Replicability Assignment_Elham

```
#tbl <- read.csv("G:/My Drive/CAnD3/September/WK 3  RRWM--Replicability/GSS 2017 - Family, Cycle
31/gss-12M0025-E-2017-c-31_F1")


Yes=c(1,2)
tbl$FI_105.Dummy <- ifelse(is.element(tbl$FI_105, Yes),1,0)


JointAcct=c(2,3)
tbl$JointAcct.Dummy<- ifelse(is.element(tbl$COM_200, JointAcct), 1, 0)

Satisfied=c(1,2)
tbl$Satisfied.Dummy<-ifelse(is.element(tbl$STS_410, Satisfied), 1,0)

Participating=c(1,2)
tbl$Participating.Dummy<-ifelse(is.element(tbl$REE_02, Participating), 1, 0)

ParticipatingOwn=c(1,2)
tbl$ParticipatingOwn.Dummy<-ifelse(is.element(tbl$REE_03, ParticipatingOwn), 1, 0)

Important=c(1,2)
tbl$Important.Dummy<-ifelse(is.element(tbl$RLR_110, Important), 1, 0)

Health=c(1,2,3)
tbl$Health.Dummy<-ifelse(is.element(tbl$SRH_110, Health), 1, 0)



m<- lm(SLM_01 ~ FI_105 + COM_200 + STS_410 + REE_02 + REE_03 +RLR_110 + SRH_110, data=tbl)
summary(m)
```

```
Call:
lm(formula = SLM_01 ~ FI_105 + COM_200 + STS_410 + REE_02 + REE_03 +
    RLR_110 + SRH_110, data = tbl)

Residuals:
    Min      1Q  Median      3Q     Max
-32.266  -2.368  -0.454   1.267  92.363

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept)  2.582763   0.562799   4.589 4.48e-06 ***
FI_105       0.151329   0.047921   3.158 0.001592 **
COM_200     -0.058758   0.033972  -1.730 0.083711 .
STS_410      0.127655   0.078151   1.633 0.102389
REE_02      -0.190680   0.050331  -3.789 0.000152 ***
REE_03       0.191661   0.005539  34.599  < 2e-16 ***
RLR_110      0.799556   0.060986  13.111  < 2e-16 ***
SRH_110      1.300373   0.059938  21.695  < 2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 9.673 on 20594 degrees of freedom
Multiple R-squared:  0.126, Adjusted R-squared:  0.1257
F-statistic: 424.1 on 7 and 20594 DF,  p-value: < 2.2e-16
```
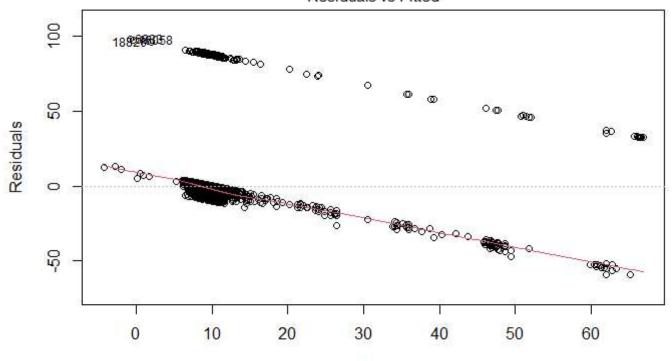
Hide

```
m <-lm(SLM_01 ~ FI_105 + REE_02 +
    REE_03 + RLR_110 + REE_02 * REE_03 * RLR_110 + SRH_110, data = tbl)
summary(m)
```

```
Call:
lm(formula = SLM_01 ~ FI_105 + REE_02 + REE_03 + RLR_110 + REE_02 *
    REE_03 * RLR_110 + SRH_110, data = tbl)

Residuals:
    Min      1Q  Median      3Q     Max
-59.196  -1.831  -0.452   0.865  97.767

Coefficients:
                          Estimate Std. Error t value Pr(>|t|)
(Intercept)              6.8665836  0.4473277  15.350  < 2e-16 ***
FI_105                   0.1554573  0.0456492   3.405 0.000662 ***
REE_02                  -0.3789715  0.0923349  -4.104 4.07e-05 ***
REE_03                   0.0613437  0.0200691   3.057 0.002241 **
RLR_110                 -0.2551780  0.2303507  -1.108 0.267970
SRH_110                  0.8098939  0.0584032  13.867  < 2e-16 ***
REE_02:REE_03           -0.0121047  0.0037578  -3.221 0.001278 **
REE_02:RLR_110           0.1071995  0.0503556   2.129 0.033279 *
REE_03:RLR_110          -0.0297976  0.0049446  -6.026 1.71e-09 ***
REE_02:REE_03:RLR_110    0.0099780  0.0007991  12.486  < 2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 9.268 on 20592 degrees of freedom
Multiple R-squared:  0.1977,    Adjusted R-squared:  0.1973
F-statistic: 563.7 on 9 and 20592 DF,  p-value: < 2.2e-16
```
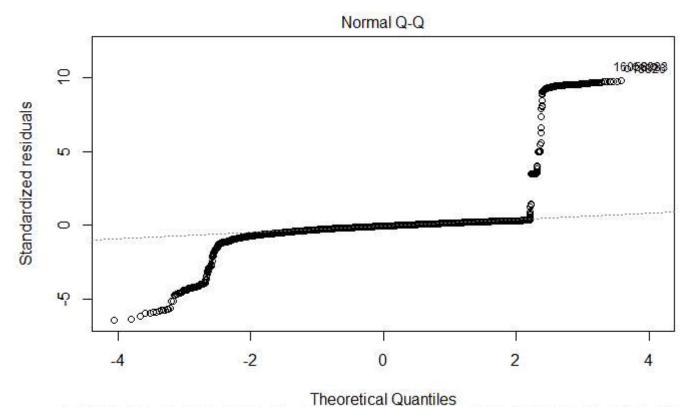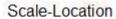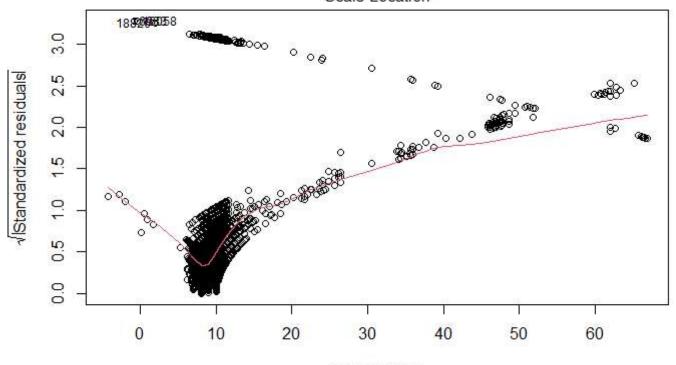
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```
plot(m)
```

Residuals vs Fitted

Residuals

Fitted values
lm(SLM_01 ~ FI_105 + REE_02 + REE_03 + RLR_110 + REE_02 * REE_03 * RLR_110 ...

Normal Q-Q

Standardized residuals

Theoretical Quantiles
lm(SLM_01 ~ FI_105 + REE_02 + REE_03 + RLR_110 + REE_02 * REE_03 * RLR_110 ...

Scale-Location

√|Standardized residuals|

18 925 6 058

Fitted values
lm(SLM_01 ~ FI_105 + REE_02 + REE_03 + RLR_110 + REE_02 * REE_03 * RLR_110 ...

Residuals vs Leverage
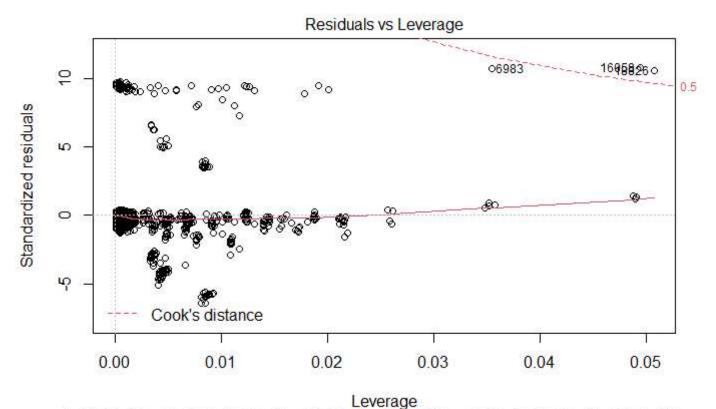
Standardized residuals

16 58 2
6983   9826

0.5

--- Cook's distance

Leverage
lm(SLM_01 ~ FI_105 + REE_02 + REE_03 + RLR_110 + REE_02 * REE_03 * RLR_110 ...

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NA
NA