

A simple analysis of the cereal dataset for K

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1 Introduction

What is the relationship between the calories in a serving of breakfast cereal and the grams of fat.

2 Material and Methods

A sample of 23 cereals were sampled from a local grocery store from this manufacturer and the nutritional information (e.g. number of grams of fat, protein, carbohydrates, etc.) and the number of calories per serving was extracted. The display shelf on which the cereal was stored was also recorded.

A simple linear regression was used to estimate the relationship between calories and fat.

All computations were performed using R version 3.6.0 (2019-04-26).

3 Results

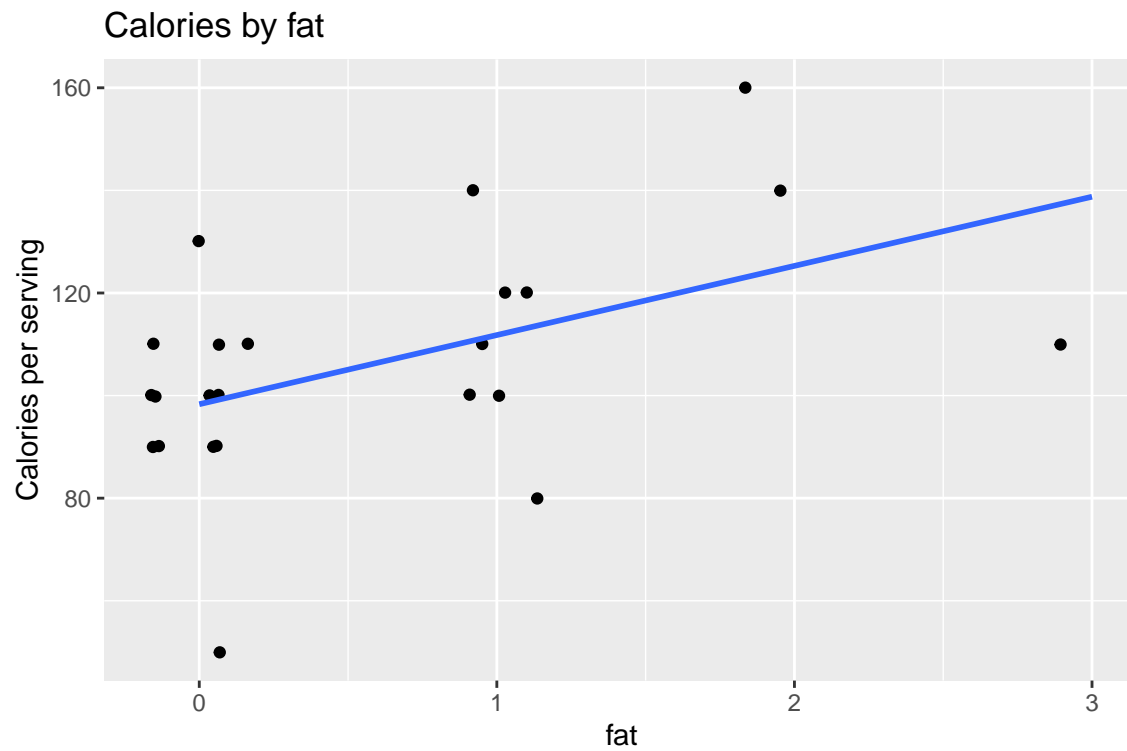
The data was screened for outliers and no unusual points were located.

This table summarizes the calories per serving by shelf number. shelf shelfc 1 2 3 High 0 0 12 Low 4 0 0 Middle 0 7 0

Table 1: Summary statistics on calories per serving

Shelf	n	Mean calories per serving	Min calories per serving	Max calories per serving	SD calories per serving
Low	4	105	100	110	5.8
Middle	7	107.1	90	120	11.1
High	12	106.7	50	160	30.8

This figure shows a graphical display of the calories per serving vs. the amount of fat in a serving.



There was some evidence of a relationship between the calories per serving and the amount of fat ($p=0.015465$). The estimated slope was 13.48 (SE 5.12).

4 Summary

We found some evidence that the mean number of calories varied with the amount of fat in a serving of cereal.