

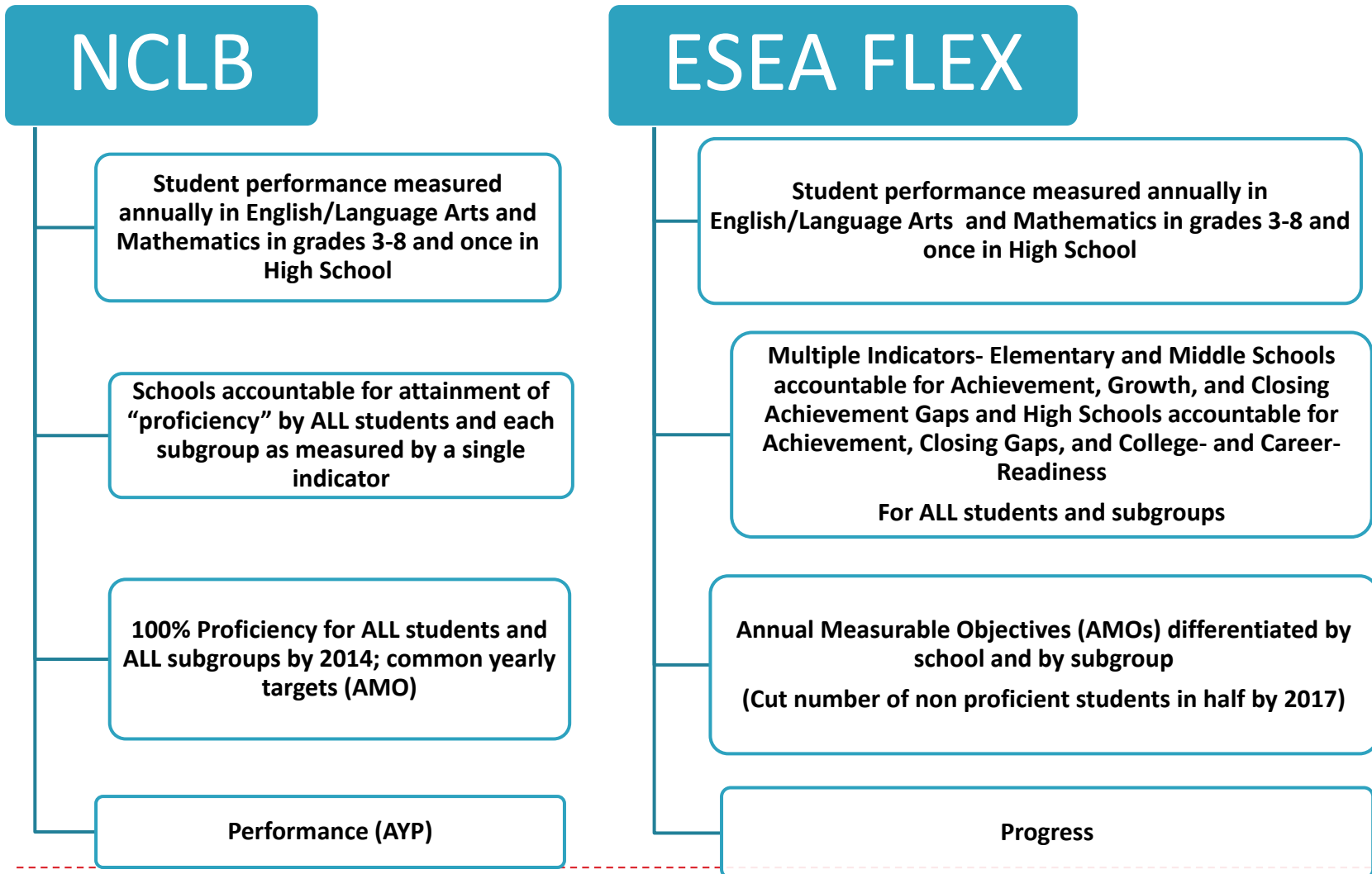


ESEA Flexibility: Comprehensive Summary – School Progress Index



December 6, 2012

Accountability: Changing the Model



Maryland Accountability Program

ESEA Principle 2: State-Developed Differentiated Recognition, Accountability, and Support

▶ School Progress

- ▶ Reduce by half the percentage of students in the “all students” group and in each subgroup who are not proficient within six years

▶ School Progress Index

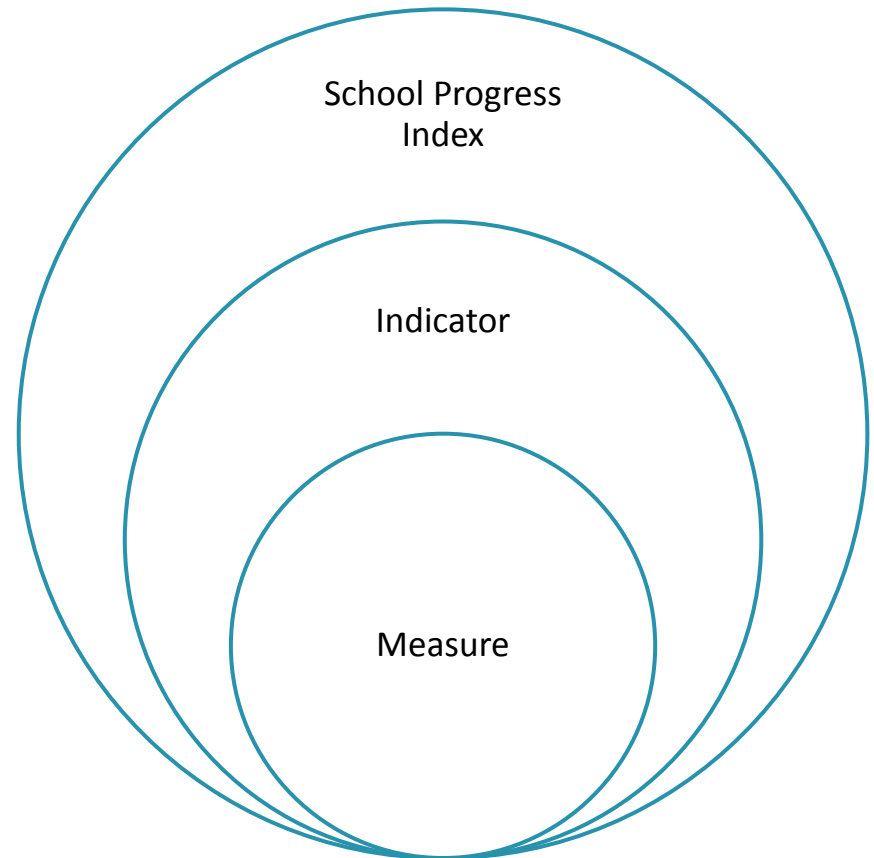
- ▶ Achievement
- ▶ Growth
- ▶ Gap Reduction
- ▶ College & Career Readiness

▶ Differentiated Recognition

- ▶ Priority Schools
- ▶ Focus Schools
- ▶ Reward Schools

What is the School Progress Index?

- ▶ Continuous scale based on indicators of adequacy:
 - ▶ Achievement
 - ▶ Growth
 - ▶ Gap Reduction
 - ▶ College & Career Readiness
- ▶ Stakeholder Input (Standard Setting):
 - ▶ Each indicator is individually weighted based on importance in assessing overall school progress
 - ▶ Measures within indicators individually weighted
- ▶ Measured at the Elementary, Middle, and High School Levels (span)
 - ▶ Combined schools with multiple span codes are measured at each level and then combined to create a single score



Maryland School Progress Index

Revised
12/4/12

Grades PreK-8

Meeting
Performance
Targets
(AMO)

Achievement*

30%

- 33.3%- Mathematics Proficiency (MSA)
- 33.3%- Reading Proficiency (MSA)
- 33.3%- Science Proficiency (MSA)

Gap*

40%

Gap between *lowest* subgroup and *highest* subgroup within a school:

- 33.3%- Mathematics Proficiency (MSA)
- 33.3%- Reading Proficiency (MSA)
- 33.3%- Science Proficiency (MSA)

Growth*

30%

Percent of students making one year's growth:

- 50%- Mathematics Proficiency (MSA)
- 50%- Reading Proficiency (MSA)

Grades 9-12

Meeting
Performance
Targets
(AMO)

Achievement*

40%

- 33.3%- Mathematics Proficiency (Algebra/ Data Analysis HSA)
- 33.3%- English Proficiency (English HSA)
- 33.3%- Science Proficiency (Biology HSA)

Gap*

40%

Gap between *lowest* subgroup and *highest* subgroup within a school:

- 20%- Mathematics Proficiency (Algebra/ Data Analysis HSA)
- 20%- English Proficiency (English HSA)
- 20%- Science Proficiency (Biology HSA)
- 20%- Cohort Graduation Rate
- 20%- Cohort Dropout Rate

College-and Career-Readiness*

20%

- 60%- Cohort Graduation rate
- 40%- College and Career Preparation (CCP)
 - Advanced Placement or International Baccalaureate
 - Career and Technology Education (CTE) Concentrators
 - Enrollment in College (2-Year, 4-year, and/or Technical School)

*ALT-MSA is included in the index component

AMOs

- ▶ Within the measures for every indicator are AMOs
- ▶ Annual Measureable Objectives (AMO)
 - ▶ Performance targets that assess the progress of schools and subgroups
- ▶ Based upon school's performance in prior years
- ▶ 50% reduction in the number of non-adequate students

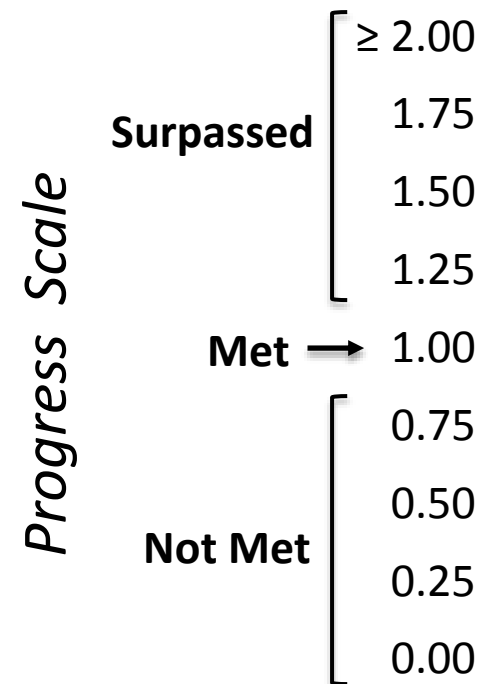
Example of AMOs

2011	2012	2013	2014	2015	2016	2017	Gain/Year
0.00%	8.33%	16.67%	25.00%	33.33%	41.67%	50.00%	8.33%
10.00%	17.50%	25.00%	32.50%	40.00%	47.50%	55.00%	7.50%
20.00%	26.67%	33.33%	40.00%	46.67%	53.33%	60.00%	6.67%
30.00%	35.83%	41.67%	47.50%	53.33%	59.17%	65.00%	5.83%
40.00%	45.00%	50.00%	55.00%	60.00%	65.00%	70.00%	5.00%
50.00%	54.17%	58.33%	62.50%	66.67%	70.83%	75.00%	4.17%
60.00%	63.33%	66.67%	70.00%	73.33%	76.67%	80.00%	3.33%
70.00%	72.50%	75.00%	77.50%	80.00%	82.50%	85.00%	2.50%
80.00%	81.67%	83.33%	85.00%	86.67%	88.33%	90.00%	1.67%
90.00%	90.83%	91.67%	92.50%	93.33%	94.17%	95.00%	0.83%
95.00%	95.42%	95.83%	96.25%	96.67%	97.08%	97.50%	0.42%



Progress Scale

- ▶ Current Year Performance \div AMO
- ▶ Continuous scale
- ▶ ≥ 1 = Met Target





School Progress Index: Elementary and Middle Schools

Indicator: Achievement

- ▶ Percentage of “all students” group scoring proficient or advanced on Maryland standardized assessments progressing toward targets
- ▶ This is about progress, not performance
- ▶ PreK-8
 - ▶ MSA Math Proficiency
 - ▶ MSA Reading Proficiency
 - ▶ MSA Science Proficiency

Achievement Proficiency Population

- ▶ Content areas include Reading, Mathematics, and Science
- ▶ Former AYP student population rules apply
 - ▶ Test Takers meeting the following conditions:
 - ▶ Full Academic Year
 - ▶ LEP Exempt
 - ▶ 1% and 2% Rule for Alt and Mod* assessment contributions
- ▶ With the exception...
 - ▶ Non-participants are included WITHIN the aggregated population as Basic

*For prior year (2011-12) MOD assessments were included- they will not be used for 2012-13 or after

Achievement Proficiency Calculation

Numerator		Denominator			
MSA/ModMSA Advanced, Proficient		MSA, ModMSA Advanced, Proficient, and Basic			
+		+			
AltMSA Advanced, Proficient		AltMSA Advanced, Proficient, and Basic			
		+			
		MSA, ModMSA, AltMSA Nonparticipants			
=		=			
<i>Proficient Count</i>	<i>÷</i>	<i>Member Count</i>	<i>=</i>		<i>Proficiency Percent</i>

- ▶ **Member Count** – Full Academic Year participating students plus the Full Academic Year non-participants students

SPI Calculation Example

Calculations	Achievement			Gap			Growth	
	Math	Read	Sci	Math	Read	Sci	Math	Read
% of Students who Scored Advanced or Proficient	89.24%	93.72%	65.82%	74.55%	86.24%	66.00%	57.04%	89.63%
÷ AMO	87.57%	87.94%	75.48%	74.92%	78.20%	59.20%	74.06%	84.82%
= Measure PSV	1.0191	1.0657	0.8720	0.9951	1.1028	1.1150	0.7702	1.0567
× Proportional Significance	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	50%	50%
= Measure Contribution	0.3397	+ 0.3552	+ 0.2906	0.3317	+ 0.3676	+ 0.3717	0.3851	+ 0.5284
= Indicator PSV	0.9855			1.0709			0.9134	
× Proportional Significance	30%			40%			30%	
= Indicator Contribution	0.2957			+ 0.4284			+ 0.2740	
= School Index Progress Scale Value (PSV)							0.9981	

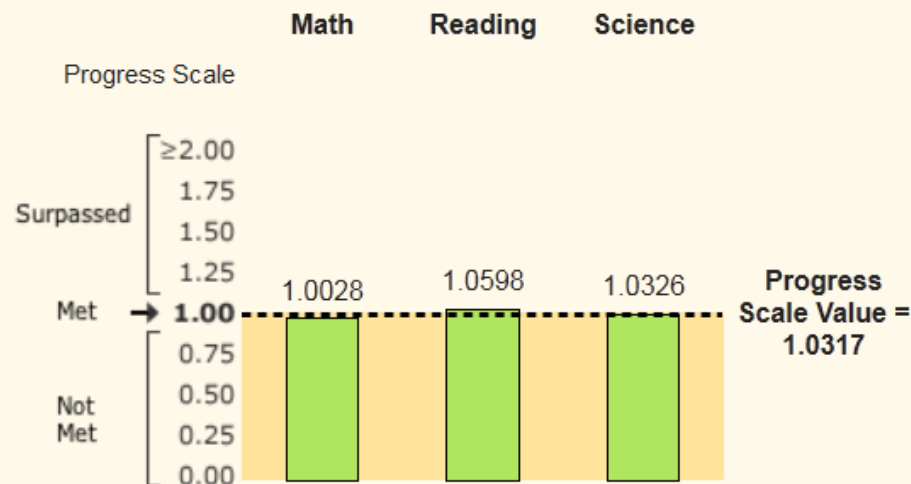
Indicator: Achievement

2012 Elementary Grade Span

Achievement represents the acquisition of the skills and knowledge students have acquired. The Achievement Contribution represents the school's performance for "all students" on the MSA, Mod-MSA, Alt-MSA, or HSA in meeting Math, Reading, and Science proficient and advanced levels relative to the schools' targets.

[Read more about Achievement »](#)

2012 Achievement Proportional Measures



2012 Achievement Calculation	Math	Reading	Science	Combined Indicator
% of Students who Scored Advanced or Proficient	90.38%	94.23%	70.91%	
÷ 2012 Achievement AMOs	90.13%	88.91%	68.67%	
= Achievement Proportional Measure	1.0028	1.0598	1.0326	
× Proportional Significance Assigned to Each Content Area	33.33%	33.33%	33.33%	
= Weighted Average Calculation	0.3343	+ 0.3533	+ 0.3442	= 1.0317
× Proportional Significance Assigned to Achievement in Calculating the School Progress Index				30.00%
= Achievement Contribution Value				0.3095

Indicator: Gap Reduction

- ▶ Decrease in the performance gap between the highest and lowest performing subgroups
- ▶ Gap Score calculated for each subgroup category in each measured area
- ▶ PreK-8
 - ▶ MSA Math Proficiency
 - ▶ MSA Reading Proficiency
 - ▶ MSA Science Proficiency

Gap Reduction Subgroup Categories

- ▶ 10 Subgroup Categories for each measured area
 - ▶ Seven Racial Designations
 - ▶ Hispanic
 - ▶ American Indian or Alaska Native
 - ▶ Asian
 - ▶ Black or African American
 - ▶ Native Hawaiian or Other Pacific Islander
 - ▶ White
 - ▶ Multiple Races
 - ▶ Special Education
 - ▶ Limited English Proficient
 - ▶ Free and Reduced Price Meals

Gap Reduction Proficiency Population

- ▶ Minimum group size (n) = 20

- ▶ Former AYP student population rules apply
 - ▶ Full Academic Year
 - ▶ Special Education Exited
 - ▶ Limited English Proficient Exited

- ▶ Nonparticipants
 - ▶ Are NOT included as Basic within the denominator

Gap Reduction Proficiency Calculation

Numerator

Advanced and
Proficient

=

Proficient Count

Denominator

Advanced, Proficient and
Basic

=

Test Takers

÷

=

***Proficiency
Percent***

- ▶ **Elementary and Middle: MSA/ModMSA/Alt MSA**
- ▶ **Nonparticipants are NOT included in aggregation**

Gap Reduction Calculation

1. Determine population
 2. Identify subgroup populations for each measured area
 3. Remove subgroups with less than 20 students
 4. Determine Percent Proficient for remaining subgroups
 5. Select subgroups with Highest and Lowest Percent Proficient
 6. Compare subgroups with the Highest Percent Proficient for this year, with the Percent Proficient for Prior Year
 7. Calculate difference between the Highest and Lowest Percent Proficient
-
- ▶ In order to provide continuity in comparisons between measures, the complement is used in calculating gap reduction
 - ▶ The complement is 1 minus the current year's gap
 - ▶ Larger values indicate less desirable performance

Gap Reduction Calculation Example

Subgroup	Prior Year			Current Year		
	Prof Count	Test Takers	Prof Rate	Prof Count	Test Takers	Prof Rate
Hispanic	10	11	0.909	18	20	0.900
Asian	7	9	0.778	12	13	NA
Black	93	100	0.930	78	85	0.918
White	95	100	0.950	92	100	0.920
Two or More Races	38	40	0.950	28	30	0.933
SE	18	22	0.818	24	26	0.923
LEP	4	6	0.667	3	4	NA
FaRMS	83	91	0.912	81	89	0.910



SPI Calculation Example

Calculations	Achievement			Gap			Growth	
	Math	Read	Sci	Math	Read	Sci	Math	Read
% of Students who Scored Advanced or Proficient	89.24%	93.72%	65.82%	74.55%	86.24%	66.00%	57.04%	89.63%
÷ AMO	87.57%	87.94%	75.48%	74.92%	78.20%	59.20%	74.06%	84.82%
= Measure PSV	1.0191	1.0657	0.8720	0.9951	1.1028	1.1150	0.7702	1.0567
× Proportional Significance	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	50%	50%
= Measure Contribution	0.3397	+ 0.3552	+ 0.2906	0.3317	+ 0.3676	+ 0.3717	0.3851	+ 0.5284
= Indicator PSV	0.9855			1.0709			0.9134	
× Proportional Significance	30%			40%			30%	
= Indicator Contribution	0.2957			+ 0.4284			+ 0.2740	
= School Index Progress Scale Value (PSV)							0.9981	

Indicator: Gap Reduction

2012 Elementary Grade Span

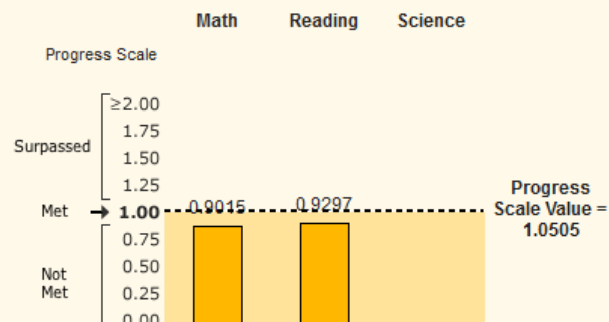
Gap Reduction represents a decrease in the difference between the highest-achieving subgroup and the lowest-achieving subgroup by content area.

The gap for each measure is calculated using the combined result of Alt-MSA, and MSA for elementary and middle schools and HSA, Alt-MSA and MOD-HSA for high schools. High schools also include the results of the 5-Year Adjusted Cohort Graduation Rate and 4-Year Adjusted Cohort Dropout Rate.

For Gap Reduction, larger values indicate less desirable performance. In order to provide continuity in comparisons between measures, the inverse is used in calculating gap reduction. The inverse is 1 minus the current year's gap.

[Read more about Gap Reduction »](#)

2012 Gap Reduction Proportional Measures



2012 Gap Reduction Calculation	Math	Reading	Science	Combined Indicator
2012 Highest Performing Subgroup	White	White		
% of Students Who Scored Adv. or Proficient	92.40%*	95.91%*		
2012 Lowest Performing Subgroup	Special Education	Special Education		
% of Students Who Scored Adv. or Proficient	62.86%	77.14%		
= This Year's Gap	29.54%	18.76%		
This Year's Gap (inverse)	70.46%	81.24%		
÷ 2012 Gap Reduction AMO (inverse)	78.16%	87.38%		
= Measure Progress Scale Values	0.9015	0.9297		
× Proportional Significance Assigned to Each Measure	33.33%	33.33%	33.33%	
= Measure Contribution	0.3005	+ 0.3099		= 1.0505
÷ Compensation for Content Area Without Data				100%
= Adjusted Gap Reduction Weighted Average				1.0505
× Proportional Significance Assigned to Gap Reduction in Calculating the School Progress Index				40.00%
= Gap Reduction Contribution Value				0.3662

* Due to a decrease in this subgroups performance, the 2011 Proficiency Rate was used. [Find out more>>](#)

Indicator: Growth

- ▶ The change in student performance for the “all students” group between the current year and prior year

PreK-8

- ▶ MSA Math Proficiency
- ▶ MSA Reading Proficiency

What is Growth?

- ▶ The change in student performance for an individual student between two or more points in time
 - ▶ Three types of change over time:
 - ▶ No Change
 - ❑ Student maintained expected growth from year to year
 - ❑ Student performed at the same level as the prior year
 - ▶ Improvement
 - ❑ Student exceeded expected growth from year to year
 - ❑ Student's performance increased from prior year
 - ▶ Decline
 - ❑ Student fell short of expected growth from year to year
 - ❑ Student's performance declined from prior year
- ▶ Measure:
 - ▶ Compare student performance over two years using MSA performance levels

Growth Population

1. Individual student
 - ▶ Promoted from prior year
 - ▶ Took the corresponding assessment in both years
 2. Performance Data
 - ▶ Reading Scale Score
 - ▶ Mathematics Scale Score
 - ▶ For MSA, MOD, and AltMSA
 3. For two consecutive years
 - ▶ Current year
 - ▶ Prior year
-
- ▶ Full Academic Year applies
 - ▶ 1% and 2% rules do **NOT** apply
 - ▶ Nonparticipants are **NOT** included within aggregations

Growth Calculation

► Growth Scores

► Each MSA Performance Level:

- *Advanced – highly challenging and exemplary level of achievement indicating outstanding accomplishment*
- *Proficient – realistic and rigorous level of achievement indicating proficiency*
- *Basic – Is a level of achievement indicating that more work is needed to attain proficiency*

is divided into three *Performance Scores*

- Each *Performance Score* corresponds to a range of MSA Scale Scores
- The MSA Score Matrix is used to determine the *Performance Score*

Basic			Proficient			Advanced		
1	2	3	4	5	6	7	8	9

Growth Matrix Development

1. Identify the Highest (HOSS) and Lowest Obtainable Scale Score (LOSS)
2. Identify the Proficient and Advanced cut scores
3. Determine upper levels of Basic and Proficient by subtracting 1 from the Cut Score from the adjacent Performance Level
4. Remaining Scale Scores divided into 3 intervals for each Performance Level

Diagram illustrating the Growth Matrix Development process. The table shows Scale Score ranges for three performance levels: Basic, Proficient, and Advanced. The Lowest Obtainable Scale Score (LOSS) is 240, and the Highest Obtainable Scale Score (HOSS) is 650. The table is divided into three columns: Basic, Proficient, and Advanced. The rows represent different performance levels (3, 4, 5, 6, 7, 8). The scale score ranges are shown in the cells, with the first and last columns (Basic and Advanced) highlighted in yellow to indicate the LOSS and HOSS boundaries.

	Basic			Proficient			Advanced		
3	240-286	287-331	332-378	379-399	400-419	420-440	441-511	512-579	580-650
4	240-284	285-328	329-373	374-392	393-411	412-432	433-504	505-576	577-650
5	240-290	291-340	341-391	392-411	412-431	432-452	453-518	519-584	585-650
6	240-292	293-342	343-395	396-412	413-429	430-446	447-514	515-582	583-650
7	240-292	293-342	343-395	396-413	414-431	432-450	451-516	517-582	583-650
8	240-295	296-350	351-406	407-418	419-430	431-443	444-512	513-581	582-650

Growth MSA Math Score Matrix

MSA Performance Level

Performance Scores

Grade	Basic			Proficient			Advanced		
	1	2	3	4	5	6	7	8	9
3	240-286	287-331	332-378	379-399	400-419	420-440	441-511	512-579	580-650
4	240-284	285-328	329-373	374-392	393-411	412-432	433-504	505-576	577-650
5	240-290	291-340	341-391	392-411	412-431	432-452	453-518	519-584	585-650
6	240-292	293-342	343-395	396-412	413-429	430-446	447-514	515-582	583-650
7	240-292	293-342	343-395	396-413	414-431	432-450	451-516	517-582	583-650
8	240-295	296-350	351-406	407-418	419-430	431-443	444-512	513-581	582-650

MSA Scale Scores

Growth Calculation for Individual Students

▶ Example 1 – MSA Math

Student	School Year	Grade	Scale Score	Performance Score
Winnie	2009-2010	4	524	8
Winnie	2010-2011	5	568	8

▶ MSA Math Score Matrix

Grade	Advanced		
	7	8	9
4	433-504	505-576	577-650
5	453-518	519-584	585-650

▶ Growth Score Calculation:

$$\begin{array}{ccccc}
 2011 & & 2010 & & \\
 \text{Performance Score} & & \text{Performance Score} & & \text{Growth Score} \\
 8 & - & 8 & = & 0
 \end{array}$$

- ▶ Student maintained expected growth from year to year
- ▶ Student performed at the same level as the prior year

Growth Calculation for Individual Students

▶ Example 2 – MSA Math

Student	School Year	Grade	Scale Score	Performance Score
Robin	2009-2010	5	410	4
Robin	2010-2011	6	446	6

▶ MSA Math Score Matrix

Grade	Proficient		
	4	5	6
5	392-411	412-431	432-452
6	396-412	413-429	430-446

▶ Growth Score Calculation:

$$\begin{array}{ccccccc}
 & 2011 & & 2010 & & & \\
 & \text{Performance Score} & & \text{Performance Score} & & & \text{Growth Score} \\
 6 & & - & 4 & & = & 2
 \end{array}$$

- ▶ Student exceeded expected growth from year to year
- ▶ Student's performance increased from prior year

Growth Calculation for Individual Students

▶ Example 3 – MSA Math

Student	School Year	Grade	Scale Score	Performance Score
Eeyore	2009-2010	6	358	3
Eeyore	2010-2011	7	304	2

▶ MSA Math Score Matrix

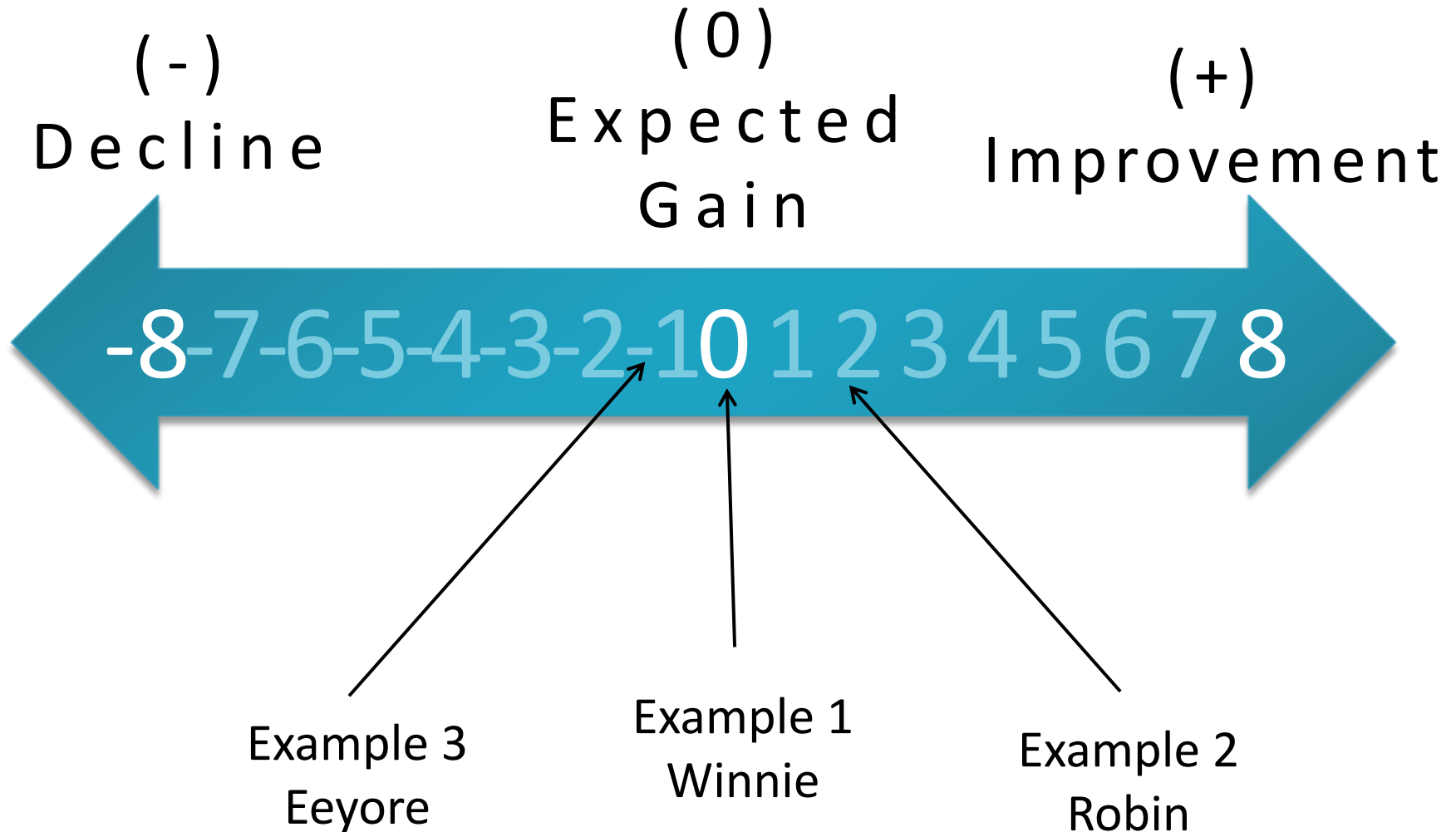
Grade	Basic		
	1	2	3
6	240-292	293-342	343-395
7	240-292	293-342	343-395

▶ Growth Score Calculation:

$$\begin{array}{ccccccc}
 & 2011 & & 2010 & & & \\
 & \text{Performance Score} & & \text{Performance Score} & & & \text{Growth Score} \\
 & 2 & - & 3 & = & & -1
 \end{array}$$

- ▶ Student fell short of expected growth from year to year
- ▶ Student's performance declined from prior year

Growth Score Continuum



Growth Rate

- ▶ Sum of all students whose performance was equal to or better than the previous year by the total number of students

Student	Growth Score	Category
Winnie	0	No Change
Robin	2	Improvement
Eeyore	-1	Decline

$$\frac{\text{Counts of students at} \\ \text{No Change and Improvement categories}}{\text{Decline + No Change + Improvement}} = \text{Growth Rate}$$

$$\frac{1 + 1}{1 + 1 + 1} = \frac{2}{3} = 66.7\%$$



SPI Calculation Example

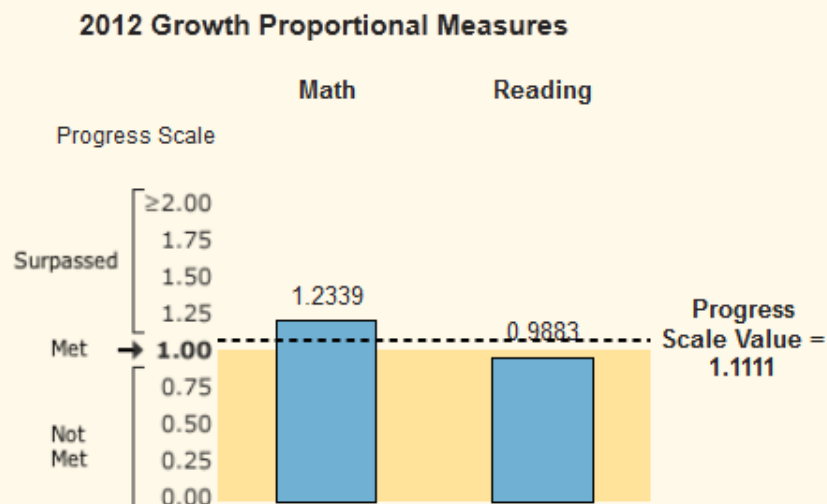
Calculations	Achievement			Gap			Growth	
	Math	Read	Sci	Math	Read	Sci	Math	Read
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= Measure PSV	1.0191	1.0657	0.8720	0.9951	1.1028	1.1150	0.7702	1.0567
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= Measure Contribution	0.3397	+ 0.3552	+ 0.2906	0.3317	+ 0.3676	+ 0.3717	0.3851	+ 0.5284
= Indicator PSV	0.9855			1.0709			0.9134	
× Proportional Significance	30%			40%			30%	
= Indicator Contribution	0.2957			+ 0.4284			+ 0.2740	
= School Index Progress Scale Value (PSV)								0.9981

Indicator: Growth

2012 Elementary Grade Span

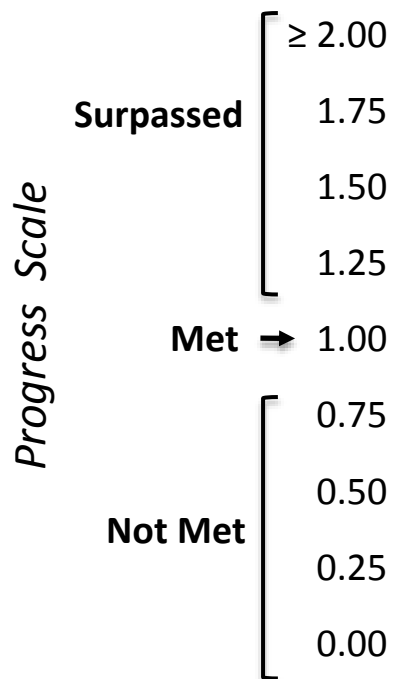
The Growth Indicator for Elementary and Middle schools measures student progress from one year to the next in Mathematics and English/Language Arts. A Growth Rate is calculated by dividing the count of all students whose performance was equal to or better than the previous year by the total number of students.

[Read more about Growth »](#)



2012 Growth Calculation	Math	Reading	Combined Indicator
# of Students in "Same" or "Improve" Categories	92	110	
÷ Total Students	123	123	
= 2012 Growth Rate	74.80%	89.43%	
÷ 2012 Growth AMOs	60.62%	90.49%	
= Growth Proportional Measure	1.2339	0.9883	
× Proportional Significance Assigned to Each Content Area	50%	50%	
= Weighted Average Calculation	0.6170	+ 0.4941	= 1.1111
× Proportional Significance Assigned to Growth in Calculating the School Progress Index			30.00%
= Growth Contribution Value			0.3333

SPI Summary Example



Calculation	Achievement	Gap	Growth
<i>Indicator Progress Scale Value</i>	<i>0.9855</i>	<i>1.0709</i>	<i>0.9134</i>
× Proportional Significance	30%	40%	30%
= <i>Indicator Contribution</i>	<i>0.2957</i>	<i>+ 0.4284</i>	<i>+ 0.2740</i>
= <i>School Index Progress Scale Value</i>			0.9981

2012 School Progress Index (SPI)

The School Progress Index and the resulting Strand classification help identify schools for intervention, support, and recognition depending on their progress.

The School Progress Index evaluates schools on indicators of Achievement, Growth, and Gap Reduction for elementary and middle schools, and Achievement, Gap, and College- and Career-Readiness for high schools. The School Progress Index is compensatory so that a low value on one indicator can be balanced by a high value on another indicator.

An SPI Value is calculated for each grade span (elementary, middle, and high school) based on the school's performance on the Indicators. If a school serves students in multiple grade spans, the overall SPI for that school is calculated based on the SPI for each grade span weighted by the population in each grade span.

[More about the School Progress Index »](#)

Your School's 2012 SPI

Your School Progress Index for Grades 3–5

Your school is in **Strand 2**. [More About Strands »](#)

Progress Scale

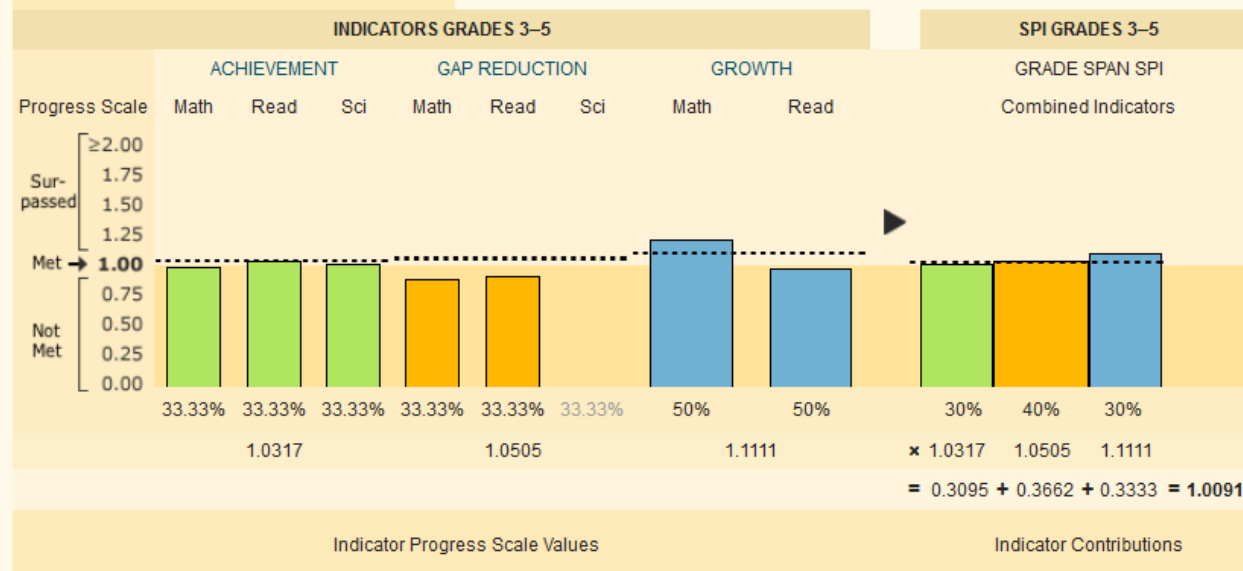
≥ 2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0.00



SPI
Gr. 3–5
= 1.0091

Grade Span
Grades 3–5

Elementary School Grades 3–5

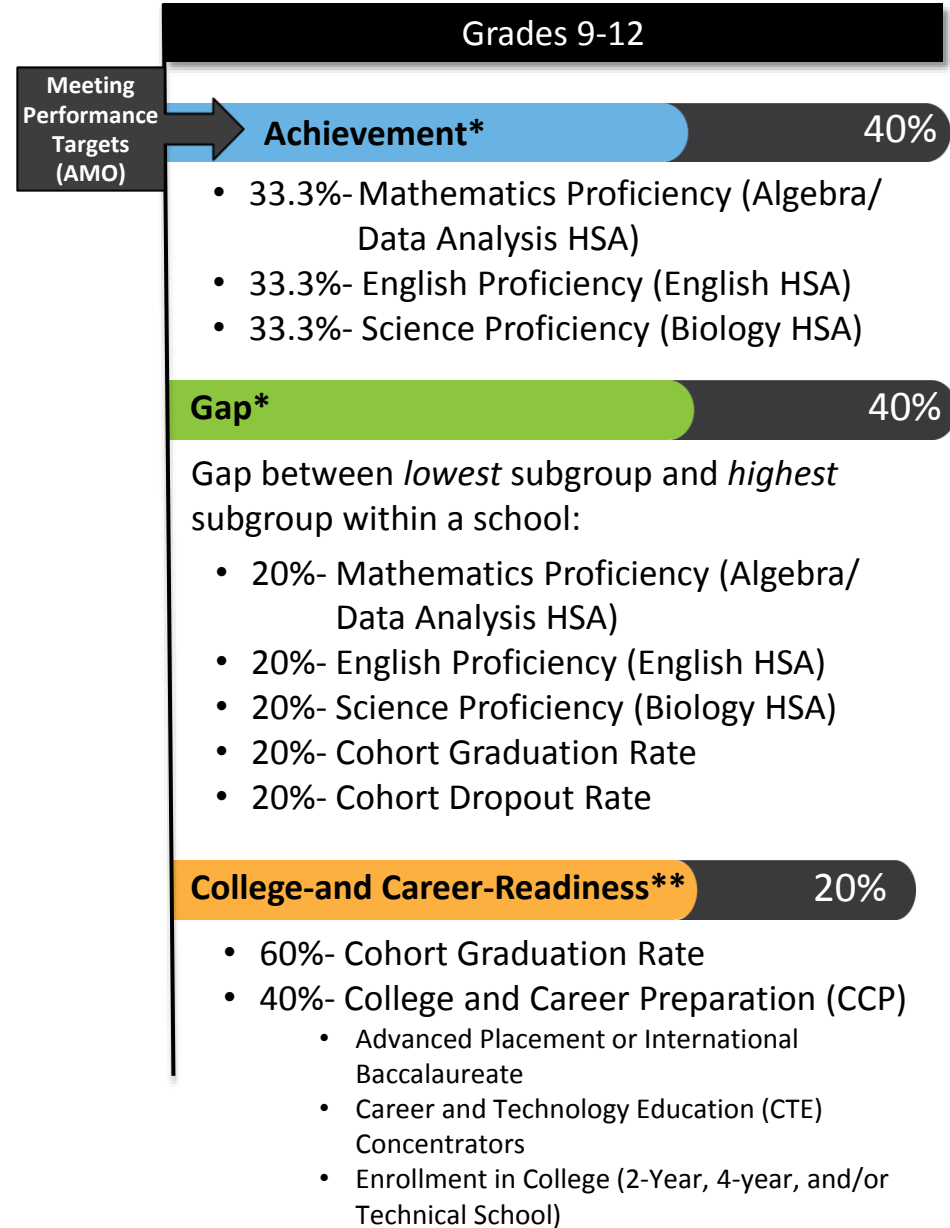


[Tips on reading this graph »](#)

----- = Progress Scale Values



School Progress Index: High Schools



Indicator: Achievement

- ▶ Percentage of “all students” group scoring proficient or advanced on Maryland standardized assessments progressing toward targets

- ▶ Grades 9-12
 - ▶ HSA Algebra/Data Analysis Proficiency
 - ▶ HSA English Proficiency
 - ▶ HSA Biology Proficiency

- ▶ Former AYP student population rules apply
 - ▶ With the exception that non-participants are included WITHIN the aggregated population as Basic

HIGH

Achievement Proficiency Calculation

Numerator	Denominator
HSA/ModHSA Passed	HSA/ModHSA Passed and Failed
+	+
Substitute Test	Substitute Test
+	+
AltMSA Advanced, Proficient	AltMSA Advanced, Proficient, Basic, and Nonparticipants
	+
	HSA/ModHSA/AltMSA Nonparticipants
=	=
<i>Proficient Count</i>	<i>Member Count</i>
<i>÷</i>	<i>=</i>
	<i>Proficiency Percent</i>



HIGH

School SPI Calculation Example

Calculations	Achievement			Gap					CCR	
	Alg	Eng	Bio	Alg	Eng	Bio	Grad	Drop	Grad	CCP
% of Students who Scored Advanced or Proficient	96.08%	90.83%	92.33%	68.16%	61.00%	82.24%	62.48%	75.90%	92.65%	88.80%
÷ AMO	85.91%	86.62%	89.81%	72.40%	74.07%	85.77%	88.52%	94.89%	81.13%	87.94%
= Measure PSV	1.1184	1.0486	1.0281	0.9414	0.8236	0.9589	0.7058	0.7998	1.1420	1.0098
× Proportional Significance	33.33%	33.33%	33.33%	20%	20%	20%	20%	20%	60%	40%
= Measure Contribution	0.3728	+	+	0.1883	+	+	+	+	0.6852	+
		0.3495	0.3427		0.1647	0.1918	0.1412	0.1600		0.4039
= Indicator PSV		1.0649				0.8459			1.0891	
× Proportional Significance		40%				40%			20%	
= Indicator Contribution		0.4260				0.3384			0.2178	
= School Index Progress Scale Value (PSV)	0.9822									



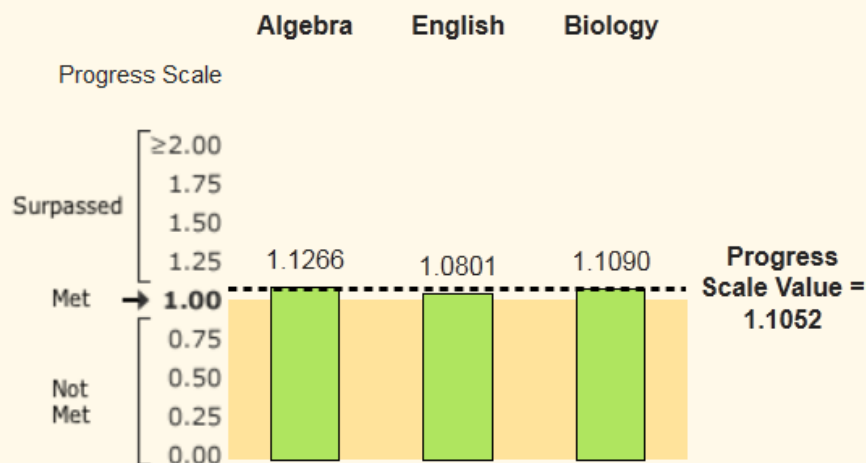
Indicator: Achievement

2012 High Grade Span

Achievement represents the acquisition of the skills and knowledge students have acquired. The Achievement Contribution represents the school's performance for "all students" on the MSA, Mod-MSA, Alt-MSA, or HSA in meeting Math, Reading, and Science proficient and advanced levels relative to the schools' targets.

[Read more about Achievement »](#)

2012 Achievement Proportional Measures



2012 Achievement Calculation	Algebra	English	Biology	Combined Indicator
% of Students who Scored Advanced or Proficient	97.64%	91.14%	92.77%	
÷ 2012 Achievement AMOs	86.67%	84.38%	83.66%	
= Achievement Proportional Measure	1.1266	1.0801	1.1090	
× Proportional Significance Assigned to Each Content Area	33.33%	33.33%	33.33%	
= Weighted Average Calculation	0.3755	+ 0.3600	+ 0.3697	= 1.1052
× Proportional Significance Assigned to Achievement in Calculating the School Progress Index				40.00%
= Achievement Contribution Value				0.4421

Indicator: Gap Reduction

- ▶ Decrease in the performance gap between the highest and lowest performing subgroups
- ▶ Gap Score calculated for each subgroup category in each measured area
 - ▶ HSA Algebra/Data Analysis Proficiency
 - ▶ HSA English Proficiency
 - ▶ HSA Biology Proficiency
 - ▶ 5-Year Adjusted Cohort Graduation Rate
 - ▶ 4-Year Adjusted Cohort Dropout Rate

Gap Reduction

- ▶ 10 Subgroup Categories for each measured area
- ▶ Minimum group size (n) = 20
- ▶ Former AYP student population rules apply
- ▶ Nonparticipants
 - ▶ Are NOT included as Basic within the denominator
- ▶ Calculation same as Elementary/Middle
- ▶ In order to provide continuity in comparisons between measures, the complement is used in calculating gap reduction
- ▶ The complement is 1 minus the current year's gap
- ▶ Larger values indicate less desirable performance

HIGH

Gap Reduction Proficiency Calculation

Numerator

Advanced and
Proficient

=

Proficient Count

Denominator

Advanced, Proficient and
Basic

=

Test Takers

÷

= ***Percent Proficient***

- ▶ **High School: HSA/ModHSA/Alt MSA**
- ▶ **Nonparticipants are NOT included in aggregation**



HIGH

School SPI Calculation Example

Calculations	Achievement			Gap					CCR	
	Alg	Eng	Bio	Alg	Eng	Bio	Grad	Drop	Grad	CCP
% of Students who Scored Advanced or Proficient	96.08%	90.83%	92.33%	68.16%	61.00%	82.24%	62.48%	75.90%	92.65%	88.80%
÷ AMO	85.91%	86.62%	89.81%	72.40%	74.07%	85.77%	88.52%	94.89%	81.13%	87.94%
= Measure PSV	1.1184	1.0486	1.0281	0.9414	0.8236	0.9589	0.7058	0.7998	1.1420	1.0098
× Proportional Significance	33.33%	33.33%	33.33%	20%	20%	20%	20%	20%	60%	40%
= Measure Contribution	0.3728	+	+	0.1883	+	+	+	+	0.6852	+
		0.3495	0.3427		0.1647	0.1918	0.1412	0.1600		0.4039
= Indicator PSV		1.0649				0.8459				1.0891
× Proportional Significance		40%				40%				20%
= Indicator Contribution		0.4260				0.3384				0.2178
= School Index Progress Scale Value (PSV)	0.9822									



Indicator: Gap Reduction

2012 High Grade Span

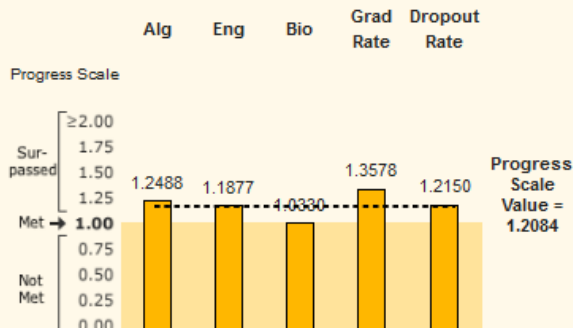
Gap Reduction represents a decrease in the difference between the highest-achieving subgroup and the lowest-achieving subgroup by content area.

The gap for each measure is calculated using the combined result of Alt-MSA, and MSA for elementary and middle schools and HSA, Alt-MSA and MOD-HSA for high schools. High schools also include the results of the 5-Year Adjusted Cohort Graduation Rate and 4-Year Adjusted Cohort Dropout Rate.

For Gap Reduction, larger values indicate less desirable performance. In order to provide continuity in comparisons between measures, the inverse is used in calculating gap reduction. The inverse is 1 minus the current year's gap.

[Read more about Gap Reduction »](#)

2012 Gap Reduction Proportional Measures



2012 Gap Reduction Calculation	Algebra	English	Biology	Graduation Rate	Dropout Rate	Indicator Progress Scale Value
2012 Highest Performing Subgroup	White 98.23%	White 92.44%	White 93.52%*	White 92.81%	Hispanic/Latino of any race 5.00%	
– 2012 Lowest Performing Subgroup	Special Education 86.67%	Special Education 68.75%	Black or African American 80.00%	Special Education 82.61%	FARMS 10.34%	
= This Year's Gap	11.57%	23.69%	13.52%	10.20%	5.34%	
This Year's Gap (inverse)	88.43%	76.31%	86.48%	89.80%	94.66%	
÷ 2012 Gap Reduction AMOs (inverse)	70.82%	64.25%	83.72%	66.13%	77.91%	
= Measure Progress Scale Values	1.2488	1.1877	1.0330	1.3578	1.2150	
× Proportional Significance Assigned to Each Measure	20%	20%	20%	20%	20%	
= Measure Contribution	0.2498	+ 0.2375	+ 0.2066	+ 0.2716	+ 0.2430	= 1.2084
× Proportional Significance Assigned to Gap Reduction in Calculating the School Progress Index						40.00%
= Gap Reduction Contribution Value						0.4834

* Due to a decrease in this subgroups performance, the 2011 Proficiency Rate was used. [Find out more>>](#)

Indicator: College & Career Readiness (CCR)

- ▶ Met annual targets on measures that assure students are ready for college or career upon graduation
 - ▶ 5-Year Cohort Adjusted Graduation Rate
 - ▶ College and Career Preparation (CCP)- Students who have exited high school with a Maryland State High School Diploma and meet any one of the following:
 - ▶ Advance Placement or International Baccalaureate
 - ❑ Earned a score of 3 or greater on an Advanced Placement (AP) exam
 - ❑ Earned a score of 4 or greater on an International Baccalaureate (IB) exam
 - ▶ Career and Technology Education (CTE) Concentrators
 - ❑ Attained advance standing in a State-approved Career & Technology Education program of study
 - ▶ College Enrollment
 - ❑ Entered a post-secondary institution within 16 months of graduation

HIGH

CCR – Cohort Graduation Rate

- ▶ Reduce by half the percentage of students in each subgroup who are not meeting 95% graduation rate by 2020
 - ▶ 5-Year Cohort Graduation Rate
 - ▶ Lagged one year

College & Career Preparation Calculation

- ▶ Student is included in numerator if he/she met at least ONE of the following conditions
 - ▶ Advance Placement or International Baccalaureate
 - ▶ Career and Technology Education (CTE) Concentrators
 - ▶ College Enrollment

- ▶ Lagged 2 years

$$\text{CCP} = \frac{
 \begin{array}{c}
 \text{(AP score of 3 or greater or IB score of 4 or greater) OR} \\
 \text{(CTE Concentrator) OR} \\
 \text{(College Enrollment)}
 \end{array}
 }{
 \begin{array}{c}
 \text{All students who have exited high school with a Maryland} \\
 \text{State High School Diploma (C60 or C70)}
 \end{array}
 }$$

HIGH

School SPI Calculation Example

Calculations	Achievement			Gap					CCR	
	Alg	Eng	Bio	Alg	Eng	Bio	Grad	Drop	Grad	CCP
% of Students who Scored Advanced or Proficient	96.08%	90.83%	92.33%	68.16%	61.00%	82.24%	62.48%	75.90%	92.65%	88.80%
÷ AMO	85.91%	86.62%	89.81%	72.40%	74.07%	85.77%	88.52%	94.89%	81.13%	87.94%
= Measure PSV	1.1184	1.0486	1.0281	0.9414	0.8236	0.9589	0.7058	0.7998	1.1420	1.0098
× Proportional Significance	33.33%	33.33%	33.33%	20%	20%	20%	20%	20%	60%	40%
= Measure Contribution	0.3728	+	+	0.1883	+	+	+	+	0.6852	+
		0.3495	0.3427		0.1647	0.1918	0.1412	0.1600		0.4039
= Indicator PSV		1.0649				0.8459				1.0891
× Proportional Significance		40%				40%				20%
= Indicator Contribution		0.4260				0.3384				0.2178
= School Index Progress Scale Value (PSV)										0.9822



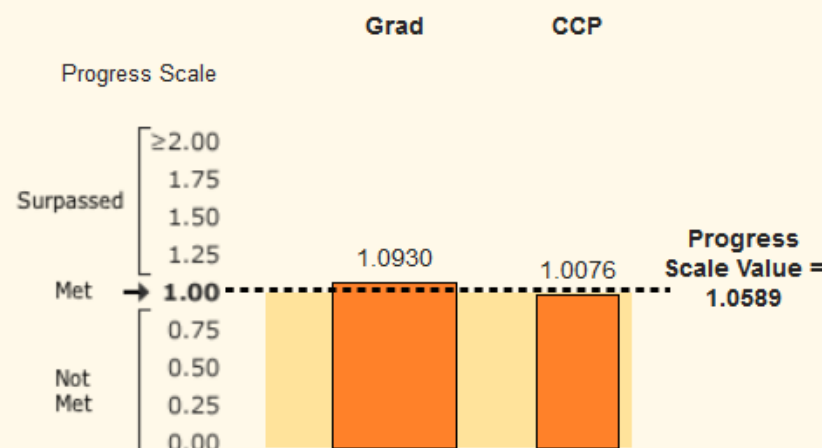
Indicator: College and Career Readiness

College- and Career-Readiness represent a combination of measures that ensures students are college- and career-ready upon graduation.

College- and Career-Readiness consist of the Five-Year Adjusted Cohort Graduation Rate and College and Career Preparation (CCP). CCP is a measurement of a student's success in one of the following areas: Advance Placement (AP) or International Baccalaureate (IB); Career and Technology Education (CTE) Concentrators; or College Enrollment.

[Read more about College- and Career-Readiness »](#)

2012 College & Career Readiness Proportional Measures



2012 College and Career Readiness Calculation	5-Year Graduation Rate	CCP	Combined Indicator
2012 College and Career Readiness Results	93.07%	90.42% *	
÷ 2012 College and Career Readiness AMOs	85.15%	89.73%	
= College and Career Readiness Proportional Measure	1.0930	1.0076	
× Proportional Significance Assigned to Each Content Area	60.00%	40.00%	
= Weighted Average Calculation	0.6558	+ 0.4030	= 1.0589
× Proportional Significance Assigned to College and Career Readiness in Calculating the School Progress Index			20.00%
= College and Career Readiness Contribution Value			0.2118

* College and Career Preparation (CCP) is made up of 4 components. [View Details >](#)

[X] Close Window

College and Career Preparation (CCP)

The following students have met the accomplishments considered for CCP:

A score of 3 or greater on AP exam 44

or

A score of 4 or greater on IB exam 0

or

Enrolled in college 199

or

Career Technical Education Concentrators (CTE) 93

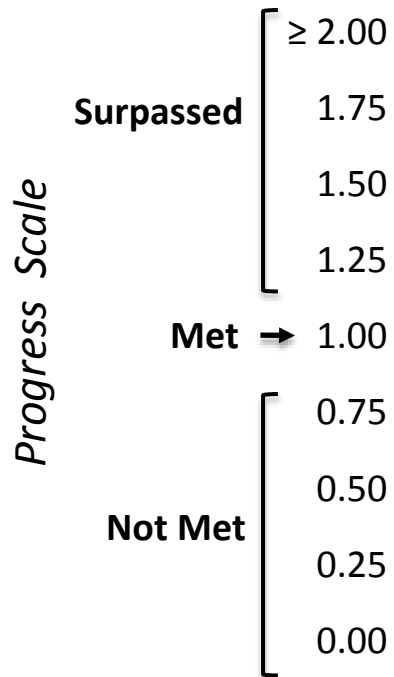
The following number of students have met 1 or more of the CCP accomplishments 217

Out of a total number of graduates 240

Total CCP Accomplishments ÷ Total Graduates = 90.42

HIGH

SPI Summary Example



Calculation	Achievement	Gap	CCR
<i>Indicator Progress Scale Value</i>	<i>1.0649</i>	<i>0.8459</i>	<i>1.0891</i>
× Proportional Significance	40%	40%	20%
= <i>Indicator Contribution</i>	<i>0.4260</i>	<i>+ 0.3384</i>	<i>+ 0.2178</i>
= <i>School Index Progress Scale Value</i>			0.9822



2012 School Progress Index (SPI)

The School Progress Index and the resulting Strand classification help identify schools for intervention, support, and recognition depending on their progress.

The School Progress Index evaluates schools on indicators of Achievement, Growth, and Gap Reduction for elementary and middle schools, and Achievement, Gap, and College- and Career-Readiness for high schools. The School Progress Index is compensatory so that a low value on one indicator can be balanced by a high value on another indicator.

An SPI Value is calculated for each grade span (elementary, middle, and high school) based on the school's performance on the Indicators. If a school serves students in multiple grade spans, the overall SPI for that school is calculated based on the SPI for each grade span weighted by the population in each grade span.

[More about the School Progress Index »](#)

Your School's 2012 SPI

Your School Progress Index for Grades 9–12
Your school is in **Strand 1**. [More About Strands »](#)

Progress Scale

≥ 2.00

1.75

1.50

1.25

1.00

0.75

0.50

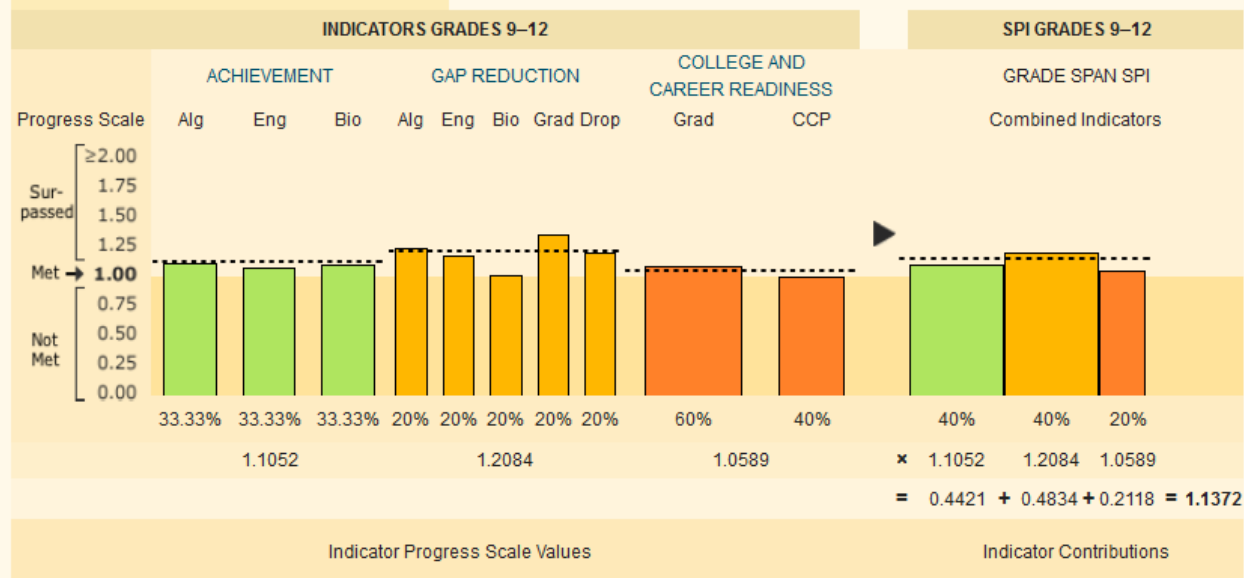
0.25

0.00

SPI
Gr. 9–12
= 1.1372

Grade Span
Grades 9–12

High School Grades 9–12



[Tips on reading this graph »](#)

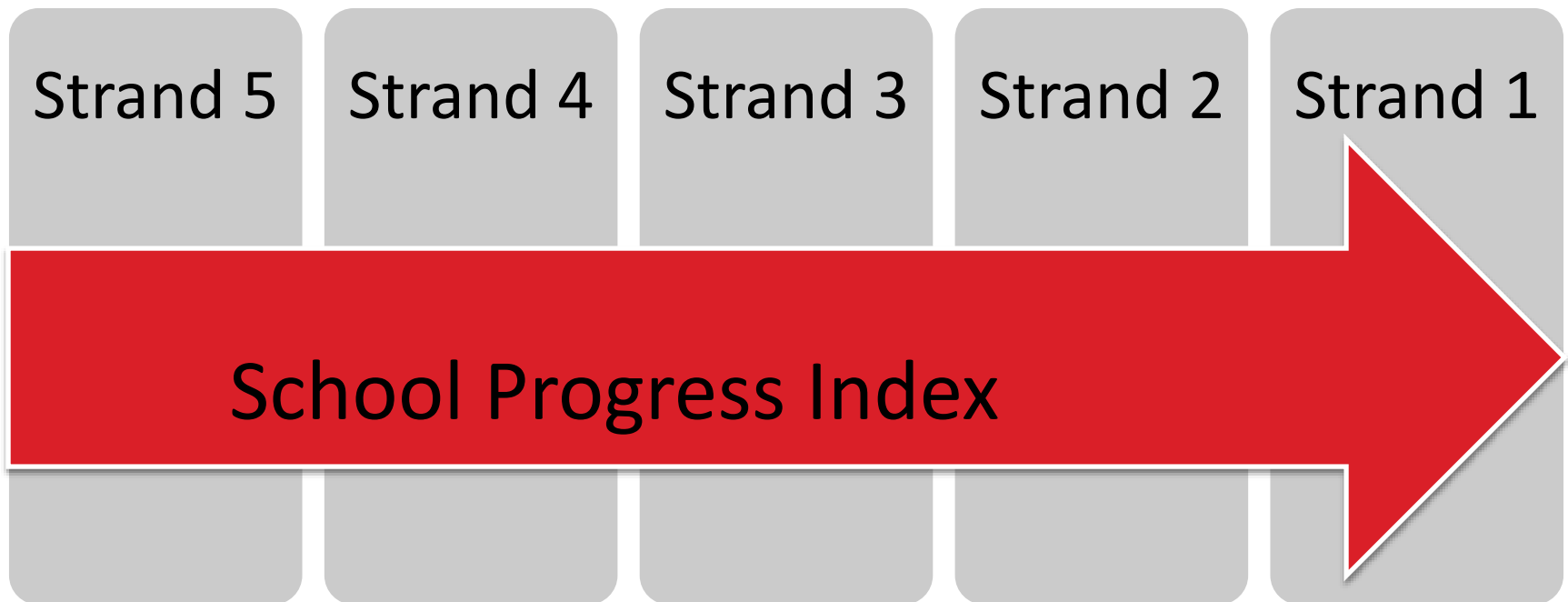
----- = Progress Scale Values



School Progress Index: Strands

Strands

- ▶ Strands are designed to categorize schools to provide **support, intervention, and recognition.**



Strand Categorization

Strand	Overall Score	Number of Indicators Met		
		E, M, H	EM, MH, EH	EMH
1	1.0 or greater	All 3	All 6	All 9
2	Greater than or equal to 0.9	2 of 3	4-5 of 6	6-8 of 9
3		1 of 3	2-3 of 6	3-5 of 9
4		0 of 3	0-1 of 6	0-2 of 9
5	Less than 0.9	0-2 of 3	0-4 of 6	0-6 of 9

- ▶ Number of Indicators Met includes:
 - ▶ indicators where the Percent Proficient of Target for the overall indicator is greater than or equal to 1
 - ▶ indicators that were not evaluated due to small population

- ▶ E, M, H defines a particular grade span for a school.
 - ▶ E – Elementary
 - ▶ M – Middle
 - ▶ H – High

Some schools may have multiple grade spans (i.e. a school containing grades 6-12 would be a MH school).



Maryland School Progress Index

Revised
12/4/12

Grades PreK-8

Meeting
Performance
Targets
(AMO)

Achievement*

30%

- 33.3%- Mathematics Proficiency (MSA)
- 33.3%- Reading Proficiency (MSA)
- 33.3%- Science Proficiency (MSA)

Gap*

40%

Gap between *lowest* subgroup and *highest* subgroup within a school:

- 33.3%- Mathematics Proficiency (MSA)
- 33.3%- Reading Proficiency (MSA)
- 33.3%- Science Proficiency (MSA)

Growth*

30%

Percent of students making one year's growth:

- 50%- Mathematics Proficiency (MSA)
- 50%- Reading Proficiency (MSA)

Grades 9-12

Meeting
Performance
Targets
(AMO)

Achievement*

40%

- 33.3%- Mathematics Proficiency (Algebra/
Data Analysis HSA)
- 33.3%- English Proficiency (English HSA)
- 33.3%- Science Proficiency (Biology HSA)

Gap*

40%

Gap between *lowest* subgroup and *highest* subgroup within a school:

- 20%- Mathematics Proficiency (Algebra/
Data Analysis HSA)
- 20%- English Proficiency (English HSA)
- 20%- Science Proficiency (Biology HSA)
- 20%- Cohort Graduation Rate
- 20%- Cohort Dropout Rate

College-and Career-Readiness*

20%

- 60%- Cohort Graduation rate
- 40%- College and Career Preparation (CCP)
 - Advanced Placement or International Baccalaureate
 - Career and Technology Education (CTE) Concentrators
 - Enrollment in College (2-Year, 4-year, and/or Technical School)

*ALT-MSA is included in the index component

Questions?

- ▶ Local Accountability Coordinators (LACs) –
Please forward questions and comments to:

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- ▶ For all other questions, please contact

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