**Carnes Group**

Reducing Errors, Removing Bias, Ensuring Fairness

A fiddle contest has three judges and three contestants with a total of 100 points per tune, for a total or 300 points. Judges 1 scores Contestants 1 thru 3 as follows: 94, 92, and 90. Judge 2 scores them 93, 92, 89. But Judge 3 scores the contestants a 65,70, and 99! That is big difference in opinion and point spread.

As you can see below in the "BEFORE NSS" graphic, Judge 3 has effectively controlled the outcome of the contest by using a large point spread (we call this "point spread bias").

The NSS uses a scale starting at 100 and goes down by 1 for each ranking. Each judge's scores are ranked from high to low. For each judge, the person they have in first place gets 100 points. The person they have in second gets 99 points, and so on. For example, in a field of 75 players, first place would get 100 points and 75th place would get 26 points. The point scores for a judge that accomplishes the ranking generates a "normalized" score based on the point scale. It is these scores - not the judges "raw" scores - that are added to generate a point total. Using the normalized scores does not alter how the judge scored and ranked the contestants; it just makes the point spread uniform across all judges and eliminates different point scales and spreads in judging.
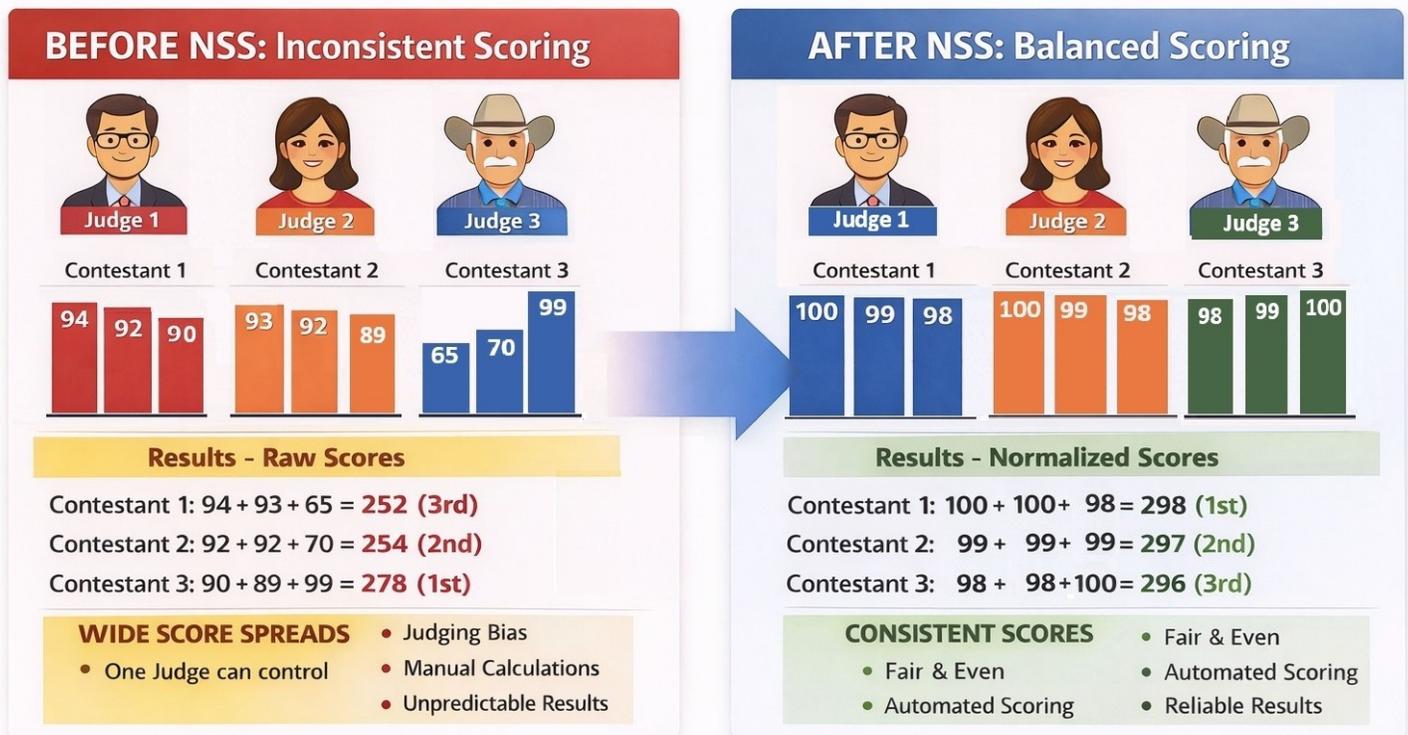
Now you can see below in the "AFTER NSS" graphic, all scores have been forced to be on the same scale of point spread. EACH judge has the exact same effect in the results. Two of three Judges had Contestant 1 in 1st, they all had Contestant 2 in 2nd and Contestant 3 ended up in 3rd - where two judges had them. The error in judgement of Judge 3 has been effectively eliminated.

Fairness. Efficiency. Transparency.