Lab 3: Drab to Fab!

September 7, 2021

About this lab

You will be divided into groups during class based on one of the four visualizations listed below (two groups will be assigned to each visualization).

1. Trends in Instructional Staff Employment Status (American Association of University Professors)
2. Electric Skateboards (Electric Skateboard HQ)
3. Fishing Industry by Country (Wikipedia)
4. Causes of Mortality during the Crimean War (Florence Nightingale)

Part I: Critique and create (15 minutes)

1. What story does the figure tell?

2. Identify the variables included in the figure, and identify how they're represented (e.g. visual cue).

3. Brainstorm another method of displaying the information in this graph. Once your group has an idea for the basic form (visual cues, coordinates, etc.), identify one person in your group to start and share a Google Jamboard (jamboard.google.com), then work together to sketch out your graph on the board. Don't worry about creating an accurate visualization (you only have a few minutes!), but do label your axes, mark axis ranges, and identify which visual cues you'd use.

Part II: Combine and improve (10 minutes)

Join with the other group who worked on improving the same visualization you did. Once together, share your ideas and sketches with each other.

Work on **one** of your shared Jamboard to incorporate ideas from *both* teams as you see fit.

Answer the following questions:

1. What were some key problems with the original figure?

2. In what way(s) is your plot an improvement on the original "drab" visualization?

3. In what way(s), if any, is the main message still unclear/hidden?

Part III: Share out! (10 minutes)

Share the final Jamboard with me (bebailey@amherst.edu). Identify a group member to share your responses and final sketch with the class. Each group will have <2 minutes to share. Be concise!
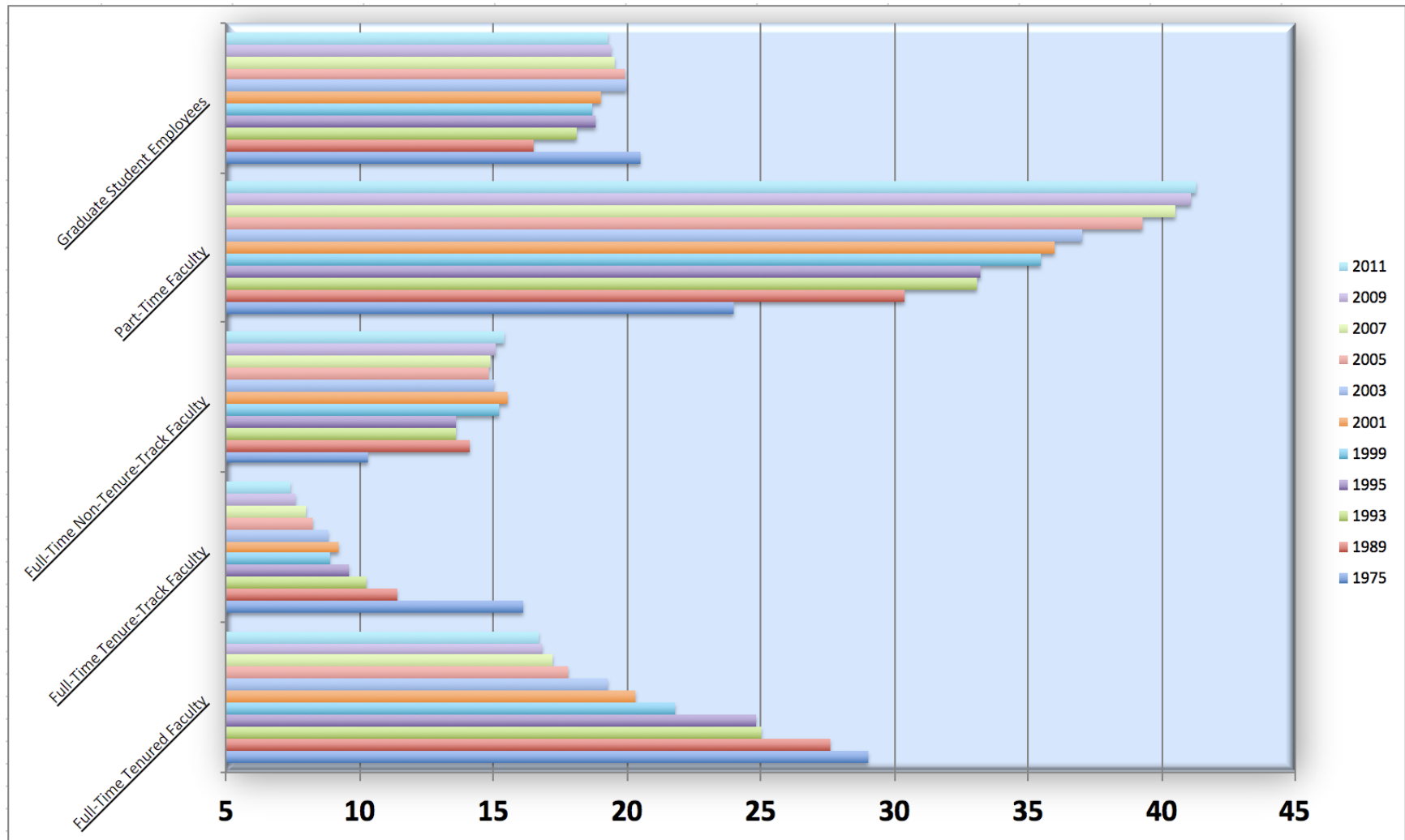
Figure 1: This figure, "Trends in Instructional Staff Employment Status", was included in a 2013 report from the American Association of University Professors (AAUP), a nonprofit membership association of faculty and other academic professionals.
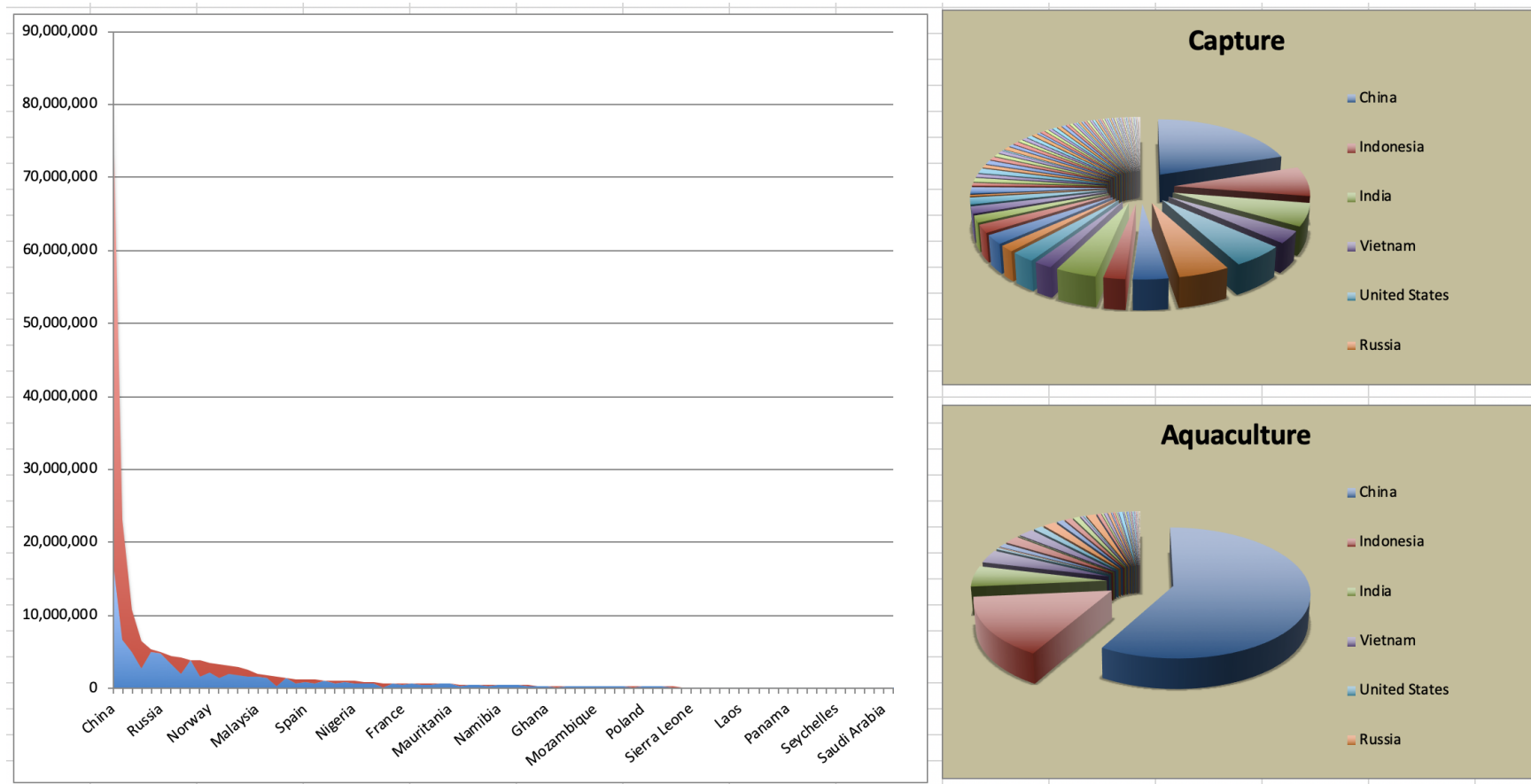
Figure 2: The Electric Skateboard HQ website used this figure to summarize their comparison of various electric skateboards.

Figure 3: This image is from an old version of a Wikipedia article titled "Fishing Industry by Country." The figures were created based on fishing harvest data for 2016 from capture, aquaculture (fish farming), and the total harvet (in metric tonnes).
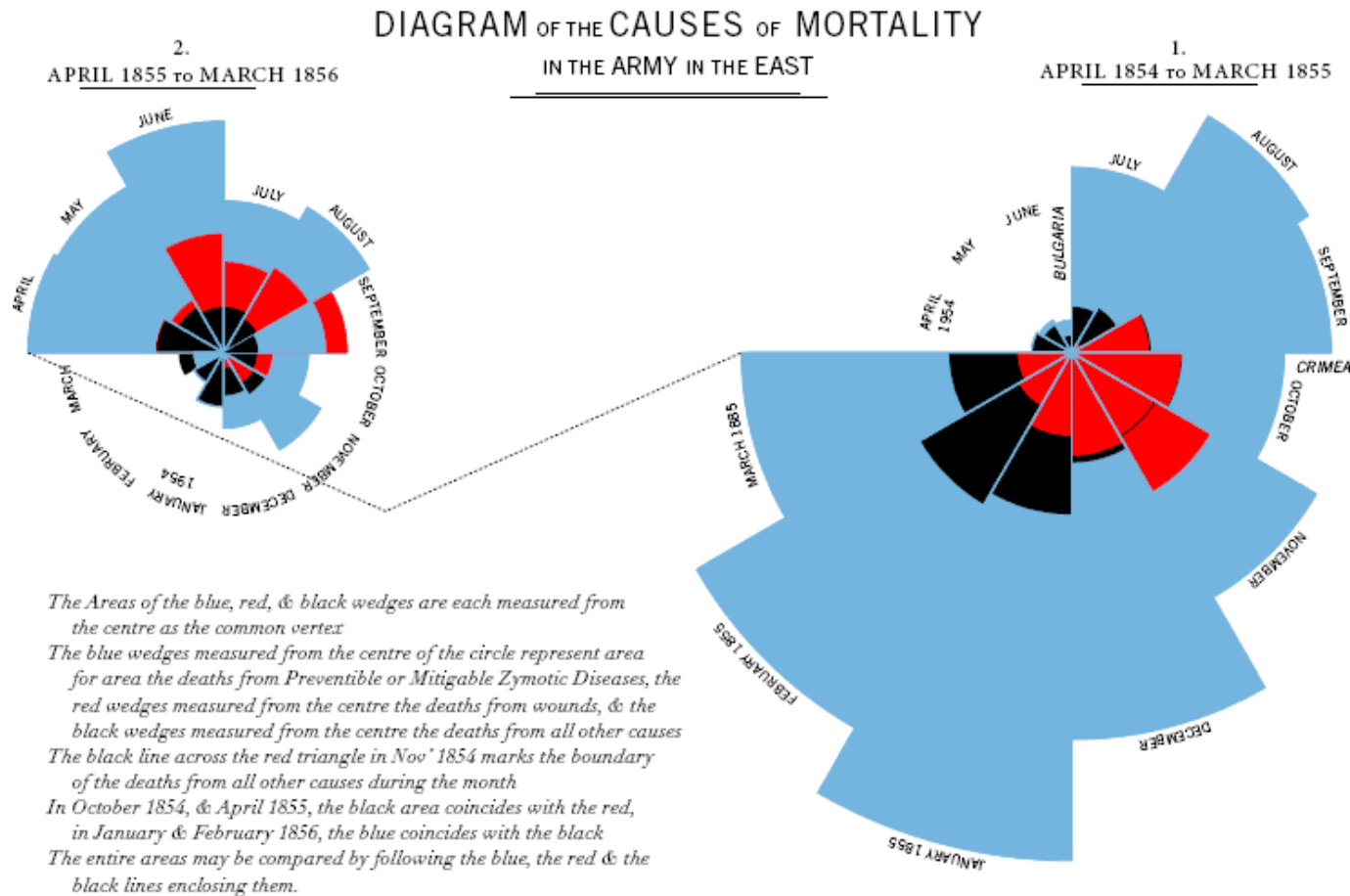
Figure 4: Florence Nightingale (1820-1910) is famous not only for her push for more sanitary conditions in hospitals and homes, but also for her work in statistics. She created this now famous "coxcomb" graph to visualize seasonal sources of patient mortality in a British field hospital during the Crimean War. A Sanitary Commission was created in March of 1855, which is the reason for the split in the two graphs after that month.