Data Visualization for Political Social Work

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2 How to Navigate This Presentation (scroll down □)

2.1 Navigation

- **o** for outline
- **f** for full screen

- **alt-click** for zoom

3 Basic Considerations (scroll down)

3.1 The Nature of Your Variables Determines the Nature of Your DataViz

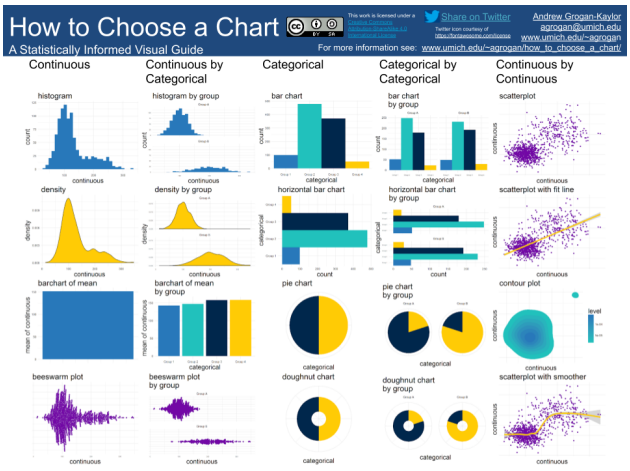
- Deciding upon the right data visualization to represent your data can be a daunting process.
- I believe that a *starting point* for this thinking is some basic statistical thinking about the *type* of variables that you have.
- At the broadest level, variables may be conceptualized as *categorical* variables, or *continuous* variables.

3.2 Variable Types

- *categorical variables* represent unordered categories like *neighborhood*, or *religious affiliation*, or *place of residence*.
- *continuous variables* represent a continuous scale like a *mental health scale*, or a *measure of life expectancy*.

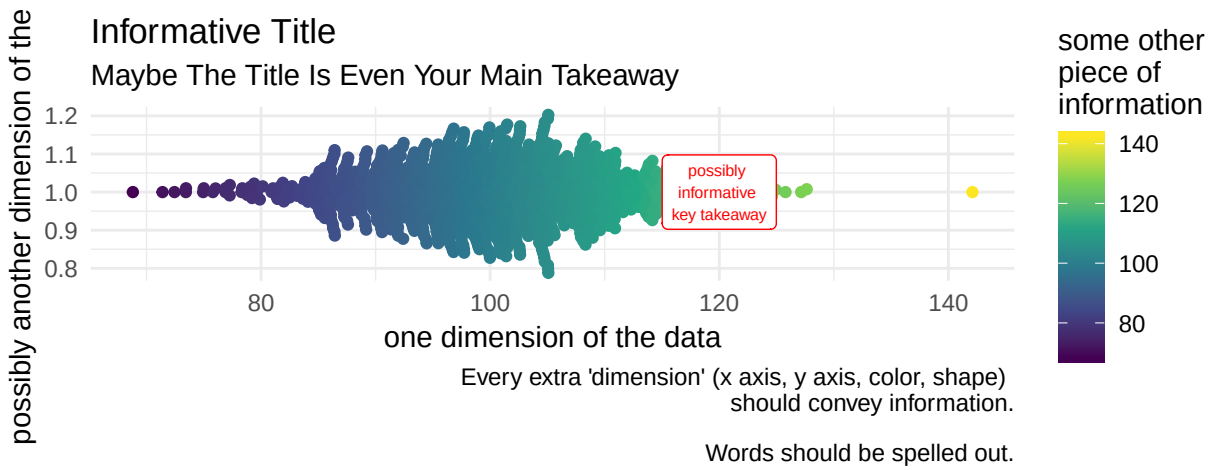
3.3 Visualization Possibilities

How To Choose A Chart



4 Story-Telling (scroll down)

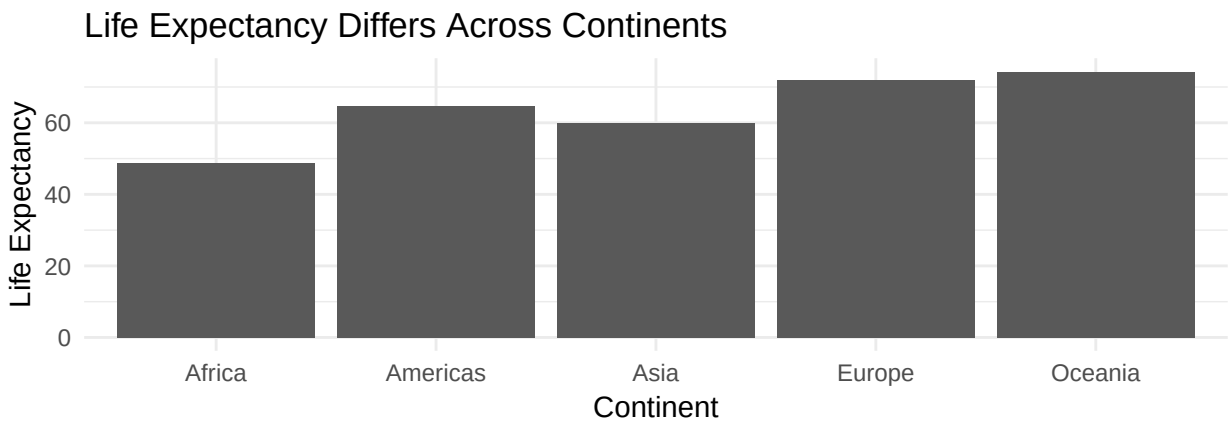
4.1 Your Graph Should Be A Self-Contained Story



4.2 Your Graph Should Be Embedded In A Story

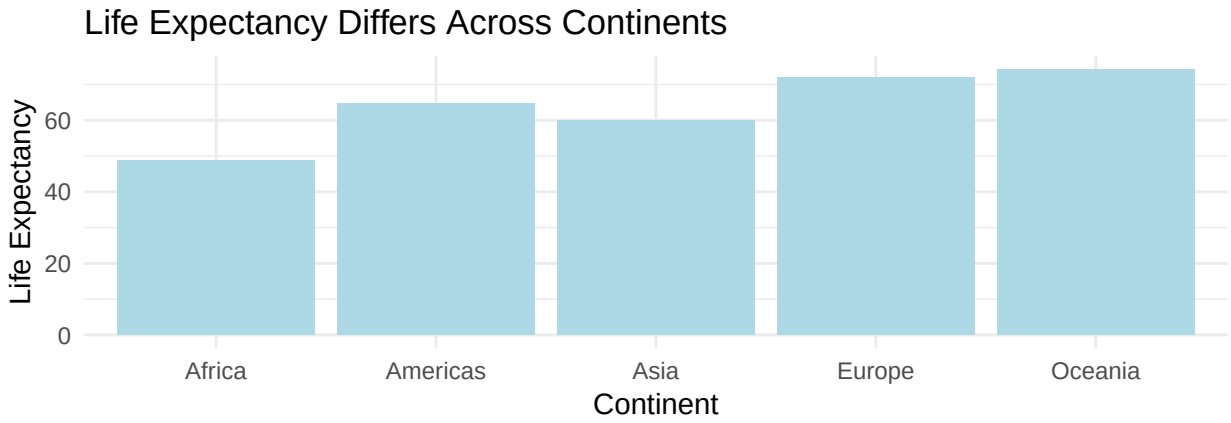
5 Color (scroll down)

5.1 Greyscale Graph



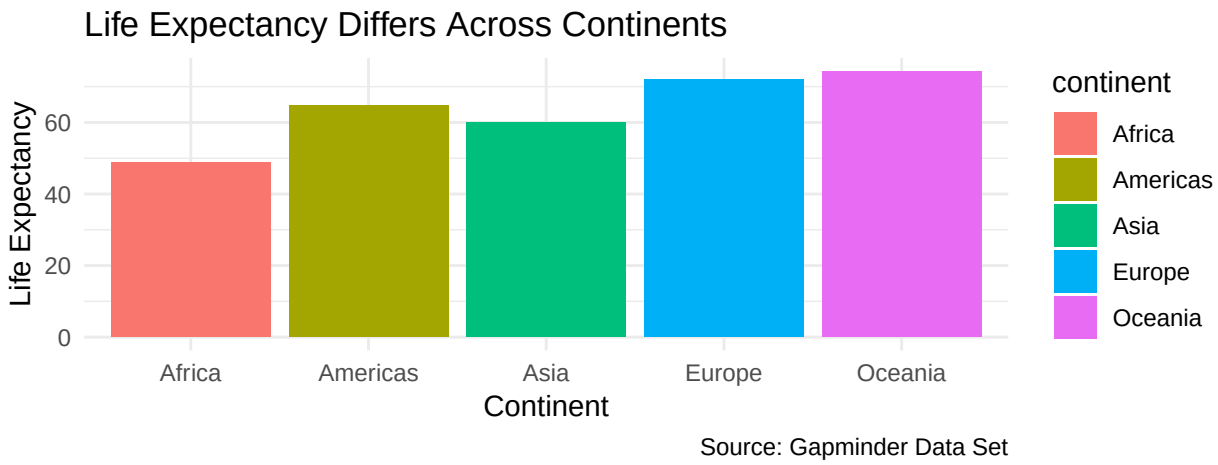
Source: Gapminder Data Set

5.2 Color is Organizational Identity



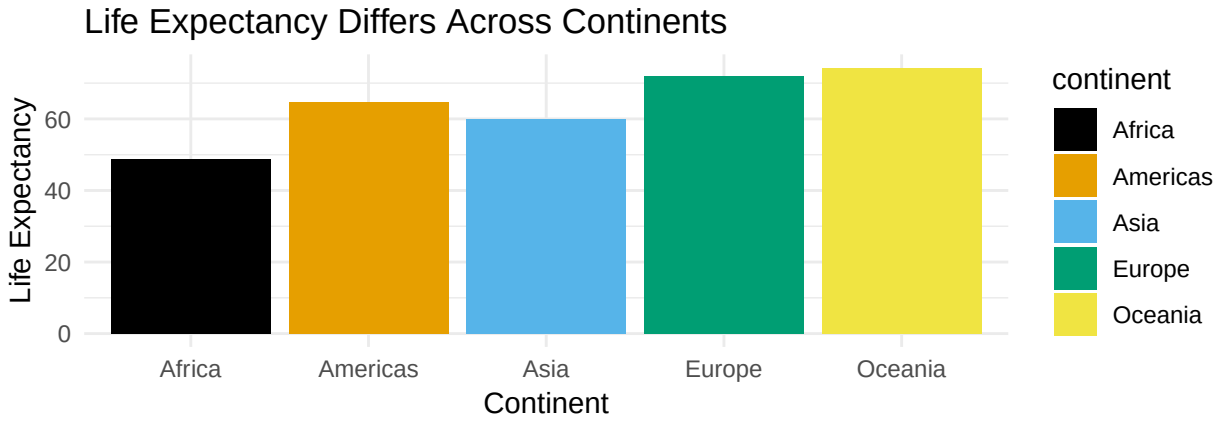
Source: Gapminder Data Set

5.3 Color Is Information



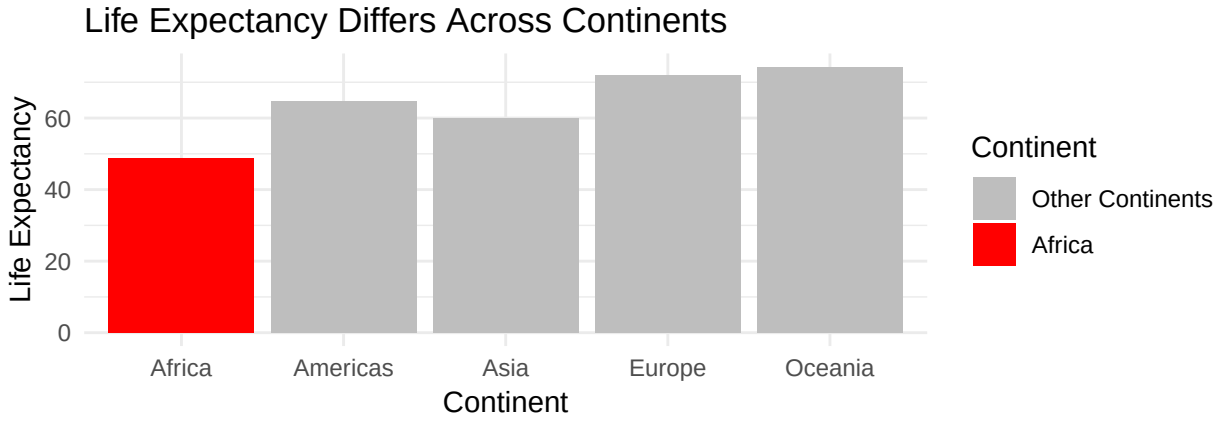
Source: Gapminder Data Set

5.4 Color Is Accessibility



Source: Gapminder Data Set

5.5 Color Is Emphasis



Source: Gapminder Data Set

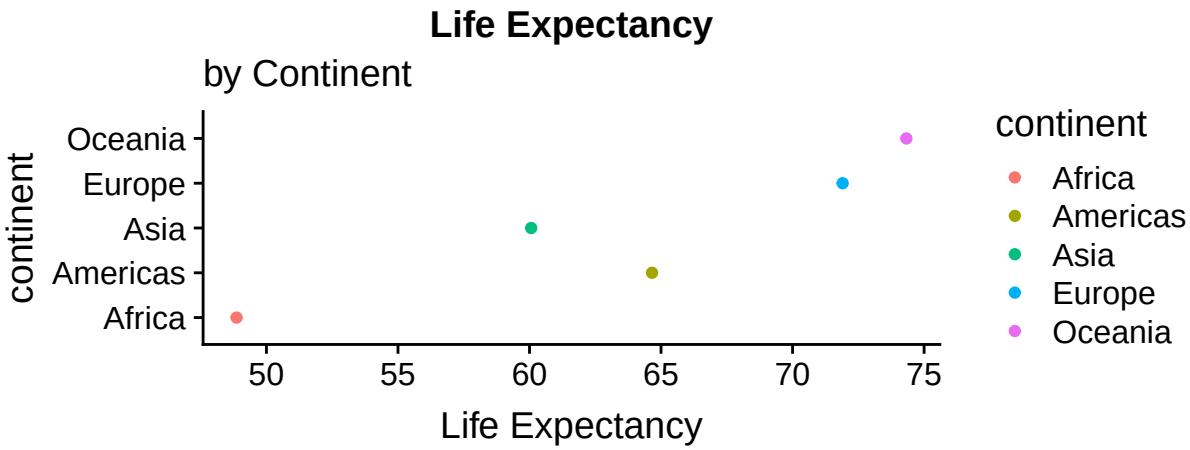
6 Cognition (scroll down □)

6.1 “Graphical Perception”

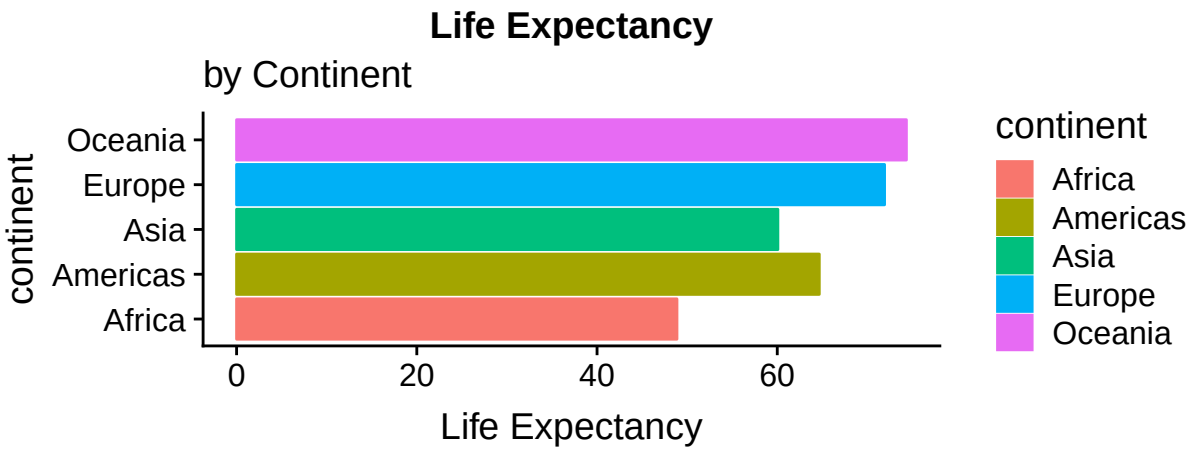
“Ordering elementary tasks by accuracy (Cleveland and McGill 1985):”

1. Position along a common scale
2. Position on identical but nonaligned scales
3. Length
4. Angle & Slope
5. Area
6. Volume, Density, Color Saturation
7. Color Hue

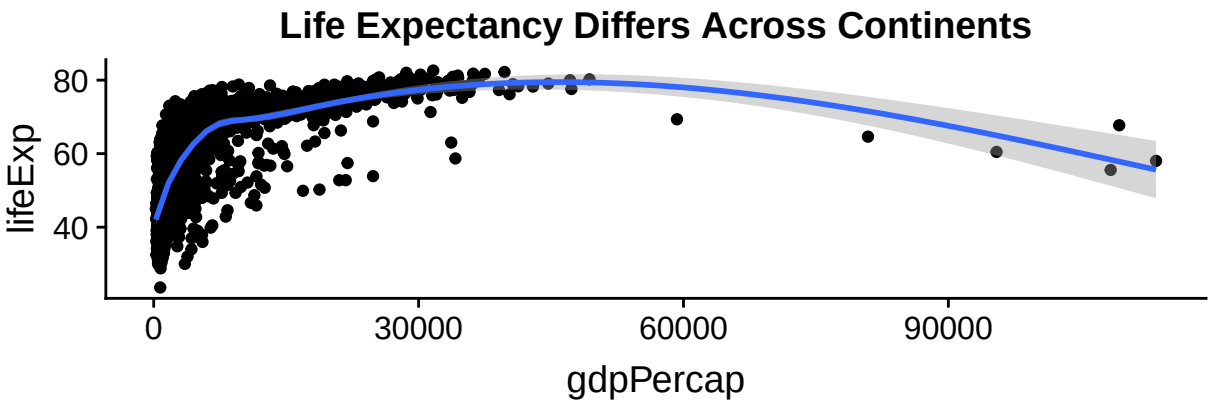
6.2 Example (Position Along A Common Scale)



6.3 Example (Length)



6.4 Example (Angle)



Source: Gapminder

7 Questions? (scroll down □)

7.1 Please Contact

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References

Cleveland, William S, and Robert McGill. 1985. “Graphical Perception and Graphical Methods for Analyzing Scientific Data.” *Science* 229 (4716). American Association for the Advancement of Science: 828–33. http://www.jstor.org/stable/1695272.