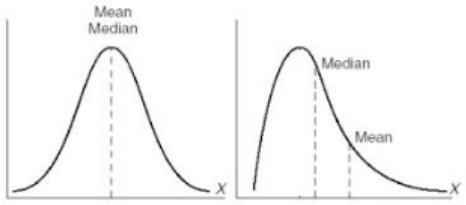
ARKANSAS SOAR

Teacher Evaluation Advisory Committee Meeting
Tuesday, January 7, 2014 Little Rock AR

Q: How are student growth percentiles used to create teacher SOAR scores?

1. To calculate SOAR, a measure of growth between two academic years, first group all students who scored the same scale score on previous year's assessment, and then look at just those students' scores on the current year's assessment. Apply percentiles to this distribution with the following formula SOAR **= *P*/(*n*+1)** where *P* is the position of the score in the distribution *n*. A constant value of 1 is added to the *n* count in order to center the percentiles for all groups. This SOAR percentile is simply a measure of student performance in the current academic year relative to their academic peers,.
2. To assign a growth value at the teacher level, a roster of students is built for each teacher based on the course code, and the median SOAR value of those students is applied to the teacher. The median is used because extreme values on either side of the distribution can shift the mean (average) away from the center, demonstrated here:



3. The median is a measure of center (half above, half below) regardless of the shape of the distribution.
4. **A teacher's score is the middle SGP for his/her students.** This is a simple indicator of how well the typical student performed relative to academic peers. This is the median growth percentile. This is useful because one or two students extreme scores will not change it much.

Q: What can SOAR scores tell us?

A: SOAR shows how a student's achievement at the end of the year compares with that of other students who started the year at the same level.

1. SOAR measures a teacher's impact on a group of students by measuring students' growth relative to academic peers.
2. Looking at student growth is important because it measures educational progress that is independent of the student's proficiency. Since SOAR only looks at academic peers, those students that scored the same in the previous year, the SOAR value is a measure of educational progress regardless of the student's starting proficiency.

Q: What SOAR does not tell us:

A: SOAR does not account for variations among students or classes, nor does it indicate what caused improvement.

1. Unlike some other methods of estimating teacher effectiveness, such as value-added modeling, SOAR calculations do not try to adjust for differences in student characteristics.
2. And neither SGPs nor value-added modeling indicates what might have caused improvements, nor do they reveal whether other students would make similar improvements if taught by that teacher.

ARKANSAS SOAR (cont'd)

Q: How will a teacher's SOAR score impact his/her evaluation? A: A SOAR score should validate the teacher's performance rating. The expectation is for teachers to meet or exceed the established growth threshold. Teachers whose SOAR score does not meet the threshold cannot receive an overall rating of "distinguished." Teachers whose SOAR scores don't meet the threshold for two consecutive years will have their overall rating lowered a level.	*Q: Can a teacher whose students have a high rate of proficiency have a low SOAR score?* A: In a school with high-achieving students, it is possible that a teacher could have 100% proficiency but still have a low median SOAR value if those students did not perform as well as their academic peers. This occurs because there are only 4 levels of proficiency. In some cases, the low growth would simply be a reflection that students are moving down in scale score relative to their peers, but not falling far enough to make them Not Proficient. This is easy to imagine if all students began the academic year as Advanced, then students with low growth would remain at least Proficient. However, continued low growth of these same students the next year would lead to lower proficiency levels, as a continuing drop in scale scores would mean that eventually these students will no longer score well enough to be Advanced or Proficient.
Q: Where did SOAR originate? A: Student growth was originally calculated using the Student Growth Percentile (SGP) model which is used by other states. However, SGP uses complicated math and is difficult for educators to understand. The simpler SOAR model, SOAR=$P/(n+1)$, is easier to understand and gives results that are statistically the same as SGP. The state of Indiana uses a model similar to SOAR for their growth calculations. The median SOAR value for each academic peer group is 50.	*Q: Where can Arkansas school districts find the data?* A: SOAR values at the individual student level are available for authorized users at hive.arkansas.gov, and aggregate SOAR values at the district, school, and teacher level are available at quicklooks.arkansas.gov.

NOTES/QUESTIONS: _____

_____

_____

_____

_____

_____

_____

_____

_____