

Graphics that present data

Quick review

1. Show the reader what s/he needs to see.
2. Plan the sequence and directionality.
3. Think about the focal point of the graphic.
4. Integrate labels, units of measurement, and information into graphic to make interpretation efficient.
5. Make the color work with the information.
6. Place graphic where it will improve reader's comprehension of complex material.
7. Label and title all graphics.
8. Remember to edit, revise, and proofread graphics.

And, with graphics that present data. . .

10. Don't distort or disguise data.

- Choose the appropriate graphic.
- Label important events in data.
- Be precise about data points.
- Be sure to show error variance.
- Avoid 3-D graphics, false perspectives, and “chart junk.”

Effective tables

- Order items in a way that your viewer finds useful.
- Label columns and rows clearly and specifically.
- Align entries. (In budgets, line up on decimal.)
- In large table, use white space or horizontal rule as a guide.
- Follow conventions for labeling and displaying graphics.

What works well? What doesn't work?

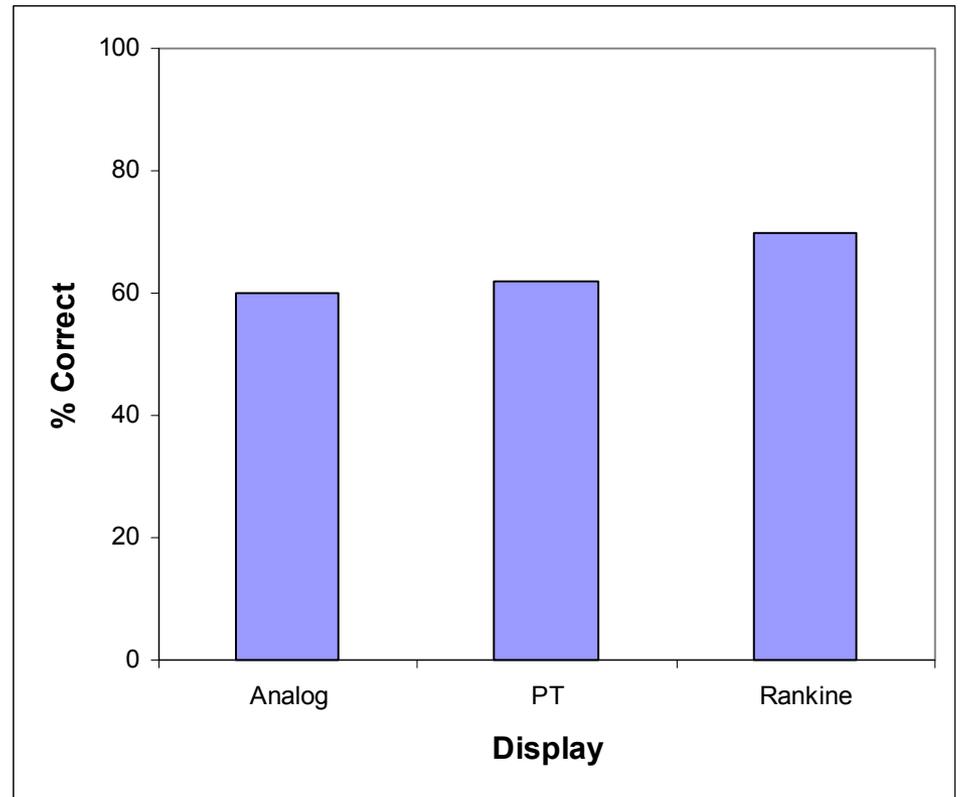
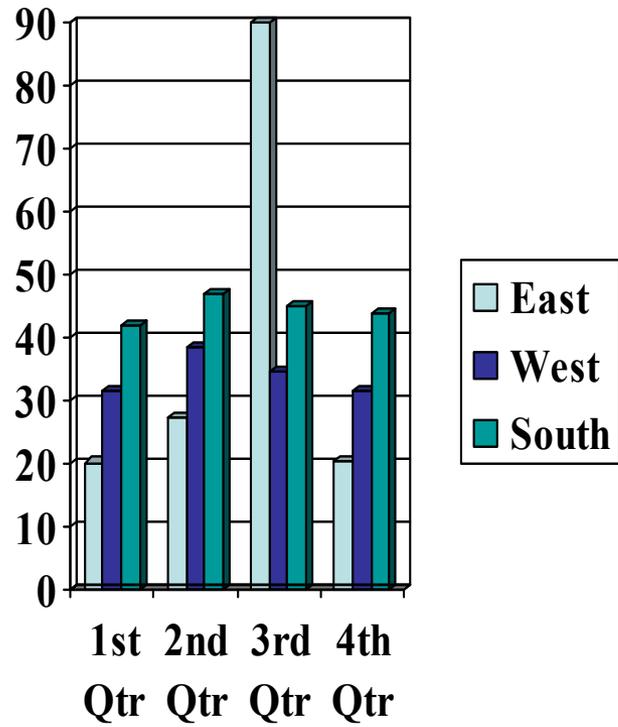
Table 1. Automation Temperatures

Table 3: Sources of error in aerodynamic testing.

Error Source	Type of Error	Relative Magnitude
Wall interference	Systematic	Large
Mount interference	Systematic	Large
Load cell accuracy	Random	Small
Load cell noise	Random	Small

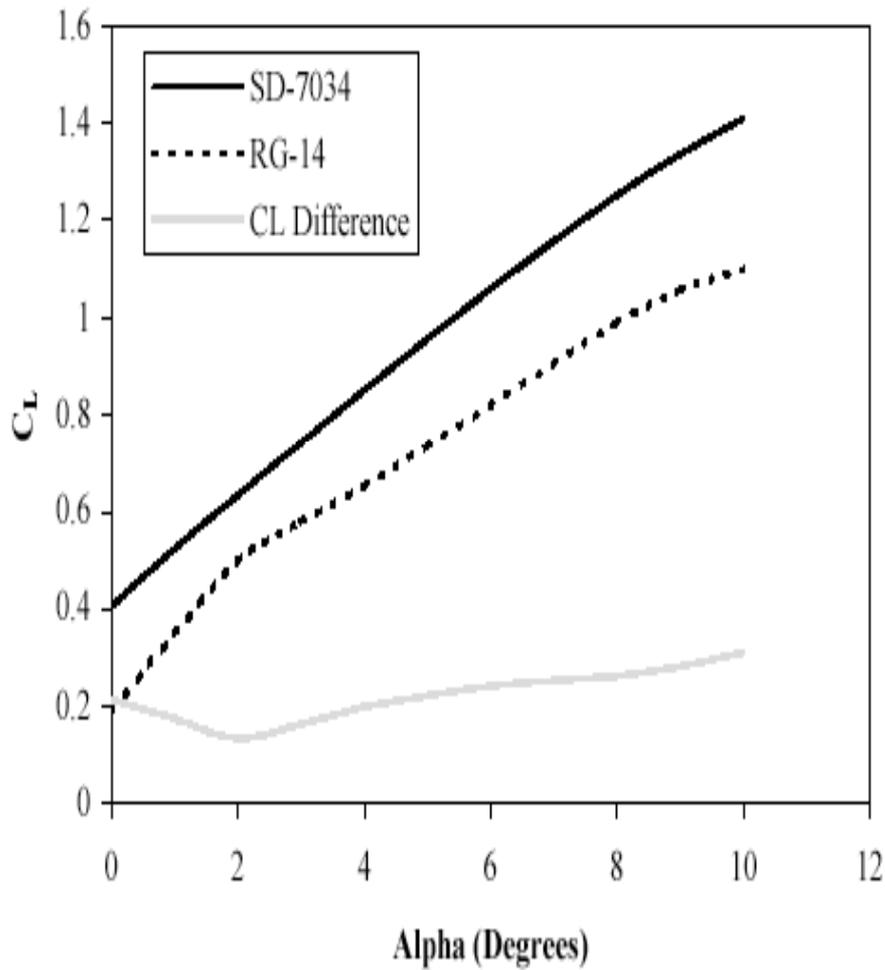
Effective bar charts

- Decide if chart should display vertically or horizontally.
- Use tick marks to indicate quantities on axis parallel to bar.
- Integrate label on or next to bar except if it would be too confusing.

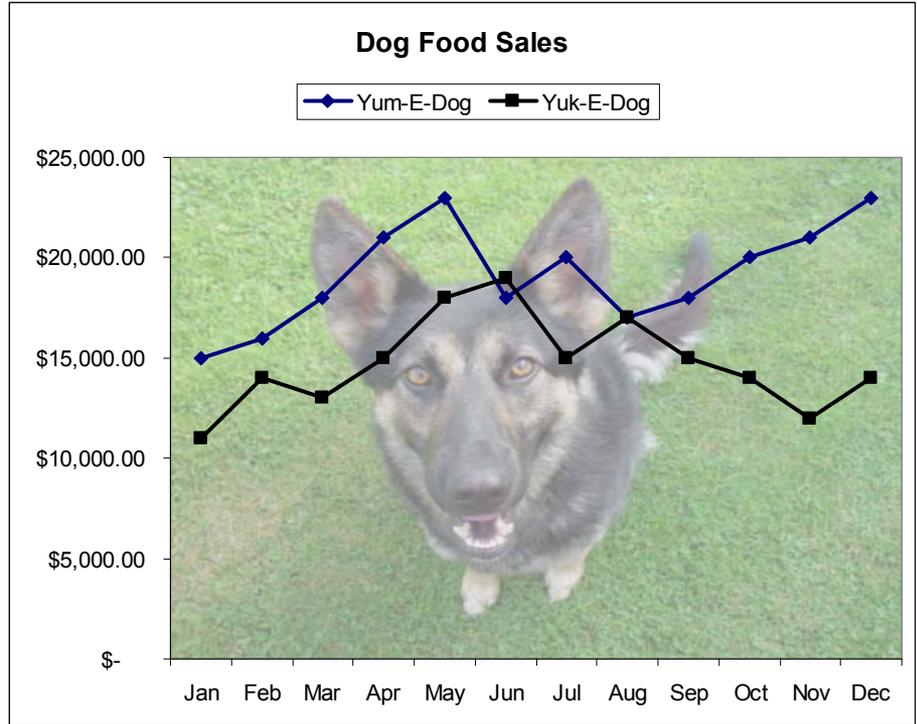


Effective line charts

- Use tick marks to indicate quantities.
- Start axes at zero unless there is a good reason not to. Then, be scrupulous about indicating this.
- Consider labeling data points.
- Label accurately.

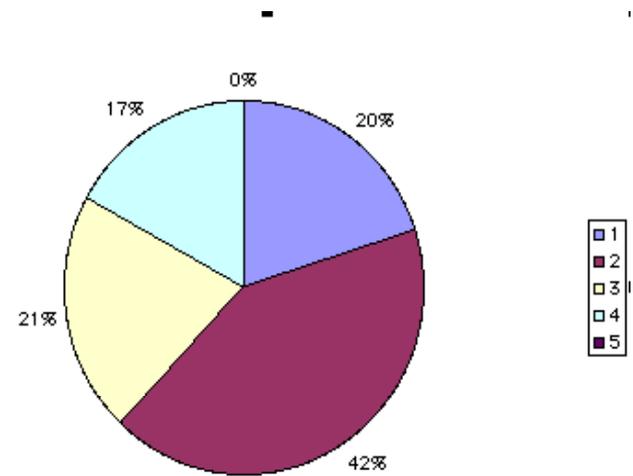
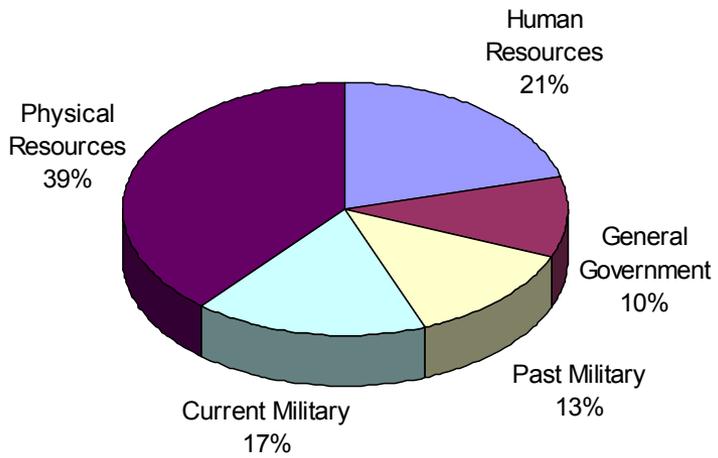


Courtesy M. Anderberg



Effective pie charts

- Label each edge and give its percentage of whole.
- Limit number of wedges.
- Avoid 3-D.
- Use color carefully.



Effective scatter plots

- Organize nontemporal data.
- Show correlation between two variables.

Study Hours	Regents Score
3	80
5	90
2	75
6	80
7	90
1	50
2	65
7	85
1	40
7	100

