

NSSE 2014 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 Web site (nsse.iub.edu) or contact a member of the NSSE team.

- Class level:** As reported by your institution.
- Item numbers:** Numbering corresponds to the survey facsimile included in your *Institutional Report* and available on the NSSE Web site.
- 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.
- Values and response options:** Values are used to calculate means. Response options are worded as they appear on the instrument.
- 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.iub.edu/html/weighting.cfm

- 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

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NSSEville State University

Seniors		Frequency Distributions ^a										Statistical Comparisons ^b						
		NSSEville State				Public Master's L		Large Public		NSSE 2013 & 2014		NSSEville State	Your seniors compared with					
												Mean	Mean	Effect size ^c	Mean	Effect size ^c	Mean	Effect size ^c
Item wording or description	Variable name ^d	Values ^e	Response options	Count	%	Count	%	Count	%	Count	%							
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	68	6	8,616	14	8,407	13	43,329	13	2.9	2.6 ***	.31	2.6 ***	.28	2.6 ***	.28
		2	Sometimes	302	28	20,467	33	20,064	32	103,303	32							
		3	Often	374	36	19,337	32	19,953	33	100,187	33							
		4	Very often	298	30	12,371	21	13,018	22	66,650	22							
			Total	1,043	100	60,791	100	61,442	100	313,469	100							
b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	QRproblem	1	Never	147	14	12,110	20	11,115	0	0,885	19	2.6	2.4 ***	.20	2.4 ***	.20	2.4 ***	.18
		2	Sometimes	366	35	22,556	37	21,515	36	115,411	36							
		3	Often	294	28	11,007	18	11,452	27	84,466	27							
		4	Very often	234	23	9,888	17	10,058	17	52,057	17							
			Total	1,041	100	60,658	100	61,330	100	312,819	100							
c. Evaluated what others have concluded from numerical information	QRevaluate	1	Never	110	10	11,688	19	11,280	18	56,993	18	2.7	2.4 ***	.29	2.4 ***	.27	2.4 ***	.26
		2	Sometimes	367	35	23,158	38	23,396	38	118,394	38							
		3	Often	333	32	16,466	28	17,101	28	87,844	28							
		4	Very often	231	23	9,140	15	9,355	16	48,722	16							
			Total	1,041	100	60,452	100	61,132	100	311,953	100							

- 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.

independent t-test. Z-scores are items 11 & 12 which are compared using a z-test.



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