

Sophia Barrett

Variables:

Salary

Gender

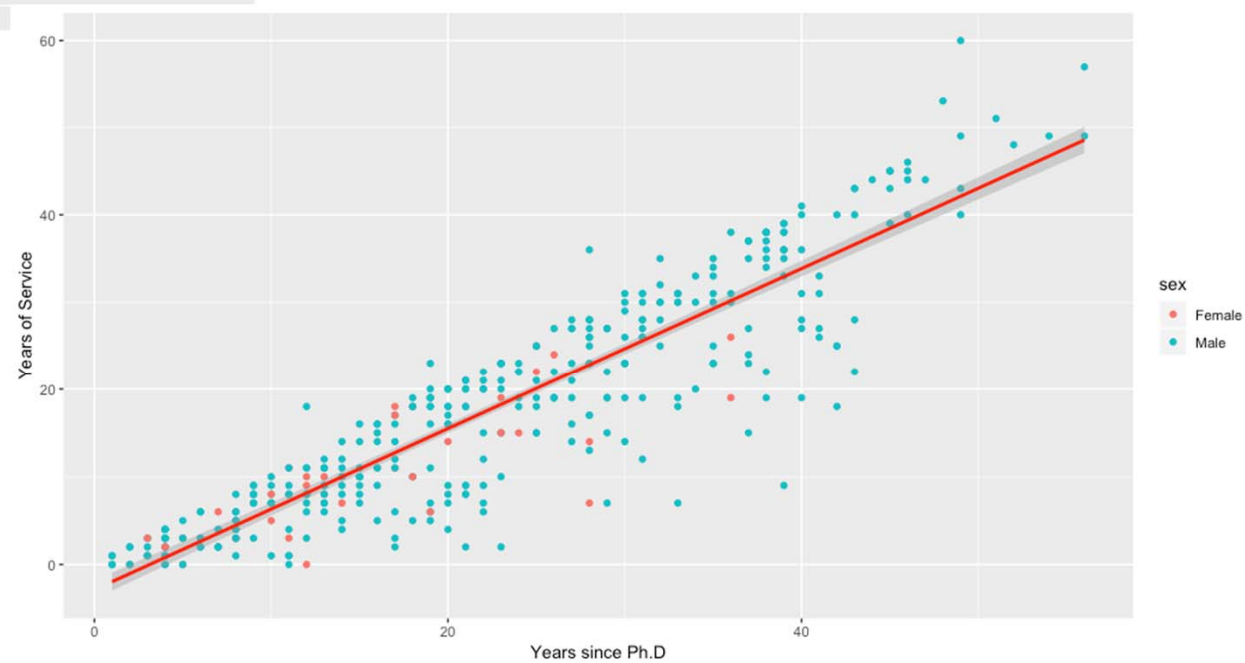
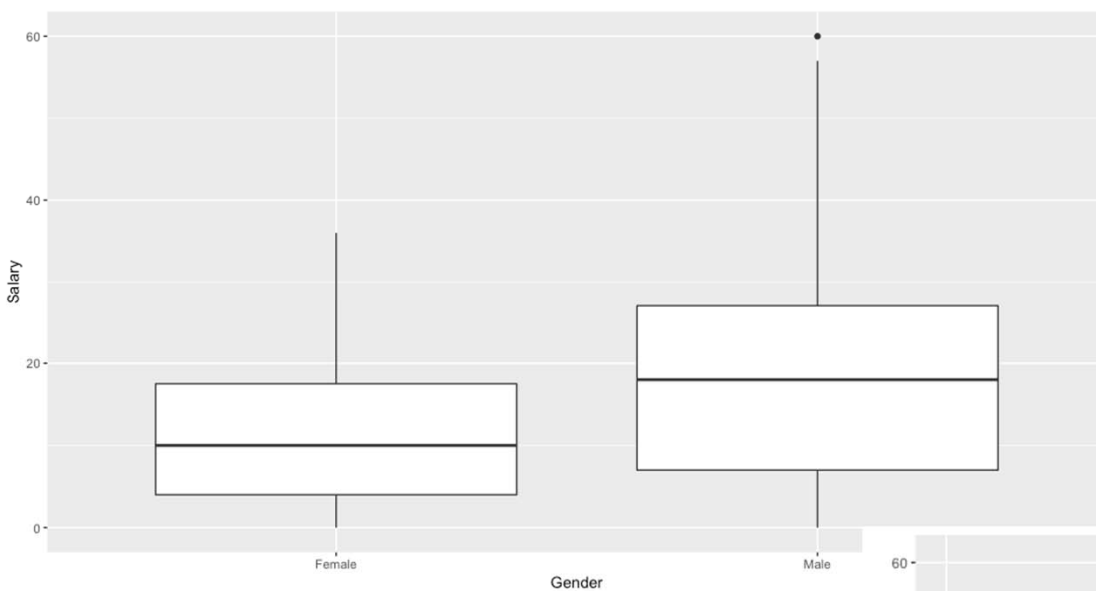
Years since Ph.D.

Years of Service

Rank (Assoc Prof, Asst Prof, Prof)

Discipline (Applied, Theoretical)

N = 397 cases



```

> summary(salarieslm)

Call:
lm(formula = salary ~ yrs.since.phd + yrs.service, data = salaries)

Residuals:
    Min       1Q   Median       3Q      Max
-79735 -19823  -2617   15149 106149

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)   89912.2    2843.6   31.620 < 2e-16 ***
yrs.since.phd  1562.9     256.8    6.086 2.75e-09 ***
yrs.service   -629.1     254.5   -2.472  0.0138 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 27360 on 394 degrees of freedom
Multiple R-squared:  0.1883,    Adjusted R-squared:  0.1842
F-statistic: 45.71 on 2 and 394 DF,  p-value: < 2.2e-16

```

A person with 1 year of service and 1 year since the Ph.D. has a predicted salary of \$90,846

A person with 10 year of service and 10 year since the Ph.D. has a predicted salary of \$99,250.20

$$\text{Salary} = 89912.20 + 1562.90 * \text{Years Since Ph.D.} - 629.10 * \text{Years of Service}$$