Group Challenge: How would you present the MBA ranking data through a data visualization?

1) Audience

Who will be reading this chart? Is it for current MBA students, former, or prospective? It is for employers?

2) Task

What is the message? How much detail is necessary?

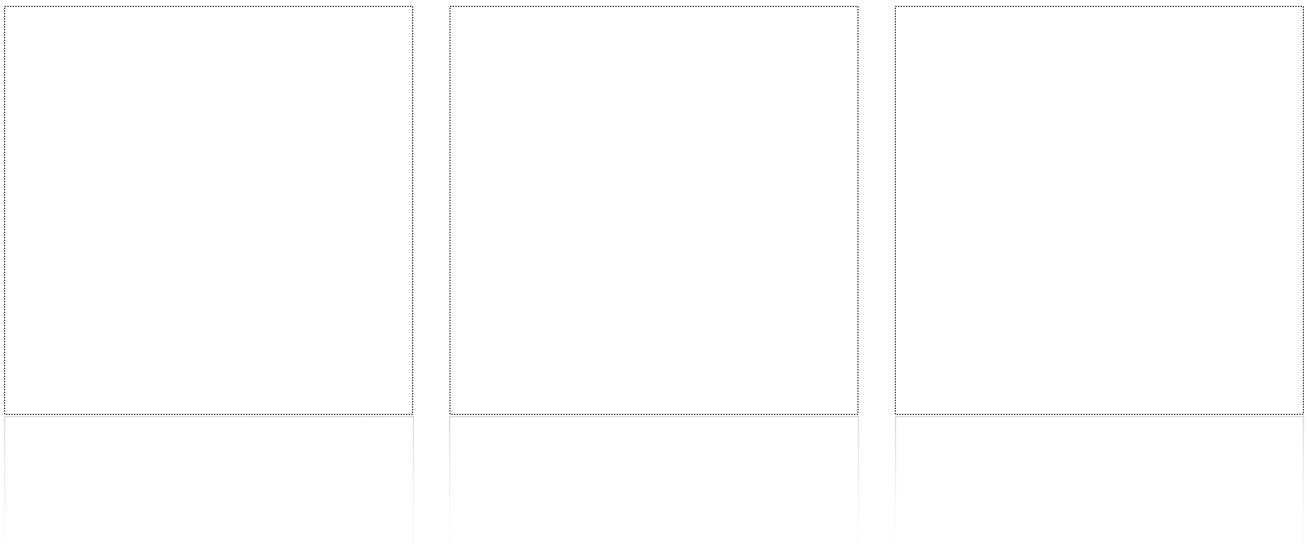
3) Data (mba3.csv)

This is not only the data set (which is the MBA rankings) but also any calculations, grouping, ordering, sorting, or ranges needed. This also includes any textual explanations.

4) Visual display

How will you display your message to your intended audience? What's the medium? Print? Web?

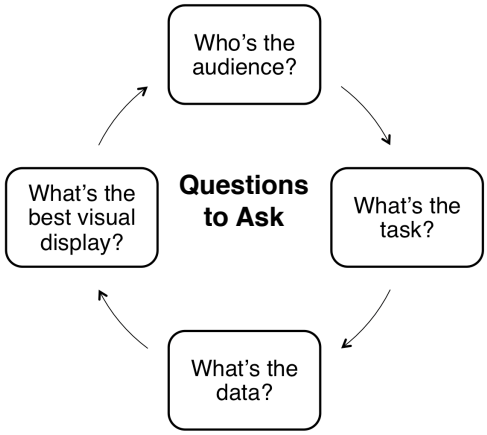
Sketch out a few displays that presents the message best.



Data Visualization Checklist

Use data visualization to:

- [ ] depict relationships
- [ ] compare values
- [ ] show a relationships between points
- [ ] track rises and falls over time
- [ ] see parts of a whole
- [ ] explore data to reveal patterns
- [ ] display all of the necessary data points on a single “screen”
- [ ] show deep and broad data sets on a single screen



When creating visualizations keep in mind the following:

- [ ] Chart type. Select the appropriate chart type. Emphasize the data.
- [ ] Data richness. Accurate data and effective filtering based on audience.
- [ ] Remove chart junk.
  - [ ] Remove the grid (or use a light gray grid) and non-essential elements
  - [ ] Avoid shadows
  - [ ] Background. Stick to white.
- [ ] Reduce data-ink ratio. i.e. reduce the thickness of the bars in a bar chart
- [ ] Preserve the integrity of the data
  - [ ] Beware of the lie factor. Size of effect shown in graphics/size of effect of data.
  - [ ] Avoid fake perspectives (3D).
- [ ] Accurate scales and proportions
  - [ ] Keep the scale of Y axis equal or just above the highest value in the data set.
  - [ ] Zero point. Ensure a zero point for bar, line, and scatter charts.
  - [ ] Make sure pie charts adds up to 100%.
- [ ] Color. Avoid the rainbow. Use color sparingly.
  - [ ] Red works well for negative earnings.
  - [ ] Set type in black on white background.
  - [ ] Ensure high contrast values. Test by converting to gray scale
- [ ] Descriptive text and labels
  - [ ] Label directly on the data instead and/or in addition to using a legend.
  - [ ] Add a description to guide readers in interpreting your visualization
  - [ ] Attribution. Let the reader know where you derived the data from.

Considerations for Data Maps

- [ ] Use a color gradient & density to distinguish regions.
- [ ] Use data that corresponds to geography.

Resources

- Nike +: http://yesyesno.com/nike-city-runs
- Traffic in Lisbon: http://www.visualcomplexity.com/vc/project_details.cfm?id=728&index=728&domain=
- David McCandless: http://www.ted.com/talks/david_mccandless_the_beauty_of_data_visualization.html [4:00 - 7:39]
- Student Loan Debt: http://www.newyorkfed.org/studentloandebt/
- Small multiples of unemployment by sector: http://hci.stanford.edu/jheer/files/zoo/
- Obama's budget proposal (javascript D3): http://www.nytimes.com/interactive/2012/02/13/us/politics/2013-budget-proposal-graphic.html
- Hans Rosling: http://www.ted.com/talks/hans_rosling_reveals_new_insights_on_poverty.html [00:55 - ??]
- Olympic Athletes: http://www.nytimes.com/interactive/2012/08/05/sports/olympics/the-100-meter-dash-one-race-every-medalist-ever.html
- American Time Usage (BLS): http://www.nytimes.com/2009/08/02/business/02metrics.html?_r=0
- Growth of Target: http://projects.flowingdata.com/target/
- Tufte on exploring multiple forms of display: http://www.youtube.com/watch?v=Th_1azZA2OY&noredirect=1 [0:00 - 4:00]