



2016-17 SBAC: How did Hartford Students Perform?

Mini-Report 3: The Growth Model

Background

All data presented in this report was obtained from the Connecticut State Department of Education (CSDE), through <http://edsight.ct.gov>. CSDE also provides a great deal of background information on what the growth model is, how it was developed, how growth targets are set, and growth rates are calculated.¹

In short, there are four SBAC proficiency levels: Not Met, Approaching, Met, and Exceeded. Each of these levels corresponds to a range of scores. The growth model developed by CSDE further split these four ranges into eight ranges. Each student in the analysis was placed into one of these eight categories based on their score (with analysis done separately for the ELA and Math tests). These categories were used to set achievable growth targets for each student. As a result of this, the higher a student's scores in Year 1 are, the smaller their growth targets are.

For the purposes of the cited CSDE reports and data, and also this report, please keep in mind that CSDE defines² certain terms in the following way:

- Grade: The grade the students were in during the listed school year
- ELA: English Language Arts
- High Needs student: A student who is eligible for free/reduced price meals, or is an English learner, or is a student with a disability.
- Average Percentage of Target Achieved (APTA): This is the average percentage of the growth target that is achieved by all students in the group.

As an example, imagine a pair of students: Alice and Bob. Alice and Bob each have a growth target of 70 points, but Alice makes a 90-point gain while Bob makes only a 30-point gain. Collectively, their Growth Rate would be 50%, because only one of the two met their target. But their APTA would be 85.7%, because they collectively gained 120 out of the targeted 140 points.

We mention APTA because it is in the full CSDE data and report, and we acknowledge that it certainly has its uses in other contexts, but we will not be using it here.

The data for Hartford Public Schools below covers 33 schools. Specifically, it includes any school that enrolls students in Grades 3-8 (or any subset of that range). Of these 33 schools, 12 were magnet schools in 2016-17, and 21 were neighborhood schools.

¹ <http://edsight.ct.gov/relatedreports/CT%20Growth%20Model%20Technical%20Paper%20FINAL.pdf>

² http://edsight.ct.gov/relatedreports/ReportNotes_Growth.pdf

How did students in Hartford and other districts perform relative to their growth targets in 2016-17?

Overall, 24% of Hartford students met their targets for ELA growth, and 28% for Math growth. These represent 10-point and 7-point decreases (respectively) compared to last year's growth rates.

District	ELA Growth Rate		
	2015-16	2016-17	Change
Farmington School District	54%	50%	-4%
Achievement First Hartford Academy District	48%	47%	-1%
Glastonbury School District	51%	46%	-4%
West Hartford School District	44%	43%	-1%
Stamford School District	42%	37%	-5%
Capitol Region Education Council	40%	36%	-4%
State of Connecticut	43%	36%	-7%
New Haven School District	39%	30%	-9%
East Hartford School District	36%	30%	-6%
Bridgeport School District	31%	26%	-5%
Manchester School District	35%	26%	-9%
Waterbury School District	33%	26%	-7%
Jumoke Academy District	35%	26%	-9%
Hartford School District	33%	24%	-10%
New Britain School District	29%	21%	-8%

District	Math Growth Rate		
	2015-16	2016-17	Change
Farmington School District	65%	55%	-10%
Glastonbury School District	58%	51%	-6%
Achievement First Hartford Academy District	43%	50%	7%
West Hartford School District	46%	48%	2%
Stamford School District	40%	45%	5%
State of Connecticut	44%	42%	-2%
Capitol Region Education Council	37%	40%	3%
Bridgeport School District	29%	35%	6%
Jumoke Academy District	35%	32%	-3%
New Haven School District	41%	32%	-9%
Manchester School District	33%	31%	-1%
Waterbury School District	31%	31%	0%
East Hartford School District	27%	29%	2%
Hartford School District	34%	28%	-7%
New Britain School District	25%	25%	1%

In both cases, Hartford did substantially worse than the previous year. It is hard to draw a confident conclusion from this. In ELA, it seems to reflect a statewide pattern; every district in this comparison did worse, and the rate for Connecticut decreased by 7 points. In Math, Farmington saw an enormous decrease, yet nevertheless maintained its spot at the top.

As in [our previous report](#), we see that Hartford compares unfavorably to its peers. In both subjects, Hartford’s rates declined enough that it has dropped to the second-to-last ranking in this comparison, beating only New Britain.

How did Hartford students in each grade perform relative to their growth targets in 2015-16?

Hartford’s decline in growth rates on both SBAC subjects can be seen mirrored across all grades in question (Grades 4-8; note that Grade 3 is by definition excluded from this analysis, as students in Grade 3 have only taken the test once).

ELA Growth Rate			
Grade	2015-16	2016-17	Change
4	26%	19%	-8%
5	39%	23%	-16%
6	33%	27%	-7%
7	29%	25%	-4%
8	35%	25%	-10%

Math Growth Rate			
Grade	2015-16	2016-17	Change
4	29%	24%	-6%
5	41%	31%	-10%
6	33%	29%	-4%
7	35%	31%	-4%
8	32%	25%	-7%

Every grade saw a decline in growth rate of at least four points. For both subjects, Grade 5 saw the largest decline; in the previous year, Grade 5 had the highest growth rates by a large margin. These large swings, combined with the large swings observed above in the district comparison, suggest that it may take several years for SBAC Growth trends to stabilize enough to be useful data points.

How did Hartford students in each school perform relative to their growth targets in 2015-16?

In ELA, we again see Hartford’s declining growth rate at almost every school, with a few exceptions: SAND and Simpson-Waverly saw insignificant increases of less than a point, but Webster and Milner saw 4 point and 7 point increases, respectively. Meanwhile, the Montessori Magnet at Moylan overtook the STEM Magnet at Fisher as the top-ranked school meeting growth targets, with the former gaining 16 points and the latter losing 17.

School	ELA Growth Rate		
	2015-16	2016-17	Change
Montessori Magnet at Moylan School	27%	43%	16%
STEM Magnet at Fisher School	57%	41%	-17%
Webster Micro Society Magnet School	33%	37%	4%
Expeditionary Learning Academy at Moylan School	32%	32%	-1%
SAND School	30%	31%	0%
M. L. King, Jr. School	34%	30%	-4%
Breakthrough Magnet School	37%	30%	-7%
Milner School	22%	29%	7%
Betances STEM Magnet School	38%	28%	-9%
Simpson-Waverly School	28%	28%	0%
McDonough Middle School	35%	27%	-8%
Montessori Magnet School at Fisher School	35%	26%	-9%
Kinsella Magnet School of Performing Arts	45%	26%	-19%
Hartford Magnet Trinity College Academy	31%	25%	-6%
Renzulli Gifted and Talented Academy	37%	25%	-12%
Global Communications Academy	29%	24%	-5%
Rawson School	25%	23%	-3%
Environmental Sciences Magnet at Hooker School	36%	23%	-13%
Classical Magnet School	25%	22%	-4%
Kennelly School	33%	22%	-11%
M. D. Fox School	40%	21%	-19%
Burns Latino Studies Academy	27%	21%	-6%
Naylor/CCSU Leadership Academy	39%	21%	-19%
West Middle School	28%	20%	-8%
Batchelder School	37%	20%	-18%
Burr School	25%	19%	-6%
Sport and Medical Sciences Academy	25%	19%	-6%
Breakthrough II	43%	19%	-24%
Sanchez School	19%	17%	-2%
Parkville Community School	29%	13%	-16%
Asian Studies Academy	21%	12%	-9%
Capital Preparatory Magnet School	35%	12%	-23%
Wish Museum School	19%	11%	-7%

*Magnet schools are highlighted.

In closely examining the table for Math, the real pattern emerges: in both subjects, it seems that the largest declines were at the schools with the highest growth rates the previous year. Again, this high degree of volatility in the data is a sign that it may be a few years before we can be sure what it is telling us.

School	Math Growth Rate		
	2015-16	2016-17	Change
Webster Micro Society Magnet School	34%	44%	10%
STEM Magnet at Fisher School	64%	42%	-21%
Montessori Magnet School at Fisher School	22%	40%	18%
Environmental Sciences Magnet at Hooker School	43%	40%	-4%
Expeditionary Learning Academy at Moylan School	27%	40%	12%
Breakthrough Magnet School	31%	39%	8%
SAND School	27%	35%	8%
Burns Latino Studies Academy	29%	34%	5%
Milner School	33%	33%	1%
Sanchez School	33%	32%	-1%
Betances STEM Magnet School	49%	31%	-19%
Rawson School	31%	31%	0%
Naylor/CCSU Leadership Academy	41%	29%	-12%
Parkville Community School	30%	29%	-1%
McDonough Middle School	33%	27%	-6%
Renzulli Gifted and Talented Academy	30%	27%	-3%
Kinsella Magnet School of Performing Arts	35%	26%	-8%
Breakthrough II	38%	26%	-12%
Sport and Medical Sciences Academy	27%	26%	-1%
Classical Magnet School	26%	26%	0%
Hartford Magnet Trinity College Academy	34%	26%	-9%
M. D. Fox School	36%	25%	-10%
Global Communications Academy	27%	25%	-2%
M. L. King, Jr. School	36%	25%	-11%
Batchelder School	32%	24%	-9%
Simpson-Waverly School	22%	23%	1%
Asian Studies Academy	23%	20%	-3%
Montessori Magnet at Moylan School	23%	20%	-3%
Wish Museum School	24%	19%	-5%
Kennelly School	39%	17%	-22%
Burr School	26%	17%	-9%
West Middle School	46%	15%	-31%
Capital Preparatory Magnet School	29%	12%	-17%

*Magnet schools are highlighted.

Conclusions

Unfortunately, as mentioned above more than once, it is not yet clear whether growth rate data is going to be useful in the short term, due to extremely high volatility over the first two years. We look forward to next year's data, and hope to see stabilization and consistency so that we can draw more confident conclusions.

Until then, though, this data is still worth analysis, despite the grain of salt. While proficiency standards matter, the growth model provides a different way of evaluating performance, particularly at the school and district level. It enables us to take a better look at how well schools are serving their students over time. Perhaps most importantly, for those who would compare schools or districts, it shows how well those schools and districts do with the students they have, and so the differences in school-wide and district-wide outcomes are more likely due to differences in school quality, rather than differences in the academic preparedness of incoming students.

The best illustration of that in this report probably comes from looking at the rankings of individual schools in Hartford. Unlike the [proficiency results](#), which show magnet schools consistently outscoring neighborhood schools, the growth results reveal a more level playing field. While magnet schools undeniably have higher proficiency levels than neighborhood schools, they do not appear to enjoy a similar advantage when it comes to growth; the comparison here is not a simple magnet-vs-neighborhood, but a picture of widely varying growth across individual schools.