Week 8: Random variables & Sampling

Elena & Willa
10/19/2020

Today’s agenda

- Warm-up
- Random variables and distributions
- Sampling distributions

Random variables

So far, we have focused on directly assigning values to variables.

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num <- 1

df <- penguins.csv

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What is a random variable?

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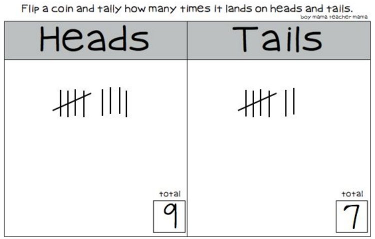
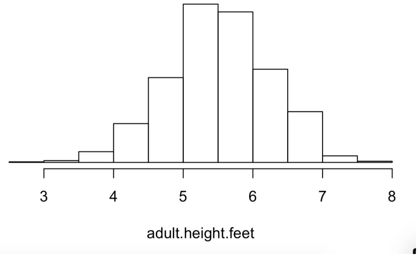


Randomly sampling height in a population



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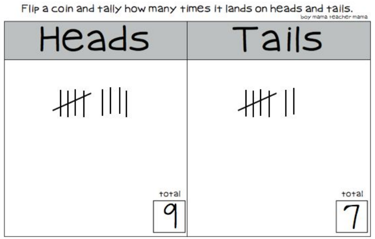

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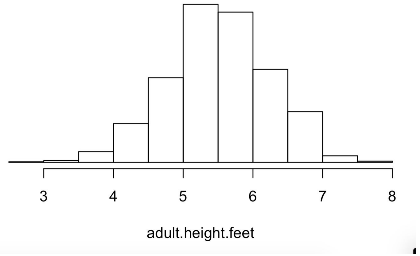

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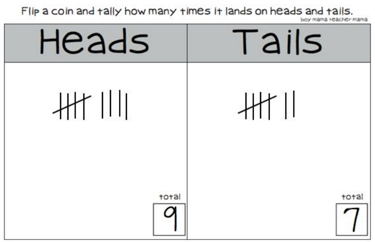

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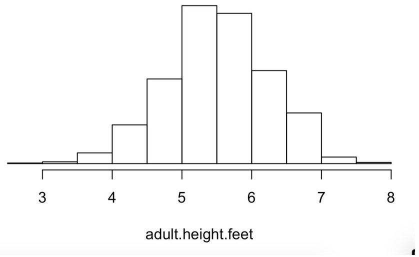

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- Statistical inference
- Predicting other outcomes from their values
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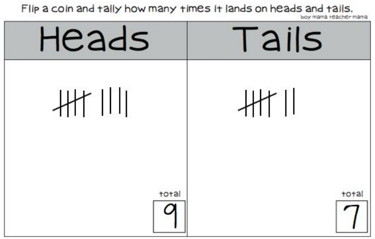

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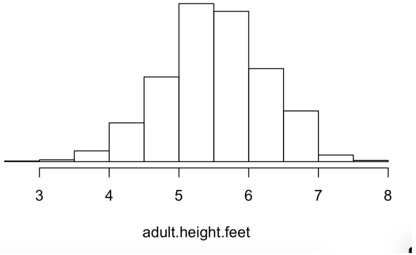

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Understanding the definition & properties of random variables becomes important when you are doing data analysis.

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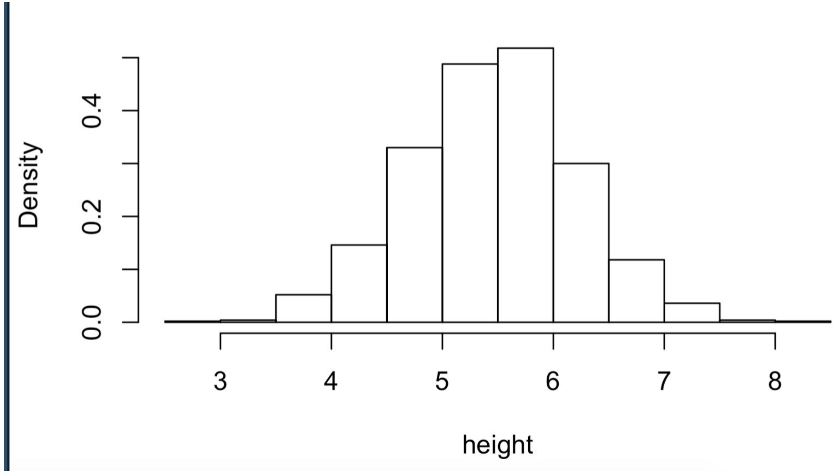

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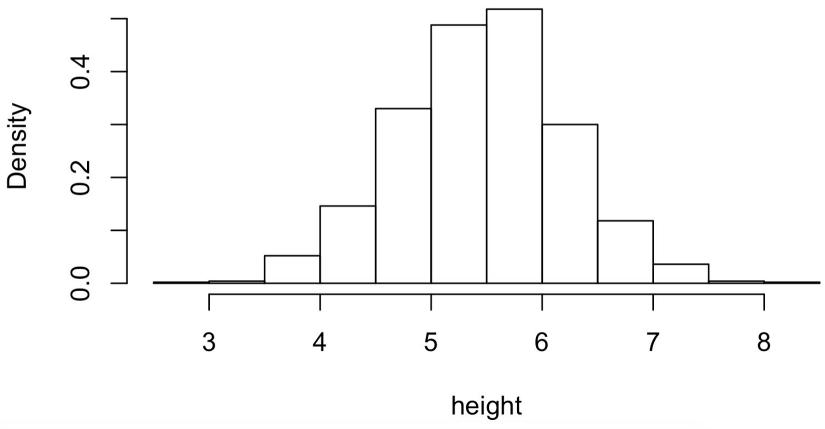

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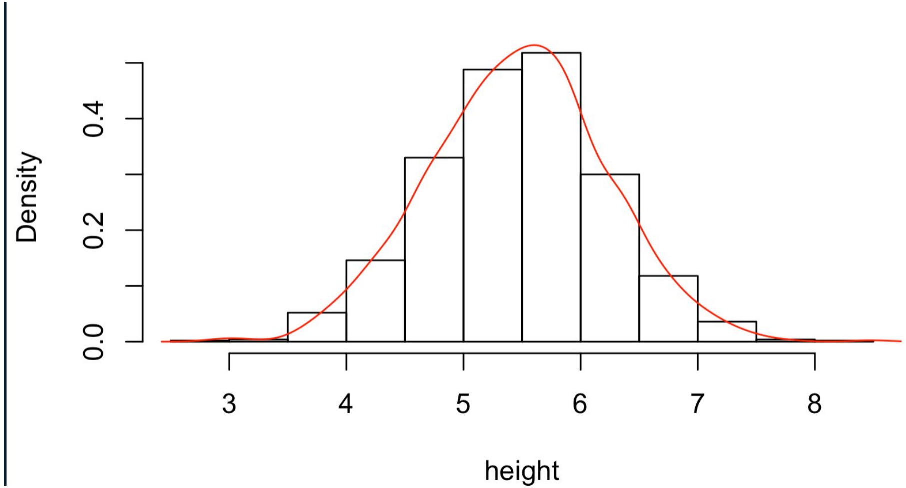

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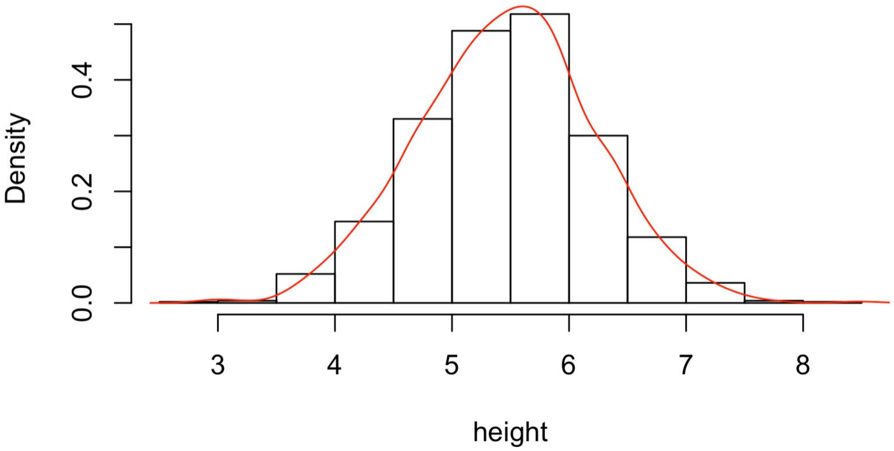

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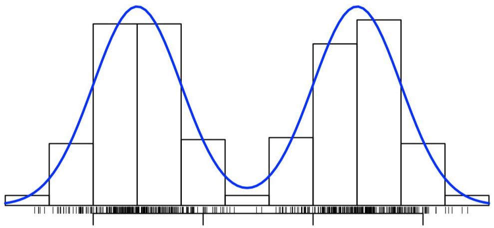

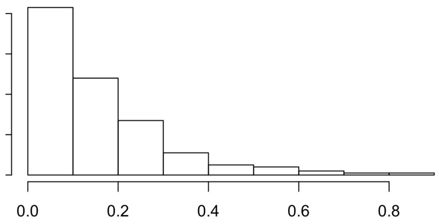

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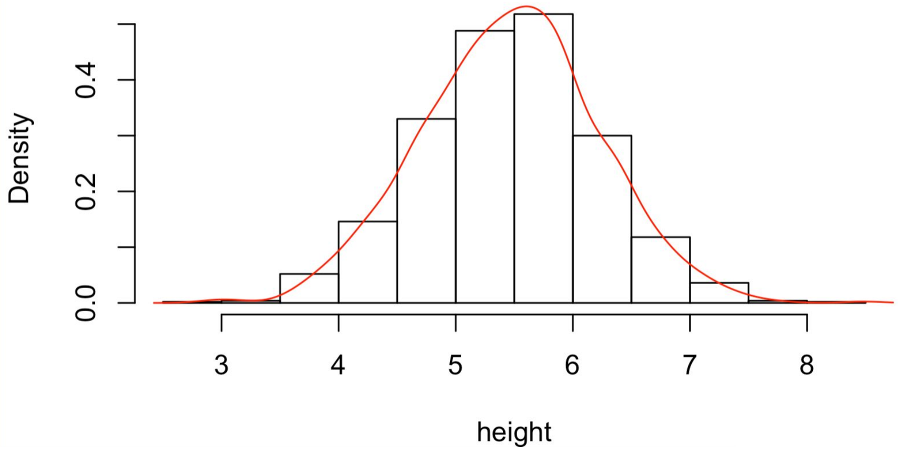

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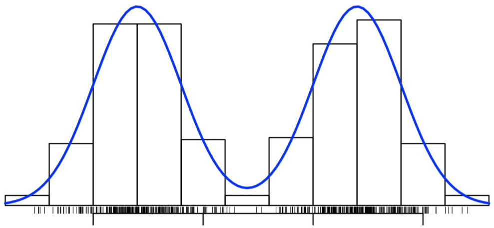

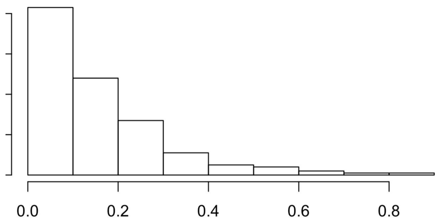

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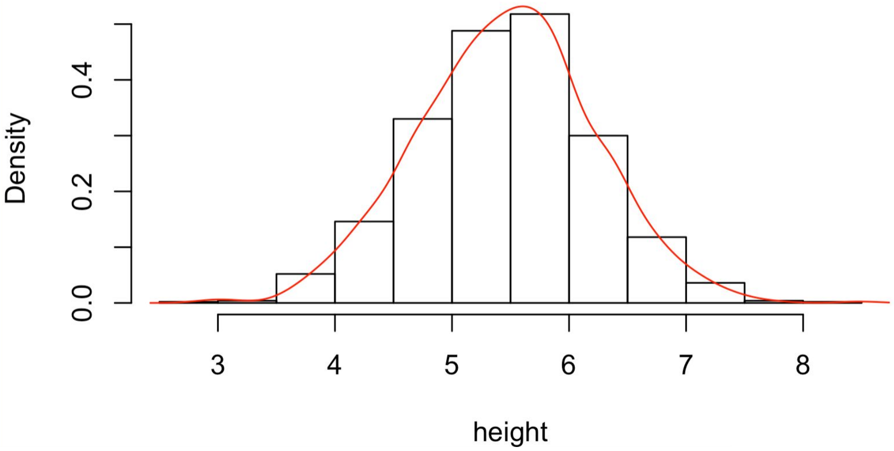

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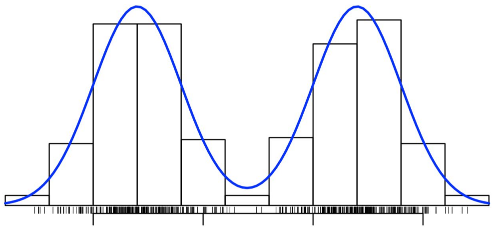

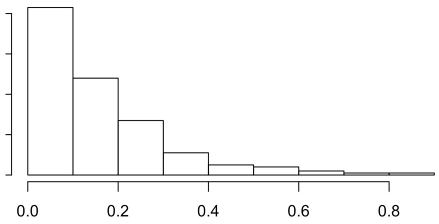

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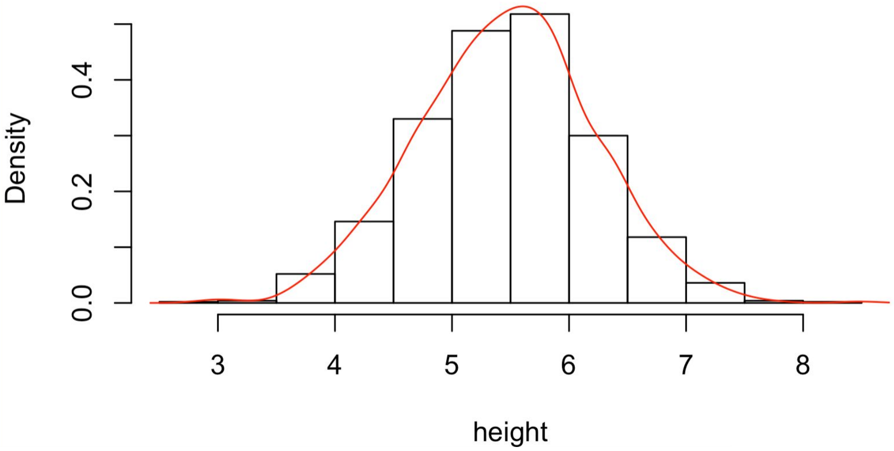

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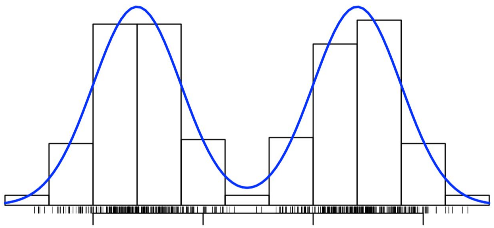

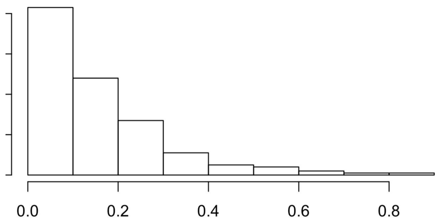

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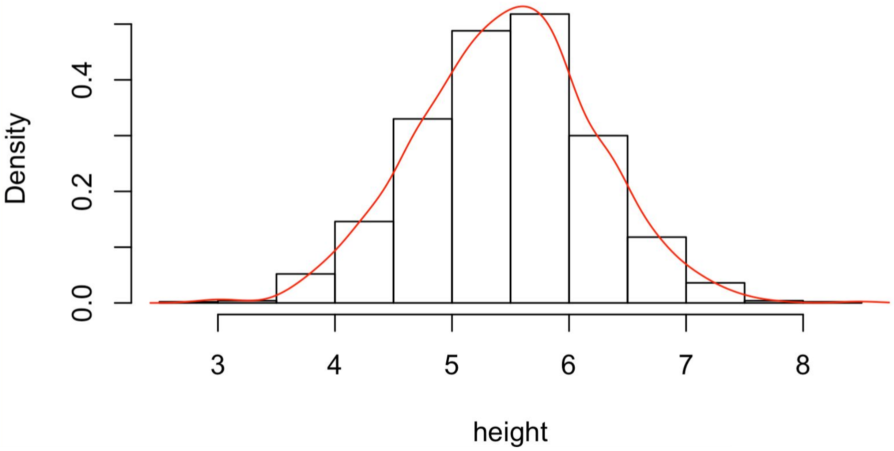

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Thinking about your data this way can help make a lot of statistical techniques more intuitive!

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Then we will look at the range of values we can get from this variable.