



Comparing NAEP and State Proficiency When Setting New Cut Scores

Cornelia S. Orr, Former Executive Director
National Assessment Governing Board (NAGB)

Background

- Florida has a new state assessment, The Florida Standards Assessment (FSA).
- Florida has always looked to NAEP as an external source to validate the progress Florida students are making.
- Historically there has been a gap between Florida's percent proficient and that reported by NAEP.
- The Commissioner's recommendations continue the gaps between the percentages of students "proficient" on the 2015 FSA and NAEP (see slide 26 on FDOE 10-28-15 PPT).

My Advice to States with New Tests

- Be clear about your labels and definitions, especially in communicating results to students and parents. It is important for students and parents to know if they are on-track for graduation and post secondary pursuits.
- Make sure the cut scores will lead students toward preparedness and success.
- Examine your NAEP scores and comparisons to other states.
- If you have more challenging expectations and tests, expect a lower percent proficient.
- Set the “Proficient” cut score where it needs to be; don’t plan to change it later.

Labels and Definitions Matter

NAEP Achievement Levels Policy Definitions		Florida
Basic	Partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade	?
Proficient	Solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.	?
Advanced	Superior performance.	?

Note about Florida: Florida's definition of **Level 3** is not clear. More clarity is needed as to whether it is to be called satisfactory or proficient or passing or on grade level? Do these labels have the same meaning for the general public or educators? Historically and in the Florida and Federal accountability system, level 3 has been referred to as the level of proficiency, so some people will be confused and concerned if it looks like Florida is lowering its expectations for students.

This Analysis

- This analysis was prepared at the request of SBE member John Padget. He requested a review of the Commissioner's recommendations vis-a-vis the NAEP cut scores in comparison to the top scoring 10-12 states and states similar to Florida, namely California, New York, and Texas.
- The top ten states used were the highest 2015 NAEP scores in grade 4 because there is a lot of duplication with grade 8. (Some states and The DoDEA were excluded in order to limit the number of high scoring states to around 10.)
- Still, a total of 16 states were included in the analysis, 13 of which were found in the top ten performing states on NAEP (data found on slide 7).

This Analysis (cont.)

- This analysis examined the “gap” between the state-reported percent proficient and the NAEP-reported percent proficient for each grade and subject assessed by NAEP.
- The data presented on slide 7 includes:
 - Number of times (subject areas) state ranked in top 10 (max = 4).
 - The state reported percent proficient.
 - The NAEP reported percent proficient.
 - The Gap.
- States with gaps of 15 or greater are shown in red.
- States with gaps of 10 or less are highlighted in blue.

The Gap Between State-Reported Percent Proficient and NAEP-Reported Percent Proficient for Selected States

Areas Ranked in Top 10 ¹	State	Grade 4 Reading		Grade 4 Math		Grade 8 Reading		Grade 8 Math	
		2015 % Proficient: State-NAEP	Gap ²						
0	CA	40 - 28	12	35 - 29	6	45 - 28	17	33 - 27	6
2	CT	55 - 43	12	44 - 41	3	54 - 43	11	37 - 36	1
1	FL ³	54 - 39	15	59 - 42	17	55 - 30	25	45 - 26	19
3	IN	? - 40		? - 50		? - 37		? - 39	
1	KY	52 - 40	12	49 - 40	8	54 - 36	18	44 - 28	17
4	MA	53 - 50	3	47 - 54	(7)	80 - 46	34	60 - 51	9
3	MN	58 - 39	19	70 - 53	17	56 - 40	16	58 - 48	10
2	MT	? - 37		? - 41		? - 37		? - 39	
4	NH	56 - 46	10	49 - 51	(2)	58 - 45	13	44 - 46	(2)
4	NJ	51 - 43	8	41 - 47	(6)	52 - 41	11	24 - 46	(22)
0	NY	33 - 36	(3)	43 - 35	8	35 - 33	2	22 - 31	(9)
1	TX	70 - 31	39	70 - 44	26	78 - 28	50	75 - 32	43
3	VA	77 - 43	34	84 - 47	37	75 - 36	39	74 - 38	36
3	VT	51 - 45	6	45 - 43	2	54 - 44	10	40 - 42	(2)
2	WI	? - 37		? - 45		? - 39		? - 41	
2	WY	60 - 41	19	51 - 48	2	52 - 36	16	47 - 35	12

¹This list includes 13 states most of which were found in the top 10 on grade 4 NAEP scale scores, plus CA, NY, and TX for context comparisons. Other states, for example WA and ND, were found in the top 10 ten for one or more subjects but are not included here in order to limit the number of comparisons.

²Some gaps differ from simple subtraction, due to rounding. Highlighted cells indicate where the gap between a state's reported proficiency and the NAEP reported proficiency is 10 points or less. Red gaps are those greater than or equal to 15, that is, the most troublesome.

³The Florida 2015 percents proficient are taken from the FL Commissioner of Education's recommendations at the 10-28-15 SBE Meeting.

Overall Findings

- States with the largest gaps (15+ points) appear to have proficiency expectations lower than NAEP's. Cut scores in these states might be raised.
- States with the smallest gaps (within 10 points of NAEP's) appear to have proficiency expectations similar to or more challenging than NAEP's.
- States have larger gaps in Reading than in Math.
- The large gaps below indicate lower proficiency expectations than NAEP.

Grade 4

- In Reading, **8 of 13** states had large gaps; 12 (CA, CT, KY), 15 (FL), 19 (MN, WY), 34 (VA), 39 (TX).
- In Math, **7 of 13** states had large gaps; 17 (FL, MN), 26 (TX), 37 (VA).

Grade 8

- In Reading, **11 of 13 states** had large gaps; 11 (CT, NJ), 13 (NH), 16 (MN, WY), 17 (CA), 18 (KY), 25 (FL), 34 (MA), 39 (VA), 50 (TX).
- In Math, **5 of 13** states had large gaps; 12 (WY), 16 (KY), 19 (FL), 36 (VA), 43 (TX).

Florida Specific Findings

- With a few exceptions, the states performing the highest on NAEP have proficiency expectations higher than Florida's and similar to NAEP's, particularly in Math.
- Compared to the CA, NY, and TX (mega-states like Florida), CA and NY both have higher proficiency expectations than Florida. Only TX has proficiency expectations which appear lower than Florida.
- The proficiency gaps for Florida are greatest for Grade 8 Reading (25), but also substantial for other areas: 15 for Grade 4 Reading and 17 and 19 for Math at grades 4 and 8, respectively.
- The proficiency gaps for Florida compared to gaps for other states:
 - Grade 4 Reading: 3 of 8 states have smaller gaps than Florida.
 - Grade 4 Math: FL is one of four states with gaps greater than 10.
 - Grade 8 Reading: 7 of 11 states have smaller gaps than Florida.
 - Grade 8 Math: FL is third of 5 states in the size of its gap.

Conclusions

- Consider making adjustments to cut scores in all areas in order to close the gap with NAEP proficient.
- Priorities:
 1. Grade 8 reading
 2. Math at grades 4 and 8
 3. Grade 4 reading

Addendum - State Achievement Level Definitions

Policy Definitions of Selected State Achievement Levels							
STATE	Assessment	# of Levels	Policy Definitions (Does not represent the rigor of the test or cut score.)				
			Lowest			Highest	
NAEP	National Assessment of Educational Progress	4	Below Basic (not defined)	Basic - Partial Mastery	Proficient - Solid academic perform.		Advanced – Superior Perf.
CA	California Assessment of Student Performance and Progress (SBAC)	4	1 – Not met the AS	2 – Nearly met AS	3 - Met achievement standard (AS)		4 – Exceeded AS
CT	Smarter Balanced Assessment	4	1 – Not met the AS	2 – Nearly met AS	3 – Met achievement standard (AS)		4 – Exceeded AS
FL	Florida Standards Assessment	5	1 - Inadequate level of success	2 – Below satisfactory	3 – Satisfactory	4 – Above Satisfactory	5 – Mastery
IN	Indiana Statewide Testing for Educational Progress	3	Did Not Pass		Pass		Pass +
KY	K-PREP	4	Novice	Apprentice	Proficient		Distinguished
MA	Comprehensive Assessment System	4	Warning - Minimal understanding	Needs Improv. - Partial under.	Proficient - Solid understanding		Advanced –in-depth under.
MN	Minnesota Comprehensive Assessments	4	Does Not Meet	Partially Meets	Meets		Exceeds
MT	Montana Comprehensive Assessment System (SBAC)	4	1	2	3 – Meets Expectations		4 – Meets Expectations
NH	Smarter Balanced Assessment	4	1 – Not met the AS	2 – Nearly met AS	3 - Met achievement standard (AS)		4 – Exceeded AS
NJ	PARCC Assessment	5	1 – Did not yet meet expect.	2 – Partially met expectations	3 – Approached expectations	4 – Met expectations	5 – Exceeded expectations
NY	NY State Assessment Program	4	1 – Well below proficient	2 – Partially proficient	3 – Proficient		4 – Excels
TX	State Assessment Tests of Academic Readiness	3	I – Unsatisfactory		II – Satisfactory		III – Advanced
VA	Standards of Learning Test	4	Fail/Below Basic	Fail/Basic	Pass/Proficient		Pass/Advanced
VT	Vermont Comprehensive Assessment System (SBAC)	4	1 – Not met the AS	2 – Nearly met the AS	3 – Met achievement standard		4 – Exceeded AS
WI	Wisconsin Badger Exam (SBAC)		Below Basic	Basic	Proficient		Advanced
WY	Proficiency Assessments for Wyoming Students	3	Basic - Marginal		Proficient - Satisfactory		Advanced - Superior perf.
SBAC	Smarter Balanced Assessment	4	1 – Not met AS	2 – Nearly met AS	3 – Met Achievement Standard (AS)		4 – Exceeded AS
PARCC	Partnership for Assessment of Readiness for College and Careers	5	1 - Did not yet meet expect.	2 - Partially met expectations	3 - Approached expectations	4 - Met expectations	5 - Exceeded expectations