Discussing Your Data (Feb 2)

<https://www.kaggle.com/jamesvandenberg/renewable-power-generation>

1. What is your dataset about?
   1. *My data includes several datasets:*
      1. *renewablesPowerGeneration97-17 contains the production of renewable energy over the twenty years between 1997 and 2017. Furthermore, it specifies how much of this energy was from hydro, solar & geothermal. Each row represents a single observation (year) and each column represents a single attribute*
      2. *top20CountriesPowerGeneration contains the data from 2017 of each of the top 20 countries’ renewable energy generation. Each row is a single observation (country) and each column represents a single attribute.*
      3. *Country\_Consumption\_TWH 2 has the total energy consumption for each year, broken up by country. Each row is an observation (year) and each column is a country. Thus, the cells represent the energy consumed by that country each year.*
2. What questions will you investigate through your dataset?
   1. *How has the composition of renewable energy production changed over time? What trends have defined these changes?*
   2. *Is there a relationship between total energy consumption and renewable energy production?*
3. What visualizations do you expect to create?
   1. *Dynamic pie chart + line chart*
      1. *Pie chart*
         1. *Proportion of total renewable energy from each source*
         2. *For a given year*
      2. *Line chart*
         1. *X axis == year*
         2. *Y axis == energy production*
      3. *Slider to adjust the year OR play button and have it as an animation*
   2. *Scatter plot*
      1. *Data point = country*
      2. *X axis = total energy consumption*
      3. *Y axis = renewable energy consumption*
4. Why?
   1. *Dynamic pie chart + line chart*
      1. *Interactive way for users to explore the change in the composition renewable energy production over time*
      2. *Line chart to visualize long term trends, pie chart for the snapshot*
   2. *Scatter plot*
      1. *Identify trends to visualize whether a relationship exists*
      2. *Identify outliers / case studies for countries that are doing well / poorly regarding their renewable energy production*
      3. *Lay the groundwork for future studies*