate 1st Year AMO Baseline and 1st Year AMO Target using the following methodology:

- 1st Year AMO Baseline = 2013 percent proficient for that subgroup - the state subject average growth for that subgroup from 2012 to 2013
- 1st Year AMO Target = AMO Baseline + (((1 – AMO Baseline)/2)/6)
- AMOs for subsequent years would be set using the school's results from 2013 as a baseline.

Example: Baseline SY2012-2013

A school has a subgroup of African-American students greater than 25 students for the first time in 2013. 40% of these students score proficient or higher on the 2013 CAS. The Math Baseline is determined by taking the Math Proficiency for the 2013 CAS (40%) and subtracting the statewide average growth in Math from the 2012 CAS to the 2013 CAS for that subgroup (3.6%). A Math Baseline Proficiency of 36.4% means that 63.6% of "Race: African American" test takers are not proficient. Halving the 63.6% not proficient in six years would mean reducing the proportion of not proficient students by 31.8 percent, an incremental change of -5.0 percentage points per year. Conversely, it would mean increasing proficiency from 40.0% to 65.0% over 6 years, +5.0 percentage points per year.

What would this mean if the school had 40.0% of students proficient in math in 2013? The school would not meet its AMO in that category.

2013 DC CAS			
Math Tested 2012	**Math Prof 2013**	**Math Target 2013**	**Met Math AMO 2013**
55	40%	41.7%	NO

How We Develop AMO Targets:

1. Calculate proficiency gap: 100 – 40 = 60 non-proficient
2. 1st Year AMO Baseline = 40 – 3.6 = 36.4
3. 1st Year AMO Target = 36.4 + (((1 – 36.4)/2)/6) = 36.4 + ((63.6 / 2)/6) = 36.4 + (31.8/6) = 36.4 + 5.30 = 41.7
4. Subsequent years' targets calculated using 2013 school performance as a baseline with a 6 year timeline.
   a. Calculate proficiency gap: 100 – 40 = 60 non-proficient
   b. Divide in half to get targeted 6 year decrease in non-proficiency: 60 / 2 = 30.0
   c. Divide by 6 to get annual targeted decrease in non-proficiency: 30 / 6 = 5.0

Targets for percent of students proficient in Math at this school:

Math Baseline 2013	Target 2013	Math Baseline 2014	Target 2014	Target 2015	Target 2016	Target 2017
36.4	41.7%	40%	45%	50%	55%	60%