

To: State Board of Education

From: IDOE

Date: May 14, 2020

Re: Adoption of cut scores for four redeveloped CORE licensure tests

### **Background**

In September 2019 the State Board of Education approved updated Educator Standards for four content areas: Middle School English Language Arts, Middle School Mathematics, Middle School Science, and Computer Science. Following that action, Evaluation Systems of Pearson proceeded to redevelop the licensure content tests for these four areas. On February 26-27, 2020, panels of licensed practitioners in these content areas met in Indianapolis to conduct fairness reviews of test items and standard setting studies that resulted in proposed cut scores.

From April 9 – May 11, 2020, IDOE posted a summary of the standard setting process, summaries of each redeveloped test, and the panel proposed cut scores for each test for public comment. These documents and the links for public comment were posted on IDOE's Educator Licensing homepage (<https://www.doe.in.gov/licensing>), the Educator Preparation Program webpage (<https://www.doe.in.gov/epps>), and notice was sent directly to Educator Preparation Program (EPP) leaders.

- The chart displaying the panel recommended cut scores, including the standard error of measurement (SEM) + and – is below.
- The summary of the standard setting process is attached.
- One comment was submitted for the Middle School English Language Arts proposed cut score and two comments were submitted for the Computer Science proposed cut score. Those comments are attached.
- No public comments were submitted for the proposed cut scores for the Middle School Science and Middle School Mathematics tests.
- These redeveloped tests and cut scores will be effective for candidates testing on or after September 14, 2020 (90+ days from date of cut score approval).

Test Field	Total # of Scorable Items	-2 SEM	-1 SEM	Panel Recommended Cut Score	+1 SEM	+2 SEM
068 Computer Science	80	43	47	52	56	60
069 Middle School English Language Arts	80	44	49	53	57	61
070 Middle School Mathematics	80	39	43	48	52	57
071 Middle School Science	80	31	36	40	45	49

### **Action Needed**

Under 511 IAC 15-7-2 the board must vote final approval of cut scores for the licensure tests after 30 days of public comment.

### **DOE Recommendation**

Approval of the panel-recommended cut score for each redeveloped content test under consideration.

## Overview of Standard Setting Process and Recommended Cut Scores

The Standard Setting Conferences held for the following Indiana CORE Assessments were conducted in Indianapolis, IN on **February 27, 2020**:

- 068 Computer Science
- 069 Middle School English Language Arts
- 070 Middle School Mathematics
- 071 Middle School Science

Four Standard Setting panels were convened, one for each of the four test fields listed above. Each panel consisted of educators from Indiana public, private, and charter schools who are currently licensed and practicing, and faculty from educator preparation programs. Educators are eligible to participate on a standard setting panel if they are licensed to teach the content area. Educator preparation faculty are eligible to participate if they prepare prospective educators in the content. Each panel may include individuals who have previously participated in the development and review activities for the assessment—including past standard setting activities—as well as educators and faculty who have not previously participated.

All panelists were approved by the Indiana Department of Education (IDOE) prior to being invited to serve on the Standard Setting Panel.

### Purpose of Standard Setting

The purpose of standard setting for a certification test is to determine the passing score that a candidate must achieve to demonstrate the acceptable level of knowledge and skills required to perform the activities in which the certification allows the candidate to engage. The task of determining the acceptable score involves a panel of experts whose judgments on the recommended standard are presented to the governing agency. The governing agency uses these standard setting judgments and other information to establish the passing score.

### Standard Setting Process

An **iterative** procedure was used in which panelists provided standard setting ratings using procedures commonly referred to as a modified-Angoff method. After an orientation to the item rating methods, the Standard Setting Panel was led through two rounds of independent standard setting ratings. Each panel member provided information about the expected performance of just acceptably qualified, entry-level educator candidates in Indiana.

### Orientation and Training

Panelists were given an orientation that included the policy background to the IN CORE test development, explanation of the Standard Setting process, the concept of the “just acceptably qualified educator candidate,” and the judgments about test items that the panelists would be asked to make. Panelists also completed a training exercise, featuring sample test items with a range of item difficulty, to prepare them for the actual rating activity.

## **Simulated Test-Taking Activity**

Panel members first participated in a simulated test administration in which they were instructed to “take the test.” The purpose of this activity was to provide a context for panel members prior to making standard setting judgments. Panelists were given a set amount of time to review the test framework, and then “take” the test. It was explained to panelists that for purposes of this activity, the “Test Booklets” are provided on paper, however, the Indiana CORE Assessments will be administered on computer at testing centers throughout Indiana (and nationwide). A demonstration of the computer-based environment was provided to orient panelists to the candidate experience. Panelists were asked to answer the multiple-choice questions by selecting the best answer from the four choices provided. After panelists independently completed the simulated test taking activity, they were provided with an answer key so they could compare their own answers to the keyed correct responses.

## **Just Acceptably Qualified Candidate**

Following the simulated test administration, panel members were trained in the procedures to be used to make passing score recommendations (i.e., standard setting judgments). Training included a discussion of the hypothetical reference group of candidates who have the “just acceptable” level of knowledge and skills to receive an initial educator license in Indiana. The discussions centered on the knowledge and skills these “just acceptable” candidates should have. This hypothetical reference group was then used as the basis for the following guiding question used in providing individual item- by-item ratings.

***Just Acceptably Qualified Candidate:*** *A hypothetical group of individuals who are just at the level of knowledge and skills in this field required to perform effectively in Indiana schools.*

In framing the idea of “effective” candidates, panelists were reminded to consider the purpose of an educator licensure testing program. The purpose of the educator licensure testing program is not to identify a highly exclusive group of candidates for entry into the profession by trying to select candidates with advanced levels of knowledge and skills. Rather, the purpose of the educator licensure testing program is to ensure that teachers have the essential knowledge and skills that will allow them to function effectively in the classroom when they begin teaching in Indiana. Panelists were reminded to recognize that the point referenced as “just at the level of knowledge and skills required to perform effectively” in Indiana schools is not necessarily at the middle of a continuum of developmental (pedagogical) or content area knowledge. While there is an assumption that “just acceptable candidates” will continue to grow and develop and enhance their knowledge and skills as they acquire teaching experience, take additional courses and seminars, and engage in a variety of professional development activities, panelists were reminded that candidates receiving a teaching license in Indiana will be:

- eligible to teach all possible courses a school corporation in Indiana might offer at all grade levels covered by the license,
- expected to know all developmental (pedagogical) and content area knowledge as defined by the test objectives and the REPA educator standards associated with the license,
- expected to be able to teach all subject matter as defined by the Indiana student academic standards covered by the license,

- expected to be able to teach students at a level in keeping with the high standards set for Indiana school students embodied in Indiana’s academic standards and the statewide student assessments that are used in Indiana public schools, and
- expected to teach academically advanced students at the highest-grade levels covered by the license as well as the least academically proficient students likely to be in those grades.

### **Round One: Item-Based Judgments**

After continued orientation, a practice round of ratings on sample items, and group discussion around the rating question and the hypothetical reference group, the panel moved into round one ratings. Panel members completed multiple rounds of standard setting judgments. In round one, panelists were instructed to consider the level of knowledge and skills of “just-acceptable candidates” in the field, and to envision for themselves: What level of knowledge and skills associated with each test objective would they expect just-acceptable, Indiana candidates seeking initial educator licensure to be able to demonstrate? Panel members provided item-by-item judgments during the first round of the standard setting process, in response to the following question:

Imagine a hypothetical group of individuals who are just at the level of knowledge and skills in this field required to perform effectively in Indiana schools. What percent of this group would answer this item correctly?

### **Round Two: Item-Based Judgments**

Following the first round of item-by-item judgments, panel members were provided with the results of their item ratings, the median item rating provided by the panel, and the distribution of item ratings by other members on their panel. Orientation around the results and data was provided, and discussion took place around interpreting the ratings in light of the additional information presented. During the second round of standard setting judgments, panel members were provided an opportunity to revise any item-by-item judgment in light of the round one ratings and group discussion. Panelists were not required to modify their ratings and were reminded to consider that their ratings for items should again be grounded in the hypothetical reference group framing.

### **Standard Setting Results**

The test-based panel recommended passing score reflects the median rating of all panelists of their final judgments regarding estimated performance of candidates who have the “just acceptable” level of knowledge and skills to receive an initial Indiana educator license in the content area. The panel-recommended standards as well as Standard Error of Measurement (SEM) adjustments for each one of the test fields are presented in Table 1 below.

**Table 1: Indiana CORE Phase 1 Test Fields Panel-Recommended Cut Scores and Associated SEM Adjustments**

Test Field	Total # of Scorable Items	-2 SEM	-1 SEM	Panel Recommended Cut Score	+1 SEM	+2 SEM
068 Computer Science	80	43	47	52	56	60
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