

Modeling

Group 6

Predictors

```
# Revenue and Labor Share  
cor(couldabeens$totRev, couldabeens$labShare)
```

```
## [1] -0.5044864
```

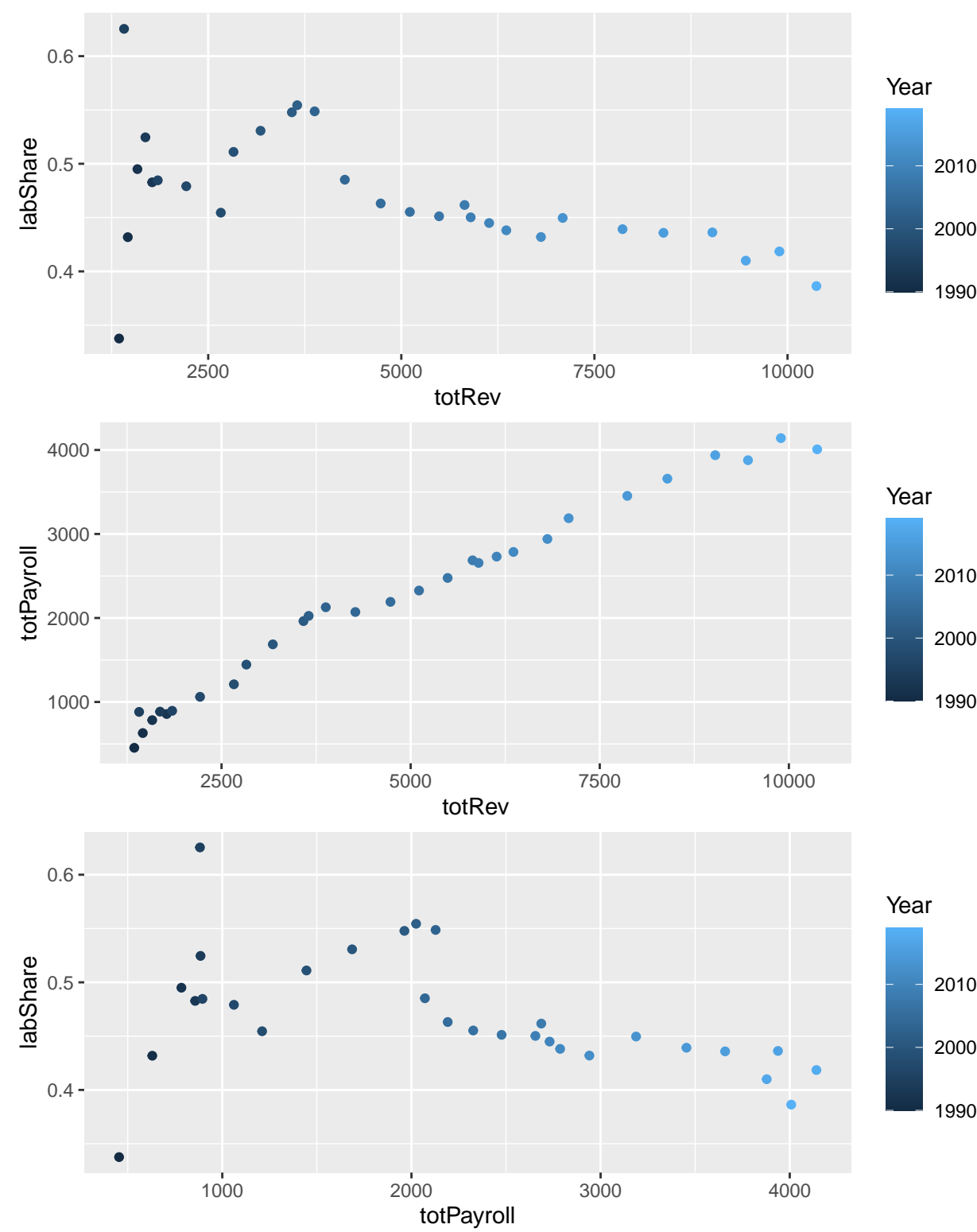
```
cor(couldabeens$totRev, couldabeens$totPayroll)
```

```
## [1] 0.9897413
```

```
cor(couldabeens$totPayroll, couldabeens$labShare)
```

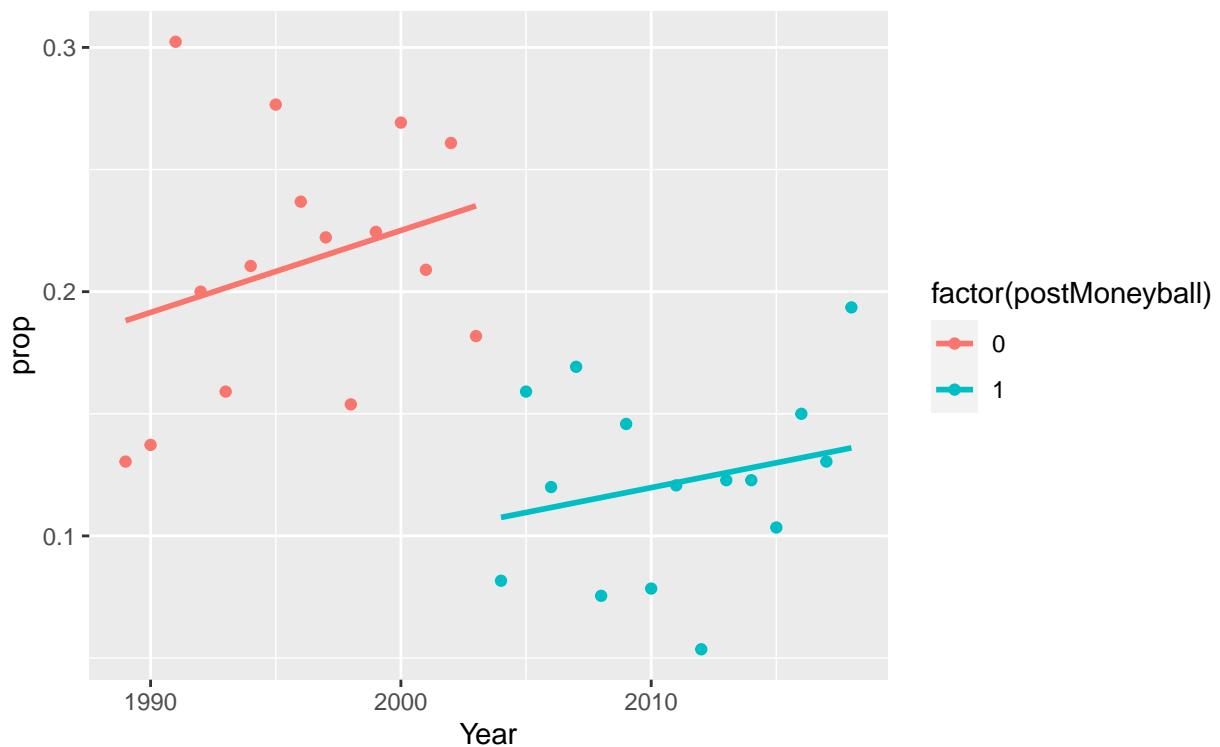
```
## [1] -0.4059079
```

Predictor Visualization

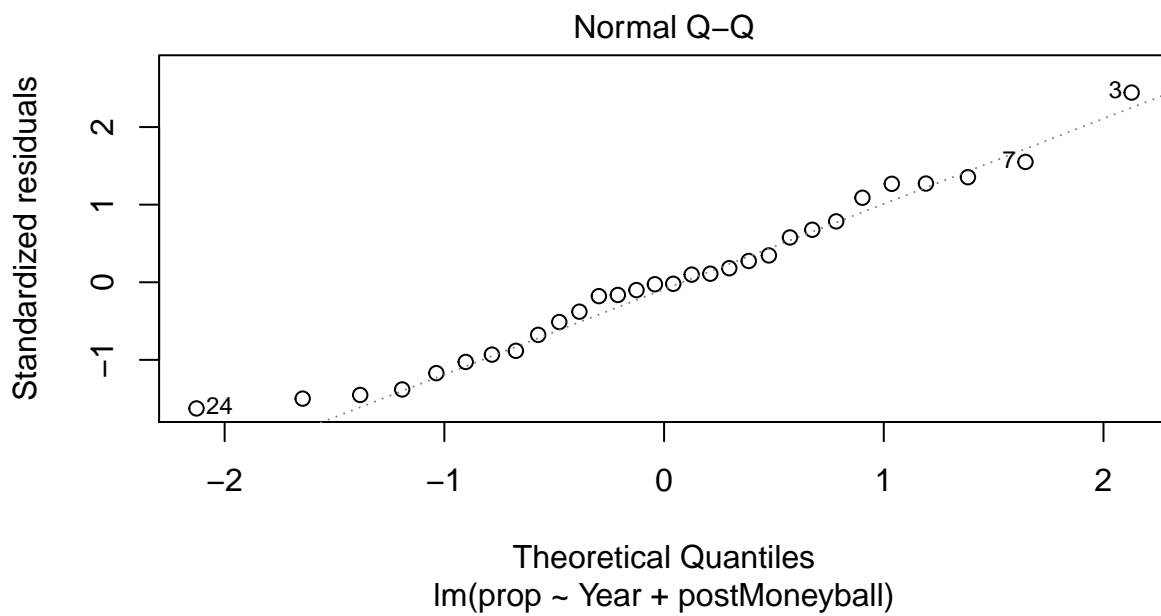
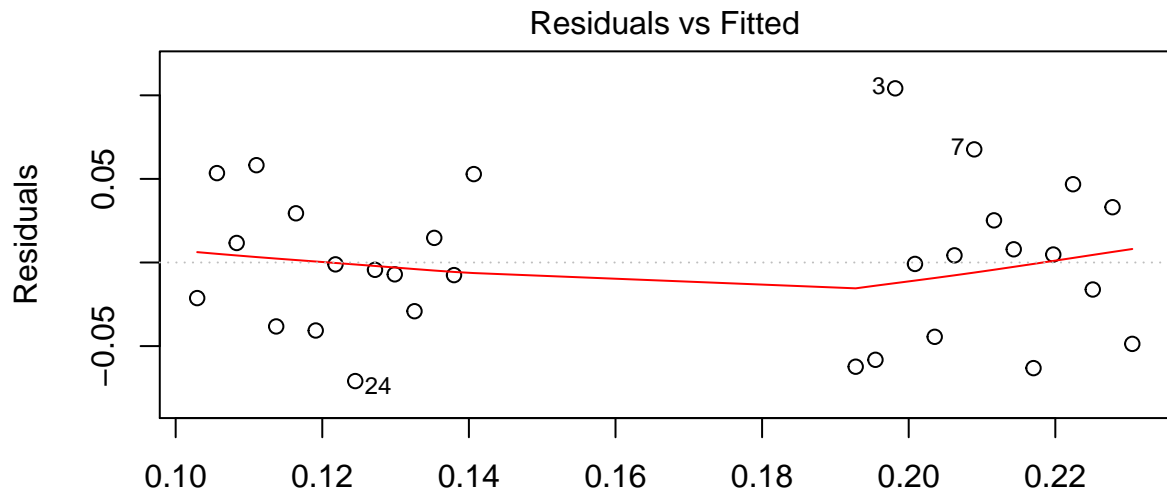


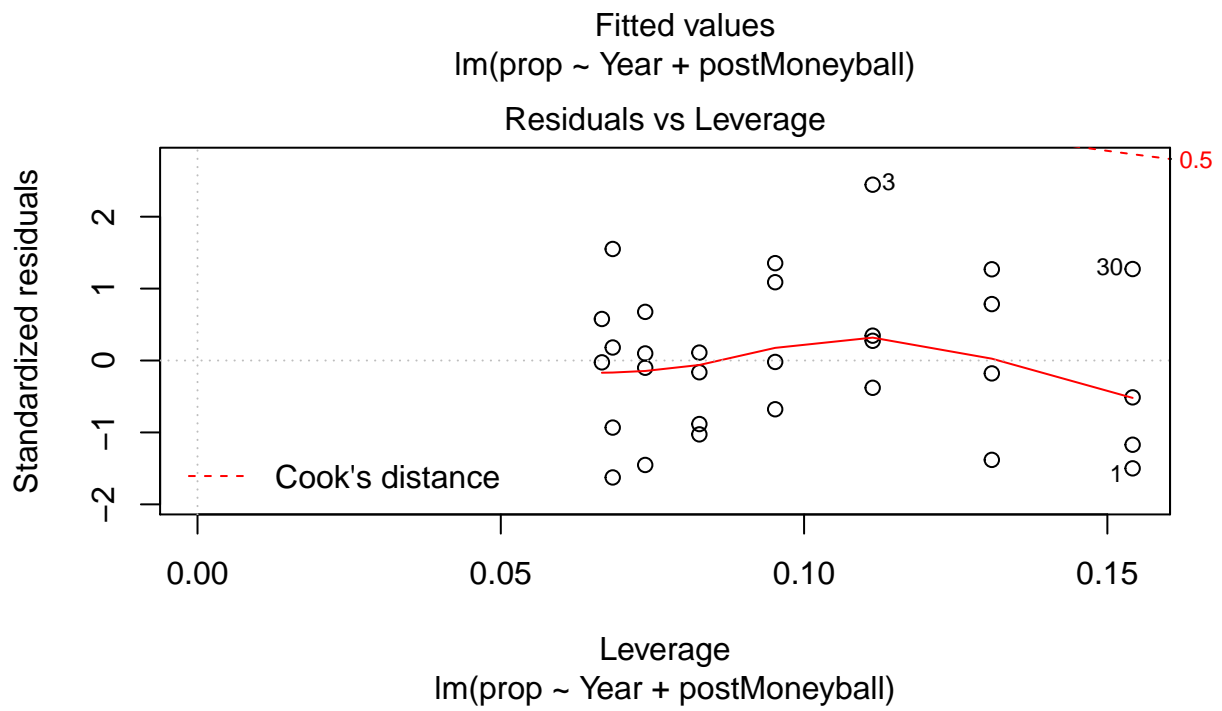
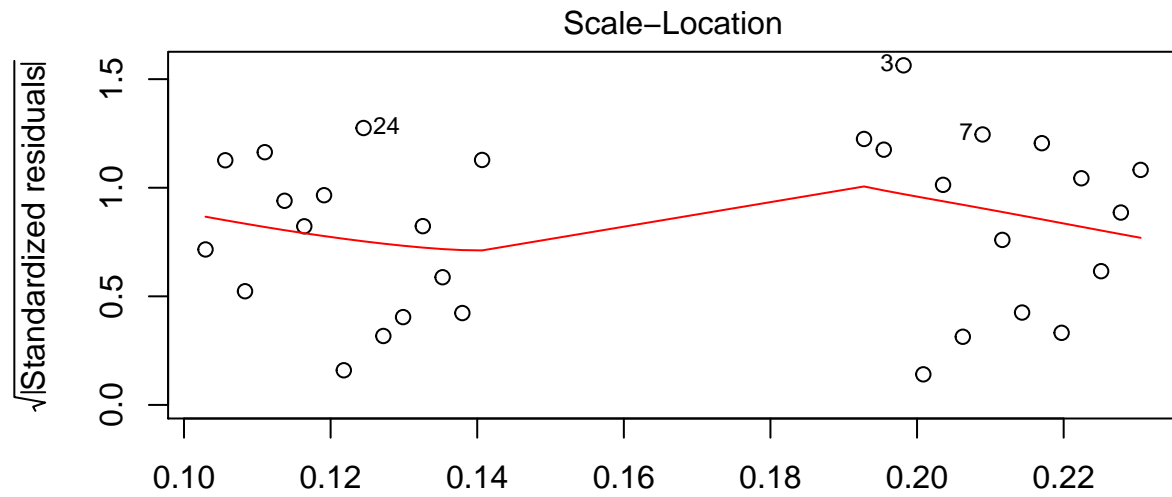
Linear Model: Year

```
##  
## Call:  
## lm(formula = prop ~ Year + postMoneyball, data = couldabeens)  
##  
## Residuals:  
##      Min       1Q   Median       3Q      Max   
## -0.070924 -0.035965 -0.000981  0.028370  0.104168   
##  
## Coefficients:  
##              Estimate Std. Error t value Pr(>|t|)      
## (Intercept)  -5.168095   3.812552  -1.356 0.186475      
## Year           0.002695   0.001910   1.411 0.169645      
## postMoneyball -0.130262   0.033065  -3.940 0.000519 ***  
## ---  
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1  
##  
## Residual standard error: 0.0452 on 27 degrees of freedom  
## Multiple R-squared:  0.5394, Adjusted R-squared:  0.5052   
## F-statistic: 15.81 on 2 and 27 DF,  p-value: 2.853e-05
```



Diagnostic Plots: Year Linear Model

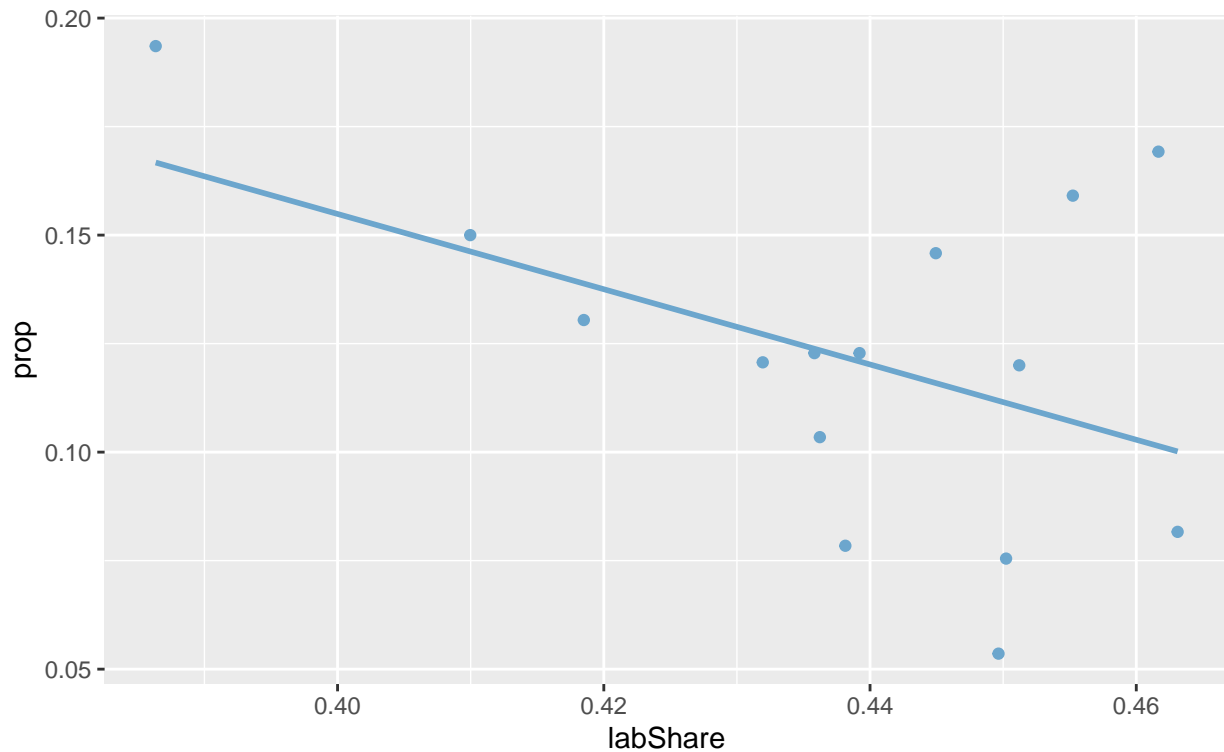




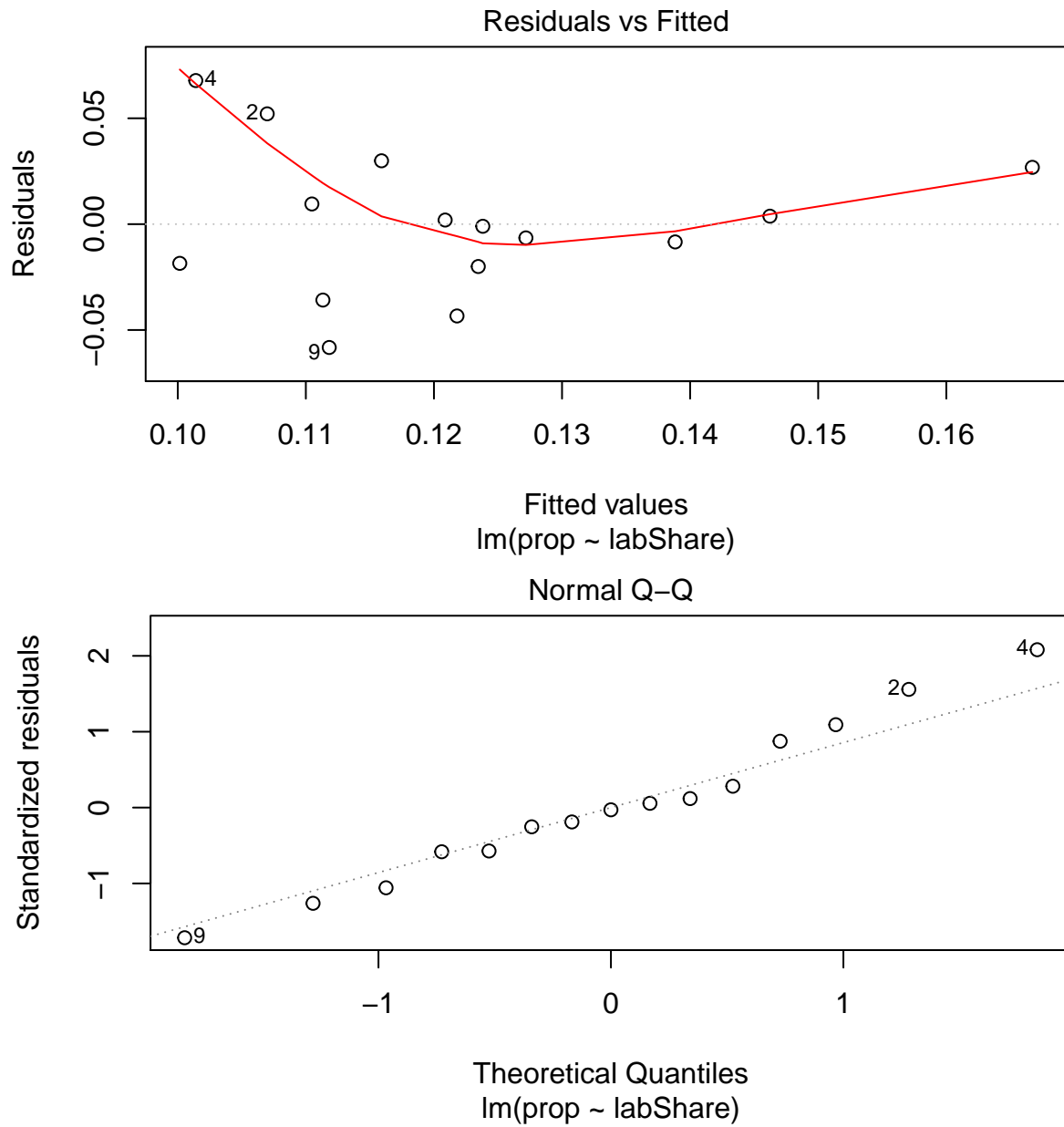
Linear Model: Labor Share

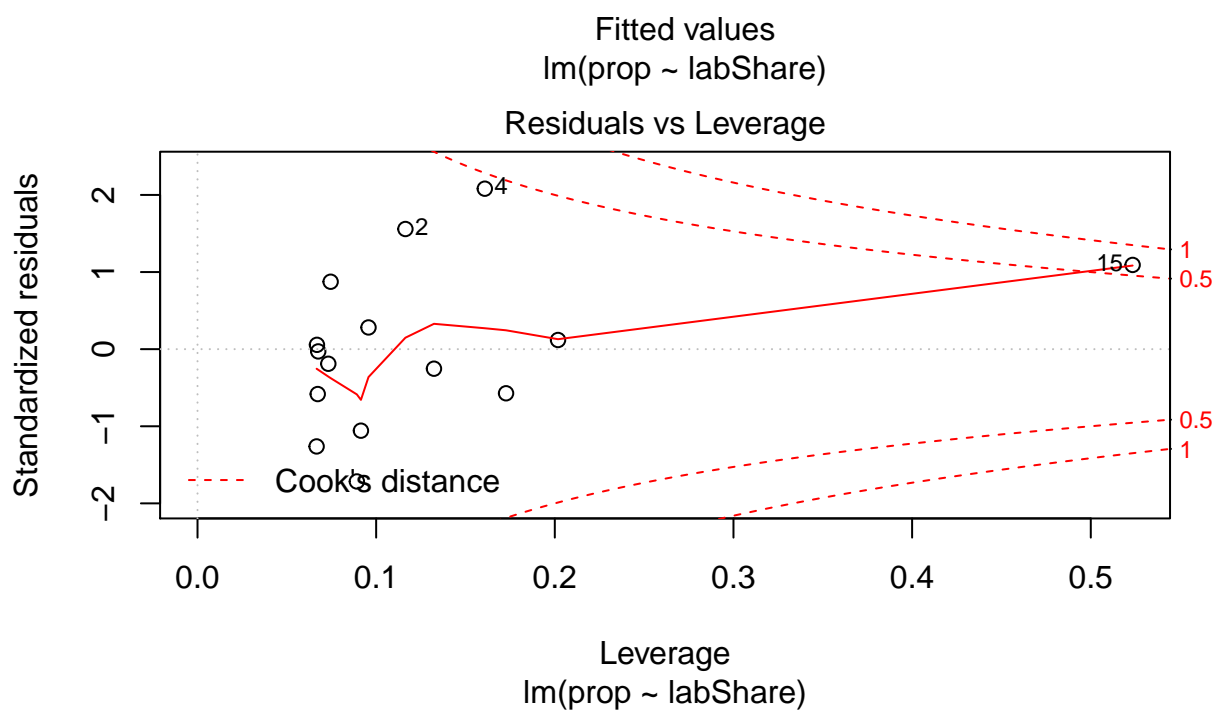
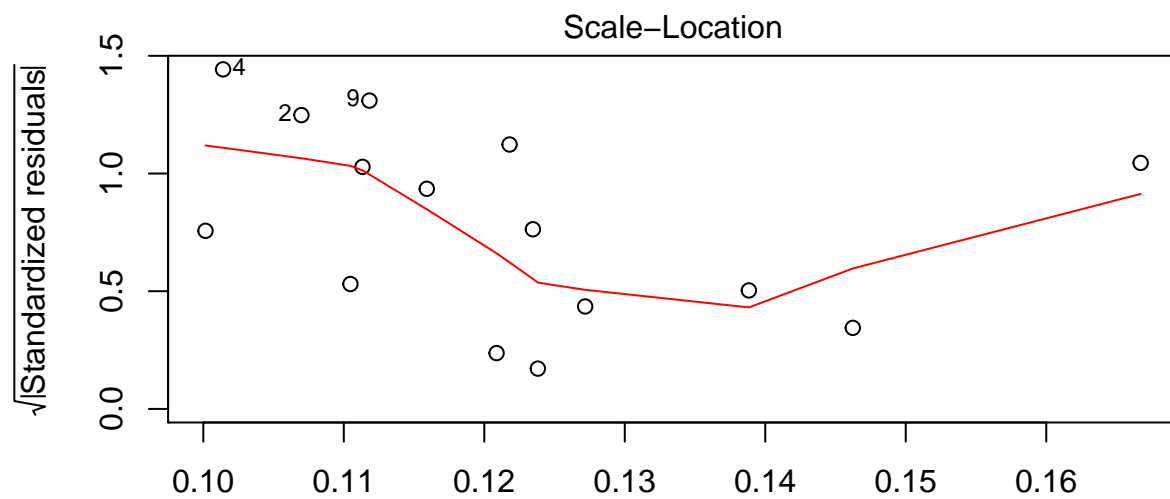
```
##  
## Call:  
## lm(formula = prop ~ labShare, data = couldabeens_post)  
##  
## Residuals:  
##      Min       1Q   Median       3Q      Max   
## -0.058253 -0.019268 -0.001008  0.018178  0.067824   
##  
## Coefficients:  
##              Estimate Std. Error t value Pr(>|t|)      
## (Intercept)   0.5017     0.2036   2.464  0.0284 *      
## labShare     -0.8670     0.4642  -1.868  0.0845 .      
## ---  
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1  
##  
## Residual standard error: 0.03558 on 13 degrees of freedom  
## Multiple R-squared:  0.2116, Adjusted R-squared:  0.151  
## F-statistic:  3.49 on 1 and 13 DF,  p-value: 0.08446
```

Relationship between Labor Share and Couldabeen Rates



Diagnostic Plots: Labor Share Linear Model





Couldabeen Rates across the Years

