

## Averaging Methods

Method #1. A weighted average of engine and truck test means, using the reciprocals of the standard errors of the test means as the weights. The confidence interval is based on the standard deviation of the weighted averages of 2000 simulated test results on each engine and truck, generated from the test means and standard errors for each engine and truck, using the reciprocals of the standard errors of the test means as the weights.

Method #2. A weighted average of the simple averages of the engine test means and the truck test means, using the reciprocals of the standard errors of the two simple averages as the weights. The confidence interval is based on the standard deviation of the weighted averages of the engine and truck simple averages of 2000 simulated test results on each engine and truck, generated from the test means and standard errors for each engine and truck, using the reciprocals of the standard errors of the two simple averages as the weights. If only one engine or one truck is included in the group, then the weight for that engine or truck is the reciprocal of the standard error of the simple average for all engines or all trucks.

Method #3. A simple average of engine and truck test means. The confidence interval is based on the standard deviation of the simple averages of 2000 simulated test results on each engine and truck, generated from the test means and standard errors for each engine and truck.