Data Visualization With Stata (The Basics)

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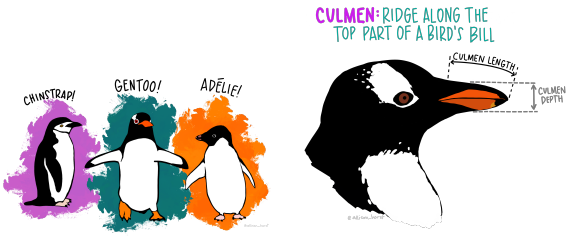
Introduction

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`).)

> Note: In some commands, I use `///` so that Stata commands can be on multiple lines.

This is a quick guide to these ideas using the Palmer Penguins Data.




```
. 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") xtitle("Body Mass")
(bin=18, start=2700, width=200)
```

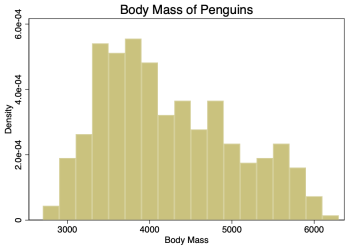


Figure 1: histogram

Bar Graph: `graph bar`

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

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

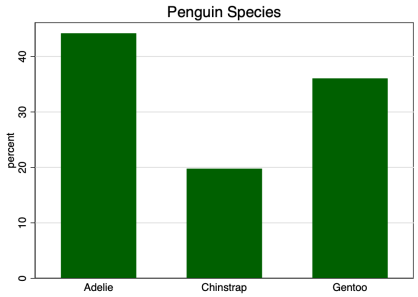


Figure 2: bar graph

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")
```

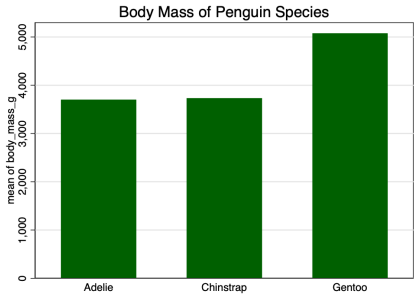


Figure 3: bar graph

Scatterplot: `twoway scatter y x`

```
. twoway scatter culmen_length_mm body_mass_g, ///
> title("Penguin Culmen Length by Body Mass") ///
> xtitle("Body Mass") ///
> ytitle("Culmen Length")
```

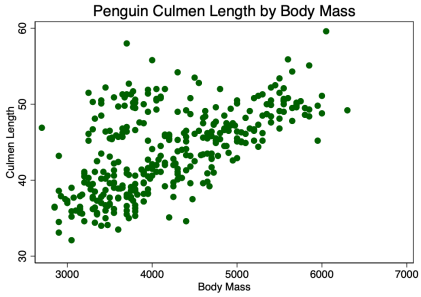


Figure 4: scatterplot

Linear Fit: `twoway lfit y x`

```
. twoway lfit culmen_length_mm body_mass_g, ///
> title("Penguin Culmen Length by Body Mass") ///
> xtitle("Body Mass") ///
> ytitle("Culmen Length")
```

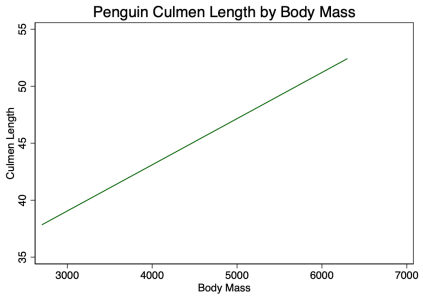


Figure 5: scatterplot