

## **VIDEO: “Percentages versus counts” (1:16)**

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We can improve the visual impact of our histograms by using percentages rather than raw counts. Let's look at the Daphne Island finche example. On the left there is a histogram of the frequency table counts. The right graph displays the percentage of the data to get this simply divide the total number of counts by the total number of data points and then multiply by 100. Display the results as a bar chart. Why do this? Well percentages are easier to interrupt than raw numbers, you can add the heights of the bars to get the percent of values in a range and understand what that means. Percentages are better for comparisons of data sets of different sizes. If you don't multiply by 100 after dividing your counts by the number of data points you get the fraction of the data of each bin rather than the percentage of each data.

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Here is a histogram with the percentages compared that to the histogram of the fractions- the shapes are the same just the scaling is different. Which do you use? I think the percentages are easier to interrupt in everyday terms, but the fraction is easier to interrupt in terms of probability or the likelihood that a data value will fall in a particular bin. Either is good for comparing histograms of different data sets.