

## Module #5. Excel Resources

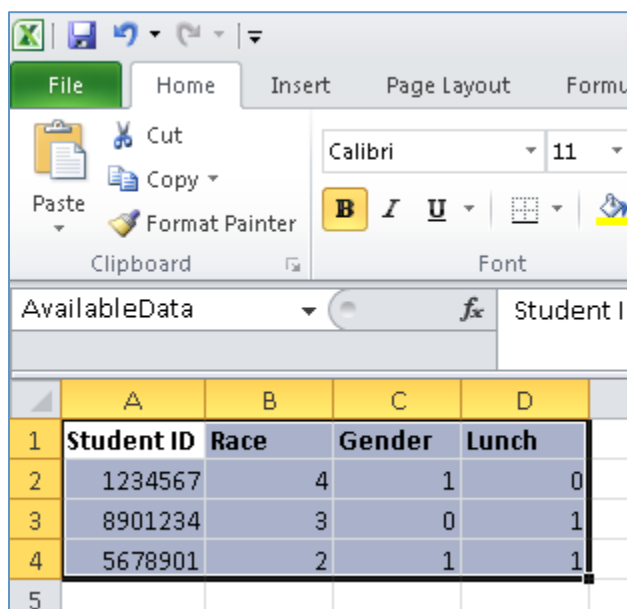
### MERGING DATA IN EXCEL

To merge data automatically, your data sets must meet the following conditions:

- A single, unique identifier for each student (such as the student's ID number) appears in each document;
- There is one row per student in each data set (if your data comes with students appearing in columns, it must be flipped – see our note on how to transpose after this section). If your data has multiple rows per student, use a Pivot Table to consolidate. Instructions about how to use PivotTables are available at the Microsoft web site at: <http://office.microsoft.com/en-us/excel-help/pivottable-reports-101-HA001034632.aspx>

To merge data using Excel, consider using the VLOOKUP function:

1. Insert each dataset as a separate tab in a single Microsoft Excel worksheet.
2. In the tab with the demographic/available data you need, select the rows and columns that contain the information you want to drop in to your primary data set.].
3. Then, with the rows and columns still selected, name the range of cells selected by typing a name for the range in the area indicated below:



	A	B	C	D
1	Student ID	Race	Gender	Lunch
2	1234567	4	1	0
3	8901234	3	0	1
4	5678901	2	1	1
5				

4. Now, navigate to the tab with your primary data set. If you have not already done so, add columns where you want the added demographic data to appear (for example, column for race/ethnicity, gender, and free or reduced-price lunch status). In the first blank cell of one of your available data columns, insert a VLOOKUP function, which requires the following arguments:
  - lookup\_value: The value you want to use to match responses across datasets. This will likely be the student ID number or other identifier where it appears in your primary dataset.
  - table\_array: The table where Excel will look up the values from the other sheet (the “lookup table”). This will be the name you previously gave to the range of selected cells in Step 3.
  - col\_index\_num: This is the number of the column on your lookup table that has the information you need. So, if you wanted to look up student's race, you would look in column 2 of the lookup table.
  - range\_lookup: This field defines how close a match should exist between your lookup\_value and the value in the leftmost column on our lookup table. If you want an exact match, which you likely will, type FALSE here.

A sample VLOOKUP function for inserting race data into the primary data set appears below:

	A	B	C	D	E	F	G
1	Student ID	Race	Gender	Lunch	Survey1	Survey2	
2	1234567	=VLOOKUP(A2,AvailableData,2,FALSE)				2	
3	8901234				3	3	
4	5678901				4	5	
5							

5. You can then copy this VLOOKUP function into the cells in the rest of the column to expedite the matching process for the rest of the rows.

A sample VLOOKUP function for inserting race data into the primary data set appears below:

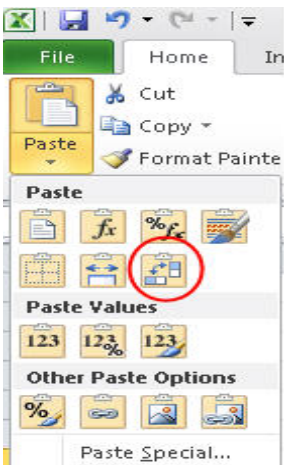
	A	B	C	D	E	F	G
1	Student ID	Race	Gender	Lunch	Survey1	Survey2	
2	1234567	=VLOOKUP(A2,AvailableData,2,FALSE)				2	
3	8901234				3	3	
4	5678901				4	5	
5							

6. You can then copy this VLOOKUP function into the cells in the rest of the column to expedite the matching process for the rest of the rows.

### TRANSPOSING DATA IN EXCEL

If your data is organized such that students appear as separate columns, rather than separate rows, follow the steps below to organize your data such that each student appears as his or her own row:

1. Select the columns that contain the data that you need to transpose.
2. On the Home tab, click the "Copy" button: (do not "Cut").
3. In a separate tab, click on the first blank cell where you want the rearranged data to appear.
4. On the Home tab, click the arrow under the "Paste" button and select the "Transpose" image:



## USING VLOOKUP TO DEFINE SUBGROUPS

You can use VLOOKUP to define sub-groups. For instance, we might define attendance for a high school student as high if it is over 92%, moderate if it is 78-92%, low if it is 50-78%, and very low if it is below 50%. We would create a lookup table in our Lists tab with the cutoff values in the first column and the labels in the second column:

0%	Very low
50%	Low
78%	Moderate
92%	High

We would then name the range (for example, "AttendanceRange") and use the function  
=VLOOKUP(A1,AttendanceRange,2,TRUE) to convert the attendance rate in cell A1 into a sub-group name.