

# Exploring Heights

2017-11-15

## Introduction

This document summarises provides an initial analysis of height data from the 1990s, as sourced from (HopeCollege 2017).

## Summary of the Data

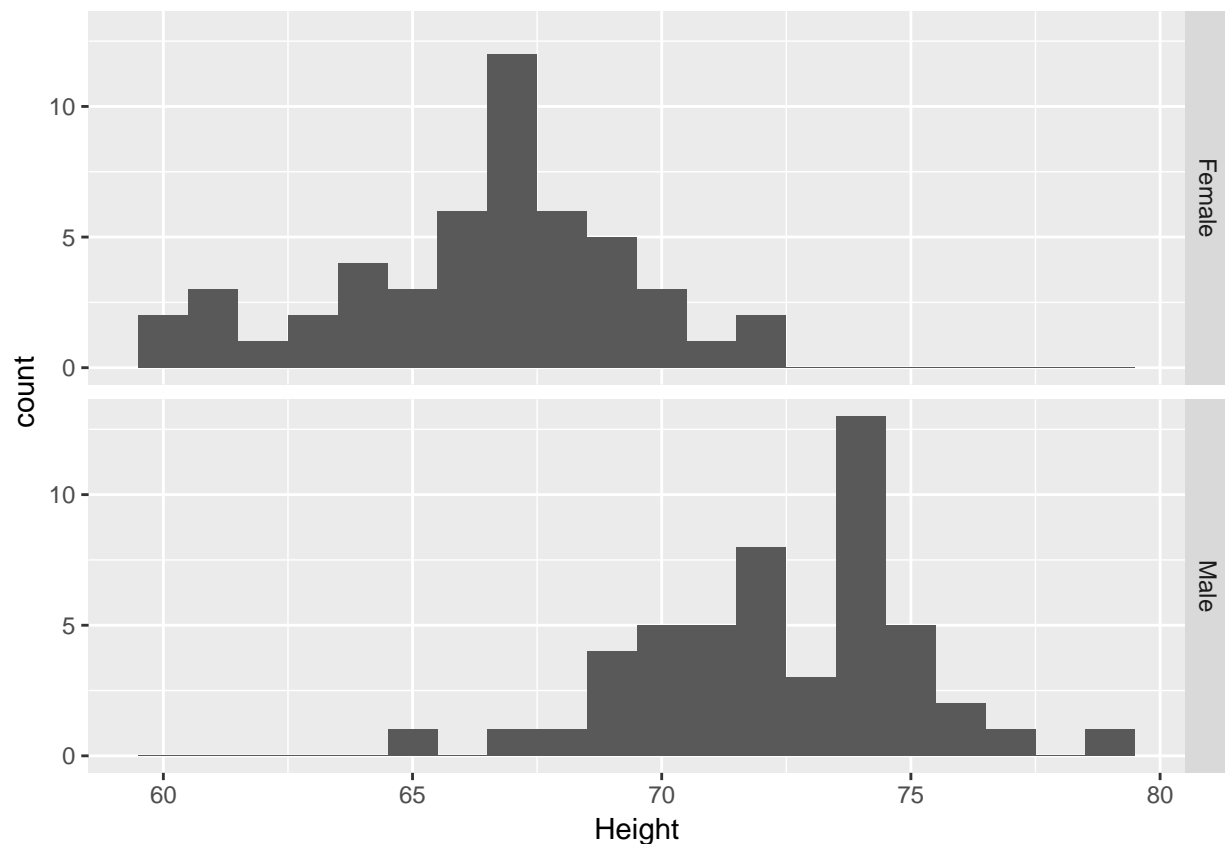
The data has 100 observations, with the following summary table:

Table 1: Summary of Heights Data

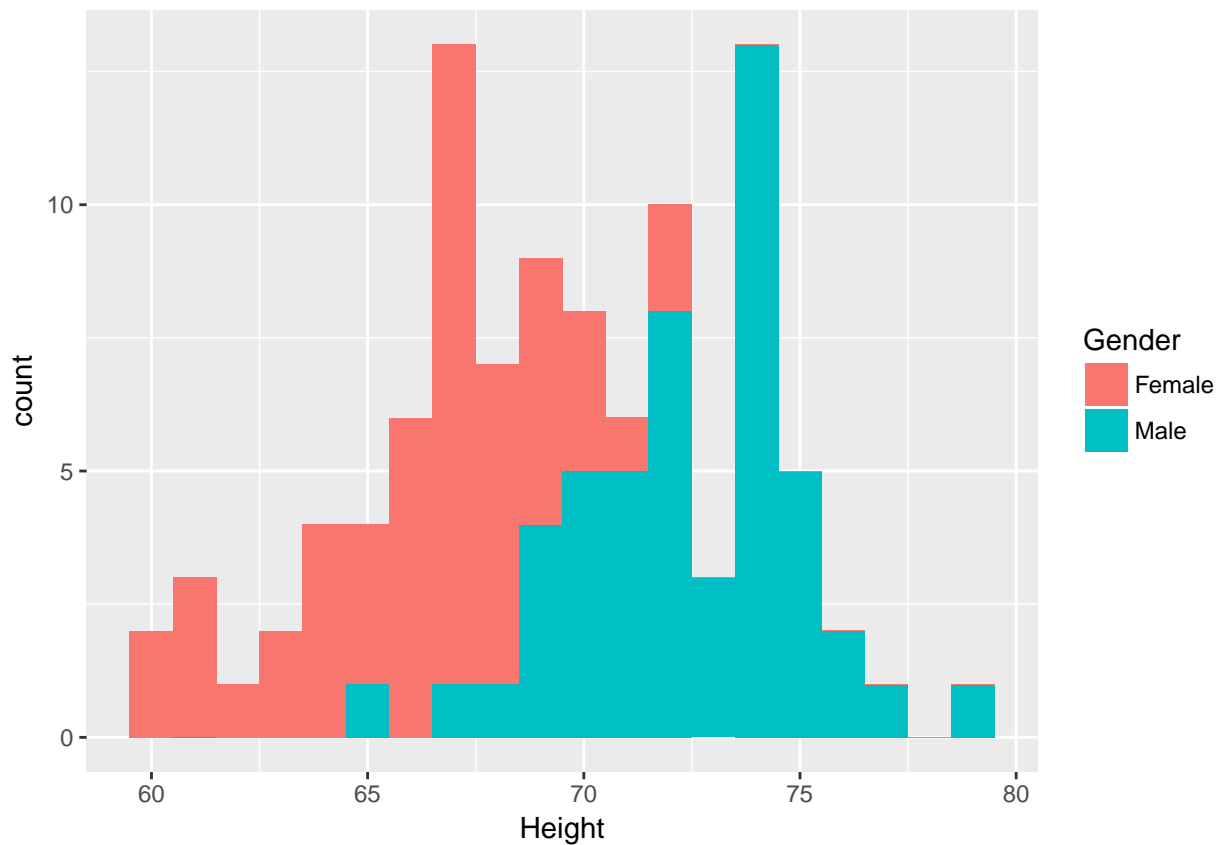
Gender	Mean	Median	SDev	Number
Female	66.40	67.0	2.920721	50
Male	72.42	72.5	2.665655	50

## Visualisation

The first graphs shows the two cohorts.



We then show the two cohorts in a single graph.



### Statistical Test

Finally, a student-t test is performed on the two data sets, confirming the statistical difference.

```
##
## Welch Two Sample t-test
##
## data:  males and females
## t = 10.765, df = 97.193, p-value < 2.2e-16
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  4.910132 7.129868
## sample estimates:
## mean of x mean of y
##    72.42    66.40
```

### References

HopeCollege. 2017. "Data Set from Hope College on Student Heights." <http://www.math.hope.edu/swanson/data/heights.txt>.