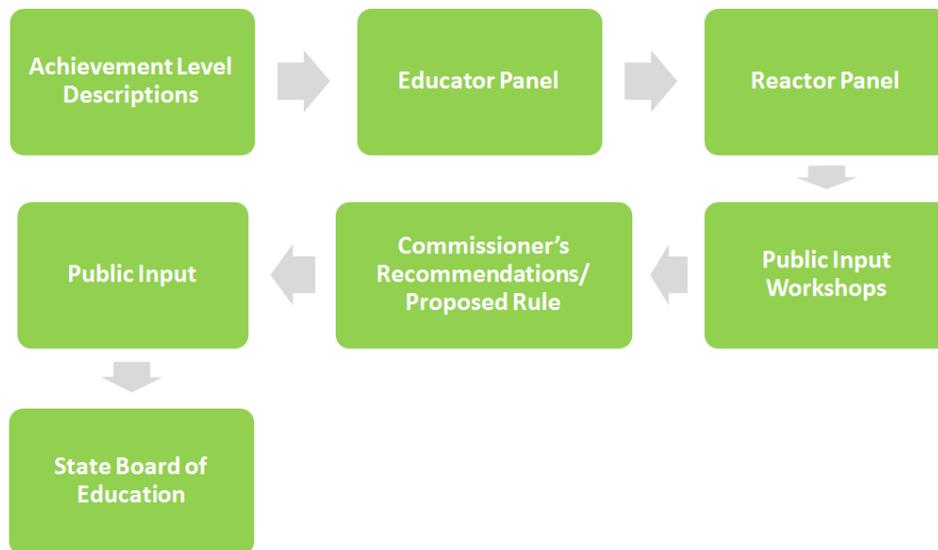


FCAT 2.0 Science, Biology 1 End-of-Course Assessment, and Geometry End-of-Course Assessment Standard Setting Summary

Florida is transitioning from the FCAT to the FCAT 2.0 and Florida End-of-Course (EOC) Assessments, which measure student achievement of the Next Generation Sunshine State Standards (NGSSS). Implementing assessments for the first time requires setting standards. More specific information, including the dates and times for workshops where the public can provide input, is available at the [FDOE Standard-Setting website](#). When a proposed rule becomes final it is posted to the site. The following flow chart illustrates the basic process of standard setting. (The flow chart was updated on 11/20/2012 to reflect that the Commissioner solicited public feedback prior to making her recommendations.)



The standard-setting process pulled together groups of educators to recommend Achievement Level “cut points” that define the new Achievement Levels (i.e., level 1/2 cut, level 2/3 cut, level 3/4 cut, level 4/5 cut). The Educator Panel based their recommendations on content. A Reactor Panel composed of business leaders, postsecondary faculty, superintendents, and community leaders convened to recommend Achievement Level cut points based on their review of the educators’ recommendations and impact data. The impact of their recommendations on the percentage of students scoring at Achievement Level 3 or above is presented in Exhibit 1.

Exhibit 1. Percentage of Students at Achievement Level 3 or Above Based on the Educator Panel and Reactor Panel Proposed Cuts

Assessment	Percentage Achievement Level 3 or Above		
	Reported*	Educator Panel	Reactor Panel
Grade 5 FCAT 2.0 Science	51%	70%	52%
Grade 8 FCAT 2.0 Science	46%	69%	53%
Biology 1 EOC Assessment		67%	59%
Geometry EOC Assessment		46%	53%

*Reported in 2012 on the 2011 FCAT Science Scale using equipercentile linking

Educator Panel

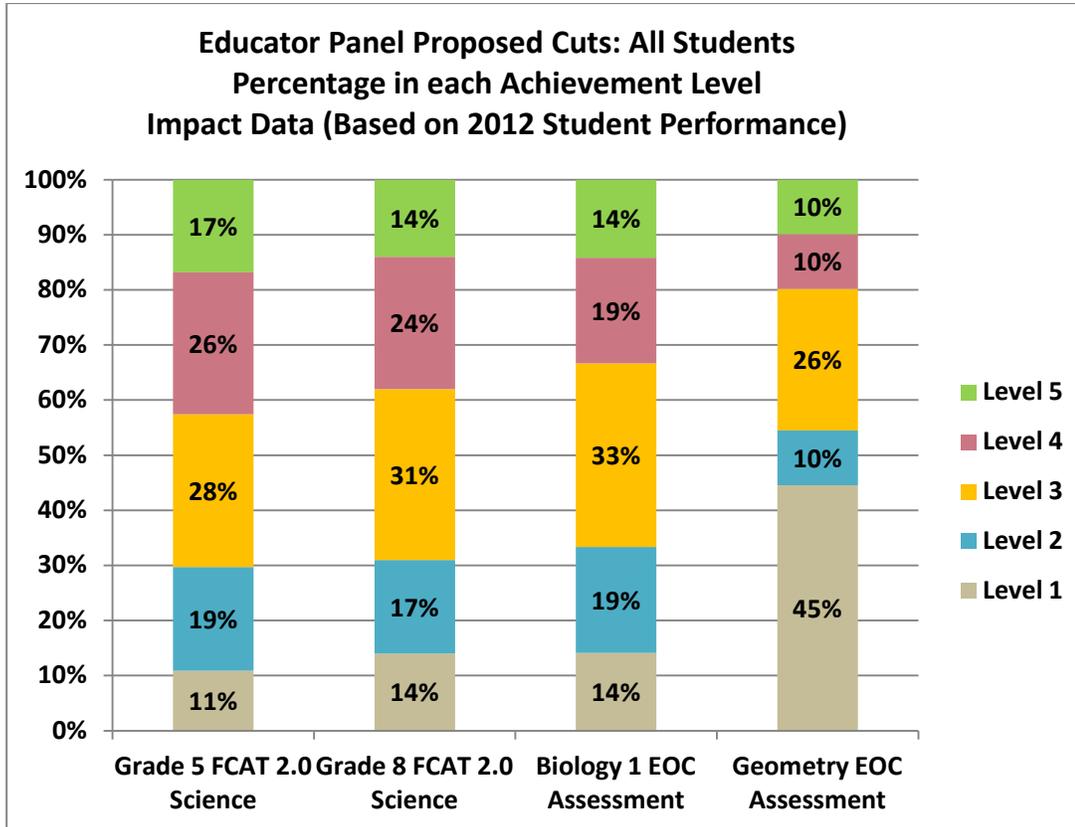
The purpose of the educator committees was to identify the cut points for each Achievement Level using content-based judgments. Each panelist used his or her experience as an educator along with the Achievement Level Descriptions and the spring 2012 assessments to make four rounds of judgments. Based on the four rounds, the Educator Panel proposed the following cut scores for the five Achievement Levels (see Exhibit 2). The impact data of these proposed cuts is provided in Exhibit 3 and was generated by applying the proposed cut scores to actual student performance from the spring 2012 administration.

Exhibit 2. Educator Panel Proposed Cuts and Judgment Variation Bands**

Cut Point	Grade 5 FCAT 2.0 Science		Grade 8 FCAT 2.0 Science		Biology 1 EOC Assessment		Geometry EOC Assessment	
	Scale Score Cuts	Judgment Variation +/- 2 SE	Scale Score Cuts	Judgment Variation +/- 2 SE	Scale Score Cuts	Judgment Variation +/- 2 SE	Scale Score Cuts	Judgment Variation +/- 2 SE
Level 1/2 Cut	175	163-187	177	163-191	369	341-397	396	384-408
Level 2/3 Cut	190	178-202	191	179-203	389	369-409	403	391-415
Level 3/4 Cut	205	193-217	208	198-218	413	399-427	423	413-433
Level 4/5 Cut	221	207-235	223	211-235	428	414-442	434	420-448

**Judgment variation is also referred to as Standard Error of Judgment (SE). These bands were provided to the Reactor Panel as a recommended boundary for their modifications based on standard-setting research and best practices.

Exhibit 3. Impact Data for Educator Panel Proposed Cuts



Reactor Panel

On September 27-28, 2012, the Department convened a panel of Florida stakeholders (e.g., community/education organization leaders, state university leaders, business leaders, superintendents) to react to the Educator Panel's proposals and to modify the proposed cut scores, if necessary. While the Educator Panel made content-based judgments, the Reactor Panel was asked to focus on the impact of the proposed cut scores using impact data based on 2012 student performance and data from external assessments (NAEP, PSAT, SAT, PLAN, and ACT, in addition to FCAT 2.0 Reading and Mathematics and Algebra 1 EOC Assessment). The Reactor Panel discussed the cut scores and the judgment variation from the Educator Panel and then provided independent ratings for any modifications to the cut scores as their Round 1 judgments. The Reactor Panel was given the judgment variation score ranges (see Exhibit 4), which are based on standard-setting best practices, as suggested boundaries for their recommendations. Next, the Reactor Panel reviewed the median cut scores from their Round 1 recommendations and impact data and was given an opportunity to model any changes to the cut scores. Before leaving, panelists completed a final survey to indicate their final judgments for the cut scores.

Reactor Panel Proposed Cut Scores

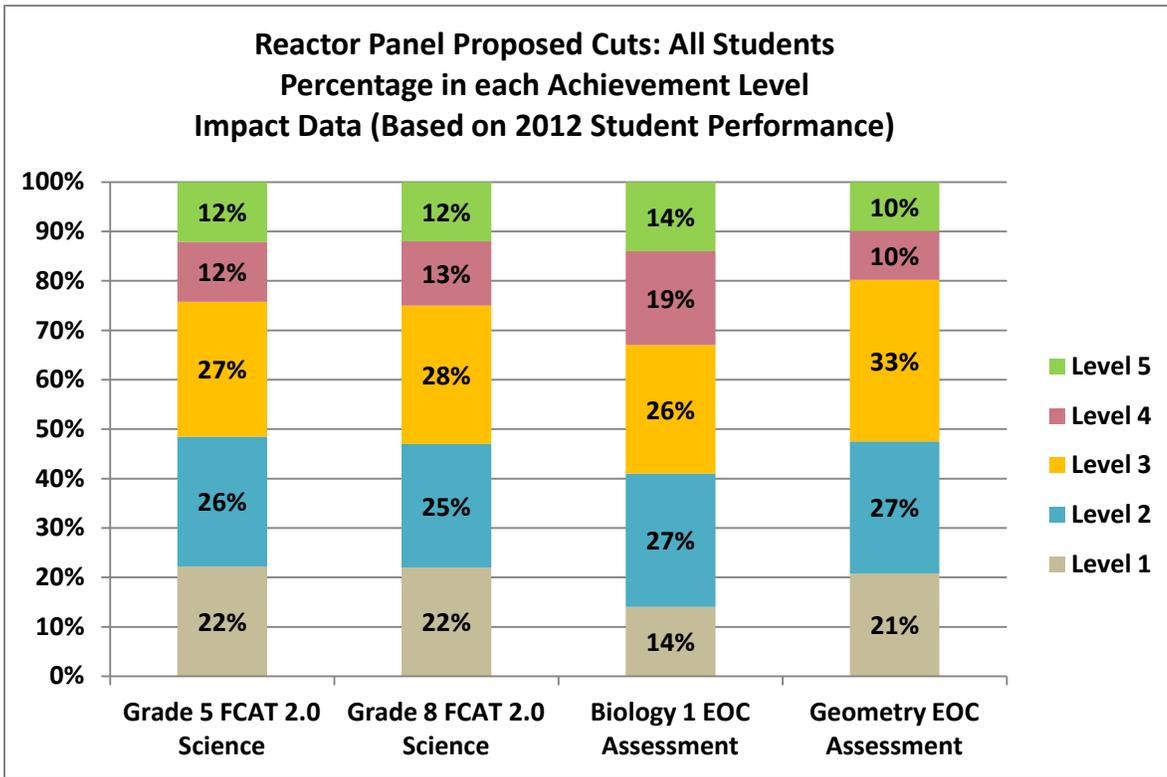
Exhibits 4 and 5 provide the final proposed cut scores and the impact data of those proposed cuts from the Reactor Panel.

Exhibit 4. Educator Panel Proposed Cuts, Reactor Panel Proposed Cuts, and Educator Panel Judgment Variation Bands*

Cut Point	Committee	Grade 5 FCAT 2.0 Science		Grade 8 FCAT 2.0 Science		Biology 1 EOC Assessment		Geometry EOC Assessment	
		Scale Score Cuts	Judgment Variation +/- 2 SE	Scale Score Cuts	Judgment Variation +/- 2 SE	Scale Score Cuts	Judgment Variation +/- 2 SE	Scale Score Cuts	Judgment Variation +/- 2 SE
Level 1/2 Cut	Educator Panel	175	163-187	177	163-191	369	341-397	396	384-408
	Reactor Panel	185	N/A	185	N/A	369	N/A	377	N/A
Level 2/3 Cut	Educator Panel	190	178-202	191	179-203	389	369-409	403	391-415
	Reactor Panel	200	N/A	200	N/A	395	N/A	398	N/A
Level 3/4 Cut	Educator Panel	205	193-217	208	198-218	413	399-427	423	413-433
	Reactor Panel	215	N/A	215	N/A	413	N/A	423	N/A
Level 4/5 Cut	Educator Panel	221	207-235	223	211-235	428	414-442	434	420-448
	Reactor Panel	225	N/A	225	N/A	428	N/A	434	N/A

*Judgment variation is also referred to as Standard Error of Judgment (SE). These bands were provided to the Reactor Panel as a recommended boundary for their modifications based on standard-setting research and best practices.

Exhibit 5. Impact Data for Reactor Panel Proposed Cuts



Next Steps: Rule Development Workshops and the Commissioner’s Recommendation

On October 15, 16, and 18, a series of rule development workshops will be conducted across the state of Florida to solicit public feedback. The times and locations from the [rule development notice](#) are provided in Exhibit 6. By October 15, the rule development workshop presentation and a form for soliciting public feedback will be posted to the FDOE Standard Setting website: <http://fcats.fldoe.org/standardsetting.asp>.

Commissioner of Education, Pam Stewart, will provide her recommendation for the cut scores in a proposed rule for adoption by the State Board of Education on December 12, 2012. The State Board of Education will determine the final cut scores to be used for these assessments.

Exhibit 6. Times and Locations for the Rule Development Workshops

Date	Time	Location
October 15, 2012	4:30 p.m. – 6:00 p.m.	Jefferson High School, Auditorium 4401 West Cypress St. Tampa, FL 33607
October 16, 2012	3:00 p.m. – 4:30 p.m.	Florida Department of Education, Turlington Building 325 West Gaines Street Room 1721 Tallahassee, Florida 32399
October 18, 2012	4:30 p.m. – 6:00 p.m.	Winona Webb Jordan Board Chambers Fulton-Holland Education Center 3300 Forest Hill Blvd. West Palm Beach, FL 33406