Data Visualization With Stata (The Basics)

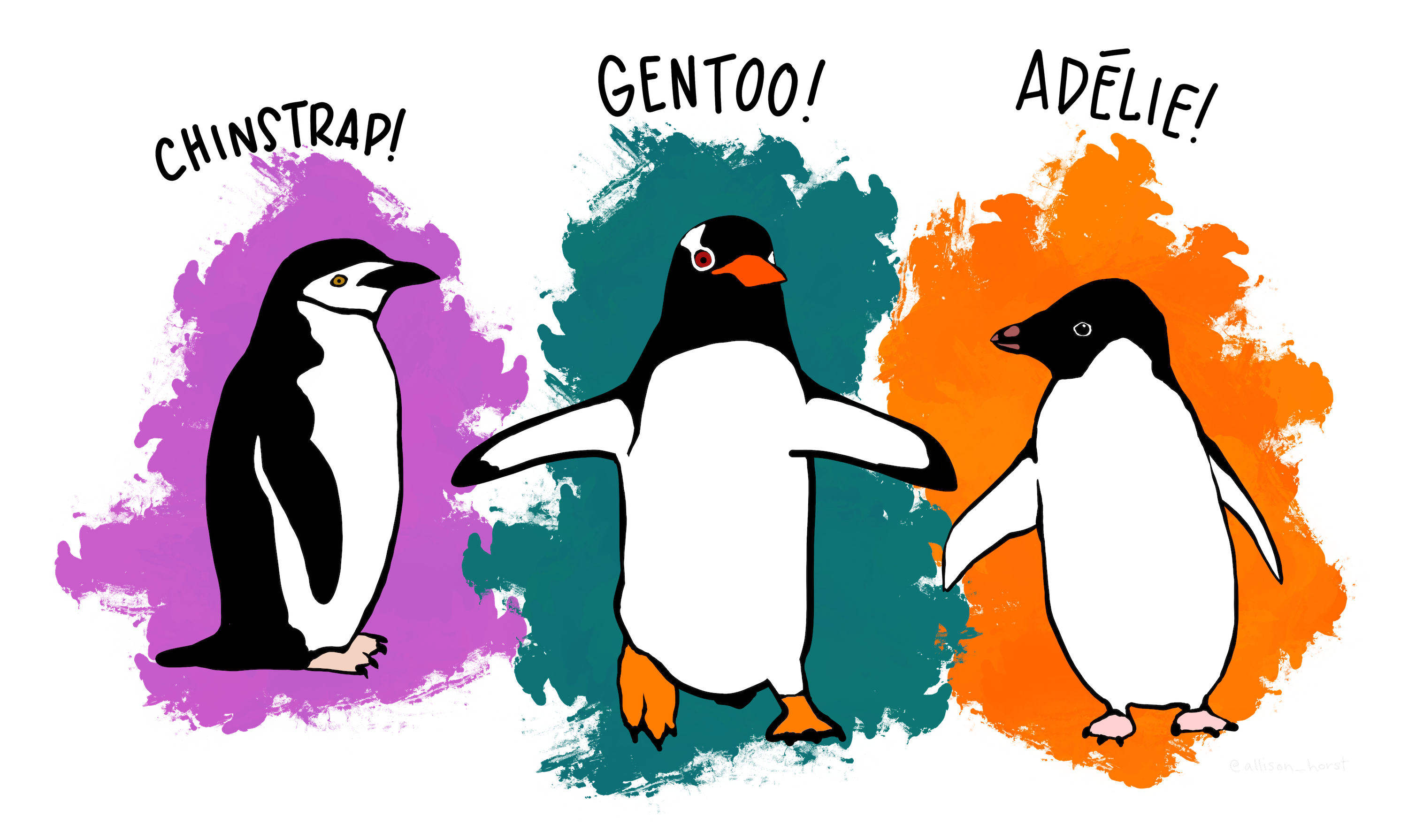
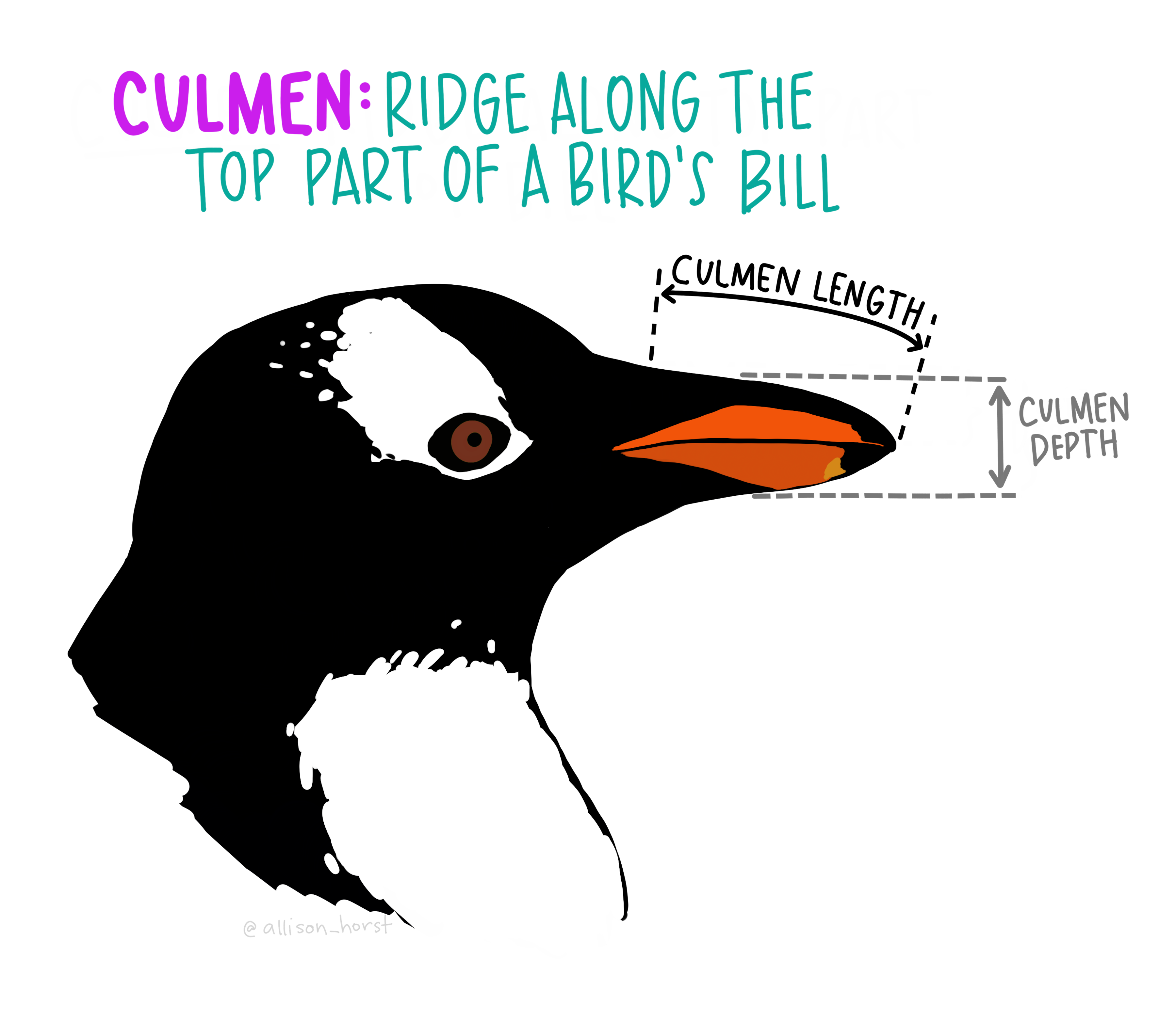
Andy Grogan-Kaylor

28 Jan 2022

# Introduction

99% of data visualization work seems to consist of creating bar graphs (graph bar y, over(x)) and scatterplots (twoway scatter y x). (For the sake of completeness, I am also going to mention histograms (histogram x).)

This is a quick guide to these ideas using the [Palmer Penguins Data](https://github.com/allisonhorst/palmerpenguins/blob/master/README.md).

{width=20%} {width=20%}

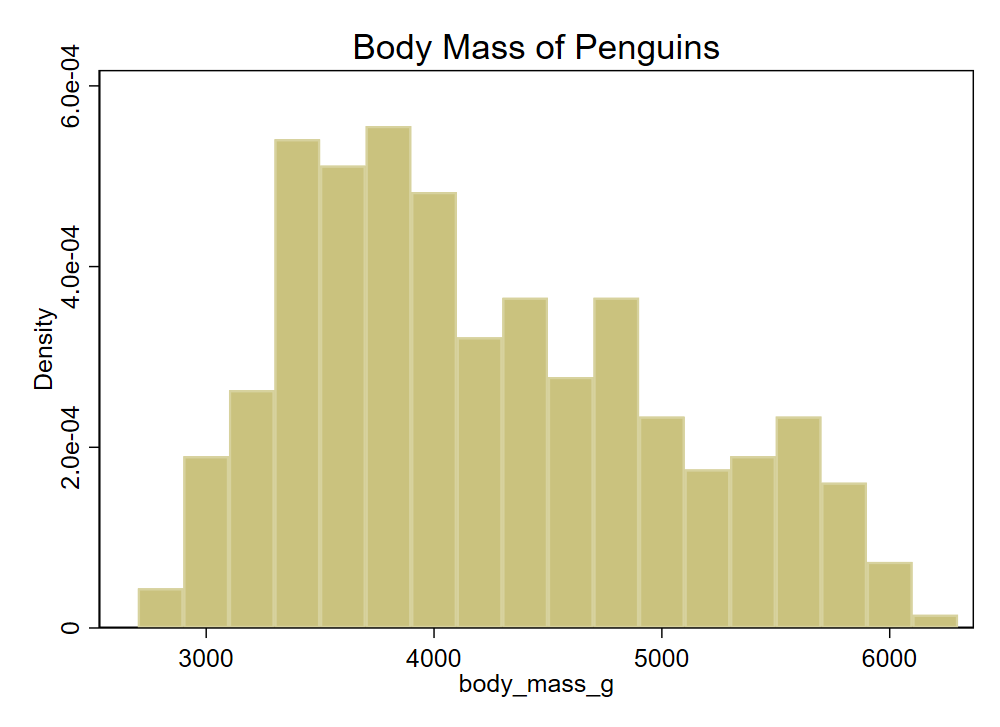
. clear all  
  
.   
. use "https://github.com/agrogan1/Stata/raw/master/data-visualization-with-Stata-the-basics/penguins.dta", clear

I am not a particular fan of Stata's default graph schemes, so I am going to make use of the graph scheme entitled s1color.

. set scheme s1color // use s1color scheme

# Histogram: histogram x

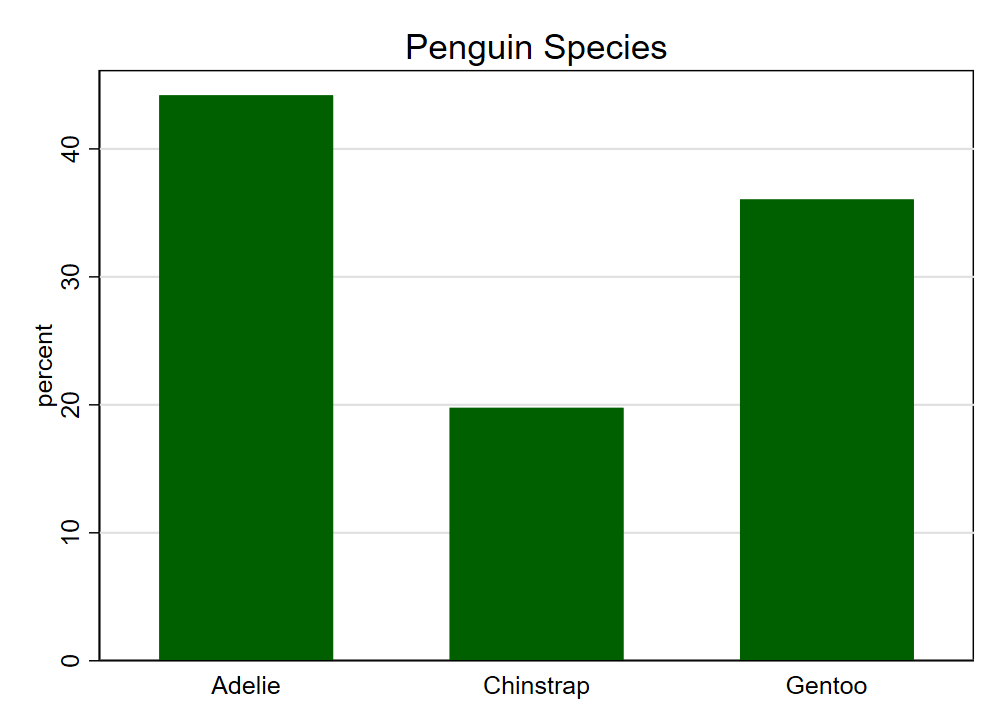
. histogram body\_mass\_g, title("Body Mass of Penguins")  
(bin=18, start=2700, width=200)

{width=25%}

# Bar Graph: graph bar

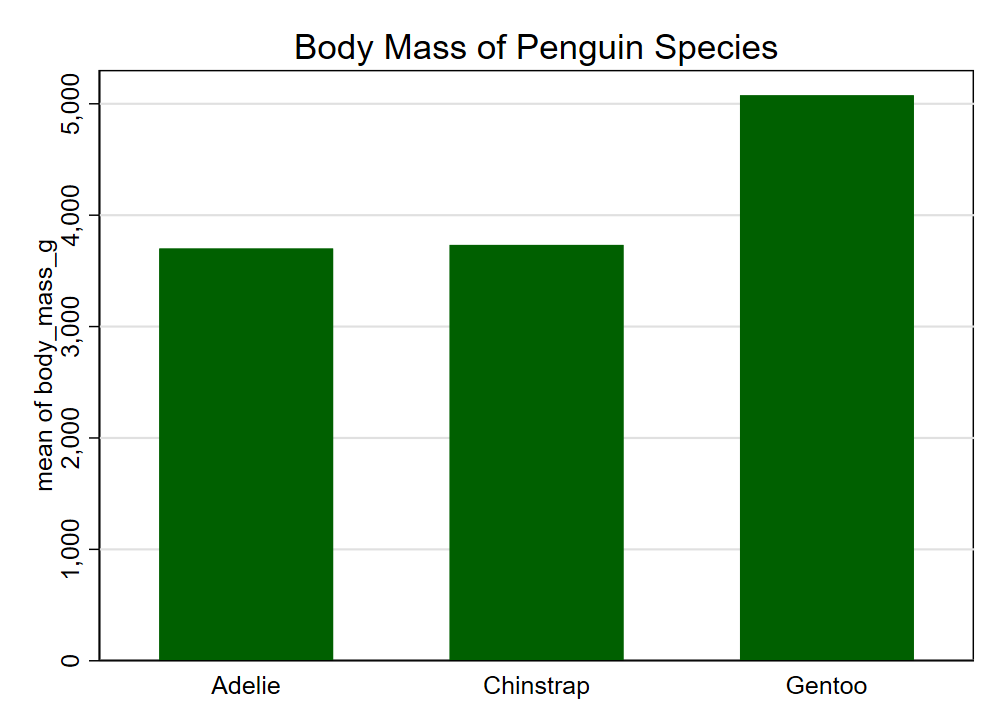
## Counting Up Numbers In Each Group: graph bar, over(x)

. graph bar, over(species) title("Penguin Species")

{width=30%}

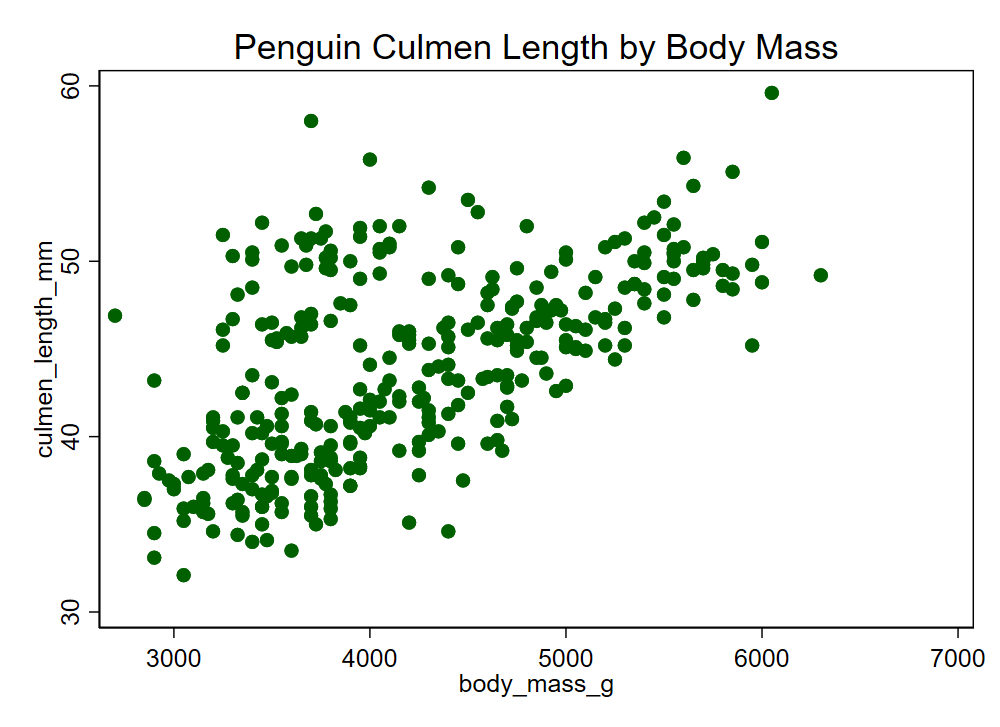
## Average Of A Continuous Variable Across Groups: graph bar y, over(x)

. graph bar body\_mass\_g, over(species) title("Body Mass of Penguin Species")

{width=30%}

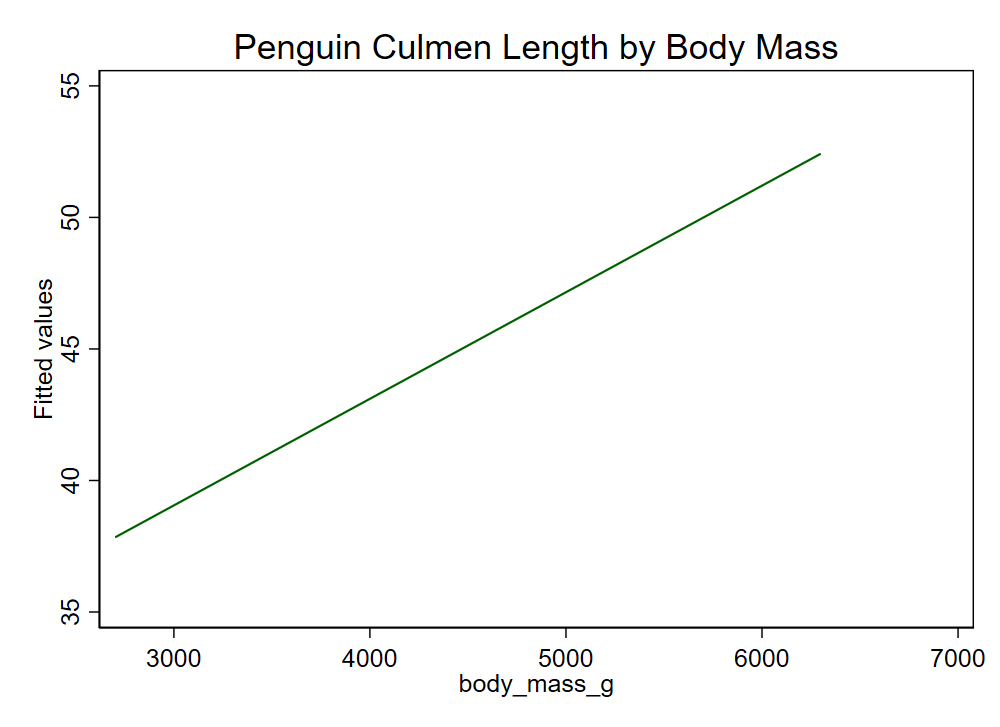
# Scatterplot: twoway scatter y x

. twoway scatter culmen\_length\_mm body\_mass\_g, title("Penguin Culmen Length by Body Mass")

{width=30%}

# Linear Fit: twoway lfit y x

. twoway lfit culmen\_length\_mm body\_mass\_g, title("Penguin Culmen Length by Body Mass")

{width=30%}