Many data take the form of unbounded count data. For example, consider the number of calls to a call center or the number of flu cases in an area or the number of hits to a web site.

In some cases the counts are clearly bounded. However, modeling the counts as unbounded is often done when the upper limit is not known or very large relative to the number of events.

If the upper bound is known, the techniques we're discussing can be used to model the proportion or rate. The starting point for most count analysis is the the Poisson distribution.

In the following lectures, we go over some of the basics of modeling count data.