#### 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.

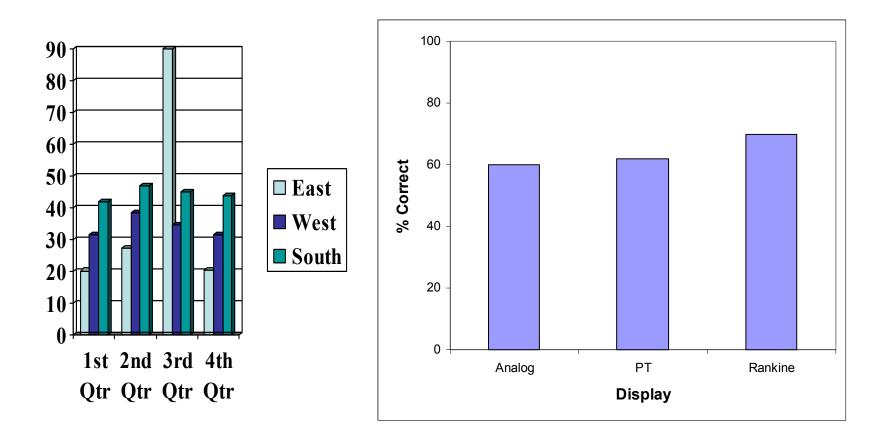
#### What works well? What doesn't work?

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Table 3: Sources of	f error in aerodyna	amic testing.
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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

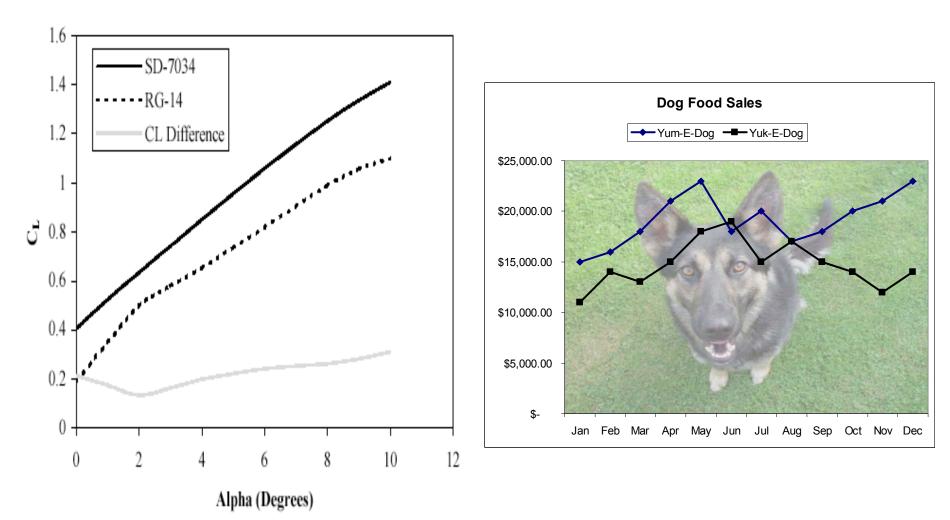
### Effective bar charts

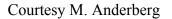
- Decide if chart should display vertically or horizontally.
- Use tick marks to indicate quantities on axis parallel to bar.
- Integrate label on or next to bar except if it would be too confusing.



# 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.

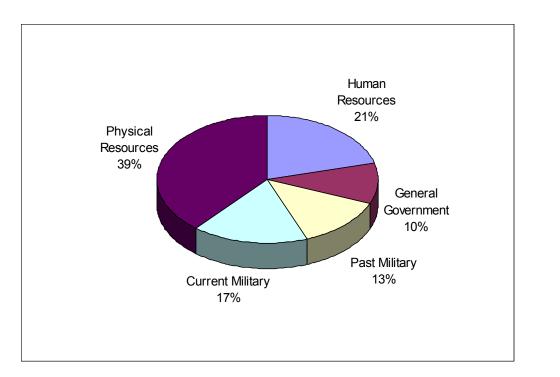


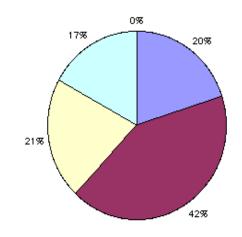


# Effective pie charts

- Label each edge and give its percentage of whole.
- Limit number of wedges.

- Avoid 3-D.
- Use color carefully.





#### Department of Aeronautics and Astronautics

# Effective scatter plots

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

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

