The Impact of House Bill 14-165 on Final Effectiveness Ratings
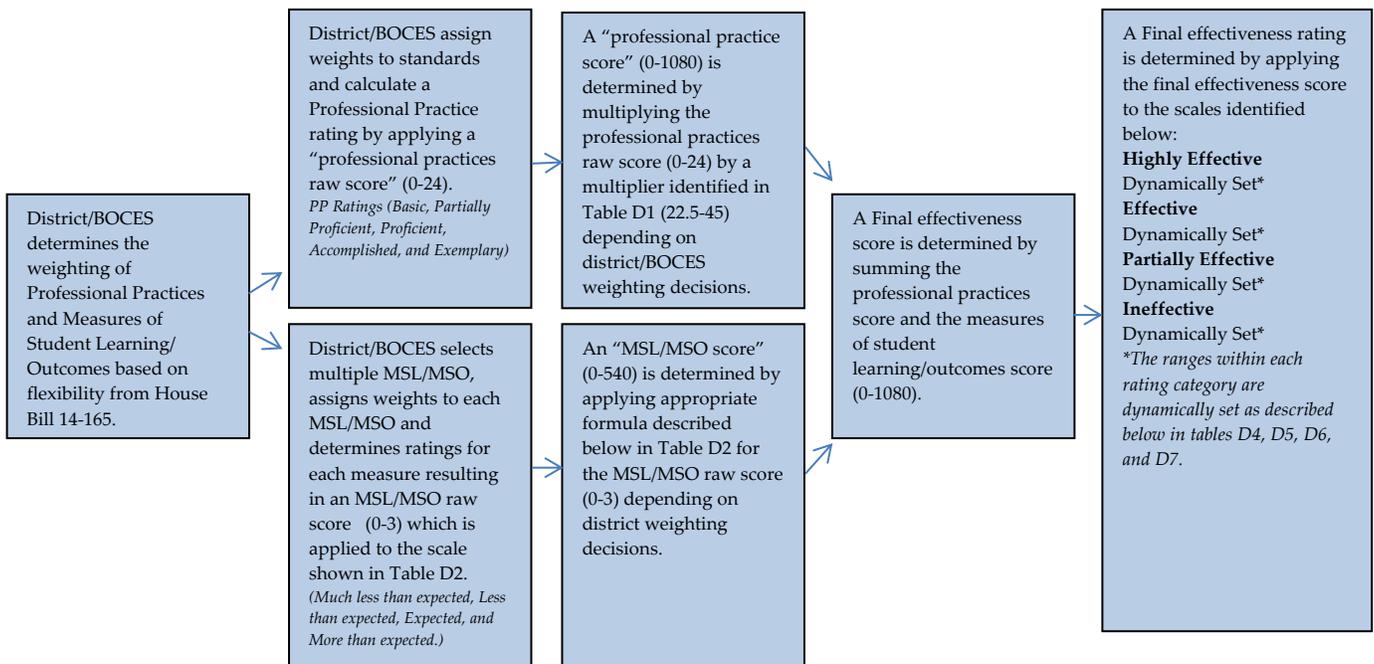
The purpose of this document is to describe, in technical detail, how dynamic scales can be applied to a final effectiveness rating when a district elects to weigh the Measures of Student Learning lower than 50 percent of a principal's overall evaluation. It should be noted that CDE has already created tools that do this automatically so districts/personnel should not have to conduct any of these calculations by hand.

Determining a final effectiveness rating when MSL/MSO is weighted less than 50 Percent

House Bill 14-165 gave Districts and BOCES flexibility in determining the proportion that Measures of Student Learning / Outcomes (MSL/MSO) represents in a principal's annual evaluation for the 2014-15 school-year. The flexibility provides Districts/BOCES the ability to weight the MSL/MSO portion of an principal's evaluation between zero and 50 percent of an their evaluation.

Prior to the adoption of HB14-165, all Colorado State Model Evaluation System scoring was based on a 50/50 representation of professional practices (PP) and MSL/MSO. Due to the implementation of HB 14-165 it was determined that a dynamic scoring system must be created to ensure that the cut points for each component of the evaluation system would be accurately represented in the final effectiveness rating regardless of the weights selected by a district/BOCES. Because the final effectiveness ratings are determined by combining a five category scale for PP with a four category scale for MSL/MSO a dynamic technique to establish cut points is necessary.

Figure D1. Process for Determining a Final Effectiveness Rating for Principals if MSL/Os are weighted lower than 50 Percent

Understanding Professional Practices Ratings when weighted greater than 50 Percent of the overall evaluation

Because HB14-165 enables districts/BOCES flexibility to weight the professional practices portion of an principal's evaluation between 50% and 100%, a professional practices score must be able to account for 100% of the possible 1080 points available in a final effectiveness score. When the professional practices are weighted at 50% of an evaluation, the professional practice raw score (0-24) is multiplied by 22.5 to determine the proportion of the final effectiveness score represented by the professional practices score (0-24*22.5= 0-540 or 50% of 1080). Due to district/BOCES flexibility a multiplier is identified by dividing the maximum number of final effectiveness points available (1080) by the maximum points available in the professional practices raw score (24) multiplied by the weight assigned by the district/BOCES to professional practices (50% to 100%). The formula and three examples are presented in Table D1 below.

Table D1: Determining a multiplier for professional practices when weighted greater than 50%

Formula: (1080)/20* Professional Practice Weight = Multiplier	
PP Weight	Principal Professional Practice Standards
100% example	(1080)/24 * 100% = **45 (multiplier)**
75% example	(1080)/24* 75% = **33.75 (multiplier)**
50% example	(1080)/24 *50% = **22.5 (multiplier)**

The district/BOCES weighting decisions influence the multiplier. Once the multiplier is determined, the professional practices raw score (0-24) is multiplied by the multiplier to determine the professional practices portion of the final effectiveness score.

Understanding Measures of Student Learning Ratings when weighted less than 50% of the overall evaluation

Districts/BOCES identify the different measures of student learning comprising an educator's body of evidence for the measures of student learning portion of their evaluation. The measures of student learning are weighted and combined resulting in a MSL/MSO raw score (0-3). The MSL/MSO raw score is then converted to a "measures of student learning/outcomes score" by applying the appropriate formula as shown in Table D2.

Table D2: Converting raw MSL/MSO score into an MSL/MSO Score

MSL / MSO rating	Raw MSL/MSO Score (0-3)	Converting raw MSL/MSO score to an MSL/MSO score on a 1080 scale
More than Expected	$2.5 \leq$ score ≤ 3.0	[(Raw Score - 2.5) * 1080 * (%Weight of MSL/MSO) / 2] + [(%Weight of MSL/MSO) * .75 * 1080]
Expected	$1.5 \leq$ score < 2.5	[(Raw Score - 1.5) * 1080 * (%Weight of MSL/MSO) / 4] + [(%Weight of MSL/MSO) * .50 * 1080]
Less than Expected	$.5 \leq$ score < 1.5	[(Raw Score - .5) * 1080 * (%Weight of MSL/MSO) / 4] + [(%Weight of MSL/MSO) *.25 * 1080]
Much Less than Expected	$0 <$ score $< .5$	(Raw Score) * 1080 * (%Weight of MSL/MSO)*.5

Determining a Final Effectiveness Score and Rating when MSL/MSO is weighted less than 50% of an educator's evaluation

To determine the final educator effectiveness score, the professional practice score (0-1080) is added to the MSL/MSO score (0-540). Translating the final effectiveness score into a final effectiveness rating entails locating the score earned in the dynamically calculated range of scores (or cut points) as illustrated in Table D7.

Figure 2: Principal Final Effectiveness Sample Cut Points based on varying weightings of MSL to PP* *(from Table D7)*

Final Effectiveness Rating	100%PP / 0%MSL		90%PP / 10%MSL		80%PP / 20%MSL		70%PP / 30%MSL		60%PP / 40%MSL		50%PP / 50%MSL	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Highly Effective	631	1080	648	1080	666	1080	684	1080	702	1080	720	1080
Effective	361	630	378	647	396	665	414	683	432	701	450	719
Partially Effective	91	360	108	377	126	395	144	413	162	431	180	449
Ineffective	0	90	0	107	0	125	0	143	0	161	0	179

*HB14-165 allows for PP to be weighted at any value between 50% and 100%. These are just examples for reference purposes

The method for dynamically calculating the final effectiveness rating cut points is described below.

Setting the Cut Points for Professional Practice Ratings, MSL/MSO Ratings, and Final Effectiveness Ratings

The cut points for professional practice ratings (*basic, partially proficient, proficient, accomplished and exemplary*) are determined by multiplying a "multiplier" (22.5-45), shown in Table D1, to the raw professional practices score maximum cut points (0-24) as shown below in Table D3 for each professional practice rating.

Table D3: Establishing Maximum Cut Points for Professional Practices Scores, Principals

Professional Practices Ratings Maximum Professional Practices Raw Score by Rating		Multiplier determined by applying this formula: (1080)/24 * %PP			Maximum PP score by PP rating (0-1080) *Rounded to the nearest whole number*		
		50%	75%	100%	50%	75%	100%
Exemplary	24				540	810	1080
Proficient	14	22.5	33.75	45	315	473	630
Partially Proficient	8				180	270	360
Basic	2				45	68	90

The cut points for MSL/MSO ratings are determined by applying the formulas in Table D2, column 3, to determine the ranges for each rating level for MSL/MSO (*much less than expected, less than expected, expected, and more than expected*). Example ranges for each MSL/MSO rating are shown below in Table D4.

Table D4: Determining MSL/MSO Rating Cut Points

MSL / MSO rating	Cut points are determined by using Table D2 to determine the minimum and maximum score for each category depending on district/BOCES weighting decisions	**Example MSL = 0% PP = 100%**	**Example MSL = 25% PP = 75%**	**Example MSL = 50% PP = 50%**
More than Expected	Raw MSL/MSO score 2.5 to 3.0 as shown in Table D2, Column 3	0*	202.50 to 270.00	405.00 to 540.00
Expected	Raw MSL/MSO score 1.5 to (Minimum MSL/MSO Points for More than Expected) -1	0*	135.00 to 201.50	270.00 to 404.00
Less than Expected	Raw MSL/MSO score 0.5 to (Minimum MSL/MSO Points for Expected) -1	0*	67.50 to 134.00	135.00 to 269.00
Much Less than Expected	Raw MSL/MSO score 0.0 to (Minimum MSL/MSO Points for Less than Expected) -1	0*	0.0 to 66.50	0.0 to 134.00

*The number of points available can never be less than 0.

The cut points for the Final Effectiveness Rating are determined by adding the maximum professional practice points available in each rating category to the maximum MSL/MSO points available in each rating category to establish the high cut point in the range as shown below in Table D5.

Table D5: Determining the maximum cut point for the Final Effectiveness Rating

Maximum Professional Practice Rating	+	Maximum MSL/MSO Rating	=	Maximum Cut Point for each Final Effectiveness Rating
Maximum possible points for Exemplary	+	Maximum possible points for More Than Expected	=	Maximum Cut Point for Highly Effective (always 1080)
Maximum possible points for Proficient	+	Maximum possible points for Expected	=	Maximum Cut Point for Effective
Maximum possible points for Partially Proficient	+	Maximum possible points for Less Than Expected	=	Maximum Cut Point for Partially Effective
Maximum possible points for Basic	+	Maximum possible points for Much Less Than Expected	=	Maximum Cut Point for Ineffective

Once the maximum values are determined in Table D5, last column, they are used to determine the low cut point for each range as shown below in Table D6.

Table D6: Determining the minimum cut point for the Final Effectiveness Rating

Minimum cut point for Highly Effective	=	Maximum Cut Point for Effective (From Table D5, last column) + 1
Minimum cut point for Effective	=	Maximum Partially Effective (From Table D5, last column) + 1
Minimum cut point for Partially Effective	=	Maximum Ineffective (From Table D5, last column) + 1
Minimum cut point for Ineffective	=	Always 0

Figure 2: Principal Final Effectiveness Sample Cut Points based on varying weightings of MSL to PP* *(from Table D7)*

Final Effectiveness Rating	100%PP / 0%MSL		90%PP / 10%MSL		80%PP / 20%MSL		70%PP / 30%MSL		60%PP / 40%MSL		50%PP / 50%MSL	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Highly Effective	631	1080	648	1080	666	1080	684	1080	702	1080	720	1080
Effective	361	630	378	647	396	665	414	683	432	701	450	719
Partially Effective	91	360	108	377	126	395	144	413	162	431	180	449
Ineffective	0	90	0	107	0	125	0	143	0	161	0	179

HB14-165 allows for PP to be weighted at any value between 50% and 100%. These are just examples for reference purposes

After all the cut points are established dynamically based on district/BOCES weighting decisions, a Final Effectiveness Rating can be determined by comparing the Final Effectiveness Score earned by the educator to the ranges established in this section, depending on the district/BOCES weighting decisions, to determine a principal's final effectiveness rating illustrated above in Table D7.

Note: CDE has created tools to support districts/BOCES with this process. Including calculators, excel tools… If districts are using the Colorado Performance Management System (COPMS) or BloomBoard, —these changes have already been made for you.

Principal Final Effectiveness Scoring Addendum Key Terms	
Educator	Teacher, Specialized Service Professional (SSP), and principal
Professional Practices (PP)	The term "professional practices" refers specifically to each of the discrete practices within the State Model Rubric, and generally to the Professional Practice Quality Standards for educator evaluation.
Professional Practices Raw Score	The points obtained on the rubric, a value of between 0 -20.
Professional Practices Score	The score obtained by multiplying the PP raw score by a "multiplier." A value between 0 – 1080.
Professional Practices Rating	The final rating on the rubric, either; Basic, Partially Proficient, Proficient, Accomplished, or Exemplary
Measures of Student Learning/Outcomes (MSL/MSO)	Student learning or outcomes used in an educators body of evidence
Measures of Student Learning/Outcomes raw score	The composite score resulting from the combining of multiple measures/outcomes in an educator's body of evidence. A value between 0 -3.
Measures of Student Learning/Outcomes score	The score obtained by converting the MSL/MSO raw score to a value between 0 – 540 described in Table D2.
Measures of Student Learning/Outcomes rating	The final rating for the measures of student learning/outcomes portion of the evaluation, either; Much less than expected, Less than expected, expected, more than expected.
Final Effectiveness Score	A score obtained by combining the PP score with the MSL/MSO score, a value between 0 – 1080
Final Effectiveness Rating	Ineffective, Partially Effective, Effective, and Highly Effective