

Results of SBAC Implementation Survey July 16, 2015

The Development of the SBAC Implementation Survey in Connecticut

After receiving numerous reported concerns from classroom teachers across the state, the Connecticut Education Association (CEA) decided to administer the first comprehensive survey intended to measure the effectiveness of the Smarter Balanced Assessment Consortium (SBAC) implementation. The purpose of the survey was to measure classroom teachers' observations during the SBAC implementation and to capture their perspectives of its effectiveness. The survey focused on gathering information about SBAC administration, loss of instructional time, impact on students, and other SBAC-related concerns.

Several steps were taken to strengthen the content validity of this survey. First, the CEA consulted with Professor Steven Stemler of the Wesleyan University Psychology Department, because of his expertise in testing and measurement. Dr. Stemler helped provide feedback on the operationalization of the constructs to be measured and the directionality of the survey items. Second, an initial draft of the survey was piloted to a small group of classroom teachers for feedback. Third, the CEA again sought feedback from Professor Stemler, and agreement on the final 36-item survey was reached.

In early May, CEA officials sent a link to an electronic survey regarding the Smarter Balanced Assessment Consortium (SBAC) implementation to all members of the CEA mailing list (N=30,186). The survey consisted of 36 questions and was designed to take approximately 10 minutes to complete. No individually identifiable information was collected from participants and no incentives for participation were offered. Between May 8th and June 10th, 2015, a total of 1,666 K-12 teachers in Connecticut responded to the CEA survey. The overall response rate, therefore, was 5.5%. Given the lack of incentives for participation, the time of year during which the survey was sent, and the tight timeline, this response rate is perhaps not surprising. Because the respondents represent a convenience sample and not a true random sample, one should be cautious in generalizing the results as there is no way to statistically evaluate the extent to which the respondents are similar or different from the non-respondents. Because of the large sample size of respondents, however, the margin of sampling error for any given question is +/- 2.3% when the group as a whole is evaluated.

Survey participants indicated that they held an average of 16.58 (SD = 9.3) years of service, ranging from 1 year to 46 years in the classroom. Overall, fifty-six percent of teachers surveyed were teaching in a subject area assessed by the SBAC (Math, ELA). As illustrated in Table 1 (below), slightly more survey completers taught at the elementary school level (Pk-5), compared to middle and high school levels. Approximately 80% of the elementary teachers responding taught subjects directly assessed on the SBAC, compared to 50% of participating middle school and 35% high school teachers. Overall, survey completers are veteran teachers, averaging at least 15 years in the profession.

Table 1.

Demographics of Connecticut Teachers Participating in the SBAC Implementation Survey by Grade Level Taught ($N = 1,666$).

	Elementary (Pk-5) <i>n (%)</i>	Middle (6-8) <i>n (%)</i>	High (9-12) <i>n (%)</i>
Survey completers*	854 (51%)	552 (33%)	511 (31%)
Taught subject area directly assessed by the SBAC (Math, ELA)	606 (71%)	271 (49%)	187 (37%)
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Total number of years taught	16.6 (9.1)	15.7 (9.3)	16.7 (9.5)

* Percentages do not add up to one hundred because rows are not mutually exclusive (i.e., some educators teach multiple grade levels).

FINDINGS

Teacher Observations during SBAC Test Administration**

Student Effects

- 90% of the 1,400 teachers responding to this item agreed that ‘the time it took to complete the SBAC test caused student frustration and apathy.’ This perspective was shared by 1,263 classroom teachers.
- 71% of the 1,411 teachers responding to this item agreed that students ‘exhibited widely disparate and inequitable computer skills when taking the SBAC test.’ This perspective was shared by 1,003 classroom teachers.
- 26% of the 1,293 teachers who responded to this item reported that more than half of their students became angry or frustrated during the administration of the test. This perspective is shared by 331 classroom teachers. *One-hundred fifteen teachers, or 9% of those responding, reported that 75%-100% of their students became angry or frustrated.*
- 43% of the 1,298 teachers who responded, reported that a majority of their students were generally engaged and focused on the SBAC test. This perspective is shared by 554 classroom teachers.
- 54% of the 1,311 respondents reported that more of their students became distraught (e.g., crying or other manifestations of stress) during the administration of the test, than compared to other standardized test their students had taken (e.g., CMT). This perspective is shared by 702 classroom teachers. *Twenty-two percent of teachers responding indicated that their students were ‘far more’ distraught.*

** Note: Participation rates varied on individual items throughout the survey, ranging from as high as 99.8% to as low as 78.2%

- 26% of the 1,313 respondents reported that a majority of their students clearly gave up on the test by clicking through several test questions without taking the time to read the questions thoroughly. This perspective is shared by 339 classroom teachers. *Eight percent of teachers responding reported that 75-100% of their students clearly gave up.*

Resource Equity

- 62% of the 1,666 who responded ‘experienced a lack of access to computers and other resources in (their) buildings.’ This perspective is shared by 1,034 classroom teachers.
- 90% of the 1,410 teachers who responded agree that SBAC test preparation ‘takes away significant time and resources from teaching and learning in my classroom.’ This perspective is shared by 1,266 classroom teachers.
- 77% of the 1,409 who responded agree that ‘my students have lost significant access to computers/technology throughout this school year because the SBAC test administration and preparation has limited their access to the computer lab(s) in our school.’ This perspective is shared by 1,086 classroom teachers.

Technical Difficulties

- 12% of the 1,666 respondents reported the ‘wrong version of the test was administered to students.’ This perspective is shared by 197 classroom teachers.
- 12% of the 1,256 classroom teachers responding to this question reported that between 11%-25% of their students were not able to complete portions of the test due to technical problems. This perspective is shared by 146 classroom teachers.
- 43% of the 1,666 teachers reported that ‘significant portions of the test covered content that is not taught at my students’ grade level.’ This perspective is shared by 715 classroom teachers.

Accommodations & Appropriateness

- 64% of the 1,314 teachers responding do not agree that the SBAC's built-in methods of providing testing accommodations to students with disabilities worked well. This perspective is shared by 846 classroom teachers.
- 20% of the 1,300 teachers responding reported that most of their students did not exhibit computer skills sufficient to succeed on the test. This perspective is shared by 259 classroom teachers. Eight percent (n = 98) of participating teachers reported that 75-100% of their students did not exhibit sufficient computer skills to succeed on the test.
- 56% of the 1,309 respondents reported that most of their students found one or more of the SBAC questions confusing or poorly worded. This perspective is shared by 729 classroom teachers.

Observed Technical Problems

Eighty-nine percent of the 1,334 responding teachers reported that their school/district provided technical support during the SBAC administration and 37% of teachers reported experiencing no significant technical problems; however, 57% of teachers reported technical problems not related to a lack of support. In other words, over half of responding teachers reported that there were technical problems with the SBAC administration that were not attributed to a lack of support by the school district.

- 837 teachers, or 50% of those who responded, reported login problems.
- 641 teachers, or 39% of those who responded, reported system crashes.

Time Spent on Test Prep

Sixteen percent of Connecticut teachers participating reported spending more than 21 hours on SBAC practice tests or other test preparation materials with their students.^{††} *Seven percent of responding teachers reported spending more than 40 hours of their class time on SBAC test preparation.* Eighty-four percent of participating teachers indicated that they spend 20 hours or less of their class time teaching to use SBAC's computerized testing format.

Relationship between SBAC and Student Learning

- 97% of the 1,406 responding teachers do not agree with the statement, 'overall, SBAC has proven to be beneficial toward improving student learning in my classroom.' This perspective is shared by 1,358 classroom teachers.
- 86% of the 1,409 participating teachers agree that SBAC has a negative effect on the social and emotional wellbeing of children in their classroom. This perspective is shared by 1,206 classroom teachers.
- 77% of the 1,409 teachers responding teachers reported that their students have lost significant access to computers/technology throughout this school year because the SBAC test administration and preparation has limited their access to the computer lab(s) in their school. This perspective is shared by 1,086 classroom teachers.
- 7% of 1,411 responding teachers agree that using SBAC scores for high-stakes accountability purposes (e.g. school performance, teacher evaluation) has led them to improve their instruction. This perspective is shared by 101 classroom teachers.

Overall Teacher Perceptions of SBAC and Its Appropriateness

- 97% of 1,424 responding teachers do not agree that SBAC is a useful indicator of school effectiveness. This perspective is shared by 1,381 classroom teachers.
- 85% of the 1,404 teachers responding agreed with the statement, 'I generally view the SBAC as an obstacle for my students to overcome.' This perspective is shared by 1,192 classroom teachers.

^{††} The New York State Legislature passed a law limiting test prep to no more than 2% of a school year (approx.. 18 hours), see <http://www.nysenate.gov/press-release/facts-common-core-implementation-reform-act>

- 92% of the 1,412 participating teachers did not agree that the proposed timeline for SBAC to deliver results will allow them to use the information in a meaningful way. This perspective is shared by 1,302 classroom teachers.
- 90% of the 1,410 respondents agreed with the statement, ‘SBAC preparation takes away significant time and resources from teaching and learning in my classroom.’ This perspective is shared by 1,266 classroom teachers.
- 73% of 1,412 participating teachers do not agree that the computerized test administration format is developmentally appropriate for their students. This perspective is shared by 1,039 classroom teachers.
- 16% of the 1,415 participating teachers agree that SBAC is an appropriate measure of mastery of the Common Core State Standards. This perspective is shared by 230 classroom teachers.
- 4% of the 1,411 respondents agreed that using SBAC results to compare the performance of teachers, administrators, schools, and districts is appropriate. This perspective is shared by 57 classroom teachers.
- 3% of 1,351 participating teachers agree with the statement “SBAC results provided me with information about my students that I did not already know.” This perspective is shared by 39 classroom teachers.

Comparative Tests

Due to the number of factor variables involved and in an effort to avoid making Type I errors, Multivariate Analysis of Variance (MANOVA) tests were used to explore a variety of comparisons. MANOVA is appropriate when categorical variables are compared on a number of continuous variables. To assist in the interpretability of these findings, we have provided Cohen’s (1977) guidelines for determining the effect sizes of Cohen’s d and partial eta squared.^{††*}

To aid in interpretation and communication of results, however, Likert scale items were later recoded to be dichotomous so that “Strongly Agree” and “Agree” were collapsed into a single category that was compared to a single collapsed category consisting of all participants who responded either “Disagree” or “Strongly Disagree”. For items that asked participants to estimate the percentage of students engaging a behavior, items were recoded so that any response indicating “50% or more” of students was coded as one category (“A majority of students”) whereas any categories with fewer than 50% were collapsed into a single category and reported as “a minority of students”. As a practical example, 27.3% of elementary school teachers responded that a majority of their students (i.e., more than 50%) clearly gave up on the test by clicking through. Once this was done, a series of chi-square tests of association were then run on all of the same comparisons done in the context of the MANOVAs (because the data were now categorical rather than continuous in nature) and, not surprisingly, the significant results found in the MANOVAs were fully replicated using this alternate analysis.

* 0.20 = small effect, 0.50 = medium effect, 0.80 = large effect.

Cohen, J. (1977). *Statistical power analysis for the behavioral sciences*. Routledge.

Elementary vs. Secondary School Comparisons

In order to make comparisons between elementary, middle, and high school teachers, the data was recoded so that teachers could belong to only one of these categories (recall that some teachers reported teaching both elementary and middle school levels). This recoding resulted in a total of 615 teacher responses (37%) from elementary school teachers (Pk-5), 526 responses (32%) from middle school teachers (grades 6-8), and 511 responses (31%) from high school teachers (grades 9-12). A one-way MANOVA was conducted to determine whether teacher perspectives on the SBAC differ for elementary, middle, and high schools teachers. A significant effect was found ($\Lambda(30, 2258) = .834, p < .001$). Overall, results suggest that Connecticut teachers view the SBAC as having a significantly greater negative effect on elementary level students. Follow-up univariate ANOVAs indicated that compared to high school teachers, participating elementary school teachers are:

- Significantly less likely to view the SBAC as a positive opportunity to provide students with feedback [$F(2,1143) = 6.15, p < .01, \text{partial } \eta^2 = .01$]. Only 1.7% of elementary school teachers agree with this statement as compared to 5.9% of middle school teachers and 4.3% of high school teachers.
- Significantly more likely to disagree that the computerized test administration format of the SBAC is appropriate for their students, [$F(2, 1143) = 41.7, p < .001, \text{partial } \eta^2 = .06$]. Specifically, only 14.3% of Elementary school teachers agreed that the computerized testing format was developmentally appropriate for their students as compared to 38% of high school teachers who felt that it was.
- Significantly more likely to agree that their students exhibited widely disparate and inequitable computer skills when taking the SBAC test, [$F(2, 1143) = 13.05, p < .001, \text{partial } \eta^2 = .02$]. A total of 78.2% of elementary school teachers reported wide disparities among students whereas 66.3% of high school teachers noted wide disparities among students in their computer skills.
- Significantly more likely to agree that a majority of their students did not exhibit computer skills sufficient to succeed on the test, [$F(2, 1143) = 56.99, p < .001, \text{partial } \eta^2 = .09$]. Nearly one-third of elementary school teachers (32.7%) noted a lack of student computer skills whereas only 9.3% of high school teachers noted a lack of computer skills among students.
- Significantly less likely to agree that a majority of their students clearly gave up on the test by clicking through several test questions without taking the time to read the questions thoroughly, [$F(2, 1143) = 11.17, p < .001, \text{partial } \eta^2 = .02$]. Just over a quarter of elementary school teachers (27.3%) noted that a majority of their students gave up and clicked through the test as compared to more than one-third of high school teachers (35.6%) who noted that the majority of their students gave up and clicked through the test.
- Significantly more likely to agree that, compared to other standardized tests students have taken (e.g., CMT), a majority of their students became distraught (e.g., crying or other manifestations of stress) during the administration of the test, [$F(2, 1143) = 8.65, p < .001, \text{partial } \eta^2 = .01$]. A total of 59.8% of elementary school teachers agreed that their students became more distraught as compared to 42.8% of high school teachers who noted that their students became more distraught than usual.

- Responses from participating elementary level teachers were not significantly ($p > .05$) different from middle and high school teachers, regarding the other items asked (see Table 2).

Table 2. Percentage of teachers by school level agreeing with each item

	(N = 615) Elementary	(N = 526) Middle	(N = 511) High
<i>Appropriateness and Utility</i>			
SBAC is an appropriate measure of mastery of the Common Core State Standards	14.7	18.8	14.8
SBAC is a useful indicator of school effectiveness	2.7	2.8	3.8
Using SBAC results to compare the performance of teachers, administrators, schools, and districts is appropriate.	4.3	4.1	3.8
I have found the SBAC assessment useful for measuring student growth within a school year.	2.3	3.8	2.5
Overall, SBAC has proven beneficial toward improving student learning in my classroom	3.1	3.9	3.3
SBAC results provided me with information about my students that I did not already know	2.3	3.1	3.4
I generally view the SBAC as an obstacle for my students to overcome	85.9	80.7	88.2
The proposed timeline for the SBAC to deliver results will allow me to use the information in a meaningful way	7.6	9.8	5.9
I generally view the SBAC as a positive opportunity to provide students with feedback	1.7	5.9	4.3
Knowing that SBAC scores will be used for high-stakes accountability purposes (e.g. school performance, teacher evaluation) has led me to improve my instruction.	6.8	9.0	5.3

Test Administration

The computerized test administration is developmentally appropriate for my students	14.3	31.9	38.0
Students exhibit widely disparate and inequitable computer skills when taking the SBAC	78.2	67.1	66.3
A majority of students do not exhibit computer skills sufficient to succeed on the test	32.7	13.7	9.3

Impact on Students

A majority of students clearly gave up on the test by clicking through several test questions without taking time to read questions thoroughly	27.3	17.4	35.6
Compared to other standardized tests students have taken, more became distraught (e.g., crying or other signs of stress) during the SBAC	59.8	54.5	42.8
SBAC has a negative effect on the social and emotional well-being of children in my classroom	86.6	83.7	86.6

*Note: Percentages in boxes represent percent of respondents who agreed with each statement. N of responses may vary slightly by item. Shaded boxes indicate items in which statistically significant differences were observed.

School and Community Socio-Economic Status (SES) Comparisons

Although a far majority of Connecticut teachers viewed the SBAC test negatively (as illustrated on page 4), we chose to use District Reference Groups (DRGs) to explore the degree to which teacher perceptions of the SBAC differ across school communities. DRGs can be a useful indicator when drawing such comparisons between school districts of differing demographics. Using Multivariate Analysis of Variance (MANOVA) tests, we explored teacher perceptions of SBAC implementation between the highest DRG (A – Darien, Easton, New Canaan, Redding, Ridgefield, Weston, Westport, etc.), the middle DRG (E- Ashford, Bozrah, Brooklyn, Canaan, Chaplin, Chester, Colebrook, etc.), and the lowest two DRGs combined, DRG H and DRG (H/I – Bridgeport, Danbury, Hamden, Hartford, New Britain, New Haven, etc.), collectively known as the Alliance Districts. A total of 140 teacher responses came from DRG A, 88 teacher responses came from DRG E, and 238 teacher responses came from DRG H/I.

A one-way MANOVA was calculated comparing the DRG classification to a variety of continuous outcome variables. A significant effect was found ($Lambda(30,578) = .724, p < .001$). Follow-up univariate ANOVAs indicated that compared to DRG A, teachers in DRGs H/I are:

- significantly more likely to report that SBAC is not an appropriate measure of the Common Core State Standards, [$F(2, 303) = 4.16, p < .05, \text{partial } \eta^2 = .03$]. Only 10.2% of teachers in DRG H/I felt it was an appropriate measure of the standards as compared to nearly one-quarter of teachers in DRG A (24.3%) who agreed it was an appropriate measure of the standards.
- significantly more likely to report viewing SBAC as an obstacle for their students to overcome [$F(2, 303) = 3.18, p < .05, \text{partial } \eta^2 = .02$]. Fully 87.8% of teachers in DRG H/I reported viewing the SBAC as an obstacle for their students to overcome and more than three-quarters of teachers (78.9%) in DRG A agreed with this sentiment as well.
- significantly less likely to agree that the timeline for SBAC to deliver the test results will allow them to use the information in a meaningful way [$F(2, 303) = 3.20, p < .05, \text{partial } \eta^2 = .02$]. Only 5.6% of teachers in DRG H/I felt that the timeline for reporting results

would allow them to use the results in a meaningful way as compared to 9.2% of teachers in DRG A who responded this way.

- significantly more likely to report the computerized test administration format is not developmentally appropriate for my students, [$F(2, 303) = 13.32, p < .001, \text{partial } \eta^2 = .08$]. Only 18.3% of teachers in DRG H/I felt the computerized test administration was developmentally appropriate for their students whereas 42.7% of teachers in DRG A felt that the format was developmentally appropriate for their students.
- significantly more likely to report that students exhibited widely disparate and inequitable computer skills sufficient to succeed on the test, [$F(2, 303) = 8.85, p < .001, \text{partial } \eta^2 = .06$]. Nearly three-quarters (73.7%) of teachers in DRG H/I reported that their students exhibited widely disparate and inequitable computer skills and just over half of the teachers in DRG A (51.2%) felt there were computer skill inequities among their students.
- significantly more likely to report that a majority of their students did not exhibit computer skills sufficient to succeed on the test [$F(2, 303) = 30.59, p < .001, \text{partial } \eta^2 = .17$]. Specifically more than one-third of teachers (37%) in the Alliance Districts reported that the *majority of their students* lacked the computer skills sufficient to succeed on the tests whereas only 5.9% of teachers in DRG A reported that the majority of their students lacked sufficient computer skills to succeed on the test.
- significantly more likely to report that their students ‘clearly gave up’ on the test by clicking through several test questions without taking the time to read the questions thoroughly [$F(2, 303) = 15.1, p < .001, \text{partial } \eta^2 = .09$]. Remarkably, 40.5% of teachers from Alliance District reported that the *majority of their students* clearly gave up on the tests and clicked through whereas 14.9% of teachers in DRG A reported the same.
- significantly more likely to become distraught during the SBAC administration as compared to other standardized tests [$F(2, 303) = 12.60, p < .001, \text{partial } \eta^2 = .08$]. A total of 61.2% of teachers from DRG H/I reported that their students had become significantly more distraught during the SBAC than during other comparable tests as compared to 36.6% of teachers from DRG A who reported the same.
- significantly more likely to report that SBAC has a negative effect on the social and emotional wellbeing of the children in their classroom, [$F(2, 303) = 3.44, p < .05, \text{partial } \eta^2 = .02$]. Fully 90.8% of teachers from the Alliance Districts reported that the SBAC had a negative effect on the social and emotional well-being of children in their classroom and more than three-quarters of teachers in DRG A reported the same.
- Responses on all other items listed in Table 3 were not significantly different by DRG.

Table 3. Percentage of teachers by District Reference Group (DRG) agreeing with each item

	(N = 140) DRG_A	(N = 88) DRG_E	(N = 238) DRG_HI
<i>Appropriateness and Utility</i>			
SBAC is an appropriate measure of mastery of the Common Core State Standards	24.3	19.7	10.2
SBAC is a useful indicator of school effectiveness	7.4	1.3	0.0
Using SBAC results to compare the performance of teachers, administrators, schools, and districts is appropriate.	6.5	4.0	2.0
I have found the SBAC assessment useful for measuring student growth within a school year.	2.0	2.7	1.1
Overall, SBAC has proven beneficial toward improving student learning in my classroom	5.6	1.4	2.0
SBAC results provided me with information about my students that I did not already know	2.9	2.8	3.2
I generally view the SBAC as an obstacle for my students to overcome	78.9	86.8	87.8
The proposed timeline for the SBAC to deliver results will allow me to use the information in a meaningful way	9.2	5.3	5.6
I generally view the SBAC as a positive opportunity to provide students with feedback	4.9	2.8	2.7
Knowing that SBAC scores will be used for high-stakes accountability purposes (e.g. school performance, teacher evaluation) has led me to improve my instruction.	7.3	10.5	6.1

Test Administration

The computerized test administration is developmentally appropriate for my students	42.7	25.0	18.3
Students exhibit widely disparate and inequitable computer skills when taking the SBAC	51.9	72.4	73.7
A majority of students do not exhibit computer skills sufficient to succeed on the test	5.9	11.3	37.0

Impact on Students

A majority of students clearly gave up on the test by clicking through several test questions without taking time to read questions thoroughly	14.9	15.5	40.4
Compared to other standardized tests students have taken, more became distraught (e.g., crying or other signs of stress) during the SBAC	36.6	50.7	61.2
SBAC has a negative effect on the social and emotional well-being of children in my classroom	78.7	82.9	90.8

*Note: Percentages in boxes represent percent of respondents who agreed with each statement. N of responses may vary slightly by item. Shaded boxes indicate items in which statistically significant differences were observed.

Teachers Whose Subjects were Tested by SBAC v. Those Who Taught in Non-Tested Subjects

Survey respondents were asked to indicate whether they taught in a subject area that was tested on the SBAC (e.g., English Language Arts, mathematics) or not. A total of 936 (56%) reported teaching in a subject tested by the SBAC whereas 727 (44%) of teachers reported not teaching a subject tested by the SBAC. To see if there are any significant differences in the perceptions of teachers whose subjects were tested by the SBAC as compared to teachers whose subjects were not directly tested, a MANOVA was run comparing the scores of teachers in the two groups on several continuous outcome variables. The MANOVA revealed statistically significant differences [F(15, 1135) = .923., $p < .001$]. A series of follow-up chi-square were then run. Overall, the results of the follow-up t-tests showed that teachers who taught in a subject area being tested were:

- significantly more likely to report that the SBAC is an appropriate measure of mastery of the Common Core State Standards, [$\chi^2(1)=5.66, p < .05$]. A total of 18.1% of teachers whose taught in tested subject areas felt this way as compared to 13.4% of teachers in non-tested areas who felt the same.
- significantly less likely to report that the test provided them with information that they did not already know, [$\chi^2(1)=3.92, p < .05$]. Only 2.1% of teachers whose taught in tested subject areas felt this way as compared to 4.0% of teachers in non-tested areas who felt the same.
- significantly less likely to believe the computerized test administration format is developmentally appropriate for my students, [$\chi^2(1)=26.86, p < .001$]. Just over one-fifth (21.8%) of teachers whose taught in tested subject areas felt that the computerized testing format was developmentally appropriate whereas more than one-third (34.2%) of teachers in non-tested areas felt the computerized format was developmentally appropriate.
- significantly more likely to report that students exhibited widely disparate and inequitable computer skills when taking the SBAC, , [$\chi^2(1)=5.74, p < .05$]. Nearly three-

quarters (73.5%) of teachers who taught in tested subject areas felt this way as compared to just over two-thirds of teachers in non-tested areas who felt the same (67.7%).

- significantly more likely to report that the majority of their students did not exhibit computer skills sufficient to succeed on the test, , [$\chi^2(1)=27.8, p < .001$]. Twice as many teachers who taught in tested subject areas felt this way (24.5%) as compared to teachers in non-tested areas who felt the same (12.5%).
- All other comparisons listed in Table 4 were not significantly different.

Table 4. Percentage of teachers in tested subjects v. non-tested subjects agreeing with each item

	(N = 936) Teach in Tested Subject	(N = 727) Do not teach in tested subject
<i>Appropriateness and Utility</i>		
SBAC is an appropriate measure of mastery of the Common Core State Standards	18.1	13.4
SBAC is a useful indicator of school effectiveness	3.1	2.9
Using SBAC results to compare the performance of teachers, administrators, schools, and districts is appropriate.	4.2	3.8
I have found the SBAC assessment useful for measuring student growth within a school year.	2.6	3.2
Overall, SBAC has proven beneficial toward improving student learning in my classroom	3.7	3.0
SBAC results provided me with information about my students that I did not already know	2.1	4.0
I generally view the SBAC as an obstacle for my students to overcome	84.1	86.2
The proposed timeline for the SBAC to deliver results will allow me to use the information in a meaningful way	8.6	6.6
I generally view the SBAC as a positive opportunity to provide students with feedback	3.4	4.6
Knowing that SBAC scores will be used for high-stakes accountability purposes (e.g. school performance, teacher evaluation) has led me to improve my instruction.	6.8	7.7

Test Administration

The computerized test administration is developmentally appropriate for my students	21.8	34.2
Students exhibit widely disparate and inequitable computer skills when taking the SBAC	73.5	67.7
A majority of students do not exhibit computer skills sufficient to succeed on the test	24.5	12.5

Impact on Students

A majority of students clearly gave up on the test by clicking through several test questions without taking time to read questions thoroughly	25.1	26.9
Compared to other standardized tests students have taken, more became distraught (e.g., crying or other signs of stress) during the SBAC	55.5	50.4
SBAC has a negative effect on the social and emotional well-being of children in my classroom	84.7	86.8

*Note: Percentages in boxes represent percent of respondents who agreed with each statement. N of responses may vary slightly by item. Shaded boxes indicate items in which statistically significant differences were observed.

Comparisons of teachers responses based on years of teaching experience

Finally, teacher responses were compared based on the number of years of experience of the teacher. Specifically, survey respondents were broken into three categories: those who had taught 1-6 years (n = 223, 14%), those who had taught 7-15 years (n = 611, 38%), and those who had taught 16 years or more (n = 793, 49%).

A one-way MANOVA was conducted to determine whether perspectives on the SBAC differ by teachers’ years of experience. A significant effect was found ($Lambda(30, 2232) = .937, p < .001$). Overall, very few significant differences were found based on teachers’ years of experience. Follow-up univariate ANOVAs indicated that compared to new teachers to older teachers found that new teachers are:

- significantly less likely to report that students exhibited widely disparate and inequitable computer skills sufficient to succeed on the test, [$F(2, 1130) = 4.39, p < .01, \text{partial } \eta^2 = .01$]. Just under two-thirds (63.7%) of newer teachers reported that their students exhibited widely disparate and inequitable computer skills whereas three-quarters (74.5%) felt there were computer skill inequities among their students.
- significantly more likely to report that their students ‘clearly gave up’ on the test by clicking through several test questions without taking the time to read the questions thoroughly [$F(2, 1130) = 7.1, p < .001, \text{partial } \eta^2 = .01$]. Just over one-third (34.3%) of newer teachers reported that the *majority of their students* clearly gave up on the tests and clicked through whereas 22.5% of veteran teachers reported the same.
- Responses on all other items listed in Table 5 were not significantly different by teachers’ years of experience.

Table 5. Percentages of teachers, by years of experience, agreeing with each item

	(N = 223) 1-6 Years	(N = 611) 7-15 Years	(N = 793) 16+ Years
<i>Appropriateness and Utility</i>			
SBAC is an appropriate measure of mastery of the Common Core State Standards	19.2	16.5	15.3
SBAC is a useful indicator of school effectiveness	2.1	3.4	3.0
Using SBAC results to compare the performance of teachers, administrators, schools, and districts is appropriate.	6.2	2.6	4.2
I have found the SBAC assessment useful for measuring student growth within a school year.	2.2	3.8	2.1
Overall, SBAC has proven beneficial toward improving student learning in my classroom	3.6	3.6	2.9
SBAC results provided me with information about my students that I did not already know	1.6	3.8	2.4
I generally view the SBAC as an obstacle for my students to overcome	81.3	84	86.7
The proposed timeline for the SBAC to deliver results will allow me to use the information in a meaningful way	6.8	9.9	6.3
I generally view the SBAC as a positive opportunity to provide students with feedback	3.3	4.7	3.3
Knowing that SBAC scores will be used for high-stakes accountability purposes (e.g. school performance, teacher evaluation) has led me to improve my instruction.	9.4	7.8	5.7

Test Administration

The computerized test administration is developmentally appropriate for my students	30.4	28.0	25.0
Students exhibit widely disparate and inequitable computer skills when taking the SBAC	63.7	68.9	74.5
A majority of students do not exhibit computer skills sufficient to succeed on the test	21.5	21.6	18.0

Impact on Students

A majority of students clearly gave up on the test by clicking through several test questions without taking time to read questions thoroughly	34.3	27.3	22.5
Compared to other standardized tests students have taken, more became distraught (e.g., crying or other signs of stress) during the SBAC	52.6	54.9	52.9
SBAC has a negative effect on the social and emotional well-being of children in my classroom	86.9	84.9	85.9

*Note: Percentages in boxes represent percent of respondents who agreed with each statement. N of responses may vary slightly by item. Shaded boxes indicate items in which statistically significant differences were observed.

Teachers Perceptions of the Future of Testing in Connecticut

It is a simple reality that students will continue to be assessed in Connecticut. Teachers are not necessarily opposed to this notion, per se, but rather have opinions about the best form for this assessment to take. Consequently, we asked teachers to rank order from 1 (least favorable) to 5 (most favorable) a list of five realistic possible methods of implementing student assessment in Connecticut. The following graphs represent the proportion of teachers endorsing each of the five options in terms of those they rated as best (see Figure 1) and those they rated as worst (see Figure 2).

Figure 1. Teachers' opinions of the most desirable assessment options moving forward

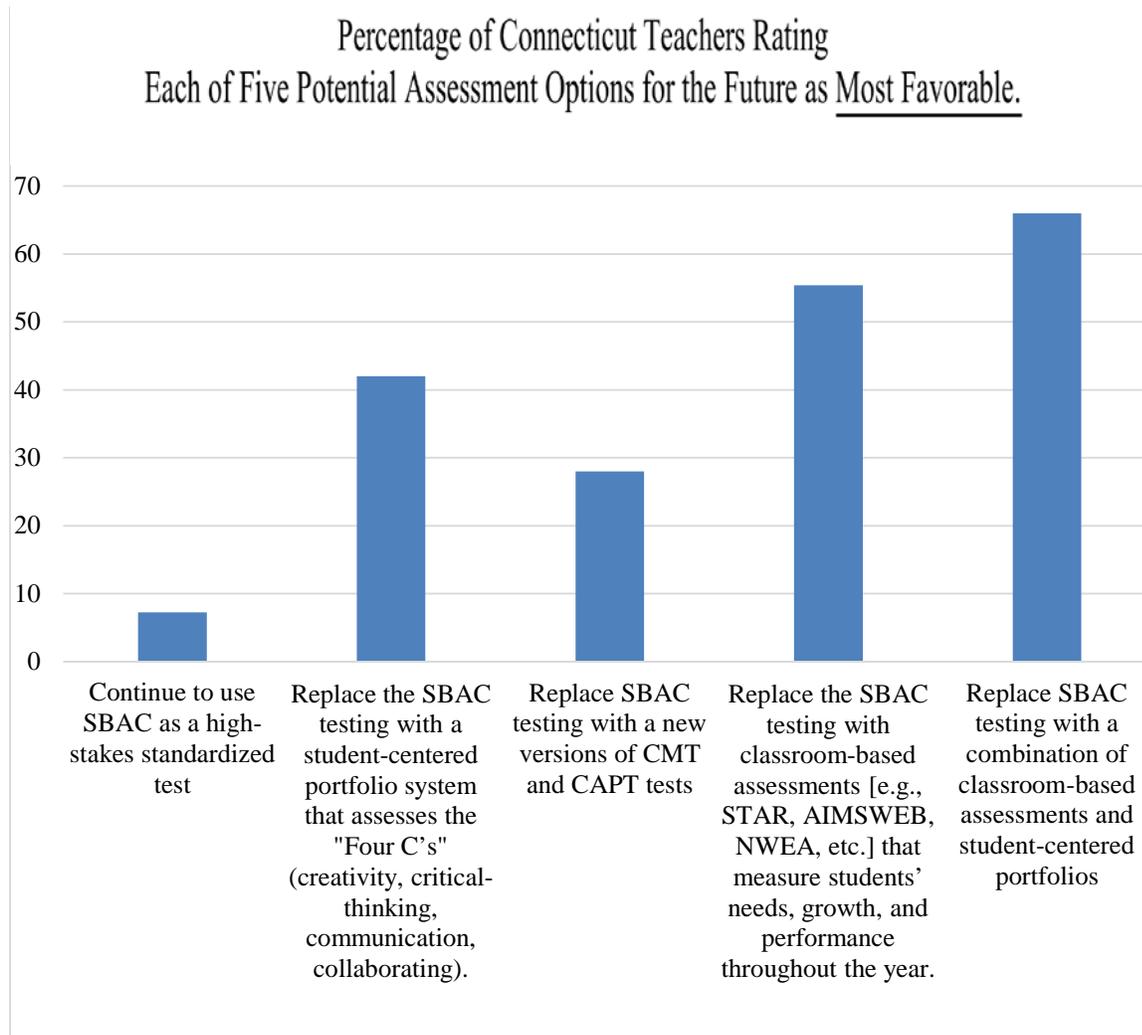
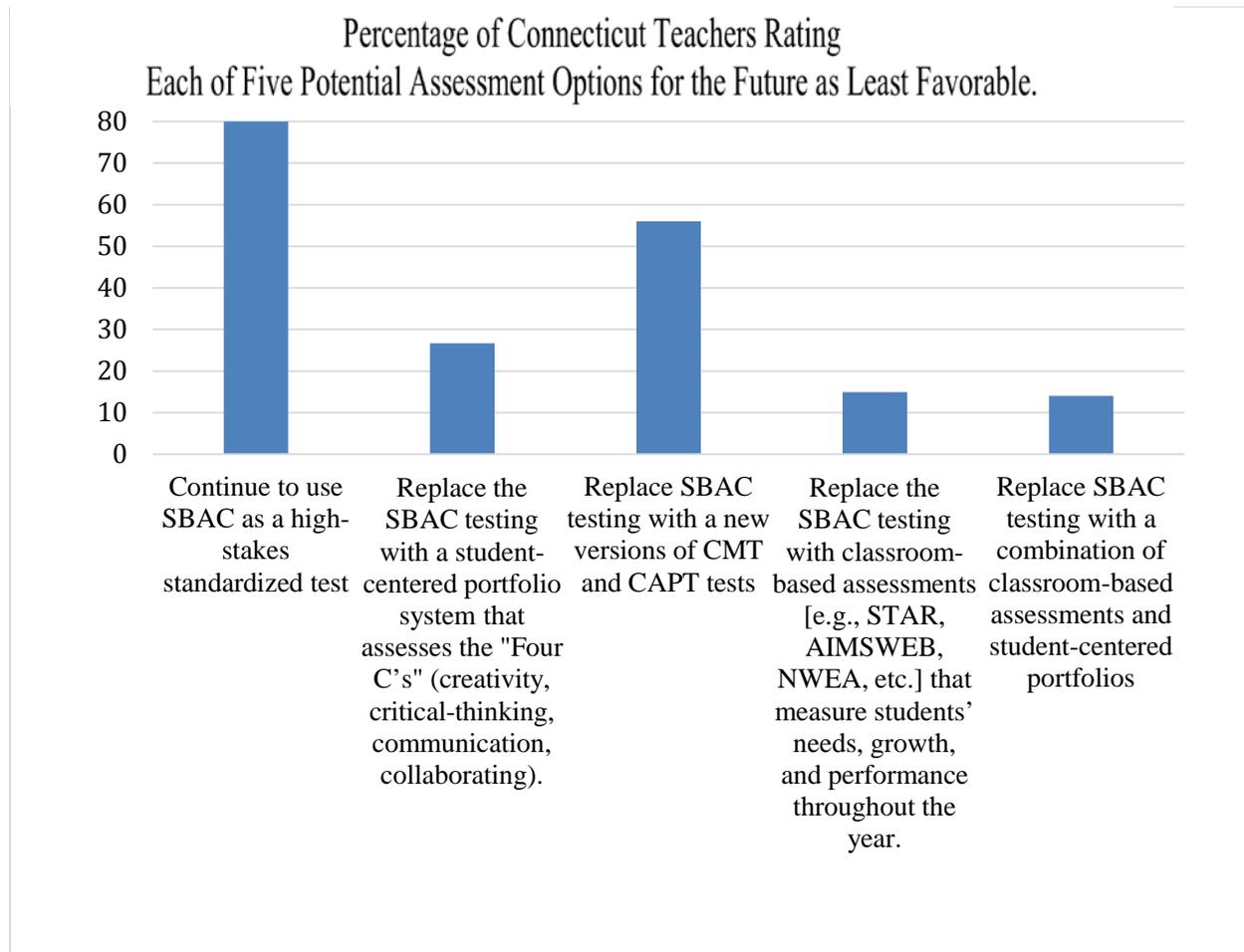


Figure 2. Teachers' opinions of the least desirable assessment options moving forward



Conclusions

The results of this survey of teachers' perceptions of the implementation of the SBAC in 2015 yielded many noteworthy findings. Overall, however, three main themes emerged.

The first theme to emerge centers relates to the use of computers for the administration of the testing. The results suggest that teachers perceive a non-trivial proportion of students who lack the computer skills to perform successfully on the test. Overall, 20% of teachers noted that the majority of their students (i.e., more than 50% of their students) did not exhibit computer skills sufficient to succeed on the test. There was variability among students, of course, as 71% of teachers reported that students exhibited widely disparate and inequitable computer skills when taking the SBAC test. These problems appear to be exacerbated even further for elementary school students, where one-third (32.7%) of elementary school teachers stated that a majority of their students lacked computer skills sufficient to succeed on the test (as compared to the 9% of high school teachers expressing a similar view). When one compares the results by District Reference Group/SES, it is clear from that data that students in the lowest performing districts are being the most disadvantaged by their relative lack of computer skills. Specifically, 37% of teachers in the Alliance School Districts reported that the majority of their students lacked sufficient computer skills to succeed on the test. By comparison, only 6% of teachers in the highest performing DRGs made the same assertion. Furthermore, 73% of teachers overall felt that the computerized testing administration was not developmentally appropriate for their students. Significant differences were again observed by grade level, with 86% of elementary school teachers stating that the format was not developmentally appropriate for their students as compared to 62% of high school teachers saying the same.

The fact that the medium of test administration may be interfering with students' ability to demonstrate their knowledge of the content of the test is a major threat to the validity of the test results. For many years, the field of assessment has struggled with the fact that word problems in mathematics do not simply test mathematical knowledge, but rather are often strongly associated with reading comprehension as well. Consequently, such items are rarely a pure measure of the construct of interest (mathematical knowledge). It appears that we may find ourselves in a similar circumstance in the context of modern technology. If computer literacy skills are interfering with students' ability to demonstrate what they know and can do in the domains of interest (in this case, Mathematics and English Language Arts), then the new tests are not a valid measure of their intended constructs.

Interestingly, one of the great promises of using technology to enhance testing is its potential to provide a vast range of personalized accommodations to student test takers in order to help remove the confounding influences of irrelevant construct variance so as to get at a more pure measure of the construct. Unfortunately, however, the current version of the SBAC appears to fall short in this regard as well, with nearly two-thirds of teachers (64%) reporting that the built-in methods of providing testing accommodations did not work well.

The second major theme to emerge from the data is that the SBAC caused extraordinary levels of emotional distress for students. Overall, 86% of teachers reported that the SBAC had a negative effect on the social and emotional wellbeing of children in their classroom. More than one-quarter of the teachers sampled reported that the majority of their students became frustrated or angry during the administration of the test. These results were even more intense at the elementary school level, with nearly 60% percent of teacher reporting that their

elementary school students became more distraught during the SBAC than during other standardized tests the students had taken. Perhaps as an alternative coping mechanism, more than one-third of high school teachers and 40% of Alliance District teachers reported that more than half of their students simply clicked through the test without reading the items. These numbers are in contrast to significantly lower percentages of students engaging in this behavior at the middle school level (17%) and in the higher performing DRGs (15%).

Finally, the third major theme to emerge is that the teachers surveyed clearly do not see the benefits of the testing program. A total of 85% of respondents view the SBAC as an obstacle for their students to overcome whereas only 4% percent view it as a positive opportunity to provide students with feedback. Fully 92% of teachers responding felt that the proposed timeline for returning the results was too late to be useful for the teachers and only 3% of teachers felt that test results were giving them information that they did not already know about their students. Ninety percent of teachers felt that the SBAC takes away significant time and resources from teaching and learning in the classroom and only 16% believe that the test is an appropriate measure of the Common Core Standards.

In sum, it is clear from this study that the teachers who responded are not convinced of the value of the SBAC test. The data here suggests why this may be so and point to particular problems that may threaten to undermine the validity of test results.