

# Accountability data overview

September 2016

MASSACHUSETTS DEPARTMENT OF  
ELEMENTARY AND SECONDARY  
**EDUCATION**



# Highlights of Massachusetts' accountability system

- ★ Goal: Reducing proficiency gaps by half by 2017
- ★ Accountability & assistance levels for schools & districts (Levels 1-5)
- ★ Progress & Performance Index (PPI) – a performance measure that includes student growth, science, & other indicators
- ★ School percentiles – representing performance relative to other schools of the same school type
- ★ “High needs” subgroup data reported
  - ★ Economically disadvantaged students, students with disabilities, current & former English language learners



# Topics

- ★ 2016 accountability: MCAS & PARCC
- ★ Changes to 2016 accountability reporting
- ★ Overview of accountability measures
  - ★ Progress & Performance Index (PPI)
  - ★ School percentiles
  - ★ Accountability & assistance levels
- ★ 2016 reporting details
  - ★ PARCC & accountability
  - ★ Use of 2015 data in 2016 determinations
  - ★ Economically disadvantaged data & accountability
- ★ Accountability reports
- ★ Resources & tools



# 2016 Accountability: MCAS & PARCC



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# 2016 – A year of two assessments

- ★ Accountability reports look the same regardless of test used (MCAS or PARCC)
- ★ Equipercentile linking used to link MCAS and PARCC results
- ★ “Hold harmless” applied to assessment performance for PARCC schools and districts



# Changes to 2016 accountability reporting



# Changes to 2016 accountability reporting

- ★ Accountability reporting for schools & districts administering PARCC in ELA & mathematics in grades 3-8 in 2016
  - ★ 2016 PPI calculated using standard rules
  - ★ 2016 accountability & assistance level held harmless: the level can stay the same or improve from 2015, but cannot decline due to assessment performance
    - ★ Exceptions: Hold harmless does not apply to high schools, MCAS-only schools or districts, schools with persistently low graduation rates, or schools or districts with low or very low assessment participation
- ★ Accountability reporting for schools & districts that administered PARCC in ELA & mathematics in grades 3-8 in 2015
  - ★ 2016 cumulative PPI run twice (including & excluding 2015 annual PPIs), with the higher value used in 2016 accountability determinations
- ★ School percentiles for all non-high schools calculated twice
  - ★ Including & excluding 2015 ELA & math assessment data, with the higher value used in 2016 accountability determinations



# Changes to 2016 accountability reporting

- ★ Minimum group size for accountability determinations
  - ★ Minimum group size for reporting: 20 students (aggregate & subgroups)
  - ★ In 2016, this change only applies to subgroups that were large enough to receive accountability determinations in 2015
- ★ Participation rates calculated two ways
  - ★ Actual 2016 rates for each group in each subject
  - ★ For any group with an actual 2016 participation rate below 95 percent in any subject, a two-year participation average is calculated
  - ★ The higher of the two resulting rates will be used in considering placement into an accountability & assistance level

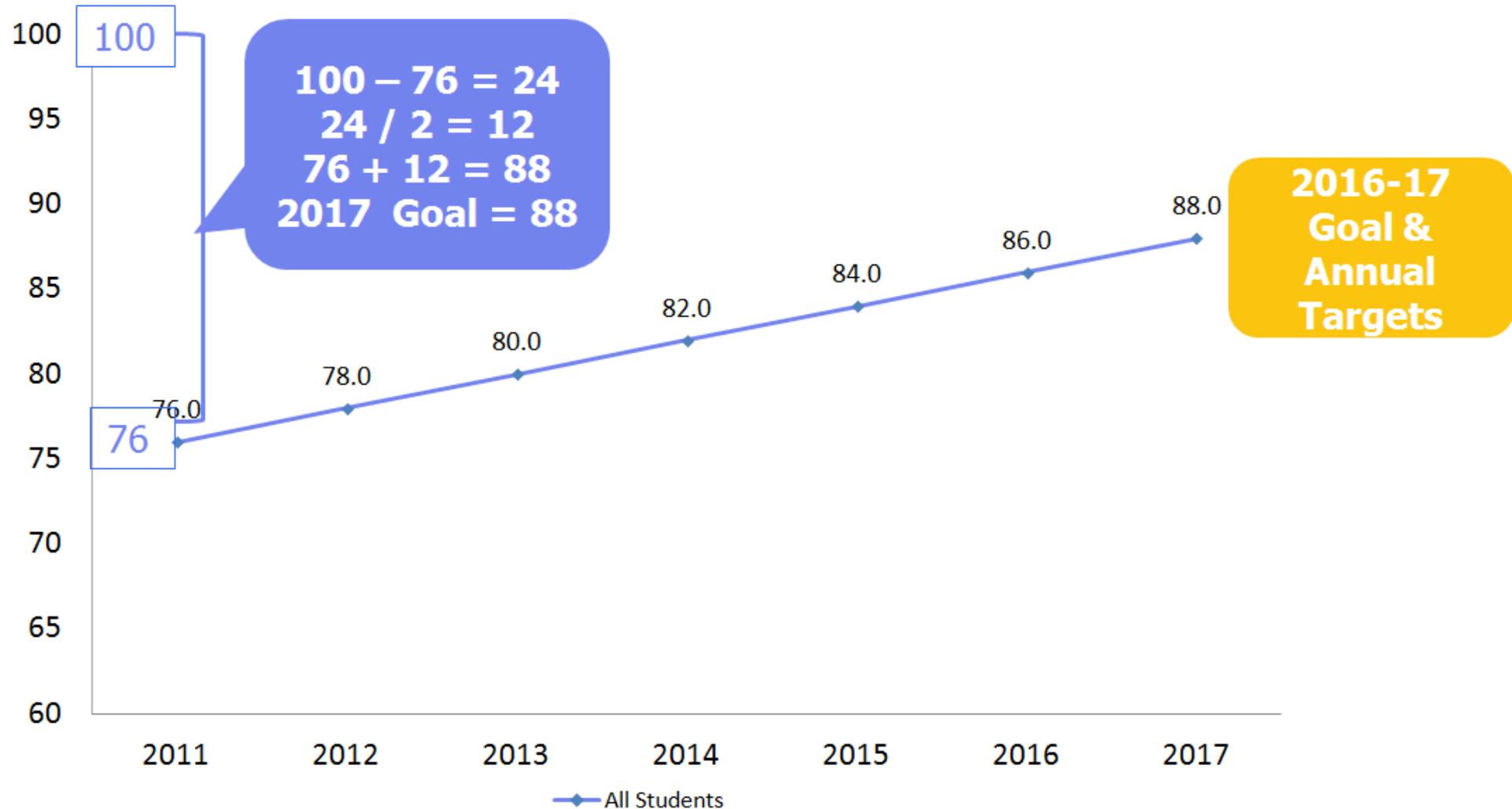


# Overview of accountability measures



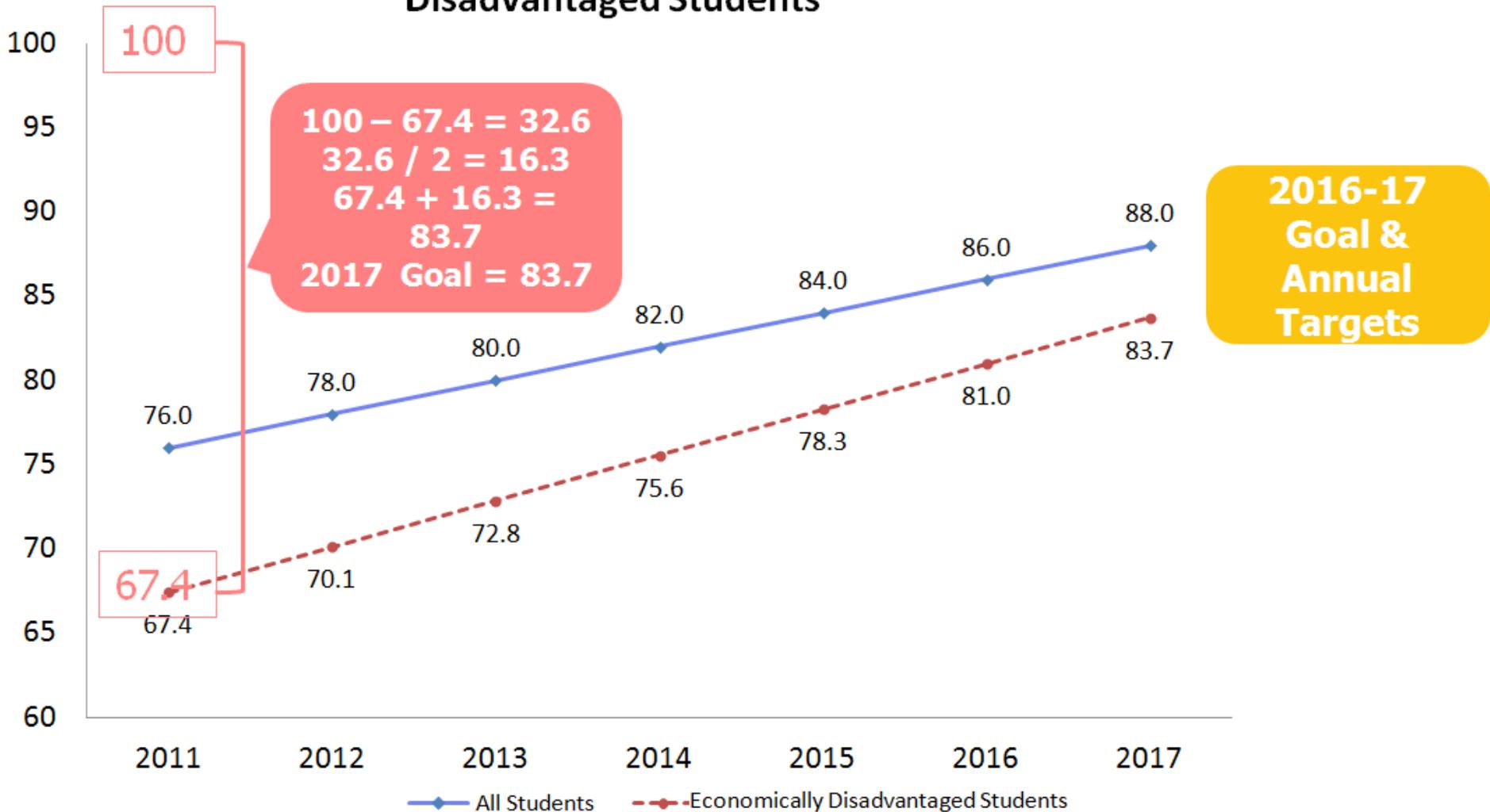
# Reducing proficiency gaps by half by 2016-17

Example: Math CPI, All Students



# Reducing proficiency gaps by half by 2016-17

Example: Math CPI, All Students & Economically Disadvantaged Students



# Key PPI concepts

- ★ The PPI is a measure of progress toward a group's gap-narrowing goals
  - ★ Annual PPI shows progress over two years
  - ★ Cumulative PPI represents trend over time
- ★ Core indicators (up to 7)
  - ★ ELA, math, & science proficiency gap narrowing (CPI)
  - ★ ELA & math growth (SGP)
  - ★ Annual dropout rate
  - ★ Cohort graduation rate (4- & 5-year)
- ★ Extra credit
  - ★ Reducing percentage of students scoring Warning/Failing &/or increasing percentage of students scoring Advanced (10 or more)
  - ★ Demonstrating strong growth on ACCESS for ELLs (SGPA of 60 or higher)
  - ★ Reengaging dropouts (2 or more students)



Annual PPI = total points / # core indicators

Cumulative PPI = (2013\*1 + 2014\*2 + 2015\*3 + 2016\*4) / 10

Core indicators	Up to 700 points awarded
1. ELA proficiency gap narrowing	0, 25, 50, <b>75</b> , or 100
2. Math proficiency gap narrowing	0, 25, 50, <b>75</b> , or 100
3. Science proficiency gap narrowing	0, 25, 50, <b>75</b> , or 100
4. ELA growth	0, 25, 50, <b>75</b> , or 100
5. Math growth	0, 25, 50, <b>75</b> , or 100
6. Annual dropout rate	0, 25, 50, <b>75</b> , or 100
7. Cohort graduation rate	0, 25, 50, <b>75</b> , or 100
Extra credit indicators	Up to 200 additional points awarded
ELA, math, science W/F reduction	25 + 25 + 25
ELA, math, science ADV increase	25 + 25 + 25
Growth in English language proficiency	25
Dropout reengagement	25

# The PPI & the school percentile

- ★ PPI is a *criterion-referenced* measure of progress
- ★ Percentiles are *relative*, & help the state & districts focus supports on low-achieving students in low performing schools
- ★ Massachusetts uses school types (ES, ESMS, MS, MSHS/K-12, HS) to fairly compare the performance of schools serving the same or similar grades & distribute resources equitably
- ★ Every school's percentile & PPI tells a different story
  - ★ Schools with *lower percentiles but higher PPIs* for all student groups are showing improvement over time
  - ★ Schools with *higher percentiles but lower PPIs* are performing well compared to other schools, but have more work to do to support success for all students



# Key level concepts

- ★ Schools & districts are classified into a level based on a four-year trend
  - ★ The cumulative PPI for all students & high needs students is used to classify schools into Levels 1 & 2
  - ★ School percentiles (1-99) represent performance relative to other schools of the school type, & are used to determine Level 3 schools (lowest-performing 20 percent per state law)
- ★ Districts are classified based on the level of lowest-performing school, with two exceptions:
  - ★ Board action
  - ★ Low or very low district-level assessment participation rates



# Classifying schools

	<u>Description</u>	<u>ESE Engagement</u>
Commendation Schools	High achieving, high growth, gap narrowing schools (subset of Level 1)	
Level 1	Meeting proficiency gap narrowing goals (for aggregate & high needs students)	Very low
Level 2	Not meeting proficiency gap narrowing goals (for aggregate &/or high needs students)	Low
Level 3	Lowest performing 20% of schools (including lowest performing subgroups)	High
Level 4	Lowest performing schools (subset of Level 3)	Very high
Level 5	Chronically underperforming schools (subset of Level 3 & 4)	Extremely high

# 2016 reporting details

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# Reporting on PARCC in 2016

- ★ PARCC results linked to MCAS results through a process called **equipercentile linking**
  - ★ Used to calculate transitional CPI, % Advanced, & % Warning/Failing
- ★ Transitional Student Growth Percentiles (SGPs) calculated for PARCC
- ★ Actual achievement & growth (where available) reported at the student, school, & district levels regardless of the assessment administered
- ★ Schools administering **PARCC** have their 2016 accountability & assistance level “held harmless” (i.e., the level will stay the same or improve from 2015, but cannot decline)
  - ★ Hold harmless provision applies to assessment performance only
- ★ Schools administering **MCAS** classified into an accountability & assistance level as usual, and not “held harmless”



# Use of 2015 data in 2016 cumulative PPIs

When determining the cumulative PPI for 2016 for a school or district that administered PARCC in grades 3-8 in spring 2015, the following approach will be used:

- ★ Calculate 2016, 2015, 2014, 2013 annual PPIs
- ★ Calculate cumulative PPIs two ways:
  - ★ Including the 2015 annual PPI
  - ★ Excluding the 2015 annual PPI
- ★ The higher of the two resulting cumulative PPIs will be assigned to the group, school, or district

Schools that administered MCAS ELA & math assessments in grades 3-8 in 2015 will have their 2016 cumulative PPI calculated according to normal rules.



# Use of 2015 data in 2016 school percentiles

To ensure that no school is disadvantaged by its 2015 assessment choice, 2016 school percentiles have been calculated two ways: once including 2015 ELA and math assessment data, and once excluding these data. The higher of the two resulting percentiles have been used in 2016 accountability results.

## Approach 1: Using 2015 data

- ★ Elementary, elementary/middle, and middle schools will have their 2016 school percentile calculated using the following data:
  - ★ ELA & math achievement & growth data from 2016, 2015, 2014, & 2013
  - ★ Science achievement data from 2016, 2015, 2014, & 2013
- ★ High schools, middle/high and K-12 schools will have their 2016 school percentile calculated using the following data:
  - ★ ELA & math achievement & growth data from 2016, 2015, 2014, & 2013
  - ★ Science achievement data from 2016, 2015, 2014, & 2013
  - ★ Cohort graduation & annual dropout rate data from 2015, 2014, 2013, & 2012



# Use of 2015 data in 2016 school percentiles

To ensure that no school is disadvantaged by its 2015 assessment choice, 2016 school percentiles have been calculated two ways: once including 2015 ELA and math assessment data, and once excluding these data. The higher of the two resulting percentiles have been used in 2016 accountability results.

## Approach 2: Excluding 2015 data

- ★ Elementary, elementary/middle, and middle schools will have their 2016 school percentile calculated using the following data:
  - ★ ELA & math achievement & growth data from 2016, 2014, 2013, & 2012
  - ★ Science achievement data from 2016, 2015, 2014, & 2013
- ★ Middle/high and K-12 schools will have their 2016 school percentile calculated using the following data:
  - ★ ELA & math achievement & growth data from 2016, 2014, 2013, & 2012
  - ★ Science achievement data from 2016, 2015, 2014, & 2013
  - ★ Cohort graduation & annual dropout rate data from 2015, 2014, 2013, & 2012
- ★ High school percentiles have not been calculated a second time



# Assessment participation

Assessment participation will be calculated two ways for use in school & district accountability determinations:

1. The 2016 participation rate for each subgroup in each subject area test will be calculated
2. If the actual 2016 participation rate is lower than 95 percent for any group in any subject, that rate will be compared to the average of the most recent two years of assessment participation data for that group & subject
3. The higher of the two resulting rates will be factored into the assignment of the school or district's 2016 accountability & assistance level



# Accountability reporting using economically disadvantaged data

Beginning with 2015 reporting, the low income student group has been replaced by the economically disadvantaged group. Accountability calculations for high needs group have also been adjusted:

- ★ Economically disadvantaged group

- ★ Achievement & high school measures reported
- ★ 2016 annual PPI calculated & reported
- ★ 2016 cumulative PPI not calculated or reported

- ★ High needs group

- ★ Includes current & former ELLs, students with disabilities, & any student classified as economically disadvantaged in October, March, or June during SY2015-16
- ★ “Hold harmless” provision applied to the 2015 annual PPI
  - ★ Group’s 2015 data used to calculate annual PPI, which was compared to 2014 annual PPI for High Needs group. The higher annual PPI was used in cumulative PPI calculations for 2015 & 2016



# Accountability reports

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# Accountability reports

## ★ Layer 1:

- ★ Accountability & assistance level
- ★ Reason(s) for level designation
- ★ School percentile (schools only)
- ★ Determination of need for Special Education technical assistance or intervention (districts & single-school districts only)
- ★ Cumulative Progress & Performance Index (PPI) for all student groups
- ★ Summary of school accountability information (districts only)

## ★ Layer 2 (group-specific):

- ★ Annual & cumulative PPI figures
- ★ Points awarded for each indicator
- ★ Assessment participation data

## ★ Layer 3:

- ★ Detailed data for each indicator for all student groups



# Level 1 school (1<sup>st</sup> layer of report)

**Accountability Information** [About the Data](#)

**Accountability and Assistance Level**

**Level 1** Meeting gap narrowing goals

**This school's overall performance relative to other schools in same school type (School percentiles: 1-99)**



**This school's progress toward narrowing proficiency gaps (Cumulative Progress and Performance Index: 1-100)**

Student Group (Click group to view subgroup data)	On Target = 75 or higher - ■			<a href="#">View Detailed 2016 Data</a>
	Less progress	More progress		
<a href="#">All students</a>			<b>83</b>	Met Target
<a href="#">High needs</a>			<b>81</b>	Met Target
<a href="#">Econ. Disadvantaged</a>			-	
<a href="#">ELL and Former ELL</a>			-	
<a href="#">Students w/disabilities</a>			82	Met Target
<a href="#">Amer. Ind. or Alaska Nat.</a>			-	
<a href="#">Asian</a>			-	
<a href="#">Afr. Amer./Black</a>			-	
<a href="#">Hispanic/Latino</a>			-	
<a href="#">Multi-race, Non-Hisp./Lat.</a>			-	
<a href="#">Nat. Haw. or Pacif. Isl.</a>			-	
<a href="#">White</a>			96	Met Target



# Level 2 school (1<sup>st</sup> layer of report)

## Accountability Information [About the Data](#)

### Accountability and Assistance Level

**Level 2** Not meeting gap narrowing goals

### This school's overall performance relative to other schools in same school type (School percentiles: 1-99)



### This school's progress toward narrowing proficiency gaps (Cumulative Progress and Performance Index: 1-100)

Student Group (Click group to view subgroup data)	On Target = 75 or higher - ■			<a href="#">View Detailed 2016 Data</a>
	Less progress	More progress		
<a href="#">All students</a>		■	54	Did Not Meet Target
<a href="#">High needs</a>		■	67	Did Not Meet Target
<a href="#">Econ. Disadvantaged</a>				-
<a href="#">ELL and Former ELL</a>				-
<a href="#">Students w/disabilities</a>		■	49	Did Not Meet Target
<a href="#">Amer. Ind. or Alaska Nat.</a>				-
<a href="#">Asian</a>				-
<a href="#">Afr. Amer./Black</a>				-
<a href="#">Hispanic/Latino</a>				-
<a href="#">Multi-race, Non-Hisp./Lat.</a>				-
<a href="#">Nat. Haw. or Pacif. Isl.</a>				-
<a href="#">White</a>		■	53	Did Not Meet Target



# Level 3 school (1<sup>st</sup> layer of report)

## Accountability Information [About the Data](#)

### Accountability and Assistance Level

**Level 3** Among lowest performing 20% of schools

### This school's overall performance relative to other schools in same school type (School percentiles: 1-99)



### This school's progress toward narrowing proficiency gaps (Cumulative Progress and Performance Index: 1-100)

Student Group (Click group to view subgroup data)	On Target = 75 or higher - ■			<a href="#">View Detailed 2016 Data</a>
	Less progress	More progress		
<a href="#">All students</a>		■	59	Did Not Meet Target
<a href="#">High needs</a>		■	57	Did Not Meet Target
<a href="#">Econ. Disadvantaged</a>			-	
<a href="#">ELL and Former ELL</a>			-	
<a href="#">Students w/disabilities</a>			-	
<a href="#">Amer. Ind. or Alaska Nat.</a>			-	
<a href="#">Asian</a>			-	
<a href="#">Afr. Amer./Black</a>			-	
<a href="#">Hispanic/Latino</a>			-	
<a href="#">Multi-race, Non-Hisp./Lat.</a>			-	
<a href="#">Nat. Haw. or Pacif. Isl.</a>			-	
<a href="#">White</a>		■	61	Did Not Meet Target



# District (1<sup>st</sup> layer of report)

Accountability Information		<a href="#">About the Data</a>
Accountability and Assistance Level		
<b>Level 2</b>	<b>One or more schools in the district classified into Level 2</b>	
This district's determination of need for special education technical assistance or intervention		
<b>Meets Requirements-At Risk (MRAR)</b>		

This district's progress toward narrowing proficiency gaps (Cumulative Progress and Performance Index: 1-100)			
Student Group (Click group to view subgroup data)	On Target = 75 or higher - ■		<a href="#">View Detailed 2016 Data</a>
	Less progress	More progress	
<a href="#">All students</a>		88	Met Target
<a href="#">High needs</a>		78	Met Target
<a href="#">Econ. Disadvantaged</a>		-	
<a href="#">ELL and Former ELL</a>		82	Met Target
<a href="#">Students w/disabilities</a>		67	Did Not Meet Target
<a href="#">Amer. Ind. or Alaska Nat.</a>		-	
<a href="#">Asian</a>		100	Met Target
<a href="#">Afr. Amer./Black</a>		61	Did Not Meet Target
<a href="#">Hispanic/Latino</a>		64	Did Not Meet Target
<a href="#">Multi-race, Non-Hisp./Lat.</a>		90	Met Target
<a href="#">Nat. Haw. or Pacif. Isl.</a>		-	
<a href="#">White</a>		99	Met Target

School Accountability Information			<a href="#">About the Data</a>
School	School Type	Title I Status	Accountability and Assistance Level
	Elementary School	Non-Title I School (NT)	Level 2
	Elementary School	Non-Title I School (NT)	Level 2
	Elementary School	Non-Title I School (NT)	Level 1

# Group-level data (2<sup>nd</sup> layer of report)

[Summary](#) > High needs

Progress and Performance Index (PPI) Subgroup Data		About the Data			
View Detailed 2016 Data for Each Indicator		Points Awarded			
		2013	2014	2015	2016
<b>English Language Arts</b>	Narrowing proficiency gaps (Composite Performance Index)	100	75	100	75
	Growth (Student Growth Percentiles)	50	50	75	50
	Extra credit for decreasing % Warning/Failing (10% or more)	0	25	25	0
	Extra credit for increasing % Advanced (10% or more)	0	0	25	0
<b>Mathematics</b>	Narrowing proficiency gaps (Composite Performance Index)	0	50	100	0
	Growth (Student Growth Percentiles)	75	100	75	75
	Extra credit for decreasing % Warning/Failing (10% or more)	0	25	25	0
	Extra credit for increasing % Advanced (10% or more)	0	25	0	0
<b>Science</b>	Narrowing proficiency gaps (Composite Performance Index)	100	75	100	0
	Extra credit for decreasing % Warning/Failing (10% or more)	0	25	25	0
	Extra credit for increasing % Advanced (10% or more)	0	25	25	0
<b>High School</b>	Annual dropout rate	0	0	50	25
	Cohort graduation rate	100	100	100	100
	Extra credit for dropout re-engagement (2 or more)	-	-	-	-
<b>English language acquisition</b>	Extra credit for high growth on ACCESS for ELLs assessment (Student Growth Percentile on ACCESS)	-	-	-	-
Points awarded for narrowing proficiency gaps, growth, and high school indicators		425	450	600	325
Points awarded for extra credit		0	125	125	0
Total points awarded		425	575	725	325
Number of proficiency gap narrowing, growth, and high school indicators		7	7	7	7
<b>Annual PPI = (Total points / Number of indicators)</b>		<b>61</b>	<b>82</b>	<b>104</b>	<b>46</b>
<b>Cumulative PPI = (2013*1 + 2014*2 + 2015*3 + 2016*4) / 10</b>		<b>Did Not Meet Target</b>			<b>72</b>
<b>Subgroup Percentiles</b>					
This group's overall performance relative to the performance of the same subgroup statewide in the same school type		76			
This group's overall performance relative to the performance of all subgroups statewide in the same school type		62			
<b>Assessment Participation</b>		<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
English Language Arts		97%	96%	98%	97%
Mathematics		97%	95%	98%	97%
Science		97%	98%	98%	97%



# Detailed data (3<sup>rd</sup> layer of report)

[Summary](#) > 2016

2016 English Language Arts Proficiency Gap Narrowing											About the Data
	0 10 20 30 40 50 60 70 80 90 100	Baseline CPI	2015 CPI	2016 CPI	CPI Change	2016 Target	6 Year Goal	CPI Percentile in School Type	N	PPI Points	Rating
<a href="#">All students</a>		96.8	99.0	99.4	0.4	98.1	98.4	78	432	100	Above Target
<a href="#">High needs</a>		90.8	97.1	98.1	1.0	94.6	95.4	84	148	100	Above Target
<a href="#">Econ. Disadvantaged</a>		-	96.4	96.4	0.0	96.1	96.7	80	28	75	On Target
<a href="#">ELL and Former ELL</a>		-	-	-	-	-	-	-	22	-	-
<a href="#">Students w/disabilities</a>		90.0	95.9	98.0	2.1	94.2	95.0	89	100	100	Above Target
<a href="#">Amer. Ind. or Alaska Nat.</a>		-	-	-	-	-	-	-	1	-	-
<a href="#">Asian</a>		94.7	98.4	100.0	1.6	96.9	97.4	86	44	100	Above Target
<a href="#">Afr. Amer./Black</a>		90.7	-	-	-	-	95.4	-	29	-	-
<a href="#">Hispanic/Latino</a>		93.3	96.4	96.4	0.0	96.1	96.7	80	28	75	On Target
<a href="#">Multi-race, Non-Hisp./Lat.</a>		94.9	99.2	100.0	0.8	97.0	97.5	62	26	100	Above Target
<a href="#">Nat. Haw. or Pacif. Isl.</a>		-	-	-	-	-	-	-	-	-	-
<a href="#">White</a>		98.3	99.6	99.7	0.1	99.0	99.2	85	304	100	Above Target

[Summary](#) > 2016

2016 Mathematics Proficiency Gap Narrowing											About the Data
	0 10 20 30 40 50 60 70 80 90 100	Baseline CPI	2015 CPI	2016 CPI	CPI Change	2016 Target	6 Year Goal	CPI Percentile in School Type	N	PPI Points	Rating
<a href="#">All students</a>		96.5	98.2	97.0	-1.2	98.0	98.3	82	435	75	On Target
<a href="#">High needs</a>		90.8	95.1	91.2	-3.9	94.6	95.4	87	151	0	Declined
<a href="#">Econ. Disadvantaged</a>		-	95.8	89.3	-6.5	93.7	94.6	85	28	0	Declined
<a href="#">ELL and Former ELL</a>		-	-	-	-	-	-	-	23	-	-
<a href="#">Students w/disabilities</a>		90.0	93.6	89.7	-3.9	94.2	95.0	89	102	0	Declined
<a href="#">Amer. Ind. or Alaska Nat.</a>		-	-	-	-	-	-	-	1	-	-
<a href="#">Asian</a>		96.7	99.6	97.8	-1.8	98.1	98.4	60	45	100	Above Target
<a href="#">Afr. Amer./Black</a>		89.8	-	-	-	-	94.9	-	30	-	-
<a href="#">Hispanic/Latino</a>		89.2	95.8	89.3	-6.5	93.7	94.6	85	28	0	Declined
<a href="#">Multi-race, Non-Hisp./Lat.</a>		97.4	96.7	100.0	3.3	98.5	98.7	75	26	100	Above Target
<a href="#">Nat. Haw. or Pacif. Isl.</a>		-	-	-	-	-	-	-	-	-	-
<a href="#">White</a>		97.8	98.5	98.1	-0.4	98.7	98.9	86	305	100	Above Target



# Resources & tools



# Resources & tools

- ★ Gap-halving calculators, PPI calculator, videos, and explanatory materials:

<http://www.mass.gov/edu/government/departments-and-boards/ese/programs/accountability/reports/school-and-district-reports.html>

- ★ District analysis, review, & assistance tools (DART):

<http://profiles.doe.mass.edu/analysis/> and [www.mass.gov/ese/dart](http://www.mass.gov/ese/dart)



# Questions?



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