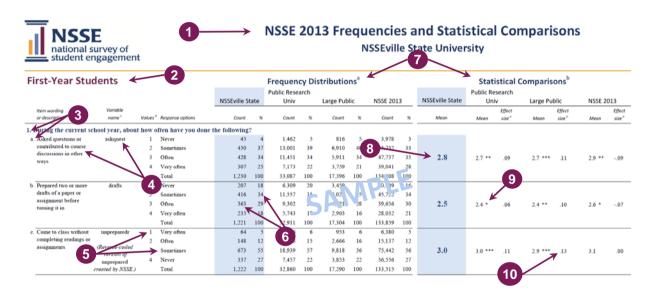# NSSE 2013 Frequencies and Statistical Comparisons
Interpreting Your Report

The display below highlights details in the *Frequencies and Statistical Comparisons* report that are important to keep in mind when interpreting your results. For more information about the sampling technique, weighting, engagement indicators, and the survey properties, please visit our Web site (**nsse.iub.edu**) or contact a member of the NSSE team.

1. The *Frequencies and Statistical Comparisons* report is based on information from all randomly selected or census-administered students for both your institution and your comparison institutions. Targeted and locally administered oversamples and other non-randomly selected students are not included.

2. *Class:* As reported by your institution.

3. *Item numbers:* Item numbering corresponds to the survey facsimile included in your *Institutional Report* and available on the NSSE Web site.

4. *Item wording and variable names:* Survey items are in the same order and wording as they appear on the instrument. Variable names are included for easy reference to your data file and codebook.

5. *Values and response options:* Values are used to calculate means. Response options are listed as they appear on the instrument.

6. *Count and column percentage (%):* The Count column contains the number of students who selected the corresponding response option. The column percentage is the weighted percentage of students selecting the corresponding response option. Counts are unweighted and cannot be used to replicate column percentages.

7. *Weighting:* Column percentages and statistics are weighted by gender and enrollment status. Comparison group statistics are also weighted by institutional size. Counts are unweighted. For more details visit: **nsse.iub.edu/html/weighting.cfm**

8. *Mean:* The mean is the weighted arithmetic average of student responses on a particular item.

9. *Statistical comparisons:* Items with mean differences that are larger than would be expected by chance are noted with asterisks referring to three significance levels (*p<.05, **p<.01, ***p<.001). Significance levels indicate the probability that an observed difference is due to chance. Statistical significance does not guarantee the result is substantive or important. Large sample sizes tend to generate more statistically significant results even though the magnitude of mean differences may be inconsequential. Consult effect sizes (see below) to judge the practical meaning of the results. Unless otherwise noted, statistical comparisons are two-tailed independent t-tests. Exceptions are items 11 a-f which are compared using a z-test.

10. *Effect size:* Effect size indicates practical significance. In practice, an effect size of .2 is often considered small, .5 moderate, and .8 large. A positive effect size indicates that your institution's mean was greater than the comparison group, thus showing a favorable result for your institution. A negative effect size indicates your institution lags behind the comparison group, suggesting that the student behavior or institutional practice represented by the item may warrant attention. Effect sizes for independent t-tests use Cohen's d; z-tests use Cohen's h. Cohen's *d* is calculated by dividing the mean difference by the pooled standard deviation. Cohen's *h* is calculated by taking the difference in the proportion of students who responded "Done or in progress" after the proportion has been transformed using a non-linear (arcsine) transformation.