Week 3: Data Visualization [February 16, 2021]

1. KEY QUESTIONS

- What makes data beautiful?
- What differentiates a good visualization from a bad visualization?
- What are the consequences of deceptive visualizations? How can one identify a deceptive visualization?
- How does the eye render color? What are common color associations that we all implicitly understand?
- When should different types of visualizations be used? How do you know when a line chart is appropriate for the data versus a bar chart?

2. BRIEF AGENDA

- Guest Lecture by Megan Monroe
- Break
- EDA Share-out
- Data Viz Key Considerations
- Tableau Workshop
- Tableau Share-out

3. TIMELINE

- **5:50pm - 15 minutes:** Let folks trickle in and set up projector / screen-share for Zoomers
  Sook-Hee will introduce Megan

- **6:05pm - 1 hour:** Guest lecture on data visualization by Megan Monroe
  Assuming Megan will leave 10-15 minutes for questions at the end

- **7:05pm - 20 minutes**: Break for snacks / dinner and socialization

- **7:25pm - 5 minutes**: Announcements / administrative things
  Sejal leads, Sook-Hee oversees and helps get Zoomers checked back in

- **7:30pm - 15 minutes**: EDA share-out from last week's demonstration / homework assignment
  Sejal will help students share their work on projector if they wish

- **7:45pm - 10 minutes**: Key considerations for data visualization
  Sook-Hee leads, Sejal oversees

  - Data visualization through the lens of Edward Tufte
  - Start having students brainstorm and articulate what makes a data visualization good

- **7:55pm - 15 minutes**: Tableau Workshop using New York Times covid-19-data
  Sejal leads, Sook-Hee circulates around to help individual students

  1. Gauge how many students already have Tableau set up
  2. Walk through how to download Tableau and activate student license
  3. High-level overview of NYTimes COVID-19 data

4. Connect to data in Tableau workbook
5. Transform variables
6. Encode data within map visualization
7. Analyze the visualization and come up with 1-2 insights

- **8:10pm - 2 minutes**: Verbally explain the homework >> invitation to leave or stay
  Sook-Hee leads, Sejal oversees

- **Remaining time:** Build a Tableau visualization on your own (this is part of the homework)
  Sook-Hee and Sejal both circulate