

LESSON HANDOUT

Basic Data Aggregation

Aggregating data plays an important part in the data analysis process. By aggregating, you can take your data and express it in a summarized format.

Data Aggregation helps you:

- make observations or gather insights from your data
- summarize data based on specific conditions
- understand how your data is proportioned

Count

Why: Counts the number of numeric values in a selection. Will ignore text values and blank cells.

How: =Count(selection to count)

CountA

Why: Counts the number of numeric values and text in a selection.

How: =CountA(selection to count)

CountBlank

Why: Counts the number of blank cells in a selection.

How: =Countblank(selection to count)

Sum

Why: Sums values in a selection.

How: =SUM(selection to sum)

Percentage

Why: The percentage is a proportion in relation to the whole.

How: $(1^{\text{st}} \text{ number} / 2^{\text{nd}} \text{ number}) \times 100$

LOGICAL OPERATORS

Logical Operators enable you to:

- combine multiple conditions to a function
- make comparisons between values
- test values and perform actions based on the results of the logical test

IF

Why: Based on the statement "IF/Then", "IF this statement is true - then do this. IF this statement is false - then do otherwise."

How: =IF(logical_test,[Value if TRUE],[Value if FALSE])

AND

Why: The AND function tests multiple conditions. BOTH conditions must be met.

It will return TRUE if all arguments /conditions are true and FALSE if one of the conditions is not true.

How: =AND(logical_test1,logical_test2)

OR

Why: The OR function returns TRUE if any of the conditions or arguments are evaluated as true and returns FALSE if all of the arguments are false.

How: =OR (logical_test1,logical_test2)

USEFUL TIPS:

Column reference: When assigning criteria, you may reference a column rather than 'hard coding' the value into the formula.

Fixing values: Placing a \$ in front of a column or row reference fixes the reference. Highlighting a reference within the formula bar and selecting F4 will fix all the values selected.