

36-315: Statistical Graphics and Visualization

Handout 6

Date: February 3, 2003

Category-value plots:

Pie chart - Depicts relative magnitude of individual categories or groups of categories, using angles.

Bar chart - Depicts absolute magnitude of categories, using lengths.

Area chart - Depicts absolute magnitude, using areas.

Dot chart - Depicts difference in magnitude between categories, using position.

List of figures:

1. European cities data (circa 1800)
2. European cities pie charts, bar chart
3. European cities area chart, dot chart, and logs (Cleveland, 1994)
4. Unemployment bar chart in Washington Post (Wainer, 1984)
5. Consumer confidence bar chart in NYT, 2002
6. Oil prices reported by Time Magazine (Tufte, 1983)
7. Oil prices bar chart
8. Petroleum stocks, bars vs. curves (Wainer, 1984)

References

- [1] William S. Cleveland. *The Elements of Graphing Data*. Hobart Press, NJ, 1994.
- [2] Edward R. Tufte. *The Visual Display of Quantitative Information*. Graphics Press, Cheshire, CT 1983.
- [3] Howard Wainer. How to display data badly. *Chance Workshop Lectures*. <http://www.dartmouth.edu/chance/ChanceLecture/AudioVideo.html> Also an article in *The American Statistician* 38:137–147, 1984.

	Population (thousands)
Amsterdam	220
Berlin	145
Constantinople	900
Copenhagen	90
Dublin	210
Edinburgh	60
Florence	75
Genoa	80
Lisbon	120
London	1100
Madrid	140
Moscow	250
Naples	380
Palermo	130
Paris	690
Petersburgh	180
Rome	160
Stockholm	63
Turin	80
Venice	200
Vienna	255
Warsaw	80







