


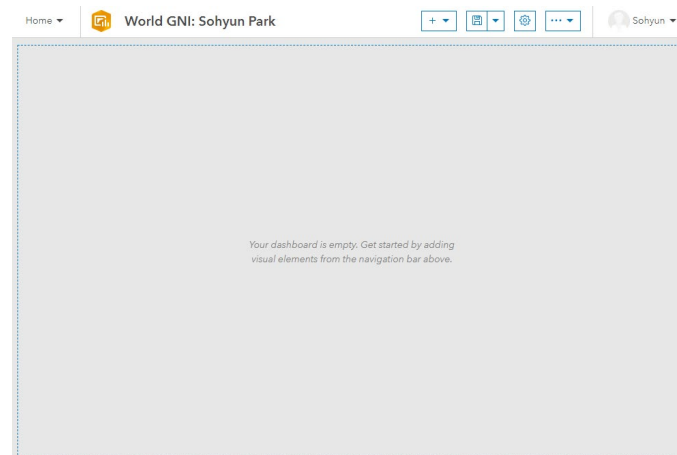
This tutorial shows how to use ArcGIS Dashboards to create a simple dashboard of World Bank data (download gni.csv from Carmen). GNP stands for Gross National Income. You will create a map in ArcGIS Online first and then use the map for creating a dashboard.

1. Create a map in ArcGIS Online

- Log in to ArcGIS Online
- On your ArcGIS Online *Content*, select New item 
- Drag and drop the gni.csv file to the pane
- Select 'Add gni.csv and create a hosted feature layer' and click Next
 - Among 14 fields, change the types of the year fields to Double
 - Leave Country_Name and Country_Code as String and go Next
- Click *Advanced location settings*: set Region to be World
- Choose Country_Name for the field indicating Address or Place
- Click Next and Save the layer
- Open in Map Viewer Classic
 - Choose an *attribute* to show 2019 field
 - *Select a drawing style*: Counts and Amounts (Size). Click OPTIONS
 - Select Classify Data: Natural break, 4
 - Increase Transparency to 50% and change the color to show the spatial pattern clear
- Save the map under a meaningful name. Share the map with Everyone so that it will be accessible to *everyone* when you include it in the dashboard

2. Create a dashboard and add a map

- Go to: <https://doc.arcgis.com/en/dashboards/gallery/>
- Click *Launch ArcGIS Dashboards*
- Click *Create dashboard*
- Type in Title 'World GNI [Your name]' and create dashboard. Then, you will see:



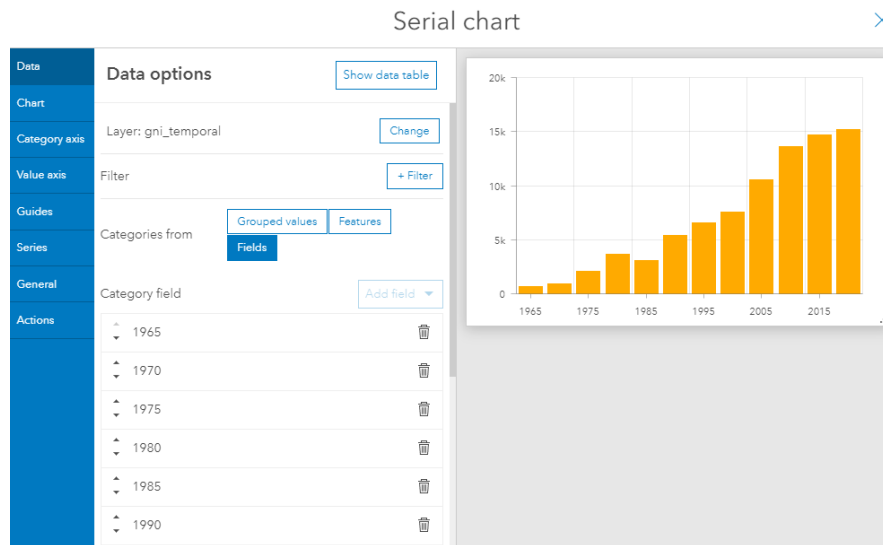
- Click the plus sign (+) at the top of the page and add the map you created above. This map and the data in the hosted layer in the map will be the data driving the dashboard.

3. Add a serial chart element

Serial charts can be used to summarize categorical data or present a time series. Here, we create a time-series bar graph to display the average GNI for decades represented by the World Bank data used to create the map.

- a) Click the plus sign (+) at the top of the page and add a new Serial chart.
- b) For Select a layer, use the hosted layer from the map.

- Add field: choose all 12 fields

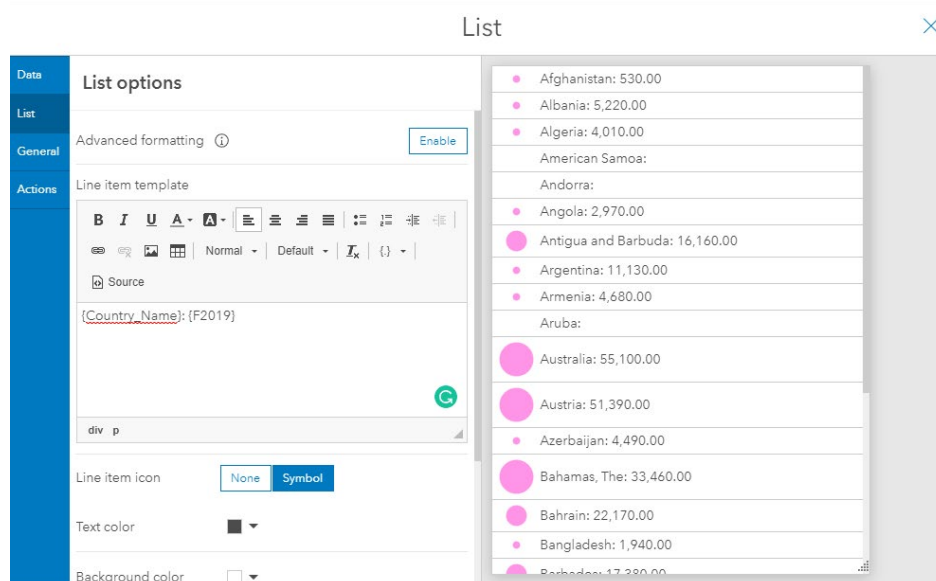


- d) On the Series tab, change the color of bars
- e) On the General tab, give the chart a meaningful Name and Title (“Average GNI”). The name is used internally to help you keep track of the different dashboard elements, but the title is displayed to users.
- f) Click Done

4. Add additional elements: list, legend, and texts

Lists can display selected data from the map. Here, we will use this to show the countries currently displayed on the map along with the year 2019 and data value.

- Click the plus sign (+) at the top of the page and add a new List.
- Under Data, select the map layer that will be the source data for the list.
- Under List in the *Line item template*, indicate what each line will show. Fields from the data are enclosed in braces. In this case, we type in: {Country_Name}: {F2019}
- Under General options, give the list a meaningful name.



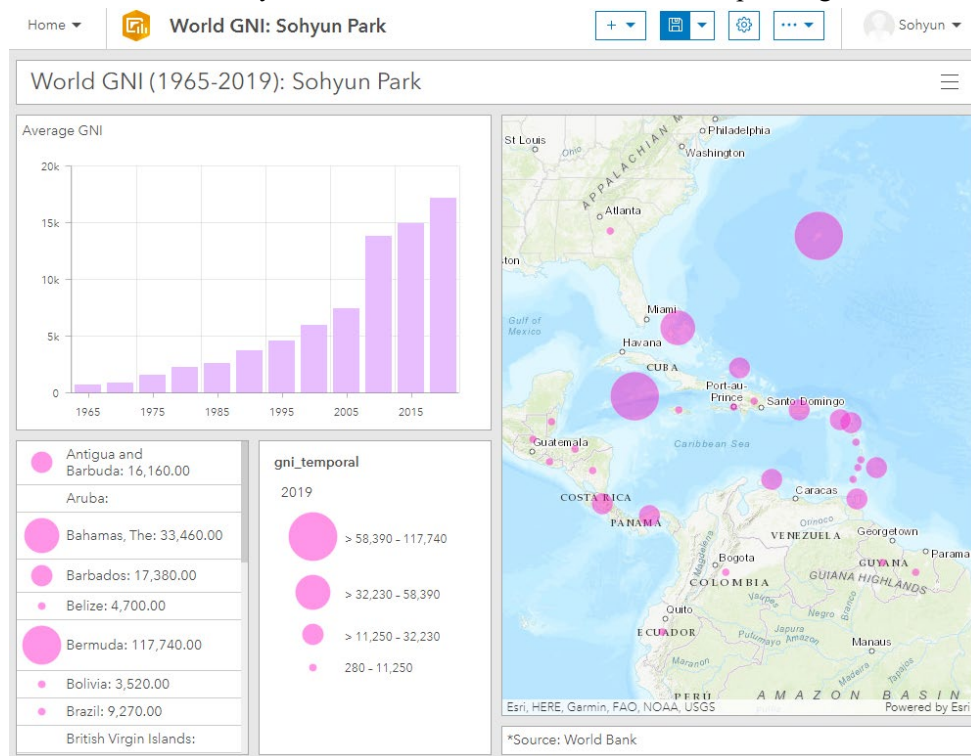
- Add map legend

- Add Text ‘*Source: World Bank’
- Add Header ‘World GNI (1965-2019) [Your name]’
- Arrange the elements:
 - To arrange the elements, point to the upper left corner and click and hold the Drag item button.
 - Drag the element over another to reveal the docking targets, then release on the desired placement.
 - Grab the vertical and horizontal bars to finish arranging the dashboard element.

5. Add actions

Dashboard Actions are ways that map elements can respond when users click on those elements or zoom in and out. Actions allow users to analyze specific portions of the data, and this interactivity makes dashboards more useful than simple static displays of information.

- On the map, click ‘Configure’.
 - On the tab, select Map actions
 - Add target to Filter the serial chart and the list of countries (Add both of them)
 - When you zoom in and out, the serial chart and the list change to show only data that are seen on the map.
- On the list, click ‘Configure’.
 - In Actions tab, add action to Flash the location on the map. Add World GNI.
 - When you click one of the countries, the corresponding bubble should flash.



6. Publish the dashboard

- Save the app, go back to your Content page, and view the info page
- Click Share and make it accessible to Everyone
- At the bottom of the info page, you can find the URL for the dashboard