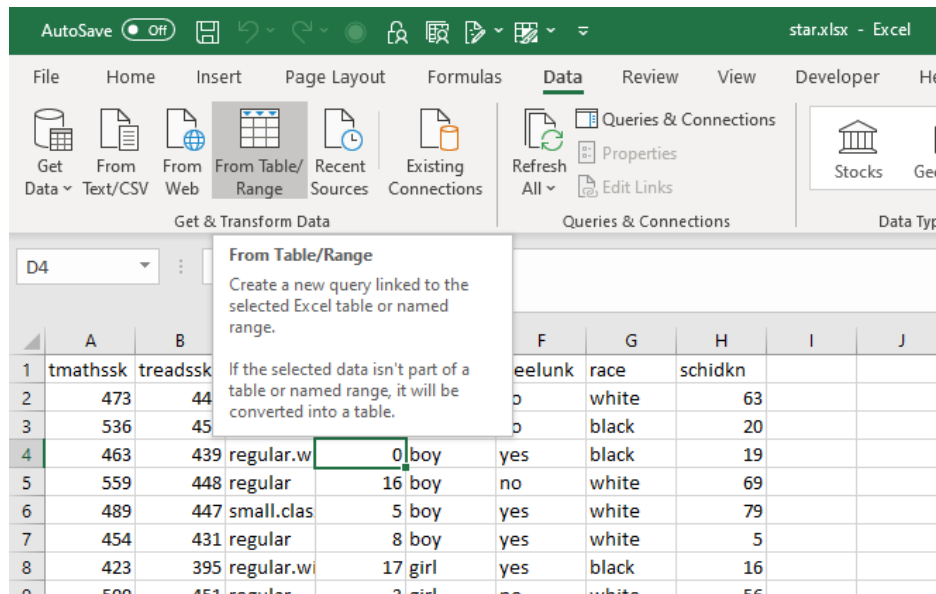


FIRST STEPS IN POWER QUERY – DEMO NOTES

Import a Table into Power Query

Demo: star.xlsx

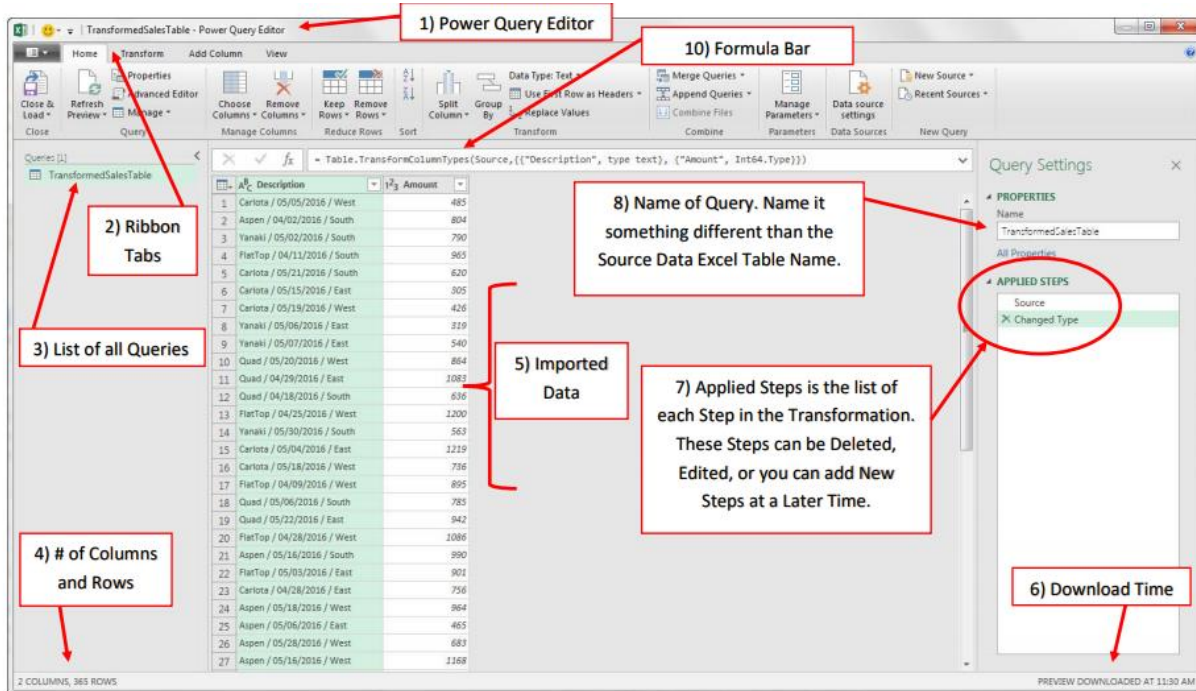
1. Leave cursor anywhere inside the range you want to select
2. On the ribbon, select Data -> From Table/Range



3. This will convert the range to a Table.
 - Ok, I think we are ready to explore Power Query, let's do so on a relatively clean dataset so we can get a nice lay of the land here and how to use the interface because it's honestly kind of disorienting and intimidating at first.

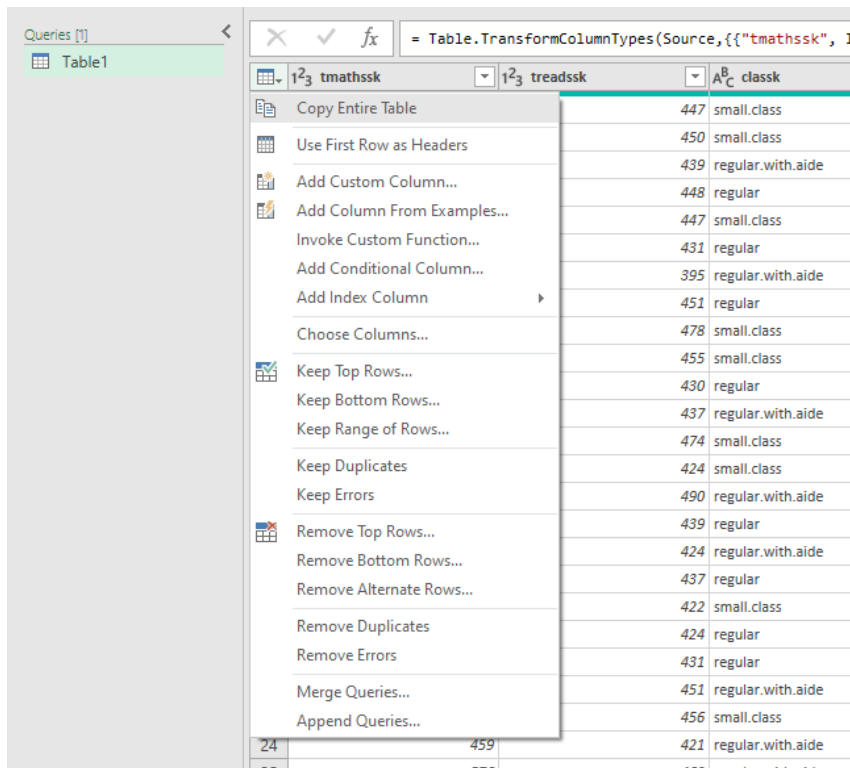


4. You will now see the Power Query Editor (source: <https://people.highline.edu/mgirvin/AllClasses/348/MSPTDA/Content/PowerQuery/003-MSPTDA-IntroToPowerQuery.pdf>)

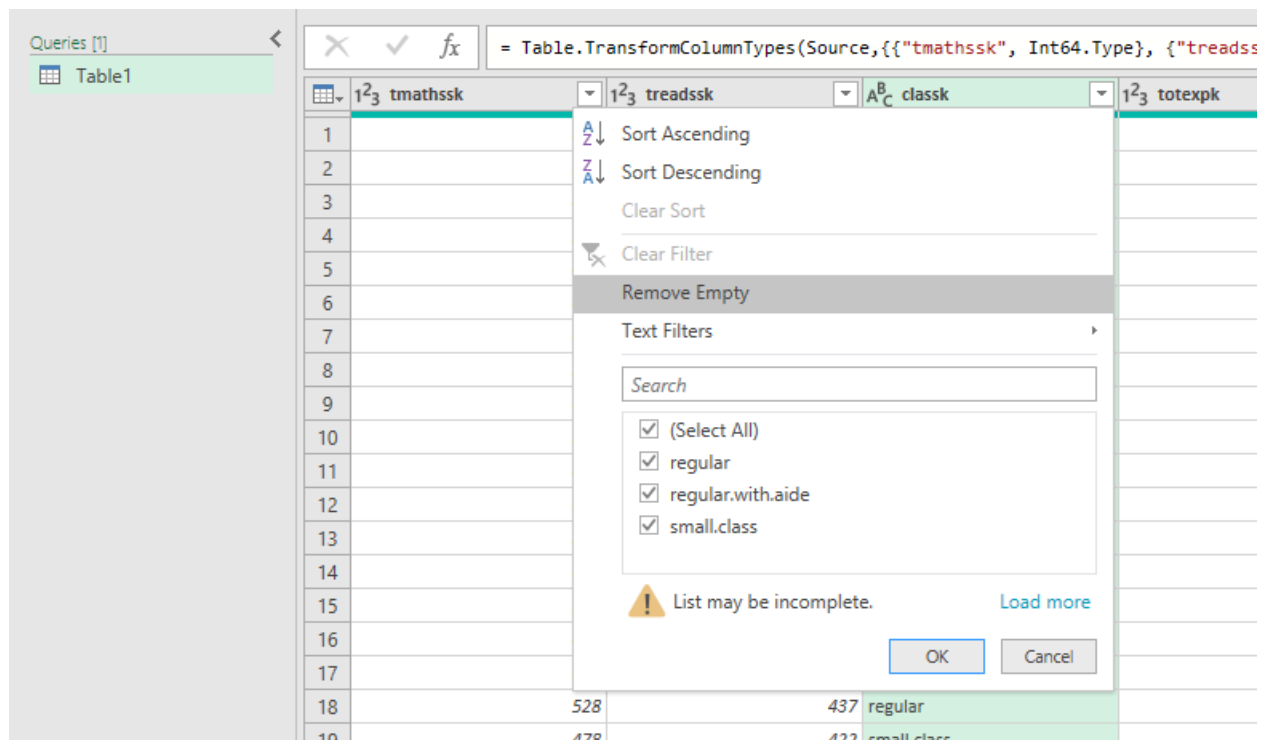


- A Home ribbon is at the top, just like in Excel. The first three tabs are going to have data cleaning functionality.
- The imported data is in the middle of the screen. We can click on rows and cells and see their values at the bottom of the screen.
- There is a small table icon in the “corner” of the dataset. Click on that and there are some shortcuts to working with this data.





- d. Click on any column drop-down and you'll see you can filter it just like in native Excel.



- e. You'll also see a symbol to the left of the column. This indicates the column's type. You can click on that to change the data type.

The screenshot shows the Power Query Editor interface. On the left, the 'Queries [1]' pane lists 'Table1'. The main area displays a table with columns: 'tmathssk', 'treadssk', and 'classk'. The 'treadssk' column is selected, and its data type dropdown menu is open, showing various options like 'Decimal Number', 'Currency', 'Whole Number', 'Percentage', 'Date/Time', 'Date', 'Time', 'Date/Time/Timezone', 'Duration', 'Text', 'True/False', 'Binary', and 'Using Locale...'. The formula bar at the top shows the query definition: `= Table.TransformColumnTypes(Source,{{"tmathssk", Int64.Type}, {"treadssk", Int64.Type}, {"classk", type text}})`.

- f. You can also right-click on a column to operate on it. Hold down Ctrl and click multiple columns to operate on multiple columns.

The screenshot shows the Power Query Editor with a table containing columns 'tmathssk', 'treadssk', 'classk', 'sex', and 'fre'. Multiple columns are selected (highlighted in green). A right-click context menu is open over the selected columns, displaying various actions such as 'Copy', 'Remove Columns', 'Remove Other Columns', 'Add Column From Examples...', 'Remove Duplicates', 'Remove Errors', 'Replace Values...', 'Fill', 'Change Type', 'Merge Columns', 'Group By...', 'Unpivot Columns', 'Unpivot Other Columns', 'Unpivot Only Selected Columns', and 'Move'. The formula bar at the top shows the query definition: `= Table.TransformColumnTypes(Source,{{"tmathssk", Int64.Type}, {"treadssk", Int64.Type}, {"classk", type text}})`.



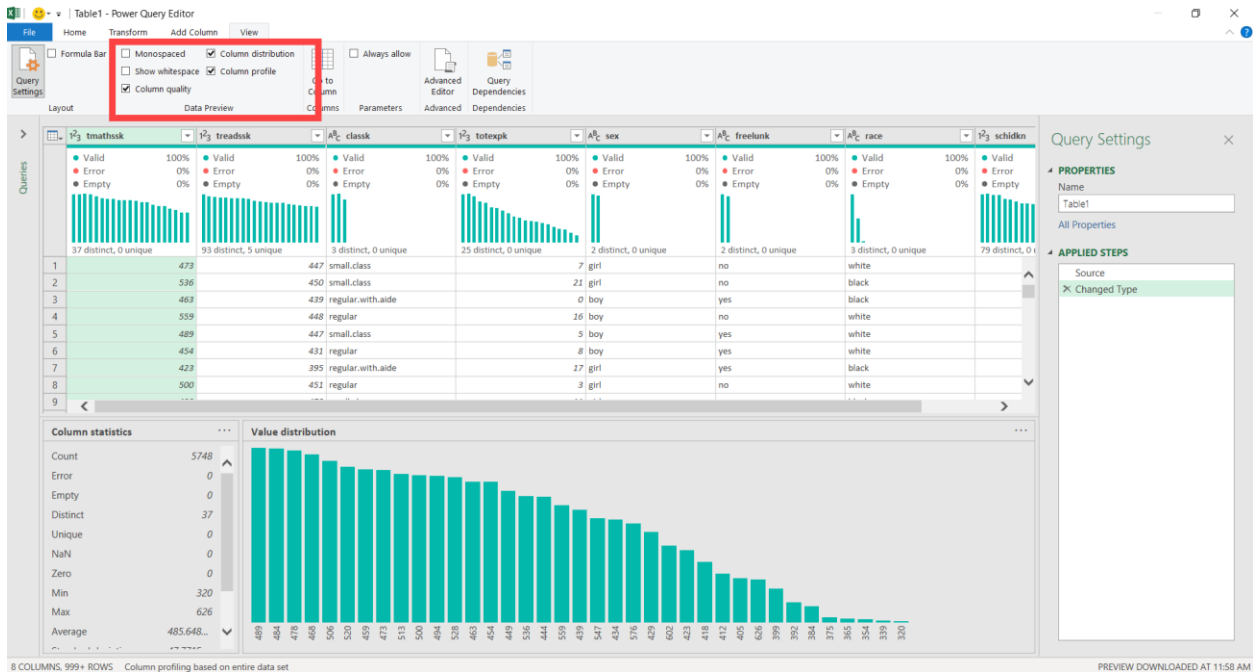
- g. Now, go to the View tab on the home ribbon.
- Initially, what you are seeing in the Power Query editor is based on the first 1,000 rows.
 - To include all data in the Data Preview, click the message at the bottom which says Column profiling based on top 1000 rows. Change to Column profiling based on entire data set.

The screenshot shows the Power Query Editor window with the 'View' tab selected. The ribbon includes options for 'Data Preview' and 'Columns'. The data preview table displays columns: tmathosk, treadsk, class, totoxpk, sex, freehunk, race, and schidkn. The status bar at the bottom indicates '8 COLUMNS, 999+ ROWS' and 'Column profiling based on top 1000 rows'. A red arrow points to this status bar message.

	tmathosk	treadsk	class	totoxpk	sex	freehunk	race	schidkn
1	473	447	small.class	7	girl	no	white	
2	536	450	small.class	21	girl	no	black	
3	463	439	regular.with.aide	0	boy	yes	black	
4	559	448	regular	16	boy	no	white	
5	489	447	small.class	5	boy	yes	white	
6	454	431	regular	8	boy	yes	white	
7	423	395	regular.with.aide	17	girl	yes	black	
8	500	451	regular	3	girl	no	white	
9	439	478	small.class	11	girl	no	black	
10	528	455	small.class	10	girl	no	white	
11	473	430	regular	13	boy	no	white	
12	468	437	regular.with.aide	6	boy	no	white	
13	559	474	small.class	0	boy	no	white	
14	494	424	small.class	6	boy	no	white	
15	528	490	regular.with.aide	18	boy	no	white	
16	484	439	regular	13	boy	no	white	
17	459	424	regular.with.aide	12	girl	yes	white	
18	528	437	regular	1	girl	yes	black	
19	478	422	small.class	8	girl	no	white	
20	559	424	regular	13	boy	yes	white	
21	454	431	regular	13	boy	no	white	
22	473	451	regular.with.aide	3	boy	no	white	
23	602	456	small.class	14	boy	yes	white	
24	459	421	regular.with.aide	11	girl	yes	black	
25	576	463	regular.with.aide	10	boy	yes	black	
26	520	425	regular.with.aide	8	girl	no	black	
27	559	522	regular	8	girl	no	white	
28	459	413	regular.with.aide	5	girl	no	white	
29	532	416	regular	13	boy	no	white	

- h. You can now change column appearance and add some statistics about each column using the Data Preview group of the View tab.





- i. To exit the Power Query editor, hit the X on the upper-right. You can discard your changes for now.
- i. This will return you to “classic” Excel.

