



STATE OF CONNECTICUT  
STATE BOARD OF EDUCATION



TO: Clerk of the Senate  
Clerk of the House of Representatives

FROM: Dr. Dianna R. Wentzell  
Commissioner of Education

DATE: February 24, 2017

SUBJECT: Academic Growth on the Mastery Examination of English Learners in  
Bilingual Education Programs

In accordance with Section 293 of Public Act 15-5 (June Special Session), enclosed is a copy of the report titled "*Academic Growth on the Mastery Examination of English Learners in Bilingual Education Programs.*"

If you have any questions, please contact Laura Stefon at (860) 713-6493.

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Enclosure

# Academic Growth on the Mastery Examination of English Learners in Bilingual Education Programs

February 2017



Connecticut State Department of Education

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## INTRODUCTION

Section 293 of Public Act 15-5 requires the Connecticut State Department of Education (CSDE) to provide a report on the performance of English learners (ELs) in bilingual education programs on the statewide mastery examination for the purpose of monitoring: (1) the academic progress of students in bilingual education programs; and (2) the quality of bilingual education programs offered by local and regional boards of education.

This report presents the first results of the academic growth of ELs in bilingual education programs. The traditional approach to evaluating academic performance has been to report academic achievement. However, achievement is a snapshot measurement where the students evaluated are often different from one year to the next. Therefore, this report focuses on the growth *or* change in achievement of the same students from one year to the next i.e., from 2014-15 to 2015-16 on the Smarter Balanced academic assessments.

Furthermore, ELs are, by definition, just acquiring English language skills – a process that research has affirmed may take several years<sup>1</sup>. Therefore, growth is the more appropriate measure to evaluate the academic development of ELs as they acquire English language skills.

## METHODOLOGY

This report utilizes the academic growth results from [Connecticut's Growth Model](#) for the Smarter Balanced English Language Arts (ELA) and Mathematics assessments from SY 2014-15 to 2015-16.

- This model is based on the Smarter Balanced vertical scale which yields scale scores that are comparable across all tested grades (3 through 8).
- It facilitates the examination of change in vertical scale scores for the same student from one year to the next. With two administrations of the Smarter Balanced assessment, the CSDE for the first time has two data points that are necessary to examine academic growth.

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<sup>1</sup> Hakuta, et. al. (2000) How Long Does It Take English Learners to Attain Proficiency? The University of California Linguistic Minority Research Institute.

- Each student has an individual growth target based upon their initial vertical scale score. Students who meet their target are considered to have demonstrated the expected amount of academic growth during the school year.
- Two growth metrics are presented in this report:
  1. the growth rate which is the percentage of ELs who met their individual growth targets; and
  2. the average percentage of target achieved (APTA) which is calculated by summing the percentage of the growth target achieved by each student and then dividing that sum by the total number of students<sup>2</sup>.
- The performance of ELs in bilingual educational programs in the current year<sup>3</sup> on this growth model is compared to all other ELs that were either receiving English as a Second Language (ESL) services or whose parents refused bilingual and/or ESL services.
- Data are presented for districts with mandated bilingual educational programs (pursuant to P.A. 15-5 Section 286(b)) during SY 2015-16 and that also had 20 or more bilingual students with Smarter Balanced growth results.

## RESULTS

Overall, English Learners in bilingual educational programs demonstrate similar academic growth on the Smarter Balanced ELA and Mathematics assessments as compared to other ELs.

- **ELA:** 33.1 percent of ELs in bilingual educational programs met their growth target and on average, those students achieved 59.7 percent of their respective targets compared to 30.7 percent and 57 percent respectively for other ELs. (Appendix - Table 1)<sup>4</sup>.

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<sup>2</sup> For students who did not grow (including any scores that declined), the percentage of growth target achieved is 0 percent. For students who grew 110 percent of their target or greater, the percentage of growth target achieved is capped at 110 percent.

<sup>3</sup> This is a student who is reported as being eligible for a bilingual education program and is participating in a transitional bilingual education program, receiving native language support, or participating in a dual language program (i.e., reported with an EL program code of either 1A or 1B in any PSIS collection during 2015-16).

<sup>4</sup> Differences between the results for ELs in bilingual educational programs and other ELs are not statistically significant.

- **Mathematics:** 35.2 percent of ELs in bilingual educational programs met their growth target and on average, those students achieved 56.8 percent of their respective growth targets, compared to 36.0 percent and 58.0 percent respectively for other ELs (Appendix - Table 1)<sup>5</sup>.
- **Grade:** Growth by grade revealed similar results for ELs in bilingual programs when compared to other ELs in both ELA and Mathematics.

## CONCLUSION

The first results show that there is not an overall statewide difference in the growth achieved by ELs in bilingual educational programs as compared to other ELs. The CSDE will reach out to districts that seem to be producing better growth for bilingual students in one or both subjects, identify any effective programmatic/instructional strategies, and facilitate sharing across the state. CSDE will also closely monitor/evaluate these growth data in future years in order to support the improvement of bilingual education programs and accelerate the academic growth of ELs in those programs.

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<sup>5</sup> Differences between the results for ELs in bilingual educational programs and other ELs are not statistically significant.

## APPENDIX

Table 1: Statewide Growth Results for English Learners in Districts with Mandated Bilingual Education Programs

Grade in Year 2	EL Service	ELA			Math		
		Number of Matched ELs	Percentage of ELs That Met Growth Target	Average Percentage of Target Achieved by ELs	Number of Matched ELs	Percentage of ELs That Met Growth Target	Average Percentage of Target Achieved by ELs
4	Bilingual	319	31.7%	63.8%	445	30.1%	62.8%
5	Bilingual	298	36.6%	65.1%	416	39.2%	60.8%
6	Bilingual	184	26.6%	51.3%	312	22.4%	38.8%
7	Bilingual	239	37.7%	58.4%	323	44.3%	62.6%
8	Bilingual	232	31.0%	55.1%	368	39.9%	55.3%
Total	Bilingual	1272	33.1%	59.7%	1864	35.2%	56.8%
4	ESL or No Services	1394	31.6%	60.1%	1451	36.0%	68.2%
5	ESL or No Services	1287	35.0%	64.4%	1321	37.6%	59.2%
6	ESL or No Services	960	28.4%	52.7%	1006	30.1%	46.4%
7	ESL or No Services	927	26.8%	50.7%	956	38.3%	55.2%
8	ESL or No Services	743	29.7%	51.9%	781	38.2%	55.2%
Total	ESL or No Services	5311	30.7%	57.0%	5515	36.0%	58.0%
4	CT Total	1713	31.6%	60.8%	1896	34.7%	66.9%
5	CT Total	1585	35.3%	64.6%	1737	38.0%	59.6%
6	CT Total	1144	28.1%	52.4%	1318	28.3%	44.6%
7	CT Total	1166	29.0%	52.2%	1279	39.8%	57.1%
8	CT Total	975	30.1%	52.6%	1149	38.7%	55.2%
Total	CT Total	6583	31.2%	57.5%	7379	35.8%	57.7%

Table 2: District-level Growth Results for English Learners in Districts with Mandated Bilingual Education Programs

Dist. No:	District Name	EL Services	ELA			Math		
			Number of Matched ELs	Percentage of ELs That Met Growth Target	Average Percentage of Target Achieved by ELs	Number of Matched ELs	Percentage of ELs That Met Growth Target	Average Percentage of Target Achieved by ELs
15	Bridgeport School District	Bilingual	139	27.3%	51.3%	241	29.5%	46.1%
15	Bridgeport School District	ESL or Refused Services	591	27.7%	55.2%	617	33.1%	54.1%
15	Bridgeport School District	District Total	730	27.7%	54.4%	858	32.1%	51.8%
34	Danbury School District	Bilingual	70	41.4%	70.0%	130	48.5%	67.3%
34	Danbury School District	ESL or Refused Services	488	34.4%	62.3%	502	45.0%	67.6%
34	Danbury School District	District Total	558	35.3%	63.3%	632	45.7%	67.5%
43	East Hartford School District	Bilingual	42	16.7%	43.0%	51	21.6%	39.8%
43	East Hartford School District	ESL or Refused Services	142	29.6%	56.2%	145	29.0%	49.5%
43	East Hartford School District	District Total	184	26.6%	53.2%	196	27.0%	47.0%
62	Hamden School District	Bilingual	*	*	*	22	36.4%	57.0%
62	Hamden School District	ESL or Refused Services	*	*	*	42	50.0%	69.3%
62	Hamden School District	District Total	*	*	*	64	45.3%	65.0%
64	Hartford School District	Bilingual	103	33.0%	58.7%	191	41.9%	65.8%
64	Hartford School District	ESL or Refused Services	851	27.1%	51.4%	877	31.5%	54.1%
64	Hartford School District	District Total	954	27.8%	52.2%	1068	33.3%	56.2%
80	Meriden School District	Bilingual	34	44.1%	70.7%	68	35.3%	55.0%
80	Meriden School District	ESL or Refused Services	241	30.7%	61.1%	237	40.1%	64.2%
80	Meriden School District	District Total	275	32.4%	62.3%	305	39.0%	62.1%
89	New Britain School District	Bilingual	185	25.9%	55.4%	217	23.0%	45.3%
89	New Britain School District	ESL or Refused Services	256	27.0%	50.6%	264	31.4%	53.3%
89	New Britain School District	District Total	441	26.5%	52.6%	481	27.7%	49.7%
93	New Haven School District	Bilingual	191	42.9%	68.3%	244	40.2%	63.5%
93	New Haven School District	ESL or Refused Services	789	34.6%	61.9%	824	44.1%	67.3%



Dist. No:	District Name	EL Services	ELA			Math		
			Number of Matched ELs	Percentage of ELs That Met Growth Target	Average Percentage of Target Achieved by ELs	Number of Matched ELs	Percentage of ELs That Met Growth Target	Average Percentage of Target Achieved by ELs
93	New Haven School District	District Total	980	36.2%	63.2%	1068	43.2%	66.5%
95	New London School District	Bilingual	101	34.7%	65.1%	118	24.6%	49.0%
95	New London School District	ESL or Refused Services	101	20.8%	41.6%	101	25.7%	47.2%
95	New London School District	District Total	202	27.7%	53.4%	219	25.1%	48.2%
103	Norwalk School District	Bilingual	80	20.0%	50.6%	141	41.1%	62.6%
103	Norwalk School District	ESL or Refused Services	356	28.1%	55.4%	364	31.6%	52.4%
103	Norwalk School District	District Total	436	26.6%	54.6%	505	34.3%	55.2%
104	Norwich School District	Bilingual	31	38.7%	61.8%	42	45.2%	68.3%
104	Norwich School District	ESL or Refused Services	147	35.4%	61.4%	153	38.6%	59.3%
104	Norwich School District	District Total	178	36.0%	61.5%	195	40.0%	61.3%
135	Stamford School District	Bilingual	35	45.7%	70.2%	80	38.8%	59.1%
135	Stamford School District	ESL or Refused Services	509	32.2%	58.9%	536	36.8%	57.9%
135	Stamford School District	District Total	544	33.1%	59.7%	616	37.0%	58.1%
148	Wallingford School District	Bilingual	23	39.1%	61.0%	23	47.8%	77.2%
148	Wallingford School District	ESL or Refused Services	69	27.5%	57.3%	73	35.6%	53.6%
148	Wallingford School District	District Total	92	30.4%	58.2%	96	38.5%	59.3%
151	Waterbury School District	Bilingual	124	29.8%	55.5%	170	35.9%	57.1%
151	Waterbury School District	ESL or Refused Services	590	31.9%	57.1%	598	32.4%	53.4%
151	Waterbury School District	District Total	714	31.5%	56.9%	768	33.2%	54.2%
163	Windham School District	Bilingual	64	35.9%	65.1%	76	36.8%	64.0%
163	Windham School District	ESL or Refused Services	181	37.0%	60.1%	182	33.0%	56.7%
163	Windham School District	District Total	245	36.7%	61.4%	258	34.1%	58.8%
245	Learn	Bilingual	24	41.7%	64.2%	25	36.0%	59.0%
245	Learn	ESL or Refused Services	*	*	*	*	*	*
245	Learn	District Total	24	41.7%	64.2%	25	36.0%	59.0%

Dist. No:	District Name	EL Services	ELA			Math		
			Number of Matched ELs	Percentage of ELs That Met Growth Target	Average Percentage of Target Achieved by ELs	Number of Matched ELs	Percentage of ELs That Met Growth Target	Average Percentage of Target Achieved by ELs
265	Interdistrict School for Arts and Comm District	Bilingual	26	38.5%	52.2%	25	24.0%	43.6%
265	Interdistrict School for Arts and Comm District	ESL or Refused Services	*	*	*	*	*	*
265	Interdistrict School for Arts and Comm District	District Total	26	38.5%	52.2%	25	24.0%	43.6%

*\*Data are suppressed to protect student confidentiality.*