2015-16 SBAC Report #2: Growth Model Report
Growth Rates by Grade, School, and District

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 the in mind that CSDE defines[2] certain terms in the following way:
- Grade: The grade the students were in during Year 2 (2015-16).
- 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.
- Growth Rate: The growth rate is the percentage of students meeting their respective growth targets.
- 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 analysis below covers 35 of Hartford's 48 schools. Specifically, it includes any school that enrolls students in Grades 3-8 (or a subset of that range). Of these 35 schools, 13 were magnet schools in 2015-16 (including Breakthrough II, which is no longer a magnet as of this year), 21 are neighborhood schools, and one is a charter with a district partnership.

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[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 2015-16?
Overall, approximately one-third of Hartford students met their targets for ELA growth, and a similar number met their targets for Math growth. It is impossible to say from the data publicly available at this time how many students met their growth targets for both subjects.

We consider Bridgeport, CREC, East Hartford, Farmington, Glastonbury, Jumoke Academy, Manchester, New Britain, New Haven, Stamford, Waterbury, and West Hartford to be peer or surrounding districts.

District	ELA	District	Math
Farmington School District	53.6%	Farmington School District	64.6%
Glastonbury School District	50.7%	Glastonbury School District	57.7%
West Hartford School District	44.4%	West Hartford School District	45.9%
State of Connecticut	43.1%	State of Connecticut	43.9%
Stamford School District	41.7%	New Haven School District	40.9%
Capitol Region Education Council	39.9%	Stamford School District	39.8%
New Haven School District	38.9%	Capitol Region Education Council	37.3%
East Hartford School District	36.0%	Jumoke Academy District	35.3%
Manchester School District	35.0%	Hartford School District	34.4%
Jumoke Academy District	34.8%	Manchester School District	32.6%
Hartford School District	33.2%	Waterbury School District	30.5%
Waterbury School District	33.2%	Bridgeport School District	29.1%
Bridgeport School District	31.0%	East Hartford School District	26.7%
New Britain School District	28.9%	New Britain School District	24.8%

Compare these to the proficiency rates in our previous report. First, note that Hartford's growth rate in Math is slightly better than ELA, despite Math proficiency rates being much lower. East Hartford, on the other hand, has much worse growth outcome for Math, despite similar proficiency outcomes. Second, New Haven stands out as an example of a district significantly outperforming Hartford on growth, despite dealing with a similar set of challenges (similar district size and demographics, especially English learner and special education rates). Meanwhile, Jumoke Academy has similar growth rates to Hartford.

How did Hartford students in each grade perform relative to their growth targets in 2015-16?
With a 39% growth rate in ELA and a 41% growth rate in Math, students in Grade 5 during were by far the most likely to meet their growth targets. Other groups had growth rates ranging from 26-35%.

Grade	ELA Growth rate	Math Growth rate
4	26.3%	29.1%
5	39.0%	40.8%
6	33.2%	33.3%
7	28.9%	34.7%
8	34.7%	31.7%

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

ELA		Math	
School	**Growth Rate**	**School**	**Growth Rate**
STEM Magnet at Fisher School	57.4%	STEM Magnet at Fisher School	63.5%
Achievement First Hartford Academy	48.2%	Betances STEM Magnet School	49.3%
R.J. Kinsella Magnet School	44.6%	West Middle Community School	45.8%
Breakthrough II Elementary School	42.6%	Achievement First Hartford Academy	43.3%
M. D. Fox School	39.8%	Environmental Sciences Magnet	43.2%
Naylor/CCSU Leadership Academy	39.3%	Naylor/CCSU Leadership Academy	41.4%
Betances STEM Magnet School	37.6%	Clark School	41.0%
Batchelder School	37.2%	Kennelly School	39.1%
Breakthrough Magnet School	36.8%	Breakthrough II Elementary School	37.6%
Renzulli Gifted and Talented Academy	36.7%	M. L. King, Jr. School	36.1%
Environmental Sciences Magnet	35.7%	M. D. Fox School	35.6%
McDonough Middle School	35.1%	R.J. Kinsella Magnet School	34.6%
Montessori Magnet School at Fisher	35.1%	HMTCA	34.1%
Capital Preparatory Magnet School	34.9%	Noah Webster MicroSociety Magnet School	33.6%
M. L. King, Jr. School	33.8%	McDonough Middle School	33.3%
Noah Webster MicroSociety Magnet School	33.0%	Sanchez School	32.7%
Kennelly School	32.5%	Milner School	32.6%
Expeditionary Learning at Moylan	32.4%	Batchelder School	32.2%
HMTCA	31.1%	Rawson School	31.1%
SAND School	30.4%	Breakthrough Magnet School	30.7%
Parkville Community School	29.2%	Parkville Community School	30.4%
Global Communications Academy	29.1%	Renzulli Gifted and Talented Academy	29.5%
Simpson-Waverly School	27.7%	Burns Latino Studies Academy	29.1%
West Middle Community School	27.5%	Capital Preparatory Magnet School	28.6%
Burns Latino Studies Academy	26.9%	Expeditionary Learning at Moylan	27.2%
Montessori Magnet at Moylan School	26.9%	Global Communications Academy	27.0%
Clark School	25.7%	SAND School	27.0%
Sports and Medical Sciences Academy	25.4%	Sports and Medical Sciences Academy	26.8%
Classical Magnet School	25.3%	Classical Magnet School	26.1%
Rawson School	25.3%	Burr School	25.8%
Burr School	25.1%	Wish Museum School	23.9%
Milner School	22.1%	Montessori Magnet at Moylan School	23.1%
Asian Studies Academy	21.3%	Asian Studies Academy	23.0%
Sanchez School	19.2%	Montessori Magnet School at Fisher	21.9%
Wish Museum School	18.5%	Simpson-Waverly School	21.9%

Table notes: Magnet schools are highlighted; neighborhood schools are not. Achievement First is grouped with neighborhood schools for this purpose, but is actually a charter with a district partnership. Breakthrough II was a magnet in 2015-16, but no longer is.

In both ELA and Math, one school—the STEM Magnet at Annie Fisher—stands head and shoulders above the others in terms of Growth Rate. Achievement First, Breakthrough II, and Naylor are also among the top ten for both subjects. Growth Rates drop steadily as you move down the list, reaching low points of 18.5% for ELA (Wish Museum School) and 21.9% for Math (Simpson-Waverly). Schools which appear in the bottom ten for both subjects are Asian Studies Academy, Burr School, Classical Magnet School, Montessori at Moylan School, and Sports and Medical Sciences Academy.

Takeaways

While proficiency standards matter, this growth model provides a much more complete picture of school performance. It enables us to take a better look at how well schools are serving their students over time, looking at how well schools do with the student they have, who often come in far below their peers in surrounding districts. This also provides a different way to judge the performance of educators in a school, as you are no longer comparing one year's group of students in one year to a completely different group of students the previous year. Growth results, revealed by this report, can often be surprising.

	Average ELA Growth	Average Math Growth
Neighborhood Schools	29.3%	31.7%
Magnet Schools	35.9%	34.9%

First, unlike the SBAC proficiency results, which show magnet schools consistently outscoring neighborhood schools, the growth results reveal a somewhat more level playing field. There is a particularly level playing field when it comes to Math; the average Growth Rate for magnet schools is just three percentage points higher than neighborhood schools. What we are seeing here is that while magnet schools undeniably have higher proficiency levels than neighborhood schools, they do not appear to have a similar advantage when it comes to growth; students at magnet schools are only slightly more likely to achieve their growth targets than students at neighborhood schools.

Second, we see something similar in the district comparisons. As noted above, East Hartford had much worse Math growth outcomes than Hartford despite having much better proficiency outcomes. Statewide, the two top performers are Trumbull and North Haven, which both have growth rates just under 70% for both subjects. Among our comparison group, Farmington ranks first in both ELA and Math growth (53.6% and 64.6%, respectively). These comparisons would seem to hint at an upper boundary for long term goals. Time will tell what growth rates are possible under the state's new target-setting methodology.

Nevertheless, Hartford can never close the achievement gap (currently between 50-55 percentage points at the proficiency level) between it and our surrounding districts if our growth rate does not improve. Hartford students enter school sometimes multiple years behind their suburban peers, and the only way to have them catch up by the time they leave high school is to have a growth rate that exceeds the suburbs. That must be the standard.