Indy Regression

2023-04-23

```
#Load Libraries
library(tidyverse)
```

```
## ── Attaching core tidyverse packages ──────────────────────── tidyverse 2.0.0 ──
## ✓ dplyr     1.1.0     ✓ readr     2.1.4
## ✓ forcats   1.0.0     ✓ stringr   1.5.0
## ✓ ggplot2   3.4.1     ✓ tibble    3.1.8
## ✓ lubridate 1.9.2     ✓ tidyr     1.3.0
## ✓ purrr     1.0.1
## ── Conflicts ────────────────────────────────────────── tidyverse_conflicts() ──
## ✕ dplyr::filter() masks stats::filter()
## ✕ dplyr::lag()    masks stats::lag()
## ℹ Use the ]8;;http://conflicted.r-lib.org/conflicted package]8;; to force all conflicts t
o become errors
```

```
library(dplyr)
library(ggplot2)
library(stringr)
library(ggfortify)
```

```
## Warning: package 'ggfortify' was built under R version 4.2.3
```

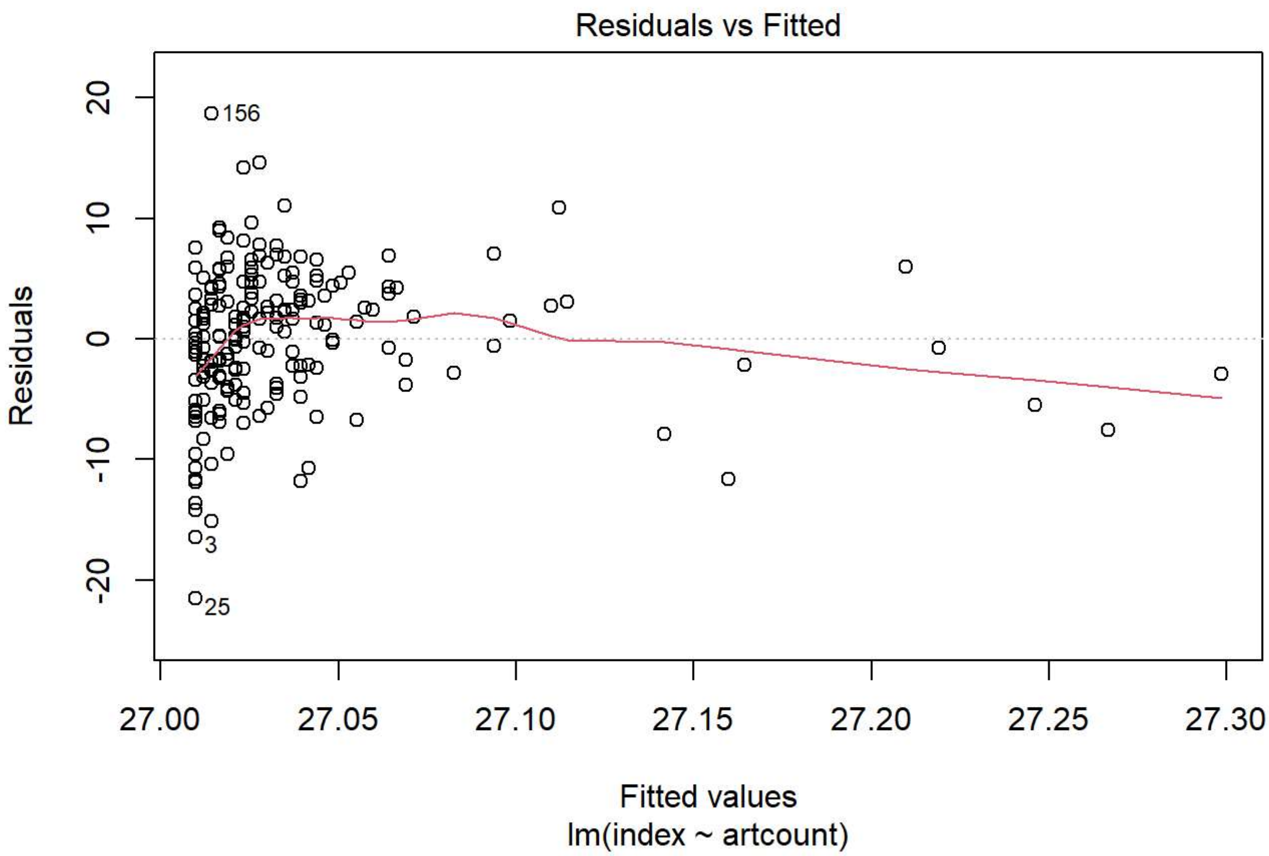
```
## Loading data.
income<- read.csv("C:/Users/ureka/OneDrive/Documents/Stata 2022/Danicia_stats/COMPLETE_income50_
75k.csv", header = TRUE)
poverty<- read.csv("C:/Users/ureka/OneDrive/Documents/Stata 2022/Danicia_stats/COMPLETE_povertyt
able.csv", header = TRUE)
homeown<- read.csv("C:/Users/ureka/OneDrive/Documents/Stata 2022/Danicia_stats/COMPLETE_homeowne
r_occupied.csv", header = TRUE)
foodstamps<- read.csv("C:/Users/ureka/OneDrive/Documents/Stata 2022/Danicia_stats/COMPLETE_perce
ntfoodstamps.csv", header = TRUE)
mobility<- read.csv("C:/Users/ureka/OneDrive/Documents/Stata 2022/Danicia_stats/mobility.csv", h
eader = TRUE)
insurance<- read.csv("C:/Users/ureka/OneDrive/Documents/Stata 2022/Danicia_stats/healthinsuranc
e.csv", header = TRUE)
crimes<- read.csv("C:/Users/ureka/OneDrive/Documents/Stata 2022/Danicia_stats/crimestable.csv",
header = TRUE)
artcount<- read.csv("C:/Users/ureka/OneDrive/Documents/Stata 2022/Danicia_stats/Indyarts_censusc
ount.csv", header = TRUE)
walk<- read.csv("C:/Users/ureka/OneDrive/Documents/Stata 2022/Danicia_stats/walk.csv", header =
TRUE)

# Aggregate by GEO_ID and calculate the mean of walkability
walk <- aggregate(walkability ~ GEO_ID, data = walk, mean)

load("C:/Users/ureka/OneDrive/Documents/Stata 2022/Danicia_stats/ICPSR_38586-V1/ICPSR_38586/DS00
01/38586-0001-Data.rda")
parks<- da38586.0001
parks$TRACT_FIPS10 <- paste0("1400000US", as.character(parks$TRACT_FIPS10))
parks$GEO_ID <- parks$TRACT_FIPS10
```

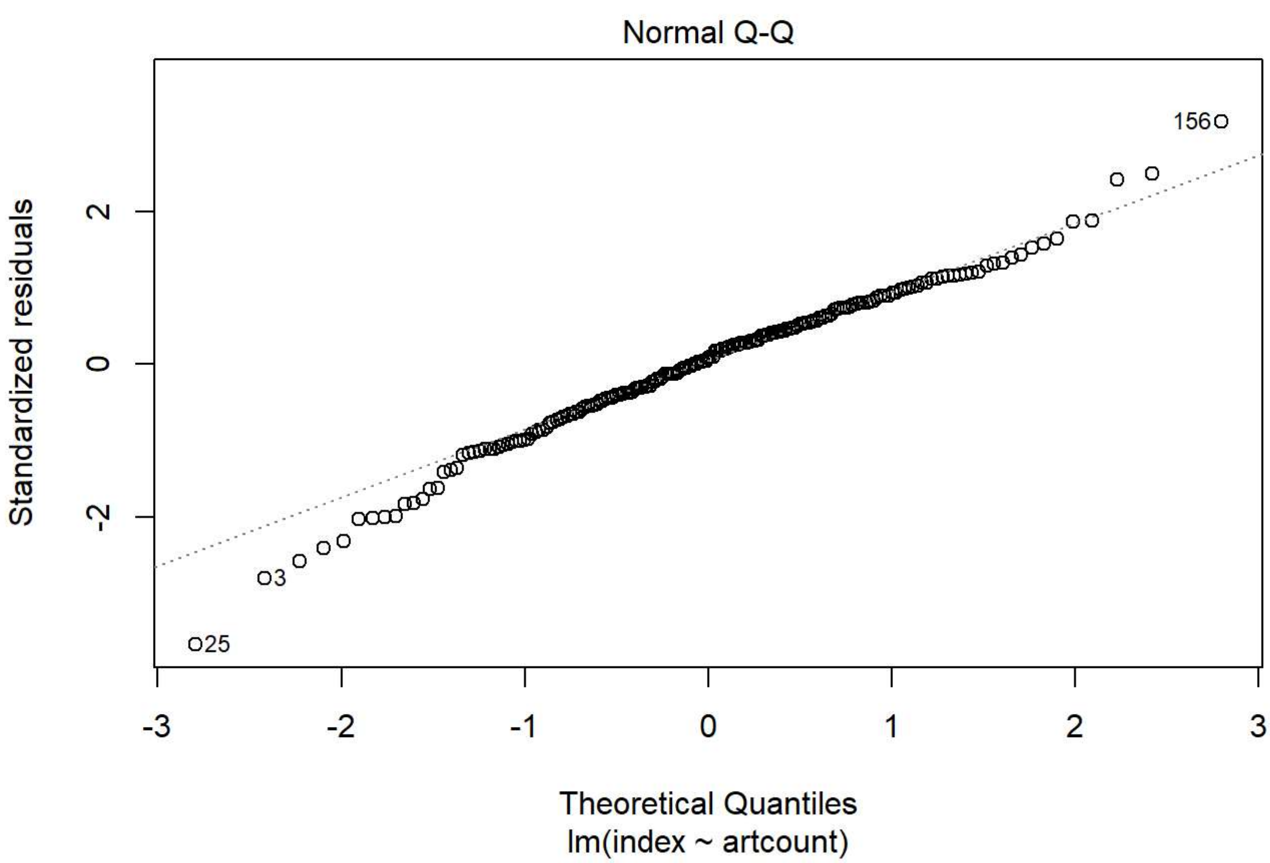
```
## Merge each table one at a time. Each iteration only keeps observations that exist in BOTH tab
les,
## while excluding those that only exist in one.
merged_table <- merge(income, poverty, by = "GEO_ID")
merged_table <- merge(merged_table, homeown, by = "GEO_ID")
merged_table <- merge(merged_table, foodstamps, by = "GEO_ID")
merged_table <- merge(merged_table, mobility, by = "GEO_ID")
merged_table <- merge(merged_table, insurance, by = "GEO_ID")
merged_table <- merge(merged_table, artcount, by = "GEO_ID")
merged_table <- merge(merged_table, parks, by = "GEO_ID")
merged_table <- merge(merged_table, walk, by = "GEO_ID")
merged_table <- merge(merged_table, crimes, by = "GEO_ID")

wbindex <- merged_table

wbindex$percentPoverty <- as.numeric(wbindex$percentPoverty)
wbindex$income <- as.numeric(wbindex$income)
wbindex$owneroccupied  <- as.numeric(wbindex$owneroccupied)
wbindex$foodstamps <- as.numeric(wbindex$foodstamps)
wbindex$mobility <- as.numeric(wbindex$mobility)
wbindex$healthinsurance <- as.numeric(wbindex$healthinsurance)
```

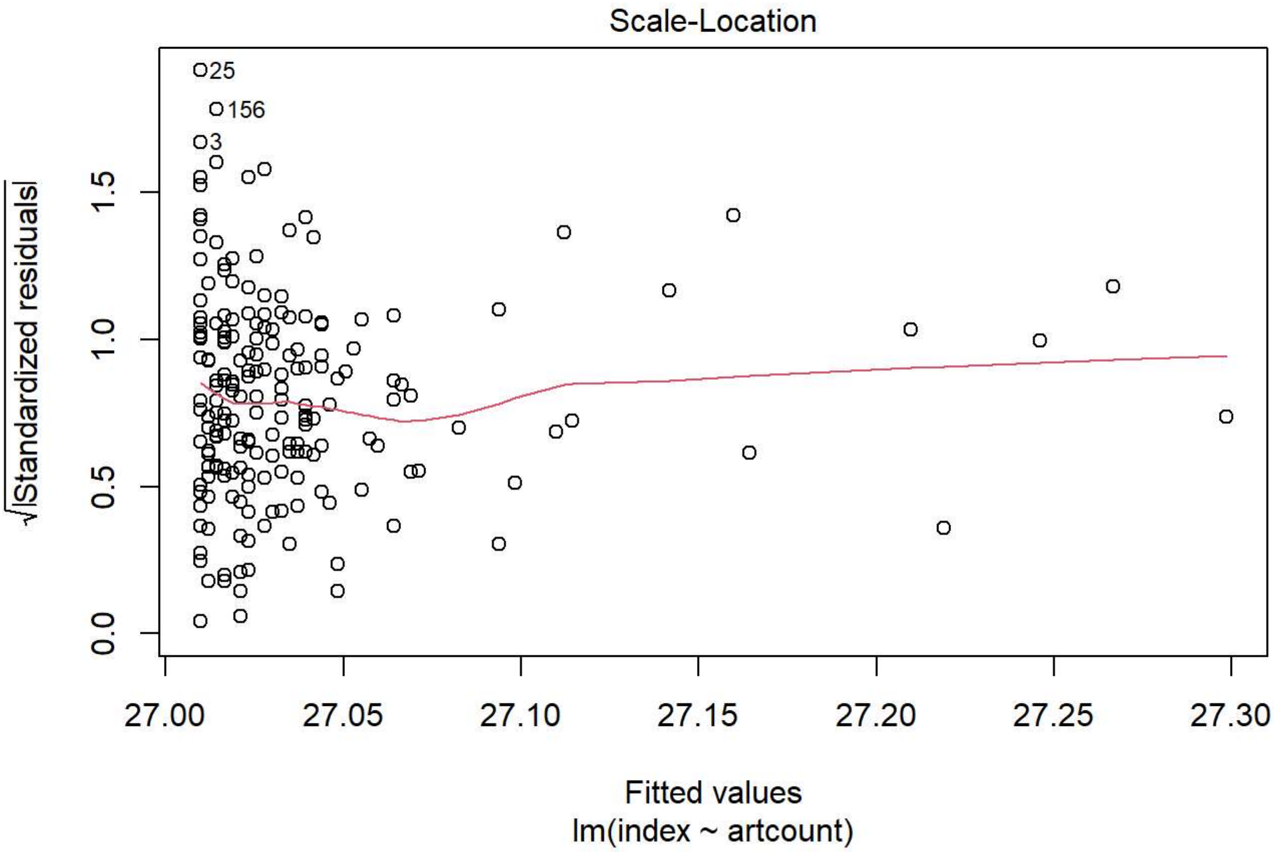
```
## Creating outcome variable
wbindex$index <- ((wbindex$income) + (wbindex$percentPoverty) + (wbindex$owneroccupied) + (wbind
ex$foodstamps))/ 4

wbindex <- wbindex[, c("GEO_ID", "index", "income", "percentPoverty",
                       "owneroccupied", "foodstamps", "healthinsurance",
                       "artcount", "mobility", "crimes", "walkability", "TOT_PARK_AREA_SQMILE
S")]
colnames(wbindex)
```

```
##  [1] "GEO_ID"                "index"                 "income"
##  [4] "percentPoverty"        "owneroccupied"         "foodstamps"
##  [7] "healthinsurance"       "artcount"              "mobility"
## [10] "crimes"                "walkability"           "TOT_PARK_AREA_SQMILES"
```

```
model <- lm(index ~ artcount, data = wbindex)

plot(model)
```


Residuals vs Fitted
Residuals
Fitted values
lm(index ~ artcount)
20
10
0
-10
-20
27.00
27.05
27.10
27.15
27.20
27.25
27.30
156
3
25

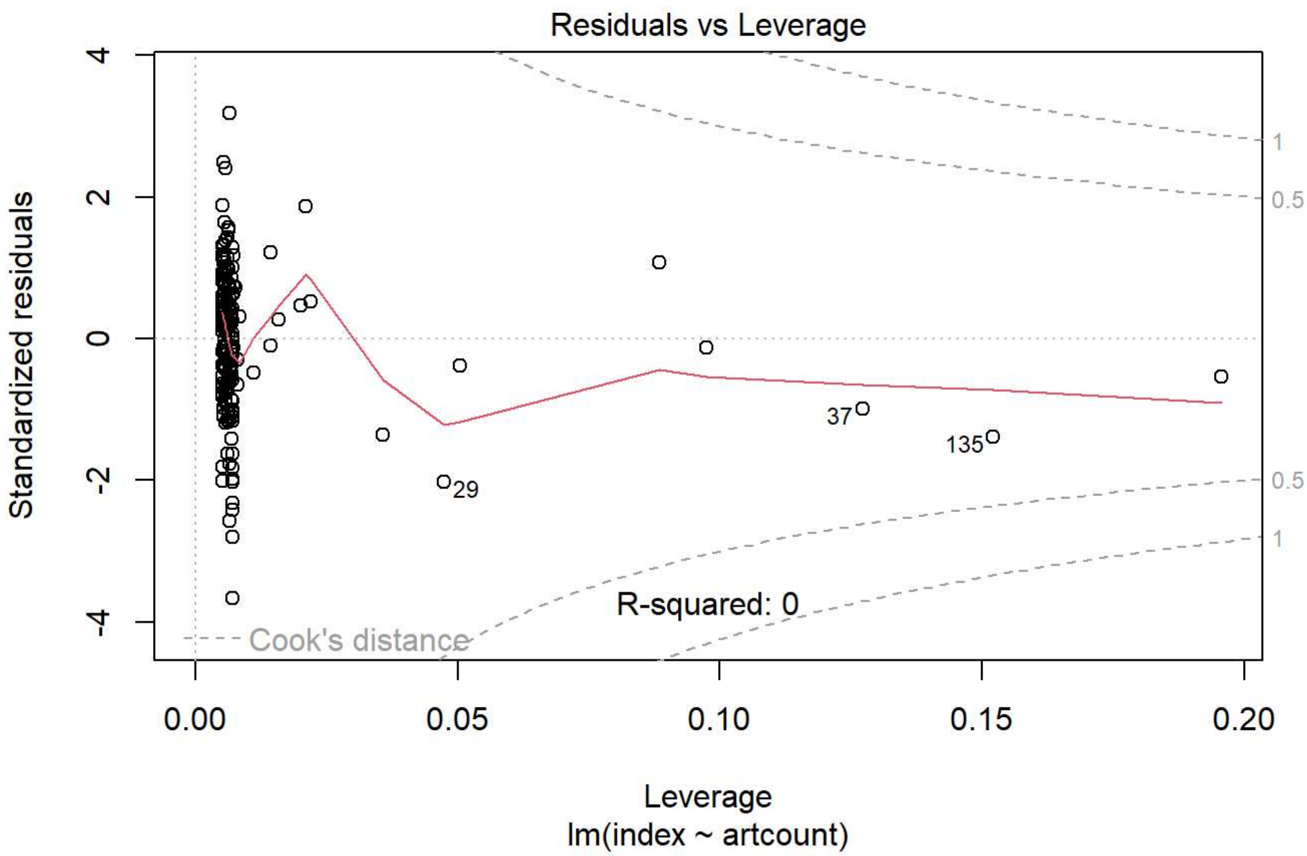

Normal Q-Q
Standardized residuals
Theoretical Quantiles
lm(index ~ artcount)
2
0
-2
-3
-2
-1
0
1
2
3
156
3
25



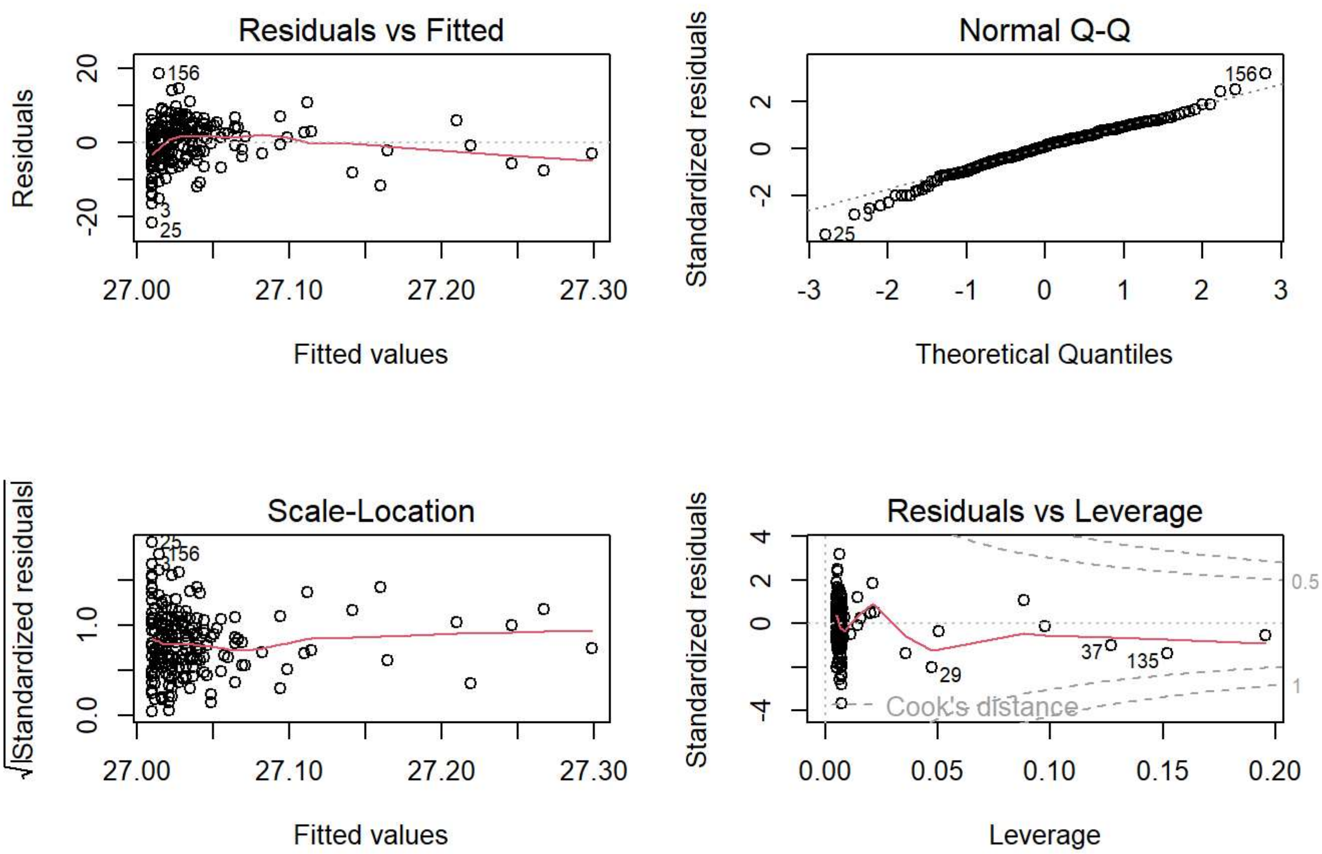

```
# View summary of the model with R-squared value included
rsq <- summary(model)$r.squared
summary_text <- paste0("R-squared: ", round(rsq, 2))
summary(model)
```

```
##
## Call:
## lm(formula = index ~ artcount, data = wbindex)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -21.5347  -3.2666   0.4403   3.8244  18.6607
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) 27.009731   0.498794  54.150   <2e-16 ***
## artcount     0.002273   0.022302   0.102    0.919
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 5.889 on 191 degrees of freedom
## Multiple R-squared:  5.44e-05,   Adjusted R-squared:  -0.005181
## F-statistic: 0.01039 on 1 and 191 DF,  p-value: 0.9189
```

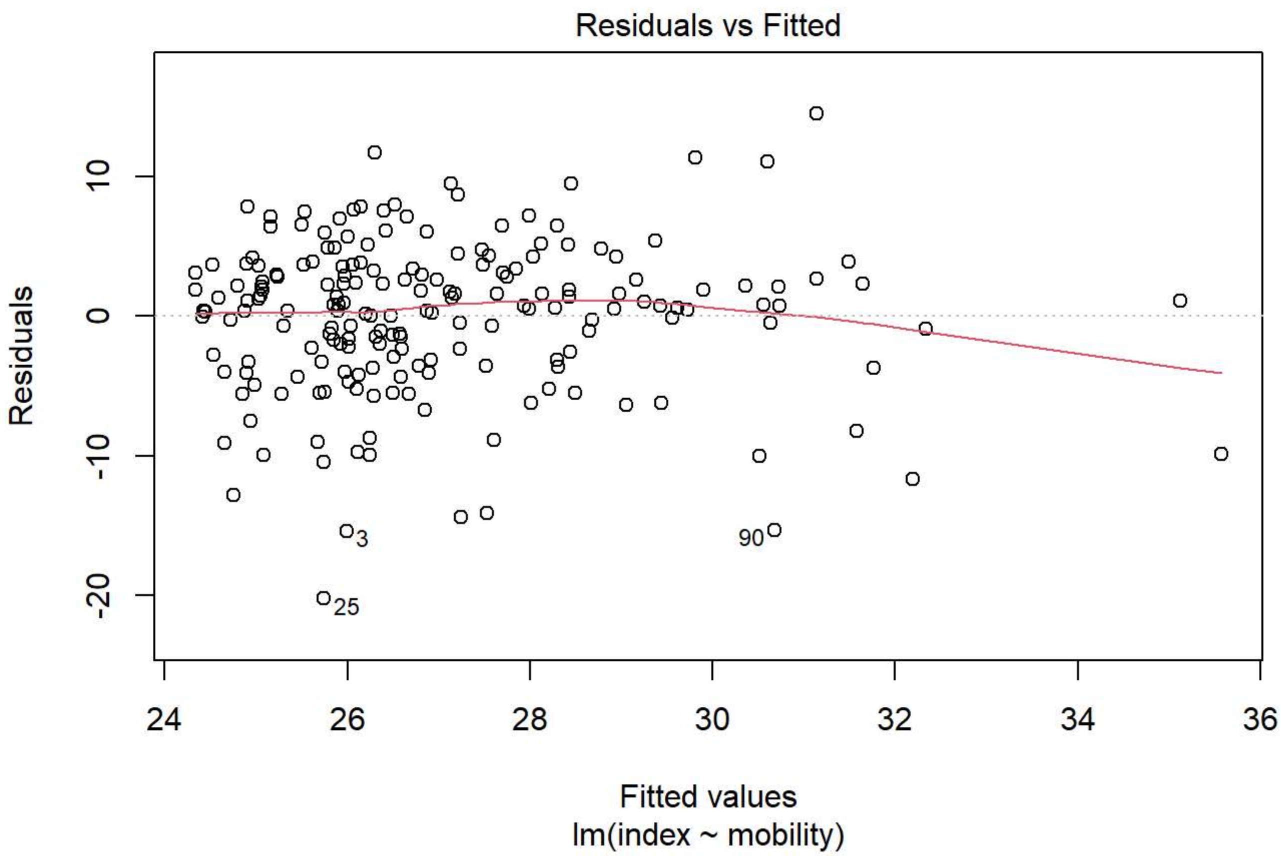
```
mtext(summary_text, side = 1, line = -2)
```

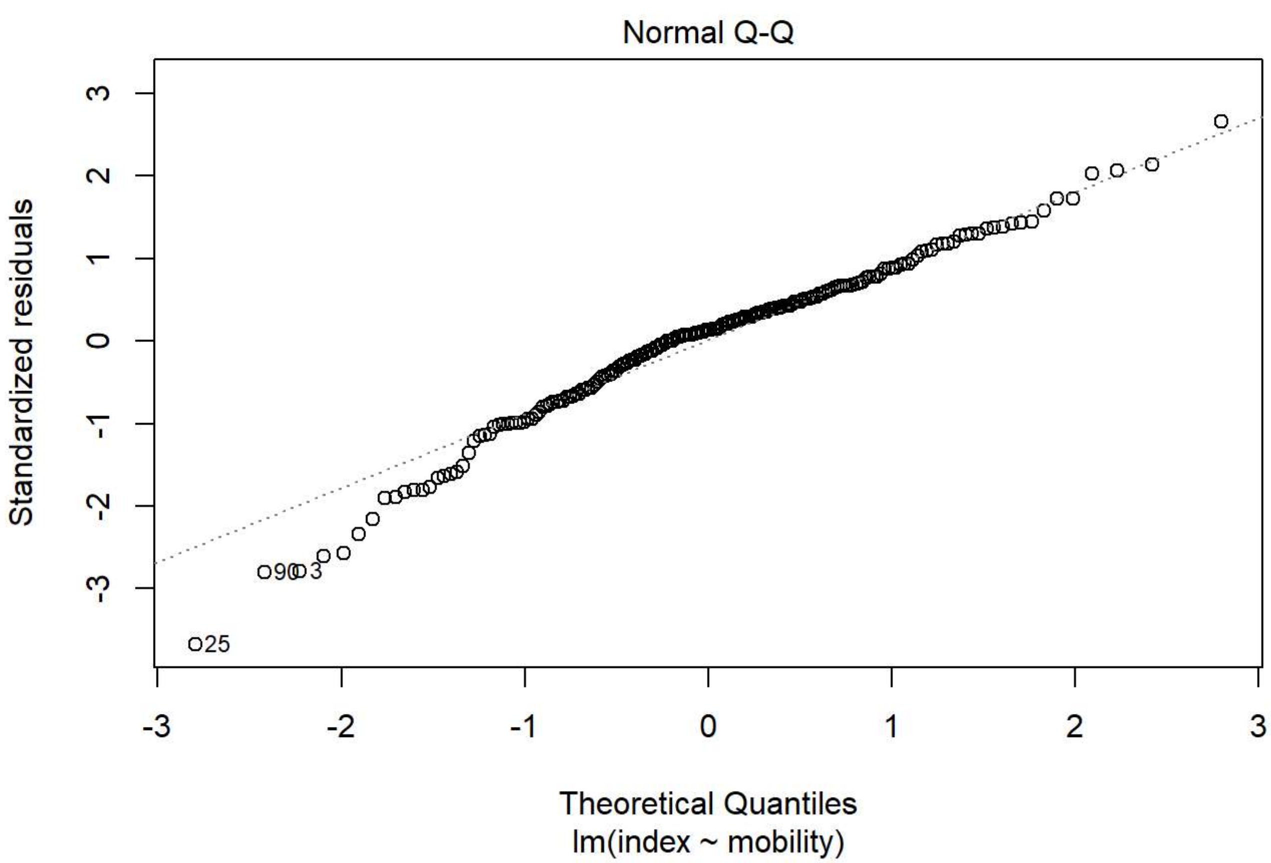


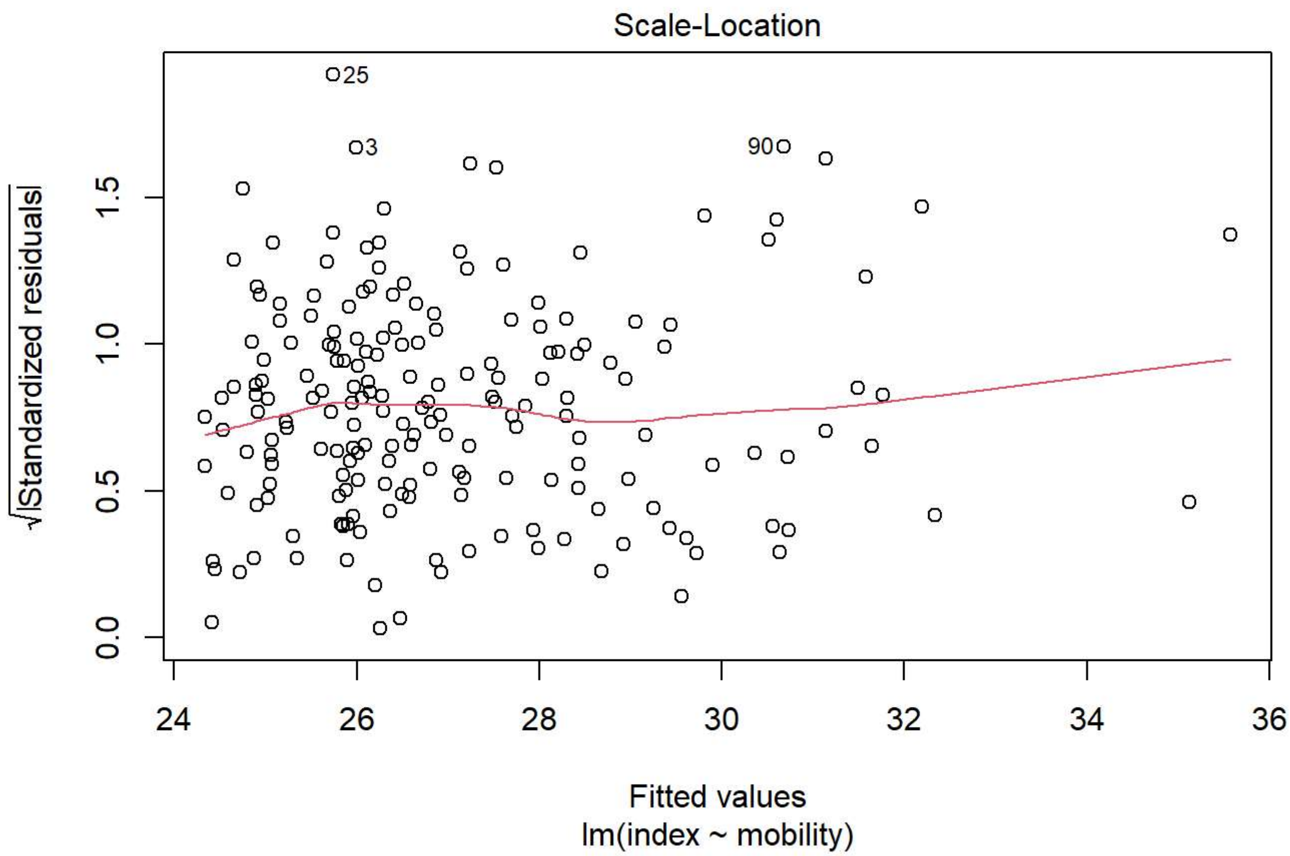

```
# Check model assumptions and residuals in a grid of plots
par(mfrow = c(2, 2))
plot(model)
```




```
model <- lm(index ~ mobility, data = wbindex)

plot(model)
```


Residuals vs Fitted
Residuals
10
0
-10
-20
3
90
25
24
26
28
30
32
34
36
Fitted values
lm(index ~ mobility)

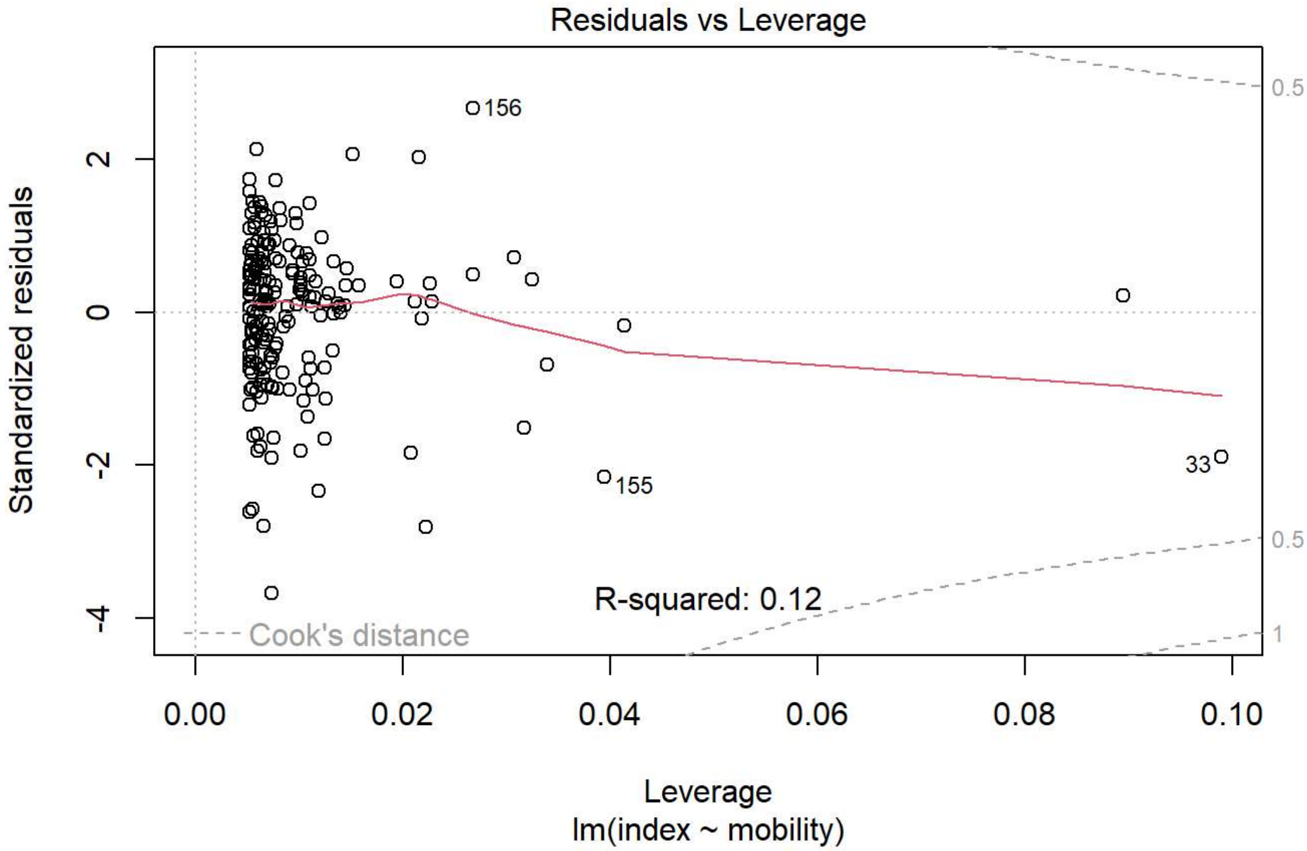

Normal Q-Q
Standardized residuals
3
2
1
0
-1
-2
-3
90
3
25
Theoretical Quantiles
lm(index ~ mobility)



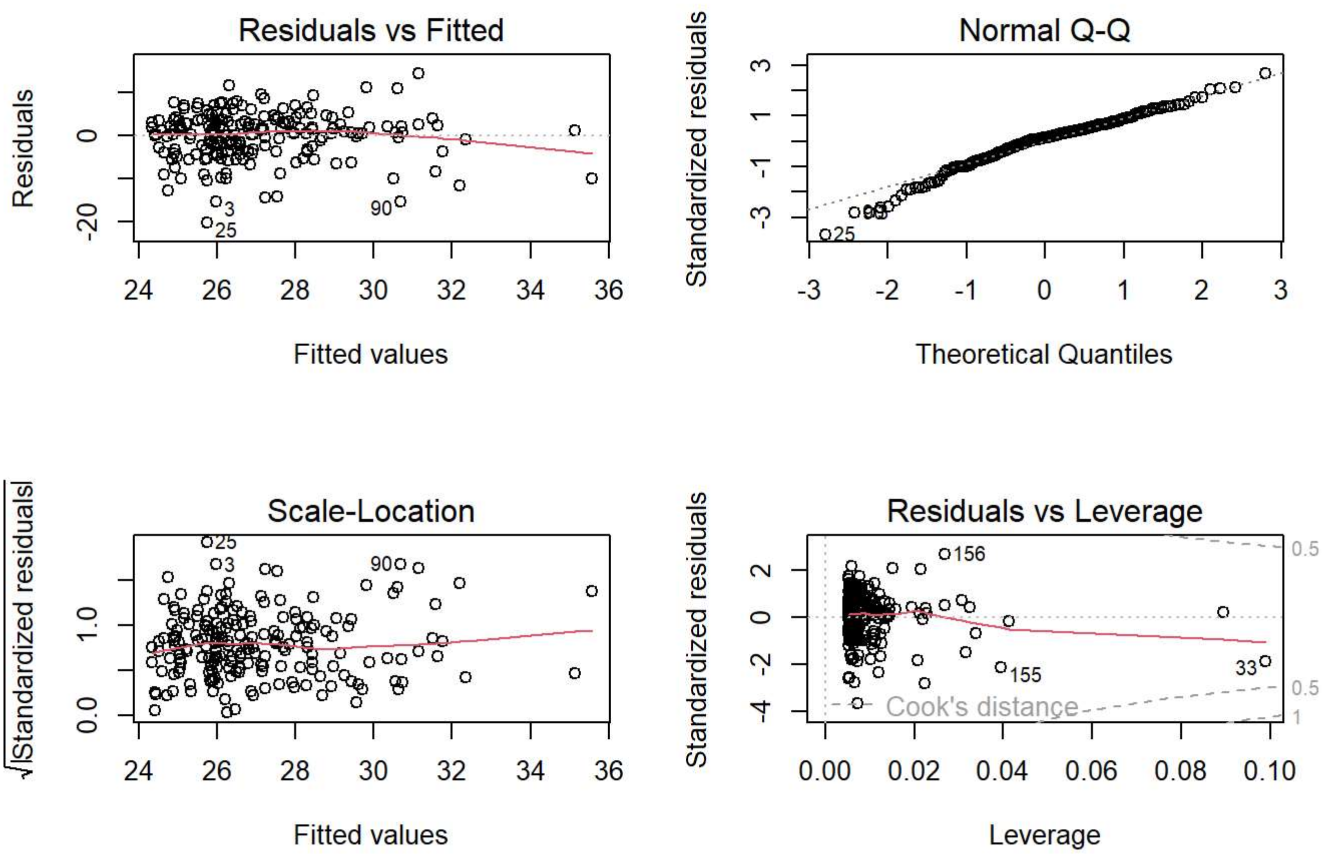

```
# View summary of the model with R-squared value included
rsq <- summary(model)$r.squared
summary_text <- paste0("R-squared: ", round(rsq, 2))
summary(model)
```

```
##
## Call:
## lm(formula = index ~ mobility, data = wbindex)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -20.2714  -3.2433   0.7404   3.4237  14.5390
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) 2.418e+01  6.924e-01  34.928  < 2e-16 ***
## mobility    4.626e-03  9.181e-04   5.039 1.08e-06 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 5.533 on 191 degrees of freedom
## Multiple R-squared:  0.1173, Adjusted R-squared:  0.1127
## F-statistic: 25.39 on 1 and 191 DF,  p-value: 1.081e-06
```

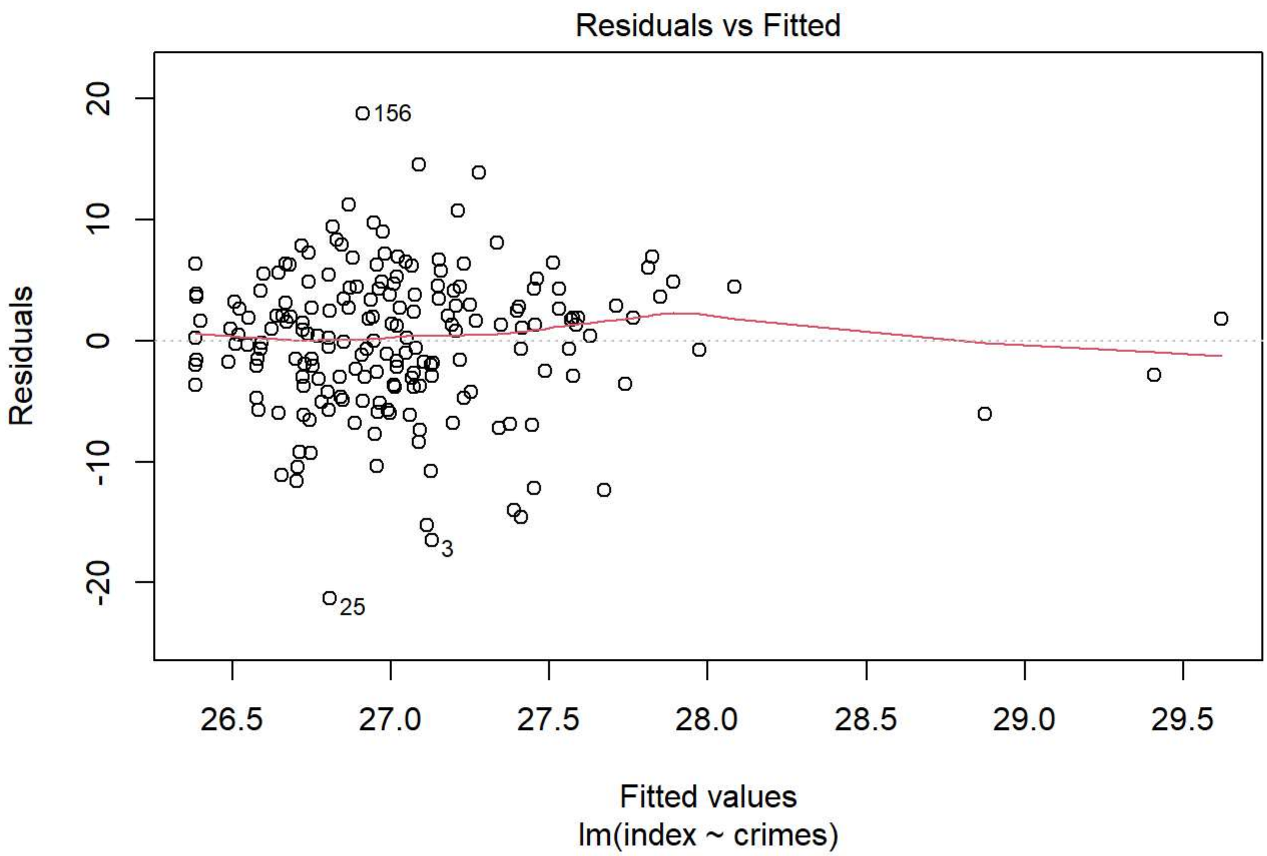
```
mtext(summary_text, side = 1, line = -2)
```

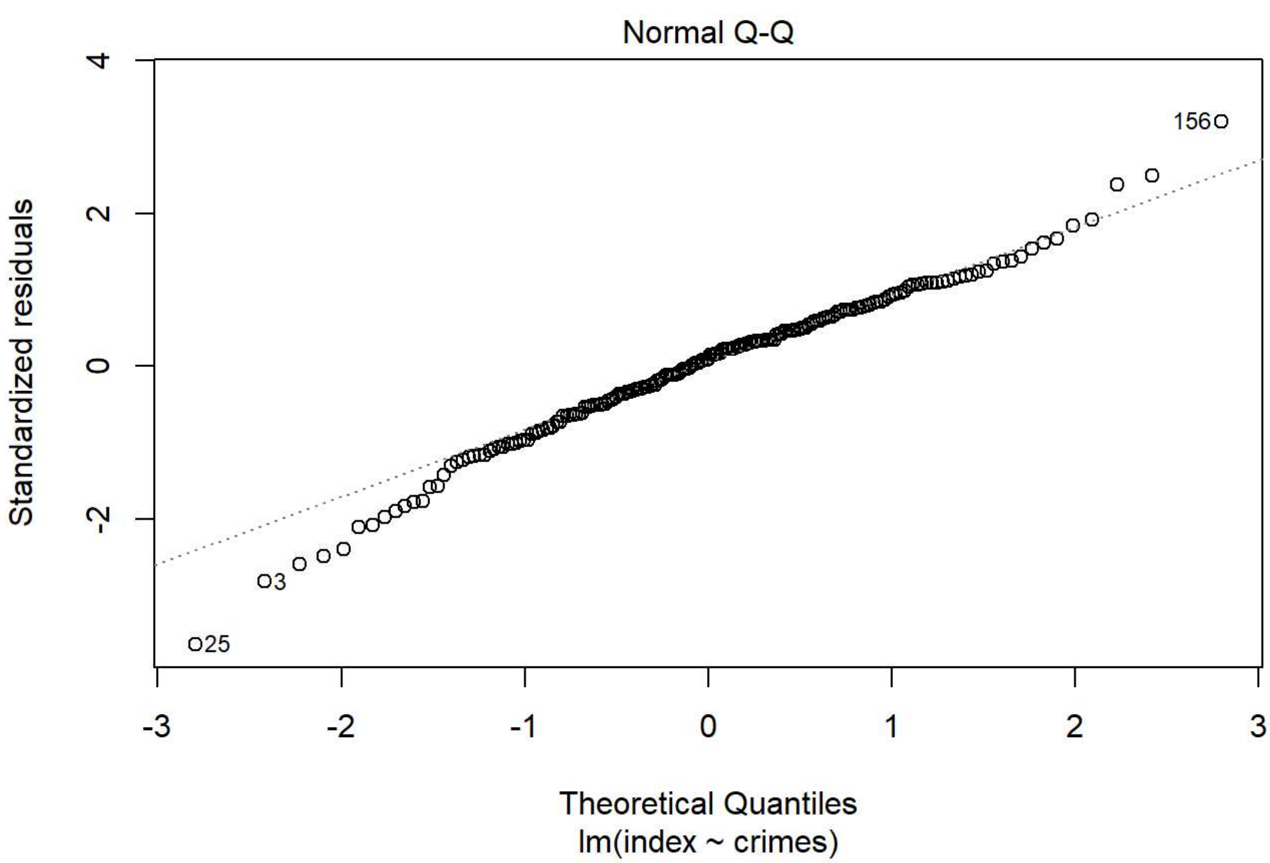


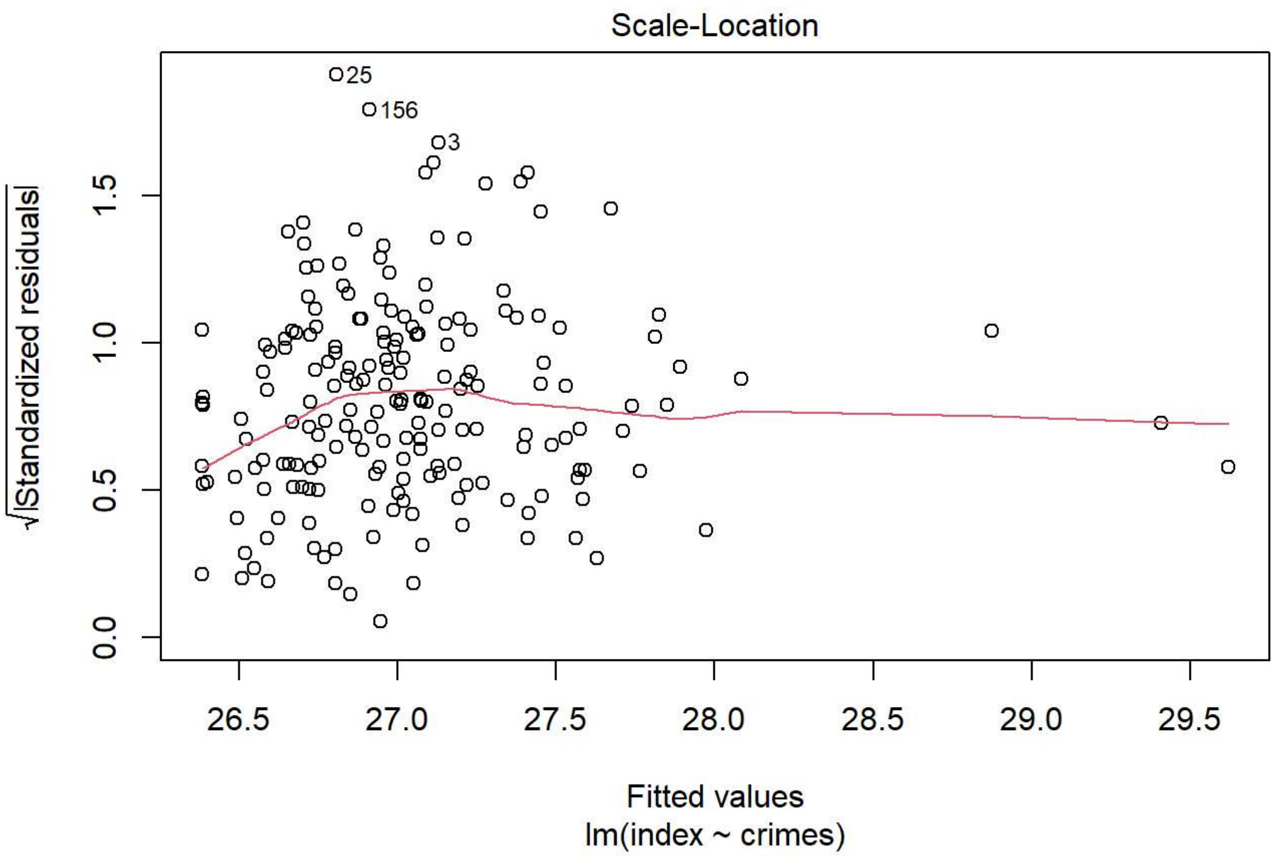

```
# Check model assumptions and residuals in a grid of plots
par(mfrow = c(2, 2))
plot(model)
```




```
## Linear regression
model <- lm(index ~ crimes, data = wbindex)

plot(model)
```


Residuals vs Fitted
Residuals
20
10
0
-10
-20
156
3
25
26.5
27.0
27.5
28.0
28.5
29.0
29.5
Fitted values
lm(index ~ crimes)

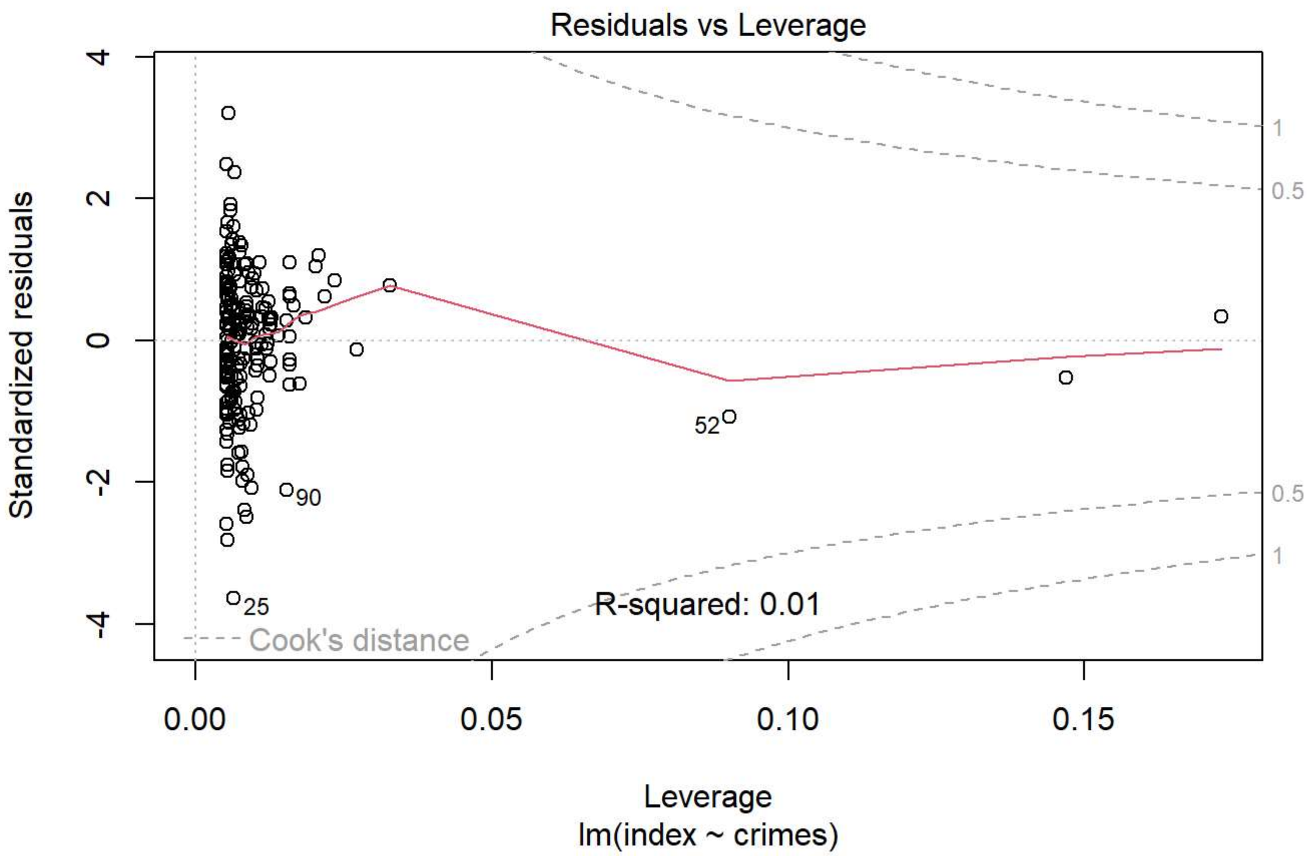

Normal Q-Q
Standardized residuals
4
2
0
-2
156
3
25
-3
-2
-1
0
1
2
3
Theoretical Quantiles
lm(index ~ crimes)



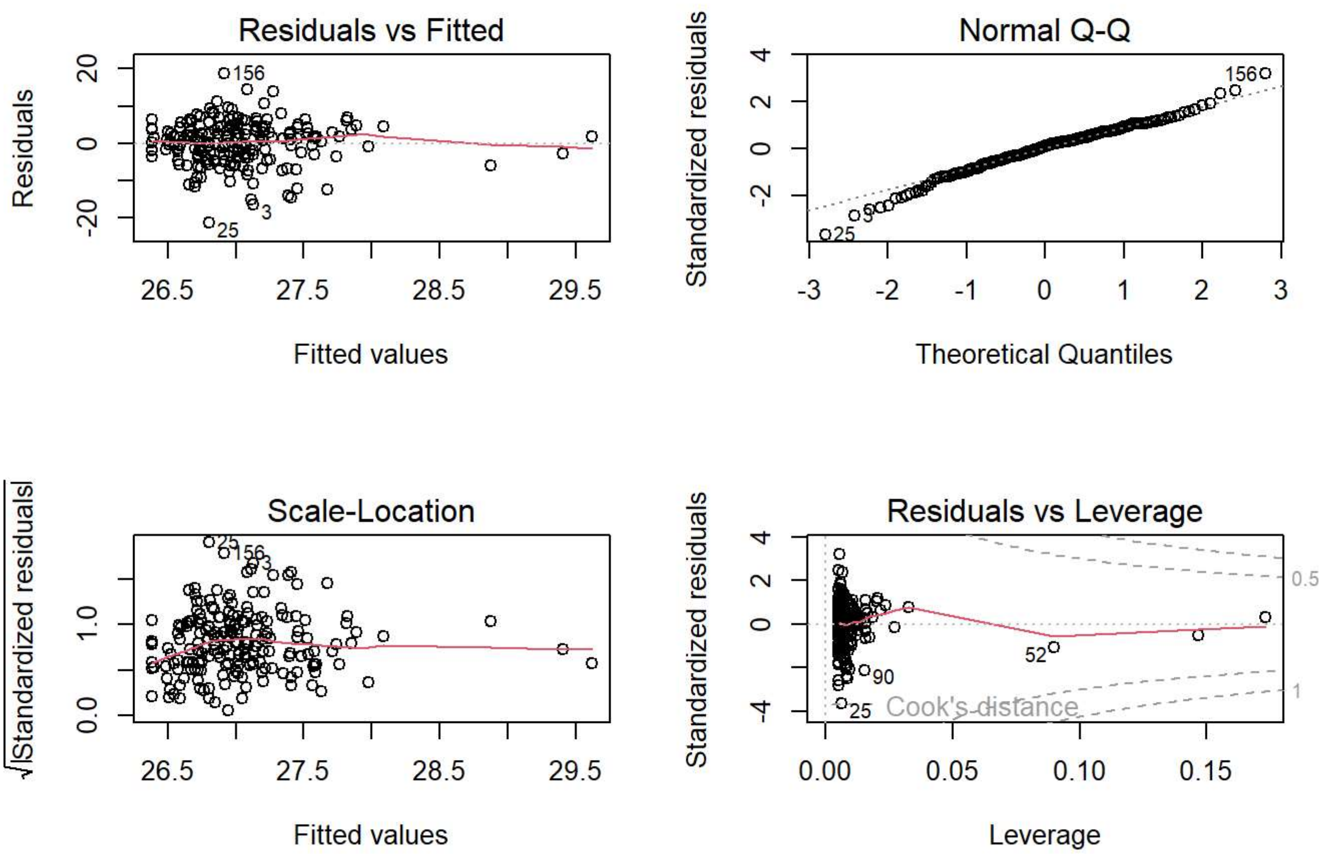

```
# View summary of the model with R-squared value included
rsq <- summary(model)$r.squared
summary_text <- paste0("R-squared: ", round(rsq, 2))
summary(model)
```

```
##
## Call:
## lm(formula = index ~ crimes, data = wbindex)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -21.331  -3.171   0.539   3.779  18.764
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) 26.381950   0.741558  35.576   <2e-16 ***
## crimes       0.002926   0.002724   1.074    0.284
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 5.871 on 191 degrees of freedom
## Multiple R-squared:  0.006006,   Adjusted R-squared:  0.0008014
## F-statistic: 1.154 on 1 and 191 DF,  p-value: 0.2841
```

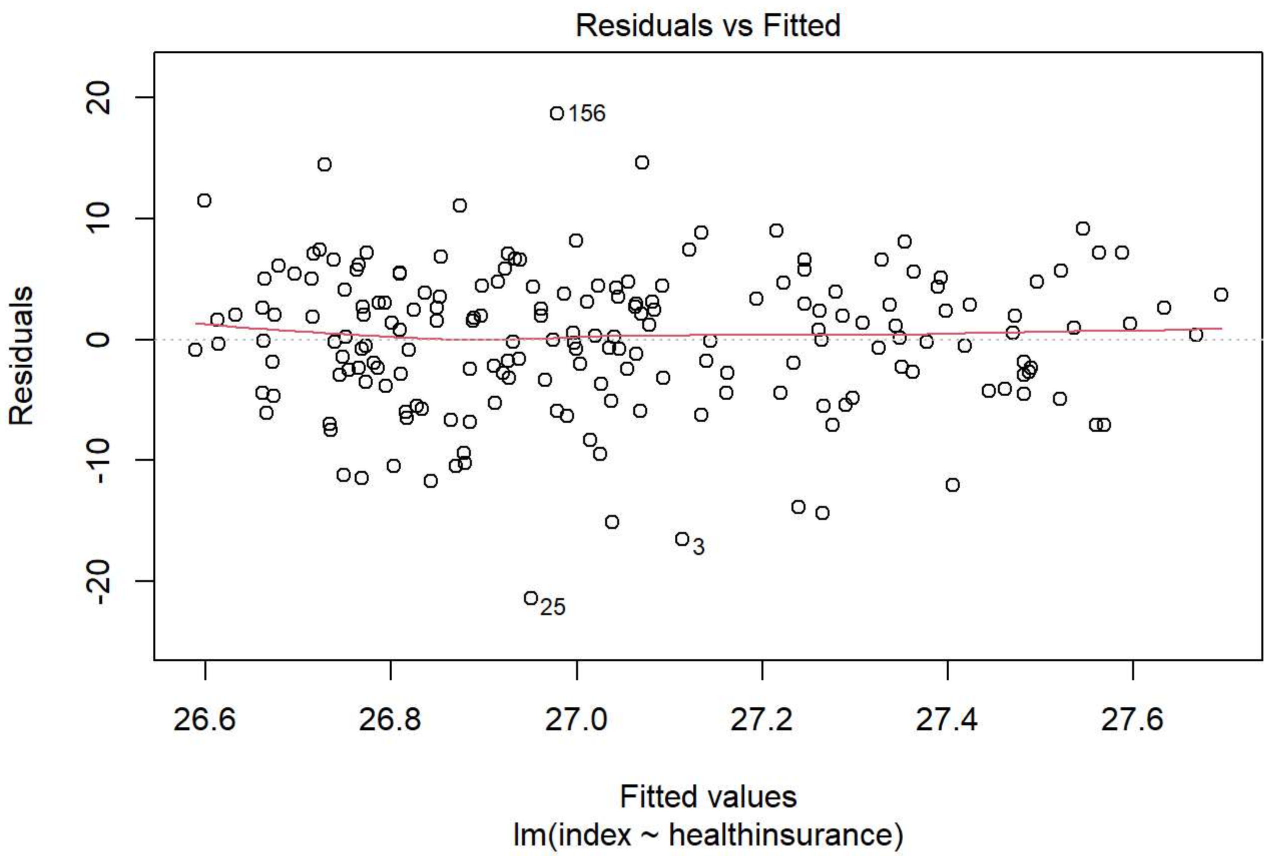
```
mtext(summary_text, side = 1, line = -2)
```

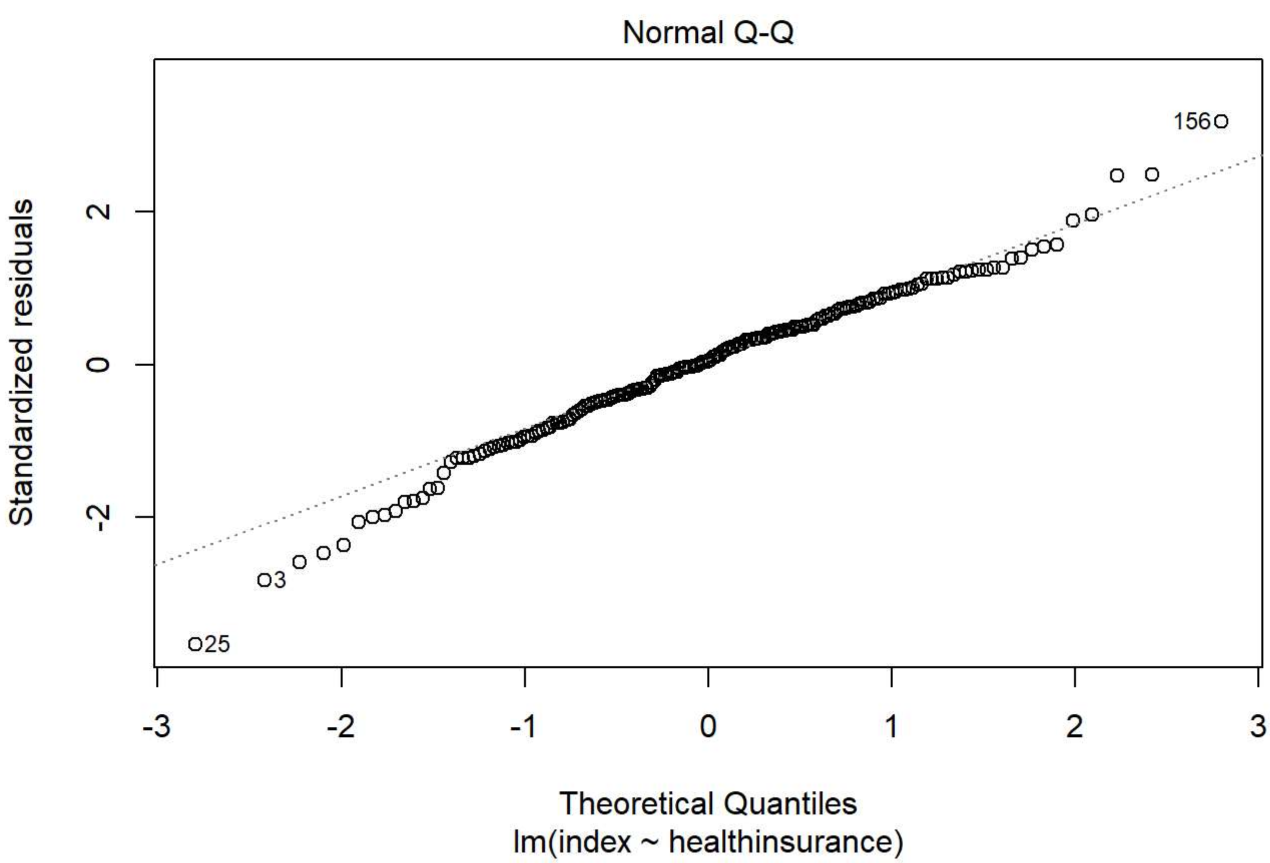


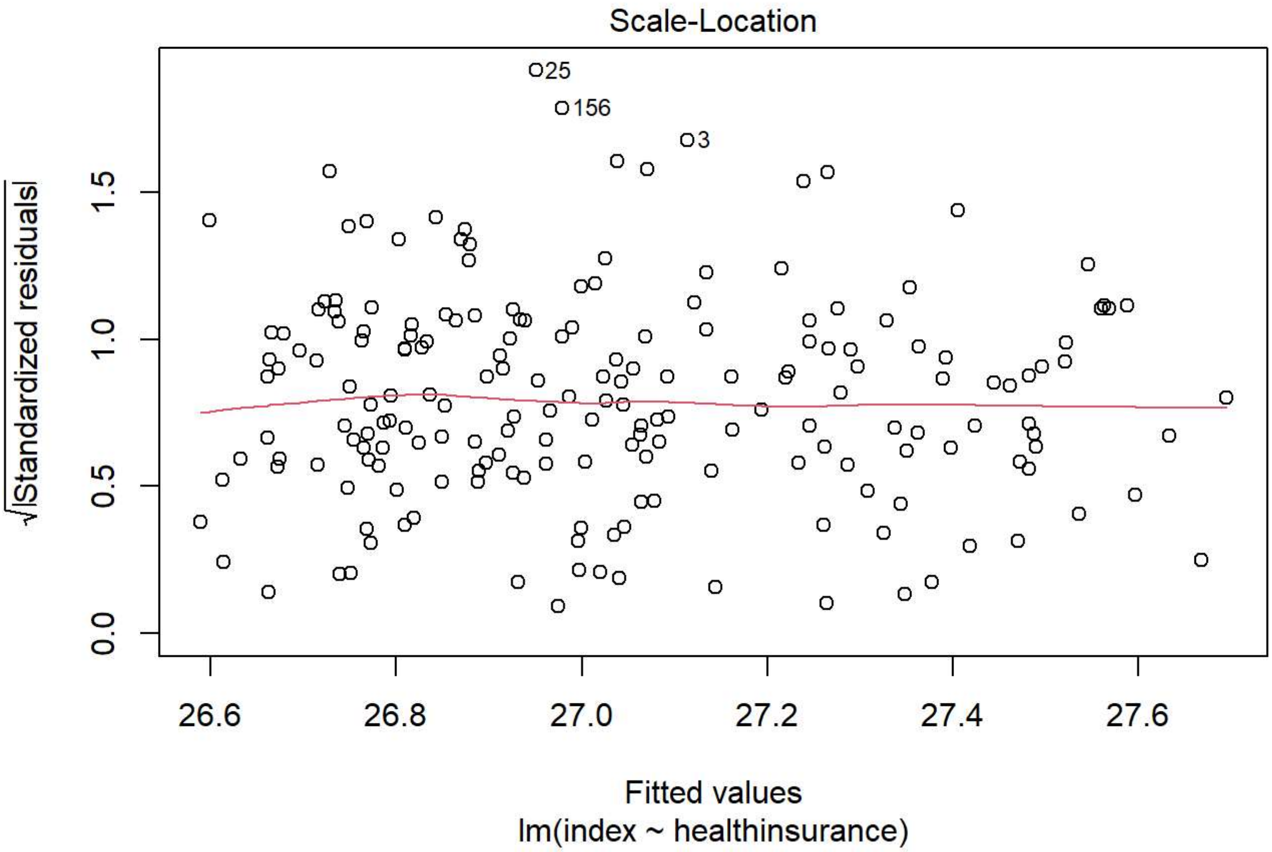

```
# Check model assumptions and residuals in a grid of plots
par(mfrow = c(2, 2))
plot(model)
```




```
## Linear regression
model <- lm(index ~ healthinsurance, data = wbindex)

plot(model)
```


Residuals vs Fitted
Residuals
20
10
0
-10
-20
156
3
25
26.6
26.8
27.0
27.2
27.4
27.6
Fitted values
lm(index ~ healthinsurance)

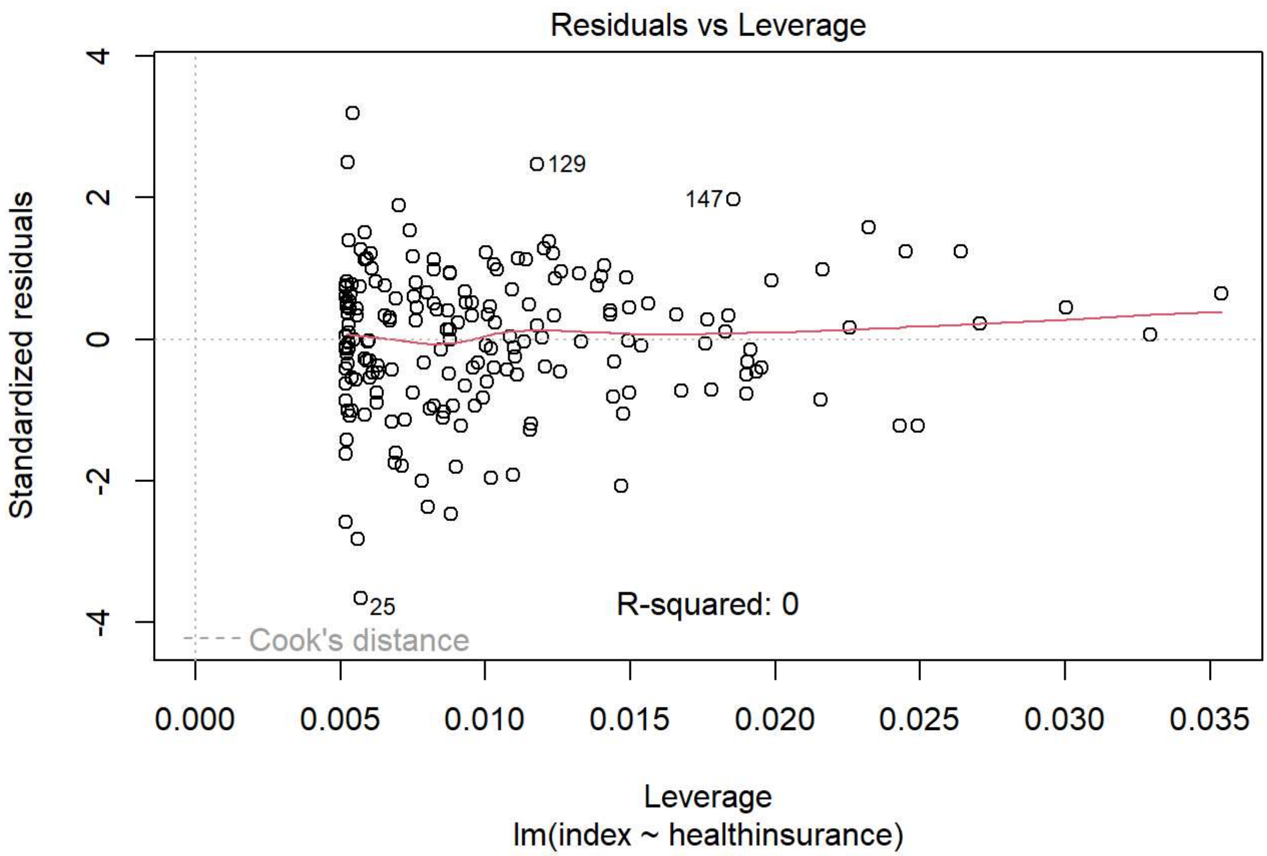

Normal Q-Q
Standardized residuals
2
0
-2
156
3
25
-3
-2
-1
0
1
2
3
Theoretical Quantiles
lm(index ~ healthinsurance)



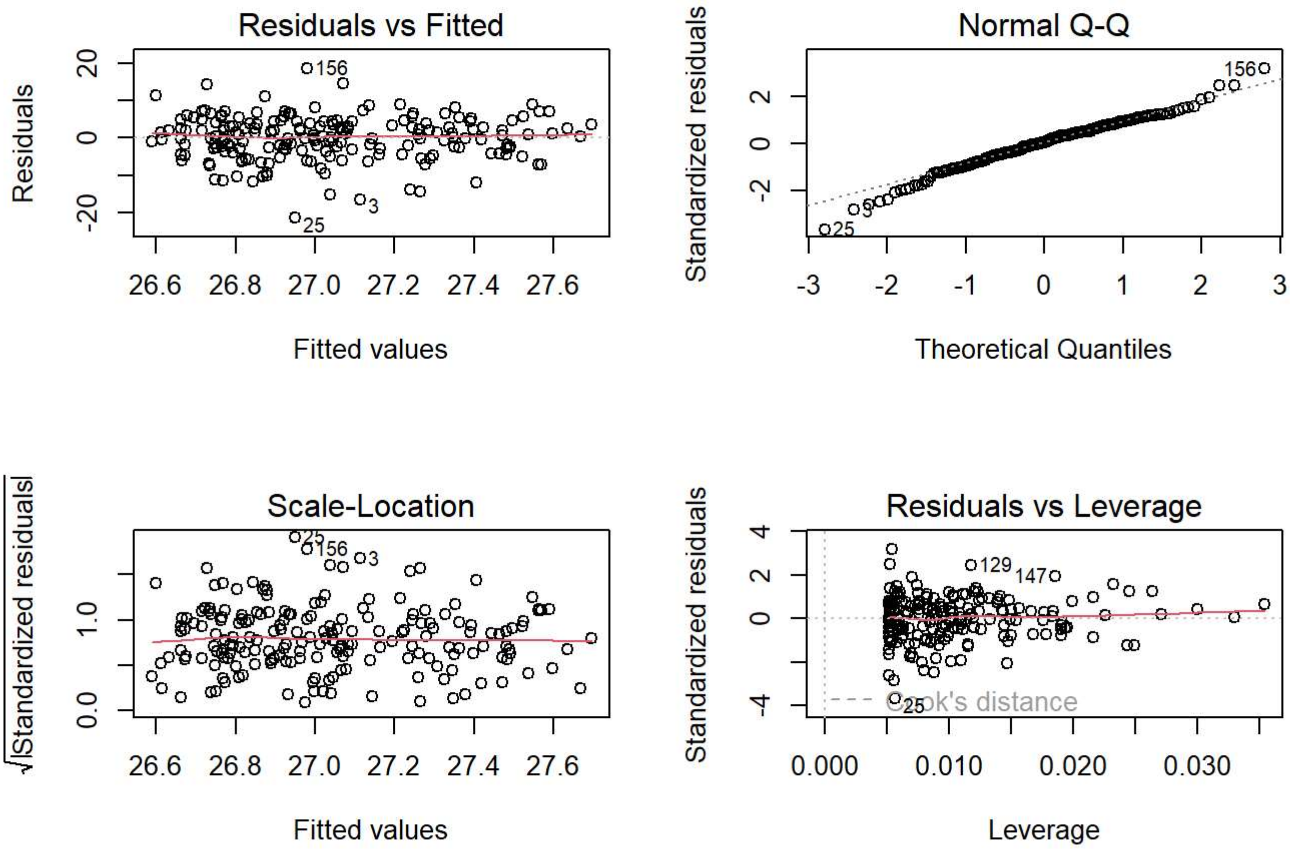

```
# View summary of the model with R-squared value included
rsq <- summary(model)$r.squared
summary_text <- paste0("R-squared: ", round(rsq, 2))
summary(model)
```

```
##
## Call:
## lm(formula = index ~ healthinsurance, data = wbindex)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -21.4756  -3.1773   0.2552   3.8634  18.6962
##
## Coefficients:
##                  Estimate Std. Error t value Pr(>|t|)
## (Intercept)     2.639e+01  1.086e+00  24.301   <2e-16 ***
## healthinsurance 1.752e-04  2.722e-04   0.644    0.521
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 5.883 on 191 degrees of freedom
## Multiple R-squared:  0.002164,   Adjusted R-squared:  -0.003061
## F-statistic: 0.4142 on 1 and 191 DF,  p-value: 0.5206
```

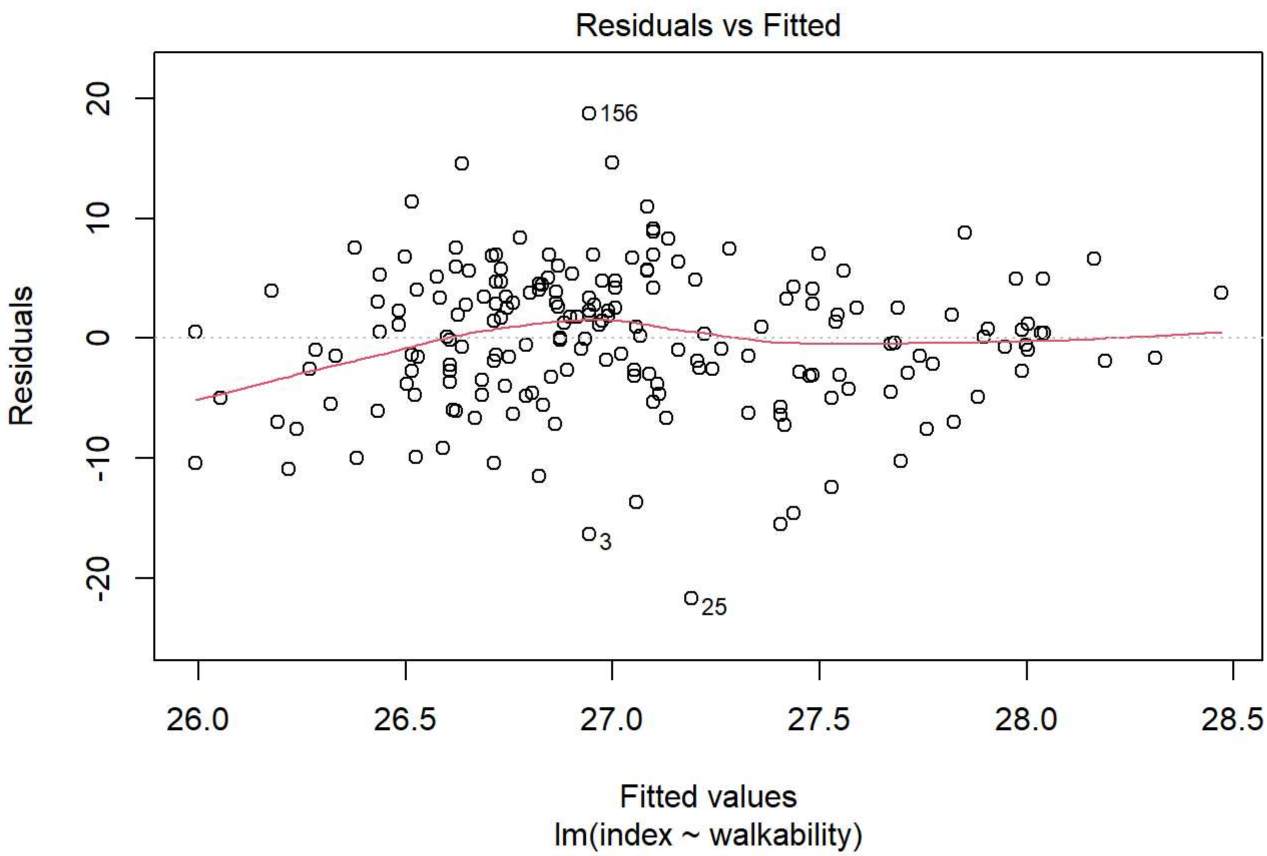
```
mtext(summary_text, side = 1, line = -2)
```

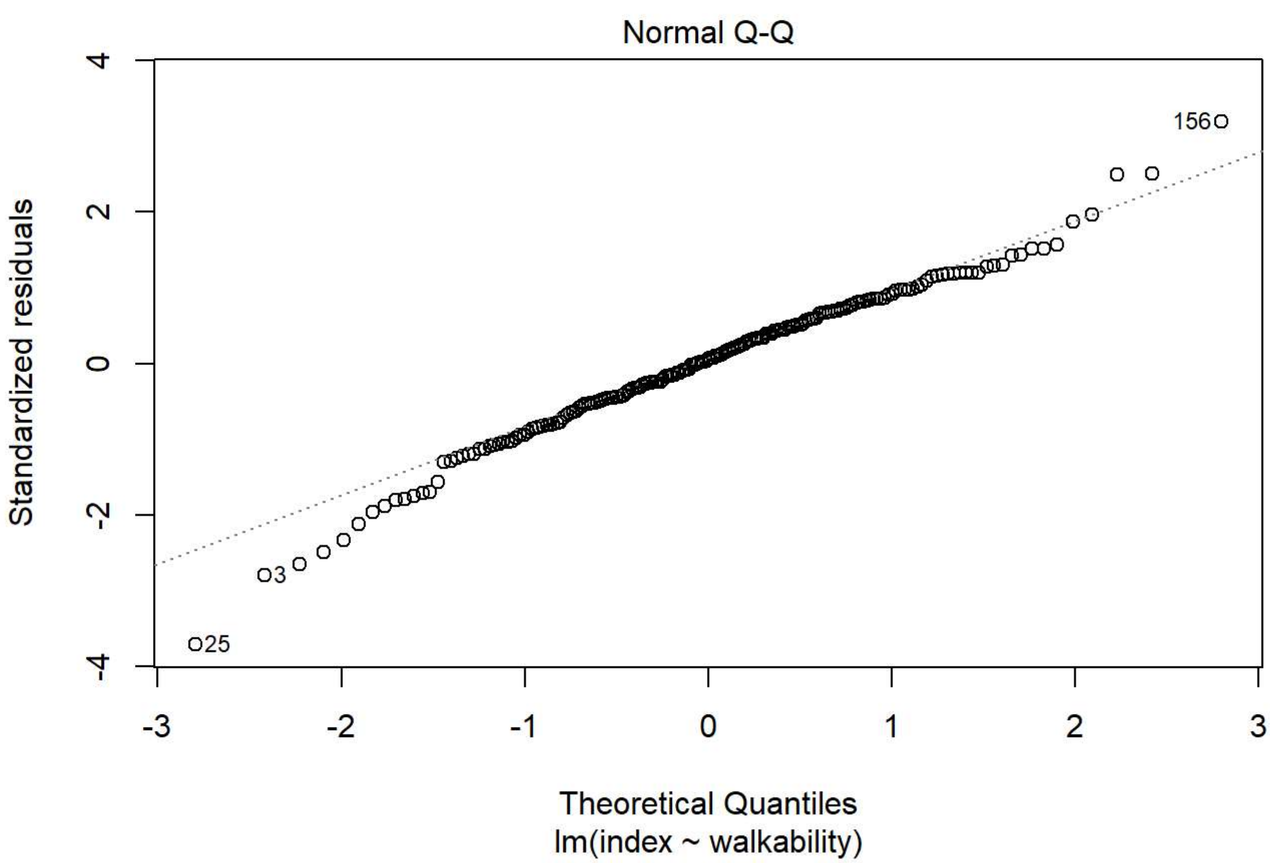


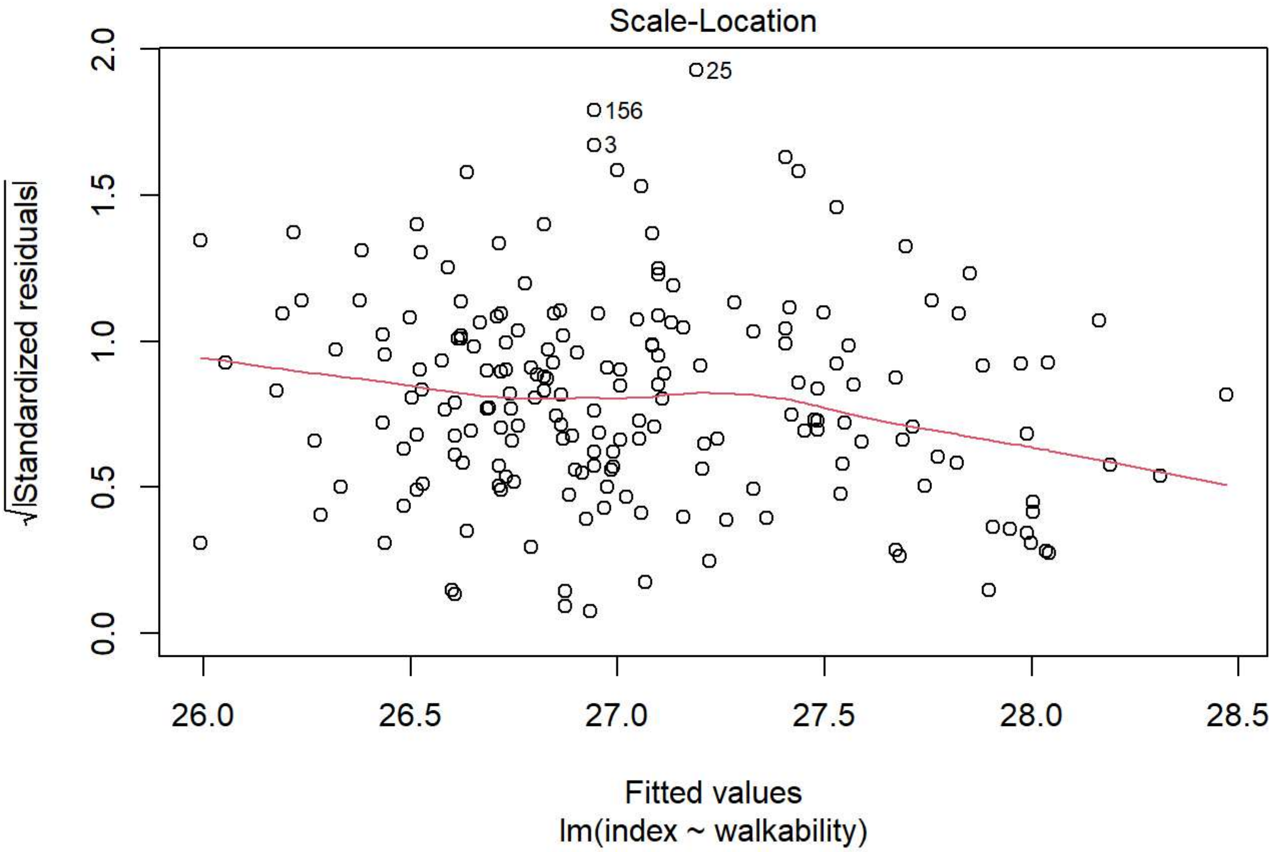

```
# Check model assumptions and residuals in a grid of plots
par(mfrow = c(2, 2))
plot(model)
```




```
## Linear regression
model <- lm(index ~ walkability, data = wbindex)

plot(model)
```


Residuals vs Fitted
Residuals
20
10
0
-10
-20
156
3
25
26.0
26.5
27.0
27.5
28.0
28.5
Fitted values
lm(index ~ walkability)

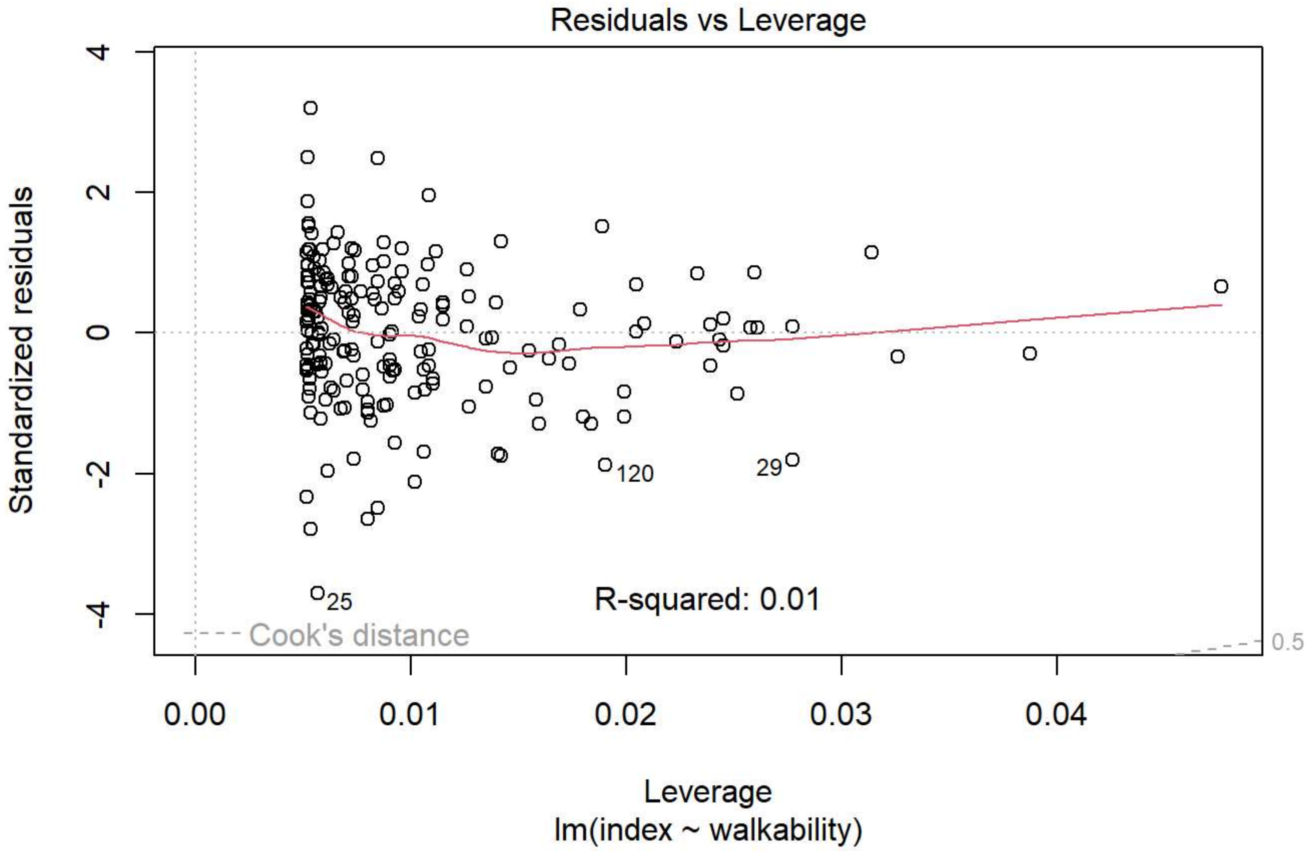

Normal Q-Q
Standardized residuals
4
2
0
-2
-4
156
3
25
-3
-2
-1
0
1
2
3
Theoretical Quantiles
lm(index ~ walkability)



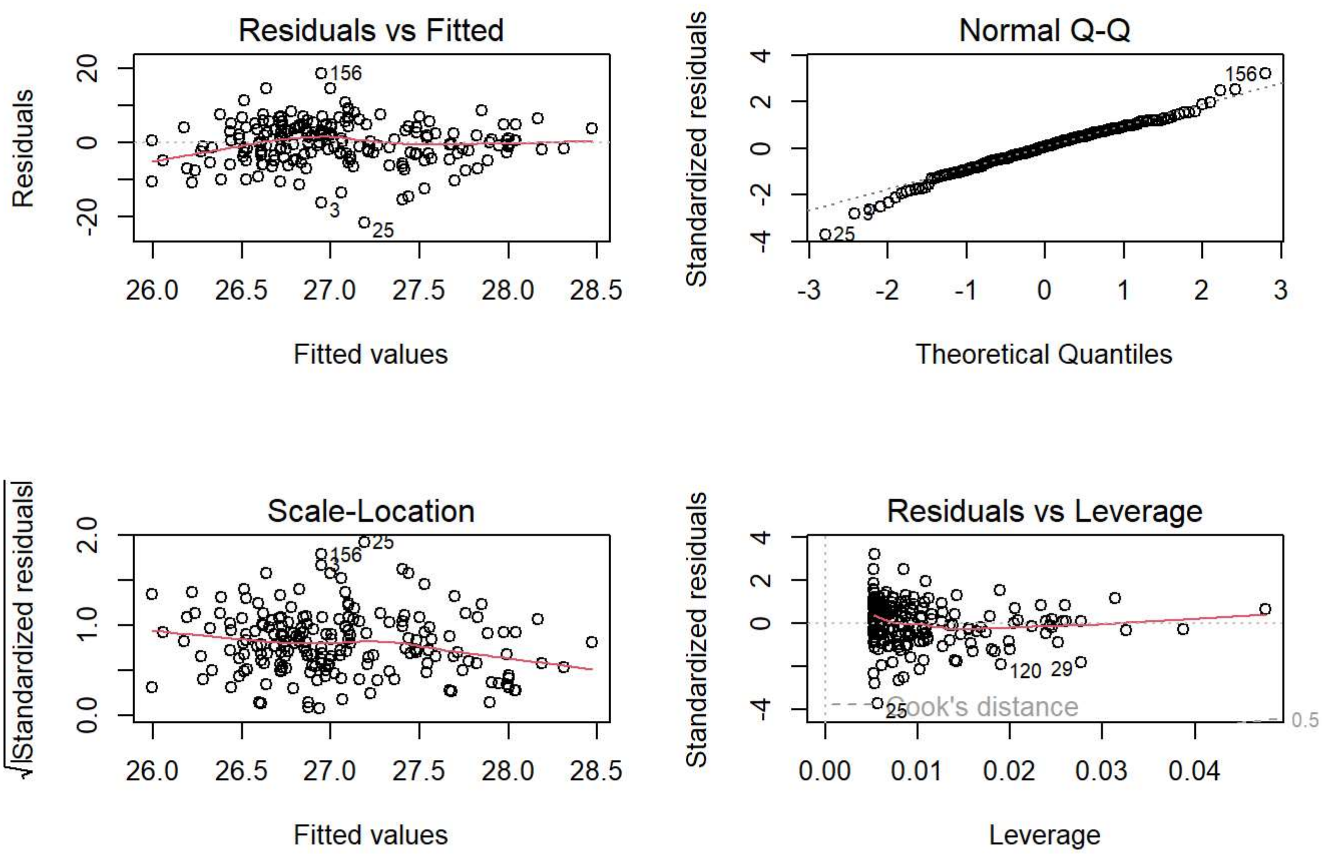

```
# View summary of the model with R-squared value included
rsq <- summary(model)$r.squared
summary_text <- paste0("R-squared: ", round(rsq, 2))
summary(model)
```

```
##
## Call:
## lm(formula = index ~ walkability, data = wbindex)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -21.7149  -3.1266   0.3543   4.0286  18.7308
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  29.2172     1.8872  15.482   <2e-16 ***
## walkability  -0.1843     0.1554  -1.186    0.237
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 5.867 on 191 degrees of freedom
## Multiple R-squared:  0.007305,   Adjusted R-squared:  0.002108
## F-statistic: 1.406 on 1 and 191 DF,  p-value: 0.2373
```

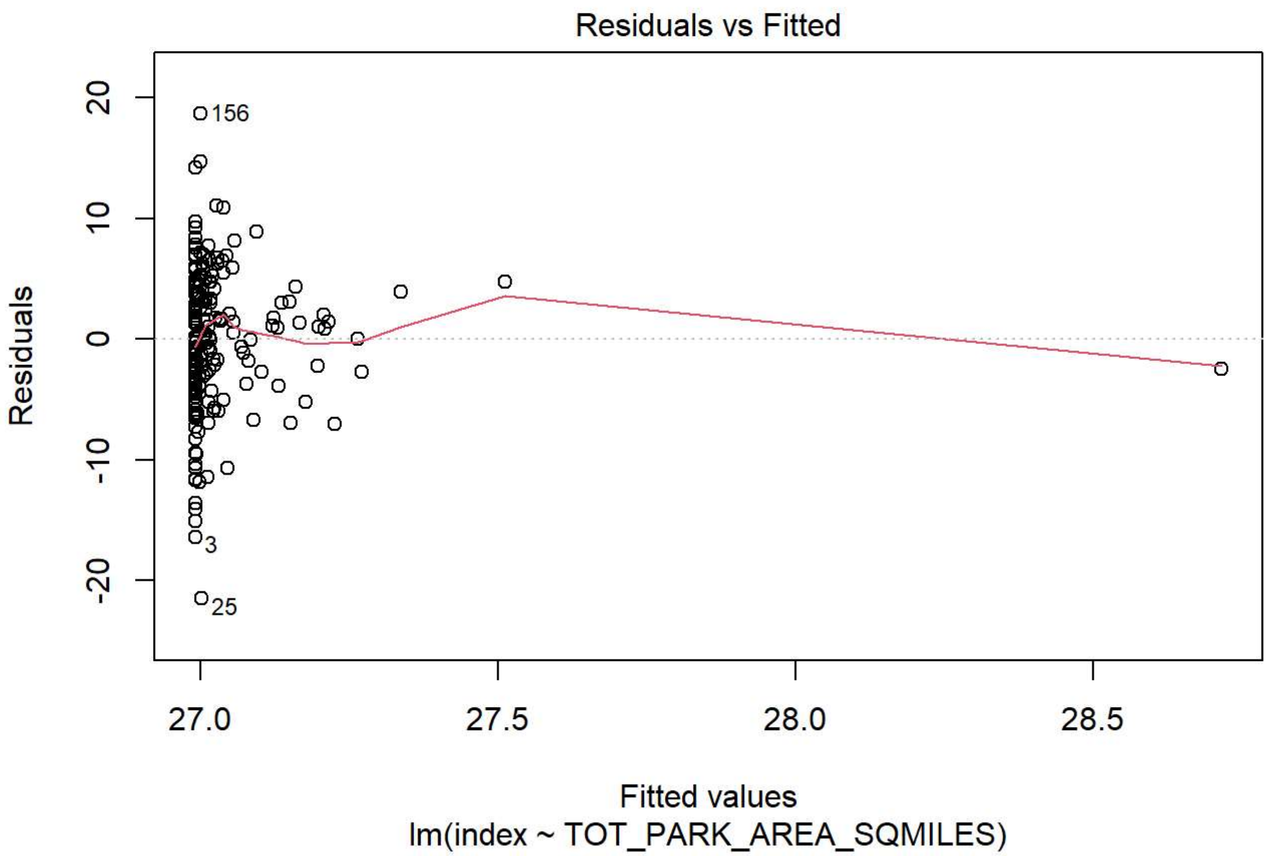
```
mtext(summary_text, side = 1, line = -2)
```

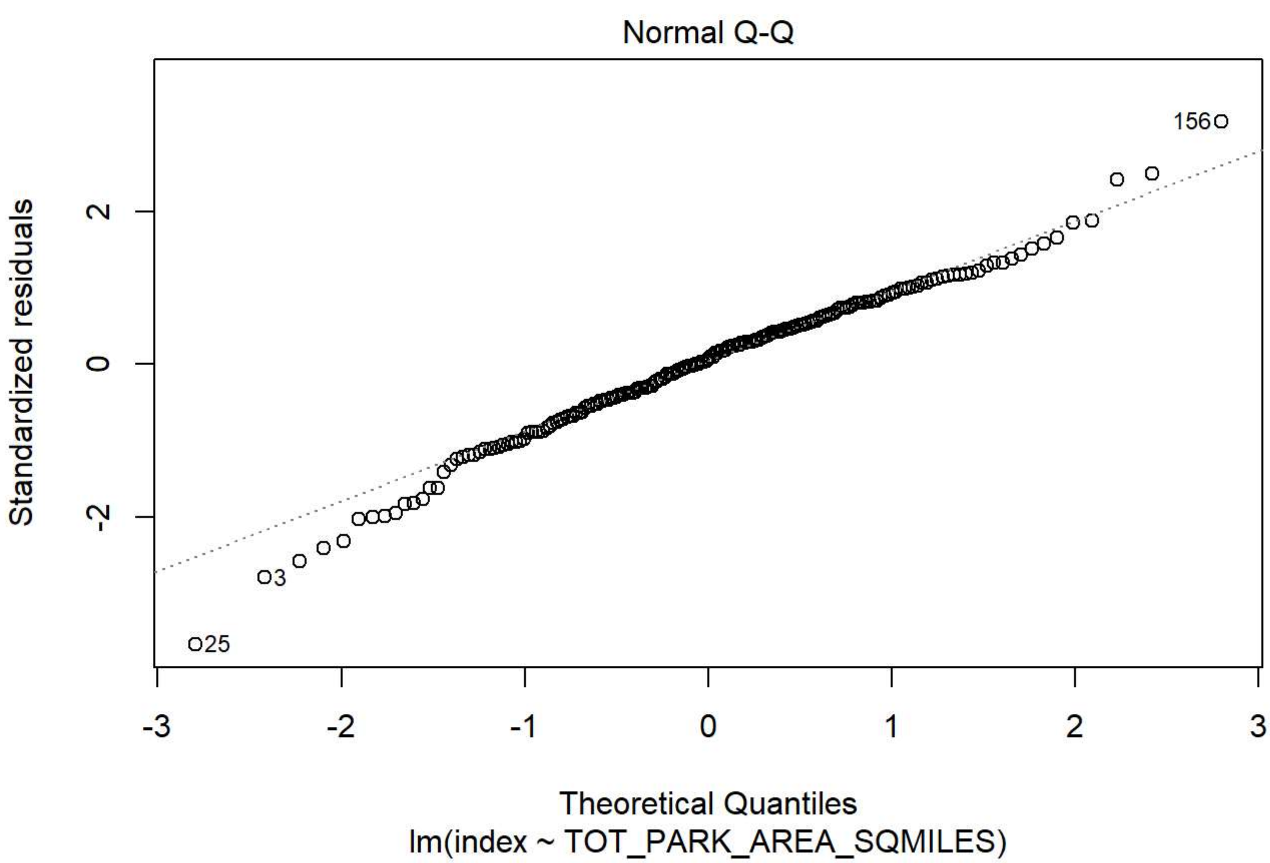


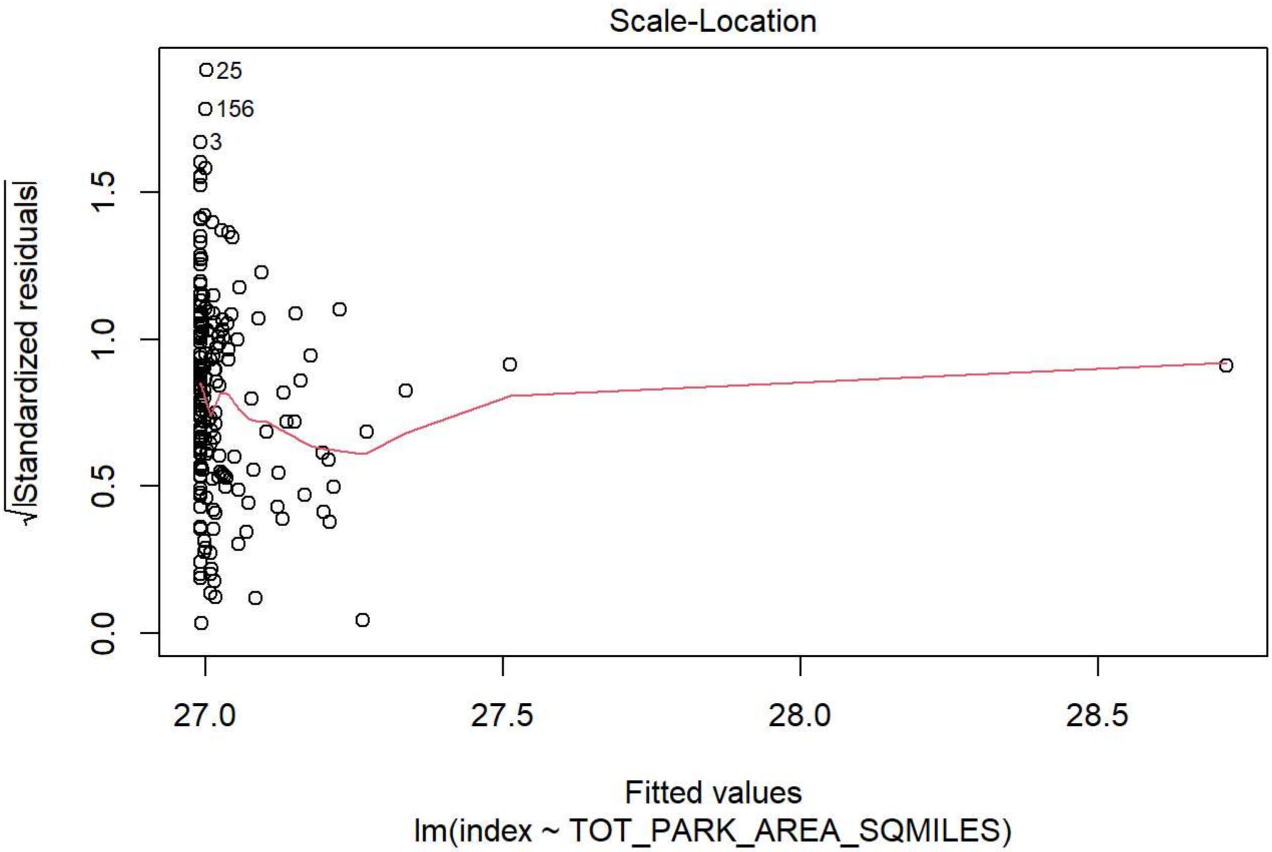

```
# Check model assumptions and residuals in a grid of plots
par(mfrow = c(2, 2))
plot(model)
```




```
## Linear regression
model <- lm(index ~ TOT_PARK_AREA_SQMILES, data = wbindex)

plot(model)
```


Residuals vs Fitted
Residuals
Fitted values
lm(index ~ TOT_PARK_AREA_SQMILES)
156
3
25
20
10
0
-10
-20
27.0
27.5
28.0
28.5

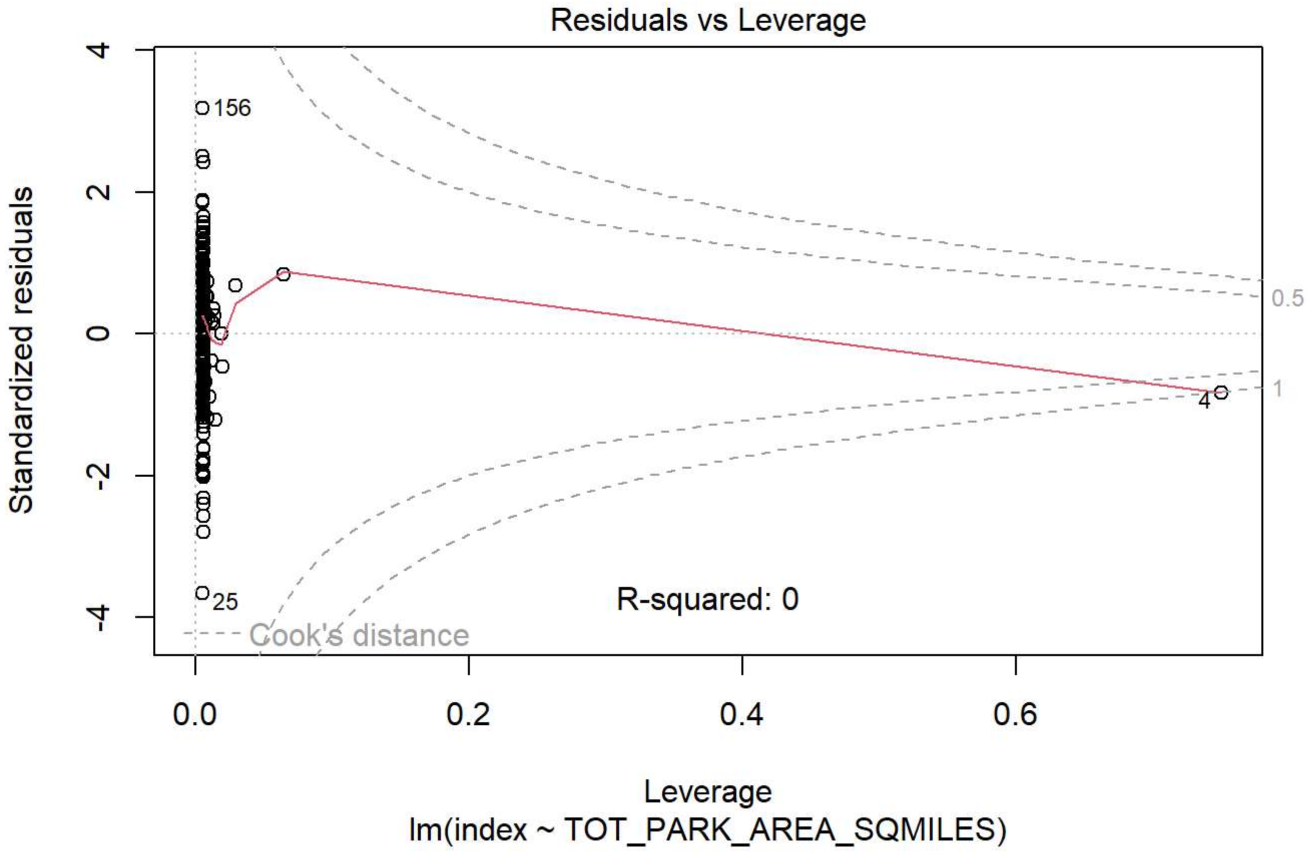

Normal Q-Q
Standardized residuals
Theoretical Quantiles
lm(index ~ TOT_PARK_AREA_SQMILES)
156
3
25
2
0
-2
-3
-2
-1
0
1
2
3



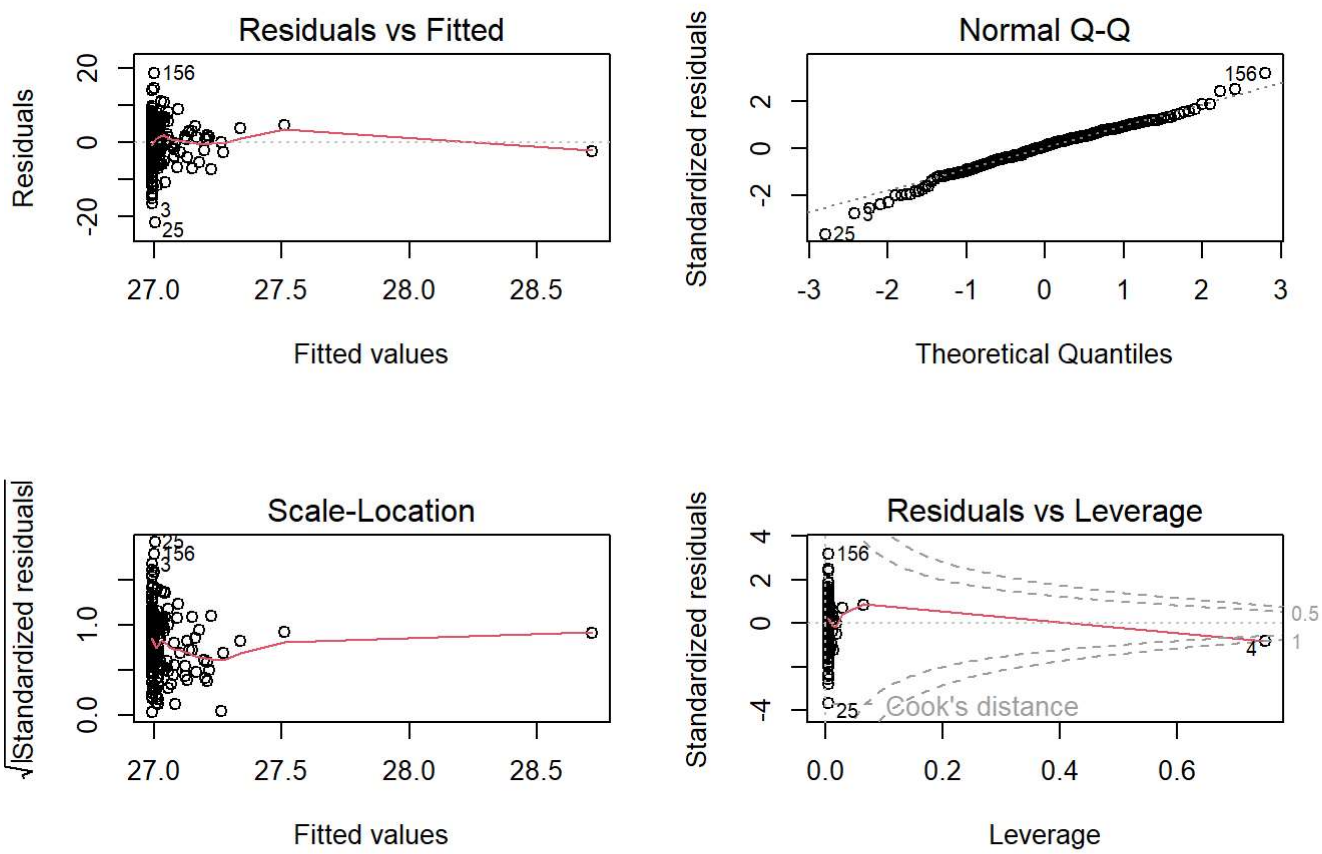

```
# View summary of the model with R-squared value included
rsq <- summary(model)$r.squared
summary_text <- paste0("R-squared: ", round(rsq, 2))
summary(model)
```

```
##
## Call:
## lm(formula = index ~ TOT_PARK_AREA_SQMILES, data = wbindex)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -21.5274  -3.2415   0.4416   3.8568  18.6745
##
## Coefficients:
##                        Estimate Std. Error t value Pr(>|t|)
## (Intercept)             26.9915     0.4452   60.63   <2e-16 ***
## TOT_PARK_AREA_SQMILES    1.0810     3.2725    0.33    0.742
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 5.887 on 191 degrees of freedom
## Multiple R-squared:  0.000571,   Adjusted R-squared:  -0.004662
## F-statistic: 0.1091 on 1 and 191 DF,  p-value: 0.7415
```

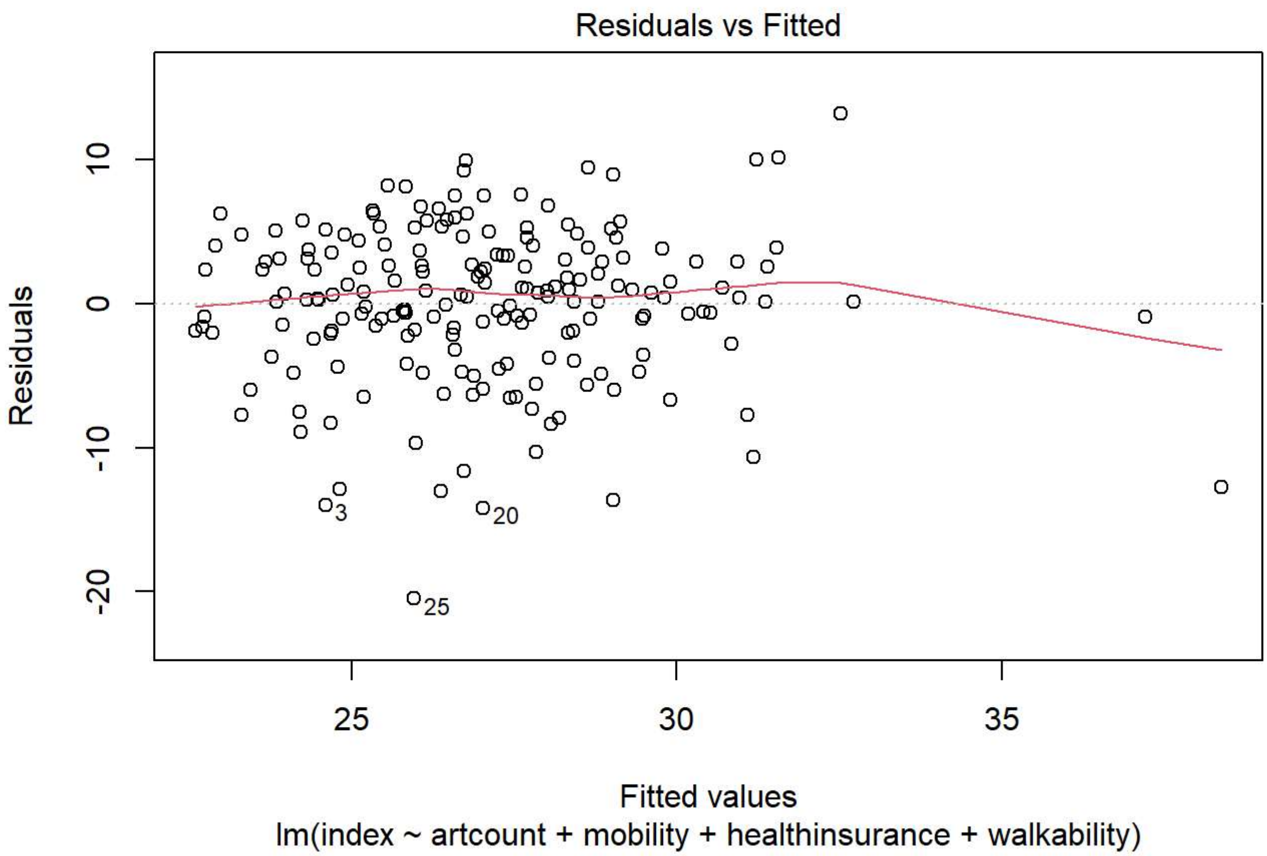
```
mtext(summary_text, side = 1, line = -2)
```

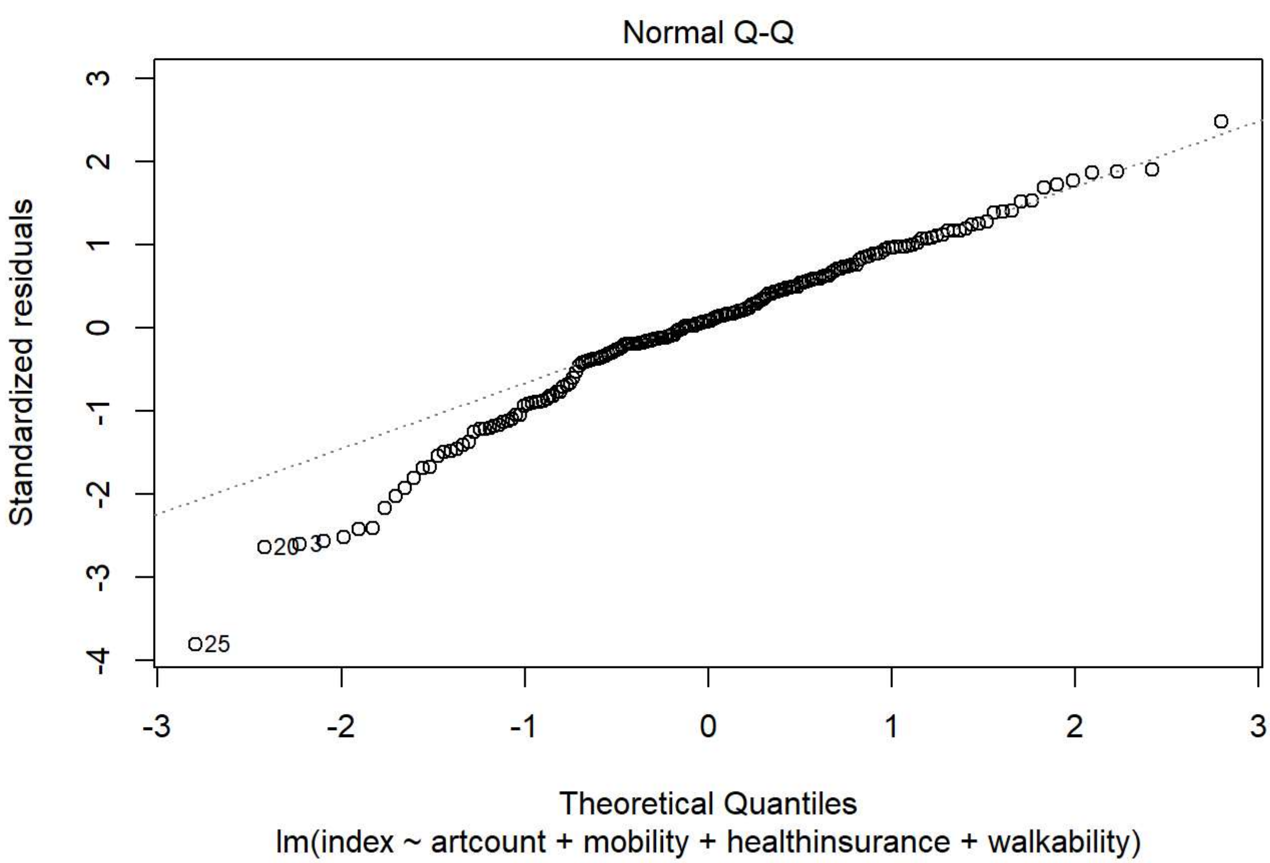


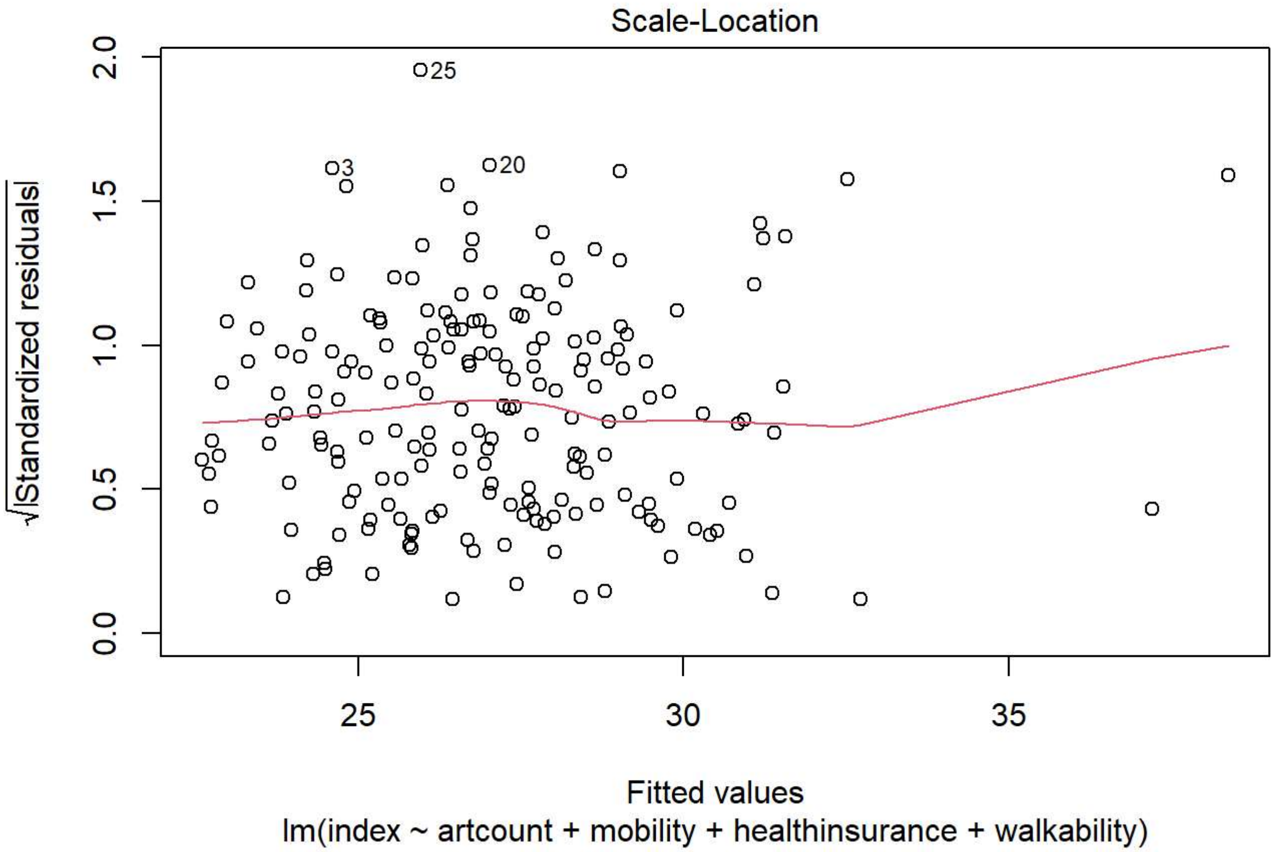

```
# Check model assumptions and residuals in a grid of plots
par(mfrow = c(2, 2))
plot(model)
```




```
## Linear regression
model <- lm(index ~ artcount + mobility + healthinsurance + walkability, data = wbindex)

plot(model)
```


Residuals vs Fitted
Residuals
10
0
-10
-20
25
30
35
3
20
25
Fitted values
lm(index ~ artcount + mobility + healthinsurance + walkability)

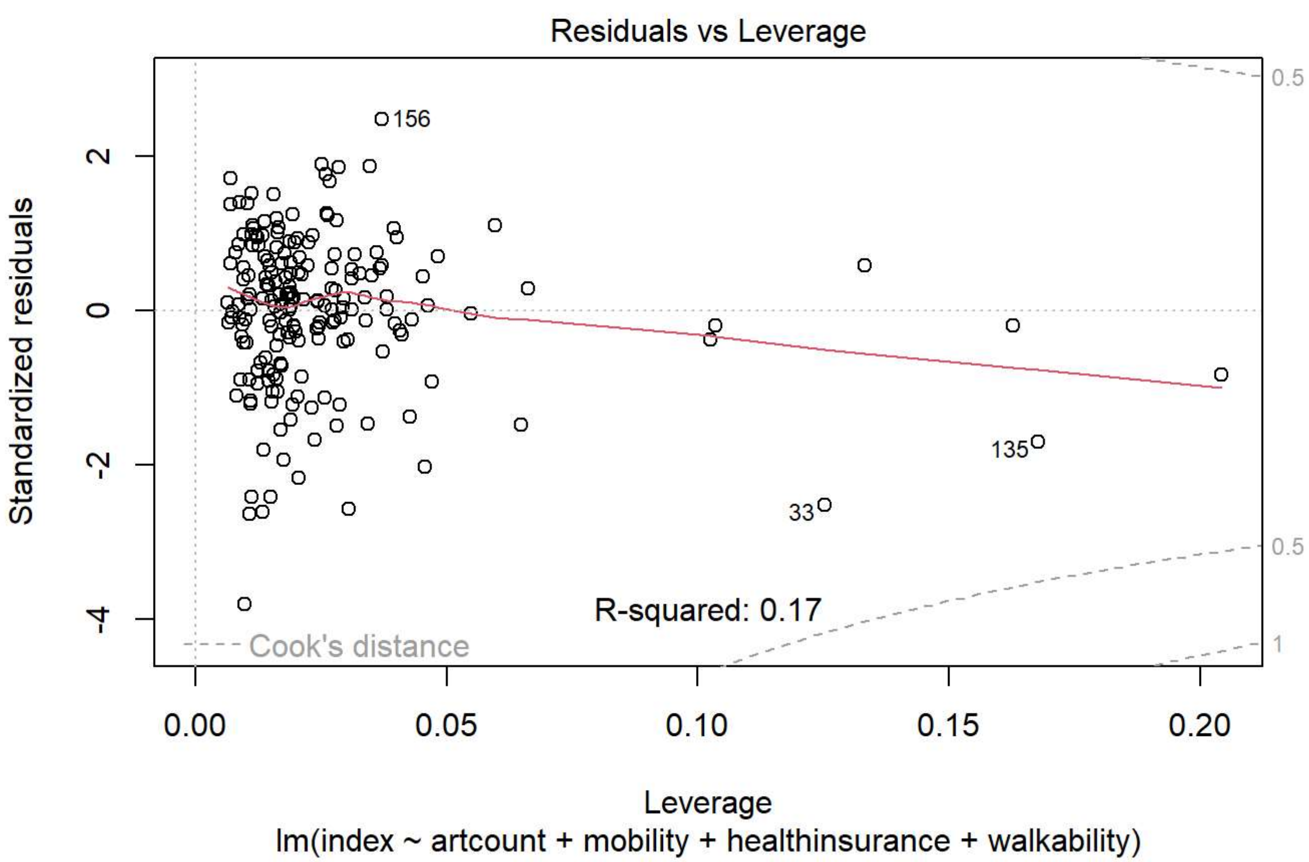

Normal Q-Q
Standardized residuals
3
2
1
0
-1
-2
-3
-4
-3
-2
-1
0
1
2
3
20
3
25
Theoretical Quantiles
lm(index ~ artcount + mobility + healthinsurance + walkability)



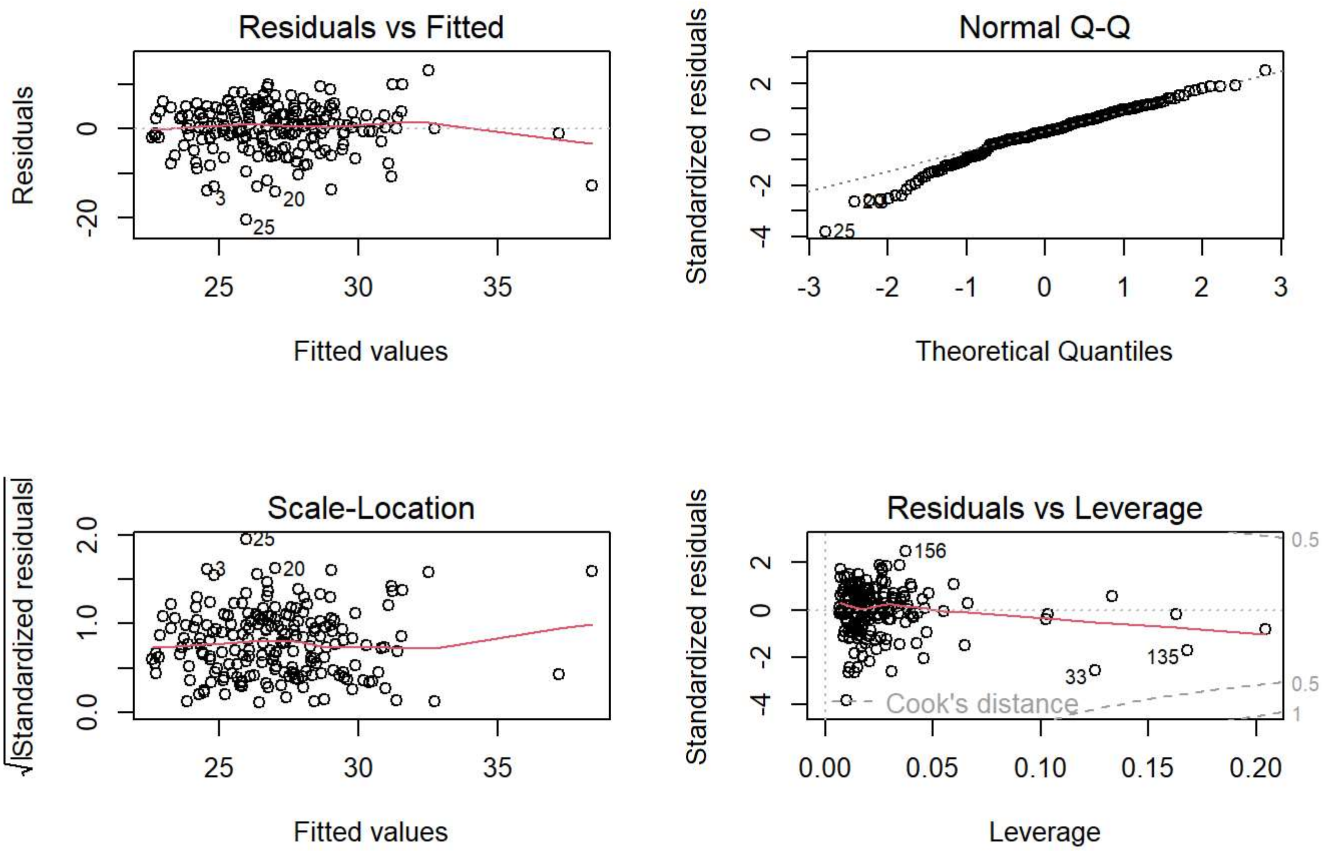

```
# View summary of the model with R-squared value included
rsq <- summary(model)$r.squared
summary_text <- paste0("R-squared: ", round(rsq, 2))
summary(model)
```

```
##
## Call:
## lm(formula = index ~ artcount + mobility + healthinsurance +
##     walkability, data = wbindex)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -20.485  -2.200   0.427   3.512  13.157
##
## Coefficients:
##                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)     33.4019345  2.7296378  12.237  < 2e-16 ***
## artcount         0.0227235  0.0216027   1.052  0.29420
## mobility         0.0063978  0.0010439   6.129 5.09e-09 ***
## healthinsurance -0.0009948  0.0003298  -3.016  0.00291 **
## walkability     -0.5852024  0.1806658  -3.239  0.00142 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 5.396 on 188 degrees of freedom
## Multiple R-squared:  0.1737, Adjusted R-squared:  0.1561
## F-statistic: 9.882 on 4 and 188 DF,  p-value: 2.808e-07
```

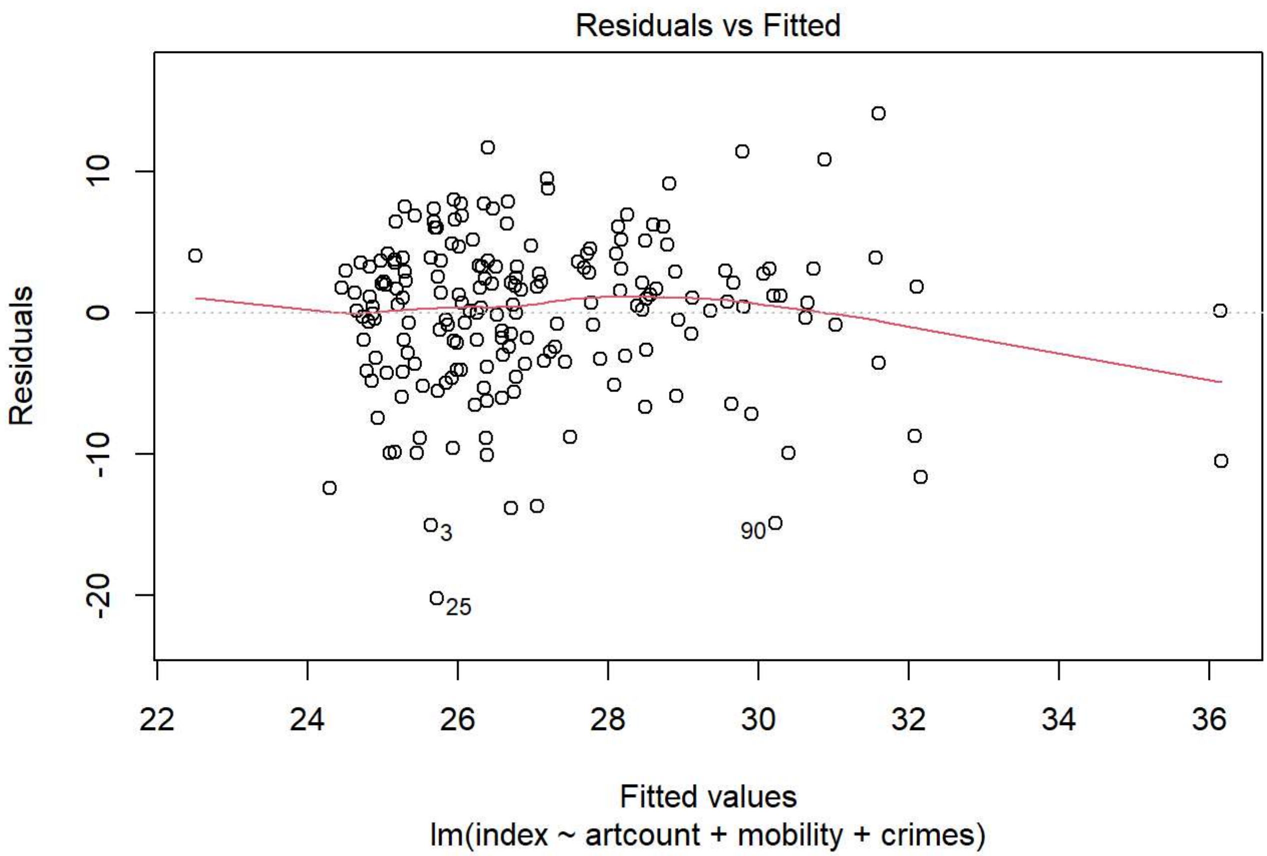
```
mtext(summary_text, side = 1, line = -2)
```

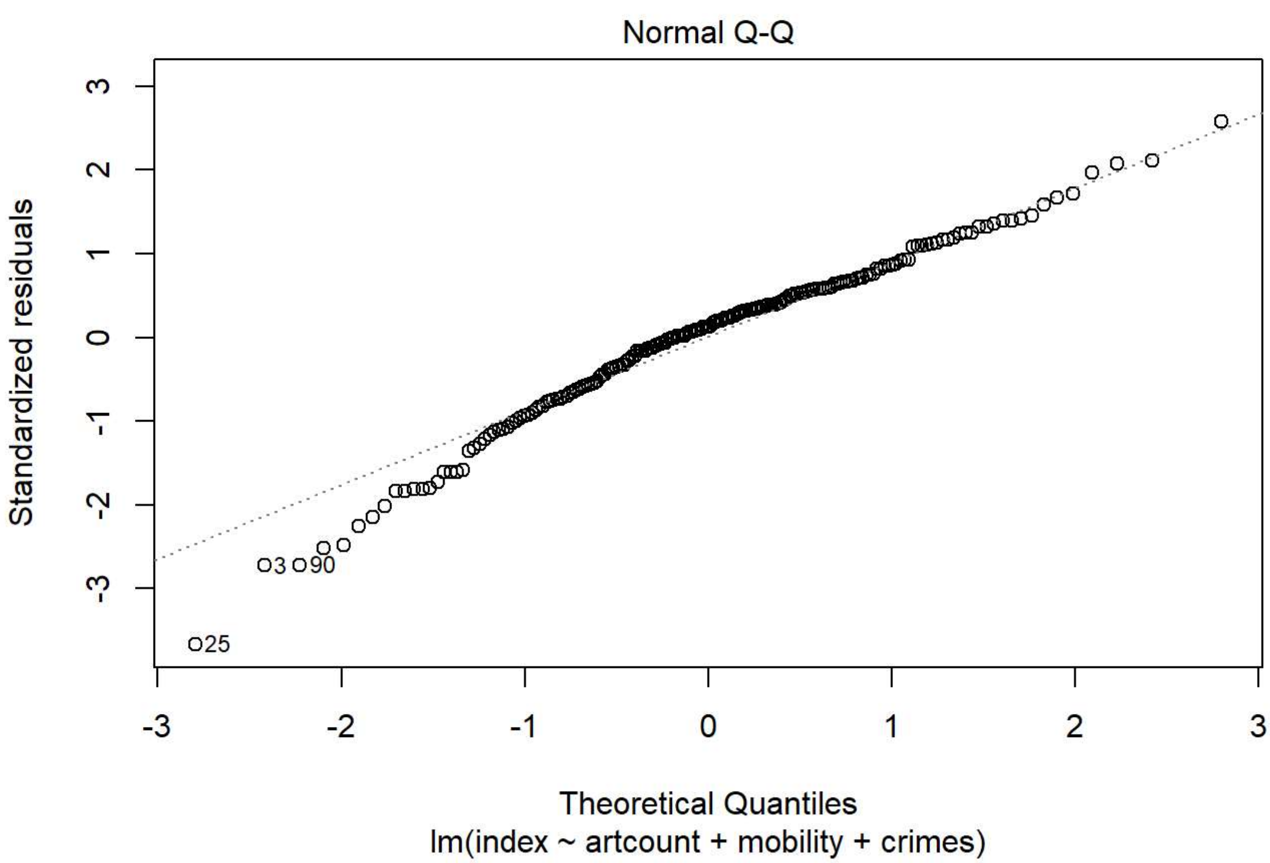


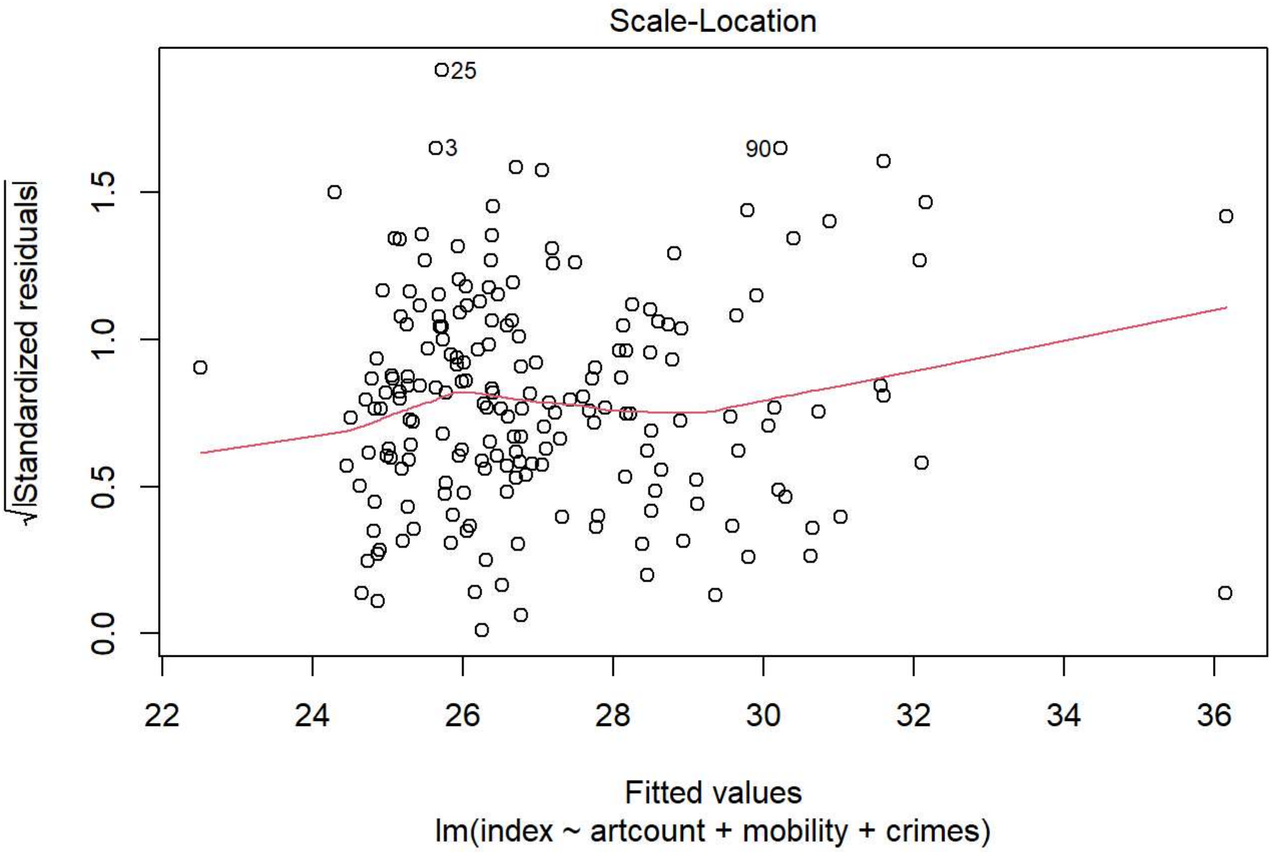
```
# Check model assumptions and residuals in a grid of plots
par(mfrow = c(2, 2))
plot(model)
```




```
## Linear regression
model <- lm(index ~ artcount + mobility + crimes, data = wbindex)

plot(model)
```


Residuals vs Fitted
Residuals
10
0
-10
-20
3
90
25
22
24
26
28
30
32
34
36
Fitted values
lm(index ~ artcount + mobility + crimes)

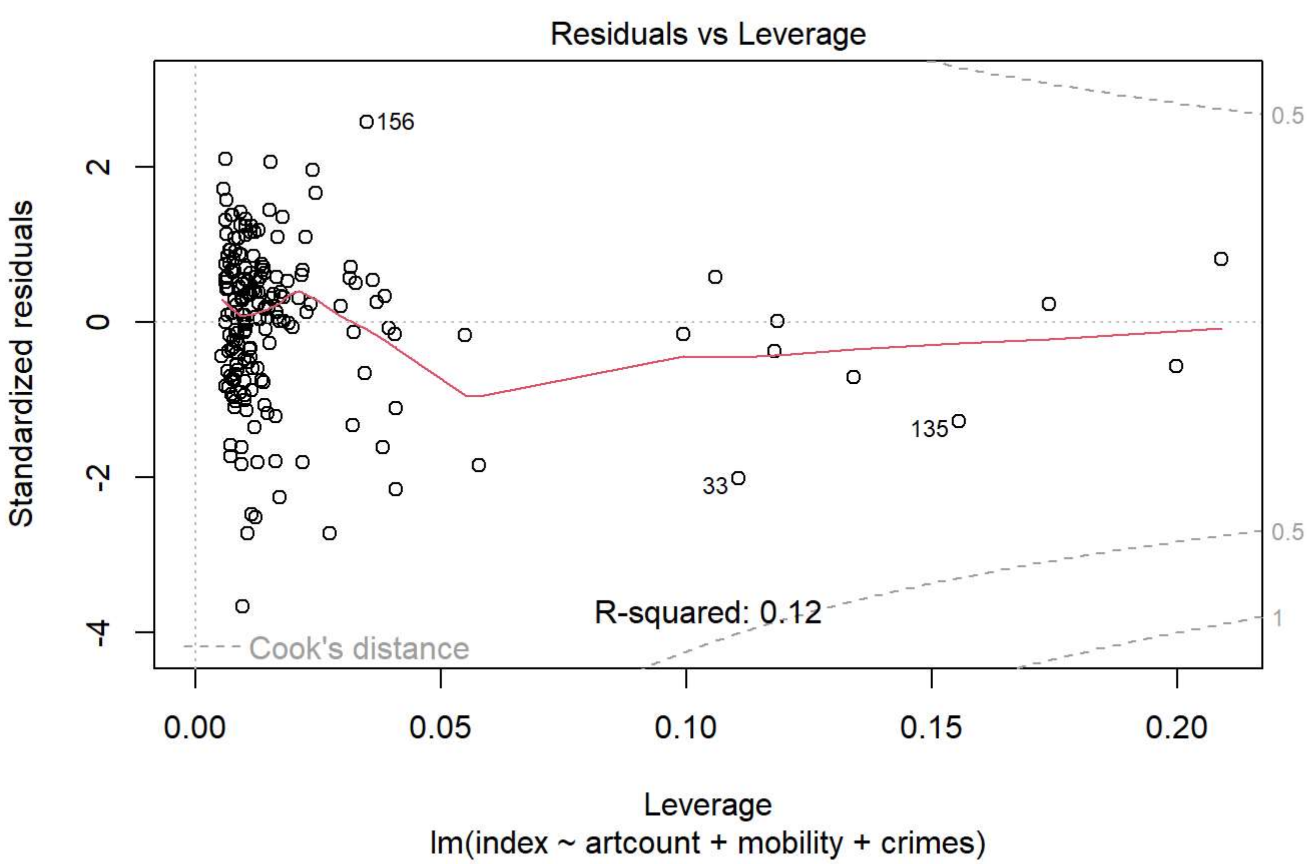

Normal Q-Q
Standardized residuals
3
2
1
0
-1
-2
-3
3
90
25
-3
-2
-1
0
1
2
3
Theoretical Quantiles
lm(index ~ artcount + mobility + crimes)



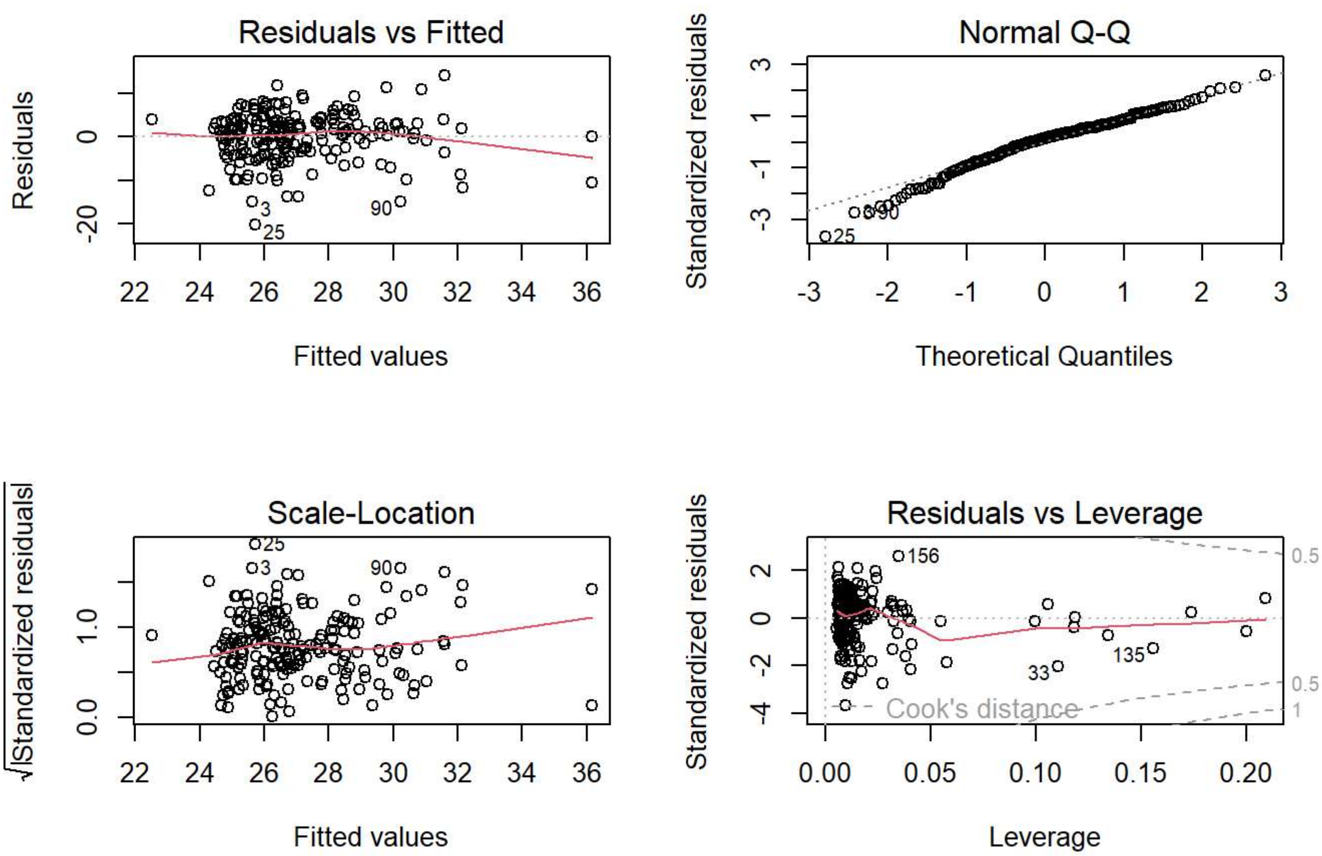

```
# View summary of the model with R-squared value included
rsq <- summary(model)$r.squared
summary_text <- paste0("R-squared: ", round(rsq, 2))
summary(model)
```

```
##
## Call:
## lm(formula = index ~ artcount + mobility + crimes, data = wbindex)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -20.2458  -3.2280   0.7237   3.3423  14.0705
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) 24.456533   0.814188  30.038  < 2e-16 ***
## artcount     0.011876   0.021417   0.555    0.580
## mobility     0.005130   0.001018   5.039 1.09e-06 ***
## crimes      -0.003239   0.002879  -1.125    0.262
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 5.542 on 189 degrees of freedom
## Multiple R-squared:  0.1238, Adjusted R-squared:  0.1098
## F-statistic: 8.898 on 3 and 189 DF,  p-value: 1.519e-05
```

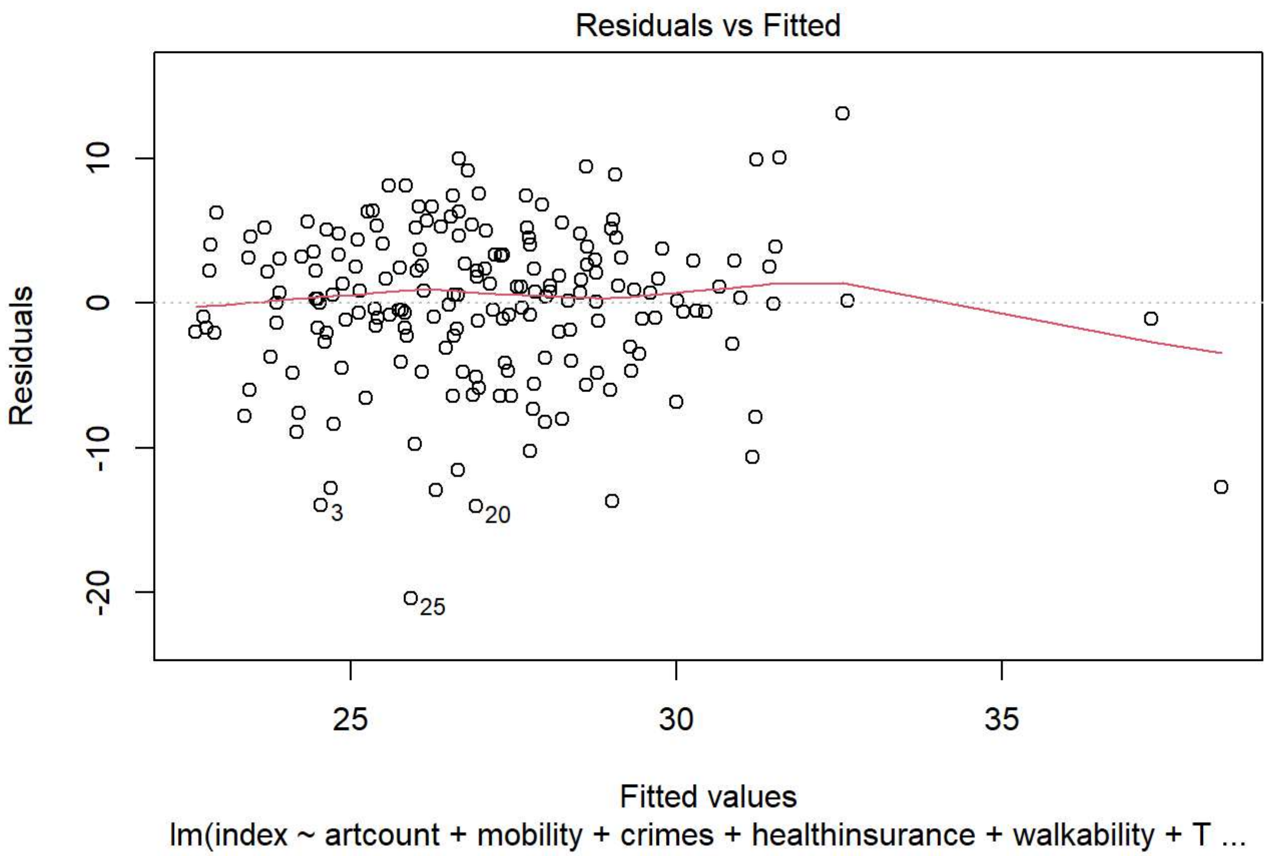
```
mtext(summary_text, side = 1, line = -2)
```

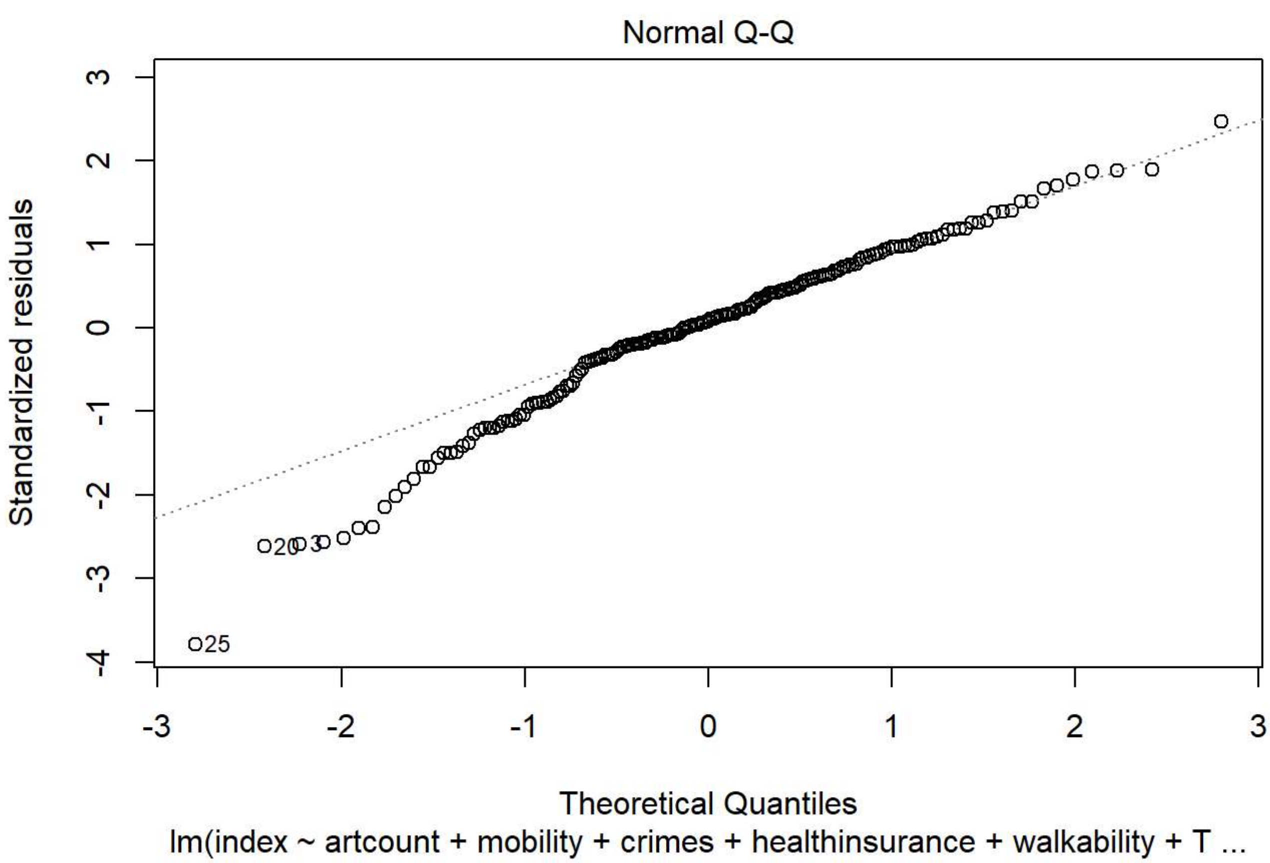


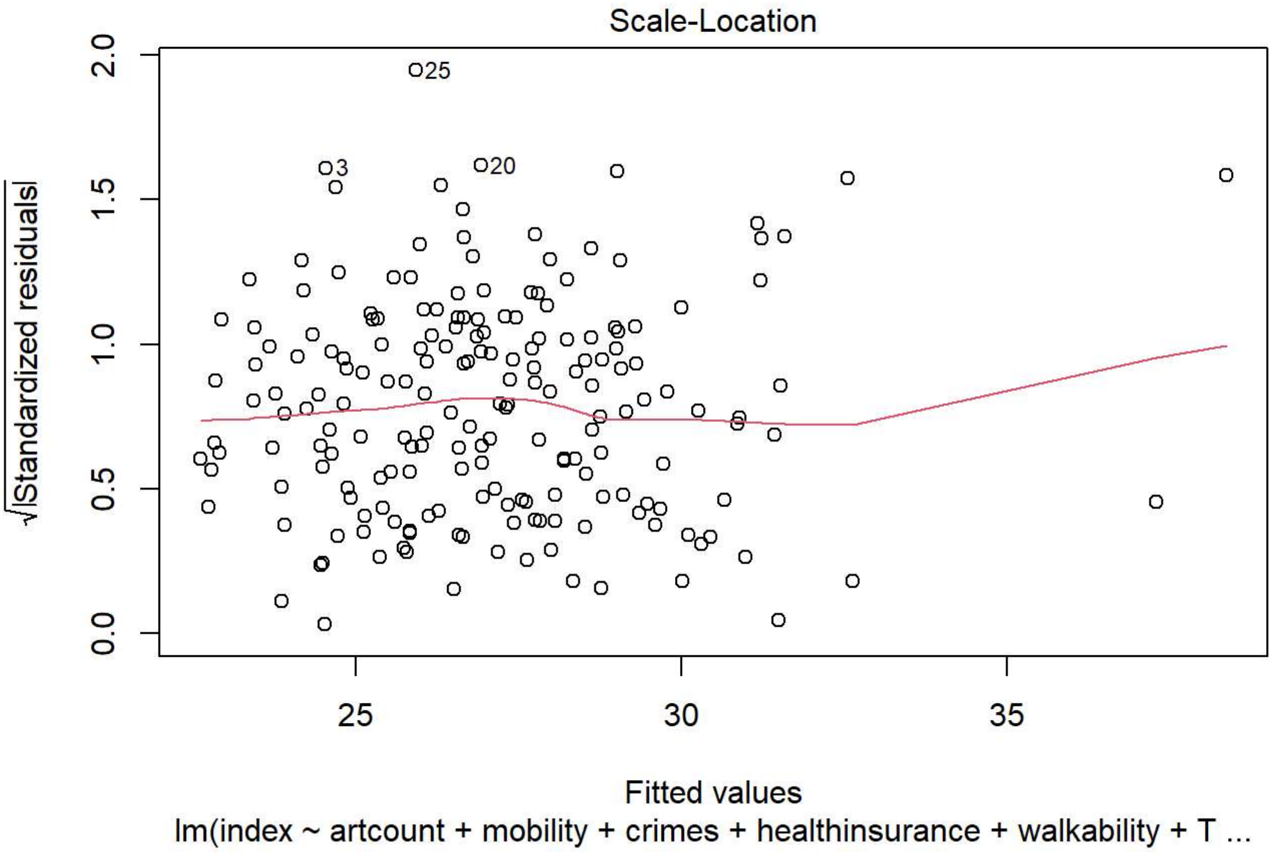
```
# Check model assumptions and residuals in a grid of plots
par(mfrow = c(2, 2))
plot(model)
```




```
## Linear regression
model <- lm(index ~ artcount + mobility + crimes + healthinsurance + walkability + TOT_PARK_AREA
_SQMILES, data = wbindex)

plot(model)
```


Residuals vs Fitted
Residuals
10
0
-10
-20
3
20
25
25
30
35
Fitted values
lm(index ~ artcount + mobility + crimes + healthinsurance + walkability + T ...

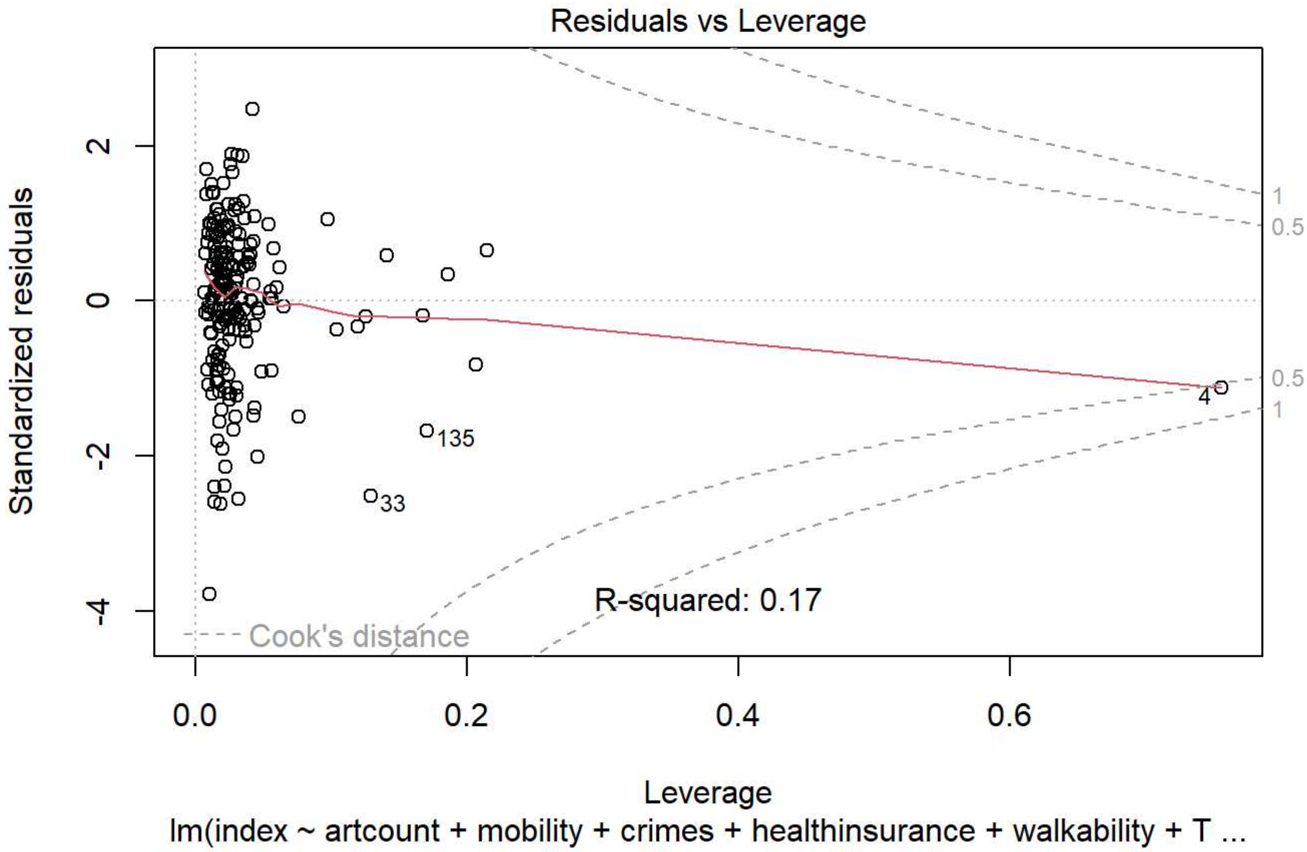

Normal Q-Q
Standardized residuals
3
2
1
0
-1
-2
-3
-4
20
3
25
-3
-2
-1
0
1
2
3
Theoretical Quantiles
lm(index ~ artcount + mobility + crimes + healthinsurance + walkability + T ...



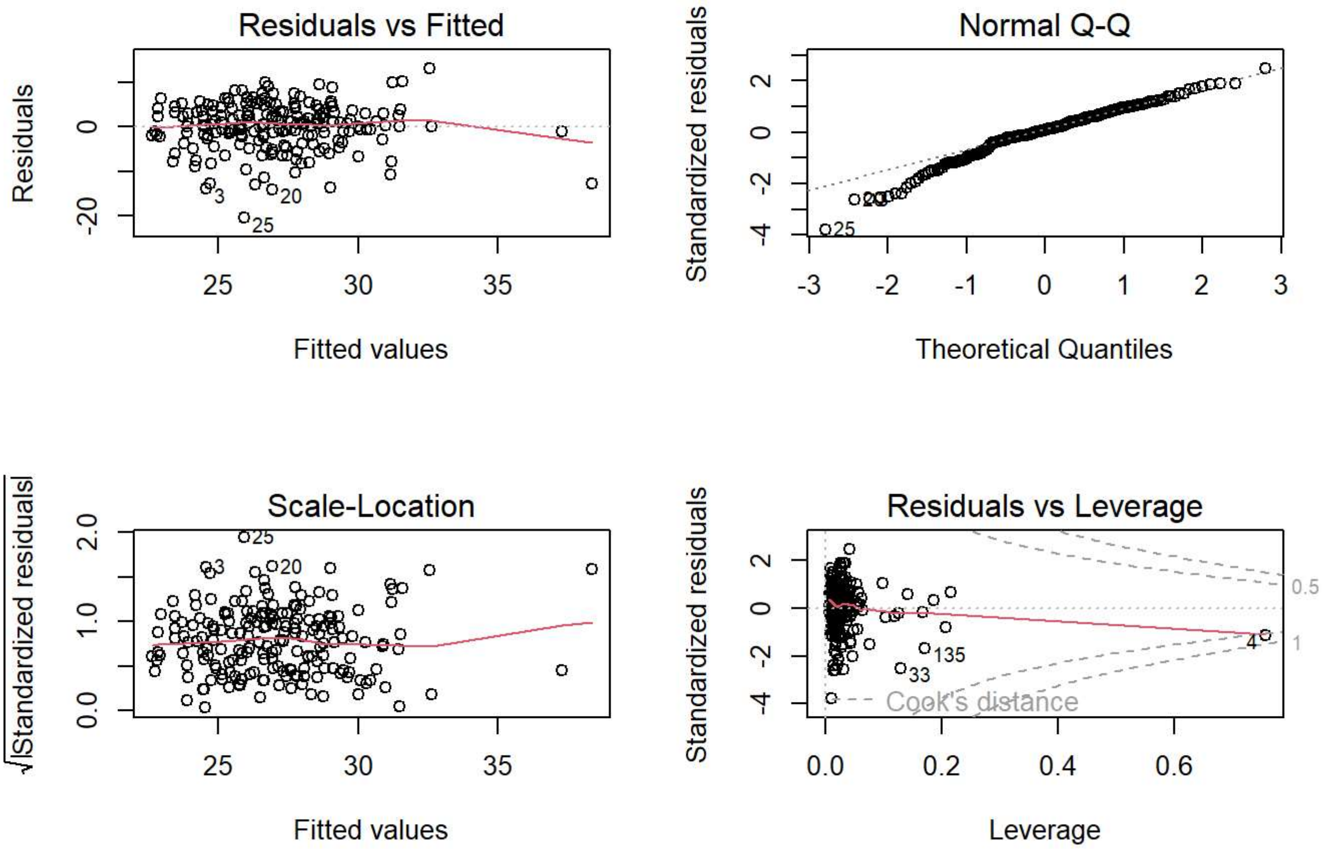

```r
# View summary of the model with R-squared value included
rsq <- summary(model)$r.squared
summary_text <- paste0("R-squared: ", round(rsq, 2))
summary(model)
```

```
##
## Call:
## lm(formula = index ~ artcount + mobility + crimes + healthinsurance +
##     walkability + TOT_PARK_AREA_SQMILES, data = wbindex)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -20.4391  -2.2498   0.4523   3.3850  13.1212
##
## Coefficients:
##                         Estimate Std. Error t value Pr(>|t|)
## (Intercept)           33.1073132  2.8641083  11.559  < 2e-16 ***
## artcount               0.0224592  0.0218787   1.027  0.30597
## mobility               0.0064542  0.0010980   5.878 1.89e-08 ***
## crimes                -0.0003304  0.0029667  -0.111  0.91144
## healthinsurance       -0.0009839  0.0003381  -2.910  0.00405 **
## walkability           -0.5641508  0.1950582  -2.892  0.00428 **
## TOT_PARK_AREA_SQMILES  1.1367998  3.1170593   0.365  0.71575
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 5.422 on 186 degrees of freedom
## Multiple R-squared:  0.1744, Adjusted R-squared:  0.1477
## F-statistic: 6.547 on 6 and 186 DF,  p-value: 2.736e-06
```

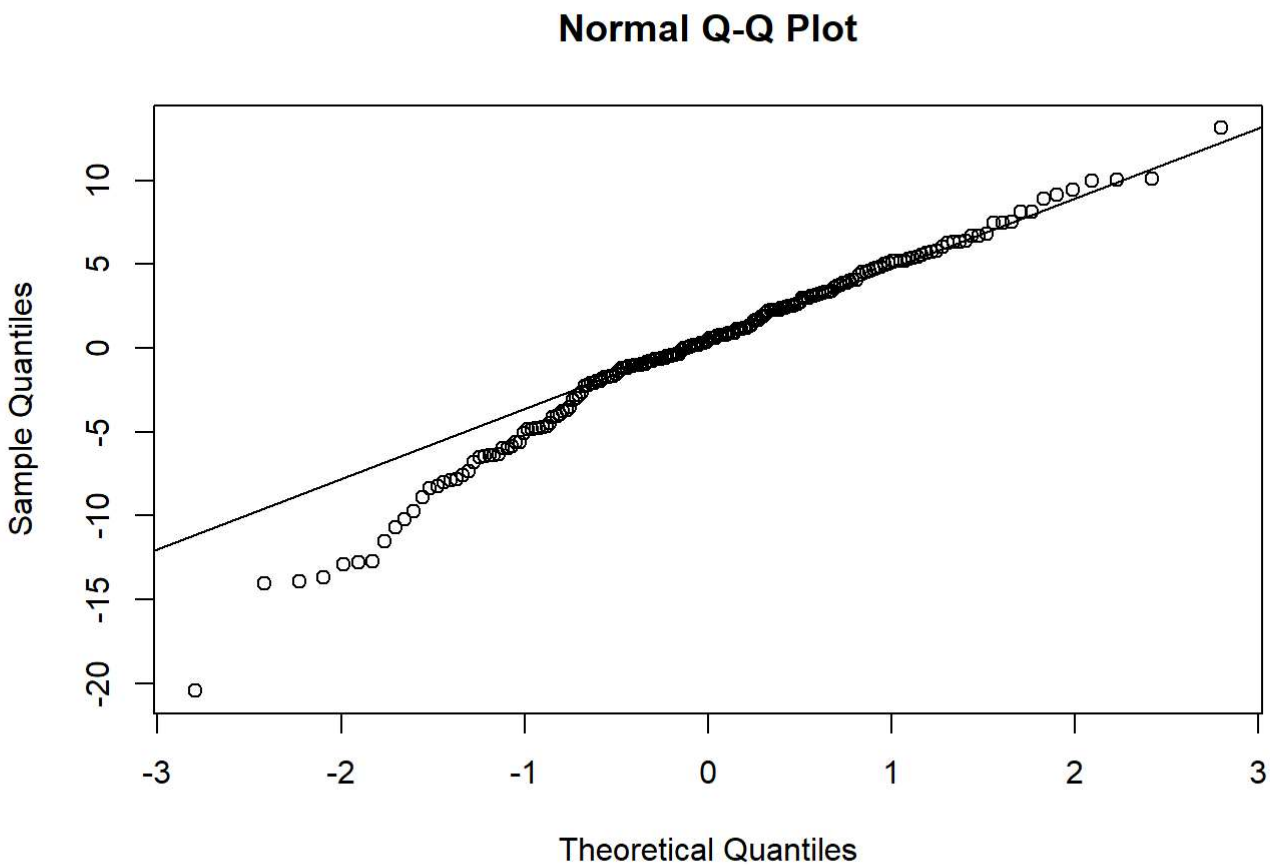
```
mtext(summary_text, side = 1, line = -2)
```



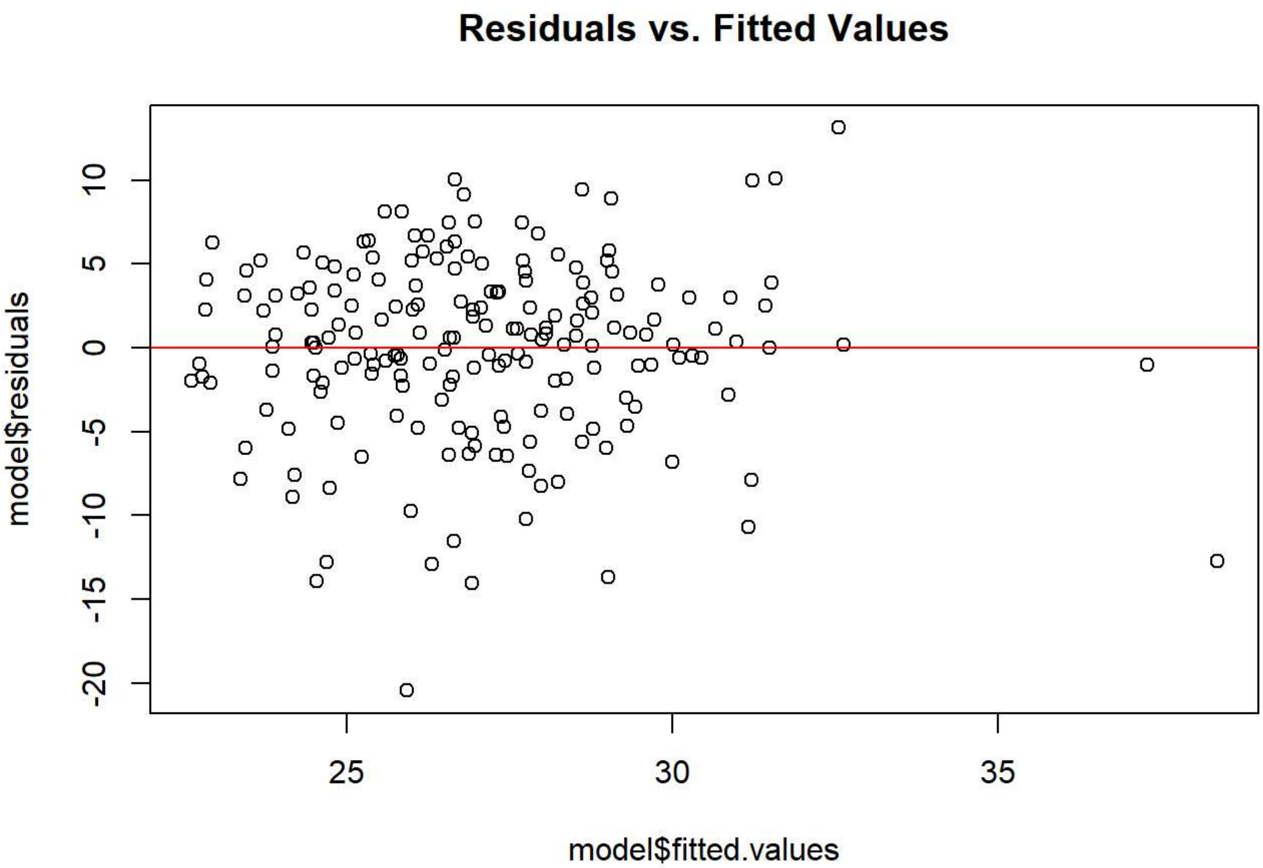

```
# Check model assumptions and residuals in a grid of plots
par(mfrow = c(2, 2))
plot(model)
```



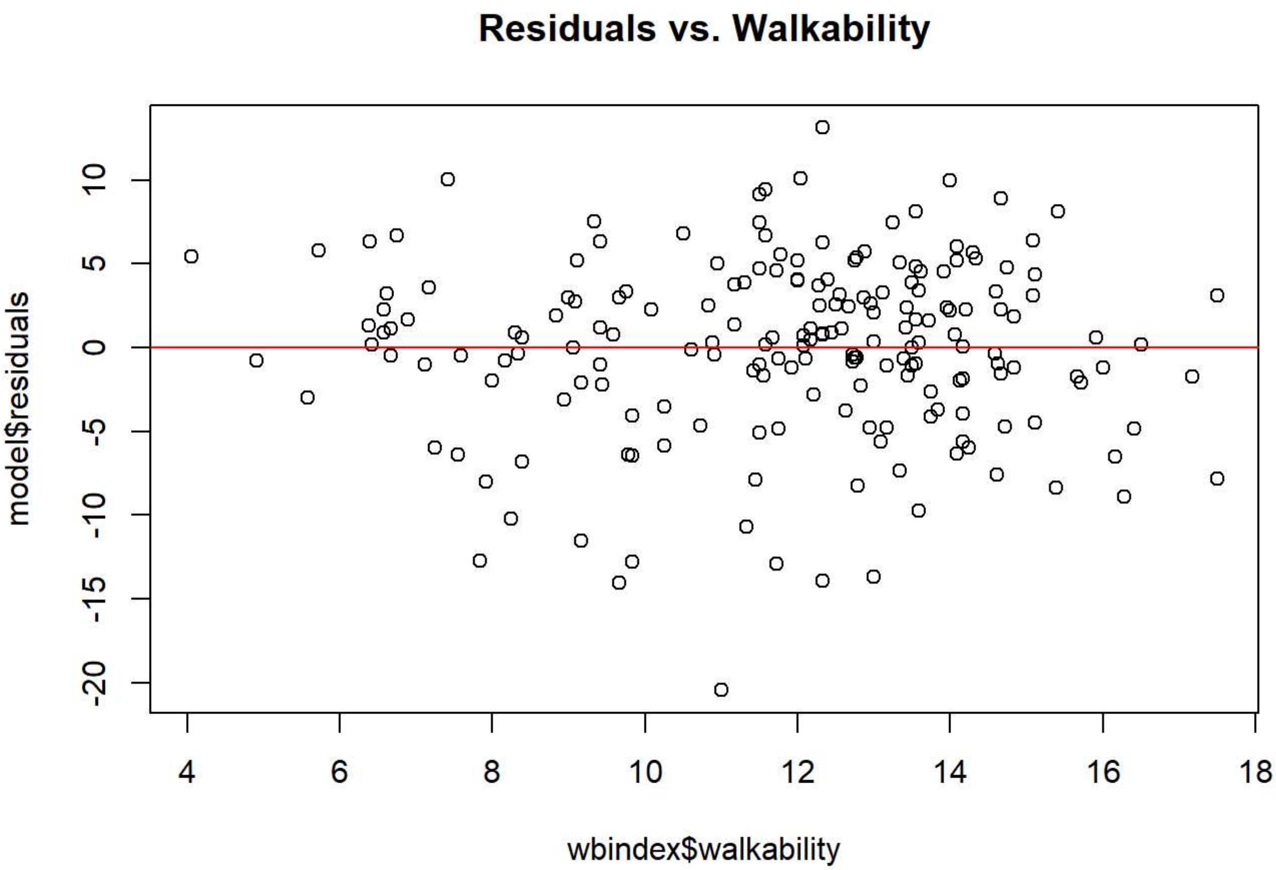

```
# Check model assumptions

# Check for normality of residuals
qqnorm(model$residuals, main = "Normal Q-Q Plot")
qqline(model$residuals)
```



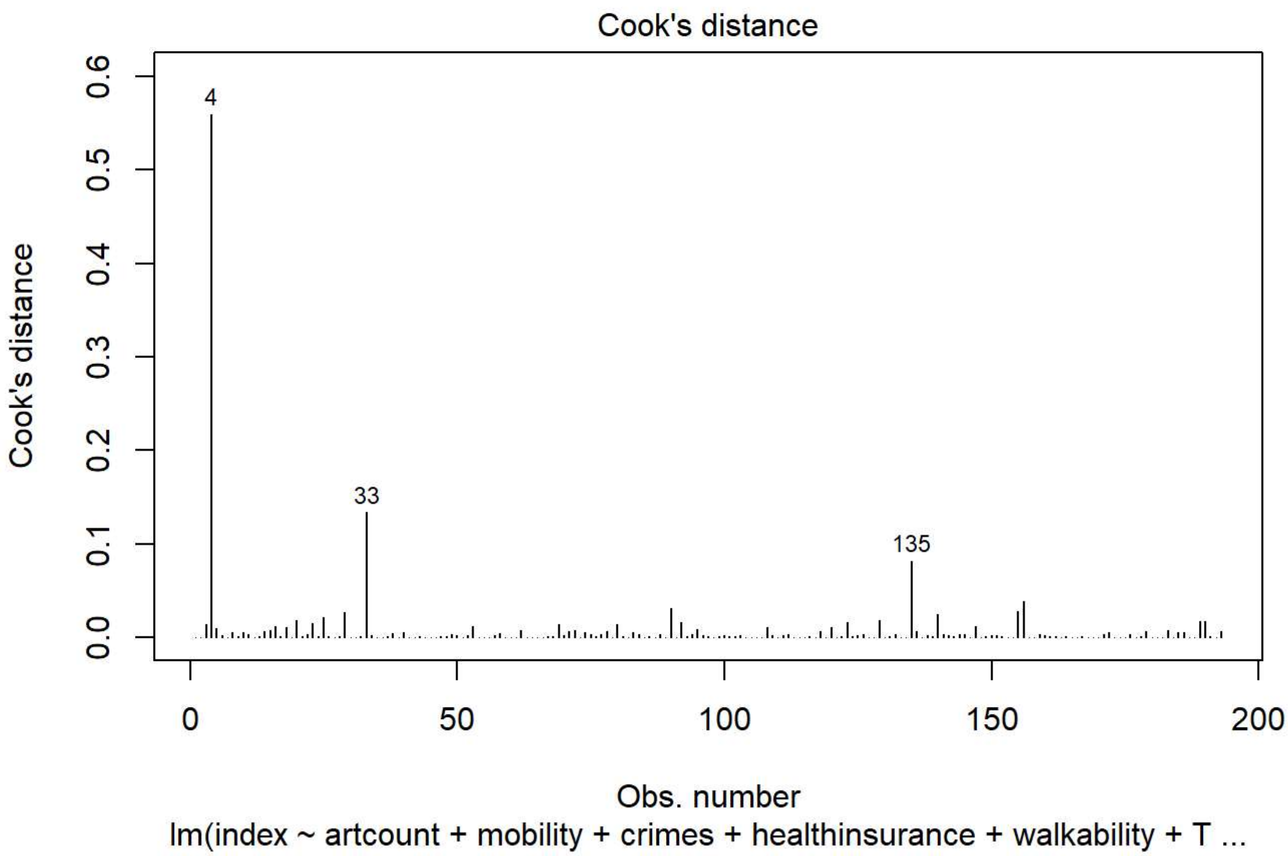

```
# Check for homoscedasticity (equal variance)
plot(model$fitted.values, model$residuals, main = "Residuals vs. Fitted Values")
abline(h = 0, col = "red")
```




```
# Check for linearity
plot(wbindex$walkability, model$residuals, main = "Residuals vs. Walkability")
abline(h = 0, col = "red")
```




```
# Check for influential observations
plot(model, which = 4)
```


Cook's distance
Cook's distance
0.0
0.1
0.2
0.3
0.4
0.5
0.6
4
33
135
0
50
100
150
200
Obs. number
lm(index ~ artcount + mobility + crimes + healthinsurance + walkability + T ...

```
wbindex
```

```
##                   GEO_ID  index income percentPoverty owneroccupied foodstamps
## 1  1400000US18097310104 24.150   18.8           11.9          55.9       10.0
## 2  1400000US18097310105 28.275   30.6           10.1          56.2       16.2
## 3  1400000US18097310106 10.600    5.7            9.5          20.9        6.3
## 4  1400000US18097310108 26.275   12.2            4.9          86.2        1.8
## 5  1400000US18097310110 20.225   19.3           12.2          44.3        5.1
## 6  1400000US18097310111 21.025   17.0           15.4          42.5        9.2
## 7  1400000US18097310201 25.350   21.7           11.1          61.6        7.0
## 8  1400000US18097310203 29.200   41.6            5.7          63.5        6.0
## 9  1400000US18097310204 29.725   12.5           16.2          70.5       19.7
## 10 1400000US18097310305 20.150   16.5           11.5          38.8       13.8
## 11 1400000US18097310306 31.400   29.5           24.2          40.8       31.1
## 12 1400000US18097310308 29.500   20.8            9.6          79.6        8.0
## 13 1400000US18097310309 21.950   26.2           11.5          28.9       21.2
## 14 1400000US18097310310 32.925   30.8            7.0          86.7        7.2
## 15 1400000US18097310311 34.800   29.8           13.1          87.6        8.7
## 16 1400000US18097310312 20.475   12.2           21.8          43.9        4.0
## 17 1400000US18097320105 21.100   18.3           14.4          43.4        8.3
## 18 1400000US18097320106 17.500    5.2           12.3          50.3        2.2
## 19 1400000US18097320107 26.225   11.9            1.6          91.0        0.4
## 20 1400000US18097320108 12.850    8.7           13.9          13.7       15.1
## 21 1400000US18097320109 30.700   10.2           13.7          87.1       11.8
## 22 1400000US18097320202 28.050   23.9            4.6          83.7        0.0
## 23 1400000US18097320203 15.125   28.8            7.6          17.9        6.2
## 24 1400000US18097320301 23.350   10.5            8.5          74.4        0.0
## 25 1400000US18097320303  5.475    8.9           10.5           0.3        2.2
## 26 1400000US18097320400 21.675   28.7            5.4          51.1        1.5
## 27 1400000US18097320500 23.600   11.8           15.7          58.7        8.2
## 28 1400000US18097320600 28.200   30.6            9.6          67.4        5.2
## 29 1400000US18097320700 15.550    0.0            5.0          57.2        0.0
## 30 1400000US18097320800 24.750    3.2            2.0          93.8        0.0
## 31 1400000US18097320901 22.550   14.7            7.1          64.5        3.9
## 32 1400000US18097320902 25.900   18.5           24.1          43.7       17.3
## 33 1400000US18097320903 25.650   14.2           41.0          36.5       10.9
## 34 1400000US18097321001 34.025   31.4           14.0          83.0        7.7
## 35 1400000US18097321002 28.675   19.2           17.1          74.7        3.7
## 36 1400000US18097321100 27.275   19.6           10.3          71.5        7.7
## 37 1400000US18097321200 21.775    9.4            1.5          75.4        0.8
## 38 1400000US18097321300 17.450    4.2            5.9          59.7        0.0
## 39 1400000US18097321400 22.475   22.0            6.4          60.4        1.1
## 40 1400000US18097321600 23.200   11.9           18.9          54.8        7.2
## 41 1400000US18097321700 23.925   20.5            9.4          65.8        0.0
## 42 1400000US18097321800 20.650    2.0            3.0          76.4        1.2
## 43 1400000US18097321900 25.100    9.2           15.2          75.0        1.0
## 44 1400000US18097322000 26.925   19.2           22.9          51.7       13.9
## 45 1400000US18097322100 25.175   20.8           16.5          60.5        2.9
## 46 1400000US18097322200 24.450   20.0            5.2          71.5        1.1
## 47 1400000US18097322300 20.825   20.0            6.4          55.2        1.7
## 48 1400000US18097322400 20.050   21.0            6.2          50.5        2.5
## 49 1400000US18097322500 20.550   10.0           29.2          30.2       12.8
## 50 1400000US18097322700 32.100   17.8           16.8          77.8       16.0
## 51 1400000US18097330103 24.350   21.4           10.7          64.3        1.0
```

```
## 52  1400000US18097330105 22.800   30.5             12.5           36.9        11.3
## 53  1400000US18097330106 13.375   13.2             17.9           18.6         3.8
## 54  1400000US18097330107 28.475   11.2              7.6           94.6         0.5
## 55  1400000US18097330108 27.000    9.2              3.1           94.7         1.0
## 56  1400000US18097330109 27.200   11.9              3.8           93.1         0.0
## 57  1400000US18097330203 27.450   13.4              0.6           94.7         1.1
## 58  1400000US18097330204 28.025   10.7              4.8           95.5         1.1
## 59  1400000US18097330206 26.650   10.1              6.8           88.5         1.2
## 60  1400000US18097330208 24.400    9.4              1.8           85.1         1.3
## 61  1400000US18097330401 24.525   10.2              5.7           77.8         4.4
## 62  1400000US18097330500 33.225   32.6             16.0           70.8        13.5
## 63  1400000US18097330600 30.250   18.6             16.6           58.8        27.0
## 64  1400000US18097330803 31.350   14.7             39.7           26.0        45.0
## 65  1400000US18097330804 28.900   22.4             28.9           30.7        33.6
## 66  1400000US18097330805 24.875   17.9             29.8           27.6        24.2
## 67  1400000US18097330806 36.250   18.7             51.9           41.1        33.3
## 68  1400000US18097330900 28.050   10.8             26.6           42.9        31.9
## 69  1400000US18097331000 41.675   26.2             36.0           78.0        26.5
## 70  1400000US18097340101 31.200   12.5             14.4           88.6         9.3
## 71  1400000US18097340102 18.700   27.1             21.9           15.1        10.7
## 72  1400000US18097340108 16.275   17.8             19.1           21.1         7.1
## 73  1400000US18097340111 28.675   26.5              5.5           81.6         1.1
## 74  1400000US18097340112 20.875   29.7              9.8           33.0        11.0
## 75  1400000US18097340113 34.525   29.7             12.2           79.1        17.1
## 76  1400000US18097340114 29.175   20.3              4.3           89.9         2.2
## 77  1400000US18097340201 35.175   22.9             23.8           78.2        15.8
## 78  1400000US18097340202 22.700   15.6             26.2           39.9         9.1
## 79  1400000US18097340400 30.600   24.2             20.7           56.2        21.3
## 80  1400000US18097340500 23.325   22.0             30.4           24.2        16.7
## 81  1400000US18097340600 30.200   27.2             22.1           58.0        13.5
## 82  1400000US18097340700 30.175   24.4             25.4           48.7        22.2
## 83  1400000US18097340800 32.750   16.7              9.6           90.6        14.1
## 84  1400000US18097340901 31.575   22.4              5.9           93.5         4.5
## 85  1400000US18097341000 24.800   12.0              3.7           78.4         5.1
## 86  1400000US18097341100 29.475   28.1             17.7           55.2        16.9
## 87  1400000US18097341200 30.350    9.0             35.9           54.9        21.6
## 88  1400000US18097341600 34.175   17.4             40.3           52.3        26.7
## 89  1400000US18097341902 29.575   29.0             12.9           74.7         1.7
## 90  1400000US18097341903 15.350   14.1             24.8           12.0        10.5
## 91  1400000US18097341904 23.825   11.4             20.0           48.1        15.8
## 92  1400000US18097342000 36.675   36.9              9.7           96.6         3.5
## 93  1400000US18097342101 31.775   27.1             19.4           65.8        14.8
## 94  1400000US18097342200 32.525   28.0             23.7           59.5        18.9
## 95  1400000US18097342300 34.775   38.7             17.3           60.4        22.7
## 96  1400000US18097342400 31.725   27.9             26.2           56.9        15.9
## 97  1400000US18097342500 30.575   13.1             23.5           65.4        20.3
## 98  1400000US18097342600 31.800   24.1             32.8           50.9        19.4
## 99  1400000US18097350100 28.200   14.6              5.9           69.3        23.0
## 100 1400000US18097350300 22.975    7.0             39.1           15.4        30.4
## 101 1400000US18097350400 21.300   24.6             15.9           39.1         5.6
## 102 1400000US18097350500 32.300   14.3             35.6           54.2        25.1
## 103 1400000US18097350600 35.425   22.3             28.8           70.1        20.5
```

```
## 104 1400000US18097350700 29.250    8.8             35.0           53.1        20.1
## 105 1400000US18097350800 28.725   18.3             31.9           35.4        29.3
## 106 1400000US18097350900 28.675   12.1             13.4           66.5        22.7
## 107 1400000US18097351000 28.400   16.6             37.7           38.9        20.4
## 108 1400000US18097351200 37.950   36.1             36.2           44.8        34.7
## 109 1400000US18097351500 21.950   21.5             24.4           33.1         8.8
## 110 1400000US18097351600 21.075   15.1             10.8           54.2         4.2
## 111 1400000US18097351700 20.350    9.6             14.0           50.0         7.8
## 112 1400000US18097351900 33.725   31.2             15.7           65.8        22.2
## 113 1400000US18097352100 30.850   19.3             37.4           40.8        25.9
## 114 1400000US18097352300 25.750   11.9             22.8           51.2        17.1
## 115 1400000US18097352400 28.875   13.3             22.3           55.0        24.9
## 116 1400000US18097352500 31.675   12.2             23.1           71.6        19.8
## 117 1400000US18097352600 31.475   23.8             40.1           39.4        22.6
## 118 1400000US18097352700 33.950   33.1             22.3           49.9        30.5
## 119 1400000US18097352800 26.275    5.7             29.3           42.7        27.4
## 120 1400000US18097353300 15.275   23.8             15.8           15.3         6.2
## 121 1400000US18097353500 27.600   37.9             40.8           20.0        11.7
## 122 1400000US18097353600 31.275   30.8             25.5           49.1        19.7
## 123 1400000US18097354400 26.550   30.6             12.4           43.5        19.7
## 124 1400000US18097354500 23.225   11.0             26.2           35.9        19.8
## 125 1400000US18097354700 22.225   14.3             33.9           27.0        13.7
## 126 1400000US18097354800 33.800   28.7             29.1           40.4        37.0
## 127 1400000US18097354900 29.475    9.6             41.5           40.9        25.9
## 128 1400000US18097355000 29.850    6.3             41.9           38.2        33.0
## 129 1400000US18097355100 41.175   11.7             64.3           34.1        54.6
## 130 1400000US18097355300 29.275   13.0             32.4           57.8        13.9
## 131 1400000US18097355400 33.600   31.6             32.2           46.8        23.8
## 132 1400000US18097355500 35.950   29.7             15.5           78.6        20.0
## 133 1400000US18097355600 28.800   16.0             30.4           34.3        34.5
## 134 1400000US18097355700 28.625   17.5             31.9           41.1        24.0
## 135 1400000US18097355900 19.725   11.4             12.2           45.8         9.5
## 136 1400000US18097356200 19.250   11.2              7.4           55.0         3.4
## 137 1400000US18097356400 30.175   16.1             36.3           44.3        24.0
## 138 1400000US18097356900 26.500   10.9             25.9           44.1        25.1
## 139 1400000US18097357000 24.225    3.1             25.5           52.1        16.2
## 140 1400000US18097357100 24.425   21.4             19.1           45.6        11.6
## 141 1400000US18097357200 32.550   18.0             22.9           56.1        33.2
## 142 1400000US18097357300 33.300   13.6             43.7           47.3        28.6
## 143 1400000US18097357400 33.950    7.8             31.9           56.0        40.1
## 144 1400000US18097357500 29.725   26.8             11.1           67.5        13.5
## 145 1400000US18097357800 31.725   13.5             20.1           63.4        29.9
## 146 1400000US18097357900 25.000   19.5             10.4           50.3        19.8
## 147 1400000US18097358000 38.075   16.7             39.6           62.2        33.8
## 148 1400000US18097358100 28.450   13.6             23.2           51.1        25.9
## 149 1400000US18097360101 23.950    5.6             30.2           37.1        22.9
## 150 1400000US18097360102 32.925   19.1             27.3           49.9        35.4
## 151 1400000US18097360201 24.650    9.7             23.6           43.7        21.6
## 152 1400000US18097360202 33.550   19.1             29.3           70.4        15.4
## 153 1400000US18097360301 30.100   24.2             15.6           69.0        11.6
## 154 1400000US18097360302 32.800   19.2             47.3           34.6        30.1
## 155 1400000US18097360401 20.500    8.9             27.5           25.3        20.3
```

```
## 156 1400000US18097360402 45.675    9.7           46.1          83.1       43.8
## 157 1400000US18097360405 28.500   26.7           12.9          61.2       13.2
## 158 1400000US18097360501 24.800   15.5            7.6          67.7        8.4
## 159 1400000US18097360502 29.625   21.7           12.2          72.7       11.9
## 160 1400000US18097360601 31.875   22.9           15.4          87.9        1.3
## 161 1400000US18097360602 29.450   15.5           19.0          63.2       20.1
## 162 1400000US18097360700 27.000   16.9            9.4          78.4        3.3
## 163 1400000US18097360800 25.325   28.5           20.1          36.9       15.8
## 164 1400000US18097360900 33.850    3.8           31.4          68.6       31.6
## 165 1400000US18097361000 25.925   13.2            3.6          85.2        1.7
## 166 1400000US18097361100 26.725   23.4           10.8          61.4       11.3
## 167 1400000US18097361200 30.775   25.6           10.7          71.2       15.6
## 168 1400000US18097361300 26.025   12.1            7.3          77.8        6.9
## 169 1400000US18097370201 26.250   30.0           13.2          48.7       13.1
## 170 1400000US18097380200 26.750   20.2           22.9          43.4       20.5
## 171 1400000US18097380402 21.825   21.1           16.3          26.3       23.6
## 172 1400000US18097380403 30.000   24.4           11.5          73.9       10.2
## 173 1400000US18097380404 26.375   11.9           12.0          70.8       10.8
## 174 1400000US18097380501 29.800   19.1           25.3          64.2       10.6
## 175 1400000US18097380502 27.250   41.6           18.2          34.8       14.4
## 176 1400000US18097380600 26.900   45.2            7.8          46.9        7.7
## 177 1400000US18097380700 25.150   27.5           14.2          48.6       10.3
## 178 1400000US18097380800 31.350   19.5           15.3          81.5        9.1
## 179 1400000US18097380901 33.000   27.2            6.0          94.3        4.5
## 180 1400000US18097380902 27.200   20.6           10.5          76.8        0.9
## 181 1400000US18097381002 27.575   14.4            5.6          88.1        2.2
## 182 1400000US18097381101 24.650   18.6            4.4          73.6        2.0
## 183 1400000US18097381102 28.875   29.4            5.6          74.5        6.0
## 184 1400000US18097381203 23.750   19.5           19.4          28.1       28.0
## 185 1400000US18097381204 16.625   19.6           12.8          20.6       13.5
## 186 1400000US18097381205 23.000   18.8           16.1          50.6        6.5
## 187 1400000US18097390102 30.325   29.5           21.0          54.5       16.3
## 188 1400000US18097390200 25.275   12.2            3.2          77.4        8.3
## 189 1400000US18097390300 32.275   25.6            3.3          96.2        4.0
## 190 1400000US18097390405 11.900   10.8            3.3          32.0        1.5
## 191 1400000US18097390500 32.275   25.1           29.9          42.8       31.3
## 192 1400000US18097390700 25.300   22.5           16.6          43.6       18.5
## 193 1400000US18097390900 16.375    5.1           15.3          37.3        7.8
##     healthinsurance artcount mobility crimes walkability TOT_PARK_AREA_SQMILES
## 1              3013        1      360    464   11.555556          0.0000000000
## 2              3911        1      385    217   10.083333          0.0000000000
## 3              4117        0      391    255   12.333333          0.0000000000
## 4              3725        1      182     43    5.583333          1.5947738268
## 5              2694        0      328    123    7.916667          0.1473891660
## 6              3348        0      501    210    9.833333          0.0275032422
## 7              4261        1      472    247   10.916667          0.0278839254
## 8              5104        1      289    272   12.333333          0.0000000000
## 9              5739        3      855    221   12.277778          0.0000000000
## 10             5040        3      576    328    9.777778          0.2162320013
## 11             7431       24     1763   1107   13.555556          0.0077892280
## 12             3244        0      310    126    9.083333          0.0000000000
## 13             3681        1      420    181   13.750000          0.1717635901
```

```
## 14          5540      0    375   102    6.750000          0.0000538196
## 15          6823      8    889   158    5.722222          0.0000000000
## 16          6664      2   1369   340   13.333333          0.0000000000
## 17          3855      0    538   144   10.250000          0.0000000000
## 18          3613      0    446   113    8.250000          0.0000000000
## 19          2169      0     34    56   11.166667          0.0000000000
## 20          4976      0    661   351    9.666667          0.0000000000
## 21          2533      0    347    70    9.750000          0.0000000000
## 22          4951     10    227   281   11.722222          0.2009212391
## 23          2569      0    194   109    9.166667          0.0059987419
## 24          3618      2    309   242    8.944444          0.0000000000
## 25          3184      0    338   145   11.000000          0.0100811379
## 26          2965      6    159   136    9.833333          0.0000000000
## 27          3273      0    503   133   12.833333          0.0000000000
## 28          2330      5    225   116   13.583333          0.1204385723
## 29          2032     66    102    93   17.500000          0.0185203867
## 30          2957      1     58    36   10.888889          0.0108237118
## 31          6442      6    454   143    9.166667          0.0000000000
## 32          3835      0    921   207   10.250000          0.0000000000
## 33          6220      0   2462   286    7.833333          0.0000000000
## 34          3041     10    424   122   11.500000          0.0124435899
## 35          5224     12    811    94    7.111111          0.2072593693
## 36          3579      5    368   121    8.333333          0.2519754962
## 37          4987    104     75   199   14.625000          0.0205556826
## 38          2770      4    163   124   14.250000          0.0012090829
## 39          5165     10    332   290   11.416667          0.0000642133
## 40          5999      5   1136   215    8.388889          0.1287690636
## 41          4001     13    377   183   14.166667          0.0124563002
## 42          3406      8    103    90   14.125000          0.0026173057
## 43          5466      2    519    67   14.666667          0.0013630775
## 44          3322     17    735   192   12.722222          0.0227910535
## 45          3045      3    501   108   13.388889          0.0029266005
## 46          2244      5    116    66   11.750000          0.0019844821
## 47          2417      3    154    68   15.722222          0.0026466996
## 48          2809      6    173   172   13.833333          0.0210823644
## 49          1559     15    456   117   14.083333          0.0028417068
## 50          1733      1    284    74   10.944444          0.0159292328
## 51          4394      2    469   196    9.444444          0.1035814118
## 52          4718      4    587   852   13.444444          0.0000000000
## 53          4828      0    724   344   11.722222          0.0000000000
## 54          5430      6    413    57    6.375000          0.1624401144
## 55          4286      0    133    47    6.583333          0.0850437905
## 56          4970      1    190   132    6.888889          0.0000000000
## 57          5452      0     33    38    6.611111          0.0156175623
## 58          7276      6    347     5    7.166667          0.1284556648
## 59          5324      0    361     0    4.916667          0.0000000000
## 60          2807      2     50     0    9.416667          0.0000000000
## 61          6216      6    351   173    9.055556          0.2581984027
## 62          6447     88   1029   196    9.000000          0.0116728667
## 63          7081     13   1174     1    8.291667          0.0099947898
## 64          3711      2   1379   279   13.000000          0.0000000000
## 65          3247      1    885   191   12.083333          0.0000000000
```

```
## 66          2215       14     659    217   15.666667         0.0295964196
## 67          4693        3    2366    148   11.500000         0.0000000000
## 68          6149       10    1638    426   12.208333         0.0204347614
## 69          3867        8    1387    241   12.033333         0.0077970609
## 70          5059        2     715    167   12.000000         0.0291902884
## 71          3546        1     741    241   16.166667         0.0000000000
## 72          2341        0     446    110   13.583333         0.0000000000
## 73          2834        1     155     88    6.666667         0.0000000000
## 74          4230        0     415    231    7.555556         0.0000000000
## 75          4162        0     505    115    9.333333         0.0000000000
## 76          3863        9     168     48    6.583333         0.0538265381
## 77          3461        6     823    153   13.250000         0.0601487626
## 78          4386        4    1054      0   14.722222         0.0252074224
## 79          3720       16     771    263   13.111111         0.0018248185
## 80          6103       10    1598    214   11.444444         0.0801979890
## 81          5394       10    1135    393   13.433333         0.1462422781
## 82          4865       14    1197    296   13.722222         0.0155048914
## 83          1633        3     156      0   11.583333         0.0000000000
## 84          3991        3     210    122    9.416667         0.0000000000
## 85          1595       12      53      1   13.583333         0.0000000000
## 86          2151       11     381    236   15.111111         0.0000000000
## 87          2627        7     919    189   12.333333         0.0037882738
## 88          1884       37     760    204   14.083333         0.0084108321
## 89          3942        6     455    166   12.000000         0.0077608955
## 90          5781        0    1404    441   13.000000         0.0000000000
## 91          2011        1     395    156   14.666667         0.0000000000
## 92          6579        7     637    193    7.416667         0.0000000000
## 93          5688        8    1076    365   12.000000         0.0000000000
## 94          5703       12    1335    582   13.500000         0.0437994560
## 95          6678       10    1121    493   10.500000         0.0200296814
## 96          1546        6     393    262    9.666667         0.0232151290
## 97          4574       13    1036    454   14.600000         0.0036947880
## 98          3780       12    1237    392   12.166667         0.0066243357
## 99          1259       16      74     99   12.666667         0.1919936841
## 100         2290       10     870    297   14.166667         0.0000000000
## 101         2481        9     395    208   12.944444         0.0296475576
## 102         2379        7     832    217   12.555556         0.0078928404
## 103         5484        4    1581    325   11.300000         0.0000000000
## 104         1536        7     528    145   12.083333         0.2002299129
## 105         1608        6     476    187   12.583333         0.0372449562
## 106         1366        8     183    103   12.500000         0.0401814380
## 107         2609       15     973    212   13.500000         0.0000000000
## 108         2746       45     923    283   14.666667         0.0435209843
## 109         1599        5     387    159   13.166667         0.0441565848
## 110         2512        3     276    197   17.166667         0.0364444501
## 111         2419       20     339    278   15.111111         0.0901506114
## 112         2630        4     408    170   13.555556         0.0351481162
## 113         2036        7     761    237   13.000000         0.0015714673
## 114         1120        4     251    180   11.916667         0.0087215772
## 115         2877       27     635    303   12.333333         0.1217818877
## 116         2982        7     654    285   14.333333         0.0000000000
## 117         3601       17    1417    502   13.500000         0.1555046165
```

```
## 118          2172    24   480  386  15.416667      0.0485050765
## 119          1265    24   369  144  13.166667      0.0209340047
## 120          2143    13   338  366  16.277778      0.0000000000
## 121          2379     6   965  116  14.833333      0.0597479590
## 122          3200    25   793  198  12.958333      0.3197624567
## 123          1540    37   188 1035  17.500000      0.0063324525
## 124          2167    26   563  236  13.750000      0.0060503618
## 125          1535    13   520  157  13.083333      0.0003862841
## 126          1847    11   533  263  11.777778      0.0000000000
## 127          2604    12  1024  413  12.750000      0.0000000000
## 128          2283    44   917  347  12.777778      0.0000000000
## 129          1917     6  1218  306  14.000000      0.0000000000
## 130          2462    11   747  406  13.416667      0.0000000000
## 131          3088    15   994  290  13.611111      0.0223878448
## 132          4236     3   655  202  11.500000      0.0956483857
## 133          2158    10   647  367  14.833333      0.0311014934
## 134          1839    39   567  330  14.055556      0.0188785582
## 135          1946   113   238  242  12.791667      0.0006783059
## 136          1950    58   144  194  16.416667      0.0041961824
## 137          3933    46  1395  349  16.500000      0.1341773870
## 138          1976    92   496  238  14.166667      0.0074425242
## 139          2063    32   522  255  12.625000      0.0172013526
## 140          2127   127   396  236  14.166667      0.0213506430
## 141          2110    19   483  369  14.083333      0.0249241531
## 142          1971     9   852  234  14.750000      0.0344544475
## 143          5340     8  1612  218  12.291667      0.0008154198
## 144          3829     9   406   42  13.333333      0.0000000000
## 145          1837    18   339  214  15.083333      0.0220034477
## 146          3490    68   356  377  14.583333      0.1896998784
## 147          1174    11   458  165  11.583333      0.0328520040
## 148          2829    20   641  352  12.166667      0.0593337875
## 149          2385     3   721  234  11.750000      0.0056625418
## 150          2126     7   581  265  12.750000      0.0574833177
## 151          3777    15   893  408  10.722222      0.0000000000
## 152          3118     7   915  227  11.166667      0.0420660051
## 153          3533     4   548  281   8.833333      0.0123573308
## 154          3024     3  1413  516  11.583333      0.0120688974
## 155          6712     0  1732  363  11.333333      0.0000000000
## 156          3345     2  1503  181  12.333333      0.0083497751
## 157          6525     0   822  277   6.416667      0.0391610569
## 158          6248    13   460  118   8.166667      0.0094326862
## 159          4958    21   606  473  13.555556      0.0000000000
## 160          4741    15   729  201  12.875000      0.0000000000
## 161          6159    22  1162  408  13.958333      0.0160235382
## 162          2044     5   193  144  15.083333      0.0016527604
## 163          2024     3   401  217  15.916667      0.0000000000
## 164          4870    13  1503  489  12.866667      0.0000000000
## 165          2436    12    88   70  14.000000      0.0755758100
## 166          3451    17   373  160  14.208333      0.0168832124
## 167          3387    24   364  210  12.777778      0.0059899902
## 168          2145     9   156  227  12.444444      0.0228734641
## 169          3463     8   448  185   8.000000      0.0000000000
```

```
## 170          3072     6     659   351  12.722222        0.0000000000
## 171          5121     0     829    66  11.500000        0.0000000000
## 172          3833    13     424     1  14.291667        0.0230187727
## 173          3665     5     436    71  10.611111        0.0713629286
## 174          2247     2     569    97   7.583333        0.0000000000
## 175          3699     3     581   228  11.666667        0.0154129357
## 176          5856     5     385   403  12.388889        0.0162401053
## 177          6262     2     890   254  12.111111        0.0000000000
## 178          2881     3     442   174  11.500000        0.0000000000
## 179          4865     4     291    97   6.388889        0.0000000000
## 180          5621     3     593   544   8.388889        0.0219407642
## 181          3444    11     192    82  10.833333        0.0061729338
## 182          5533     5     243   127   9.583333        0.0000000000
## 183          6872     5     386   411   9.111111        0.0000000000
## 184          3051     3     591   116  16.000000        0.0000000000
## 185          2779     2     322   196  14.611111        0.0000000000
## 186          6215     4     933   117   7.250000        0.0058639608
## 187          5883     2    1096   160   9.416667        0.0231618070
## 188          4798     4     150   125   6.666667        0.0821606269
## 189          6295    15     212    90   4.055556        0.4808332077
## 190          3684     2     123   250   9.833333        0.0000000000
## 191          2377    11     711   144  13.916667        0.0263445329
## 192          3114    26     516   256  13.555556        0.0347176632
## 193          2724    14     417   254  15.388889        0.0496505874
```