Grading and Degree Classification

One of the performance indicators used by the Sunday Times and other league tables is the number of 1st and upper 2nd class degree awards that each University makes.

Honours degrees have 4 classifications

- 1st class
- upper 2nd class
- lower 2nd class
- 3rd class

<-------- average student (60%)

If the classification bands are balanced then it would be expected that on average 50% of students would be in the upper 2 bands and 50% in the lower bands. Better Universities should have more than 50% in the upper bands and Universities with higher entry qualifications would be expected to have higher numbers in the upper bands.

If the distribution is normal then the average student (across the UK) should have a mark of 60%.

Sunday Times data
The figures published on Sept 14th by the Sunday Times shows that Heriot-Watt has 50% of students in the upper 2 bands.

The attached figure shows the number of 1st and 2.1 graduates by position in the Sunday Times league table and by entry score (using the Sunday Times rating of score). Heriot-Watt is identified by a circle. It can be seen that in both figures HW has fewer 1st/2.1 graduates than would be expected. To be in the middle of our grouping we should be having about 60% in the upper bands (marked with a +).

Either Heriot-Watt has poor teaching and so does not produce good graduates or else we are being unduly hard on our students. HW has a number of M level degree students (such as MEng). All those students are expected to be in the 1st/2.1 grouping but may not be counted if the count is only at BSc/BEng level. However the numbers are too small to affect the statistics.

A number of external examiners have noted that we are a bit hard on our students but have generally taken the view that whilst they would have accepted more 1st and 2.1 awards they are at least satisfied with our standards. They may or may not have been referring to courses with below average marks.

Alex Close of EPS has a normalisation option for exam marks (which is no longer used). He used a mean of 60% thus ensuring 50% of students being awarded 1st and 2.1 degrees. He also normalised to a standard deviation of 15. If the number of students getting over 60% (the start of the 2.1 band) is to be 60% (to be in the middle of the grouping in the figures) then the mean Heriot-Watt student should have a mark 0.25 standard deviations above 60%. If the standard deviation is 15 then the average HW mark should be 63.75 or 64%.

An average of 64% means that if the B band is subdivided into B-, B and B+ then B- is below average.

If a 1st class Honours is an average of over 70% then if the average is 64% and the standard deviation is 15 then statistically it would be expected that 25% of students would get a 2.1 degree and 35% of students would get a 1st class degree.
**Implications for non-progression**

Assuming a normal distribution and a standard deviation of 15% then if we at present are marking to a mean of 60% we would expect statistically 9.2% of students to fail (below 40%). Increasing the mean to 64% would reduce the failure by 3.7% to 5.5%. Our current dropout rate is 16% and is worst than the benchmark of 14% (Sunday Times figures). Our higher that expected dropout rate might be related to our marking to a lower than expected average.

**Proposal**

Schools should check their own statistics at a programme level so that a comparison can be made across programmes to see if this is a programme, school or University problem.

Programmes/Schools should check module marks to see if we are marking to an average of over 60% as would be expected.

External examiners reports should be checked to see if there are recent comments which would suggest that we are marking too hard.

Where staff are external examiners in other institutions they should attempt to benchmark HW grading against the other Universities.

We need to review exam board guidelines and the CAPS grade descriptors.

R. Craik  
Sept 2003
Number of 1st and 2.1 degrees

Entry score (using Sunday Times scoring)

- Heriot-Watt position
- + 60% in 1st and 2.1 bands

1st and upper 2nd degree awards. Data from Sunday Times 14th Sept 2003