The Effect of Beauty and Other Characteristics on Professor Evaluation Ratings

Katelyn Barbre, Samuel Shaud, Isaac Stevens, Melanie Sattler 10/29/2020

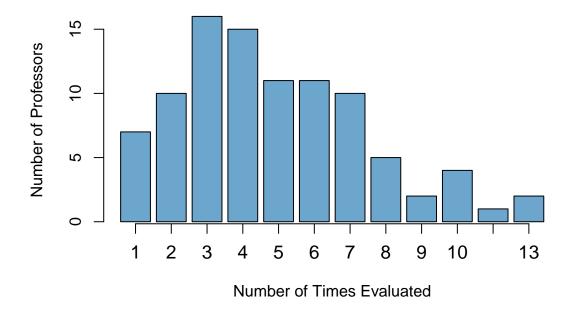
Summary

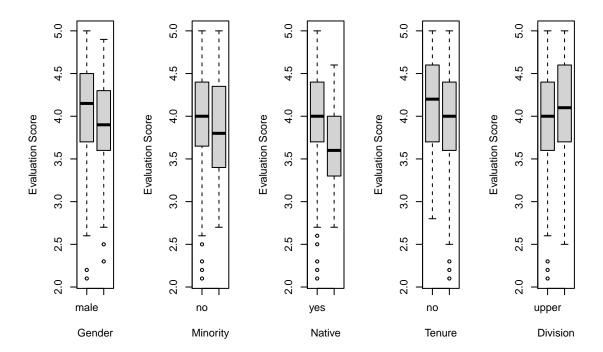
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Exploratory Data Analysis

Typing words outside of chunks will be the paragraphs that show up in the PDF.

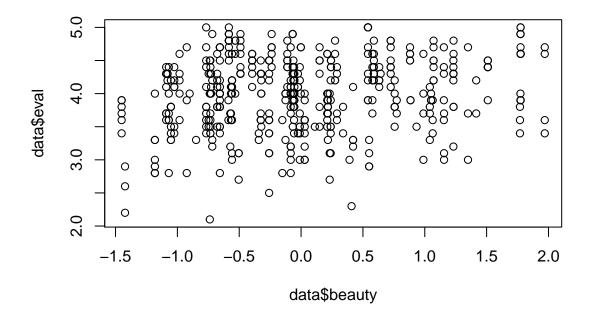
Histogram for the Number of Times a Professor was Evaluated

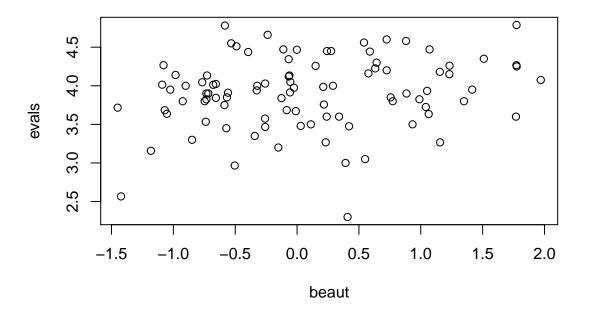




Simple Linear Regression

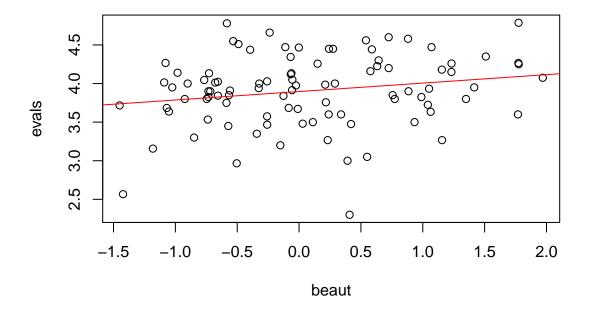
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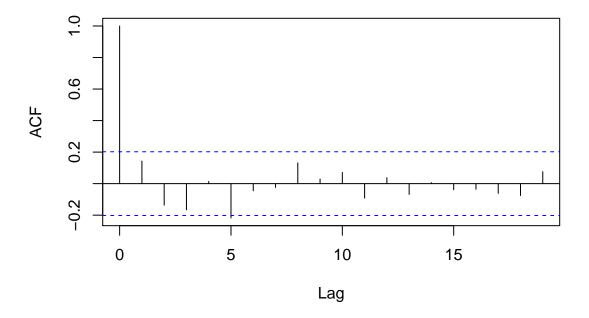
Analysis of Variance Table
##

```
## Response: evals
## Df Sum Sq Mean Sq F value Pr(>F)
## beaut    1 0.7622 0.76217 3.6881 0.0579 .
## Residuals 92 19.0123 0.20666
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
```

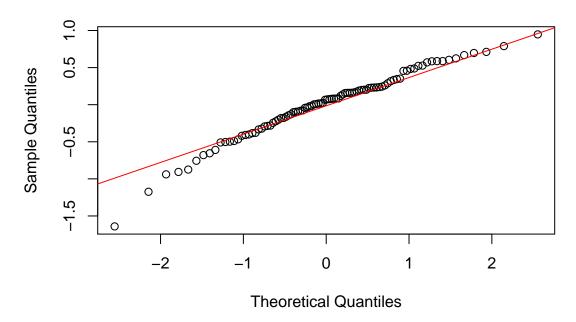




Series slr.result\$residuals



Normal Q-Q Plot

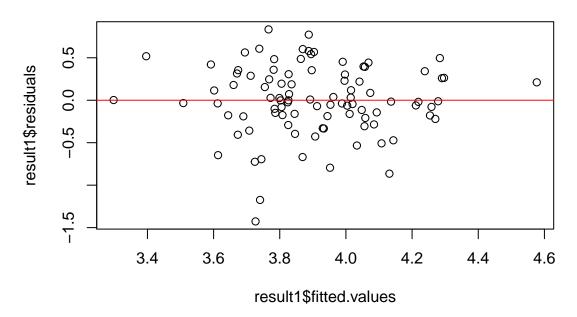


Multiple Linear Regression

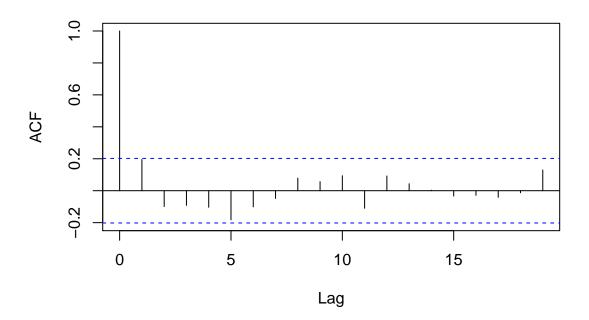
Typing words outside of chunks will be the paragraphs that show up in the PDF.

```
## Analysis of Variance Table
##
## Model 1: evals ~ division + beaut + gender + tenure + native
## Model 2: evals ~ division + beaut + gender + tenure + native + age + students +
##
       allstudents + minority
##
     Res.Df
               RSS Df Sum of Sq
                                     F Pr(>F)
## 1
         88 15.499
         84 14.470 4
                         1.0286 1.4928 0.2117
## 2
## Analysis of Variance Table
##
## Model 1: evals ~ division + beaut + gender + tenure
## Model 2: evals ~ division + beaut + gender + tenure + native + age + students +
##
       allstudents + minority
##
     Res.Df
               RSS Df Sum of Sq
                                    F Pr(>F)
         89 15.964
## 1
## 2
         84 14.470 5
                         1.4944 1.735 0.1355
```

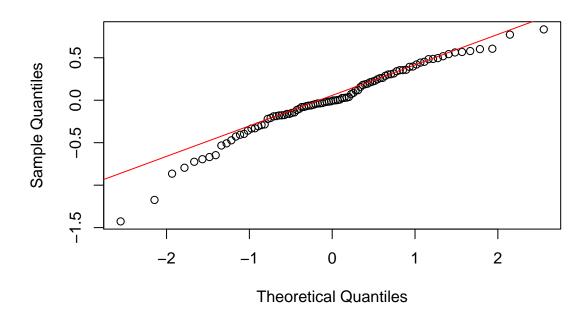
Plot of Residuals against Fitted Values for Model 1



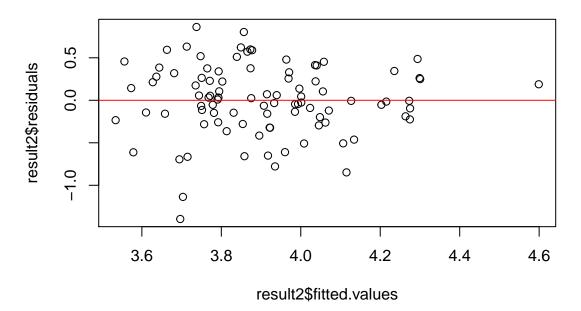
Series result1\$residuals



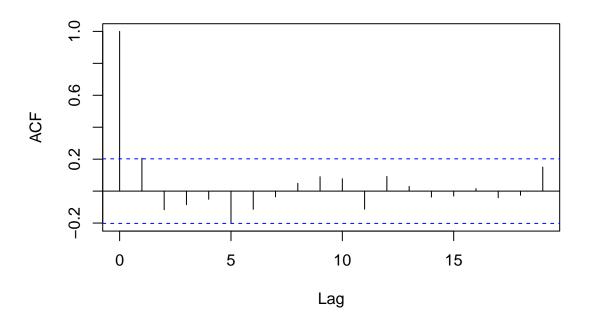
Normal Q-Q Plot



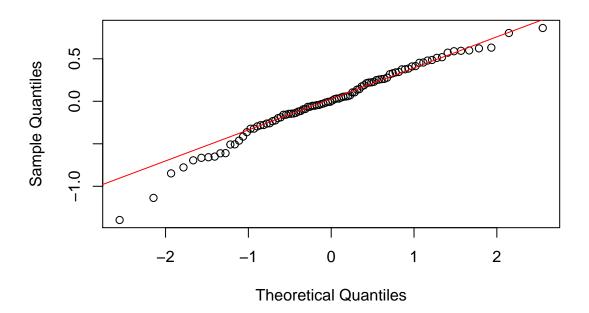
Plot of Residuals against Fitted Values for Model 2

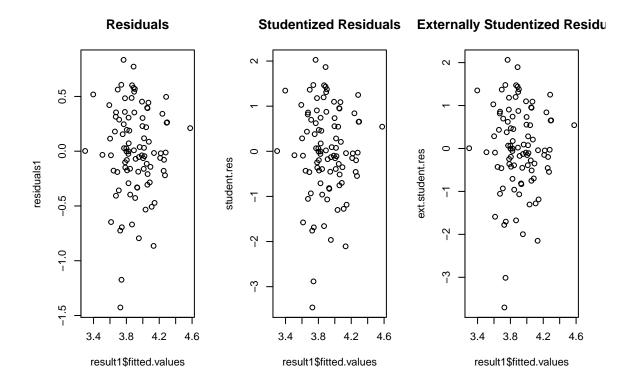


Series result2\$residuals

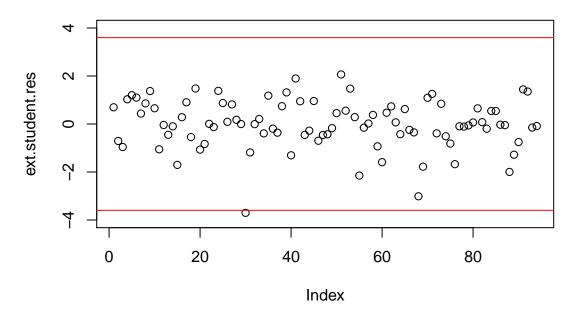


Normal Q-Q Plot

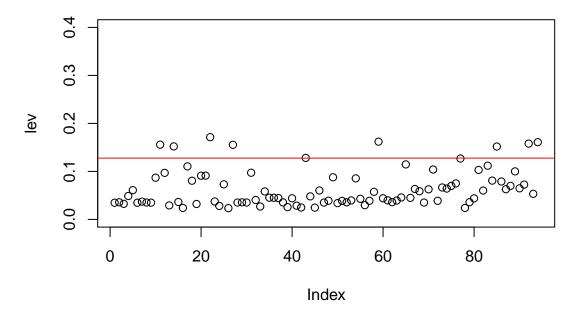




Externally Studentized Residuals



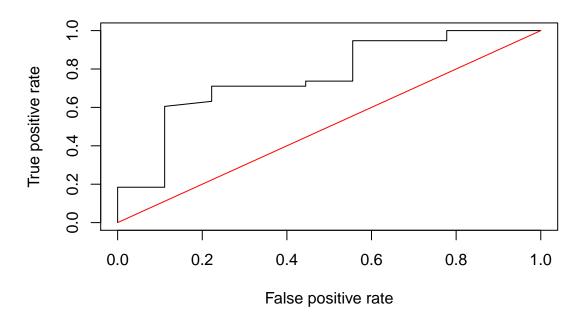
Leverages



Logistic Regression

Model Validation

ROC Curve for Titanic



Ridge/Lasso Regression

