



Understanding the Simulation Tool

The simulation tool enables the user to change a district's performance data in the "what-if scenarios" portion of the spreadsheet to determine how those changes would have affected that district's performance residuals. Performance residuals reflect how far above or below average a district is performing. This is not a forecasting tool. In the future, proficiency rates in the other districts in the state may change. As a result, in some cases, a district's proficiency rate may need to increase faster in order to improve that district's performance residual.

Although this tool was created using actual state and district data and cannot presume to predict the future performance of any district, it is meant to serve as a useful reference for discussions about the district's proficiency targets and achievement goals.

The simulation tool shows the following information:

Actual District Results

actual % proficient	Percent of students in the district meeting the state standard in each year.
actual % FRSL	Percent of students in the district eligible for Free or Reduced-Price Lunch (FRSL).
predicted % proficient	Predicted percent of students in the district meeting state standards, based on the performance results for all districts in the state and their percent of students eligible for FRSL.
residual	Distance above or below the "predicted % proficient" for the district.
standard deviation of residuals	Measure of the spread of the residuals for all the districts in the state.
standardized residual	Residual divided by the standard deviation of residuals.
two-year averages	Average of the standardized residuals for two years (average for 2006 and 2007 and average for 2004 and 2005) for the district.

improvement Difference between the two-year average for 2006 and 2007 and the two-year average for 2004 and 2005 for the district (as expressed in standardized residuals).

What-If Scenarios

simulated actual % proficient User input for percent of students in the district meeting the state standard.

modified standardized residual Distance above or below the “predicted % proficient” divided by the standard deviation of residuals for the district resulting from the “simulated actual % proficient” input.

modified two-year average Average of the standardized residuals for two years (average for 2006 and 2007 and average for 2004 and 2005) for the district resulting from the “simulated actual % proficient” input.

improvement Difference between the two-year average for 2006 and 2007 and the two-year average for 2004 and 2005 for the district (as expressed in standardized residuals) resulting from the “simulated actual % proficient” input.

To test what proficiency levels each subgroup of students needed to reach in order to improve the standardized residual by a desired amount, enter numbers into the row titled “simulated actual % proficient.” Values for the yellow “modified standardized residual” and “modified two-year average” cells change based on the numbers that are entered.