Using the MISO Survey Workbooks

Introduction

The MISO Workbooks are a valuable way to explore your institution's survey results and compare them against your past results, against another institution's results, or against results drawn from a cohort of institutions. There is a workbook for each of the populations surveyed at participating schools: faculty, undergraduate students, and staff.

To use all of the workbook's features, you'll need a locally installed version of Microsoft Excel. Each of the workbooks has several worksheets:

- A Select Schools worksheet that allows you to dynamically explore MISO Survey results.
- A Comparison Results worksheet that statistically compares results between the groups you have dynamically created.
- One worksheet for data from each of the last five years.

These worksheets are described in the following sections.

Select Schools Worksheet

The Select Schools worksheet allows users to dynamically select and aggregate MISO results.

Building Your Groups

The worksheet allows you to select which institutional results you would like to compare. Most frequently schools will put their most recent instance of their own MISO results into Group A, while selecting the most recent results from one or more comparison institutions for Group B.

For example, someone at Willamette University interested in exploring their faculty data might select the Willamette 2021 results for Group A by clicking the Group A checkbox in the Willamette 20213 row. When this data set is selected, the Group A columns on the Comparison Results worksheet will be populated with Willamette's 2021 results. They could then choose Willamette 2020 for Group B if they wished to compare their current responses to their earlier results. Alternatively, they could choose to compare against other institutions by selecting the appropriate checkbox for Group B. As each institution is added to the group, its means are aggregated into the Group B results on the Comparison Results worksheet.

Comparison Results Worksheet

Once you have set up the groups you wish to compare, you can use the Comparison Results worksheet to review each group's results and the differences between groups. The first thing you will notice is that the **Difference b/t Groups** and **Statistical Difference Test** columns are formatted to show results in shades of white, red, and green.

The **Statistical Difference Test** (column M) indicates whether the difference between the Group A and Group B means is statistically significantly higher or lower. **Unless a difference is statistically significant, you should treat the responses as if there is no difference at all.**

- If the difference between the two groups' responses for the question is not statistically significant, the field will be white. If the field displays the text "No difference," this indicates that the difference between the means is not statistically significant. If the field displays no text, this means that one of the groups did not answer that question in the survey.
- If the difference between groups is significant, and if the difference is higher for Group A, the field will be shaded green, and the text "Group A Higher" will display.
- If the difference between groups is statistically significant, and if the difference is lower for Group A, the field will be shaded pink, and the text "Group A Lower" will display.

The **Difference b/t Groups (**column N) will report the magnitude of the difference in means. Please note that the difference is reported even when there is no statistically significant

difference between responses. (In such cases, you should not treat the results as if there were an actual difference between responses.) This column has been conditionally formatted with pink or green bar charts that indicate the relative size of the difference between the two means.

It is important to remember that while the formatting appears in shades of red and green, it may not be bad if your institution reports a lower mean for some questions. For example, if faculty report less frequent use of the first point of contact for computer support, that may mean that faculty are experiencing fewer computing problems.

Remember, too, that while looking at differences is important, the means themselves are important. For example, you may find that a satisfaction response at your institution is statistically significantly lower than another institution. You may want to explore why it is lower, but if the satisfaction rating itself is relatively high overall, you may not need to focus on that particular service as much as others.

Filtering Your Results

With hundreds of questions, it is difficult to take in all of the MISO results. Using the **Statistical Difference Test** column, you can use filtering to view only the questions where Group A responses are statistically significantly Higher or Lower. In addition, to the right of the Group A and Group B results columns are two columns that allow you to quickly filter survey results in other useful ways.

The **Question Type** column lists the types of questions asked in the MISO Survey. If you want to look only at frequency of use questions, or at satisfaction questions, you can click on the button to the right of the column name. A list of question types appears. If you uncheck the Select All option, you can then select just the question type you wish to review. When you click on the OK button, only the question type(s) you have selected will display.

The **Service** column lists the service or topic areas covered by the survey. You can use this column to review a subset of services, such as Circulation or Help Desk. Just click on the button to the right of the column name to view the options. If you uncheck the Select All option, you can then select the service(s) or topic(s) you wish to view.

It is worth noting that each time you put a filter on a given column, it will constrain the options available for filtering in all columns to the right. For example, if you select "Group A Lower" from the **Statistical Difference Test** column, you may not be able to select "Reference" from the **Service** column unless there are results for a Reference question where Group A's responses match this criterion.

Remember to check and reset your filters regularly when exploring your MISO results to be sure you are not hiding results unintentionally.

Annual Data Worksheets

Each workbook comes with the most recent five years of data from the MISO Survey. These population data worksheets serve as reference points for the other worksheets.

Excel's freeze panes feature has been turned on to allow you to scroll horizontally through the data on each worksheet, while keeping the survey questions in view. Institutionally specific local questions are not represented in the workbooks. They can be found in the SPSS data set and summary results already provided to participating institutions.

Each row of the spreadsheet represents a single question or question item on the MISO Survey. The text of each question appears in column A, and the question's variable name appears in column B. Each question's maximum value, the highest mean reported at any institution for that question, is listed in column C. The question range, the lowest and highest values for the question, is displayed in column D. Individual school results for each time the survey was taken begin in column E.

For each institution that has taken the survey in a given year, the worksheet provides three columns of data. At the top of the first column you will find the participating institution's name, year of the survey results, the size of the population at the institution at the time of the survey, the population's sample size, the number of survey respondents from the institution, and that institution's response rate. In each row beneath these items, you will find the mean for the question in that row. The remaining two columns provide the number of respondents for the question, and the question's standard deviation.

To the right of the institutional data, we have provided aggregated means for all schools in that year's cohort.

Reading the MISO results

The result for each question on the MISO survey is represented as a numeric mean value. This permits staff in IT and library organizations to review the results quickly and make comparisons easily.

Most survey questions are coded on a scale of 1 to 4. The questions about frequency of service use, use of technology tools, and respondent skill level are coded on a scale of 1 to 5. Higher mean values are generally considered better than lower values. The table below explains the numeric codes for each possible response.
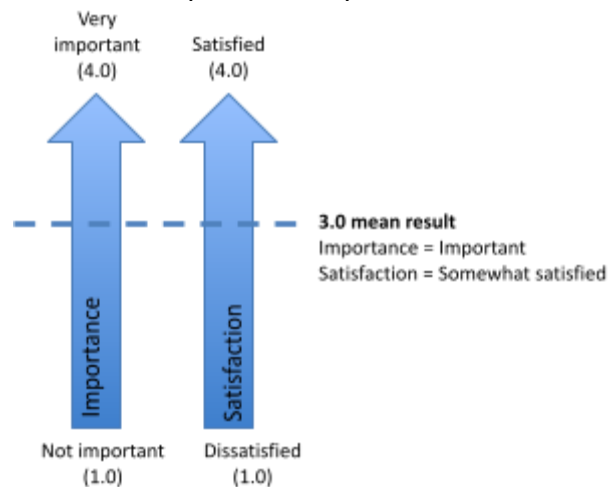
	1	2	3	4	5
Frequency of use	Never	Once or twice a semester	One to three times a month	One to three times a week	More than three times a week
Importance	Not important	Somewhat important	Important	Very important	
Satisfaction	Dissatisfied	Somewhat dissatisfied	Somewhat satisfied	Satisfied	
Access of services	Entirely in person	Mostly in person	Equally in person and remotely	Mostly remotely	Entirely remotely
Attend Classes	Entirely in person	Mostly in person	Equally in person and remotely	Mostly remotely	Entirely remotely
Instruction Method	Entirely Live	Mostly LIve	Equally Live and recorded	Mostly Recorde	Entirely recorded

	1	2	3	4	5
Faculty Research Goals	Not at all	Slightly	Moderately	Greatly	
Faculty Teaching Goals	Not at all	Slightly	Moderately	Greatly	
Student Academic Goals	Not at all	Slightly	Moderately	Greatly	
Informedness	Not informed at all	Somewhat informed	Informed	Very informed	
Agreement with statements	Disagree	Somewhat disagree	Somewhat agree	Agree	
Use of tools for academic or personal purposes	Entirely academic use	Mostly academic use	Equally for academic and personal use	Mostly personal use	Entirely personal use
Skill level	Have not used	Novice	Basic	Advanced	Expert
Interest in learning	Not interested	Somewhat interested	Interested	Very interested	

The Compare Results Report will return information about each group's results and the differences between groups. The first thing you will notice is that the **Difference b/t Groups** and **Statistical Difference Test** columns are formatted to show results in shades of red or green.

The **Statistical Difference Test** indicates whether the difference between the Group A Mean and Group B Mean is statistically significantly higher or lower. Unless a difference is statistically significant, you should treat the responses as if there is no difference at all.
- If the difference between the two groups' responses for the question is not statistically significant, the field will not be either red or green. If the field displays the text "No difference between groups," this indicates that the difference between the means is not statistically significant. If the field displays no text, this means that one of the groups did not answer that question in the survey.
- If the difference between groups is significant, and if the difference is higher for Group A, the field will be shaded green, and the text "Group A is Higher" will display.
- If the difference between groups is statistically significant, and if the difference is lower for Group A, the field will be shaded red, and the text "Group A is Lower" will display.

The **Difference b/t Groups** will report the magnitude of the difference in means. Please note that the difference is reported even when there is no statistically significant difference between responses. (In such cases, you should not treat the results as if there were an actual difference between responses.)

Cohen's D Effect Size is provided to take out of the evaluation process the ambiguity of variability. The Cohen's D converts the **Difference b/t Groups** into a standardized measure of

the difference. The general rule of thumb for Cohen's D Effect Size is .2 = small effect, .5 = medium effect, and .8 = large effect. This rule of thumb is somewhat biased against social science data. It is very rare to find large effect sizes in the social sciences. As a result, it may be acceptable to use more liberal thresholds for what constitute small, medium, and large.

It is important to remember that while the formatting appears in shades of red and green, it may not be bad if your institution reports a lower mean for some questions. For example, if faculty report less frequent use of the first point of contact for computer support, that may mean that faculty are experiencing fewer computing problems.

Remember that although looking at differences is important, the means themselves are also important. For example, you may find that a satisfaction response at your institution is statistically significantly lower than another institution. You may want to explore why it is lower, but if the satisfaction rating itself is relatively high overall, you may not need to focus on that particular service as much as others.

Questions?

If you have any questions about using the workbooks, please contact the MISO Survey Team at survey@misosurvey.org.