Statistics for Scared People

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Contents

Who is this book for?

Part I

Questions about your goals

Chapter 1

What is your goal?

1.1 Exploratory or hypothesis generation

1.2 Inferential or hypothesis testing "Are things different"

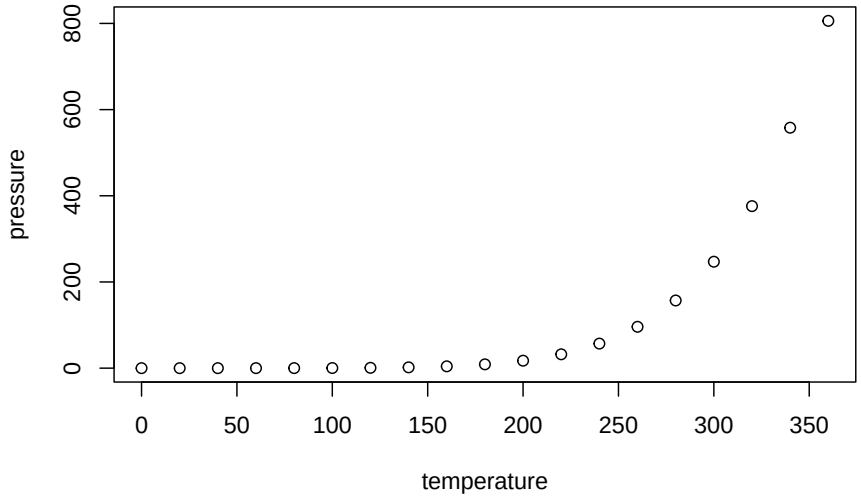
This is a hypothesis, not a description. Description can highlight, but doesn't test what's different. Descriptions can still have a bias (mean vs median vs range all show different things descriptively, PCA problems). Doesn't mean it's an experiment.

```
summary(cars)
```

```
##      speed           dist       
##  Min.   : 4.0   Min.   :  2.00  
##  1st Qu.:12.0   1st Qu.: 26.00  
##  Median :15.0   Median : 36.00  
##  Mean   :15.4   Mean   : 42.98  
##  3rd Qu.:19.0   3rd Qu.: 56.00  
##  Max.   :25.0   Max.   :120.00
```

1.3 Physical or mechanistic predictions - you can only statistics them away sometimes

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

Chapter 2

Types of resources

Peer-reviewed vs not: what can you cite? What helps?

Part II

Specific tests

Chapter 3

Email text for FAQ

3.1 Decision trees/CART/classification tree/regression tree/ctree email text

3.1.1 CART/ctree explanations

- Start with this one, CART section mainly: [http://www.jstor.org/stable/10.1086/587826](http://w

- [https://stats.stackexchange.com/questions/12140/conditional-inference-trees-vs-traditional-dec

- [https://stats.stackexchange.com/questions/255150/how-to-interpret-this-decision-tree](https://

3.1.2 Examples of CART in the wild:

- [https://esajournals.onlinelibrary.wiley.com/doi/full/10.1890/1051-0761%282006%29016%5B0687%3AH

- Uses R's ctree: [https://link.springer.com/article/10.1007/s11252-019-00896-0](https://link.spr