

Hello World!

Chris Bilder

Department of Statistics
University of Nebraska–Lincoln
www.chrisbilder.com

April 18, 2016

- 1 Introduction
- 2 Background
 - Notation
 - Model
- 3 Proposed methodology
- 4 Simulation study
- 5 Example
 - Data
 - Analysis
 - Plot
- 6 Discussion

Introduction

This frame describes why my new statistical method is soooo important.

Notation

- Suppose Y_i for $i = 1, \dots, n$ is a random sample from a normal population with mean μ and variance σ^2 .

Notation

- Suppose Y_i for $i = 1, \dots, n$ is a random sample from a normal population with mean μ and variance σ^2 .
- Suppose Y_i for $i = 1, \dots, n$ is a random sample from a normal population with mean μ and variance σ^2 .
- Suppose Y_i for $i = 1, \dots, n$ is a random sample from a normal population with mean μ and variance σ^2 .

Notation

- Suppose Y_i for $i = 1, \dots, n$ is a random sample from a normal population with mean μ and variance σ^2 .

Notation

- Suppose Y_i for $i = 1, \dots, n$ is a random sample from a normal population with mean μ and variance σ^2 .
- Suppose Y_i for $i = 1, \dots, n$ is a random sample from a normal population with mean μ and variance σ^2 .
- Suppose Y_i for $i = 1, \dots, n$ is a random sample from a normal population with mean μ and variance σ^2 .

Model

- Important equation:

$$f(y) = \frac{1}{\sigma\sqrt{2\pi}} \exp((y - \mu)^2/2\sigma^2)$$

- Another important equation:

$$f(y) = \frac{1}{\sigma\sqrt{2\pi}} e^{\frac{(y-\mu)^2}{2\sigma^2}}$$

Proposed methodology

An environment involving lists:

- 1 First item
- 2 Second item

A	B	
C	D	

Simulation study

- In Section ??, we showed that our proposed methods will change the statistical world as $n \rightarrow \infty$.
- Now, we will show the same is true for a fixed sample size of n .

Data

```
> cereal<-read.csv(file = "c:\\data\\cereal.csv")
> head(cereal)
```

	ID	Shelf	Cereal	size_g
1	1	1	Kellogg's Razzle Dazzle Rice Crispies	28
2	2	1	Post Toasties Corn Flakes	28
3	3	1	Kellogg's Corn Flakes	28
4	4	1	Food Club Toasted Oats	32
5	5	1	Frosted Cheerios	30
6	6	1	Food Club Frosted Flakes	31

	sugar_g	fat_g	sodium_mg
1	10	0	170
2	2	0	270
3	2	0	300
4	2	2	280
5	13	1	210
6	11	0	180

Analysis

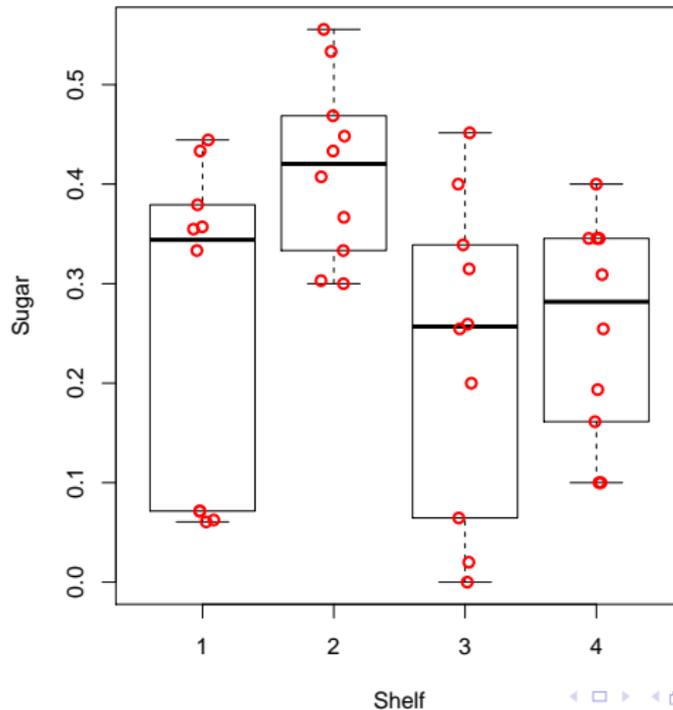
```
> cereal$sugar<-cereal$sugar_g/cereal$size_g  
> cereal$fat<-cereal$fat_g/cereal$size_g  
> cereal$sodium<-cereal$sodium_mg/cereal$size_g  
> aggregate(formula = sugar ~ Shelf, data = cereal, FUN =  
  mean)
```

	Shelf	sugar
1	1	0.2568366
2	2	0.4149686
3	3	0.2303732
4	4	0.2554839

```
> aggregate(formula = sugar ~ Shelf, data = cereal, FUN =  
  sd)
```

	Shelf	sugar
1	1	0.16729566
2	2	0.09001019
3	3	0.15770057
4	4	0.11010226

Plot



Discussion

Thank you