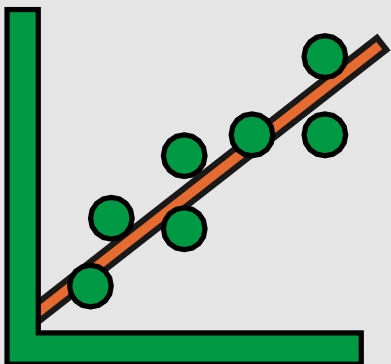
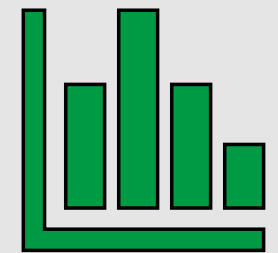


# Making Magnificently Good Graphs: Introduction

BERDC Special Topics Talk 3, Part 1

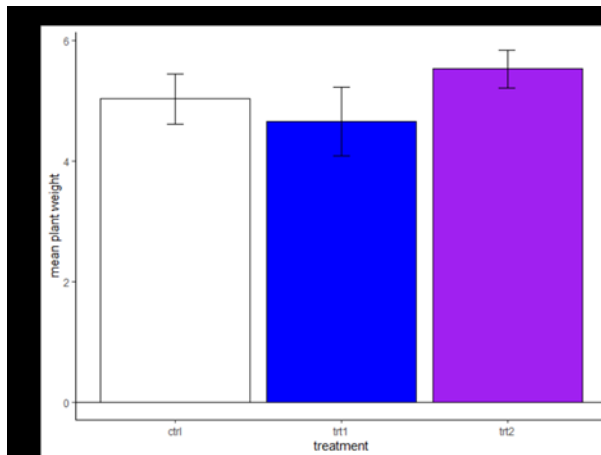


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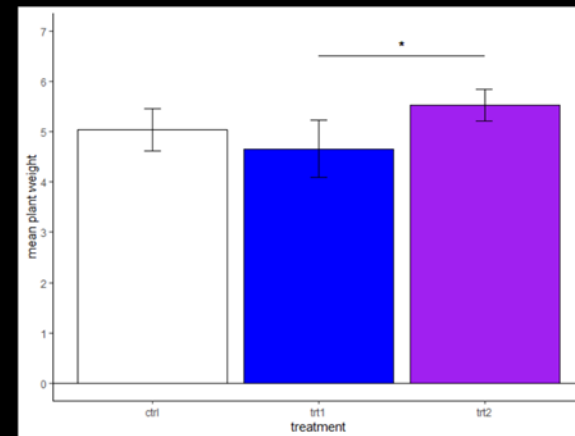
Dr. Mark Williamson  
Biostatistics, Epidemiology,  
and Research Design Core

# Rationale

- Making clear, clean, and appealing graphs is an important step in presenting scientific results
- However, it can be difficult to attain
- Often a high learning curve to adjust the various graphical parameters



**Getting a graph 95% complete:  
5 minutes**



**Getting a graph 100% complete:  
3 hours, countless Google searches, and  
scrolling through a Stack Overflow thread  
from a Serbian man named Steve**

# Rationale Vol. 2

- Most of the information presented here can be found with a web search
- However, it can take a lot of work to find all the pieces
- Hopefully, this series of special topic talks will aid you in that attempt
- This is the first step of the great path of learning how to do it yourself



# Software Covered



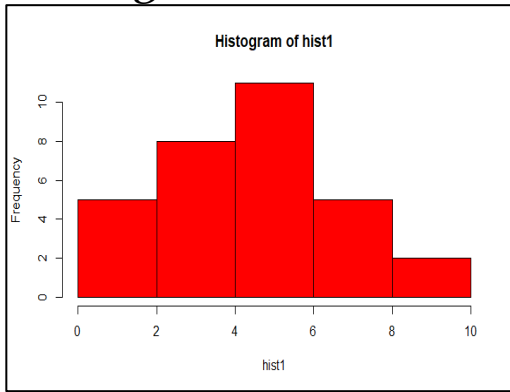
- Check the Statistical Software Toolkit video a deeper look into the pros and cons of each software package

<https://youtu.be/qBC4wYTK89E>

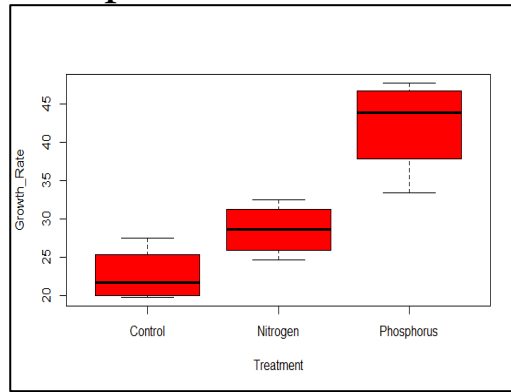


# Graphs Covered

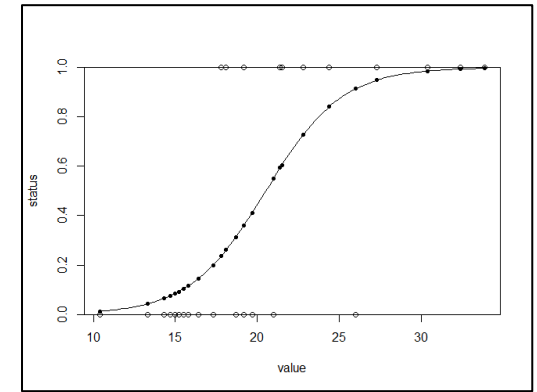
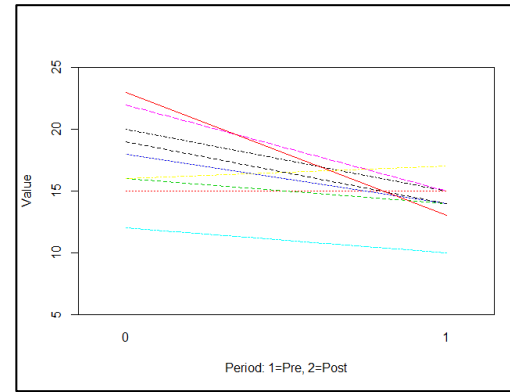
### Histograms



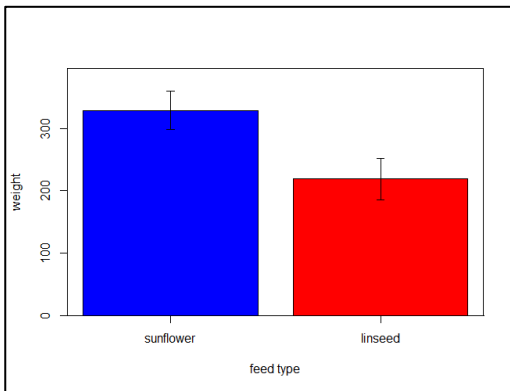
### Boxplots



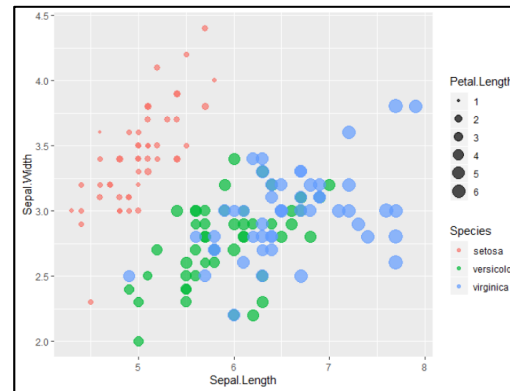
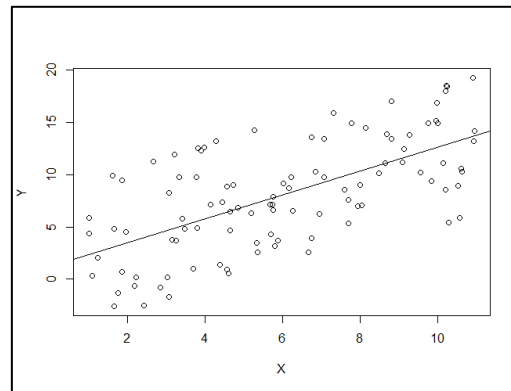
### Other...



### Bar plots



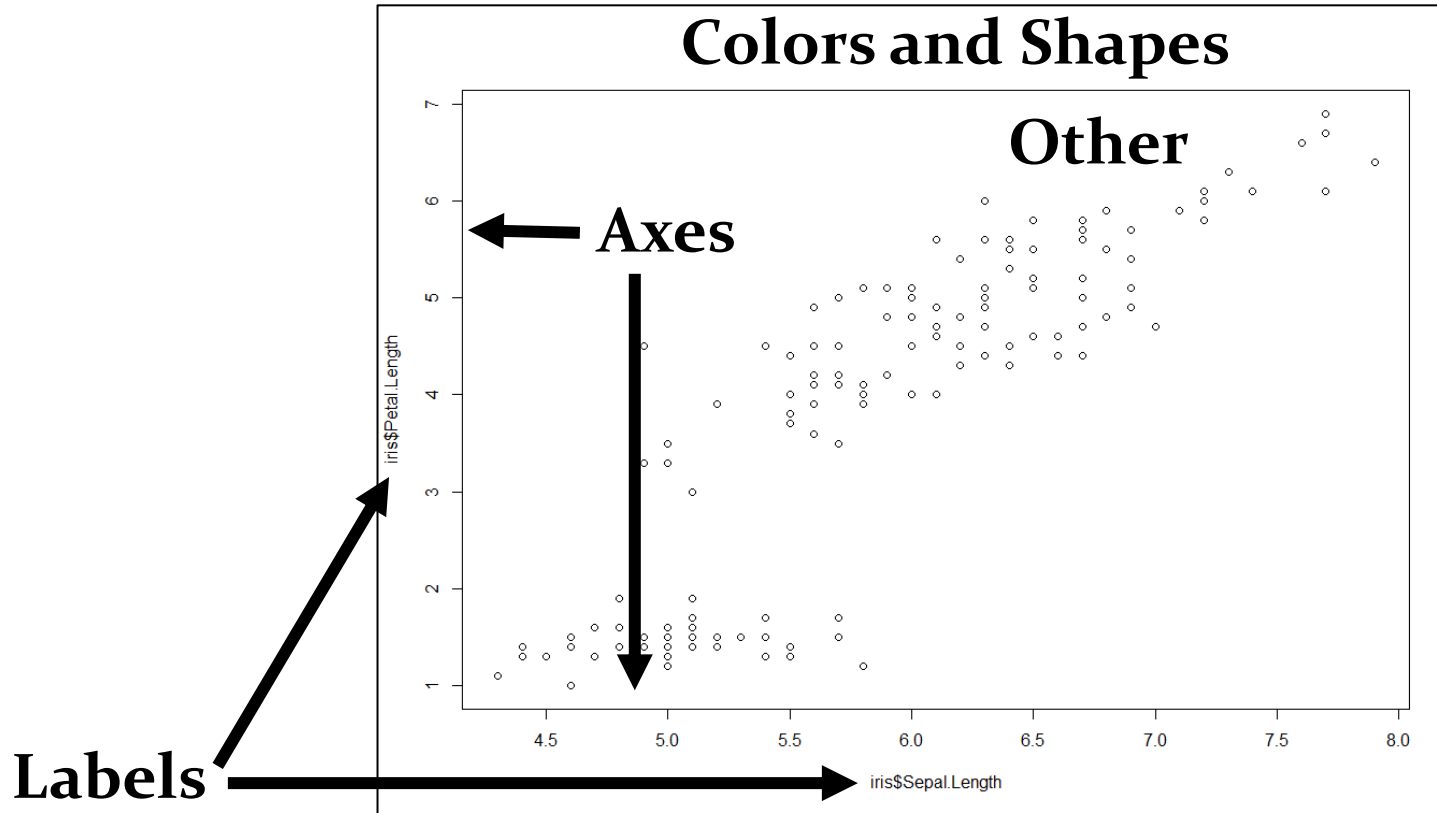
### Scatter plots



# Elements Covered

## Dots, Lines, and Text

### Colors and Shapes



# Special Features

8 Quick Tests 0 Answers

▲ Sampling frame    ◆ Choosing

● Selection    ■ Sampling

Stat Hacks

Pitfall Alerts

## Animated Summaries

Animaker

## Further Exploration

```
R version 4.0.0 (2020-04-24) -- "Arbor Day"  
Copyright (C) 2020 The R Foundation for Statistical Computing  
Platform: x86_64-mingw32/x64 (64-bit)  
  
R is free software and comes with ABSOLUTELY NO WARRANTY.  
You are welcome to redistribute it under certain conditions.  
Type 'license()' or 'licence()' for distribution details.  
  
R is a collaborative project with many contributors.  
Type 'contributors()' for more information and  
'citation()' on how to cite R or R packages in publications.  
  
Type 'demo()' for some demos, 'help()' for on-line help, or  
'help.start()' for an HTML browser interface to help.  
Type 'q()' to quit R.  
  
>
```



# Assessment

- Before continuing to the content videos please take a few minutes to complete the pre-tests



[https://und.qualtrics.com/jfe/form/SV\\_56jgWM3T\\_xwYKZRI](https://und.qualtrics.com/jfe/form/SV_56jgWM3T_xwYKZRI)



[https://und.qualtrics.com/jfe/form/SV\\_6VAffuQt6g\\_e2ehw](https://und.qualtrics.com/jfe/form/SV_6VAffuQt6g_e2ehw)

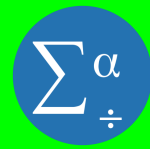


[https://und.qualtrics.com/jfe/form/SV\\_e5JnbgUz6m\\_W12K2](https://und.qualtrics.com/jfe/form/SV_e5JnbgUz6m_W12K2)

- Similarly, when you are done with the videos, please take the post tests and a short survey



[https://und.qualtrics.com/jfe/form/SV\\_9AELZY4M\\_WSJkrs](https://und.qualtrics.com/jfe/form/SV_9AELZY4M_WSJkrs)



[https://und.qualtrics.com/jfe/form/SV\\_b229RzSkU\\_b0FUfi](https://und.qualtrics.com/jfe/form/SV_b229RzSkU_b0FUfi)



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