NSSE 2019 Frequencies and Statistical Comparisons

About This Report

The *Frequencies and Statistical Comparisons* report presents item-by-item student responses and statistical comparisons that allow you to examine patterns of similarity and difference between your students and those at your comparison group institutions. The report uses information from all randomly selected or census-administered students. The display below highlights important details in the report to keep in mind when interpreting your results. For more information please visit our website (**nsse.indiana.edu**) or contact a member of the NSSE team.

1. ***Class level:*** As reported by your institution.

2. ***Item numbers:*** Numbering corresponds to the survey facsimile included in your *Institutional Report* and available on the NSSE website.

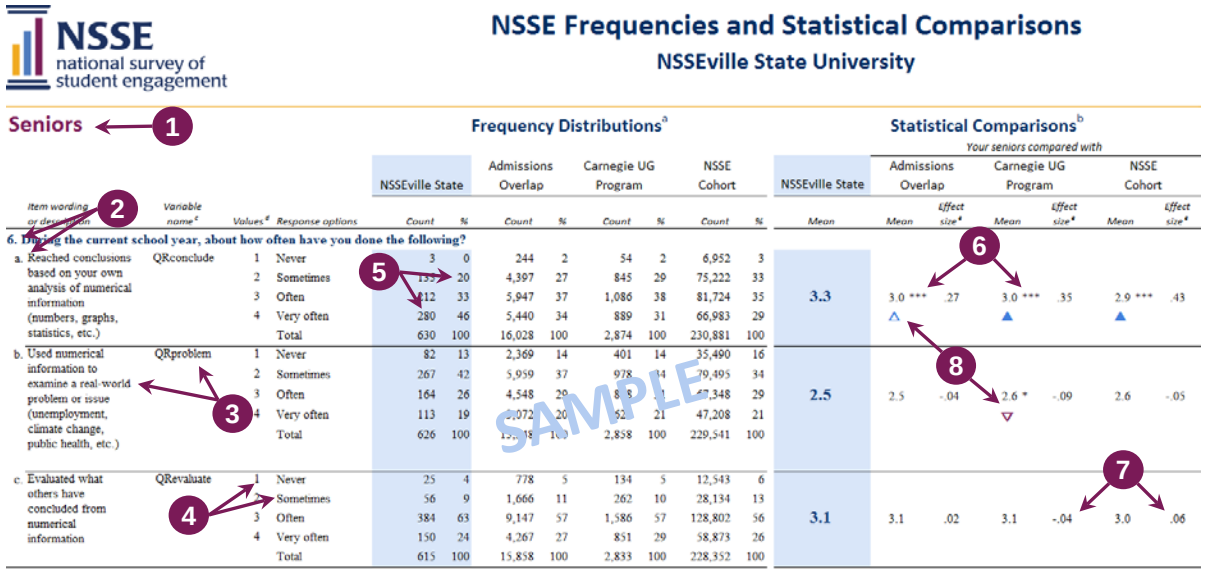
3. ***Item wording and variable names:*** Survey items are in the same order and wording as they appear on the instrument. Variable names are included for easy reference to your data file and codebook.

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

5. ***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.

   Note: Column percentages and statistics are weighted by institution-reported sex and enrollment status. Comparison group statistics are also weighted by institutional size. Counts are unweighted and cannot be used to replicate column percentages. For details visit: **nsse.indiana.edu/links/weights**

6. **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 #7) to judge the practical meaning of differences. Unless otherwise noted, statistical comparisons are two-tailed independent *t*-tests. Exceptions are items 11 a-f which are compared using a *z*-test.



NSSE national survey of student engagement

NSSE Frequencies and Statistical Comparisons

NSSEville State University

Seniors (1)

Item wording or description (2)	Variable name[c]	Values[d]	Response options	Frequency Distributions[a]: NSSEville State Count	NSSEville State %	Admissions Overlap Count	Admissions Overlap %	Carnegie UG Program Count	Carnegie UG Program %	NSSE Cohort Count	NSSE Cohort %	Statistical Comparisons[b]: NSSEville State Mean	Your seniors compared with: Admissions Overlap Mean	Admissions Overlap Effect size[e]	Carnegie UG Program Mean	Carnegie UG Program Effect size[e]	NSSE Cohort Mean	NSSE Cohort Effect size[e]
6. During the current school year, about how often have you done the following?																		
a. Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	QRconclude	1	Never	3	0	244	2	54	2	6,952	3							
		2	Sometimes	155	20	4,397	27	845	29	75,222	33							
		3	Often	212	33	5,947	37	1,086	38	81,724	35	3.3	3.0 ***	.27	3.0 ***	.35	2.9 ***	.43
		4	Very often	280	46	5,440	34	889	31	66,983	29		△		▲		▲	
			Total	630	100	16,028	100	2,874	100	230,881	100							
b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	QRproblem	1	Never	82	13	2,369	14	401	14	35,490	16							
		2	Sometimes	267	42	5,959	37	978	34	79,495	34							
		3	Often	164	26	4,548	29	[illegible]	[illegible]	67,348	29	2.5	2.5	-.04	2.6 *	-.09	2.6	-.05
		4	Very often	113	19	3,072	20	52	21	47,208	21				▽			
			Total	626	100	[illegible]	[illegible]	2,858	100	229,541	100							
c. Evaluated what others have concluded from numerical information	QRevaluate	1	Never	25	4	778	5	134	5	12,543	6							
		2	Sometimes	56	9	1,666	11	262	10	28,134	13							
		3	Often	384	63	9,147	57	1,586	57	128,802	56	3.1	3.1	.02	3.1	-.04	3.0	.06
		4	Very often	150	24	4,267	27	851	29	58,873	26							
			Total	615	100	15,858	100	2,833	100	228,352	100							

SAMPLE

7. ***Effect size:*** Effect size indicates practical significance. 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 that of 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. See: Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd edition).* New York: Psychology Press.

8. ***Key to symbols:***

▲ **Your students' average** was significantly higher ($p < .05$) with an effect size at least .3 in magnitude.

Your students' average was significantly higher ($p < .05$) with an effect size less than .3 in magnitude.

Your students' average was significantly lower ($p < .05$) with an effect size less than .3 in magnitude.

▼ **Your students' average** was significantly lower ($p < .05$) with an effect size at least .3 in magnitude.

Note: It is important to interpret the direction of differences relative to item wording and your institutional context.