

## **What it Means to Be Identified as a School that “Needs Improvement” Under No Child Left Behind (NCLB)**

On September 8, 2009 parents of children attending Luther Conant Elementary School and R. J. Grey Junior High School received notice from the district that their children’s schools had been identified by the state as needing improvement on MCAS performance for the subgroup of students who receive special education services. Conant received the Needs Improvement rating in both English Language Arts (ELA) and Math for special education students while R.J. Grey received this designation in Math for special education students for the second consecutive year. In order to understand what this rating means, it’s necessary to understand the purpose of MCAS, the requirements of The Education Reform Law of 1993 and No Child Left Behind (NCLB).

### **What are MCAS, the Education Reform Law of 1993 and No Child Left Behind (NCLB)?**

The Massachusetts Comprehensive Assessment System (MCAS) is designed to meet the requirements of the Education Reform Law of 1993. This law specifies that the testing program must:

- Test all public school students in Massachusetts, including students with disabilities and those who have limited proficiency in English,
- Measure performance based on the Massachusetts Curriculum Framework learning standards, and
- Report on the performance of individual students, schools and districts.

As required by the Education Reform Law, students must pass the grade 10 tests in English Language Arts and Mathematics as one condition of eligibility for a high school diploma (in addition to fulfilling local graduation requirements). Assessing students in earlier grades (3-8) allows a district to target areas where student learning and achievement can be enhanced.

In addition to meeting the requirements of the Education Reform Law, the MCAS program is used to hold schools and districts accountable, on a yearly basis, for the progress they have made toward the No Child Left Behind (NCLB) objective of all students being proficient in English Language Arts and Mathematics by 2014.

### **How do Schools show Annual Yearly Progress?**

The No Child Left Behind Law requires that individual schools and districts demonstrate students are making academic progress each year. This is called Annual Yearly Progress (AYP). Each year a school’s target AYP is raised by a small percentage to ensure that students continue to improve their performance each year. Annual Yearly Progress is determined by both aggregate and subgroup scores. Subgroups consist of 20 or more students in categories such as special education, limited English proficiency, economically disadvantaged students and certain racial/ethnic groups. Yearly progress is determined by looking at both the aggregate and subgroup scores. A school that fails to show AYP for two consecutive years in English Language Arts or Mathematics, either in the aggregate (all students) or in any subgroup (of students), is put on notice by the state

and required to take specific actions to make improvement. That is the current situation for both Conant Elementary School and R .J. Grey.

### **What are the Consequences of Being Identified as Needing Improvement?**

As a consequence of being identified as needing improvement, Conant and R. J. Grey are required to take certain actions to ensure that they meet future Annual Yearly Progress goals.

1. The first action required is for the school/district to send a letter home to parents of all children in that school explaining: a) what the identification means, b) how the school intends to address the problem of low achievement, and c) how parents/guardians can become involved in addressing the academic issues that led to the identification. Both schools did this on Sept. 8, 2009.
2. The second action required by each school/district identified for improvement is to develop or revise its two-year school improvement plan to address the subjects, grade levels and student groups in which the school failed to make Annual Yearly Progress. This improvement plan must be completed no later than three months after the school is notified it needs improvement. Of particular interest to parents may be the requirement by the Massachusetts Department of Elementary and Secondary Education (“Mass. DOE”) that “the school must consult with parents, school staff, and others” when developing the improvement plan. In addition, the plan should:
  - Include strategies to promote effective parent involvement in the school;
  - Incorporate, as appropriate, activities before school, after school, during the summer, and during the extension of the school year; and
  - Incorporate strategies to promote high quality professional development.

Interestingly each of the areas outlined above was identified as an area needing improvement by parents of special needs children in the 2008-09 AB SpEd PAC Parent/Guardian survey.

3. The third action required when a school needs improvement is that the district must provide technical assistance to that school to support the revision and implementation of that school’s two-year improvement plan. The district must provide technical assistance based on scientific research in the areas of data analysis, identification and implementation of strategies, and budget analysis. In turn, Massachusetts regulations (603 CMR 2.0 §3) require the superintendent and the school committee to “develop a written plan detailing actions district officials will take, including allocation of the necessary human and financial resources, to support and oversee implementation of the school’s improvement plan” when a school does not make Annual Yearly Progress.

Each school then has two years in Needs Improvement status in which to demonstrate AYP before being classified as requiring Corrective Action. At that point the school

would be required to take at least one specific corrective action, such as instituting a new curriculum, extending the length of the school day or year, replacing school staff or decreasing management authority at the school. If a school fails to achieve AYP for a fourth straight year it would then be classified as needing Restructuring, which involves a major reorganization of the school's staffing and governance. Unfortunately, if R. J. Grey were to not achieve AYP in Mathematics for the special education subgroup this spring of 2010, it would then be classified as needing Corrective Action.

The following chart shows which district schools and grade levels achieved AYP in English Language Arts for the 2008 and 2009 school years.

### English Language Arts AYP Performance By School 2008-2009

#### Special Education Subgroup Performance - Met AYP?

	2009	2009	2009	2009	2009	2009
ELA	Grades 3-6	Grades 3-5	Grade 6	Grades 7-8	Grades 9-12	Grades 7-12
Conant	No					
Douglas	-					
Gates	Yes					
Merriam	No					
McCarthy Towne	Yes					
Acton District	No*	No	Yes			
R.J. Grey				No		
ABRHS				Yes		
A-B District				No*		

	2008	2008	2008	2008	2008	2008
ELA	Grades 3-6	Grades 3-5	Grade 6	Grades 7-8	Grades 9-12	Grades 7-12
Conant	No					
Douglas	No					
Gates	-					
Merriam	Yes					
McCarthy Towne						
Acton District	No	No	No			
R.J. Grey				Yes		
ABRHS				Yes		
A-B District				Yes		

\* The district did make AYP for the year, however not for the special education subgroup of students, which this table represents.

The following chart shows which district schools and grade levels achieved AYP in Mathematics for the 2008-2009 school years.

### Mathematics AYP Performance By School 2008-2009

#### Special Education Subgroup Performance - Met AYP?

	2009	2009	2009	2009	2009	2009
<b>MATH</b>	<b>Grades 3-6</b>	<b>Grades 3-5</b>	<b>Grade 6</b>	<b>Grades 7-8</b>	<b>Grades 9-12</b>	<b>Grades 7-12</b>
Conant	No					
Douglas	-					
Gates	Yes					
Merriam	Yes					
McCarthy Towne	No					
Acton District	No*					
R.J. Grey				No		
ABRHS				Yes		
A-B District				No *		

	2008	2008	2008	2008	2008	2008
<b>MATH</b>	<b>Grades 3-6</b>	<b>Grades 3-5</b>	<b>Grade 6</b>	<b>Grades 7-8</b>	<b>Grades 9-12</b>	<b>Grades 7-12</b>
Conant	No					
Douglas	Yes					
Gates	-					
Merriam	No					
McCarthy Towne	No					
Acton District	Yes					
R.J. Grey				No		
ABRHS				No		
A-B District				No		

\* The district did make AYP for the year, however not for the special education subgroup of students, which this table represents.

#### What is the Composite Performance Index (CPI)?

As part of the MCAS reporting system the Massachusetts DOE developed a useful index called the Composite Performance Index (CPI). CPI points are assigned to schools and districts for each student tested that year. These points are included in the Annual Yearly Progress reporting. CPI points for students who took MCAS are assigned to schools and districts based on MCAS performance level categories and scaled scores. Students who score in the Proficient or Above Proficient categories receive 100 points. Students who score in the high range of the Needs Improvement category receive 75 points while students who perform in the low range of the Needs Improvement category receive 50 points. Finally students who perform in the high range of the Warning category receive 25 points and those that score in the low range of this category receive 0 points.

### How Does Our District's MCAS Performance Compare to the State Average?

Although Conant and R. J. Grey were identified as needing improvement because of their failure to make Annual Yearly Progress for students in the special education subgroup, it is important to note that both of these school's Composite Performance Index (CPI) scores are well above the state average for this student population.

Statewide, CPI scores for the special education subgroup in third to sixth grade for English Language Arts ranged from 16–26 and for Math from 18 –28. So, if a school's CPI score increased, for example, from 20 to 24 points in Math for special education students over the last two years, that school would achieve AYP while Conant's CPI movement from 70.1 to 69.2 over two years fails to meet the state's AYP goals. A 9/10<sup>th</sup> of a point drop over two years at Conant does not necessarily indicate that there is any programmatic problem at the school. There are a number of factors that contribute to MCAS performance variation each year. First, each year's class of students is comprised of a different mix of individual students, with varying academic abilities. In addition the composition of special education students within each class varies by year, which impacts test scores. Finally, the difficulty of the individual MCAS test varies by year. The above example illustrates one of the criticisms of the AYP system, which is that high performing schools may be classified as needing improvement because it's more difficult for them to show annual progress beyond an already high level of performance.

### CPI SCORES BY SCHOOL (2006-2009)

#### Special Education Subgroup

ELA	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>	<u>09 vs 06</u>
Conant	72.7	74.4	83.3	72.7	0.0
Douglas	85.5	77.1	77.5	68.8	16.7
Gates	82.1	79.6	86.6	80.0	2.1
McCarthy	76.0	73.2	82.5	76.2	-0.2
Merriam	82.3	85.6	82.5	80.5	1.8

MATH	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>	<u>09 vs 06</u>
Conant	69.2	69.6	70.1	64.0	5.2
Douglas	78.3	73.4	62.5	65.5	12.8
Gates	79.8	78.9	74.4	80.2	-0.4
McCarthy	68.3	73.2	70.3	74.2	-5.9
Merriam	80.0	76.9	70.3	76.3	3.7

	Improvement over prior year.
	Decline from prior year.

### How Do Our Districts' MCAS Performance Compare to Similar Communities?

A ranking of districts by the percentage of special education students achieving Proficient or Proficient + on MCAS indicates that the Acton and A-B school districts are in the top tier in the state. A comparison of third to sixth grade scores and seventh to tenth grade scores show the Acton and A-B districts improving their ranking relative to other districts

over the elementary and secondary school time periods. Substantial gains are shown for ELA scores in the Acton district (grades 3-6) and for both ELA and Math in the A-B district (grades 7 – 10). The improvement demonstrated by the higher grades vs. the lower grades is consistent with a hypothesis that the Acton and A-B systems are having a positive impact over time on the special education population. However, the possibility that the changes are due to differing abilities of the different classes, e.g. if lower-ability students are entering into a district vs. prior classes, cannot be dismissed.

## RANKING BY GRADE - ELEMENTARY SCHOOLS

Special Education Subgroup  
 % Scoring Proficient or Better

	%>= P		Percentile		Incr (Decr)	
	<u>3rd Grade</u>	<u>3rd Grade</u>	<u>6th Grade</u>	<u>6th Grade</u>	<u>6th - 3rd</u>	<u>6th - 3rd</u>
<b>ELA</b>						
Acton	33	75%	56	93%	23	19%
Concord	49	95%	62	96%	13	1%
Lexington	55	98%	54	91%	-1	-7%
State	23		26		3	
<b>MATH</b>						
Acton	45	84%	41	89%	-4	5%
Concord	42	80%	20	54%	-22	-26%
Lexington	62	97%	37	87%	-25	-10%
State	28		19		-9	

There were 237 and 254 schools reporting 3rd and 6th grade scores, respectively.

"%>=P" represents percentage of subgroup students scoring proficient or better.

"Percentile" represents percentage of schools with lower %>=P.

"Incr (Decr)" is the difference between the senior grade and the earlier grade.

## RANKING BY GRADE - SECONDARY SCHOOLS

Special Education Subgroup  
 % Scoring Proficient or Better

	%>= P	Percentile	%>= P	Percentile	Incr (Decr) %>= P	Incr (Decr) Percentile
	<u>7th</u>	<u>7th</u>	<u>10th</u>	<u>10th</u>	<u>10th - 7th</u>	<u>10th - 7th</u>
<b>ELA</b>						
Acton-Boxborough	53	84%	73	87%	20	2%
Concord-Carlisle <sup>1</sup>	67	96%	79	94%	12	-2%
Lexington	72	99%	75	91%	3	-7%
State	28		43		15	
<b>MATH</b>						
Acton-Boxborough	27	86%	73	94%	46	8%
Concord-Carlisle <sup>1</sup>	24	79%	47	66%	23	-13%
Lexington	50	99%	72	93%	22	-6%
State	13		37		24	

<sup>1</sup> Concord only for 7th grade. 7th to 10th grade changes not comparable.

There were 239 and 246 schools reporting 7th and 10th grade scores, respectively.

"%>=P" represents percentage of subgroup students scoring proficient or better.

"Percentile" represents percentage of schools with lower %>=P.

"Incr (Decr)" is the difference between the senior grade and the earlier grade.

### Is There a More Sophisticated Evaluation Model on the Horizon?

In cards, there is an element of chance (“the cards you are dealt”) and an element of skill – how you play the cards. In evaluating schools and district performance, these two factors also exist. The equivalent of the card deal is the population of students who live in a district and attend the schools. The ability of the students entering into a school district can vary greatly. A cursory review of the wide range of third graders’ MCAS scores among schools and districts should convince you. The impact of the teachers, programs and other resources provided to educate the students is equivalent to card skill in this example. A measurement system that can identify the “skillfulness” of schools and districts is desirable. The current AYP system combines the non-controllable student mix with the quality of the education as measured by MCAS performance. However, the Mass. DOE has indicated it is implementing a new “Growth Model” this year, which will make identification of changes due to education effectiveness versus student mix changes more reliable by tracking the performance of individual students, grades and schools from one year to the next. We hope some data using this model may be available by the end of this year.

In the meantime, we have constructed an analysis of MCAS scores from 2001 - 2009 by graduating class year, which allows a comparison of the same class of students over multiple years. Of course there will be changes in the class each year as new students enter or leave the district or the special education subgroup. However, it is the best

method using the current data available to assess whether the Acton and AB education system is helping special education students to make progress over time. Our initial analysis suggests that the Acton and AB systems are having a positive impact on this subgroup of students as the percentage of each class achieving Proficiency or Proficient + is generally rising during both the elementary and secondary school years.

#### **Acton Public School District Special Education Subgroup Performance**

In the elementary schools only the Graduating Class of 2015 has completed both the 3<sup>rd</sup> and 6<sup>th</sup> grade MCAS, which showed a net 11 and 1 point increase in proficiency in ELA and Math, respectively. There are three other classes (2012–2014) showing strong gains (15 to 29 points) between their 4<sup>th</sup> and 6<sup>th</sup> grade MCAS ELA proficiency and six other classes (2009–2014) showing a wide range of gains (3 to 23 points) in their MCAS Math proficiency. However, the Graduating Class of 2018, last year's third graders, scored 16 points less (33 vs. 49) than the prior year's third graders in ELA and 6 points higher in Math. Also, the Graduating Class of 2017, last year's fourth graders, dropped 15 and 11 points in ELA and Math proficiency, respectively, in comparison to this same group's third grade MCAS scores.

It's not clear why recent third and fourth grader's scores have fallen in comparison to previous classes. However, there are a number of possibilities. It's possible that the ability of the incoming students in the special education subgroup has not been as high as in previous years or that the distribution of disabilities in the subgroup is substantially different than in previous years, adversely affecting MCAS performance. It's also possible that the MCAS test itself was more difficult this year than last as it varies somewhat from year to year and/or it's possible that existing programs or strategies in place weren't as effective for this particular population of students. Whatever the underlying cause for the performance decline, if the trend continues it could result in more schools, and possibly the district, being identified as needing improvement down the road.

Growth Model data, when it's available, could be helpful identifying the underlying cause(s) of MCAS performance changes. By tracking the progress of individual students, and aggregating them by school, grade, subgroup, etc., analysts will be able to separate out the impact of such variables as the change in student mix from the progress students are making. Of course, whether or not a student is making progress is not exclusively the result of the school's efforts – most would agree parents play a significant role in their child's educational performance. However, the ability to remove student increases and reductions from class performance over time will represent a major enhancement in the quality of data that will become available once the growth model has been introduced.

## Acton Public School District Special Education Performance Over Time

### SPECIAL EDUCATION SUBGROUP

% SCORING PROFICIENT OR ABOVE

#### ENGLISH (ELA)

Class Year	Grade Level				Incr. (Decr.) in Proficiency %				
	3rd	4th	5th	6th	3-4	4-5	5-6	3-6	4-6
2009		37							
2010		36							
2011		49							
2012		52		67					15
2013		46	56	72		10	16		26
2014		35	57	64		22	7		29
2015	45	49	50	56	4	1	6	11	7
2016	47	39	47		-8	8			
2017	49	34			-15				
2018	33								

#### MATH

Class Year	Grade Level				Incr. (Decr.) in Proficiency %				
	3rd	4th	5th	6th	3-4	4-5	5-6	3-6	4-6
2007				45					
2008				36					
2009		28		34					6
2010		19		42					23
2011		31		42					11
2012		44		47					3
2013		35	46	51		11	5		16
2014		24	27	37		3	10		13
2015	40	34	39	41	-6	5	2	1	7
2016	47	47	42		0	-5			
2017	39	28			-11				
2018	45								

### Acton-Boxborough Regional School District Special Education Subgroup Performance

In the Acton-Boxborough Regional School District special education students have demonstrated modest gains in ELA proficiency from seventh to tenth grade (ranging from -9 to 17 points). For Math only the Class of 2011 was measured in both 7<sup>th</sup> and 10<sup>th</sup> grade. This class showed 42 points of increased proficiency in Mathematics. There are six other classes, which were tested in Math in the eighth and tenth grade. Those classes showed very strong gains (14 to 39 points). Over the last three years it appears the high school has dramatically improved Math proficiency and modestly improved ELA performance among its special education student population while the junior high school has improved ELA proficiency and maintained Math proficiency. Again, Growth Model data would help shed some light on performance changes in this subgroup of students.

## Acton-Boxborough School District Special Education Performance Over Time

### SPECIAL EDUCATION SUBGROUP

% SCORING PROFICIENT OR ABOVE  
ENGLISH (ELA)

	Grade Level			<i>Incr. (Decr.) in Proficiency %</i>		
	<u>7th</u>	<u>8th</u>	<u>10th</u>	<u>7-8</u>	<u>8-10</u>	<u>7-10</u>
2003			46			
2004			40			
2005		55	65		10	
2006	61		64			3
2007	54		45			-9
2008	58		75			17
2009	55		61			6
2010	62	68	68	6	0	6
2011	59	69	73	10	4	14
2012	52	70		18		
2013	62	64		2		
2014	53					

### MATH

	Grade Level			<i>Incr. (Decr.) in Proficiency %</i>		
	<u>7th</u>	<u>8th</u>	<u>10th</u>	<u>7-8</u>	<u>8-10</u>	<u>7-10</u>
2003			49			
2004			25			
2005		36	54		18	
2006		20	59		39	
2007		39	53		14	
2008		40	55		15	
2009		34	60		26	
2010		37	60		23	
2011	31	36	73	5	37	42
2012	33	32		-1		
2013	34	33		-1		
2014	27					

### There's More to Accomplish

While it's true that the aggregate score of our general education and special education students is quite high, there is still a significant gap in performance between Students with Disabilities and the general student population. No Child Left Behind presumes that this gap can be closed when students are given adequate supports/instruction and requires all students to score Proficient or above on MCAS by the year 2014. We believe that the district can continue to show Annual Yearly Progress (AYP) on MCAS by focusing on closing the performance gap that remains between general education and special education students in our school district. We will continue to analyze the MCAS data

available on the DOE website to help support the district’s efforts to improve the educational performance of students with disabilities in our school district.

We’ve included two charts below that compare students with disabilities’ 2009 MCAS scores to our aggregate 2009 scores, which reflect the performance of all students in the district. In the following charts: P+ = Advanced/Above Proficient

P = Proficient

NI = Needs Improvement

W = Warning/Failing

### Acton School District 2009 MCAS Results

	Students with Disabilities			All Students		
	% of Students at Each Level			% of Students at Each Level		
	P/P+	NI	W	P/P+	NI	W
Grade 3 ELA	33	57	10	74	24	2
Grade 3 Math	45	40	16	76	20	5
Grade 4 ELA	34	42	25	79	16	5
Grade 4 Math	28	49	23	71	25	4
Grade 5 ELA	47	45	7	87	12	1
Grade 5 Math	46	29	25	83	13	5
Grade 5 Sci &Tech	43	49	7	79	19	2
Grade 6 ELA	56	32	12	90	8	2
Grade 6 Math	41	40	18	85	11	3

### Acton-Boxborough School District 2009 MCAS Results

	Students with Disabilities			All Students		
	% of Students at Each Level			% of Students at Each Level		
	P/P+	NI	W	P/P+	NI	W
Grade 7 ELA	53	31	17	90	8	3
Grade 7 Math	27	32	41	76	15	8
Grade 8 ELA	64	26	10	93	5	2
Grade 8 Math	33	35	32	83	11	6
Grade 8 Sci &Tech	34	42	24	74	21	4
Grade 10 ELA	73	20	8	95	3	1
Grade 10 Math	73	16	10	95	3	1
Grade 10 Sci &Tech	79	14	7	96	3	1

### Conclusion

The classification of Conant and R. J. Grey as schools that “need improvement” because they failed to achieve AYP for students in the special education subgroup is cause for further investigation, reevaluation of current special education programs/curriculum, and modification of students’ individualized special education supports and services. However, it is not cause for alarm. Acton’s special education population scores among the top 10-20% of school districts in the state and our analysis indicates that these students are reaching higher levels of ELA and Math proficiency over time.