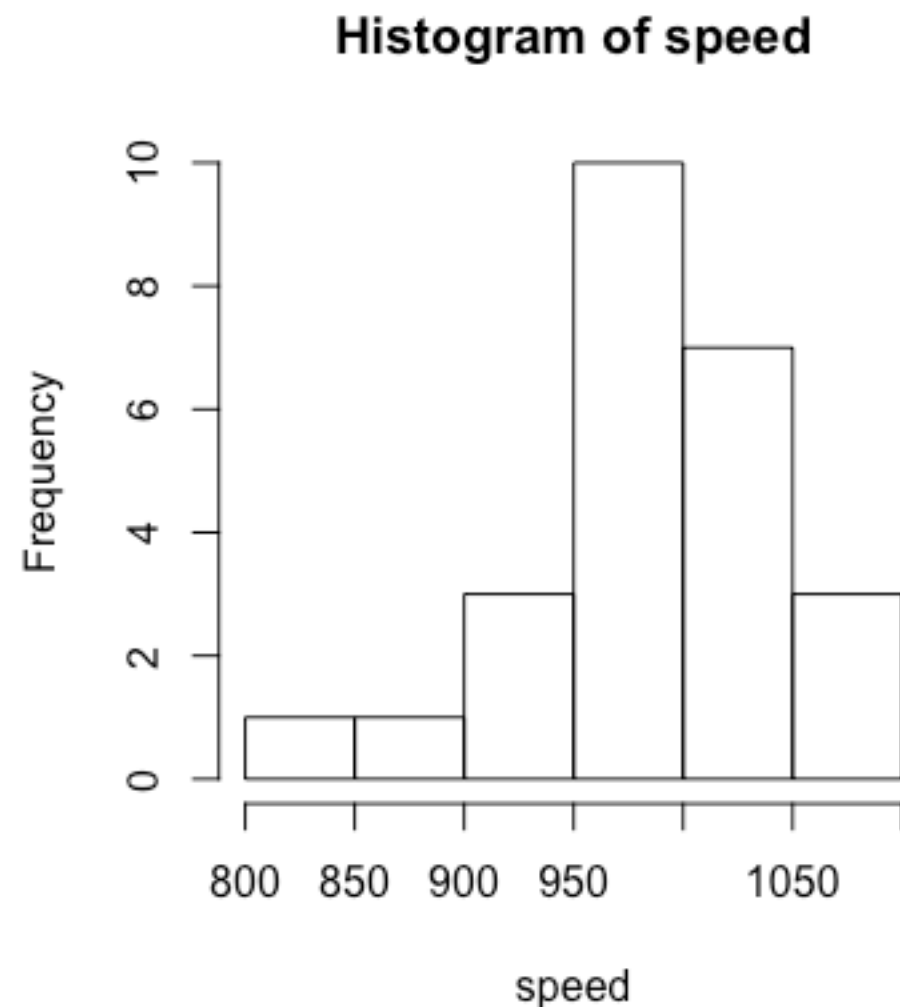# Mediation via Bootstrapping

- Sobel test (which you might have come across previously) can be quite conservative - *bootstrapping* and the *mediation* package a more powerful method to investigate mediation effect. Bootstrapping better for small samples.

- Imagine you have a sample of n measurements, you can sample this in many ways as long as you allow some values to appear more than once and others to be left out (sampling with replacement). Calculate the mean lots of times (one for each sampling - often as many as 10,000) and work out the CIs and other population parameter estimates. This is *bootstrapping*.

Example

- Imagine we measure the speed of 25 military planes and plotted the data:

Histogram of speed

- What might the underlying population of military planes we are sampling from look like?