

Applets
FDMAT 222–Biostatistics
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Statistical Applets:

Here are a few java applets to help you visualize statistical concepts. Click on the highlighted links to try these applets.

Normal Distribution

Converting Between Values and Probabilities (Areas) for the Normal Curve
Use this applet to convert between areas under a curve and the values that correspond to those areas

Mean and Standard Deviation Adjust the mean and standard deviation of a normal distribution and watch what happens to the location and shape of the distribution

t Distribution

t distribution Choose the number of degrees of freedom, and the graph of the t-distribution is illustrated

Central Limit Theorem

Central Limit Theorem/Sampling Distributions This applet allows you to visualize the Central Limit Theorem. You can take large samples of various sizes and watch the effects on the distributions of the mean and other statistics.

Confidence Intervals

Confidence Intervals Applet This applet allows you to create 50 confidence intervals at a time for various confidence levels. Samples of size 5 are taken from a standard normal distribution and confidence intervals for the true population mean ($\mu = 0$) are created.

West's Confidence Intervals Applets This is a collection of applets showing various properties of confidence intervals

Regression

Simple Least-squares Regression Allows the user to add and delete data points and watch the effect on the regression line.

Guessing the Regression Line Here you are given a scatterplot and you can use the mouse to indicate what seems to be the best straight line approximating the data. It will calculate the sum of the squared errors from the line. Then do it again and see if you found

a better one. When you want to, you can ask what the minimum sum of the squared errors is, so you can see how close your guesses came to the least squares regression line. This is an excellent way to develop a feel for linear regression! (Click on "Begin" on the left side of the page.)

Reaction Time Tests

Test your reaction time

Pass the Pigs

Play Pass the Pigs