

# A Practical Guide to Using IR Reports

Many campus stakeholders have asked for insights on how to interpret the results from surveys. This document is designed to provide campus stakeholders with additional tools to understand survey results.

## Data Tables

In a move to increase transparency and provide our constituents with additional information, we are now providing tables of results for all items on a survey. The tables are available on the IR website at: <https://www.case.edu/ir/srvyresults/>. The image below highlights the information included for most of the items. When determining how different CWRU is from other institutions, the following statistics are particularly useful: (1) significance, or the degree to which differences between means might be due to chance, and (2) effect size (Cohen’s *d*), which describes the size of the difference detected.

	CWRU	Comparison
How satisfied are you with the coffee at your school?		
Very satisfied	14.8%	21.8%
Satisfied	51.7%	51.0%
Neutral	21.8%	18.3%
Dissatisfied	9.7%	7.3%
Very dissatisfied	2.0%	1.6%
Total (n)	298	1,426
Mean	3.67	3.84
Standard deviation	0.91	0.90
Significance	-	**
Effect size	-	-0.19

The **total (n)** reflects how many participants responded to a particular item.

Each response option is given numeric value. These values are summed across each item and divided by the total number of respondents to provide the **mean value**.

**Standard deviation** measures the variability around the mean. Small standard deviations indicate that responses for a given item tend to be close to the mean. A large standard deviation indicates that the responses for an item are spread out.

**Statistical significance (p)** tells us a finding is ‘real’ and not due to chance. The number of asterisks indicates the level of statistical significance with \*p<.05, \*\*p<.01 and \*\*\*p<.001.

**Effect size (Cohen’s *d*)** is the practical difference between two means. The values can be interpreted according to the following criteria: small ~ .1, medium ~ .3, large ~ .5, very large ~ .7.

## Reports

Unlike the full table of results referenced earlier, the reports do not include the entire distribution nor the number of responses for each item. The reports aim to summarize data in topical areas. Data in reports are typically formatted as follows:

- *Satisfaction with Coffee: 15% vs. 22%; (M=3.67, SD=0.91) vs. (M=3.84, SD=0.90); d=-0.19, p<.01*

The bullet points include the percentage of students who indicated only the highest category for that response set. fied to very dissatisfied, reports only include the percentage of students who indicated “very satisfied.”

In addition, the mean (*M*) and standard deviation (*SD*) are included for CWRU and comparison schools. Like the data table in the full table of results, Cohen’s *d* and p-values (*p*) are included for results which are significantly different. In the reports also contain tables and charts to help facilitate familiarity with the data.

## What does all this mean?

The p-value and Cohen’s *d* each provide perspectives from which to interpret data. Perhaps the most direct and useful statistic in determining how CWRU is doing when compared to other institutions is the measure of effect size. In essence, the effect size is the practical significance between two means. A large positive Cohen’s *d* might indicate that CWRU is doing particularly well in an area or on an item relative to the comparison group. Conversely, a large negative Cohen’s *d* could indicate that CWRU is doing poorly in an area or on an item relative to the comparison group.

*Prepared by Joshua Terchek [jjt7@cwru.edu](mailto:jjt7@cwru.edu) 216.368.1500  
<http://www.case.edu/ir/>*