Report on Cheese quality

Executive summary

It is not reasonable to assume that the distribution of quality in American and Italian cheeses is the same.

Descriptive statistics

It seems as if the distributions of quality are very different.

The distribution is relatively narrow for US cheeses but the average quality also seems to be lower.

On the other hand, there seems to be a wider spread of quality in the Italian cheeses. But the quality seems higher on average.

Statistical testing

We run a formal statistical test for two things:

1. Is the average quality in US and Italian cheeses the same?
2. Is the variation of quality in US and Italian cheeses the same?

For the first test we obtain a t-value of 14.77. This can be converted to a p-value. Assuming that the average quality is the same yields a p-value of . This is far beyond conventional levels for statistical significance. We reject that there is no difference in average quality.

For the second test we obtain an F-statistic of 3.56. This can be converted to a p-value. Assuming that the variance is the same across the two samples yields a p-value of . This is far beyond conventional levels for statistical significance. We reject that there is no difference in variance of the quality.