

1 Identifying statistics from computer output

- Do problem 2.1, G&S page 49 (uses output on G&S p43-44).

2 Generating your own output with SAS INSIGHT [or other, if you prefer]

• Use INSIGHT [see pp 2-4 of INSIGHT Primer] to

- type raw data (first 2 columns of Table 2-1, p22) into a new file;

- give the 2 variables more meaningful names than the default "A" and "B";

[see **Define Variables** at bottom of p 3 of Primer, or **double click** on "A" & "B"]

- check that you have not made any typing mistakes

[scan by eye, and use Histogram, Box , Scatter Plot or Distribution under **Analyze** Menu]

- [if you hate retyping data] save the data into a SAS permanent data set

[**File=>Save=>Data** - see p4 of Primer ; make name more memorable than "A"]

- generate output similar to that on pp43-44.

[**Analyze => FIT(Y X)**; see p15-17 of Primer

• Extract the statistics asked for in G&S problem 2.1; note any differences in terminology.

3 Anticipating the magnitude of fitted slopes and intercepts

A British study from some decades ago examined the distribution of weight and stature (height) of a large sample of women. The slope of the linear regression of weight on height was reported to be 2.7, but the units were not given.

• Sketch what you think the scatter plot might have looked like.

• From the reported slope, and fact that 1 inch = 2.54 cm; 1 Kg = 2.2. lbs., do you think the units were

Weight in:	(a) lbs.	(b) Kg	(c) lbs.	(d) Kg	(e) other
Height in:	inches	cm	cm	inches	other

Explain your reasoning. None of (a)-(d) may be that realistic, but it should be possible to rule out some possibilities!

4 Was Draft Lottery Fair? [*"draft data" on web page; download .sd2 file into "sasuser" directory*]

• Was it better to be born in January or December? i.e. is there a linear trend in the draft numbers?

(before fitting a trend line, examine by eye a scatter plot of Draft_No vs. D_of_Y)

• Was this a "freak" randomization? How else could this have happened? (see M&M)

• Do you get same p-value if test H_0 : zero slope as if test H_0 : zero correlation? Why?

5 Comparing slopes etc [see also G&S pp 27 & top of 28]

• Q's at end of "Difference in Bone Density over 2 centuries" (www under Resources)