STAT 100 Chance and Data Analysis Sept 9, 2002

Office Hour Change: **M 3:30** W 2:30 F 1130 AQ 10554

Lessons learned from examples in first two lectures?

1. Unexplained variation can lead to misinterpretation of data by the statistically naïve.
2. Simulation can demonstrate the impact of unexplained variation.
3. Graphs of time series can reveal information hard to detect by numerical summary.
4. Numerical summary methods include calulation of mean and standard deviation, which measure "center" and "spread" respectively.

Assignment 1 (Due Monday Sept. 16, 4:30 pm, in AQ 9510).

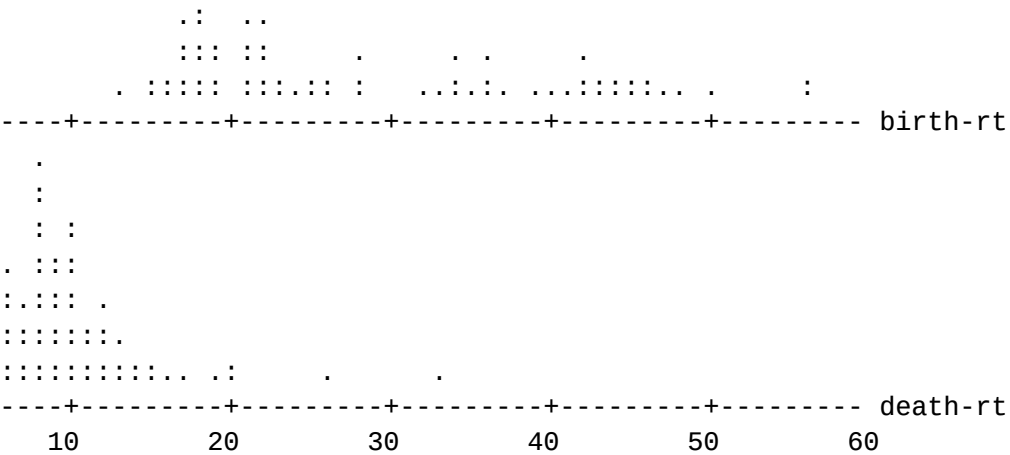
1. Report on your coin-simulation of the 5-team league in which every team plays every other team two times. Assume the coin is "fair". Comment on the spread of the teams points (win=3, loss=0, tie = 1 but not possible). Is the spread about what you expected?

What bearing does this simulation have on the interpretation of the 20-team soccer league scores shown in class?

2. Write a short paragraph explaining each of the four "lessons learned" above.

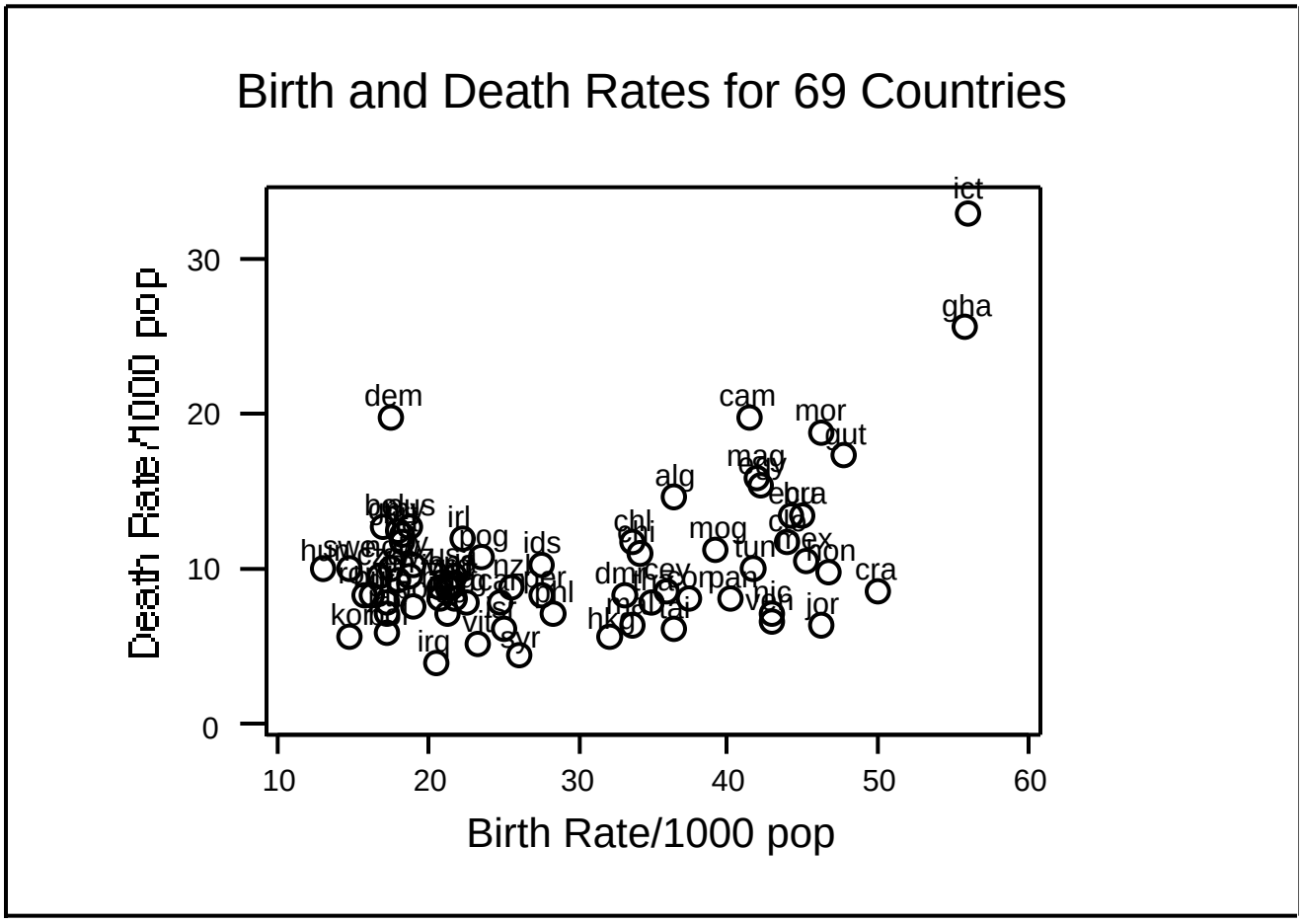
3. Answer problem 10 (p 102) from your Tanur reader.

More about variability: vital statistics of 69 countries – rates per 1000 population



means 29.3 and 10.3 SDs 11.7 and 4.8
Other measures? Medians (25.0 and 9.1) Range (43.0 and 29.1)

Quartiles (18.9, 40.8) and (7.8, 11.8) IQR = Inter-quartile range
(21.9 and 4.0)
“Distribution”?



Scatter Plots are a very good way to examine two-variable data.
(But only when the data for X and Y are linked!).