

Creating a US Map in Venngage

Part of a Series of Tutorials on using Google Sheets to work with data for making charts in Venngage



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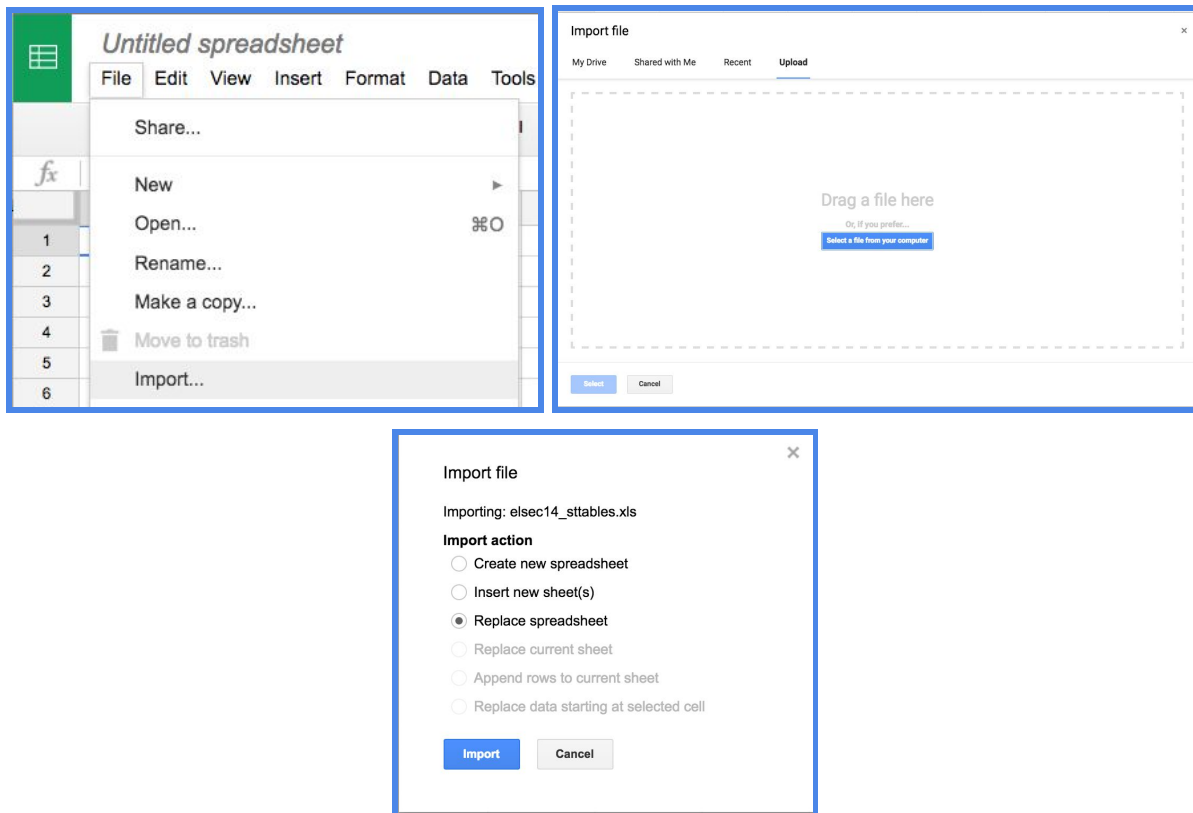
Sometimes data are related to locations and it can be useful to visualize them on a map. In Venngage, there are a variety of map templates that are pre-set with the names of countries (for world maps) or states (for the US map). To use these templates, you have to match up your data to the pre-set names. The following example shows how to do this with a map of the US with state-based data from the US Census. From the US Census Bureau, we can find a dataset on how much money is spent on public education per state for the latest year of collected data. These data can be found at: <http://www.census.gov/govs/school/>

The screenshot shows the US Census Bureau website for 'Public School System Finances'. The page is titled 'Public Elementary-Secondary Education Finance Data'. It features a navigation menu with options like 'Select a different year', 'Related Sites', 'Reference Documents', and 'Contact Us'. The main content area is titled '2014 Data' and lists various downloadable data files, including 'State-level Tables', 'Individual Unit Tables', and 'All Data Items'. Each item includes a brief description and a link to the file.

Download the first Excel file, the State-level tables, which is the first link under Downloadable Data. In Google Drive in your web browser, create a new Google Sheet file, going to New -> Google Sheets.

The screenshot shows the Google Drive 'NEW' menu. The 'NEW' button is highlighted in red. Below it, the 'Google Sheets' option is highlighted in blue, indicating the selection of a new Google Sheet file.

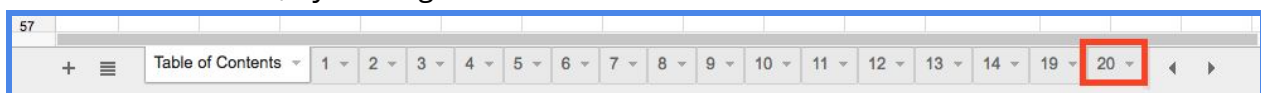
Once there, go to File ->Import... and then upload the file. (You can drag the file onto the browser window.) When prompted, choose the default option to “Replace spreadsheet” since there’s nothing already there.



In your imported spreadsheet, the first worksheet is a Table of Contents showing what’s in the other enumerated sheets. The first one on the list shows a summary of revenue and spending per state. This information is not particularly useful because states with more students will likely spend more than states with fewer students. On the bottom of the list, the 20th worksheet, however, includes Per Pupil Current Spending (PPCS), so it will give us a better idea of how much states spend, taking into account the size of the state’s population.

44		PER PUPIL CURRENT SPENDING AMOUNTS AND PERCENTAGE CHANGES BY STATE
45		
46	20. Per Pupil Current Spending (PPCS) Amounts and 1-Year Percentage Changes of Public Elementary-Secondary School Systems by State: Fiscal Years 2009-2014	
47		
48		

Go to this worksheet, by clicking on the worksheet tab number 20 in the bottom.



In this worksheet, for each year from 2014 back to 2009, we have Per Pupil Current Spending (PPCS) and Percent change from the previous year. Let’s focus on 2014, the most recent year for which there are data.

Notice the formatting in this sheet. The information we're interested in is in Columns A (state names) and C (per pupil spending). Column B is actually empty. Also notice that the states are grouped into sets of 5, with an empty row after every 5 states. In order to manipulate these data into the format we need for Venngage, we're going to copy just the data from columns A through C and rows from Alabama to Wyoming, and then paste it in a new sheet.

	A	B	C	D
1	Table 20. Per Pupil Current Spending (PPCS)			
2	of Public Elementary-Secondary S			
3	(Dollars. For meaning of abbreviations and symbols, see footnotes.)			
4				
5				
6	Geographic area	2014		
7		PPCS	Percentage change1	
8				
9	United States.....		11,009	2.7
10				
11	Alabama.....		9,028	3.1
12	Alaska.....		18,416	1.3
13	Arizona.....		7,528	4.4
14	Arkansas.....		9,616	2.4
15	California.....		9,595	4.1
16				
17	Colorado.....		8,985	3.9
18	Connecticut.....		17,745	6.7
19	Delaware.....		13,938	0.8
20	District of Columbia.....		18,485	-3.1
21	Florida.....		8,755	3.8
22				
23	Georgia.....		9,202	1.1

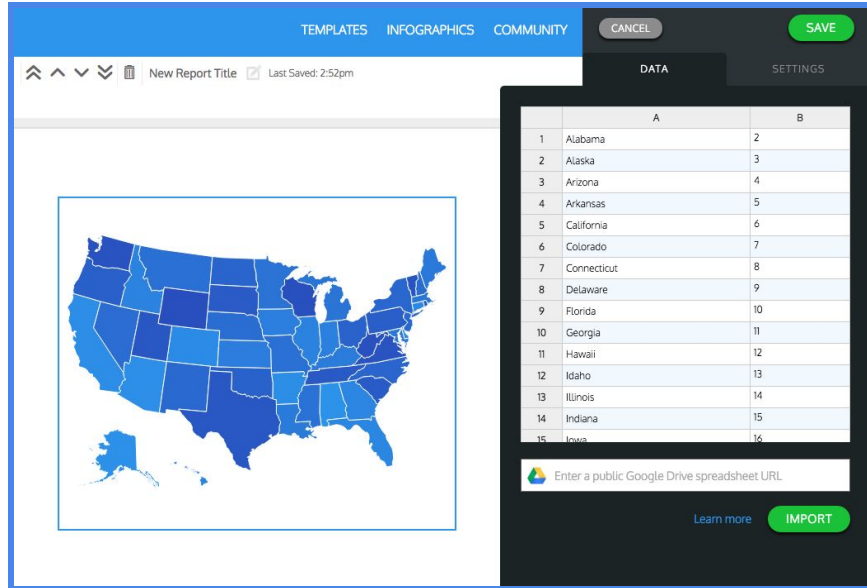
Copy the cells that contain the state names and PPCS columns, starting with Alabama, cell A11, going all the way down to Wyoming from worksheet 20.

Create a new sheet by clicking on the plus button where the worksheet tabs are. It will automatically open to the new sheet. Double-click on the name of the new sheet on the bottom, and rename it to "PPCS 2014".



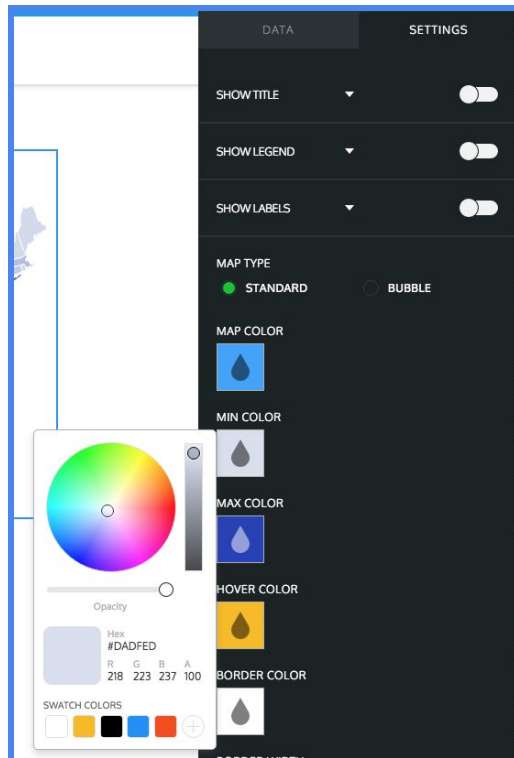
Paste the data into your new sheet. Delete the empty rows in between each set of 5 states. (To delete, right click on the row number and select Delete row from the pop-up menu.) There are 51 rows left. District of Columbia is included, but it's not an available option on Venngage's US States map, so you'll need to delete it (row 9). Your data should now have just the states in Column A and the PPCS, per pupil current spending, in Column C.

In another browser tab, make sure you are signed in on Venngage and in an open infographic canvas. From under the Maps section on the left side panel, find and drag a map of the US with states to the canvas. Double-click on the map to edit it.



In column B in Vennage, paste the state data on amount spent on public education. This would be column C from your Google spreadsheet worksheet named "PPCS 2014". Since we've deleted the District of Columbia, the data should line up appropriately with the states in the Vennage table.

In the Settings tab, change the min color to something lighter than the default to show more contrast.



Give the map a title based on the dataset. "US Public School Spending per Student 2014". And add a Legend to give the viewer a sense of scale in color.

The image shows a settings panel for a map visualization. It has two tabs: "DATA" and "SETTINGS". Under "SETTINGS", there are two sections: "SHOW TITLE" and "SHOW LEGEND", both with toggle switches turned on. The "TITLE" section has a text input field containing "US Public Education Spending per Student 2014", a dropdown menu set to "Oxygen", a number input set to "20", and buttons for "B", "I", and "U". The "FONT COLOR" section has a color picker showing a dark grey color. The "HORIZONTAL ALIGNMENT" section has three buttons: left-align, center-align (selected), and right-align. The "LEGEND TITLE" section has a text input field containing "Spending per student". The "FONT STYLE" section is partially visible at the bottom.

What does this data map tell you about state education spending? Which states spend the most on education per pupil? Which spend the least?

