

**Establishing Recommended Performance Standards for the 2017-2018 Kentucky
School Accountability System
Final Report**

**Center for Assessment
August 31, 2018**

Background

The Kentucky Department of Education (KDE) is responsible for implementing a school accountability system, consistent with state and federal law. Under the direction of the Kentucky Board of Education (KBE), KDE developed a school accountability plan that was approved by both KBE and the U.S. Department of Education as fulfilling the requirements of the state *Senate Bill 1* (SB1, 2017) and federal *Every Student Succeeds Act* (ESSA, 2016). One key requirement is that KDE must identify low-performing schools for Comprehensive Support and Improvement (CSI) and Targeted Support and Improvement (TSI) in fall 2018. KBE and USED had approved the general approach, school performance measures, indicators, and relative weights for identifying schools for CSI and TSI. (See table below for what aspects of school performance will be used in identifying schools in fall 2018.)

Table 1: Indicators, Measures, and Metrics used in school accountability determinations for fall 2018

Elementary and Middle Schools		
Indicator	Measures	Metric
Proficiency	Reading and mathematics tests	<ul style="list-style-type: none">• Index Score (0-1.25)• N=0, A=.50, P=1.0, D=1.25• Each score from reading & math weighted equally
Separate Academic Indicator	Science, Social Studies, and Writing tests	<ul style="list-style-type: none">• Index Score (0-1.25)• N=0, A=.50, P=1.0, D=1.25• Each score from science, Social Studies, & writing weighted equally
Growth	Reading and mathematics tests, ELP tests	<ul style="list-style-type: none">• Growth Score (about -100 to +100)• Value table that assigns points for (projected) individual student growth• Each score from reading, math, ELP weighted equally

High Schools		
Indicator	Measures	Metric
Proficiency	Reading and mathematics sections from ACT	<ul style="list-style-type: none"> • Index Score (0-1.25) • N=0, A=.50, P=1.0, D=1.25 (ACT levels) • Each score from reading & math weighted equally
Graduation Rate	4- and 5-year Graduation Rates	<ul style="list-style-type: none"> • Percentage of 9th grade students (adjusted) who graduated in 4 or 5 years • Average of 4- and 5-year rates (0-100%)
Transition Readiness	Academic Readiness (ACT, AP, IB, CAI, ELP) Career Readiness (Ind. Cert.; CTE EOC exam; Apprenticeship)	<ul style="list-style-type: none"> • Transition Readiness Rate (0-100%) • Percentage of graduating cohort who have a high school diploma and also demonstrate Academic or Career Readiness

However, the exact performance threshold cutscores that would qualify a school to be identified for CSI or TSI remained to be identified. To support the Kentucky Department of Education (KDE) in identifying performance thresholds for the school accountability system, KDE convened a standard setting workshop on August 22, 2018. The purpose of the workshop was to recommend the thresholds KDE will use to identify schools, as required by state and federal law. The recommendations that emerge from the standard setting workshop would be provided to the Commissioner of Education. The Commissioner of Education, considering those recommendations and other relevant information, would make recommendations to the Kentucky Board of Education, which would then make a final decision about the performance threshold cutscores to be used in fall 2018.

The federal requirements are that “the bottom 5%” of Title 1 schools be identified for CSI. (Kentucky will include any non-Title 1 school that has performed at a similarly low level.) Once the performance thresholds for CSI identification are established, the same thresholds are applied to every student group in each school to identify schools for TSI, on the basis that at least one student group’s performance was as low as the “bottom 5%” of schools’ all-student group. Because the performance thresholds for CSI are exactly the same as for TSI, the standard setting workshop focused only on setting thresholds for CSI identification; KDE would then apply the CSI threshold cutscores in a straightforward manner to identify schools for TSI. The standard setting meeting and this report therefore only focus on the establishment and impact of CSI threshold cutscores.

The standard setting meeting was planned and facilitated by the National Center for the Improvement of Educational Assessment (The Center) working closely with KDE. The Center is a national leader and has very extensive experience supporting states in developing and improving their assessment and accountability systems. The standard setting panel comprised fifteen education leaders and shareholders, selected by KDE to be broadly representative of the state’s education policy interests. The list of panelists is provided in Appendix A.

Employing a systematic process using a committee or panel of representative persons with appropriate expertise is industry standard practice for setting performance standards for assessments—for example, to establish what performance on a state test will be designated to determine achievement levels such as Novice, Apprentice, Proficient, and Distinguished. However, it is only emerging for states to use a similar systematic process to establish performance standards for school accountability systems to determine what levels of performance will identify schools for particular ratings or designations. The standard setting process employed by Kentucky has the advantages of being systematic, guided by policy established by the Kentucky Board of Education and informed by a lengthy and thorough development process, grounded in empirical data, recommended by a credible representative panel, and transparent to public scrutiny and documentation.

It is most common in assessment standard setting to set cutscores on a single scale. In accountability systems, it has been most common to create a single scale employing an overall score that combines performance of a school on multiple indicators. In Kentucky’s situation, a different approach was necessary because state law (Senate Bill 1) prohibits the use of an overall score that might be used to rank order schools. Another major specification is a federal requirement under the Every Student Succeeds Act (ESSA) that all required Indicators must be considered to identify the “bottom 5%” of Title 1 schools for the federally mandated designation of schools to receive Comprehensive Support and Improvement (CSI). These three requirements—the prohibition against using a single overall score, the requirement to use all federally required Indicators, and the requirement to identify a certain percentage of schools—led to the design of the proposed Kentucky school accountability system for identifying schools for CSI and the associated standard setting method of establishing profiles of performance on the required Indicators.

Process

The Center guided panelists through a systematic process to elicit accountability recommendations. The steps in the process are listed below. More details on the standard setting procedures are in Appendix B.

- Introduction
 - Identified leaders, facilitators, and panelists
 - Provided background information regarding purpose and context for the workshop

- Reviewed the indicators used in the 2017-18 school accountability system
- Training
 - Provided an overview of the process
 - Reviewed a sample of the worksheets that panelists would use to evaluate impact and their judgments
 - Allowed time to practice with the worksheets and address questions to ensure panelists were familiar with the task before beginning
- Establishing Recommended Thresholds
 - Round 1: Panelists worked independently to review data and set performance thresholds (i.e. ‘cutscores’) at or below which schools would be candidates for CSI identification. Panelists were instructed to consider the policy weight ranges for each Indicator. A software tool was provided to each panelist that helped the panelist see the impact of potential threshold cutscores, and how the threshold cutscores interacted across the three Indicators. (See Fig. 1 for view of the software tool.)

Fig. 1: Screenshot of software tool provided to assist each standard setting panelist develop recommendations of threshold cutscores

	A	B	C	D	E	F	G	H	I	J
	Percentile	Proficiency	Separate	Growth Rate		Cut	Relative Weight			
1	0.01	39.4	31.0	4.3	Schools below what proficiency rate should be classified as CSI for 2017-2018?	62.0	35.0			
2	0.02	43.9	38.3	4.6	Schools below what separate academic indicator rate should be classified as CSI for 2017-2018?	55.0	28.2			
3	0.03	49.1	45.2	5.9	Schools below what growth score should be classified as CSI for 2017-2018?	9.5	36.8			
4	0.04	51.2	48.3	6.4			100			
5	0.05	52.3	49.3	6.8						
6	0.06	54.3	49.6	7.2						
7	0.07	55.6	50.5	7.4						
8	0.08	56.2	51.8	7.9						
9	0.09	56.6	52.1	8.2						
10	0.1	57.1	52.6	8.3						
11	0.11	58.2	53.4	8.4						
12	0.12	59.1	53.9	8.5						
13	0.13	59.9	54.6	8.6						
14	0.14	60.5	55.0	8.8						
15	0.15	61.0	55.7	8.9						
16	0.16	61.4	56.1	9.2						
17	0.17	61.9	56.4	9.3						
18	0.18	62.1	56.6	9.5						
19	0.19	62.5	57.3	9.5						
20	0.2	63.0	57.5	9.6						
21	0.21	63.5	57.6	9.7						
22	0.22	64.0	58.0	9.8						
23	0.23	64.8	58.6	9.9						
24	0.24	65.1	58.8	9.9						
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- Facilitators shared data to describe the range of judgments by all 15 panelists. The data included: minimum, maximum, median, standard deviation, and a scatter plot depiction of the cutscores
- Participants were encouraged to discuss outcomes and share their perspectives about the recommendations
- Round 2: Panelists made another round of independent ratings.
- Facilitators shared data again and sought group consensus on the median ratings as the basis of the final recommendations.

- This process was conducted for each of elementary, middle, and high schools
- Final Discussion and Evaluation
 - The group was invited to discuss overall recommendations or adjustments to the recommendations
 - The panelists completed a meeting evaluation before they adjourned

Recommendations

The recommendations of threshold cutscores for the sets of Indicators to identify schools for CSI developed in the standard setting workshop are summarized in this section. First, the results of the two rounds of independent ratings are summarized. Then the final recommendations for CIS performance thresholds are provided for elementary, middle, and high schools. Finally, the evaluations are summarized.

Tables 2-4 show the summary of panel recommendation for Rounds 1 and 2 for each of elementary, middle, and high schools. The tables provide the median scores on each indicator recommended by the standard setting committee as the performance threshold. For example, as shown in Table 2, the median recommended threshold cutscore for Proficiency was a score of 60.5. Possible scores on Proficiency range from 0 to 125; a score of 60 may be interpreted that students in the school score, on average, a bit above Apprentice.

Importantly, in every case, the variability of the ratings reduced in round 2 compared to round 1 (i.e. the range and standard deviation contracted), which is an indicator that participants moved closer to a shared view during the process.

Table 2: Recommended Rounds 1 and 2 Threshold Cutscores for Elementary Schools (expressed as index scores)

	Round 1			
	Minimum	Maximum	Median	Standard Deviation
Proficiency	55	62.2	60.5	2.33
Separate Academic	40	54.6	52.6	3.64
Growth	15.6	16.4	15.9	0.21
	Round 2			
	Minimum	Maximum	Median	Standard Deviation
Proficiency	55.8	63	60.5	1.68
Separate Academic	48.9	54	52.6	1.47
Growth	15.7	16.2	15.8	0.12

Table 3: Recommended Rounds 1 and 2 Threshold Cutscores for Middle Schools (expressed as index scores)

	Round 1			
	Minimum	Maximum	Median	Standard Deviation
Proficiency	61.4	66	63	1.34
Separate Academic	52.6	57.6	55	1.36
Growth	8.9	10	9.5	0.27
	Round 2			
	Minimum	Maximum	Median	Standard Deviation
Proficiency	61.4	66	62	1.18
Separate Academic	52.6	57.6	55	1.13
Growth	8.9	10	9.5	0.21

Table 4: Recommended Rounds 1 and 2 Threshold Cutscores for High Schools (expressed as index scores)

	Round 1			
	Minimum	Maximum	Median	Standard Deviation
Proficiency	32.7	50	38.8	6.61
Transition	33	55	41	6.85
Graduation Rate	83	90.2	85.6	2.54
	Round 2			
	Minimum	Maximum	Median	Standard Deviation
Proficiency	33	48	40	4.65
Transition	33	49.2	41	4.67
Graduation Rate	83.7	90	85.3	1.46

Following Round 2, the results were displayed to the standard setting committee, and the committee discussed the results. In every case the committee recommended some adjustment in the Round 2 results. The discussion indicated general agreement by the standard setting committee members with the final recommendations.

Tables 5-7 show the final cutscores recommended by the standard setting committee for the three indicators, based on group discussion of the round 2 medians, relative weights, number, and percent of schools estimated would be classified as CSI if these recommendations were adopted.

Table 5: Recommended Final Threshold Cutscores and Impact for Elementary Schools
(expressed as indicator scores)

	Recommended Cutscores	Relative Weight	Number of CSI Schools	Percent of Title 1 Schools
Proficiency	60.5	34.6	33	5.1
Separate Academic	52.6	29.3		
Growth	15.8	36.1		

Table 6: Recommended Final Threshold Cutscores and Impact for Middle Schools
(expressed as indicator scores)

	Recommended Cutscores	Relative Weight	Number of CSI Schools	Percent of Title 1 Schools
Proficiency	62	35	12	5.0
Separate Academic	55	28.2		
Growth	9.5	36.8		

Table 7: Recommended Final Threshold Cutscores and Impact for High Schools
(expressed as indicator scores)

	Recommended Cutscores	Relative Weight	Number of CSI Schools	Percent of Title 1 Schools
Proficiency	40	39.4	6	5.8
Transition	41	39.3		
Graduation Rate	85.3	21.2		

The final recommended threshold cutscores have weights for each Indicator that are consistent with the policy weight ranges established by KBE in 703 KAR 5:270 (as adjusted for the three Indicators available for fall 2018). Moreover, the resulting impact is at or above the federally required 5% threshold.

Note that the recommended final cutscores for high school resulted in 6% of schools identified, one school more than the required minimum of 5%. There was no discussion by the standard setting committee for why it recommended more than 5% schools be identified in high school.

Evaluation

All 15 standard setting committee members completed an evaluation of the standard setting process and results. A summary of the responses for each evaluation question is provided in Table 8. Importantly, 14 of the 15 panelists either agreed or strongly agreed that the standard-setting process will help set appropriate expectations for identifying schools for CSI in fall 2018, and that the Committee's recommendations were reasonable and appropriate; one panelist disagreed.

Table 8: Summary of Meeting Evaluation Survey.

	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Percent Neither Agree/Disagree
The meeting was well organized	80	20	-	-	-
The meeting was well facilitated	73	27	-	-	-
I understood my role at the meeting	73	27	-	-	-
The background information and training I received provided adequate preparation for the tasks I was asked to complete	67	20	7	7	-
I understood the task of making cut point recommendations	67	33	-	-	-
I had adequate opportunities to express my views and opinions at this meeting	73	27	-	-	-
I believe the overall group ratings are reasonable and appropriate	67	27	7	-	-
The standard setting process used today will help set appropriate expectations for identifying schools for CSI in fall 2018	80	13	7	-	-

Comments
Great job facilitating!
Thank you for the opportunity, communications, and session today. Very engaging, inclusive, and important!
Great work and discussion
Thanks for letting me be a part of this meeting
Thank you!

It was an honor to be selected and network with professionals and state leaders
The committee was not asked to agree with the foundational decisions in setting up the weighting process to qualify a CSI school, specifically that performance above cut point on any one indicator can become a sole determinant. Process beyond foundational decision was handled well.

Additional Recommendations from the Standard Setting Panel

After the standard setting panel completed the process that produced the results described in the previous section, the group was invited to discuss any additions or changes to the performance expectations. In particular, a concern had been raised earlier in the day that was revisited at this time. That concern was that the conjunctive nature of the decisions, which requires a school to be below the threshold on all three indicators, could produce a situation where high performance on one indicator would keep a school with especially low performance on another indicator from being classified as CSI.

One participant suggested that the CSI classification process should involve two steps. In the first step, a very low threshold would be established for two of the three indicators, while a higher threshold would be set for the third. Schools below the very low threshold on the first two would be classified as CSI unless their performance on the third was above that additional threshold. The idea was to set the thresholds such that fewer than 5% of schools would be identified on this first pass. The very low threshold would need to be lower than the threshold values set by the standard-setting committee, and the threshold on the third indicator would need to be set higher than that set by the committee for this to make a difference. For elementary and middle schools, it was proposed that the very low threshold should apply to both proficiency and separate academic performance, while the third indicator, with a higher initial threshold would be growth. For high schools, proficiency and transition would be the indicators used for the initial lower threshold, and graduation rate would be set at a higher level.

In the second step, schools identified by the conjunctive process used for this standard setting workshop would be selected to establish a minimum of 5%.

The facilitators inquired if all panelists agreed with investigating this proposal and all agreed the idea should be explored to see how it might be implemented, how much a difference it might make, and whether it would be likely permissible according to federal requirements.

An example to clarify this suggestion follows.

- For elementary schools, the recommended CSI cuts for proficiency, separate academic index, and growth at 23rd, 19th, and 24th percentiles respectively.
- In the first step: one would reduce proficiency and separate academic index to the 5th percentile, and move the threshold for growth up to the 30th percentile. This

- would serve to classify any school as CSI that is below the 5th percentile on the academic indicators and below the 30th percentile on growth.
- In the second step, the thresholds recommended by the standard setting panel would be used to identify additional schools until a minimum of 5% of schools are identified.
 - Schools with the highest performance on proficiency would be the last added (or not added) in order to keep the total number of schools classified near 5%.

Finally, it is important to note that the CSI thresholds established at standard setting are also intended to be used to establish TSI schools based on student group performance. It is recommended that even if the two-step process is used for CSI, the single, one-step, conjunctive thresholds would be applied for TSI in fall 2018.

Next Steps

To complete the responsibilities of the standard setting committee, the recommended “first pass” procedures should be investigated to check for what difference a “first pass” procedure makes, such as, how many different schools are identified as contrasted with the committee’s recommended thresholds, and how those schools are similar and different. In addition, KDE should review whether the final proposal likely complies with state and federal requirements. Recommendation and analysis of “First Pass” is found in Appendix C.

The standard setting committee’s recommendations are an important, but not the final step in identifying schools as required in fall 2018. KDE should take the following steps.

Apply the Recommended Final Threshold Cutscores to Identify Schools

The final recommended profiles should be applied to Kentucky’s school data to identify the specific schools for CSI. Data quality assurance should be conducted to be sure that the data and calculations are correct, and that the intended percentages of schools are identified for CSI. Typically state department staff will review the individual schools to ensure they are aware of and able to respond to any seemingly unusual cases.

The same procedures should be applied to identify the schools that would be identified for TSI for fall 2018 if the recommended threshold cutscores were adopted.

Present Recommendations and Analyses to the Commissioner

The standard setting plan involves presenting the recommendations of the standard-setting committee to the Commissioner of Education through this written report. In addition, KDE should present the analyses it has done along with any other pertinent information to ensure the Commissioner is fully informed.

The Commissioner of Education will present recommendations—which may differ from those of the standard setting committee—to the Kentucky Board of Education. The Board of Education will make the final decisions regarding adopting performance standards for making school accountability designations in fall 2018, including identifying schools for CSI and TSI.

Thorough documentation of Kentucky’s final performance standards for identifying schools for CSI and TSI in fall 2018 would include records of the Commissioner’s recommendations and the KBE actions and rationales.

List of Appendices

Appendix A: List of Standard-setting Panelists

Appendix B: Presentation Slides from Standard Setting Workshop

Appendix C: Recommended “First Pass” and Analysis

Appendix A: List of Standard-setting Panelists

Houston Barber, Superintendent, Frankfort Independent schools
Travis Burton, Manager, public affairs, Kentucky Chamber of Commerce
Aaron Collins, Superintendent, Fulton Co. schools
Rhonda Colvin, Director of Special Education, Lawrence Co. schools
Jim Evans, Superintendent, Lee Co. schools
Larry Garrity, Principal, Webster Co. Area Technology Center
Hal Heiner, Chair, Kentucky Board of Education
Gary Houchens, Member, Kentucky Board of Education
Nancy Hutchinson, Executive Director, Kentucky Educational Development Corporation
Ann Elisabeth Larson, Dean, College of Education and Human Development, University of Louisville
Marty Pollio, Superintendent, Jefferson Co. schools
Amanda Reed, District Assessment Coordinator, LaRue Co. schools
John Scott, Parent, Covington Independent schools and member of Commissioner's Parent Advisory
Travis Wilder, Principal, Corbin Primary School, Corbin Independent schools
Wayne Young, Executive Director, Kentucky Association of School Administrators

Appendix B: Presentation Slides from Standard Setting Workshop


8/31/2018



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Welcome and Charge


Dr. Wayne Lewis
Interim Commissioner of Education



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Introductions

- ▶ KDE Staff
- ▶ Center for Assessment
 - Chris Domaleski
 - Brian Gong
- ▶ Standard-Setting Panelists



4

Background and Training



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Purpose

The focus of this workshop is to recommend the performance thresholds Kentucky will use to identify schools for Comprehensive Support and Improvement (CSI) using 2017-18 data for services in the 2018-19 academic year.



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Standard Setting

- ▶ Setting the performance expectations is not simply a statistical process. There are more than one possible way to define criteria for identifying schools for CSI.
- ▶ Your job as a participant in this workshop is to provide a recommendation to KDE regarding what profile of performance on the multiple school accountability indicators should determine CSI classifications.
- ▶ We'll use a systematic process known as 'standard setting' to elicit your judgments and make a final recommendation to KDE.
 - This type of standard setting process is widely used to establish threshold criteria for assessment achievement levels (e.g., Novice (N), Apprentice (A), Proficient (P), Distinguished (D)).



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Why focus on CSI for 2018-19?

- ▶ Identification of schools for CSI and Targeted Support and Improvement (TSI) is what is required for 2018-19.
- ▶ Establishing CSI criteria also establishes TSI criteria for 2018-19
- ▶ Additional data will be available and used in 2019-20 school designations. An additional standard-setting process will be conducted.
 - CSI, TSI (Tier 2), and TSI (Tier 1)
 - 5-Star designations (CSI = 1 Star)



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CSI and TSI

- ▶ Federal and state law require that the state identify “the bottom 5%” of Title 1 schools for CSI beginning with the 2018-19 school year.
- ▶ In addition, the state must identify for TSI any school with a student group with performance as low as the bottom 5% school(s), beginning in 2018-19. Creating the CSI criteria simultaneously creates the TSI criteria.
 - Kentucky law stipulates that at least 5% of Title 1 schools, and in addition, any similarly low-performing non-Title 1 schools will be identified for CSI.
 - There is another version of TSI that must be implemented beginning in 2019-20. That will be addressed next year.



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Accountability System Overview

For Fall 2018, Indicators are:


Elementary Schools	Middle Schools	High Schools
Proficiency	Proficiency	Proficiency
Separate Academic Indicator	Separate Academic Indicator	Graduation Rate
Growth	Growth	Transition Readiness



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Indicators


Elementary and Middle Schools		
Indicator	Measures	Metric
Proficiency	Reading and mathematics tests	<ul style="list-style-type: none"> Index Score (0-125) N=0, A=.50, P=1.0, D=1.25 Each score from reading & mathematics weighted equally
Separate Academic Indicator	Science, social studies, and writing tests	<ul style="list-style-type: none"> Index Score (0-125) N=0, A=.50, P=1.0, D=1.25 Each score from science, social studies, & writing weighted equally
Growth	Reading and mathematics tests, English Language Proficiency (ELP) tests	<ul style="list-style-type: none"> Growth Score (about -150 to + 150) Value table that assigns points for (projected) individual student growth Each score from reading, mathematics, ELP weighted equally



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Indicators

High Schools		
Indicator	Measures	Metric
Proficiency	Reading and mathematics sections from ACT	<ul style="list-style-type: none"> Index Score (0-125) N=0, A=.50, P=1.0, D=1.25 (ACT levels) Each score from reading & weighted equally
Graduation Rate	4- and 5-year Graduation Rates	<ul style="list-style-type: none"> Percentage of 9th grade students (adjusted) who graduated in 4 or 5 years Average of 4- and 5-year rates (0-100)
Transition Readiness	Academic Readiness (ACT, AP, IB, CAI, ELP) Career Readiness (Ind. Cert., CTE EOP exam; Apprenticeship)	<ul style="list-style-type: none"> Transition Readiness Rate (0-100) Percentage of graduating cohort who have a high school diploma and also demonstrate Academic or Career Readiness



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Indicators and Standard Setting

- ▶ Today's standard setting workshop will result in a recommended set of criteria for identifying schools for CSI (and TSI) for 2018-19.
- ▶ The criteria will consist of values ("cutpoints") for each indicator; the set of values will form a profile of performance.
- ▶ Criteria will be set separately for elementary, middle, and high schools.



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The Standard Setting Process – Big Picture

- ▶ Each participant will review a worksheet that contains data on school performance.
- ▶ Then, each participant will independently determine the performance threshold below which a school is a candidate for CSI.
- ▶ We will share data about your ratings as a group and then you will discuss together.
- ▶ Next, each participant will make another rating, which can be the same or different from the initial rating.
- ▶ You will discuss the group ratings a second time and make a final recommendation.
- ▶ This process will be conducted three times, to establish criteria separately for elementary, middle, and high schools.



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Sample Practice

- ▶ Please open the Excel sheet "Sample"
- ▶ We will simply use this sheet to get familiar with format and process.
- ▶ The indicators and data are not real.



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Practice Worksheet

A	B	C	D	E	F	G
Percentile	Indicator A	Indicator B	Indicator C		Cut	Relative Weight
1	0.01	1.1	2.0	2.1	Schools below what value for "A" should be classified as CSI for 2017-2018?	40
2	0.01	1.1	2.0	2.1	Schools below what value for "A" should be classified as CSI for 2017-2018?	16.4
3	0.02	3.2	2.2	4.1	Schools below what value for "B" should be classified as CSI for 2017-2018?	60
4	0.03	6.1	4.0	5.0	Schools below what value for "B" should be classified as CSI for 2017-2018?	45.9
5	0.04	7.2	4.2	5.3	Schools below what value for "C" should be classified as CSI for 2017-2018?	37.7
6	0.05	8.0	5.2	7.2		100
7	0.06	8.2	6.5	8.2		
8	0.07	9.8	8.3	9.3	Number of Schools Below A	24
9	0.08	12.3	9.0	10.0	Percent of Schools Below A	0.23
10	0.09	13.4	9.4	10.7	Number of Schools Below B	67
11	0.1	14.0	10.0	12.4	Percent of Schools Below B	0.65
12	0.11	15.3	10.4	14.3	Number of Schools Below C	55
13	0.12	17.5	11.5	16.5	Percent of Schools Below C	0.53
14	0.13	19.0	12.5	17.0		
15	0.14	20.6	13.0	17.6	Schools Below All Criteria	5
16	0.15	21.0	13.0	18.0	Percent of Schools Below all Criteria	0.049
17	0.16	22.9	13.6	18.0		
18	0.17	24.7	14.0	18.7		
19	0.18	30.8	15.4	19.7		
20	0.19	33.8	16.8	20.8		
21	0.2	34.8	17.8	22.6		
22	0.21	35.8	18.0	23.8		



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Percentiles

- ▶ First, you'll note the percentile column (column A).
- ▶ A percentile divides a distribution into 100 groups of equal size.
 - Values range from .01 to .99. For example, a value at the 20th percentile (.20) indicate the value at or below which 20% of the schools scored. 80% of schools scored higher than this value.
 - Note that every 10th percentile is shaded for easier reference.



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Indicators

- ▶ After the percentile column you'll see the three indicator columns. In this example, those indicators are simply labeled A, B, and C.
- ▶ Note the rates range from lowest to highest. Each range corresponds with the percentile in column A.
- ▶ For example, a school with 12.4 on indicator C is at the 10th percentile.



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Cuts and Impact

- ▶ By entering values in the highlighted cells, you can explore the impact of selecting various cuts or performance thresholds.
- ▶ Each time you enter a new value in the cells, note that you will see the number and percent of schools that would be below that criterion and all 3 criteria.
- ▶ Importantly, the final row shows the percent of schools that would be below ALL 3 criteria. This value is important because we want to select values that are at or greater than 5% (.05). Any solution that is less than 5% will not be compliant with federal requirements.



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Conjunctive Criteria

- ▶ The criteria for CSI are *conjunctive*. That means that only schools that score below ALL 3 cuts will be classified as CSI.
- ▶ You may notice you'll need to pick values well above the 5th percentile to get a total of 5% of the schools, because some schools that perform low on some indicators, perform relatively higher on others.



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Practice #1

- ▶ Take some time to use the worksheet to set cuts scores with the sample data.
- ▶ Find at least two different set of cut scores that classifies at least 5% of the schools as CSI.
- ▶ Please do not worry about the weights for now. We will discuss that next.



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Elementary and Middle School Weights

- ▶ Approved weight ranges in Kentucky regulation reflect emphasis of importance (adjusted for three indicators)

Indicator	Low	High
Proficiency	24	41
Separate Academic Indicator	24	41
Growth	32	49



22

High School Weights

- Approved weight ranges in Kentucky regulation reflect emphasis of importance (adjusted for three indicators)

Indicator	Low	High
Proficiency*	20	71
Transition Rate	30	53
Graduation Rate*	10	27

* Federally, proficiency and graduation rate must be greater than 50%.



23

How are weights determined?


- The weight for each indicator is the percent of schools that would not meet the criterion out of the sum (not mutually exclusive) of schools failing to meet any criterion
- Example
 - Assume:
 - 80 schools are below the Proficiency criterion
 - 20 schools are below the Separate Academic Indicator criterion
 - 100 schools are below the Growth criterion
 - There are a total of 200 schools identified by any one criterion. Each indicator weight is simply the number of schools identified divided by 200.
 - Proficiency = 40%
 - Separate Academic Indicator = 10%
 - Growth = 50%



24


Practice #2

- ▶ Use the sample worksheet to find a set of cut scores that match a set of weights you think is reasonable.
- ▶ It's not important that you match the weights exactly, simply use them as a guide and attend to the "pattern."
- ▶ Remember, at least 5% of the schools must be classified as CSI.
- ▶ After you select your sample cut scores, compare and discuss your solutions at your table.



25


Break until 10:45am



26

Standard Setting Process


- ▶ When we commence with the actual standard setting process shortly, the worksheets will look the same, except you will review actual data for the indicators that count in 2017-18.
- ▶ You will use the Excel worksheet to explore your cut score recommendations, then use a document we will provide to write down your recommendations.
- ▶ You will make your ratings independently and are free to chose the cut scores that reflect your judgment about the relative influence of each indicator, within the specified weight ranges.



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Standard Setting Rounds

- ▶ Round 1: Independently select cut score recommendations for schools.
 - Record ratings on the sheet provided
 - We will discuss the range of ratings submitted overall and in table groups.
- ▶ Round 2: Independently select cut score recommendations for schools.
 - Record ratings on the sheet provided. You may affirm your initial ratings or change them.
 - We will discuss as a group and either select the median rating or make a group adjustment by consensus.



28

Elementary Schools



29

Elementary Schools – Round 1

- ▶ Please open the worksheet “ES Worksheet”
- ▶ We will review the indicators as a group:
 - Proficiency
 - Separate Academic Indicator
 - Growth
- ▶ Do you have any questions about the worksheet or the data?



30

Elementary Schools – Round 1

- ▶ Please work independently using the Excel worksheet to determine a set of cut score recommendations.
- ▶ Write down your cut score recommendations for each indicator in the first column and give your sheet to a facilitator when complete.



31

Elementary Schools – Round 2

- ▶ Please work independently using the Excel worksheet to determine a set of cut score recommendations.
- ▶ You may affirm your round 1 recommendations or adjust your recommendations.
- ▶ Write down your cut score recommendations for each indicator in the second column and give your sheet to a facilitator when complete.



32



Break for Lunch until 1:00 pm

33




Middle Schools

34

Middle Schools – Round 1


- ▶ Please open the worksheet “MS Worksheet”
- ▶ We will review the indicators as a group:
 - Proficiency
 - Separate Academic Indicator
 - Growth
- ▶ Do you have any questions about the worksheet or the data?



35

Middle Schools – Round 1


- ▶ Please work independently using the Excel worksheet to determine a set of cut score recommendations.
- ▶ Write down your cut score recommendations for each indicator in the first column and give your sheet to a facilitator when complete.



36


Middle Schools – Round 2

- ▶ Please work independently using the Excel worksheet to determine a set of cut score recommendations.
- ▶ You may affirm your round 1 recommendations or adjust your recommendations.
- ▶ Write down your cut score recommendations for each indicator in the second column and give your sheet to a facilitator when complete.

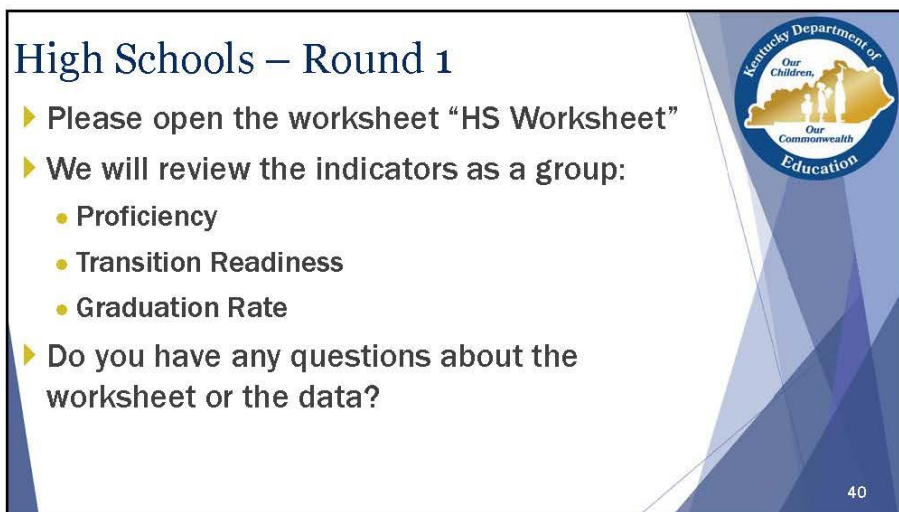


37

Break until 2:15 pm



38



High Schools – Round 1

- ▶ Please work independently using the Excel worksheet to determine a set of cut score recommendations.
- ▶ Write down your cut score recommendations for each indicator in the first column and give your sheet to a facilitator when complete.



41

High Schools – Round 2

- ▶ Please work independently using the Excel worksheet to determine a set of cut score recommendations.
- ▶ You may affirm your round 1 recommendations or adjust your recommendations.
- ▶ Write down your cut score recommendations for each indicator in the second column and give your sheet to a facilitator when complete.



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Evaluation and Adjourn

- ▶ Thank you for your participation today!
- ▶ Please complete an evaluation before you depart (very important part of documentation of process).



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Appendix C: Recommendation and Analysis of “First Pass”

During the standard setting workshop, a concern was raised that the conjunctive design of the identification method might not identify schools that should be identified. The particular concern was that a school might have a very uneven profile, and be very low on some indicators, but relatively higher on another, less valued indicator.

The proposal was made to investigate using a “two-pass” system of school identification. The “first pass” would be to use a set of threshold scores that would require a minimum performance on Proficiency and Separate Academic Indicator/Transition Readiness, and a higher performance on Growth/Graduation Rate; the thresholds for the first two Indicators would be lower than those recommended in the workshop, and the thresholds for the third Indicator would be higher than those recommended in the workshop. Schools below the very low threshold on the first two would be classified as CSI unless their performance on the third was above that additional threshold. The idea was to set the thresholds such that fewer than 5% of schools would be identified on this first pass. The very low threshold would need to be lower than the threshold values set by the standard-setting committee, and the threshold on the third indicator would need to be set higher than that set by the committee for this to make a difference.

In the “second pass,” schools would be identified using the cutscores established in the standard setting workshop up to 5% of Title 1 schools.

An example to clarify this suggestion follows.

- For elementary schools, the recommended CSI cuts for proficiency, separate academic indicator, and growth were set by the standard setting committee at the 23rd, 19th, and 24th percentiles respectively.
- In the first step: one would reduce proficiency and separate academic index to the 5th percentile, and move the threshold for growth up to the 30th percentile. This would serve to classify any school as CSI that is below the 5th percentile on the academic indicators and below the 30th percentile on growth.
- In the second step, the thresholds recommended by the standard setting panel would be used to identify additional schools until a minimum of 5% of schools are identified.
- Schools with the highest performance on proficiency would be the last added (or not added) in order to keep the total number of schools classified near 5%.

This procedure was used to analyze how the proposed “first pass” would impact school identification separately for elementary, middle, and high schools. Using the same empirical school performance data used in the standard setting workshop, KDE identified some profiles of threshold cutscores that met the “first pass” design. KDE then applied those profiles of threshold cutscores to identify schools, and compared the schools identified by using the “first pass” cutscores to the schools identified using the workshop

recommendations. Although the number of schools varied depending on what threshold cutscores were used for the “first pass” approach, in every case reasonable values yielded the same result. Using the “first pass” approach, a few schools—typically one or two additional schools per grade span—were identified that would not have been identified using only the performance profiles recommended in the standard setting workshop. The table below summarizes the results of using a set of “first pass” threshold cutscores contrasted with the threshold cutscores recommended from the standard setting workshop.

Table 9: Comparison of schools identified for CSI using the “first pass” and workshop recommendations

Comparison between Standard Setting Workshop Recommendations and Possible “First Pass” Supplemental Recommendations					
		Percentiles of Recommended Performance Thresholds			Number of (Additional) Schools Identified for CSI (%)
		Proficiency	Separate Academic Indicator	Growth	
Elem. Sch.	Workshop Recommendation	23	19	24	33 (5%)
	“First Pass”	5	5	30	2
Middle Sch.	Workshop Recommendation	17	14	19	12 (5%)
	“First Pass”	5	5	30	1
		Proficiency	Transition Readiness	Graduation Rate	
High Sch.	Workshop Recommendation	13	13	7	6 (6%)
	“First Pass”	5	5	10	1

The table shows the threshold cutscores as performance percentiles, i.e., the number of students at or below that level. The “first pass” profile of threshold cutscores is 5th percentile on Proficiency, 5th percentile on Separate Academic Indicator, and 30th percentile on Growth for Elementary and Middle Schools. At the elementary school level, the “first pass” identified 2 schools that would not have been identified using the workshop recommended threshold cutscores at the 23rd, 19th, and 24th percentiles on those three Indicators, respectively. Using the threshold scores corresponding to the percentile performance on each Indicator shown the table above, the “first pass” approach identified 1 additional school each at the Middle and High School levels that would not have been identified using the threshold cutscores recommended by the standard setting committee. This indicates there are very few schools that actually have extreme profiles of performance, as defined by the “first pass” performance threshold scores, using the fall 2018 data.