What is a histogram?

- **---> Data modeled by a step function**

- **—> How do we determine/estimate/guess the bin width?**

- **Do all the bins have to have the same width?** No, there are methods to handle variable bin width (e.g. Bayesian Blocks Method, Week 4 lectures)

- **Do we really have to bin data to estimate model parameters?** No, we do not! (and should not). Binning should be used only for visualization.
  A good example: to "fit" a Gaussian to data, simply estimate the location and scale parameters, as we just discussed. To show results, you can then use histogram and overplot the fit.