

EXCEL

A Quick Review of the Tools That Could Help a Financial Aid Officer.



- Pivot Tables
- Inserting Formulas
- vlookups
- Text to Columns
- Other Common Formulas
- Formatting
- Conditional Highlighting

Pivot Tables

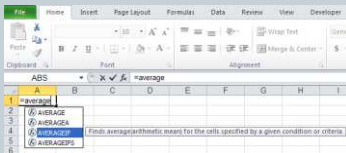
- An interactive table that automatically extracts, organizes, and summarizes your data.
- Analyze, compare, detect patterns and relationships, and discover trends.



Reconciliation - State/Federal Reports - Cohort Default Characteristics

Some Excel Formula Basics

- To use an Excel formula, start with an equal sign
- As you start typing, Excel will make suggestions
 - Useful if you can't remember exact function name



Text to Columns

- Separate the contents of one cell into separate columns.
- Perfect for use with comma-delimited (CSV) files.



Absolute vs. Relative Cell References

- Absolute reference – always uses the exact same cell in the formula
- Relative reference – allows row number, column letter, or both to change when the formula is dragged to other cells
- Highlight reference and use F4 key to toggle between (or do immediately after selecting):
 - Row and column both change (default) – A1
 - Row and column never change (absolute) – \$A\$1
 - Column changes, row is fixed (relative) – A\$1
 - Row changes, column is fixed (relative) – \$A1

IF() Function

- =IF(logical_test,[value_if_true],[value_if_false])
- **logical_test** – a comparison of two values (usually cell references) using =, >, <, etc.
 - Returns a value of TRUE or FALSE
- **value_if_true** – value for the cell if the **logical_test** is true
- **value_if_false** – value for the cell if the **logical_test** is false

=IF(C4<=0,"No","Yes")

Other Useful Functions

- AND(logical_test1, logical_test2, ...) – allows the evaluation of multiple conditions in an IF() function
 - AND()
 - all must be TRUE to return TRUE
 - if any one is FALSE it will return FALSE
- OR(logical_test1, logical_test2, ...) – allows the evaluation of multiple conditions in an IF() function
 - OR()
 - all must be FALSE to return FALSE
 - if any one is TRUE it will return TRUE

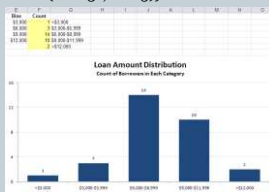
FREQUENCY() Function

- Provides a frequency count for specific bins that you provide
 - Great for making frequency distribution charts
- Highlight the range* next to the bins plus one additional cell to get all results
 - The additional cell is for the values beyond the last bin value
- =FREQUENCY(range, bins)
 - Range is the group of cells that you want to summarize
 - Bins is the group of cells containing the category maximums, plus one extra cell

*A range is a group of cells that are selected by highlighting or it can be typed in using the form A1:B20.

FREQUENCY() Function

- After you type this in the formula bar, you *must* hold down <CTRL><SHIFT> while pressing <ENTER>
 - This puts braces around the formula (array formula), like this:
 - {=FREQUENCY(B2:B31,E2:E5)}



More Useful Functions

- MIN(range) – finds the smallest value in a range
- AVERAGE(range) – finds the mean value of a range
- MEDIAN(range) – finds the 50th percentile of a range
- PERCENTILE.EXC(range,k) – finds any percentile of a range
 - Percentile (k) must be between 0 and 1
 - For example, the 25th percentile is obtained using 0.25
- MAX(range) – finds the largest value in a range

Counting Items

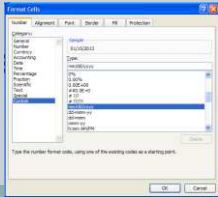
- =COUNT() to count items
- =SUM(1/COUNTIF(range,range)) to count unique items
 - After you type this in the formula bar, you *must* hold down <CTRL><SHIFT> while pressing <ENTER>
 - This puts braces around the formula, like this:
 - {=SUM(1/COUNTIF(range,range))}
 - Not case-sensitive, so “YES” and “yes” are the same
 - Why does this work???

Formatting Cells

- Excel allows you to format cells in order to display an item in the expected format
 - Common examples include:
 - Social Security numbers
 - Telephone numbers
 - ZIP codes
 - Account numbers (with leading zeros)
 - Dollar amounts
 - Dates and times
 - Fractions

Customizing Formats

- You can start with a pre-defined format and use the custom formatting option to tweak it to your liking
- Not difficult to figure out
- Right-click on a cell and select Format Cells...



Conditional Formatting

- Excel allows you to change the background color, foreground color, font, or font style of a cell based on pre-defined conditions
 - Any comparison (=, >, <, etc.)
 - Top/bottom n (you can set n)
 - Top/bottom n% (you can set n)
 - Above/below average
 - Unique/duplicate values
 - Add data bars or icons
 - Heat map
