

Data Visualization with ggplot

Yogindra Raghav

September 28, 2018

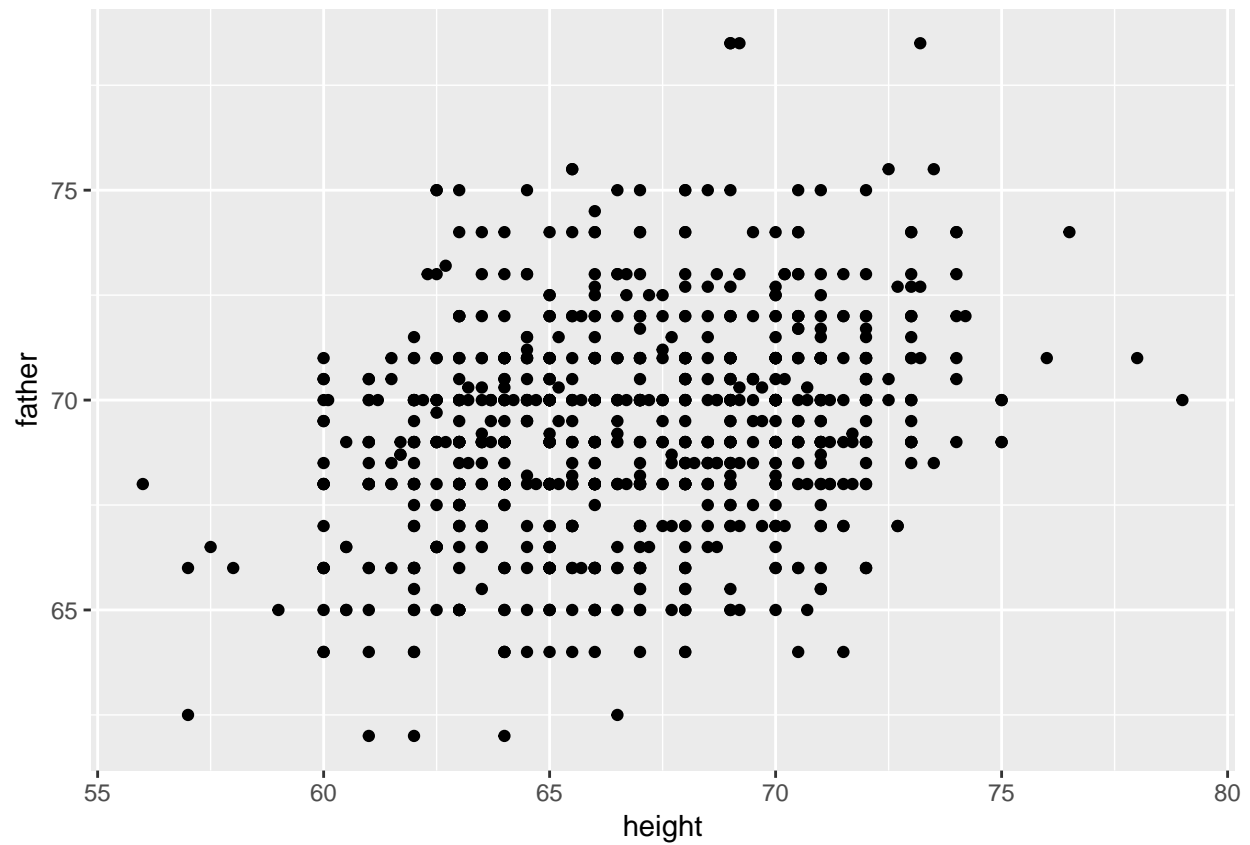
```
library(mdsr)
library(mosaic)
```

```
Binary_medv = with(MASS::Boston, ifelse(medv >25, "rich", "not so"))
Binary_medv
```

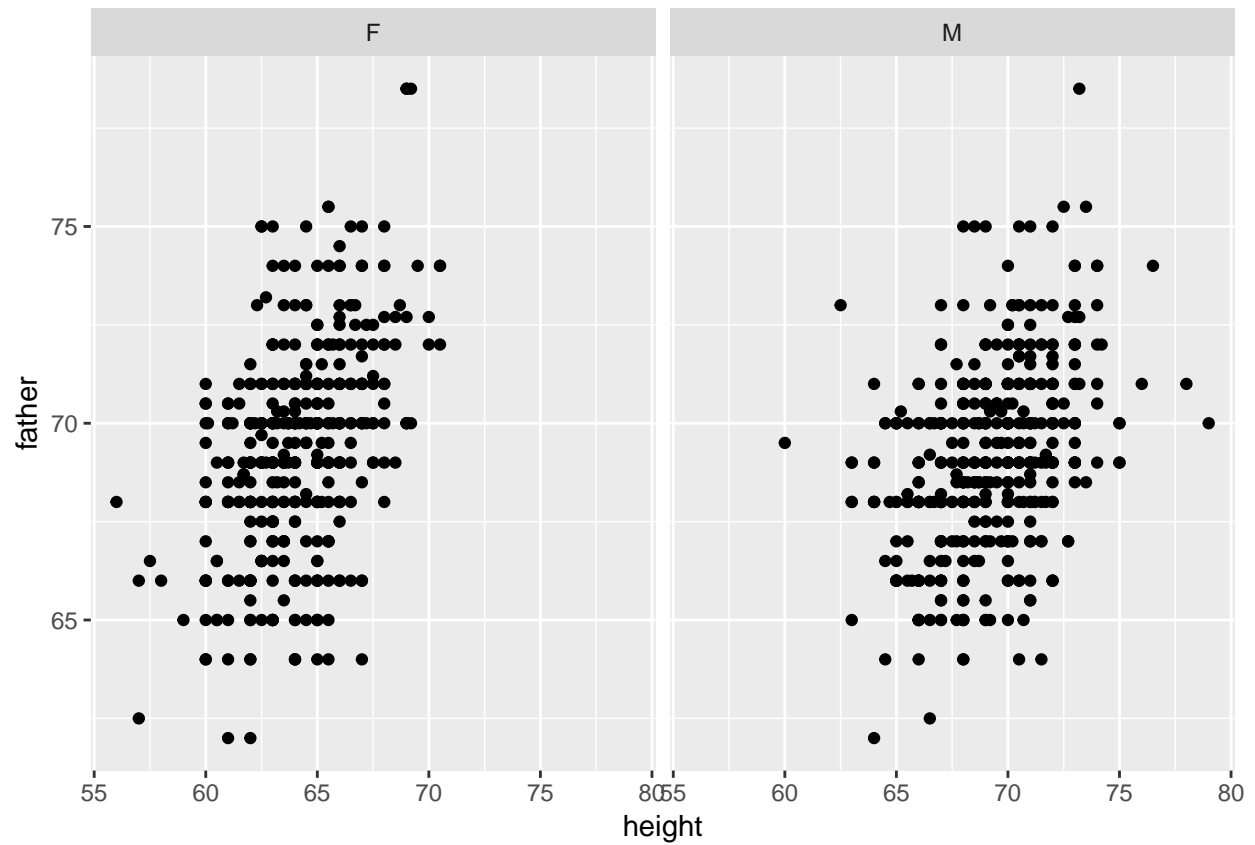
```
## [1] "not so" "not so" "rich" "rich" "rich" "rich" "not so"
## [8] "rich" "not so" "not so" "not so" "not so" "not so" "not so"
## [15] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [22] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [29] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [36] "not so" "not so" "not so" "not so" "rich" "rich" "rich"
## [43] "rich" "not so" "not so" "not so" "not so" "not so" "not so"
## [50] "not so" "not so" "not so" "not so" "not so" "not so" "rich"
## [57] "not so" "rich" "not so" "not so" "not so" "not so" "not so"
## [64] "not so" "rich" "not so" "not so" "not so" "not so" "not so"
## [71] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [78] "not so" "not so" "not so" "rich" "not so" "not so" "not so"
## [85] "not so" "rich" "not so" "not so" "not so" "rich" "not so"
## [92] "not so" "not so" "not so" "not so" "rich" "not so" "rich"
## [99] "rich" "rich" "rich" "rich" "not so" "not so" "not so"
## [106] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [113] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [120] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [127] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [134] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [141] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [148] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [155] "not so" "not so" "not so" "rich" "not so" "not so" "rich"
## [162] "rich" "rich" "rich" "not so" "not so" "rich" "not so"
## [169] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [176] "rich" "not so" "not so" "rich" "rich" "rich" "rich"
## [183] "rich" "rich" "rich" "rich" "rich" "rich" "rich"
## [190] "rich" "rich" "rich" "rich" "rich" "rich" "rich"
## [197] "rich" "rich" "rich" "rich" "rich" "not so" "rich"
## [204] "rich" "rich" "not so" "not so" "not so" "not so" "not so"
## [211] "not so" "not so" "not so" "rich" "not so" "not so" "not so"
## [218] "rich" "not so" "not so" "rich" "not so" "rich" "rich"
## [225] "rich" "rich" "rich" "rich" "rich" "rich" "not so"
## [232] "rich" "rich" "rich" "rich" "not so" "rich" "rich"
## [239] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [246] "not so" "not so" "not so" "not so" "rich" "not so" "not so"
## [253] "rich" "rich" "not so" "not so" "rich" "rich" "rich"
## [260] "rich" "rich" "rich" "rich" "rich" "rich" "not so"
## [267] "rich" "rich" "rich" "not so" "not so" "rich" "not so"
## [274] "rich" "rich" "rich" "rich" "rich" "rich" "rich"
## [281] "rich" "rich" "rich" "rich" "rich" "not so" "not so"
```

```
## [288] "not so" "not so" "not so" "rich" "rich" "rich" "not so"
## [295] "not so" "rich" "rich" "not so" "not so" "rich" "not so"
## [302] "not so" "rich" "rich" "rich" "rich" "rich" "rich"
## [309] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [316] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [323] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [330] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [337] "not so" "not so" "not so" "not so" "not so" "rich" "not so"
## [344] "not so" "rich" "not so" "not so" "not so" "not so" "rich"
## [351] "not so" "not so" "not so" "rich" "not so" "not so" "not so"
## [358] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [365] "not so" "rich" "not so" "not so" "rich" "rich" "rich"
## [372] "rich" "rich" "not so" "not so" "not so" "not so" "not so"
## [379] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [386] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [393] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [400] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [407] "not so" "rich" "not so" "rich" "not so" "not so" "not so"
## [414] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [421] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [428] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [435] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [442] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [449] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [456] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [463] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [470] "not so" "not so" "not so" "not so" "rich" "not so" "not so"
## [477] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [484] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [491] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [498] "not so" "not so" "not so" "not so" "not so" "not so" "not so"
## [505] "not so" "not so"
```

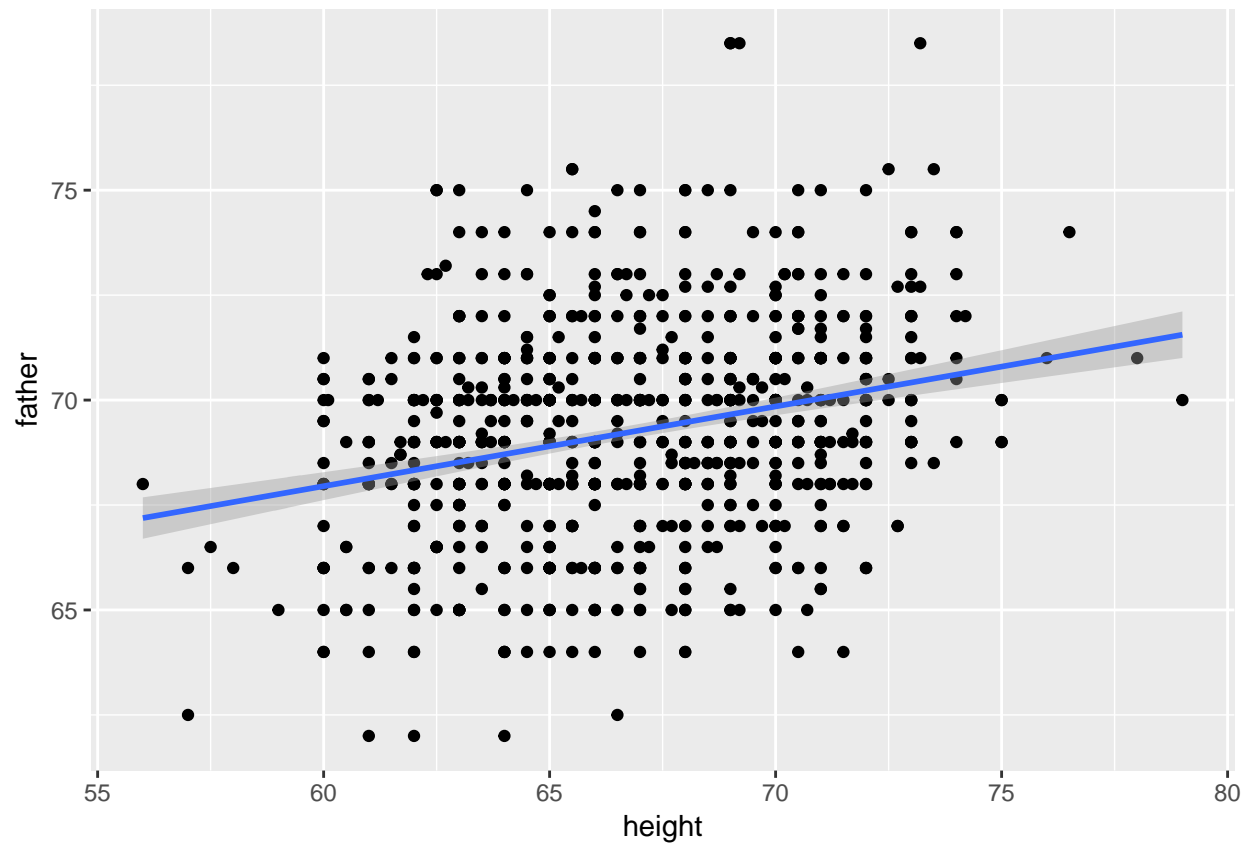
```
ggplot(data = Galton) + geom_point(mapping = aes(x = height, y = father))
```



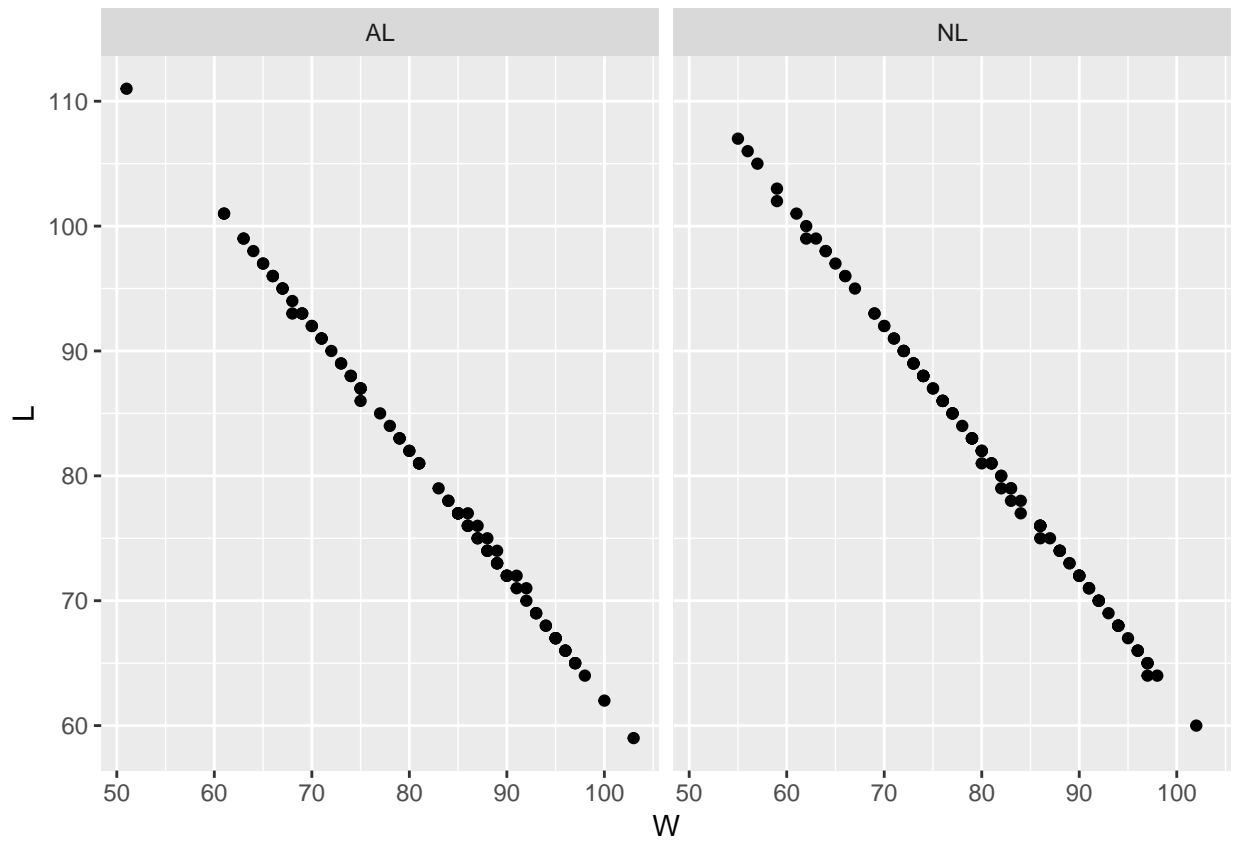
```
ggplot(data = Galton) + geom_point(mapping = aes(x = height, y = father)) +  
facet_grid(~sex)
```



```
ggplot(data = Galton) + geom_point(mapping = aes(x = height, y = father)) +  
geom_smooth(method = "lm", mapping = aes(x = height, y = father))
```



```
ggplot(data = MLB_teams) + geom_point(mapping = aes(x = W, y = L)) + facet_grid(~lgID)
```



```
ggplot(data = MLB_teams) + geom_point(mapping = aes(x = payroll, y = WPct)) +  
geom_smooth(method = "lm", mapping = aes(x = payroll, y = WPct))
```

