

Biology End of Course Exam

SETTING PERFORMANCE STANDARDS

State Board of Education
August 6, 2012 1:00-4:00
OSPI Billings Conference Room, Olympia, WA

Robin Munson, Assistant Superintendent, OSPI
Cinda Parton, Director of Assessment Development, OSPI
Tom Hirsch, Assessment Evaluation Services



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Agenda

- Standard setting approval process
- Description of standard setting events
 - Composition of panel
 - Standard setting activities
- Recommendations from standard setting panel
- Superintendent's recommendation to the Board
- Board Action

Standard Setting Approval Process

Purpose of Today's Action by the Board

- Today, the Superintendent is recommending “cut scores” to be used on the End of Course Biology exam.
- This test has three cut scores, separating four levels of student performance:
 - The cut between “Below Basic” and “Basic”,
 - The cut between “Basic” and “Proficient”, and
 - The cut between “Proficient” and “Advanced”
- The Board’s cut scores will be used to report the 2012 results, and will be used in future years until such time as the standards are revised or revisited.

Standard Setting Approval Process

Approval of the Procedures

- The State Board and the Superintendent's national technical advisory committee on assessments reviewed and approved the process to be used for the 2012 End of Course Exam in Biology.
- This process began in the spring of 2009 for science, when new academic content standards were approved.
- A new assessment aligned to those new content standards was given to students this spring.

Standard Setting Approval Process

Approval of the Procedures

Date	Event
June 2009	Washington State K-12 Science Learning Standards approved
Mar-July 2010	Analysis of “assessable” standards
July 2010	Scenario and item writing for new assessments
Oct 2010	Tests for HSPE 2011 built; inserted EOC pilot items
Jan 2011	National Technical Advisory Committee (NTAC) advice on development of test map
Apr 2011	HSPE administered with EOC pilot items
June 2011	<ul style="list-style-type: none">Item Specification review and approval by members of the Standards Revision TeamTest Map Committee Meeting—formal recommendation



Standard Setting Approval Process

Approval of the Procedures

Date	Event
Sept 2011	<ul style="list-style-type: none">• Test map review and approval by NTAC• EOC Test Build for Spring 2012
Oct 2011	Performance Level Descriptors (PLDs) developed by members of the Standard Setting Panel
Winter/ Spring 2012	<ul style="list-style-type: none">• Standard setting plan approved by NTAC and State Board of Education• Teachers from across state trained on PLDs via online training
Mar 2012	Alignment Study

Standard Setting Approval Process

Approval of the Procedures

Date	Event
Apr 2012	Teachers predict student performance on Biology End of Course exam for Contrasting Groups Study
May–June 2012	Biology End of Course exam administered
July-Aug 2012	Standard setting events: <ul style="list-style-type: none">• Practitioner recommendations• “Articulation panel” recommendations• “Policy panel” recommendations• NTAC certifies process was followed
Aug 2012	State Board of Education reviews recommendations and sets the cut scores
End of Aug	Scores released

Standard Setting: Recommendations from Multiple Sources

- **Contrasting Groups Study** (n = 61 teachers; 4,270 students)
 - Individual ratings of students by their teachers before the test
- **Course-Level Panel** (n = 30)
 - Implemented standard setting activities across three days, resulting in a set of recommended cut scores
- **Articulation Panels** (n = 6)
 - Reviewed course level recommendations, resulting in a recommendation of no changes to the cut scores from the course-level panel
- **Policy Advisory Panel** (n = 10)
 - Reviewed both sets of recommendations in light of district policy issues

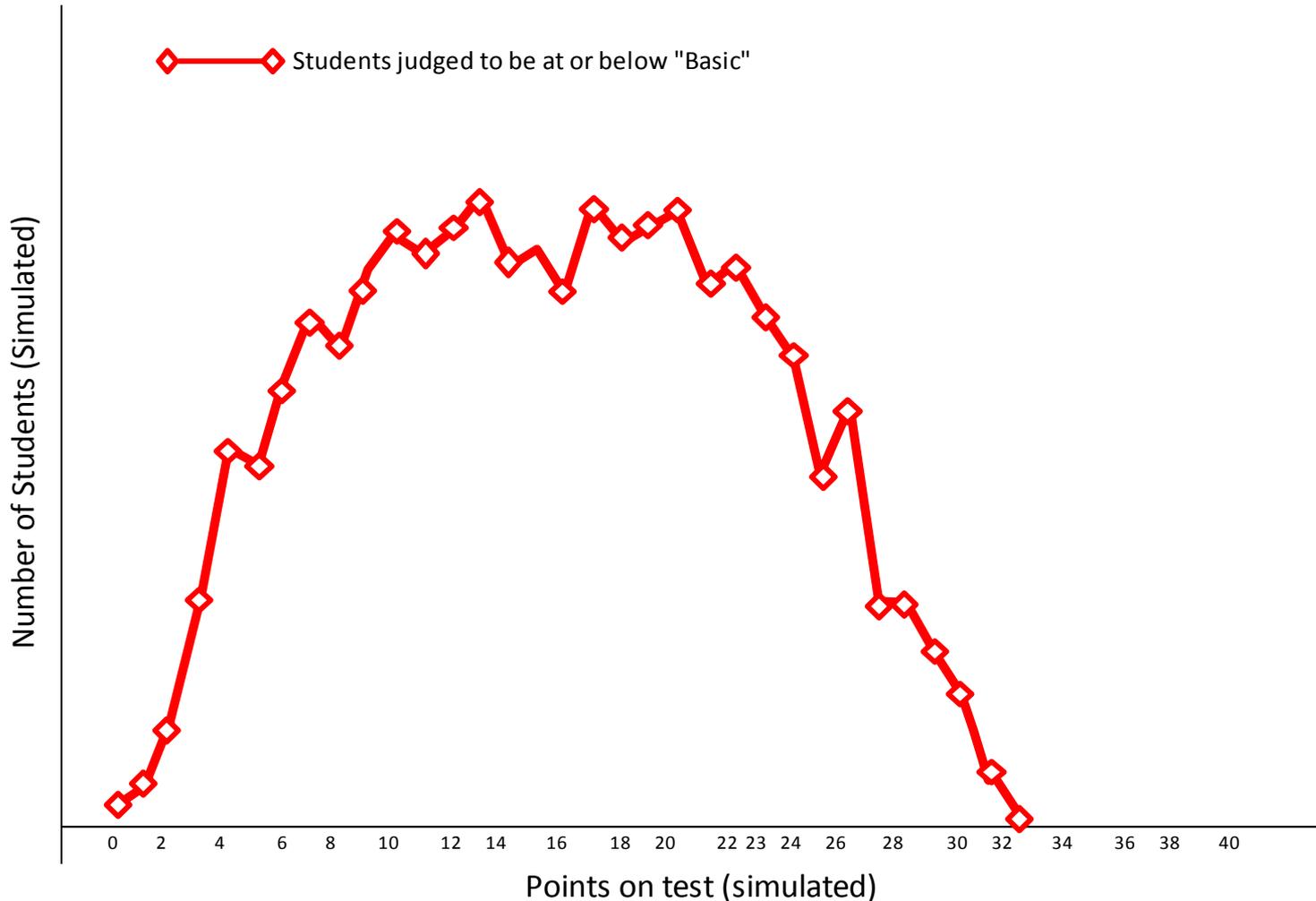
Composition of Panels

- **Course-level Panel**
 - 30 educators/higher education/ESD members
 - ▶ 60% from west of Cascades
 - ▶ 53% from districts with student populations at or above the state percentage of white students
 - ▶ 47% from districts above the state average for Free/Reduced meals
- **Articulation Panel**
 - 6 members
- **Policy Advisory Panel**
 - 10 district assessment coordinators, principals, and superintendents

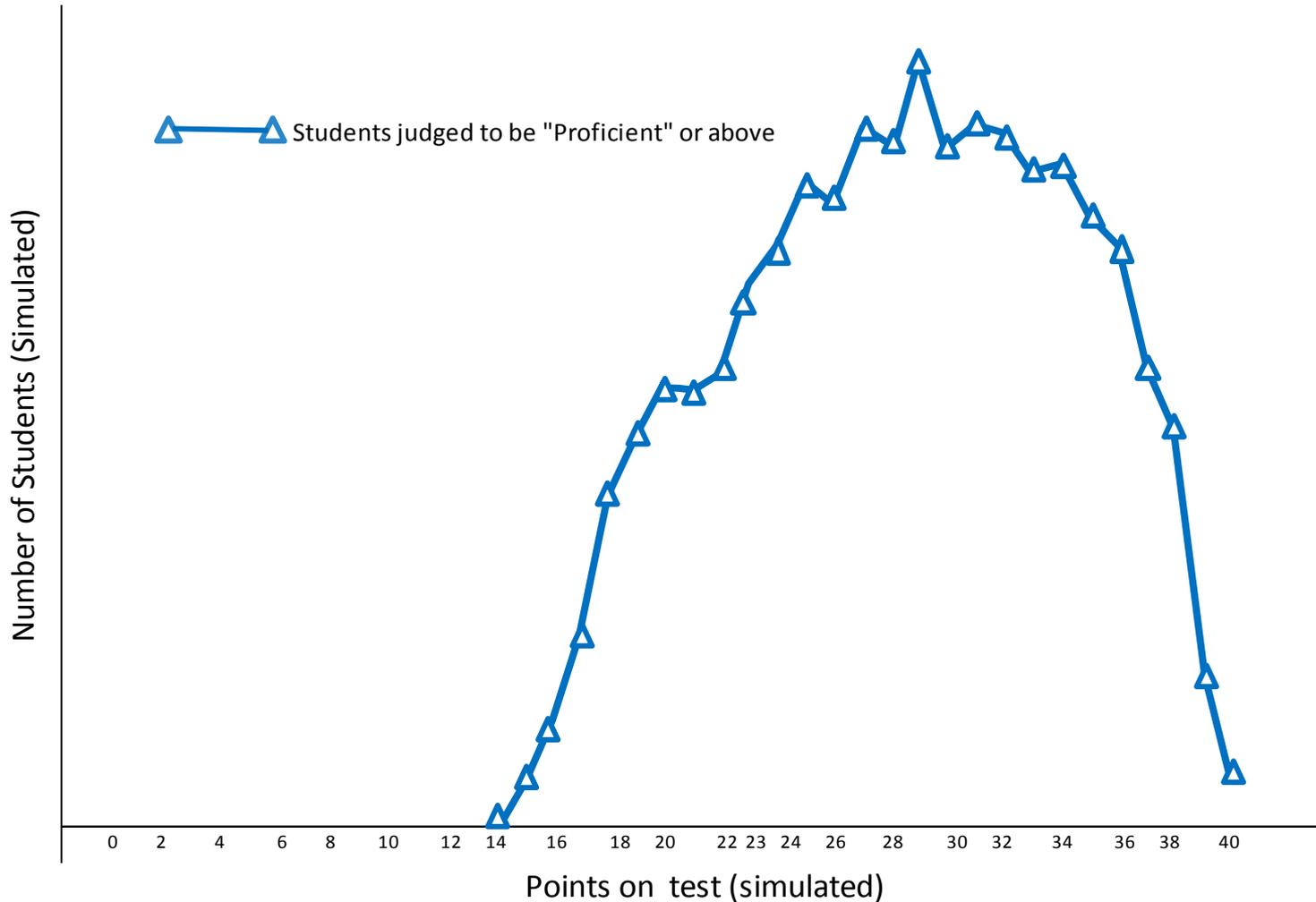
Standard Setting Activities

- Orientation to test development
- Taking the test
- Examining the “Performance Level Descriptors”
- Ratings using an “Ordered Item Booklet”
 - Round 1 (Data from Contrasting Groups study)
 - Round 2 (Item difficulties)
 - Round 3 (State percent at each performance level)
- Articulation Panel (Wed Aug 1)
 - 6 member panel
- Policy Advisory Panel (Fri Aug 3)
 - 10 district assessment coordinators, principals, and superintendents
- National TAC review of activities and results (Fri Aug 3)

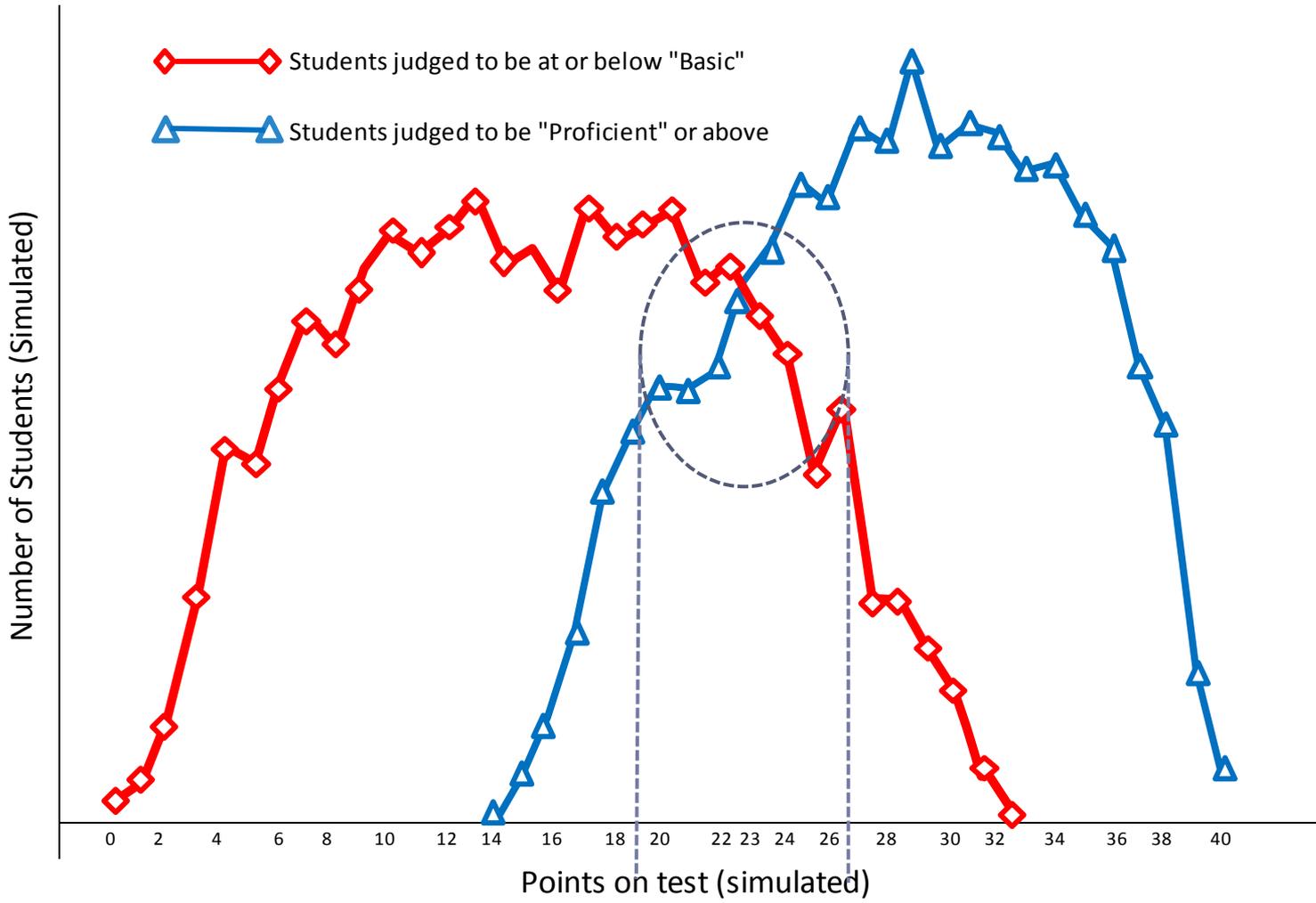
Students rated as “At or below Basic” using criteria in PLD for Basic



Students rated as “Proficient or above” using criteria in PLD for Proficient

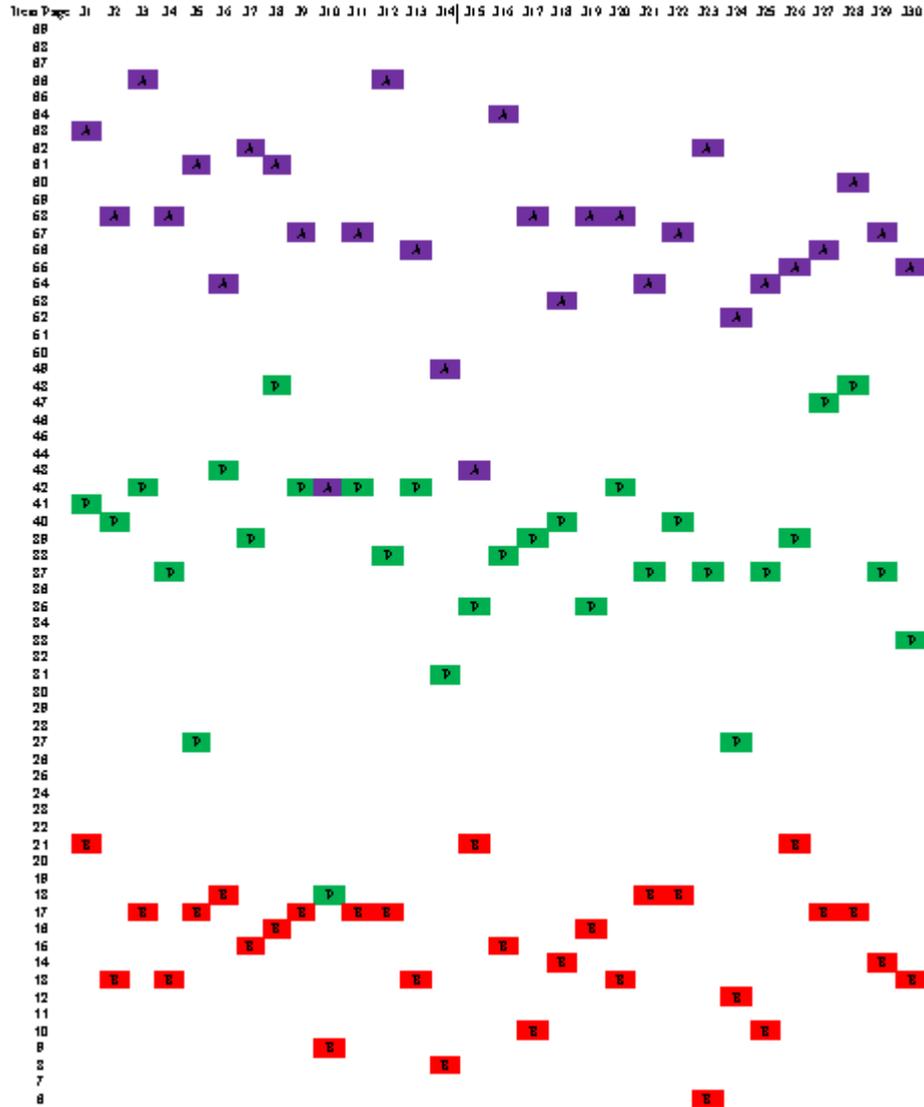


Intersection indicates a region for where “Basic” separates from “Proficient”



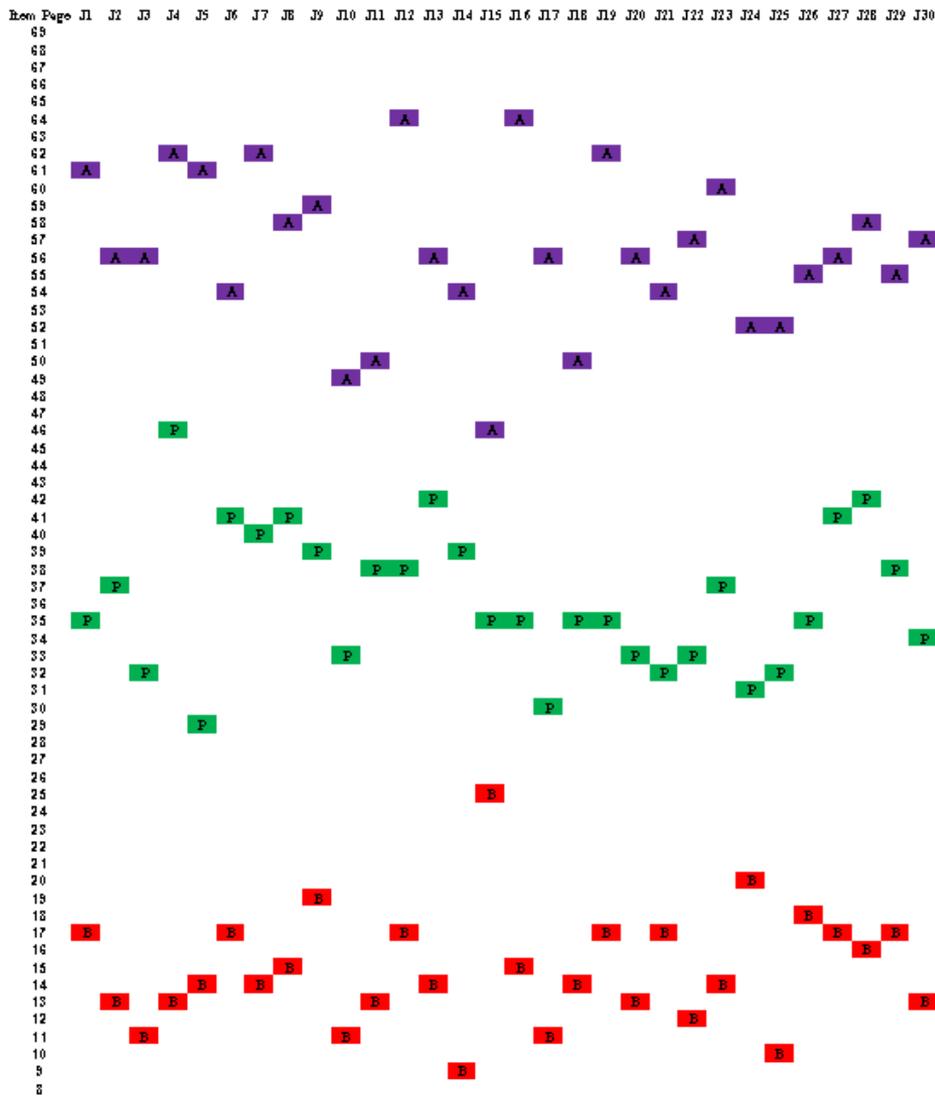
Ratings from the Biology Standard Setting Panel

ROUND 1: Groups had Contrasting Groups information



Ratings from the Biology Standard Setting Panel

ROUND 2: Groups had Item Difficulty information

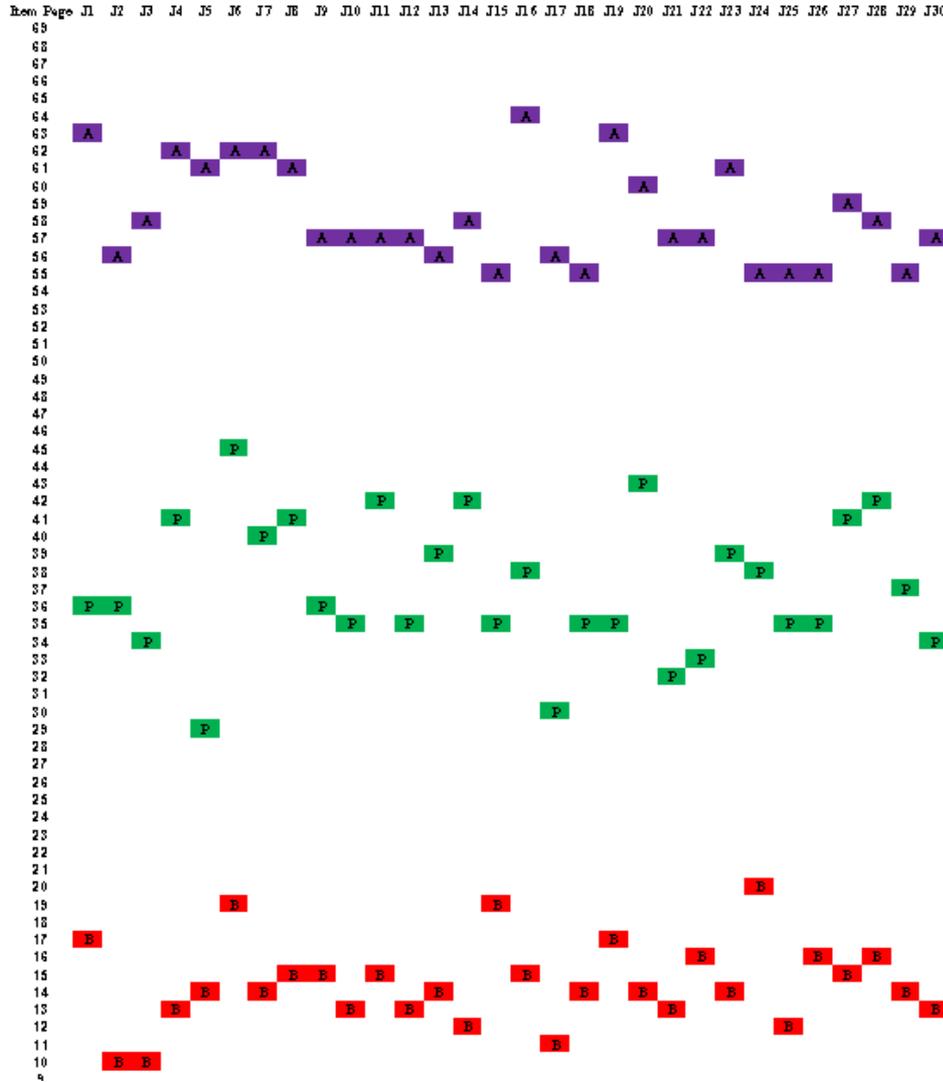


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Ratings from the Biology Standard Setting Panel

ROUND 3: Group had Percent at Each Level information

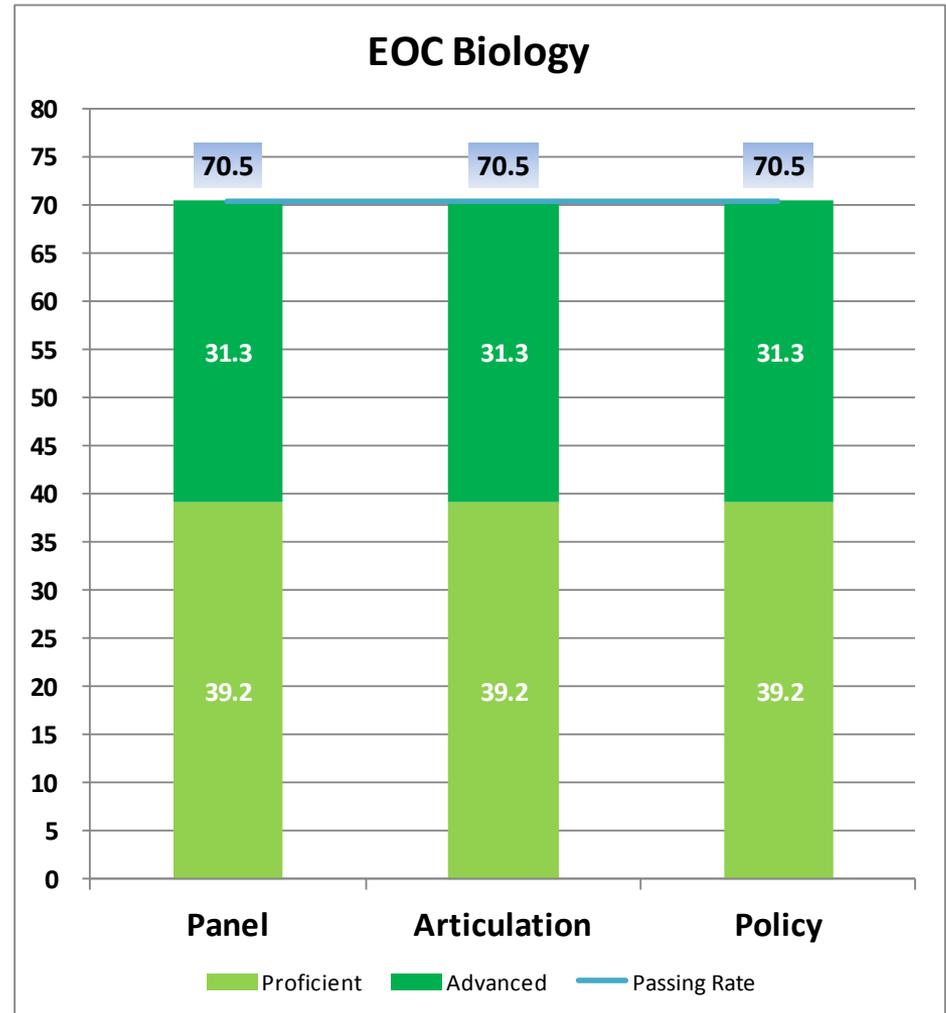


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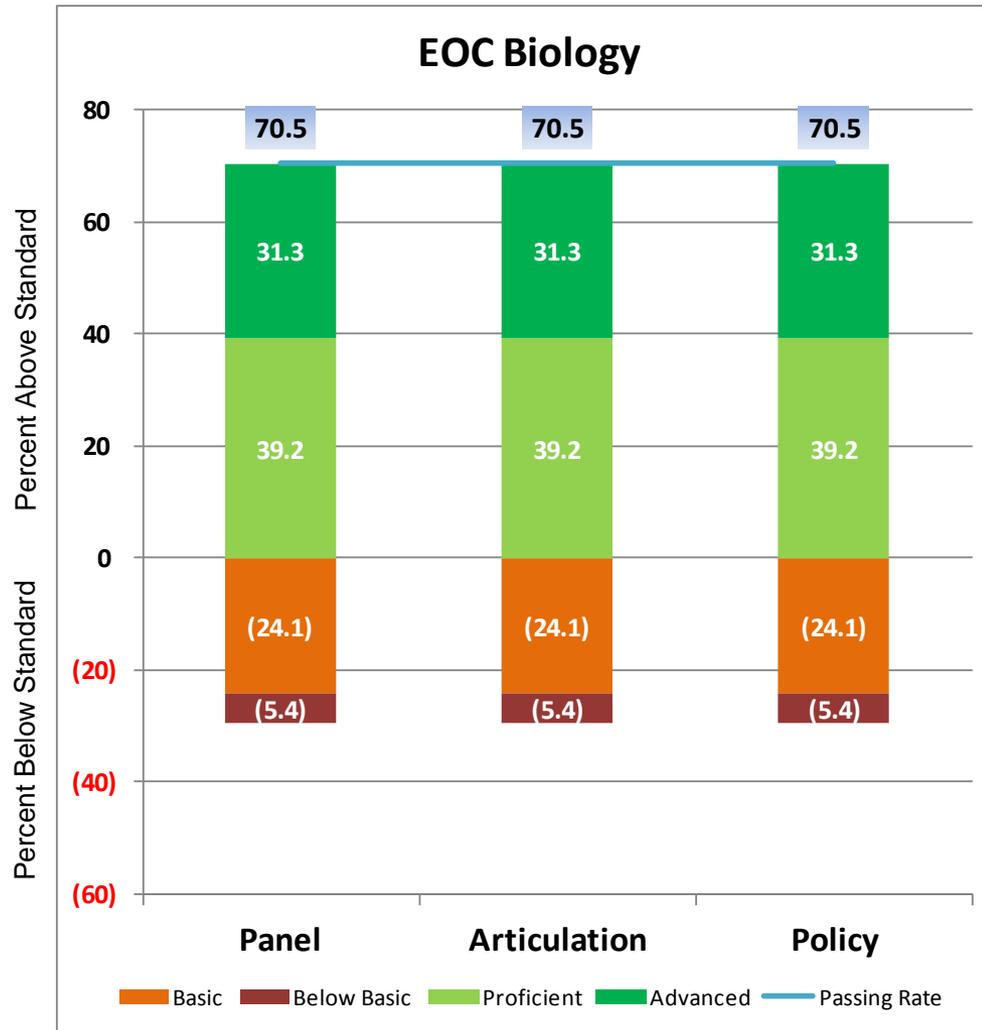


Summary of Recommendations from Course & Articulation Panels: **Meeting/Exceeding Standard**

	% Met
2011 HSPE	49.9
2012 Biology EOC	70.5



Summary of Recommendations from Grade-level & Articulation Panels: **All Four Levels**



Superintendent's Recommendation

Superintendent Dorn's recommendation for a Board motion that...

...the State Board of Education adopt the cut scores for Basic, Proficient, and Advanced on the End of Course exam in Biology as forwarded by the Standard Setting, Articulation, and Policy Advisory panels.

Course and articulation panel recommendation for raw score cuts: Basic, Proficient, and Advanced

Course & Articulation Panels Recommended Cut Scores

	Biology EOC
Advanced/ Proficient	32
Proficient/ Basic	23
Basic/ Below Basic	13
Total Points on Test	45