

Mathematics and Statistics used in Geography Degrees

Topic	Example of Use
Pie Charts, Bar Graphs, Histograms	<u>Using a pie chart to show the relative proportions of energy sources in the UK.</u>
Measures of average and spread such as IQR and standard deviation.	Summarising trends in rainfall in different locations and comparing them.
Moving Averages	Looking at trends in population growth over time.
Ratios and Quotients	Calculating the <u>Location Quotient</u> – a measure of how concentrated a particular industry or demographic group is in a region as compared to the nation as whole.
Correlation and Regression	Deciding the degree of the relationship between <u>GDP per capita and adult literacy rate.</u>
Parametric tests such as T-tests	Using soil moisture data to decide whether a North-facing slope is wetter than a South-facing slope.
Non-parametric tests such as chi-squared tests	Testing if there is a significant <u>association between flood likelihood and land use.</u>
Confidence Intervals	Finding an interval estimate for a Location Quotient based upon sample data.
Logarithmic Scales	Comparing rates of change in the <u>growth of different populations</u>

Useful Links

<http://www.physicalgeography.net/>

<http://www.geography-site.co.uk/>

<http://www.geography-fieldwork.org/>

www.rgs.org

<http://www.geogarific.com/>