



# PUBLIC SCHOOLS OF BROOKLINE

**PSB Spring 2017 MCAS Results**

**Grades 3-8 & 10**

**November 30, 2017 -- PSB School Committee**

# Objectives for Tonight's Presentation

- Provide background on Next-Generation MCAS assessment
- Review persistent pattern of overall high MCAS scores paired with significant gaps between subgroups of students
- Show how two schools are breaking our pattern of achievement gaps between subgroups of students on MCAS
- Understand the writing skills and concepts MCAS requires of our students
- Discuss PSB actions at school and district level

# Next-Generation MCAS: An Overview

Updated version of the nearly 20 year old MCAS assessment; **According to DESE:**

- Focuses on students' **critical thinking abilities, application of knowledge**, and ability to make **connections between reading and writing**
- Gives **clearer signal of readiness** for next grade level or college and career
- Designed to be given on a computer
- First given in spring 2017 in grades 3-8 in English language arts (ELA) and math
  - Will eventually replace all older legacy MCAS tests in grades 3-10

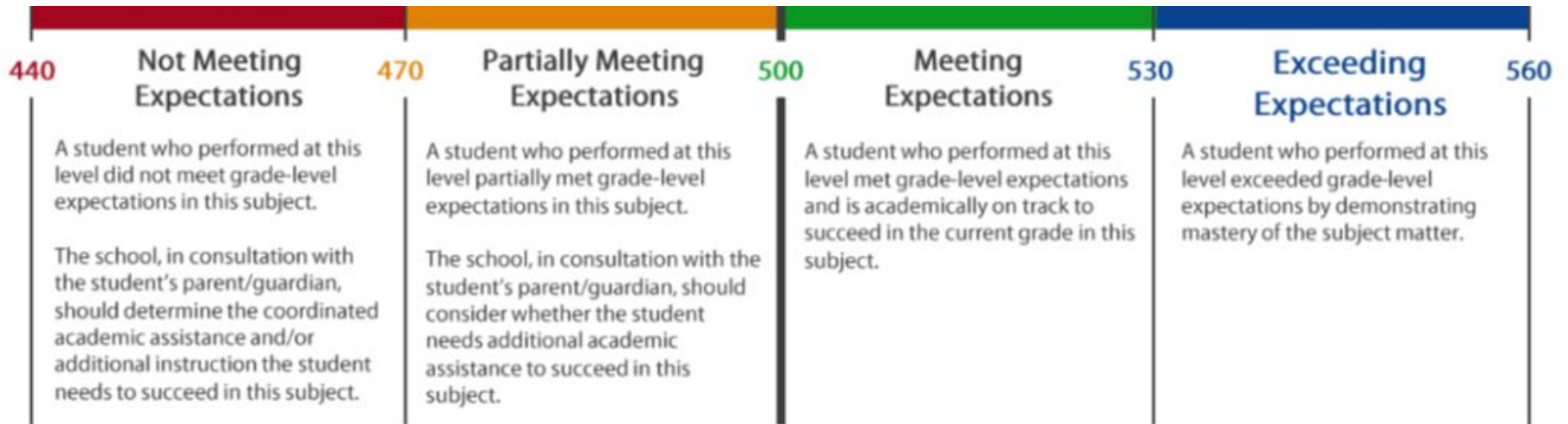
# Next-Generation MCAS: Achievement Levels

Achievement Level	Definition
Exceeding Expectations	A student who performed at this level exceeded grade-level expectations by demonstrating mastery of the subject matter.
Meeting Expectations	A student who performed at this level met grade-level expectations and is academically on track to succeed in the current grade in this subject.
Partially Meeting Expectations	A student who performed at this level partially met grade-level expectations in this subject. The school, in consultation with the student's parent/guardian, should consider whether the student needs additional academic assistance to succeed in this subject.
Not Meeting Expectations	A student who performed at this level did not meet grade-level expectations in this subject. The school, in consultation with the student's parent/guardian, should determine the coordinated academic assistance and/or additional instruction the student needs to succeed in this subject.

\*New achievement levels do not replace old levels (e.g. Not Meeting Expectations is not the same as Warning).

# Next-Generation MCAS: New Scaled Scores

New scaled scores are on a continuous scale and can be averaged to obtain district, school, or subgroup average.



# School Growth Percentile (SGP)

- District, schools, grades, subgroups and classroom growth is measured in a Median SGP
- An SGP of 50: The point at which 50% of the students in the group have a higher growth percentile and half lower

Low Growth	Below 40
Typical Growth	40-60
High Growth	Above 60

\*Source: DESE Growth Model Presentation: <http://www.doe.mass.edu/mcas/growth/>

# Next-Generation MCAS: Item Example

## Legacy MCAS

In the selection, the spaces between paragraphs 9 and 10, 44 and 45, and 49 and 50 all show a change in

- A. plot.
- B. time.
- C. theme.
- D. narrator.

# Next-Generation MCAS: Item Example

## MCAS 2017

### Part A

Which statement **best** describes the main character between paragraph 4 and paragraph 10 in the story?

- A. The main character is angry because the shoes make her walk quickly.
- B. The main character is frustrated because the shoes seem more clever than she is.
- C. The main character is scared because the shoes seem to be in control of her.
- D. The main character is jealous because the shoes have been tricked by other people.



# Next-Generation MCAS: Item Example

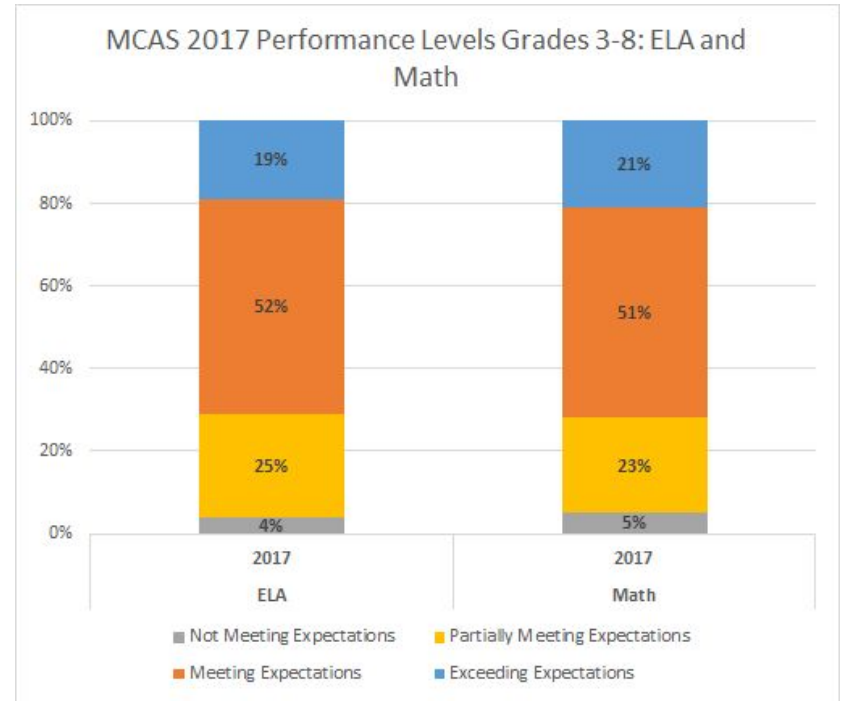
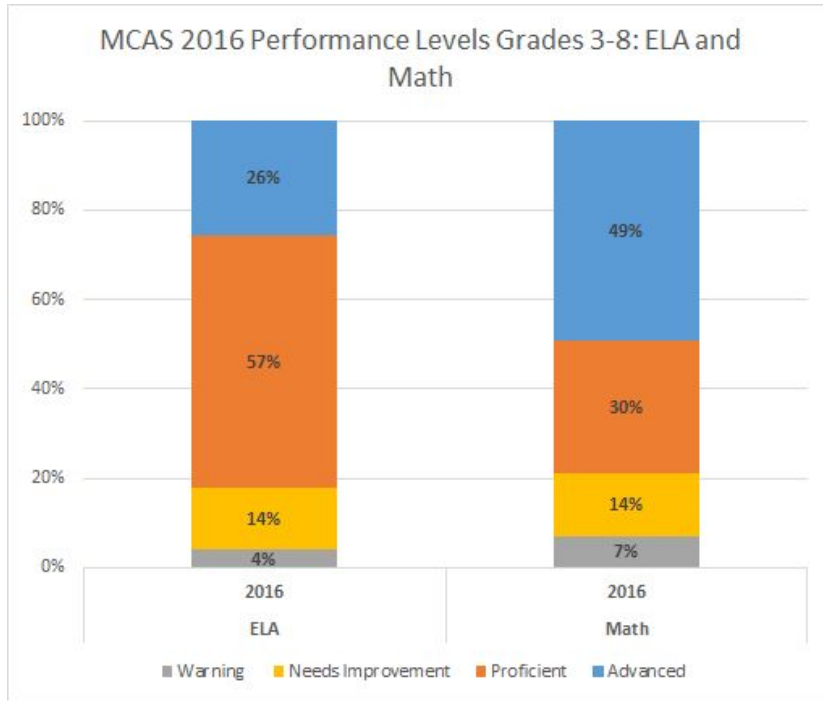
## MCAS 2017

### Part B

Which statement from paragraphs 4 through 10 supports the answer to Part A?

- A. “‘Yep.’ I hurried along at the pace of a speed-walker.”
- B. “‘I was stuck in those shoes once,’ she said.”
- C. “*Someone tells me to outsmart a pair of shoes, and I can’t.*”
- D. “I put my hands over my face, certain I’d smash right into that tree.”

# 2016 vs 2017 - Performance Levels Grades 3-8 ELA and Math



2017 Performance Levels on Next Generation MCAS for ELA and Math are much similar compared to 2016



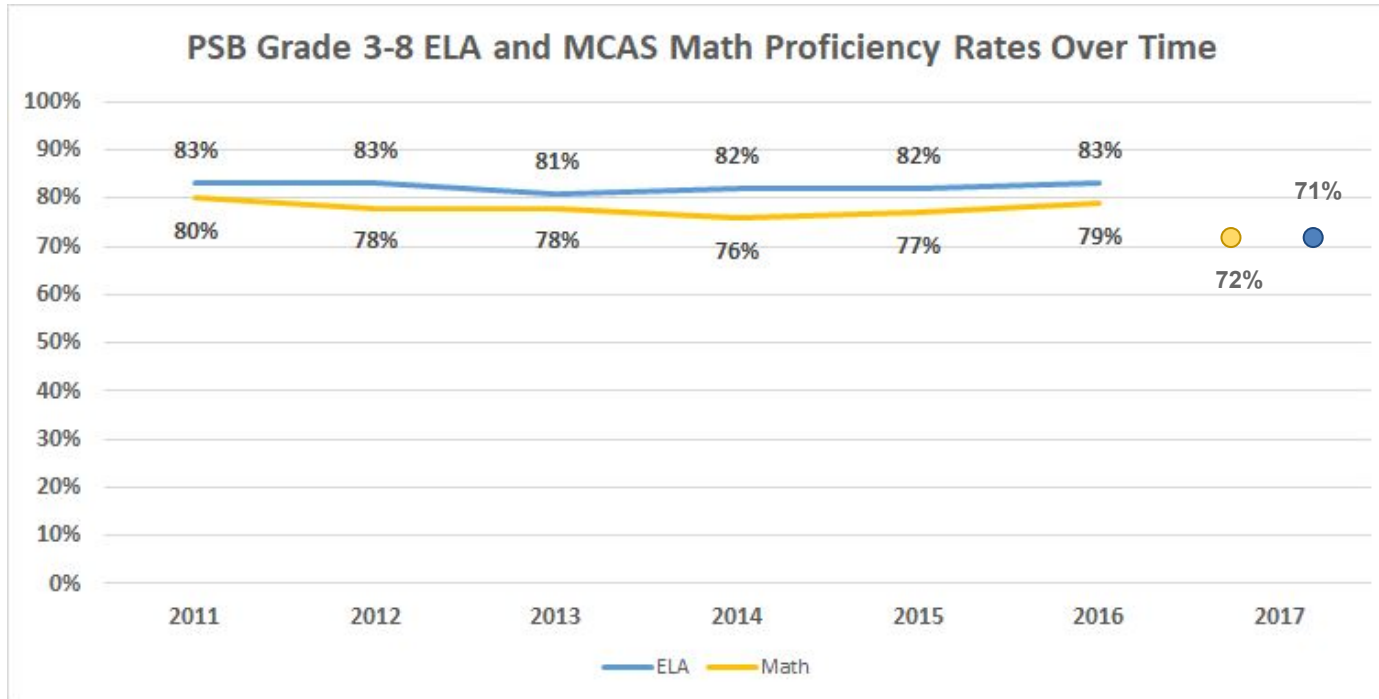
# PSB Results: Grades 3-8, 10 ELA and Math

Sources: MA Department of Education Student and District Profiles; PSB 2017 MCAS file given to us from the MA Department of Education



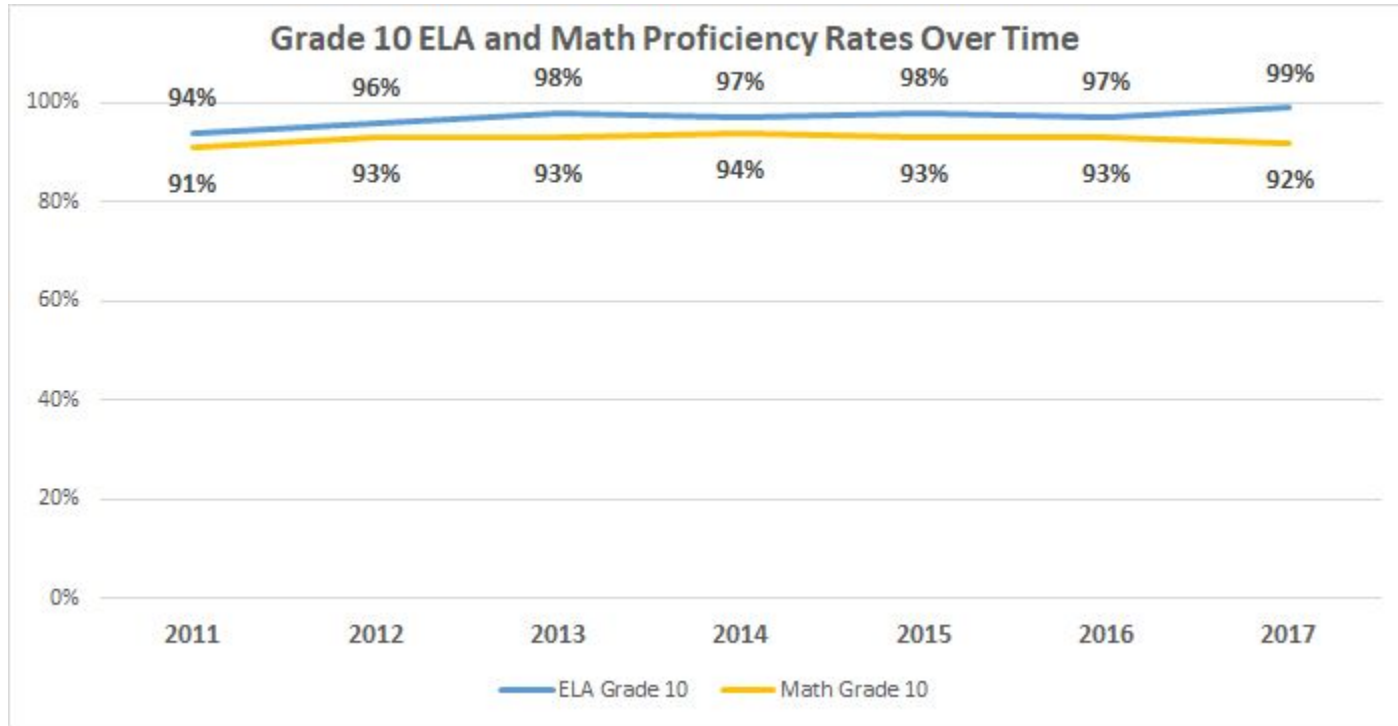
In aggregate, students perform well

# Grade 3-8 Longitudinal ELA and Math Proficiency Rates (2011-2017)

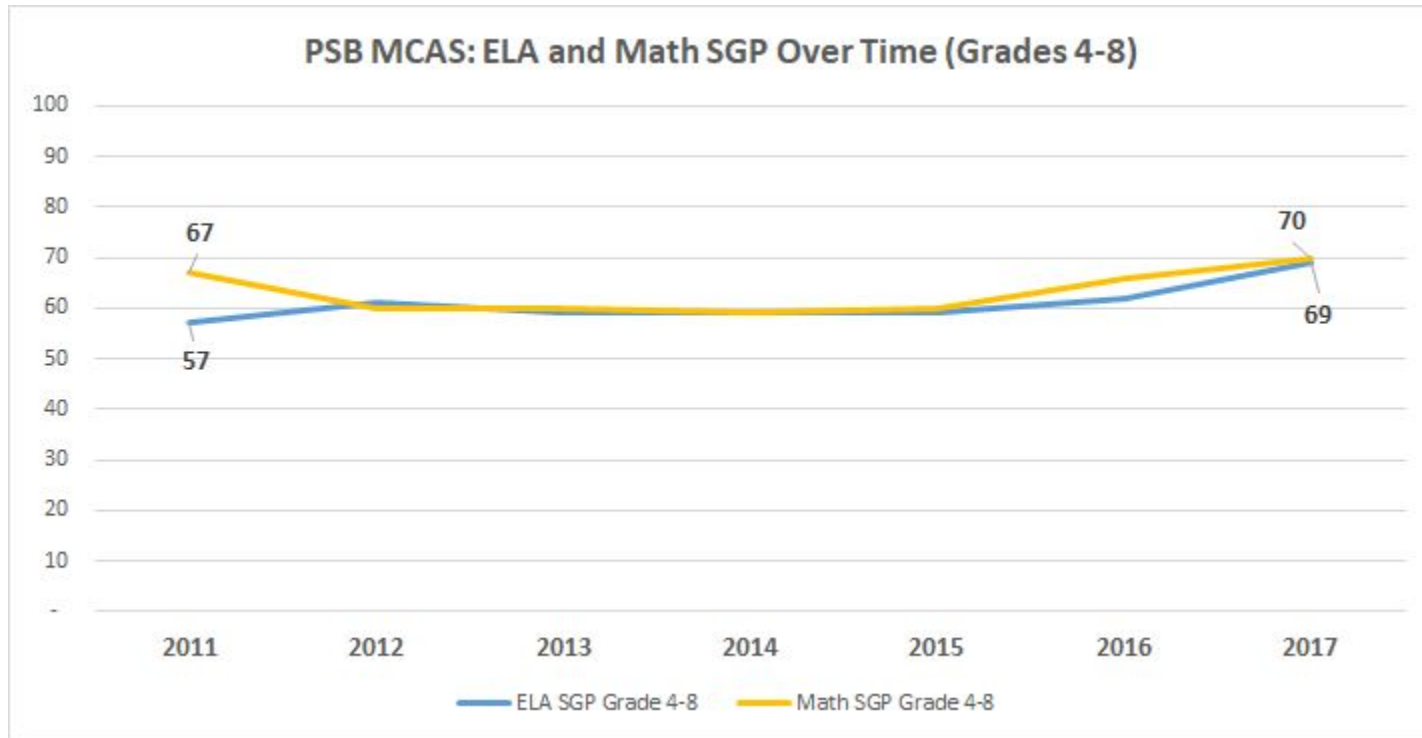


2017 is using the new MCAS 2.0 test and uses “Meeting and Exceeding Expectations” in replace “Proficient and Advanced”

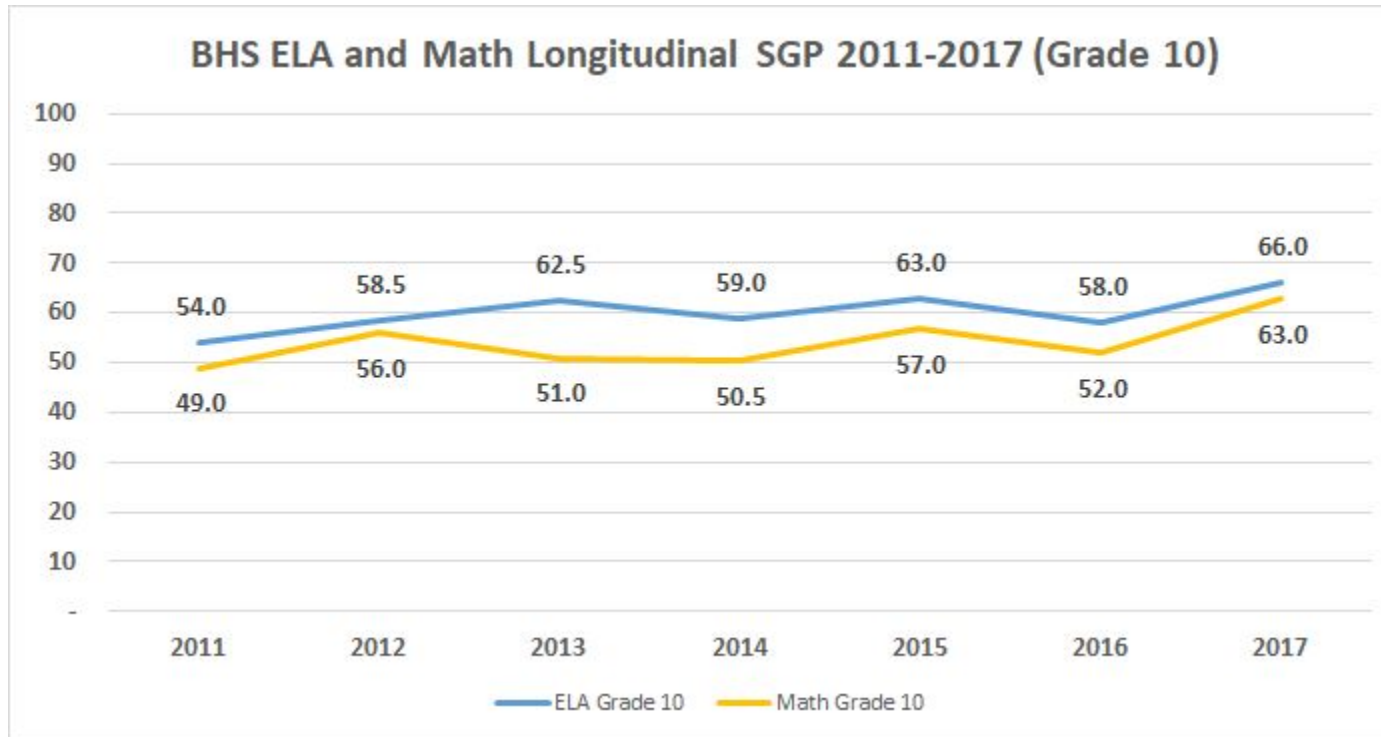
# Grade 10 Longitudinal ELA and Math Proficiency Rates (2011-2017)



# Longitudinal SGP for Grades 4-8: ELA and Math (2011-2017)



# Grade 10 ELA and Math Longitudinal SGP (2011-2017)

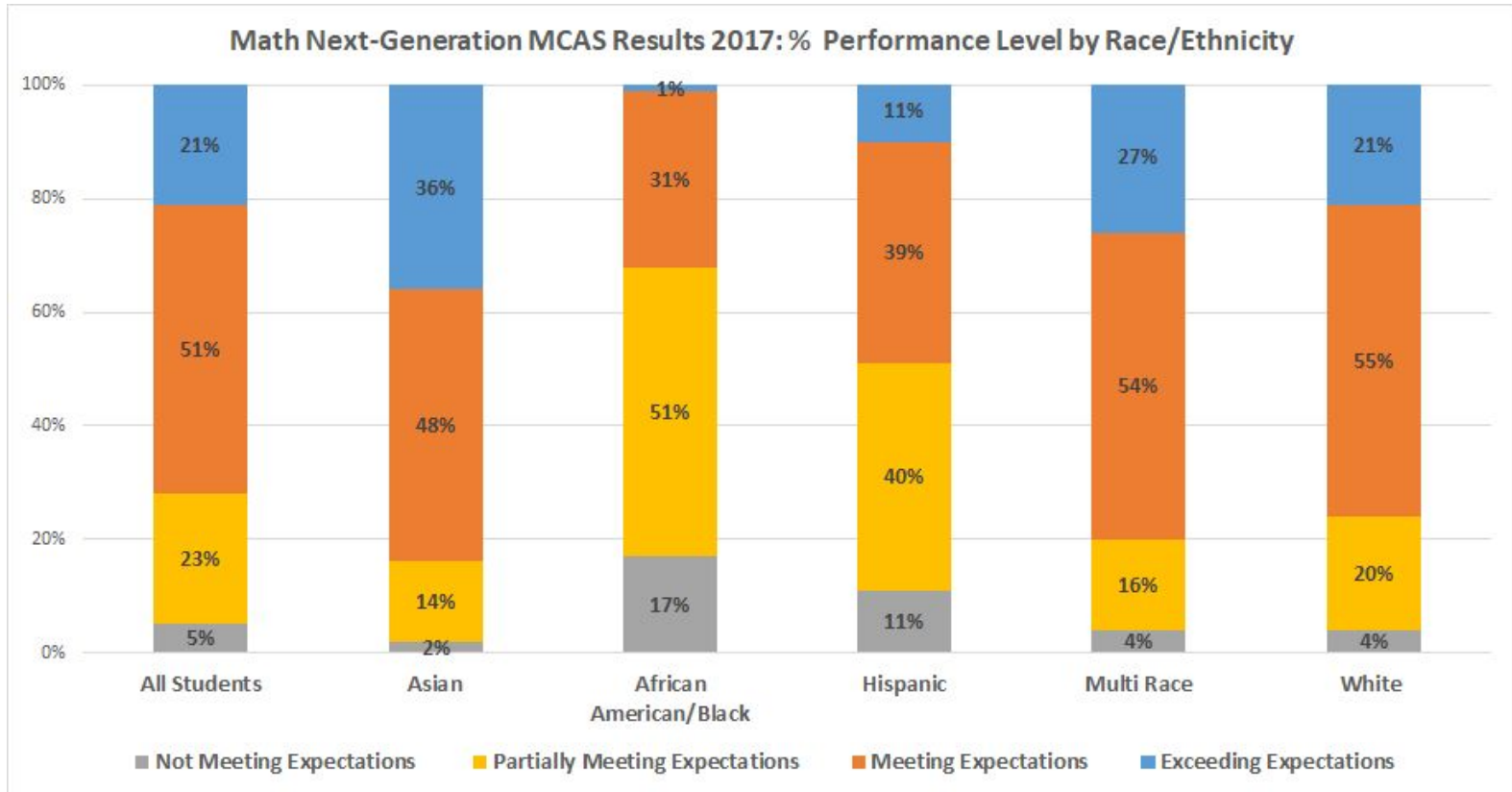




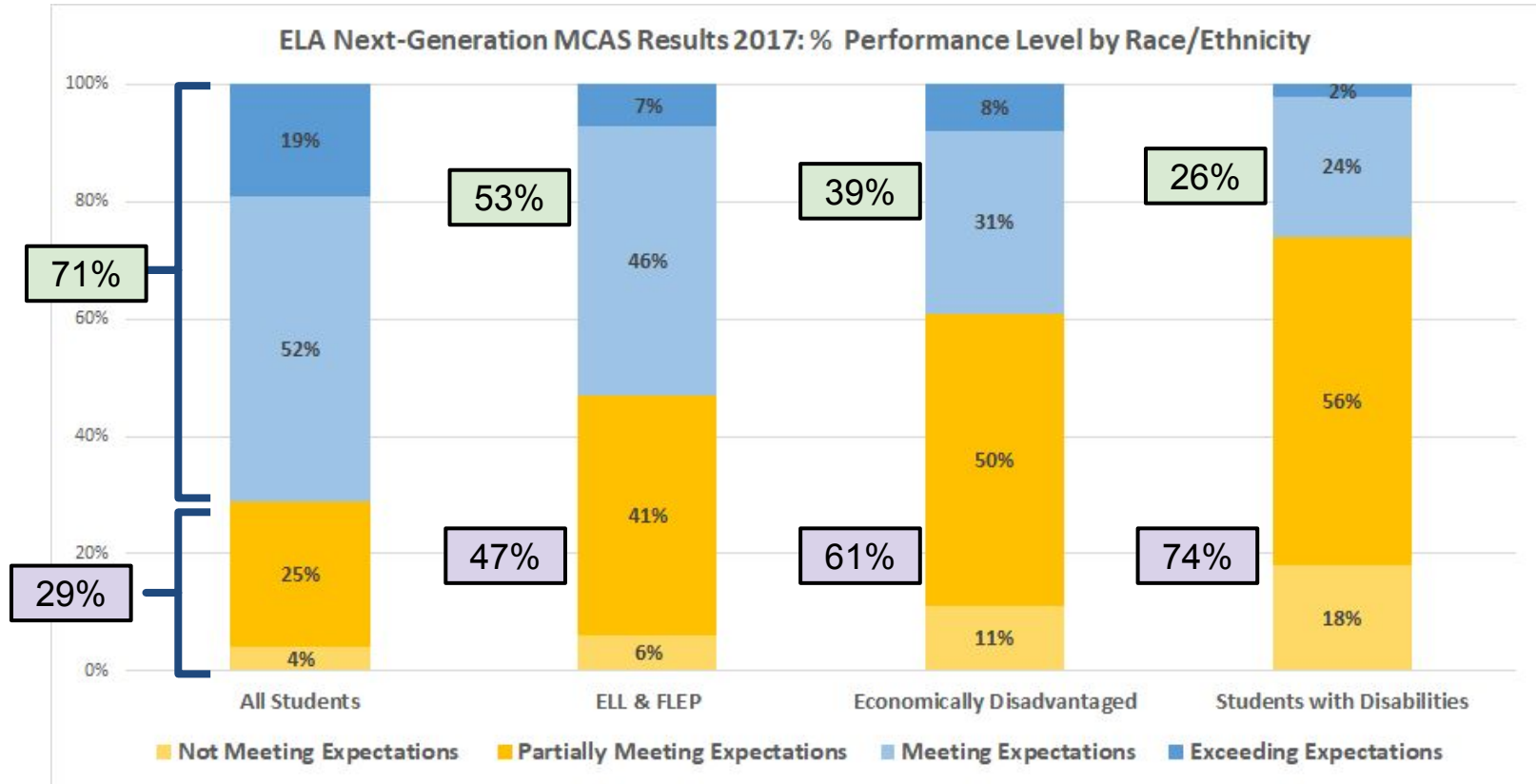


We continue to struggle to meet the academic needs of specific subgroups

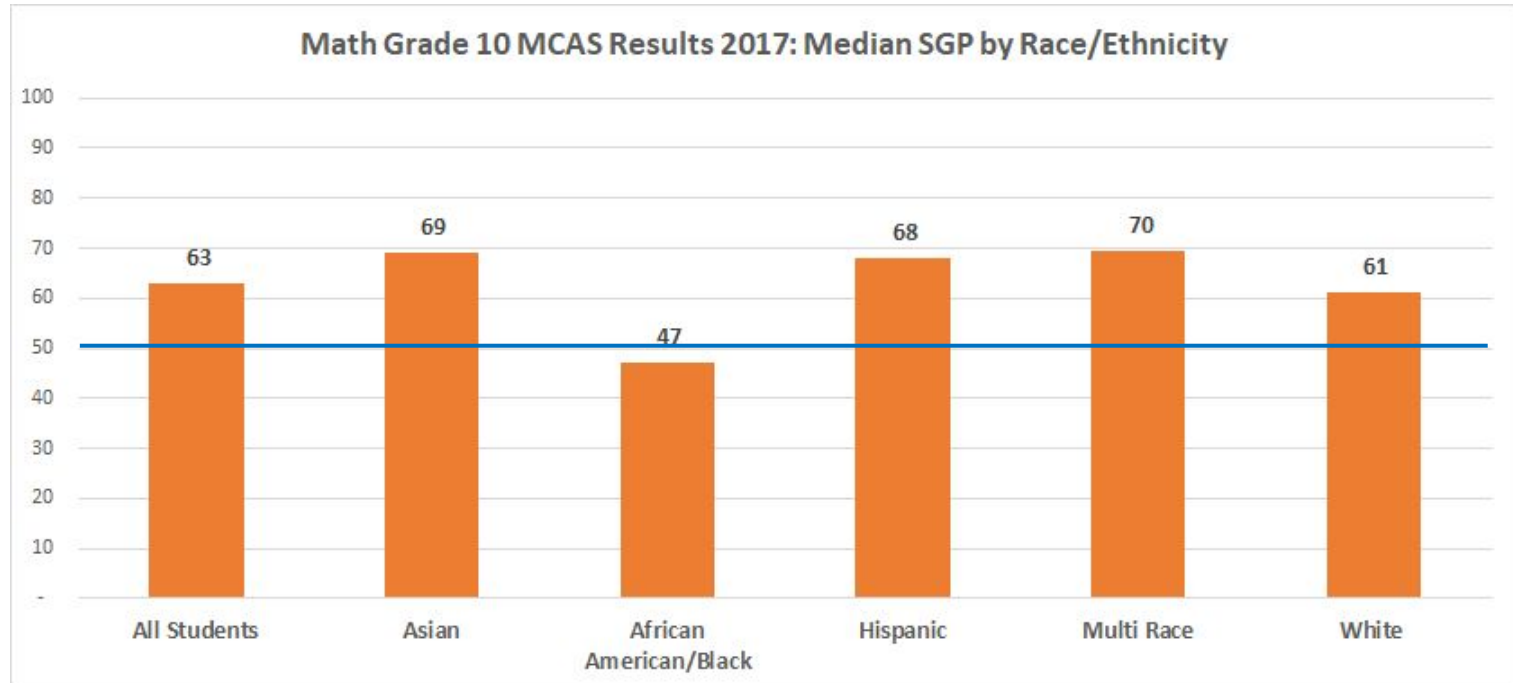
# Grade 3-8 Math Performance Level by Race/Ethnicity (2017)



# Grade 3-8 ELA Performance Level by Subgroup (2017)



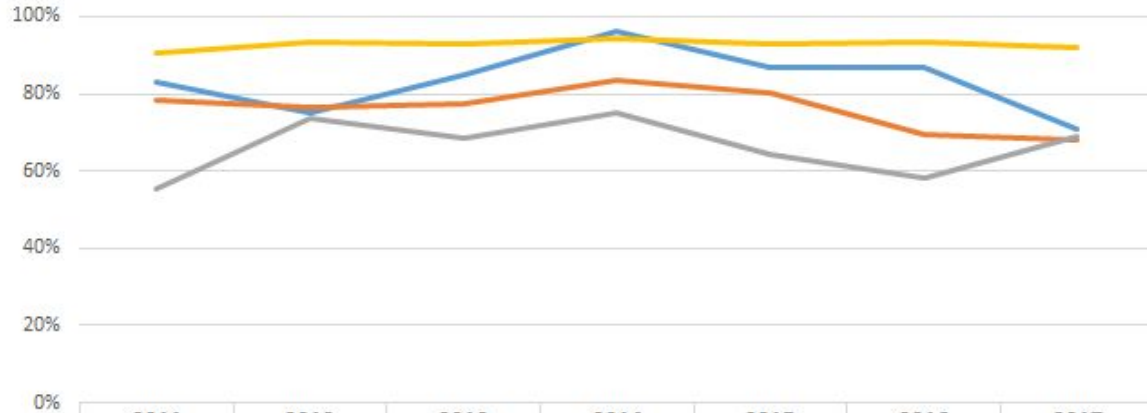
# Grade 10 Math SGP by Race/Ethnicity (2017)



— State target

# Grade 10 Longitudinal Math Proficiency Rates by Subgroup (2011-2017)

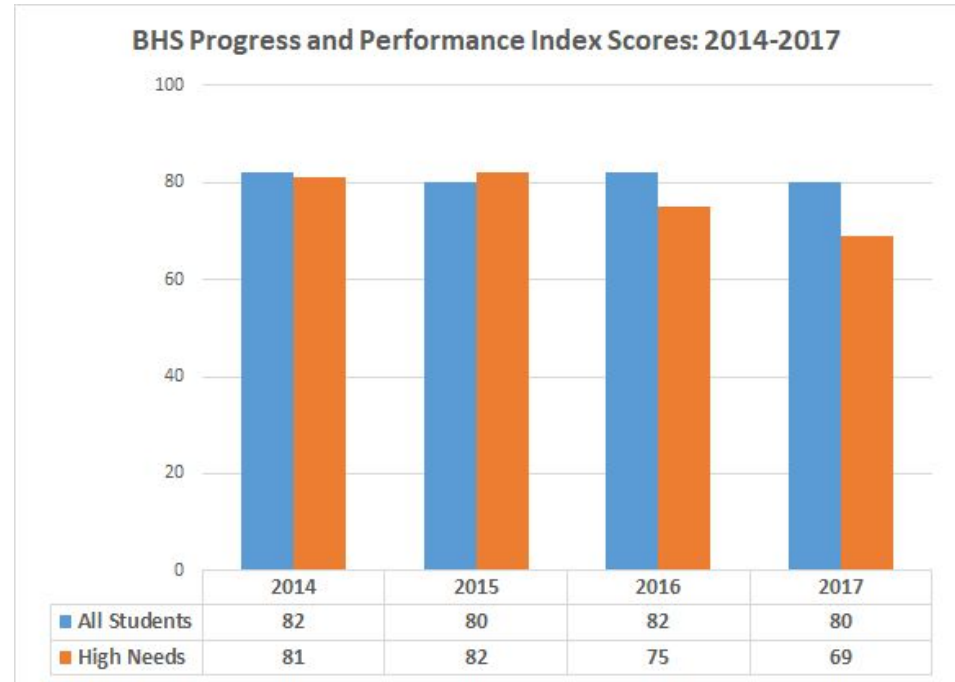
**Grade 10: Math Proficiency Rates Over Time by Subgroup**



	2011	2012	2013	2014	2015	2016	2017
— ELL/FLEP	83%	75%	85%	96%	87%	87%	71%
— Economically Disadvantaged	78%	77%	77%	83%	80%	69%	68%
— Students with Disabilities	56%	74%	68%	75%	64%	58%	69%
— All Students	91%	93%	93%	94%	93%	93%	92%

# BHS Moved Down to Accountability Level 2

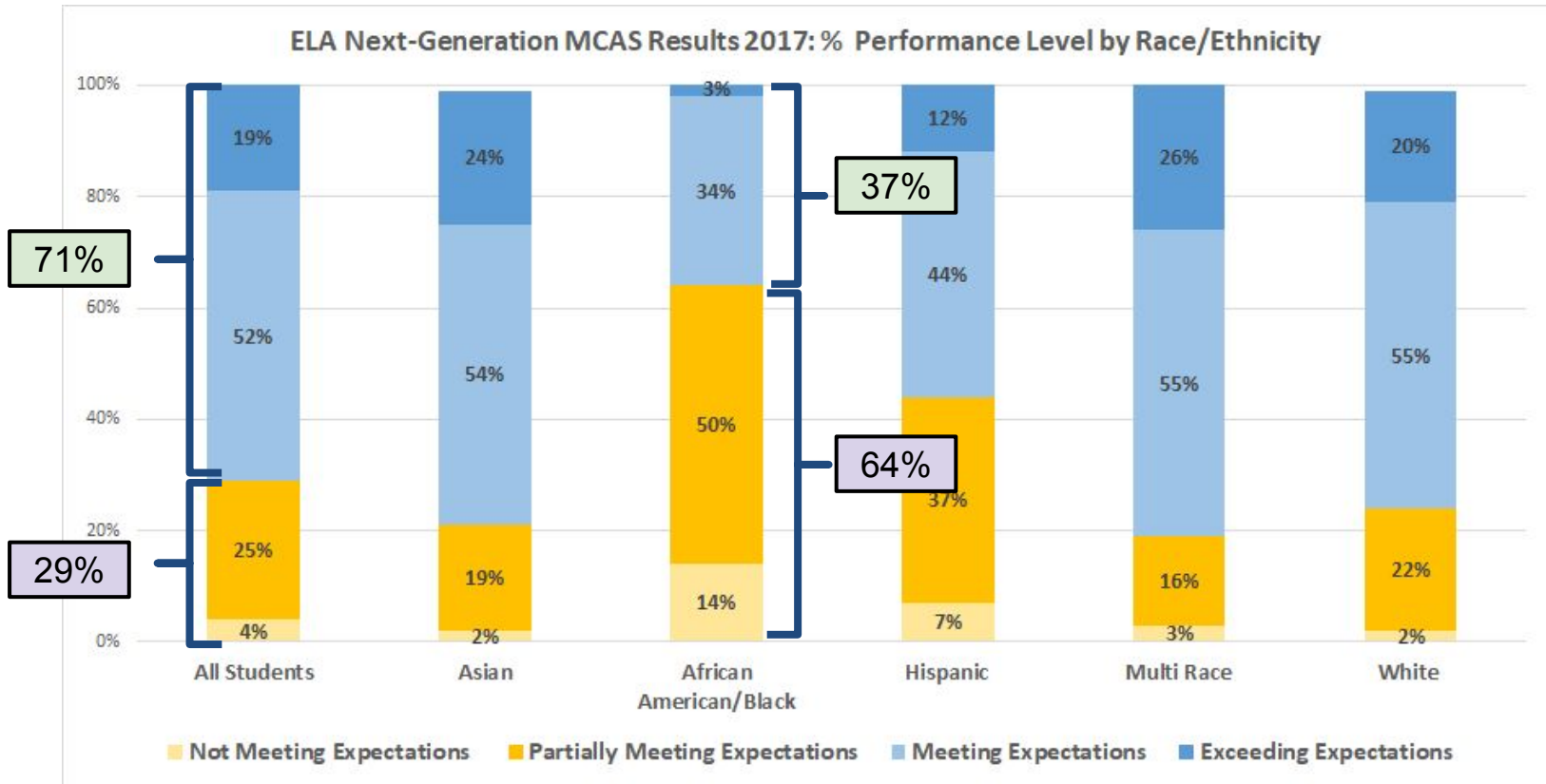
- Did not meet gap narrowing goals for High Needs students
  - High Needs Students: economically disadvantaged, English language learner, or student with disabilities
  - 75 points is considered on target
- Low participation by English Language Learner students in Science
  - 95% of students in subgroup must participate





This pattern of achievement gaps on the  
MCAS can be broken

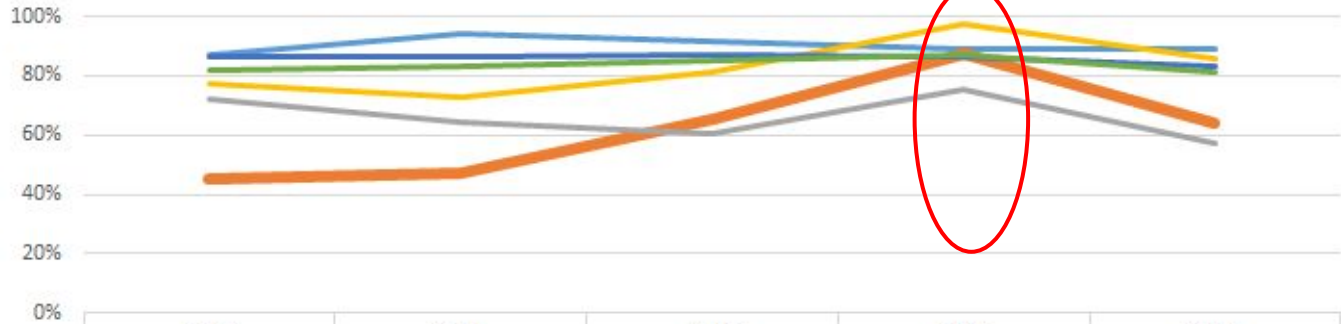
# Grade 3-8 ELA Performance Level by Race/Ethnicity (2017)





# Baker School: ELA Proficiency Rates Over Time (Grades 3-8)

Baker: ELA Proficiency Rates Over Time by Race/Ethnicity



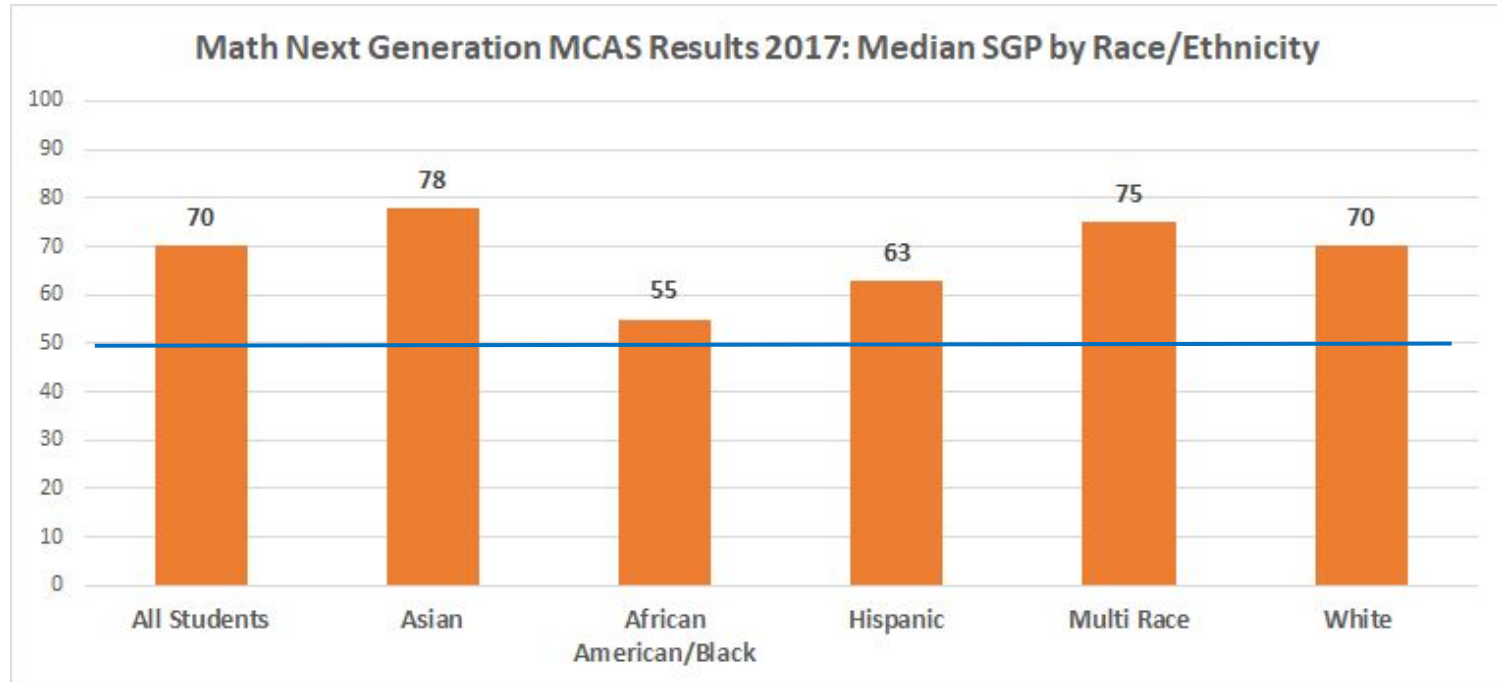
	2013	2014	2015	2016	2017
Asian	87%	94%	92%	89%	89%
African American/Black	45%	47%	65%	88%	64%
Hispanic	72%	65%	61%	76%	57%
Multi Race	77%	73%	82%	98%	86%
White	86%	87%	87%	86%	83%
All Students	82%	83%	85%	87%	81%

# What has Baker been doing in ELA?

## **Adaptative Change Over Time**

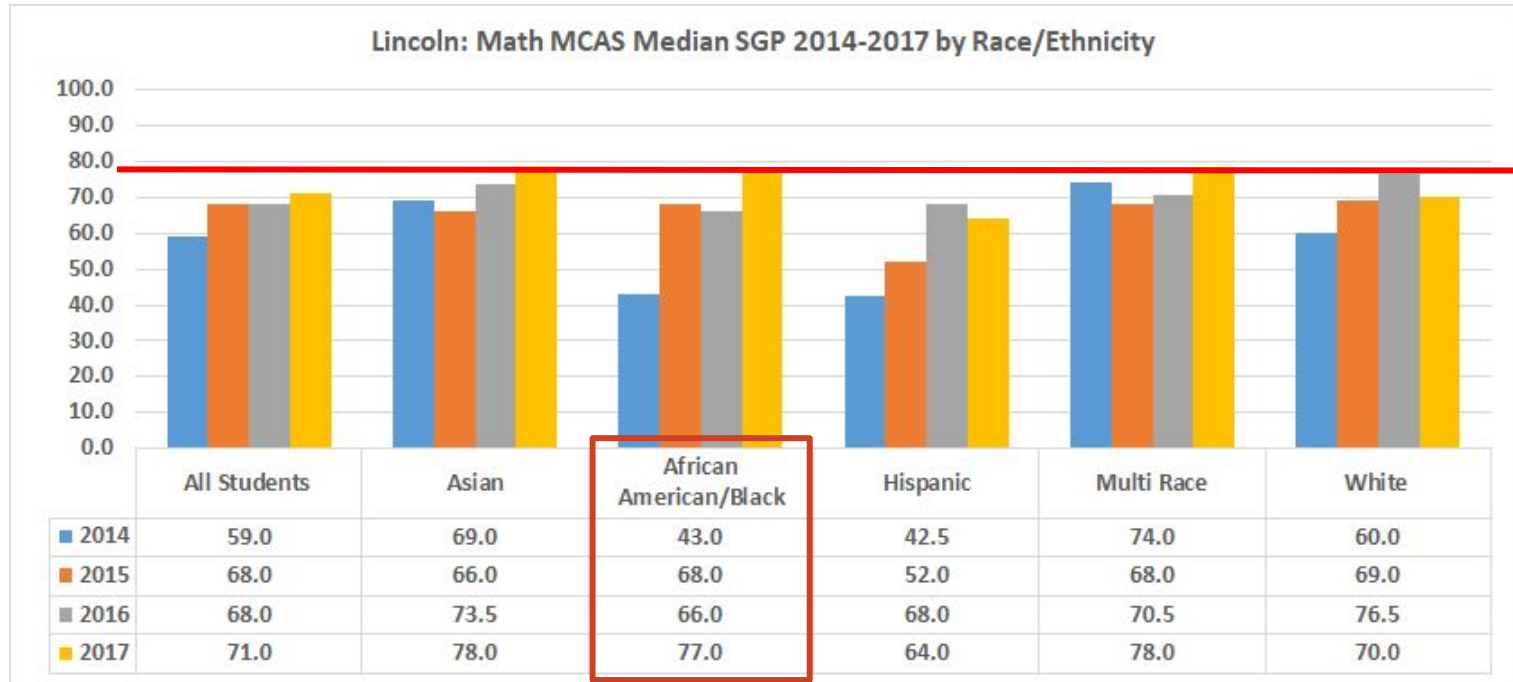
- Strengthened CST
  - Teacher run
  - Data driven decisions (with professional judgement)
  - Created a safe, problem solving environment
- Increased teacher capacity to address students' instructional needs
  - Tier-1 instructional practices were strengthened
  - Data collection integral part of teaching and learning
- Implemented a highly-effective RTI framework
  - Expanded/adjusted how specialists are used to support students instructionally
  - Reallocation of resources
  - Utilize data to inform decisions (universal screen, progress monitoring)

# Grade 4-8 Math SGP by Race/Ethnicity (2017)



— State target

# Lincoln School: Math SGP Increasing Over Time (Grades 4-8)

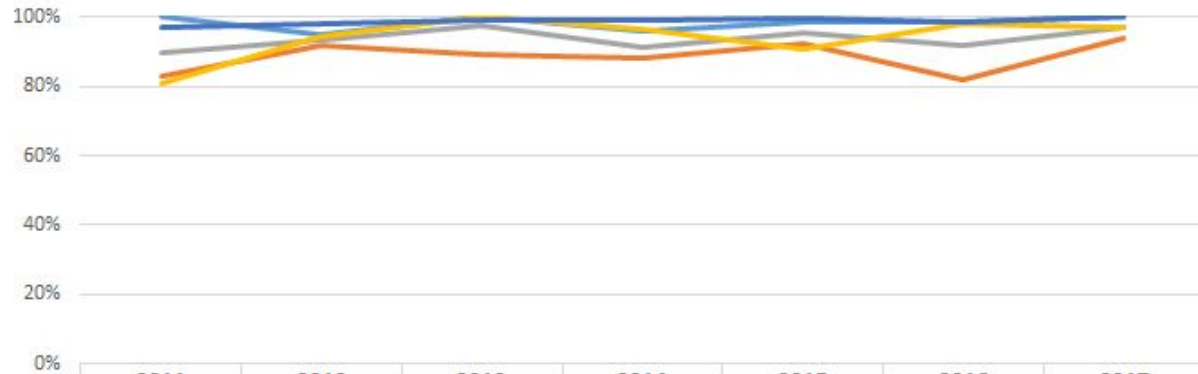


# What has Lincoln been doing in Math?

- Coherent math instruction K - 8
  - Common language
  - Vertical alignment
- Teachers K - 5 have implemented math stations--as a way to differentiate instruction for all students
  - K - 5 Release Days were led by math specialists to build teacher capacity in implementing math stations and differentiation
- Using real-time data to provided targeted support for students

# Grade 10 Longitudinal ELA Proficiency Rates by Race/Ethnicity (2011-2017)

Grade 10 ELA Proficiency Rates Over Time by Race/Ethnicity



	2011	2012	2013	2014	2015	2016	2017
— Asian	100%	95%	100%	96%	98%	99%	100%
— African American/Black	83%	92%	89%	88%	93%	82%	94%
— Hispanic	89%	93%	97%	91%	95%	92%	97%
— Multi Race	81%	94%	100%	97%	91%	98%	97%
— White	97%	98%	99%	99%	100%	99%	100%

# What has BHS been doing in ELA?

- Common midyear assessment for 9th grade courses that is well aligned with state standards.
- Stable co-teaching pairs for 10th grade may have made a real difference with the students with disabilities subgroup.
- Teachers teach both standard and honors sections, ensuring good teaching for all students.
- Familiarizing all students with the MCAS-type questions and format.



# Grade 3 Deep Dive: Writing

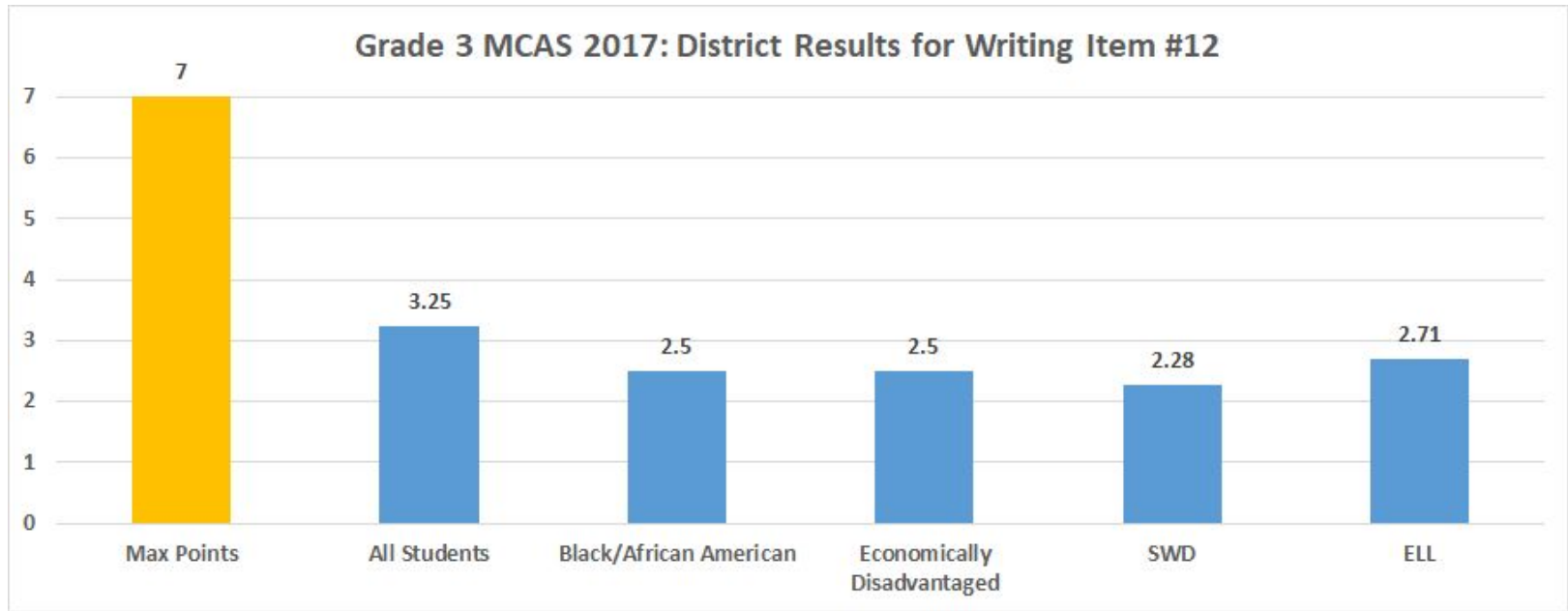


# Grade 3 MA State Language and Writing Standards

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.
- Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
- Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

Item #12: Based on the passage, write an essay that explains how Benjamin Franklin helped people. Be sure to use information from the passage to develop your essay.

Your essay should: Present and develop a central idea; provide evidence/details from the passage(s); include correct grammar, spelling, and punctuation.



\*Essays are scored based on idea development and standard English conventions

# Grade 3 Scoring Guide: Item #12

## Idea Development Scoring Guide

Score	Description
<u>4</u>	<ul style="list-style-type: none"><li>Central idea is clear and fully developed</li><li>Effective selection and explanation of evidence/details</li><li>Effective organization</li><li>Clear expression of ideas</li><li>Full awareness of the purpose for writing</li></ul>
<u>3</u>	<ul style="list-style-type: none"><li>Central idea is general and moderately developed</li><li>Appropriate selection and explanation of evidence/details</li><li>Moderate organization</li><li>Adequate expression of ideas</li><li>Sufficient awareness of the purpose for writing</li></ul>
<u>2</u>	<ul style="list-style-type: none"><li>Central idea may be present and is somewhat developed</li><li>Limited selection and explanation of evidence/details</li><li>Limited organization</li><li>Basic expression of ideas</li><li>Partial awareness of the purpose for writing</li></ul>
<u>1</u>	<ul style="list-style-type: none"><li>Central idea is not present and/or not developed</li><li>Insufficient evidence/details</li><li>Minimal or no organization</li><li>Poor expression of ideas</li><li>Minimal awareness of the purpose for writing</li></ul>
<u>0</u>	<ul style="list-style-type: none"><li>The response shows evidence the student has read the text, but does not address the question or incorrectly responds to the question.</li></ul>

## Student Exemplar

-- earns the maximum 4 points

“Benjamin Franklin helped people. For example, he invented the lightning rod to protect homes from lightning which caused fires. He also invented the Franklin Stove which burned less wood than the wood-burning stove but generated more heat. According to the story, he invented bifocals so he didn’t have to take his glasses off and on. Bifocals let you see near and far somehow. Ben Franklin had lots of jobs to help people. The author stated that he had his own print shop when he was 24 and he printed a book he wrote called Poor Richard’s Almanac. Soon, he became the very first postmaster general which was in charge of all post offices in the colonies . . . ”

# Grade 3 Scoring Guide: Item #12

## Standard English Conventions Scoring Guide

Score	Description
<u>3</u>	<ul style="list-style-type: none"><li>• Consistent control of a variety of sentence structures relative to length of essay</li><li>• Consistent control of grammar, usage and mechanics relative to complexity and/or length of essay</li></ul>
<u>2</u>	<ul style="list-style-type: none"><li>• Mostly consistent control of sentence structures relative to length of essay</li><li>• Mostly consistent control of grammar, usage and mechanics relative to complexity and/or length of essay</li></ul>
<u>1</u>	<ul style="list-style-type: none"><li>• Little control and/or no variety in sentence structure and/or</li><li>• Little control of grammar, usage and mechanics relative to complexity and/or insufficient length</li></ul>
<u>0</u>	<ul style="list-style-type: none"><li>• Sentences are formed incorrectly with no control of grammar, usage and mechanics and/or insufficient length</li></ul>

## Student Exemplar

-- earns the maximum 3 points

“Benjamin Franklin helped people. For example, he invented the lightning rod to protect homes from lightning which caused fires. He also invented the Franklin Stove which burned less wood than the wood-burning stove but generated more heat. According to the story, he invented bifocals so he didn’t have to take his glasses off and on. Bifocals let you see near and far somehow. Ben Franklin had lots of jobs to help people. The author stated that he had his own print shop when he was 24 and he printed a book he wrote called Poor Richard’s Almanac. Soon, he became the very first postmaster general which was in charge of all post offices in the colonies . . .”

# Ongoing Steps to Address the Inequitable Outcomes

## **Working with principals to look at the individual students**

- All schools received a list of students who did not reach proficiency levels in each subject areas
- Schools received MCAS reports from Office of Strategy & Performance outlining item level results for all students by grade and subgroups

## **Developing a culture of looking at data collaboratively to identify the specific support individual students need**

- School Leaders, specialists, coordinators, coaches using a Collaborative Inquiry process to determine how practices are impacting the performance of students in our lowest performing subgroups
- Specialists and Coaches will receive training on Edwin Analytics -- a tool for identifying areas of strength and areas of growth for individual students

## **Specific Professional Development**

- Training for special education paraprofessionals to better support student need and classroom instruction

# What do we need to do more of?

- Greater coherence within grades and across grade levels
- Clarity on what we want students to know and be able to do at each grade level
- Support all teachers in teaching writing and using the resources that are available
- Teacher Teams with support of principals, coaches, and specialists intervene and progress monitor student learning when students are not making appropriate progress
- Do a better job of monitoring progress of student learning and intervening when a student is not making appropriate progress



# Questions?



# APPENDIX

## Grades 3-8

- MCAS results
- Comparable districts

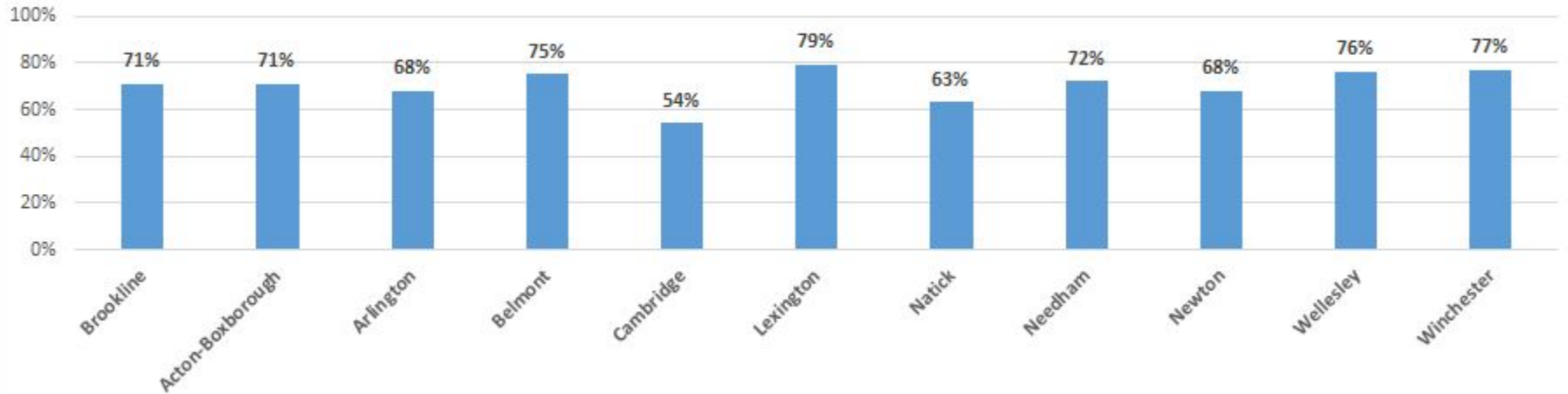
## Brookline High School

- MCAS Results
- Accountability Status



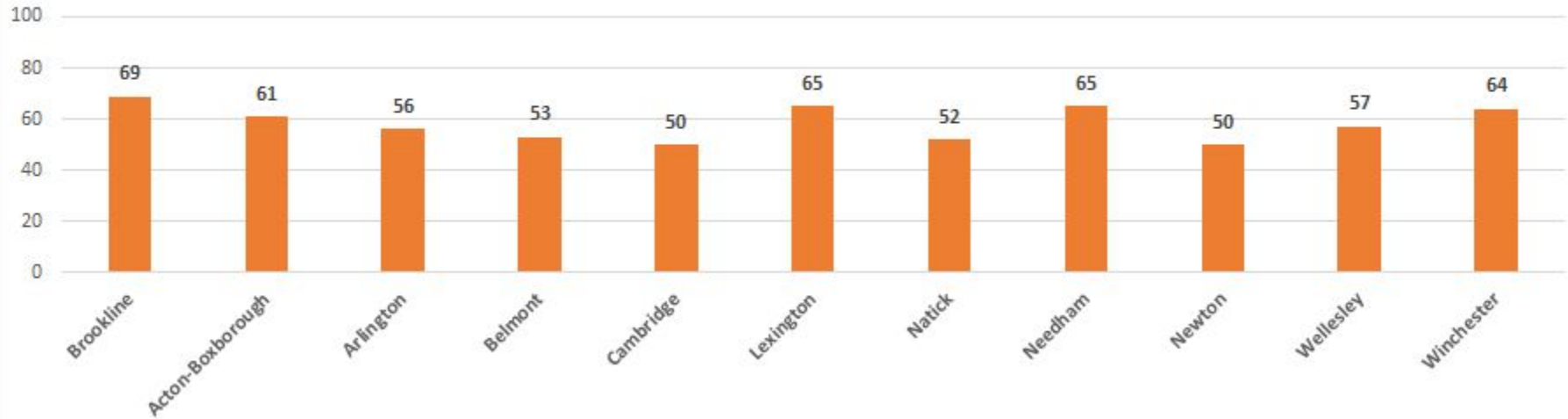
# ELA Proficiency Rates by Comparable Districts: Grades 3-8 (All Students)

ELA Proficiency Rates 2017: Comparable Districts (Grades 3-8)

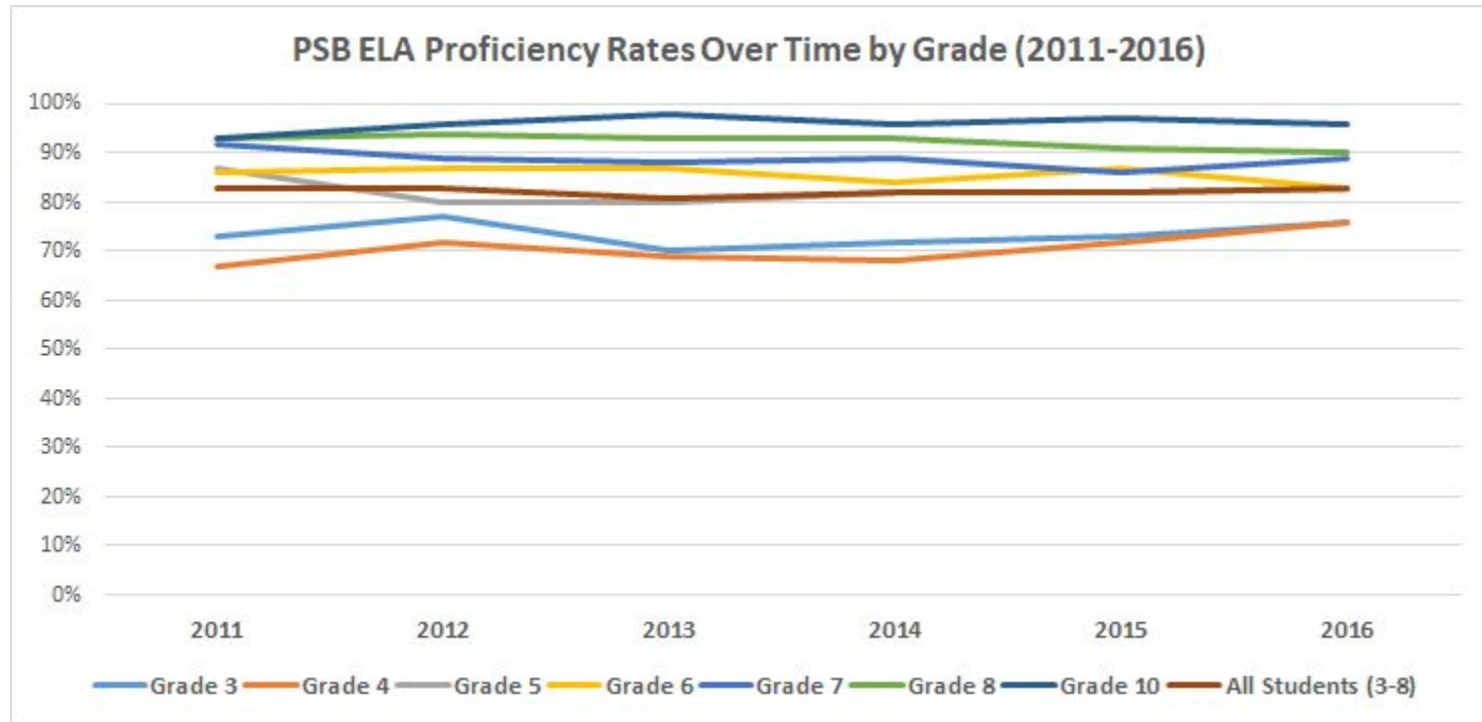


## ELA Median SGP by Comparable Districts: Grades 3-8 (All Students)

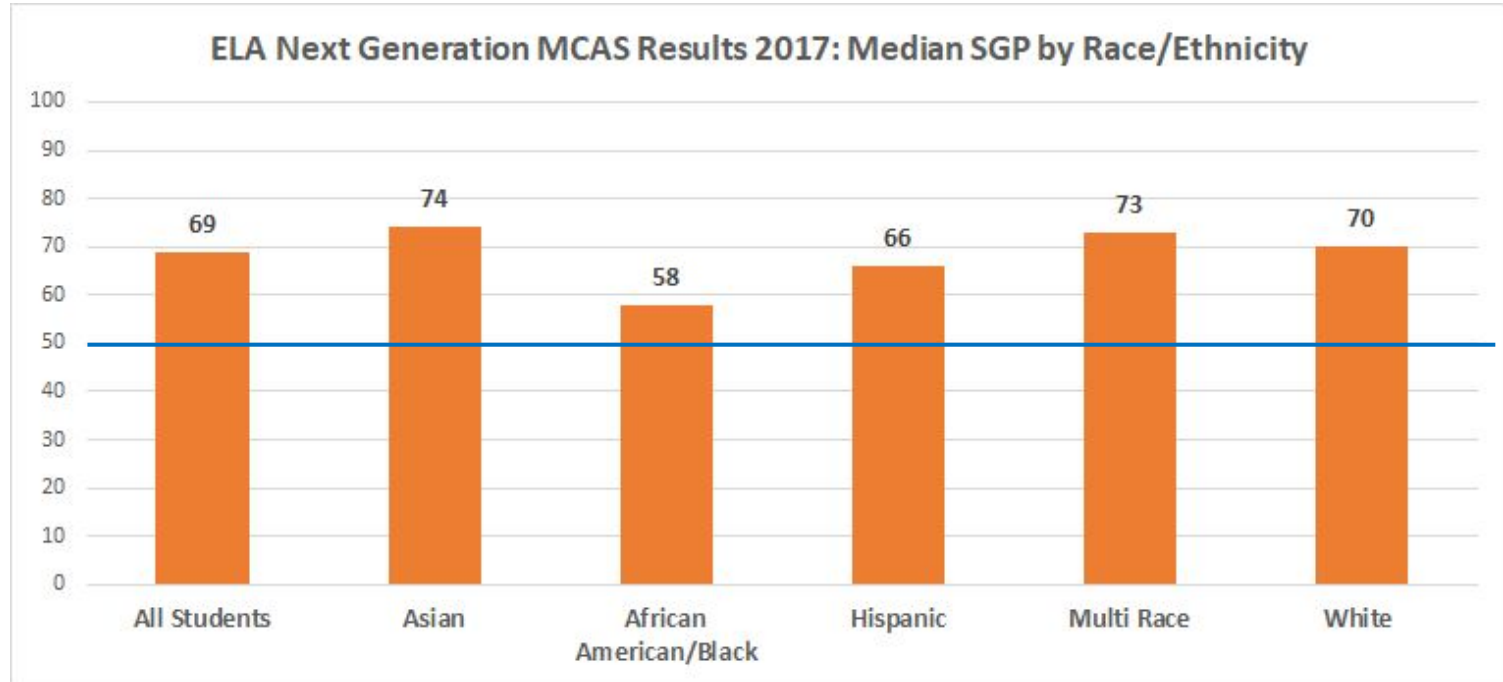
ELA Median SGP 2017: Comparable Districts (Grades 3-8)



# Grade 3-8 ELA Proficiency Rates Over Time by Grade (2011-2016)

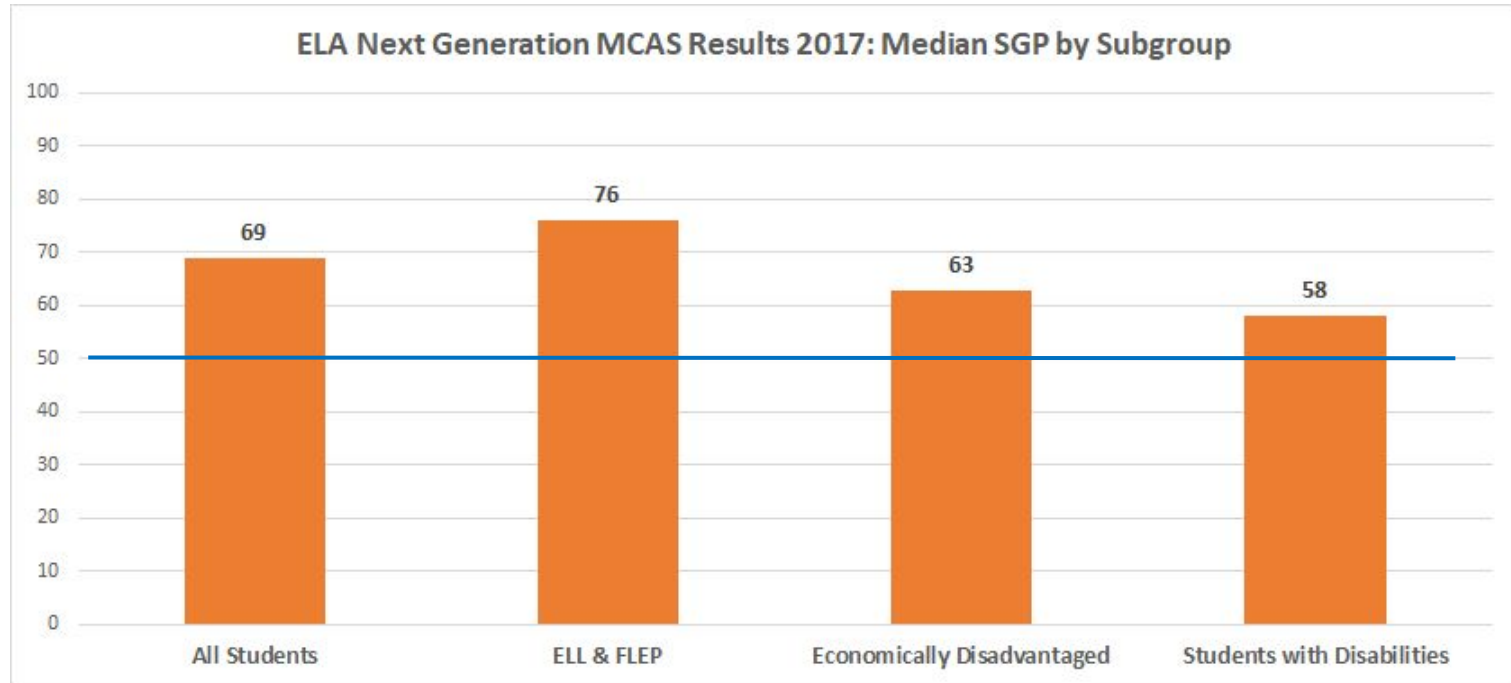


# Grade 4-8 ELA SGP by Race/Ethnicity (2017)



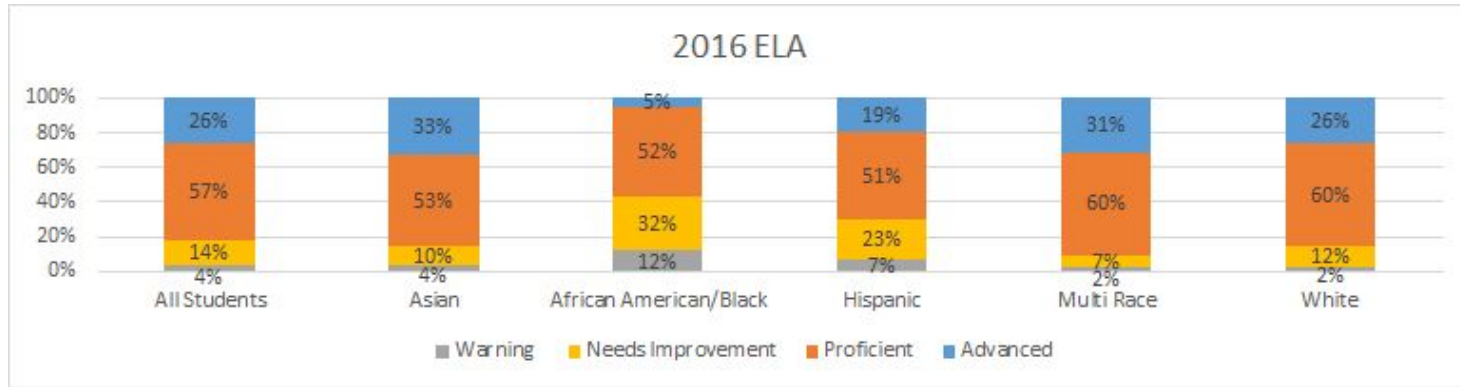
— State target

# Grade 4-8 ELA SGP by Subgroup (2017)



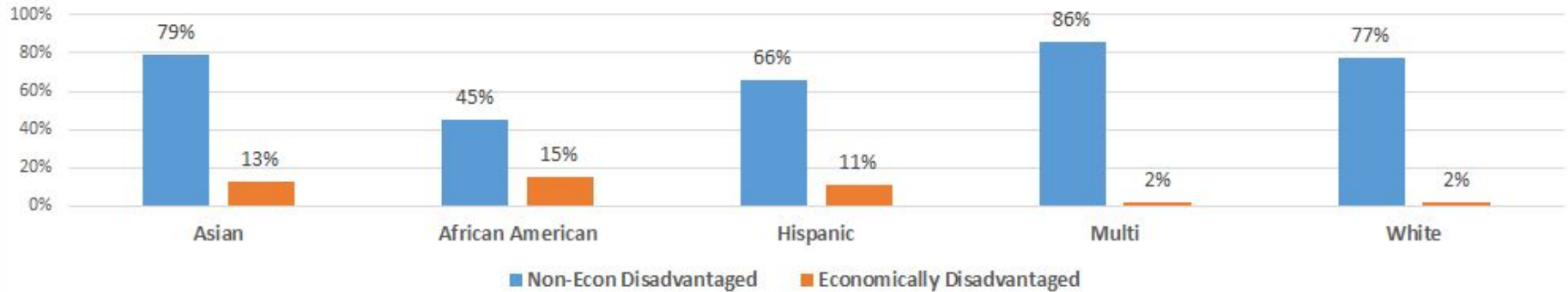
— State target

# Performance Levels Grades 3-8 ELA (2017 vs 2016) by Race/Ethnicity



# ELA Proficiency Rates by Race/Ethnicity and Income: Grades 3-8 (2017)

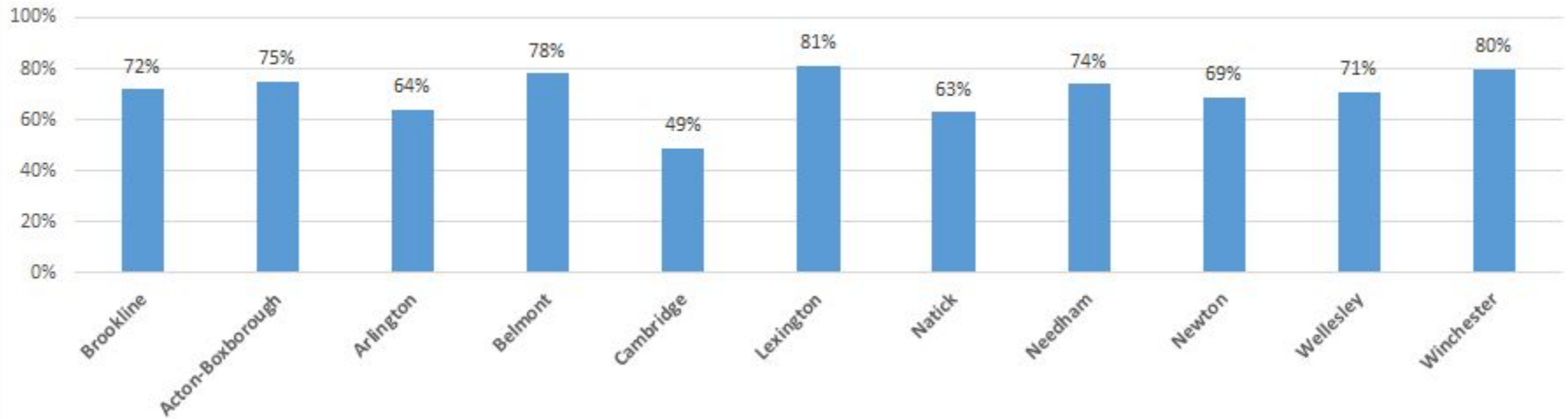
ELA Proficiency Rates by Race/Ethnicity and Economic Status, 2017 (Grades 3-8)



	Asian	African American	Hispanic	Multi	White
<b>Non-Econ Disadvantaged</b>	372	54	186	260	1410
<b>Economically Disadvantaged</b>	59	18	31	5	34

# Math Proficiency Rates by Comparable Districts: Grades 3-8 (All Students)

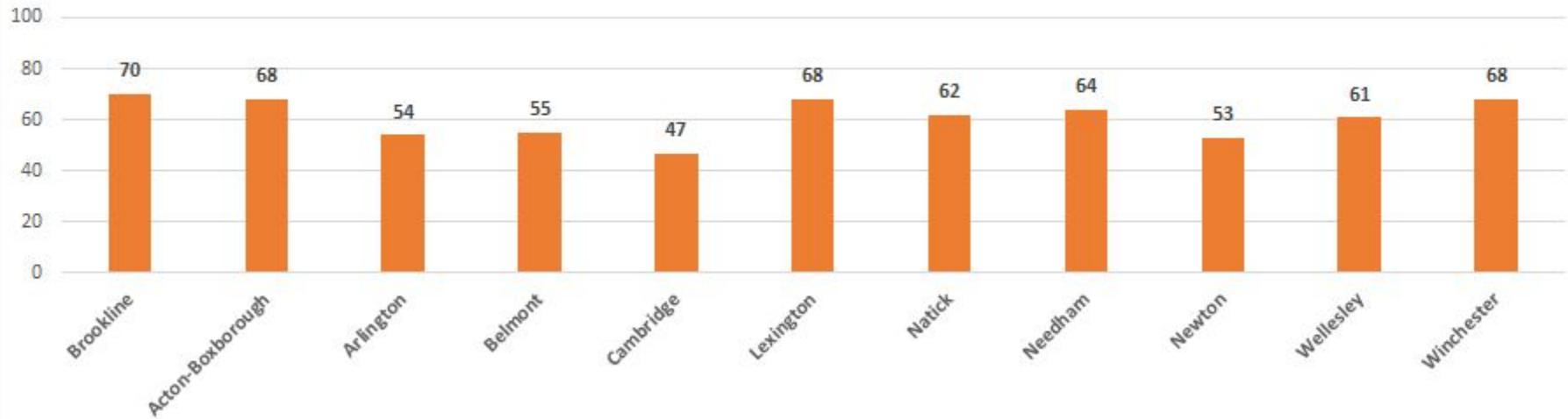
Math Proficiency Rates 2017: Comparable Districts (Grades 3-8)



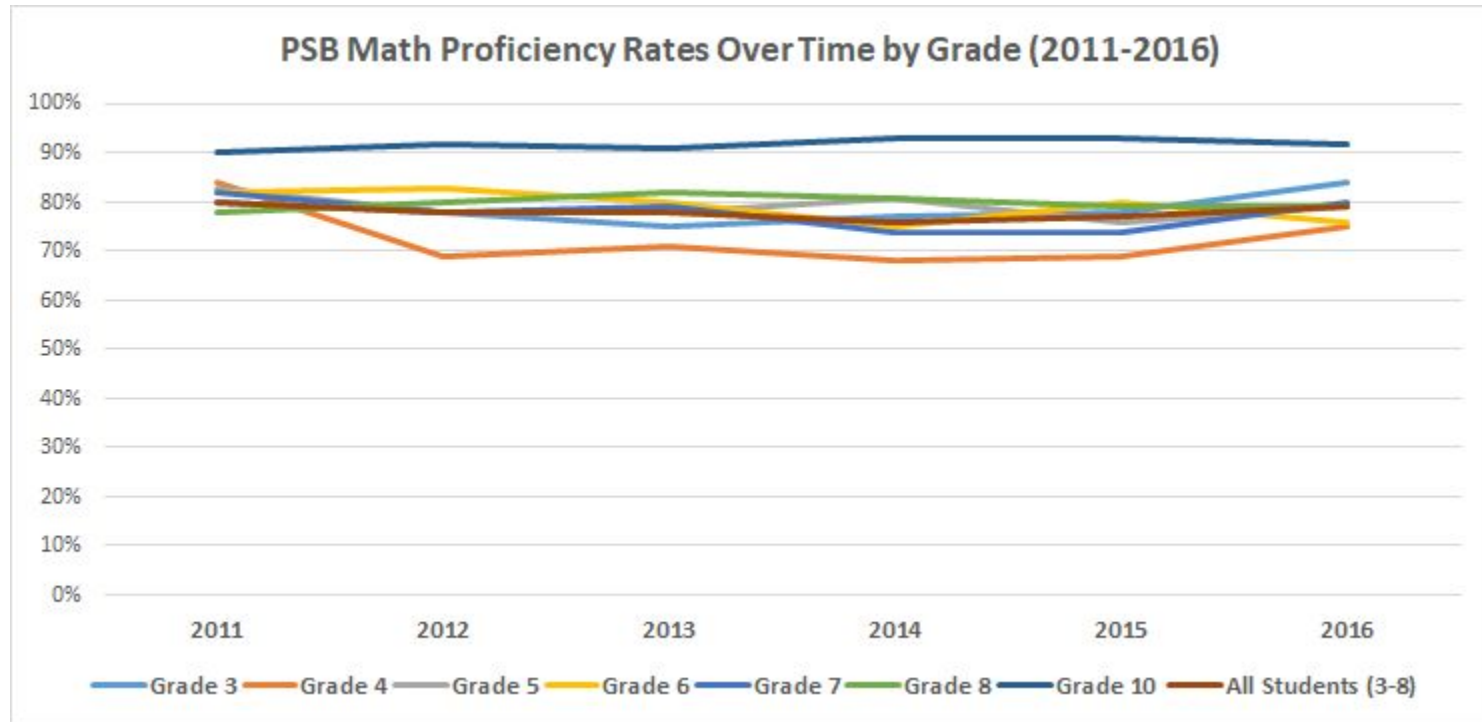


# Math Median SGP by Comparable Districts: Grades 3-8 (All Students)

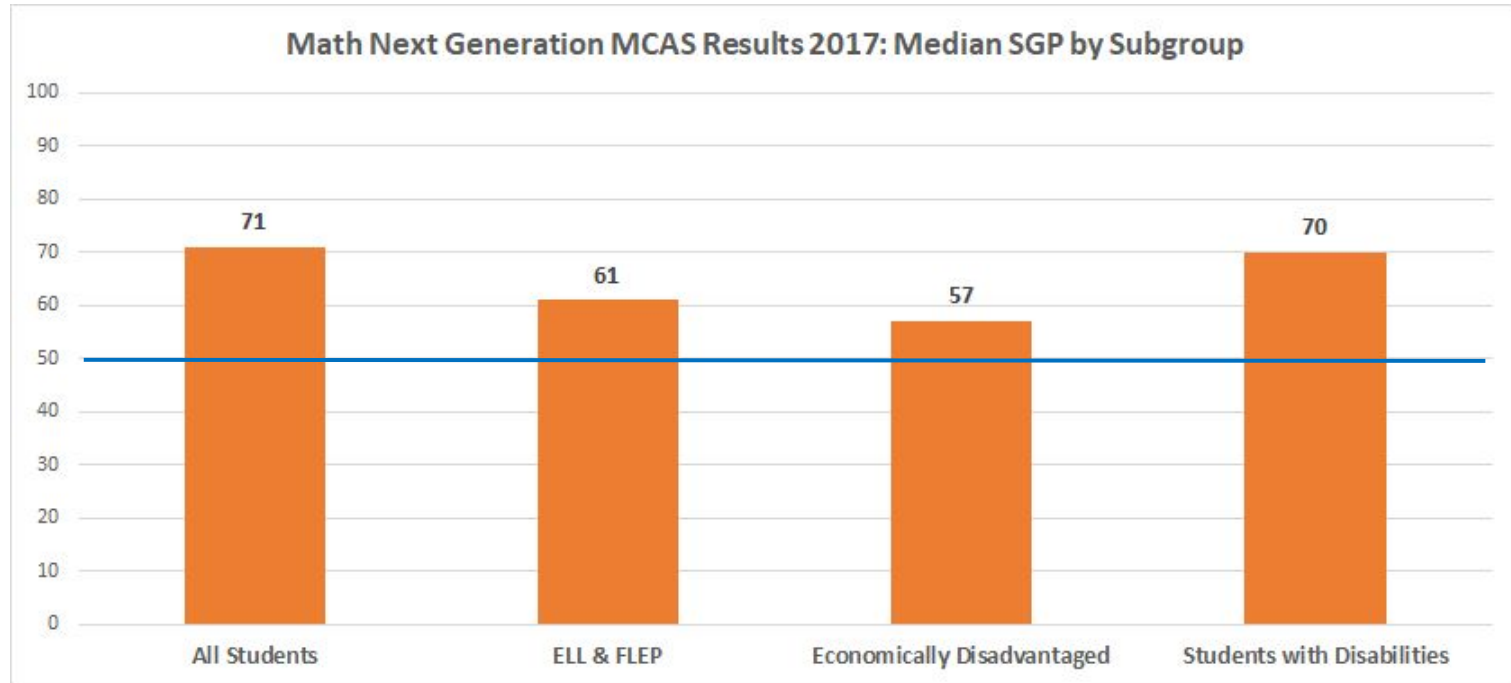
Math Median SGP 2017: Comparable Districts (Grades 3-8)



# Grade 3-8 Math Proficiency Rates Over Time by Grade 2011-2016

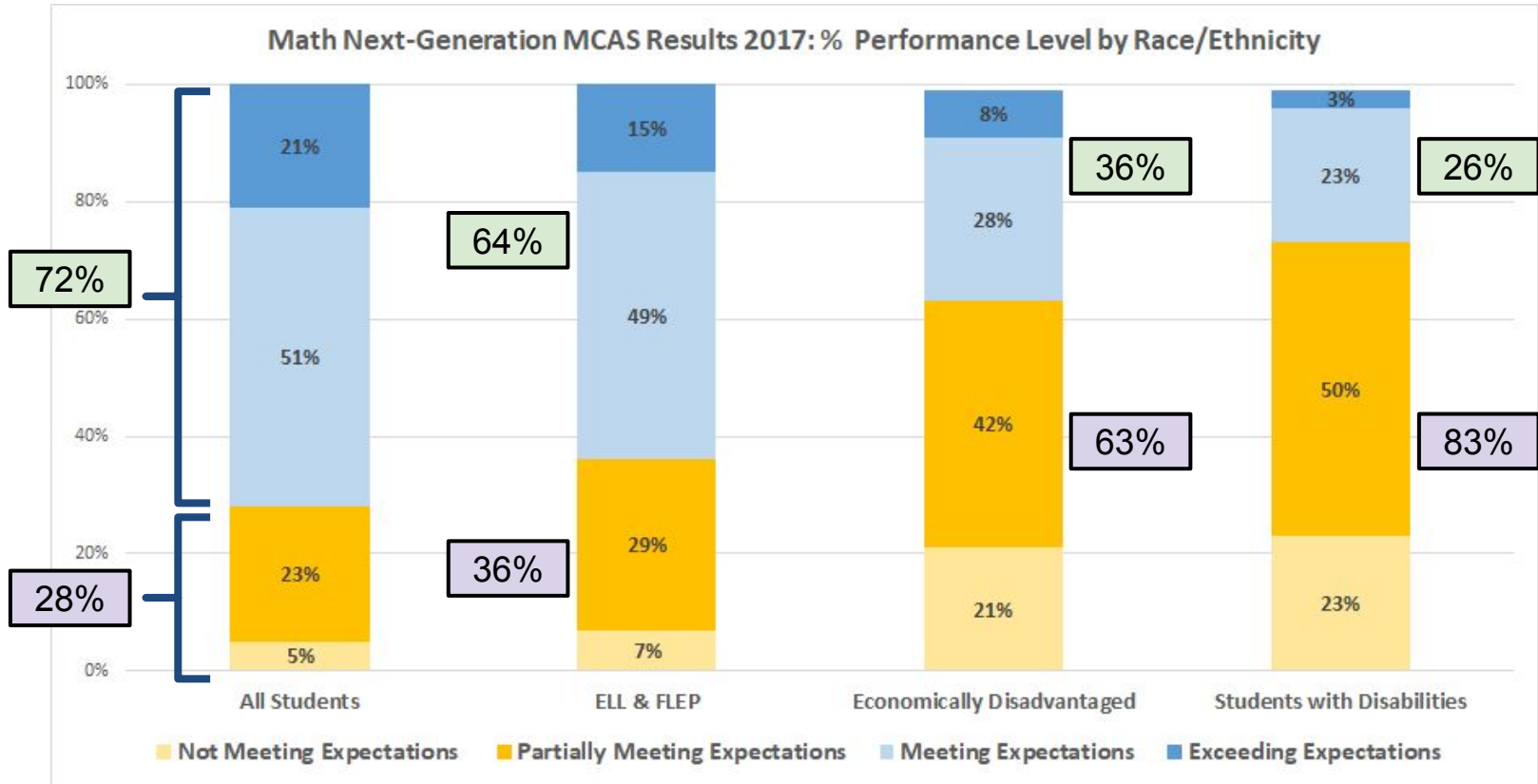


# Grade 4-8 Math SGP by Subgroup (2017)

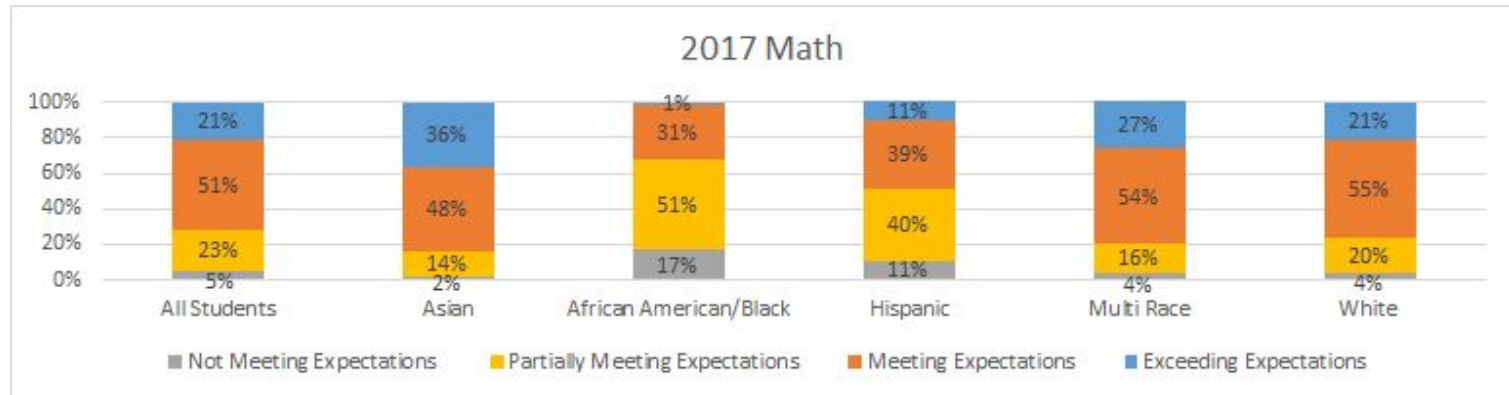
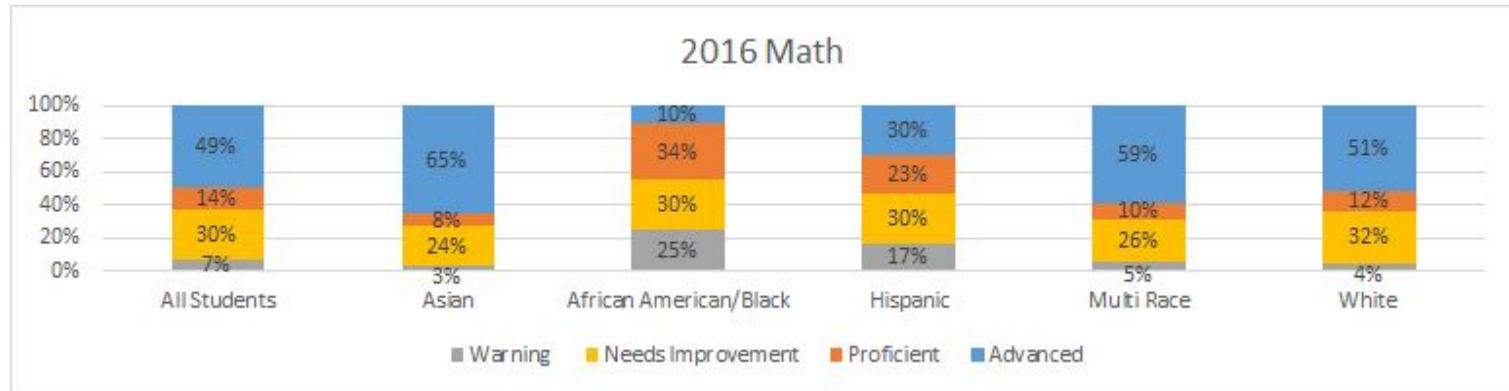


— State target

# Grade 3-8 Math Performance Level by Subgroup (2017)

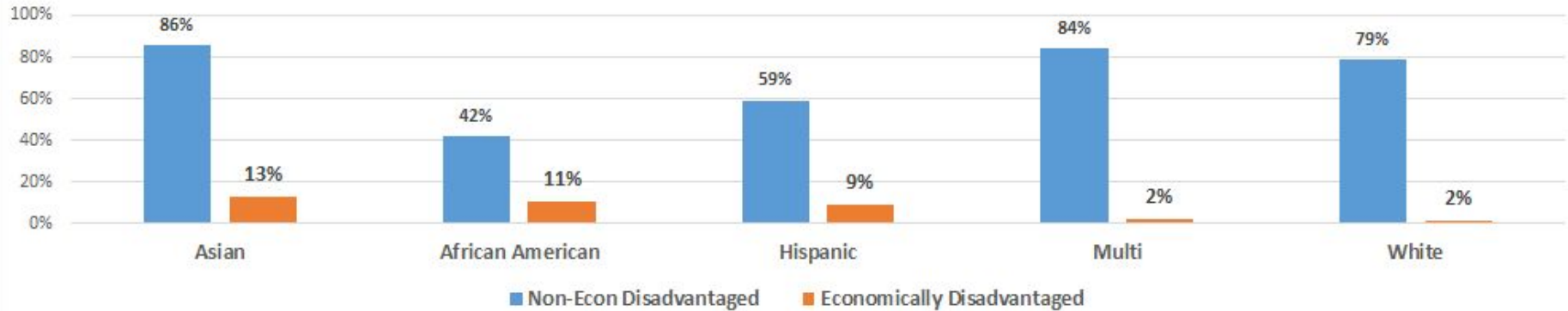


# Performance Levels Grades 3-8 Math (2017 vs 2016) by Race/Ethnicity



# Math Proficiency Rates by Race/Ethnicity and Income: Grades 3-8 (2017)

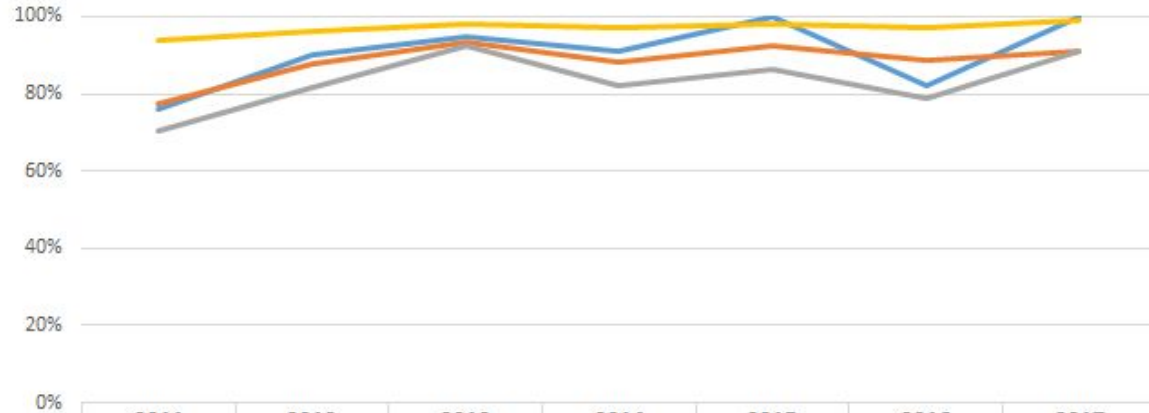
Math Proficiency Rates by Race/Ethnicity and Economic Status, 2017 (Grades 3-8)



	Asian	African American	Hispanic	Multi	White
<b>Non-Econ Disadvantaged</b>	402	50	168	251	1,429
<b>Economically Disadvantaged</b>	61	13	26	6	32

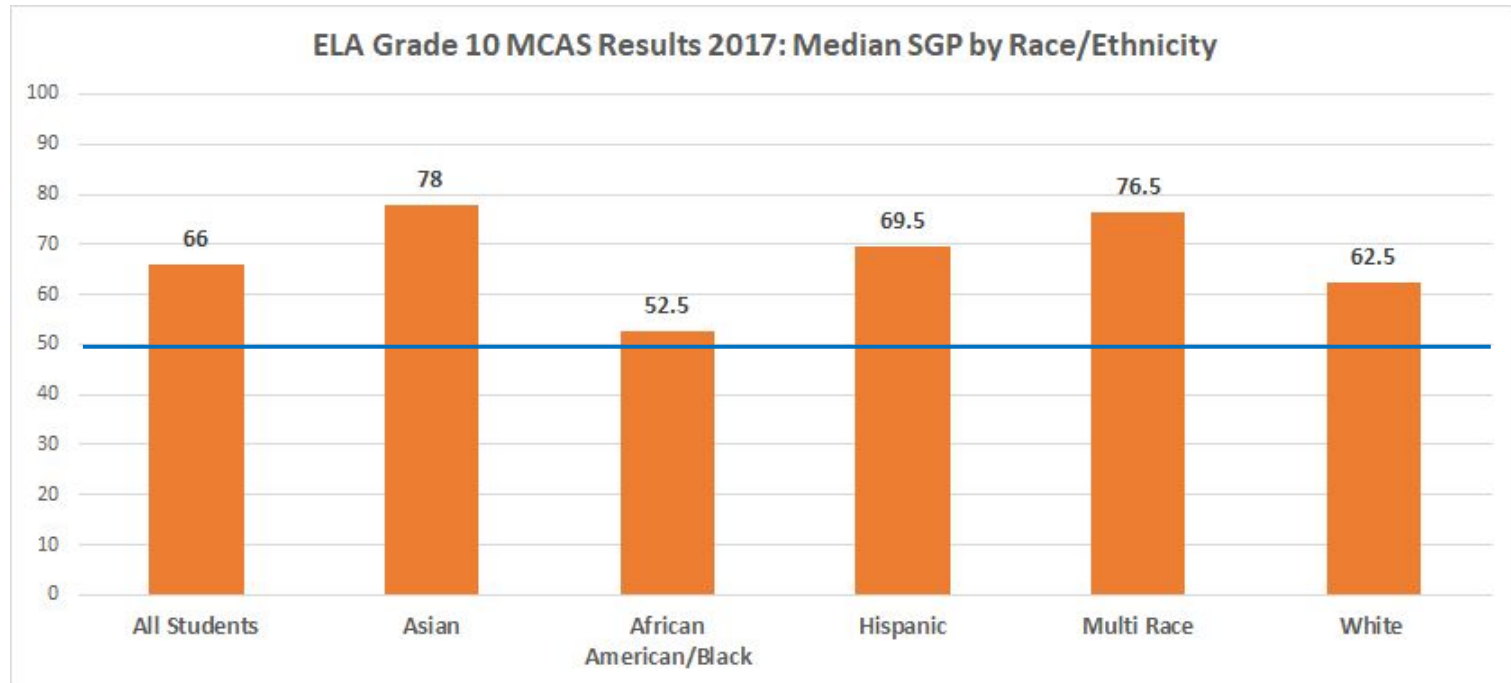
# Grade 10 Longitudinal ELA Proficiency Rates by Subgroups (2011-2017)

**Grade 10 ELA Proficiency Rates Over Time by Subgroup**



	2011	2012	2013	2014	2015	2016	2017
ELL/FLEP	76%	90%	95%	91%	100%	82%	100%
Economically Disadvantaged	77%	88%	94%	88%	92%	89%	91%
Students with Disabilities	70%	82%	92%	82%	87%	79%	91%
All Students	94%	96%	98%	97%	98%	97%	99%

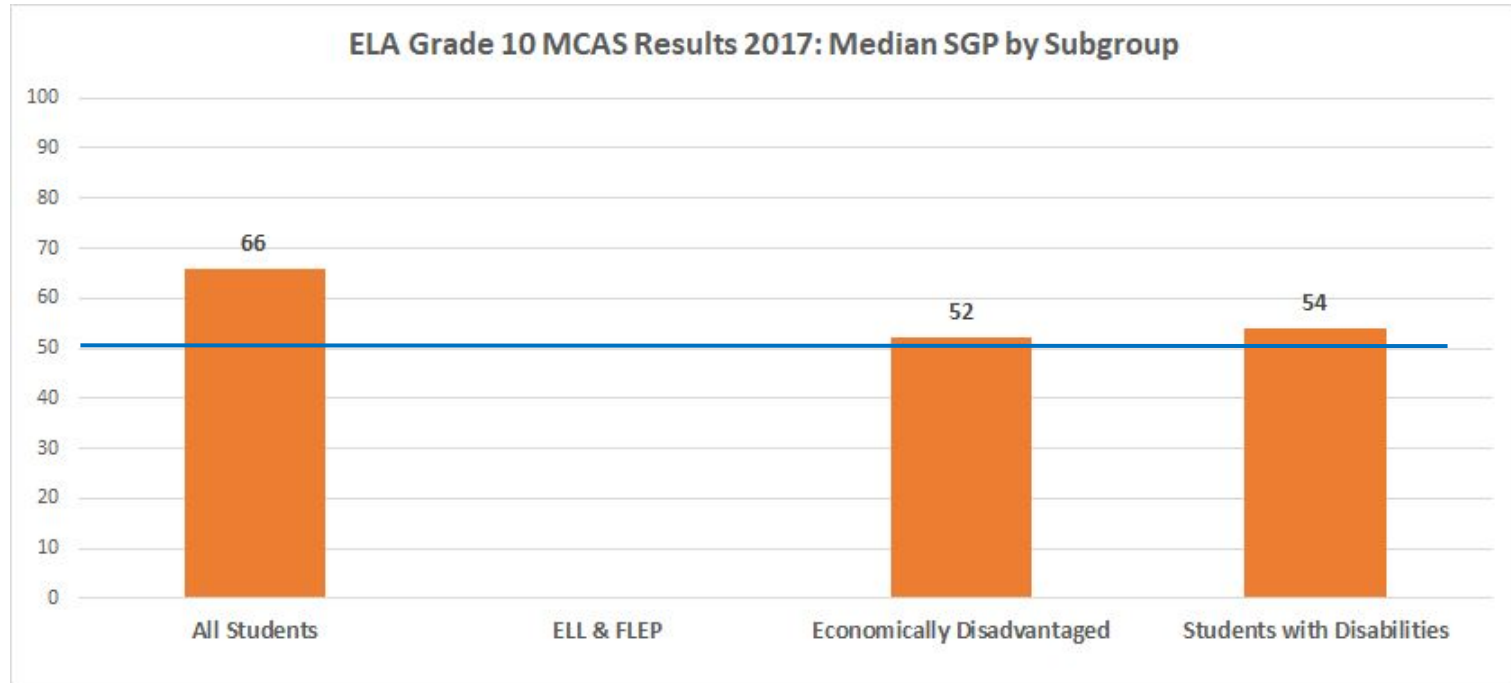
# Grade 10 ELA SGP by Race/Ethnicity (2017)



— State target



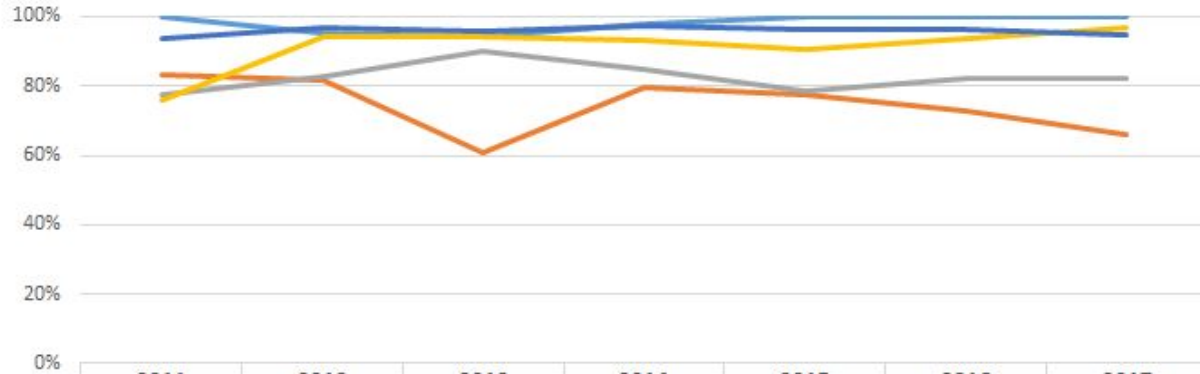
# Grade 10 ELA SGP by Subgroup (2017)



— State target

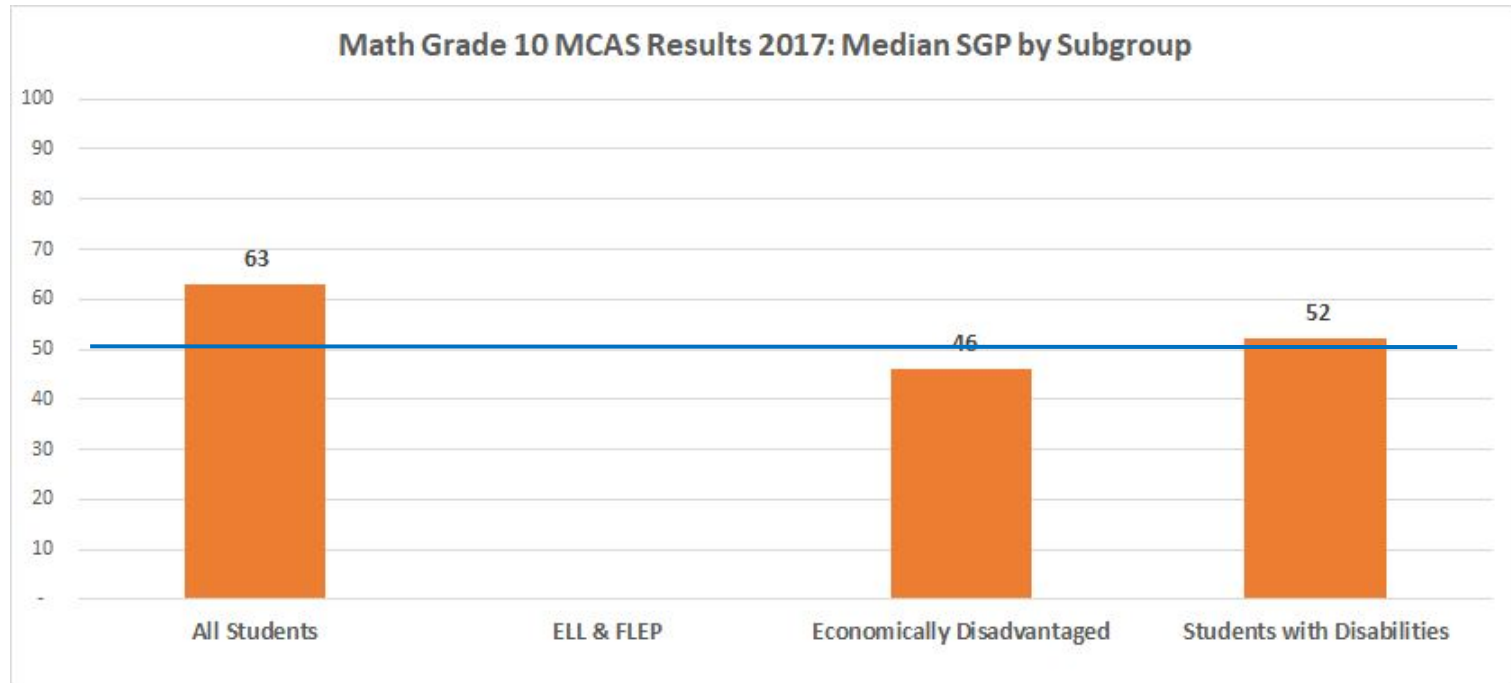
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Grade 10 Math Proficiency Rates Over Time by Race/Ethnicity



	2011	2012	2013	2014	2015	2016	2017
Asian	100%	95%	94%	98%	100%	100%	100%
African American/Black	83%	82%	61%	79%	78%	73%	66%
Hispanic	78%	83%	90%	85%	79%	82%	82%
Multi Race	76%	94%	94%	93%	90%	94%	97%
White	94%	97%	96%	98%	96%	96%	95%

# Grade 10 Math SGP by Subgroup (2017)



— State target

# BHS 2017 Accountability Level

- 2017 Accountability Levels were only given to schools who took the legacy MCAS
- Level 2\*
- All students Progress and Performance score: 80
- High needs students Progress and Performance score: 69

\*Change from 2016 Level 1 status

# Accountability Level - Explanation

- High School accountability levels are made up of 7 different indicators
- Each indicator is awarded points based upon performance of All Students and High Needs students. Points are given based on whether All Students and High Needs students are hitting their performance and growth targets set in 2011.
- Extra credit points are awarded for schools that decrease the percentage of students in Warning/Failing and increase the percentage of students in Advanced.
- A Progress and Performance Score (PPI) for All Students and High Needs students is calculated using the points awarded for these 7 indicators.
  - Scores are based on 4 year averages with the most recent year given more weight.
- Schools without a participation rate of  $\geq 95\%$  for all students and all subgroups\* are not eligible for Level 1 status.

\*There must be at least 20 students in the subgroup to count towards participation rates.

Source: DESE 2017 Accountability School Leaders Guide

# Accountability Level - Explanation

## 7 High School Indicators

ELA proficiency
ELA growth
Math proficiency
Math growth
Science proficiency
Annual dropout rate
Annual graduation rate

## Point Scale

100	Above Target
75	On Target
50	Improved Below Target
25	No Change
0	Declined

# Accountability Level - High Needs Detail (2017)

Above Target
On Target
Below Target
Earning Extra Credit

High Needs Students: PPI				
	2014	2015	2016	2017
ELA Prof	100	75	25	75
ELA Growth	75	100	50	75
Decrease W/F				
Increase Adv	25	25		
Math Prof	100	0	50	0
Math Growth	75	75	75	75
Decrease W/F	25		25	
Increase Adv	25			
Science Prof	50	25	50	25
Decrease W/F			25	
Increase Adv	25		25	
Dropout	25	25	25	75
Graduation	75	75	75	75
Annual PPI	86	86	64	61
Weight	1x	2x	3x	4x
Cumulative PPI				69