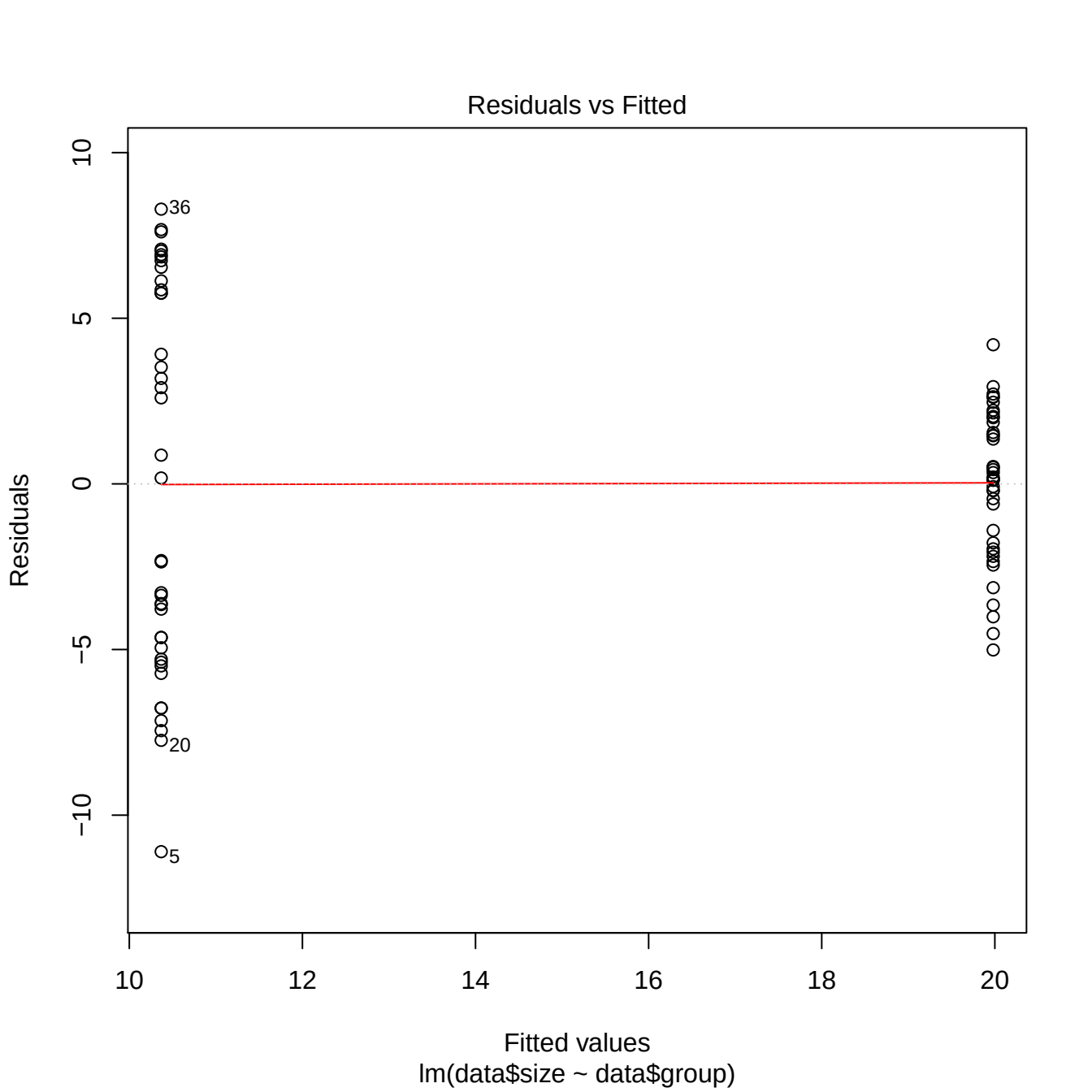
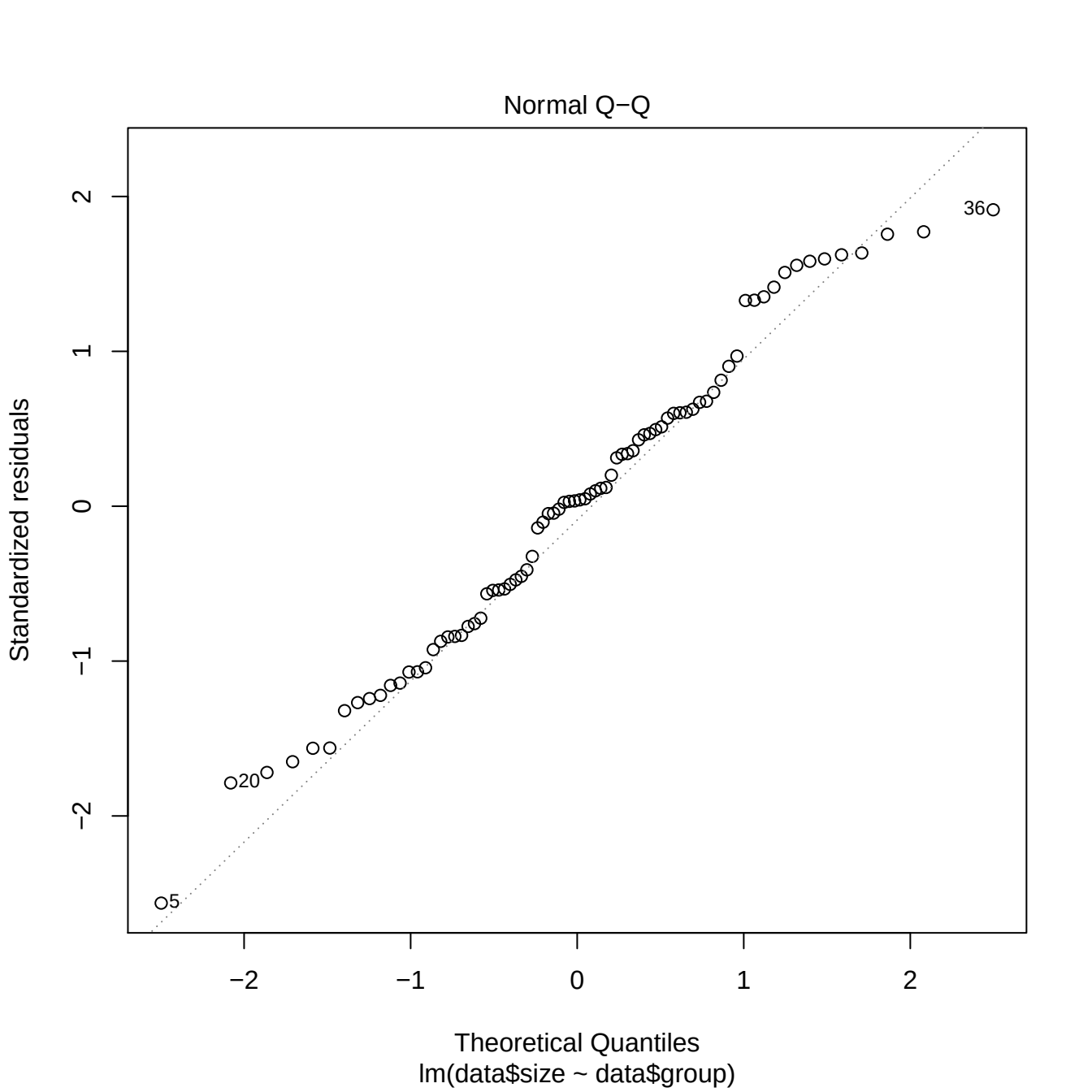
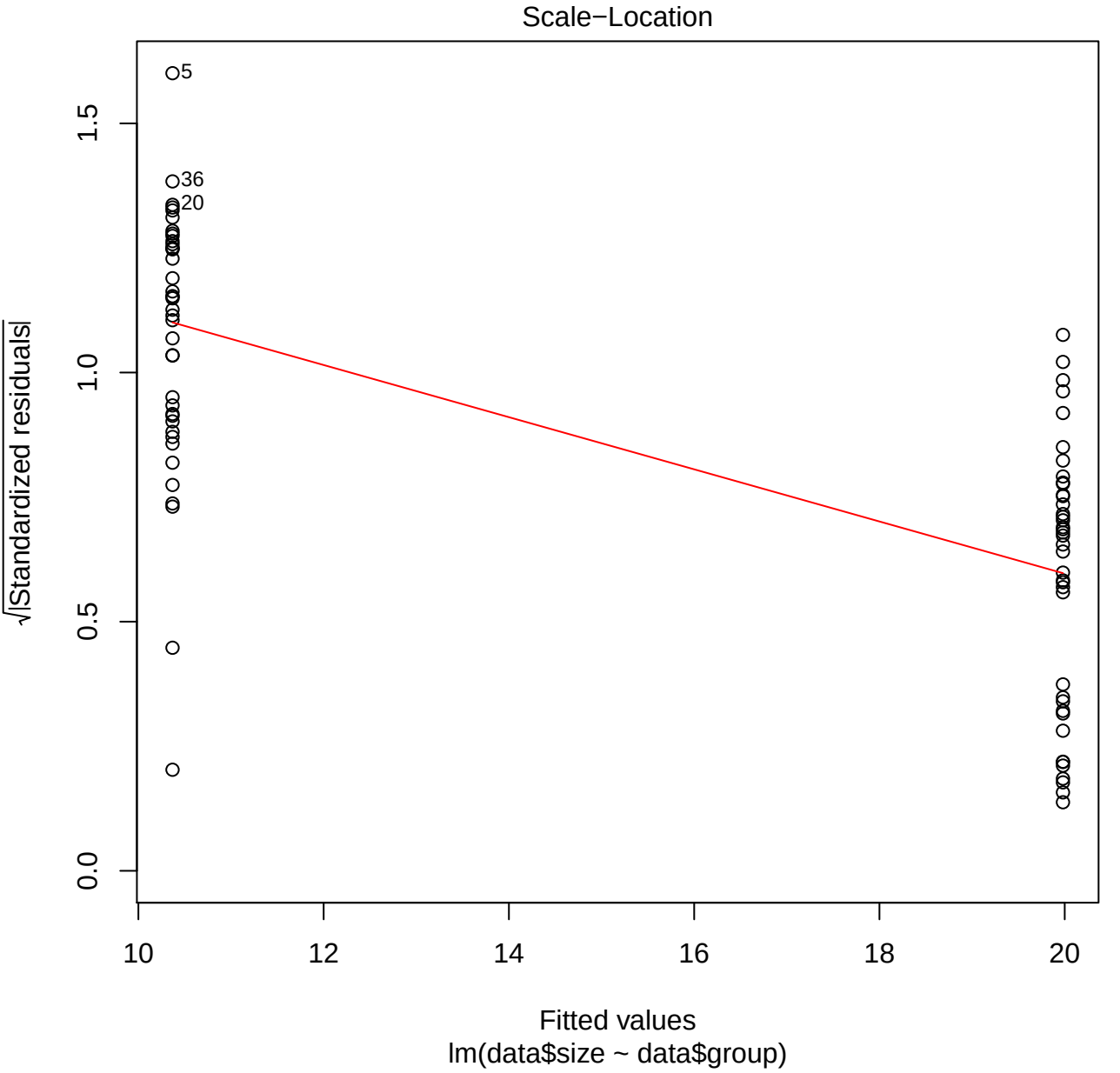
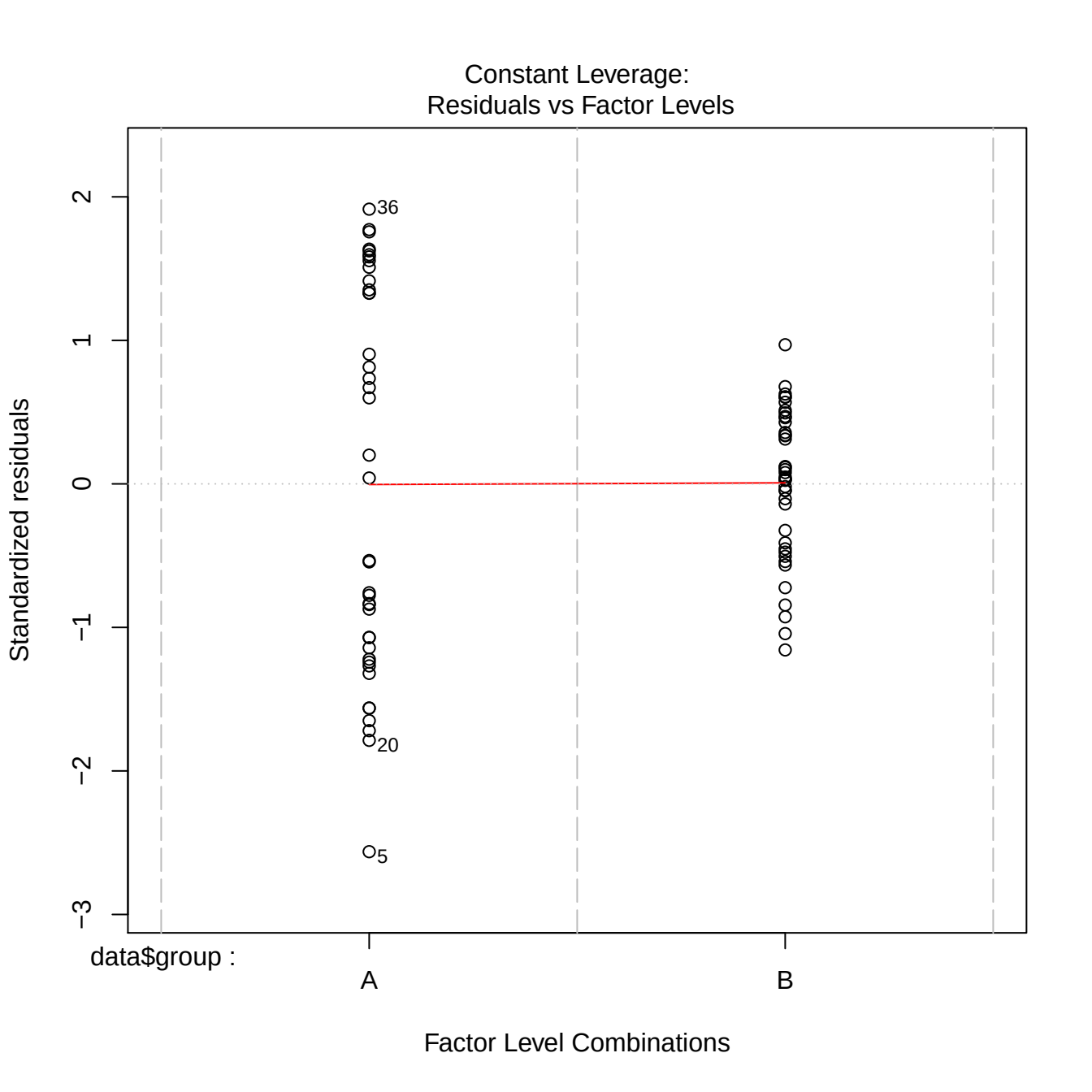
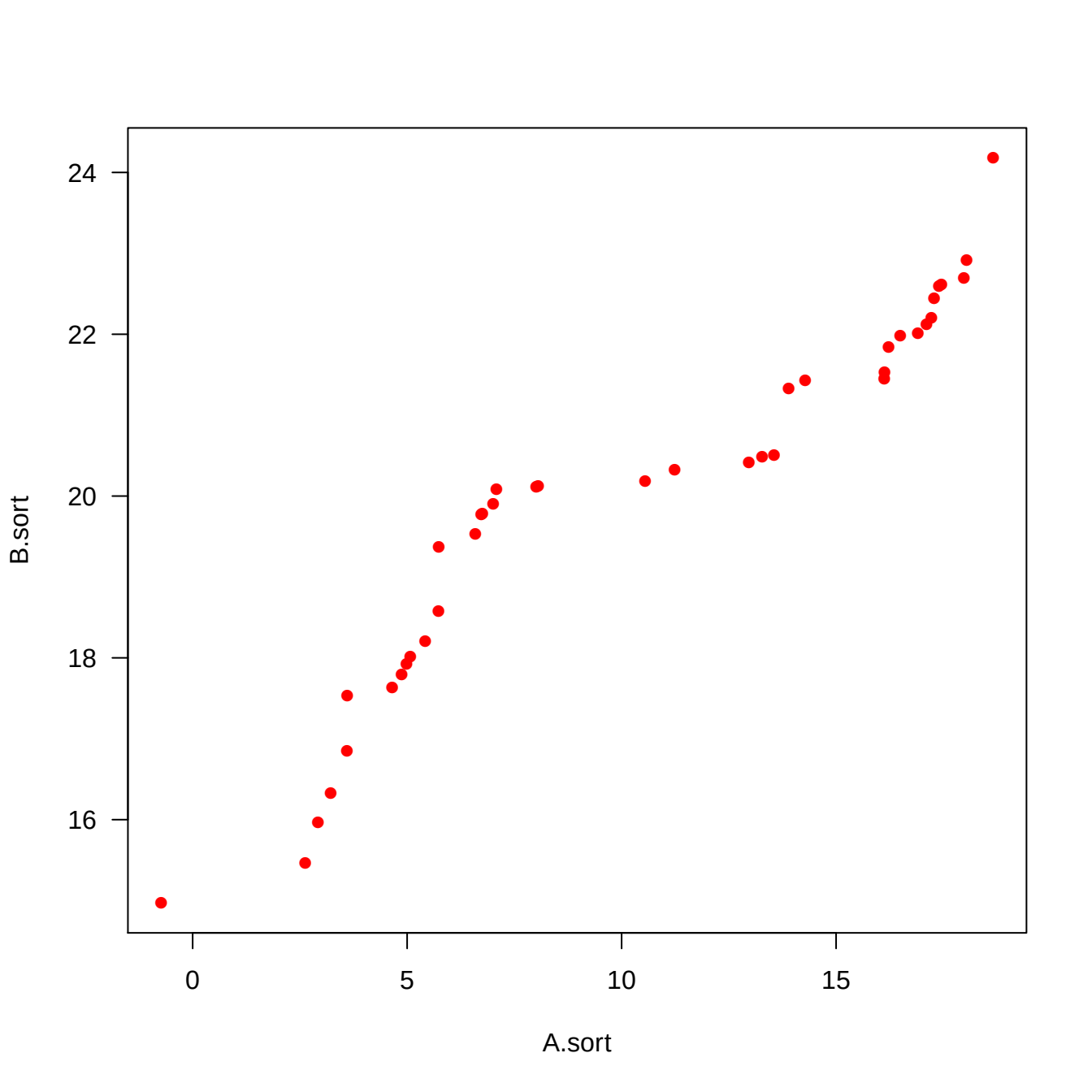
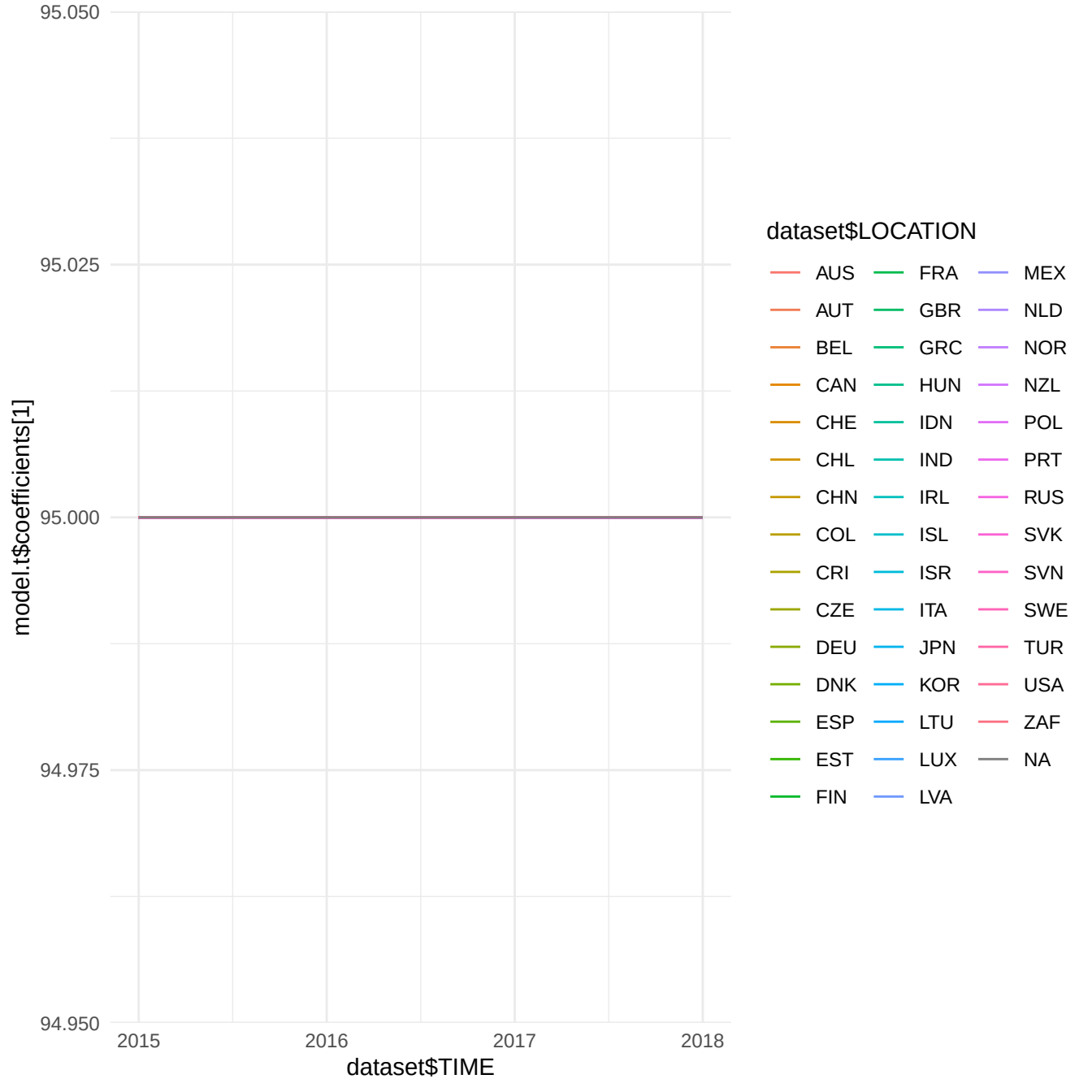

Residuals vs Fitted
Residuals
10
5
0
−5
−10
36
20
5
10
12
14
16
18
20
Fitted values
lm(data$size ~ data$group)

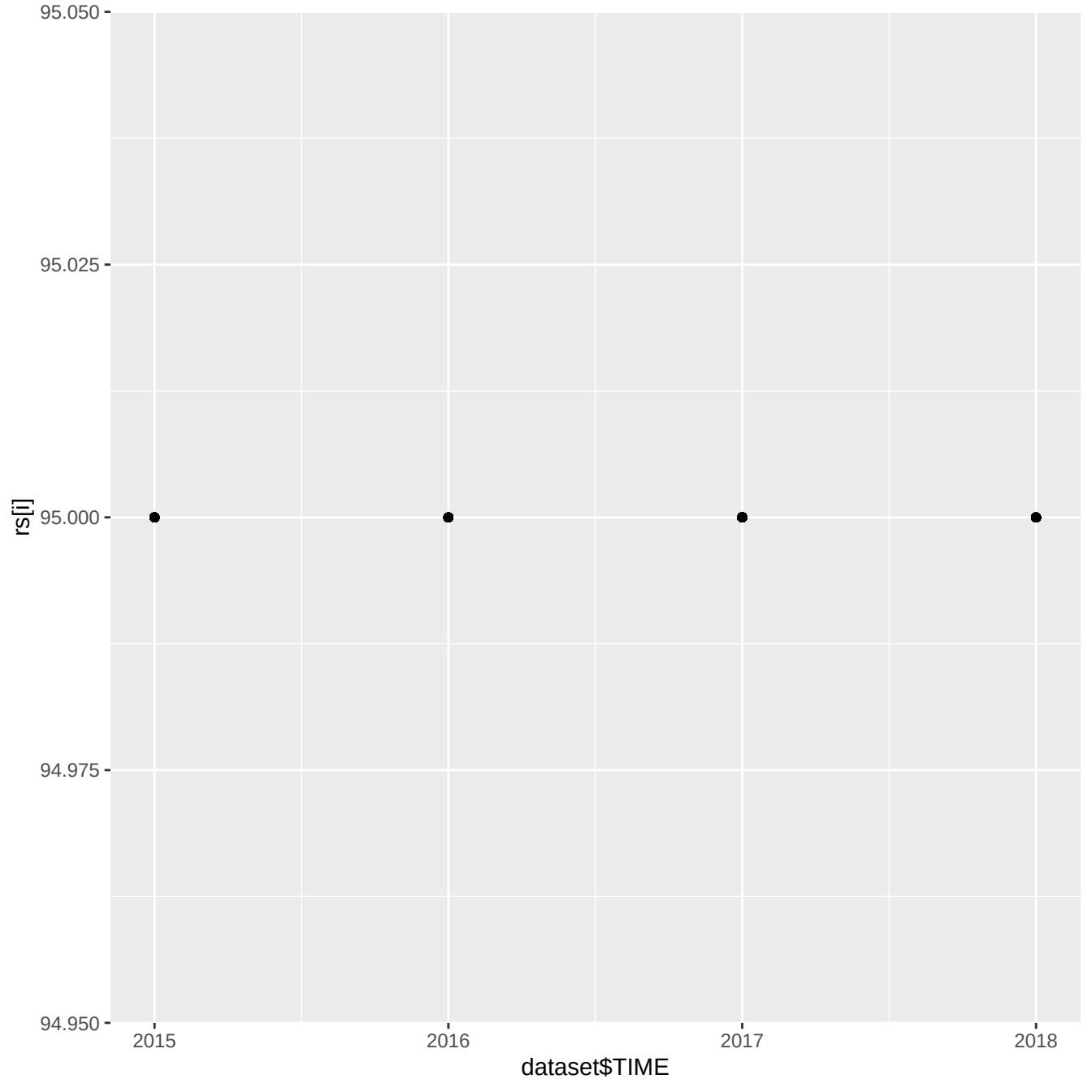

Normal Q−Q
Standardized residuals
Theoretical Quantiles
lm(data$size ~ data$group)
36
20
5
2
1
0
−1
−2
−2
−1
0
1
2

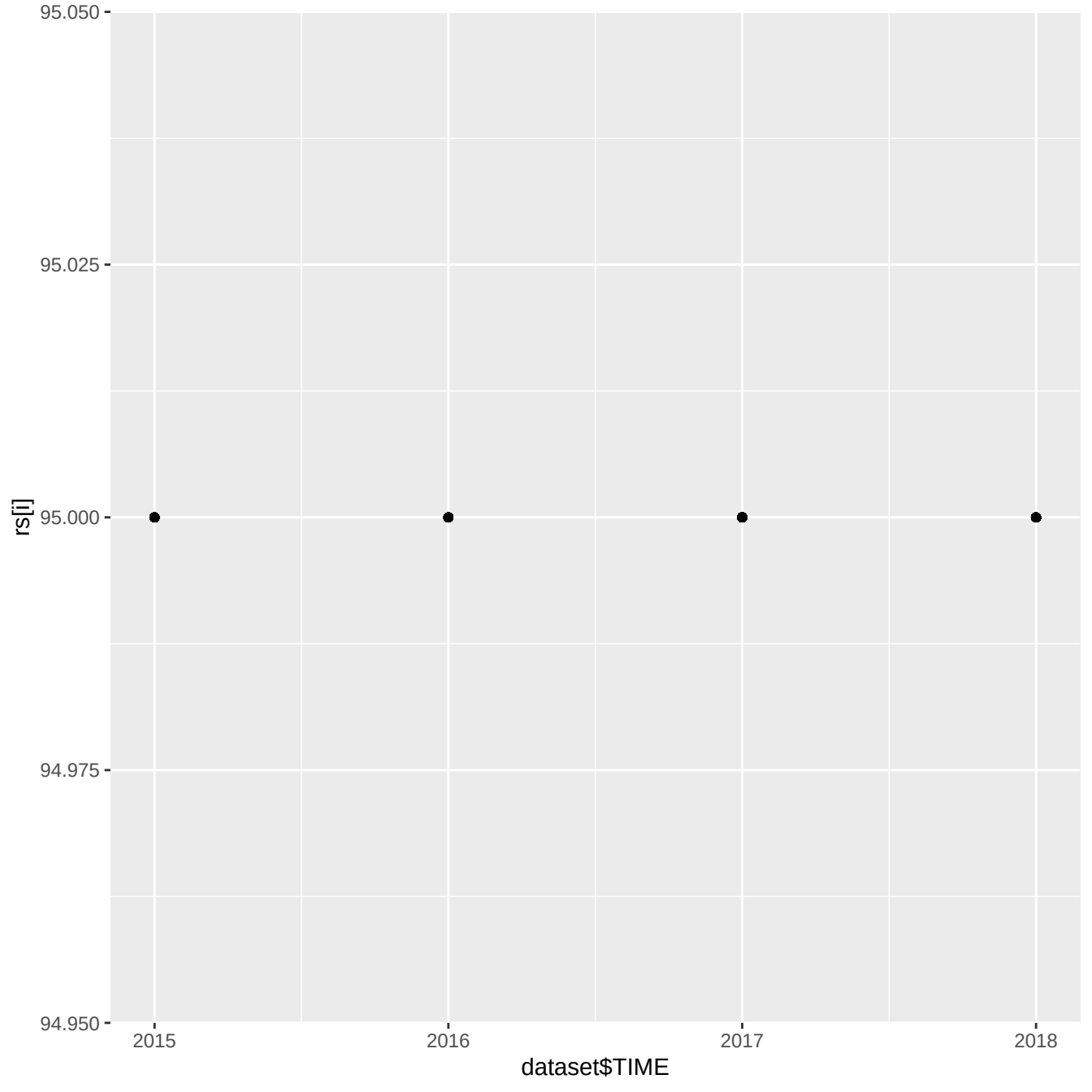

Scale−Location
√|Standardized residuals|
0.0
0.5
1.0
1.5
5
36
20
10
12
14
16
18
20
Fitted values
lm(data$size ~ data$group)

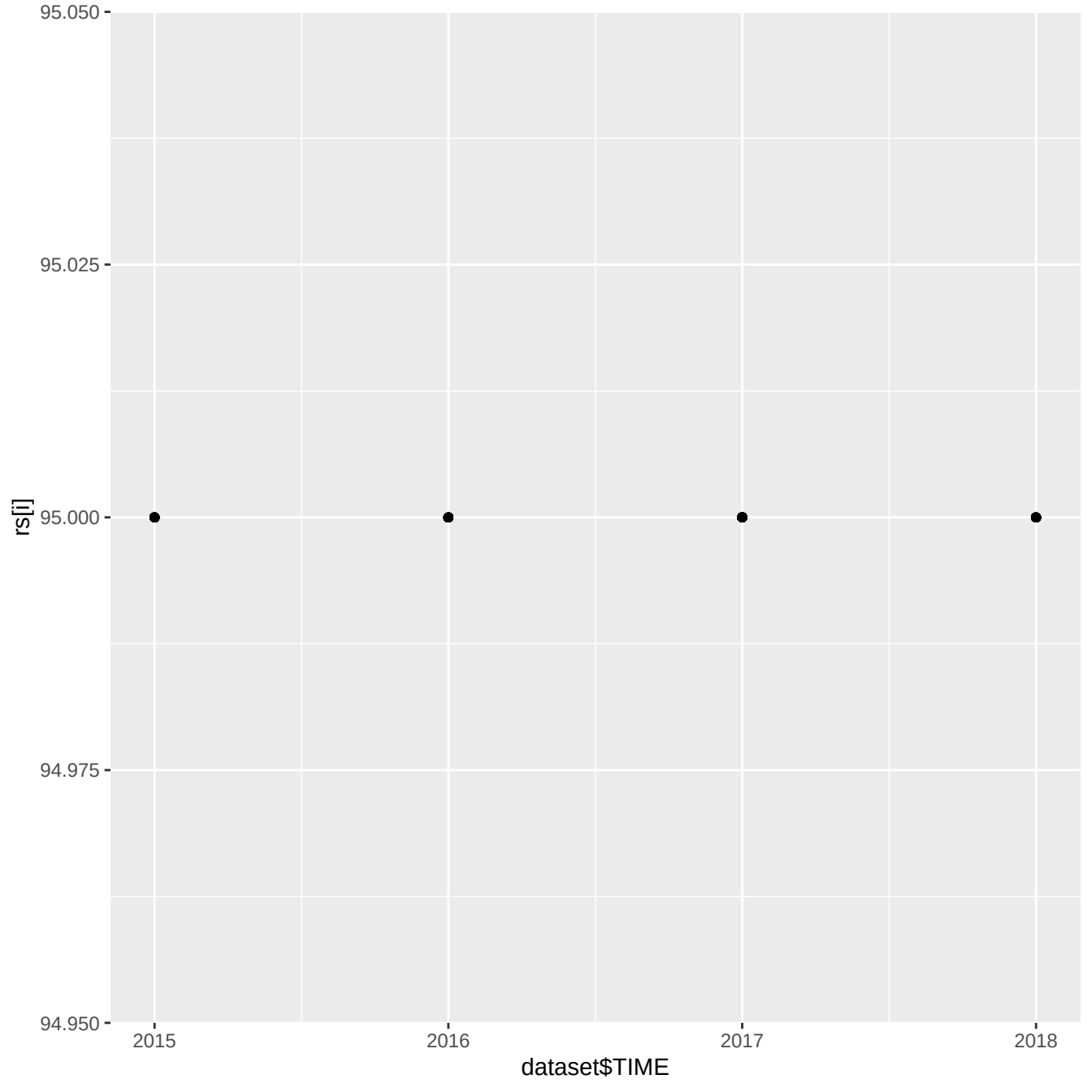

Constant Leverage:
Residuals vs Factor Levels
Standardized residuals
2
1
0
−1
−2
−3
36
20
5
data$group :
A
B
Factor Level Combinations

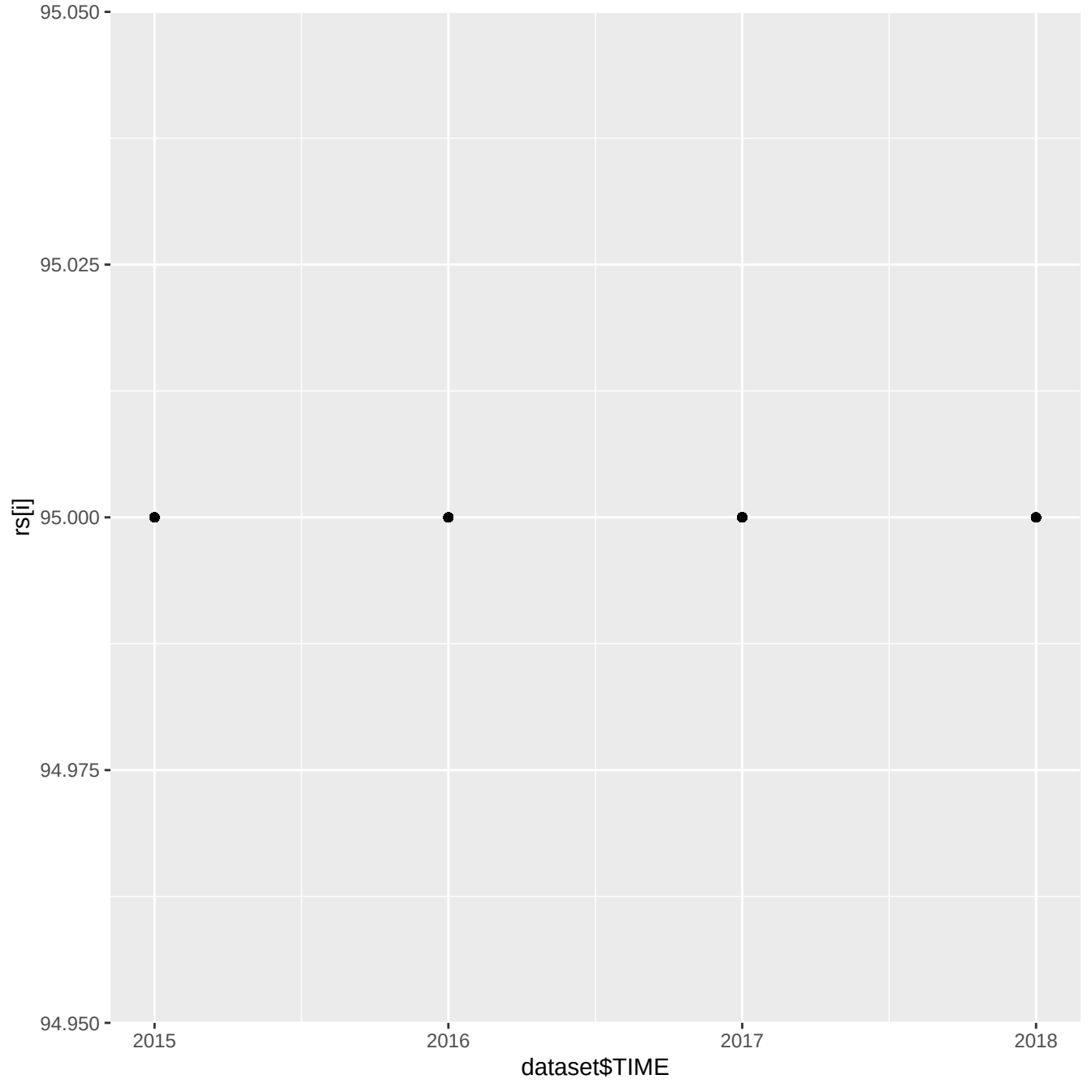

24
22
20
18
16
B.sort
0
5
10
15
A.sort

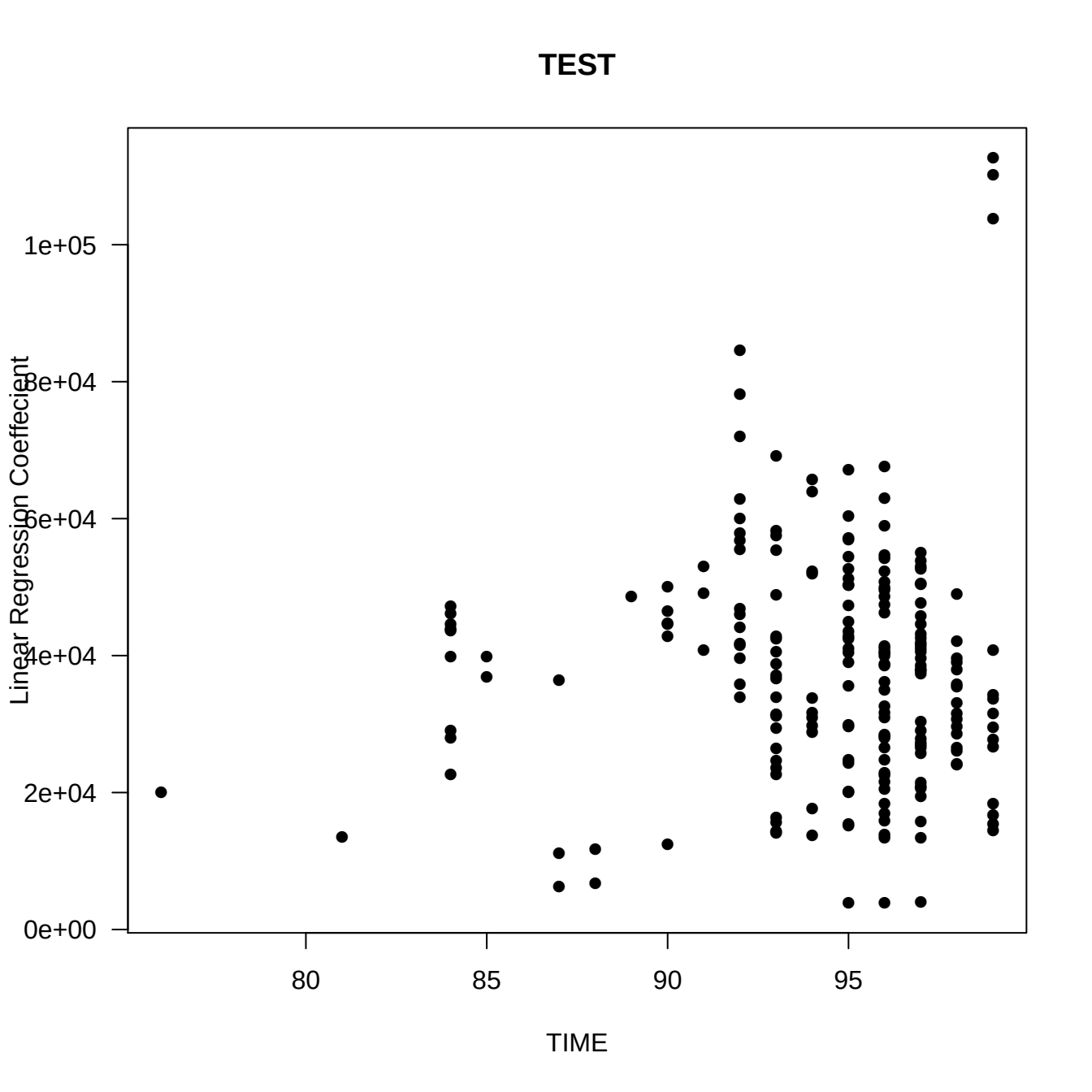

95.050
95.025
95.000
94.975
94.950
model.t$coefficients[1]
2015
2016
2017
2018
dataset$TIME
dataset$LOCATION
AUS
AUT
BEL
CAN
CHE
CHL
CHN
COL
CRI
CZE
DEU
DNK
ESP
EST
FIN
FRA
GBR
GRC
HUN
IDN
IND
IRL
ISL
ISR
ITA
JPN
KOR
LTU
LUX
LVA
MEX
NLD
NOR
NZL
POL
PRT
RUS
SVK
SVN
SWE
TUR
USA
ZAF
NA

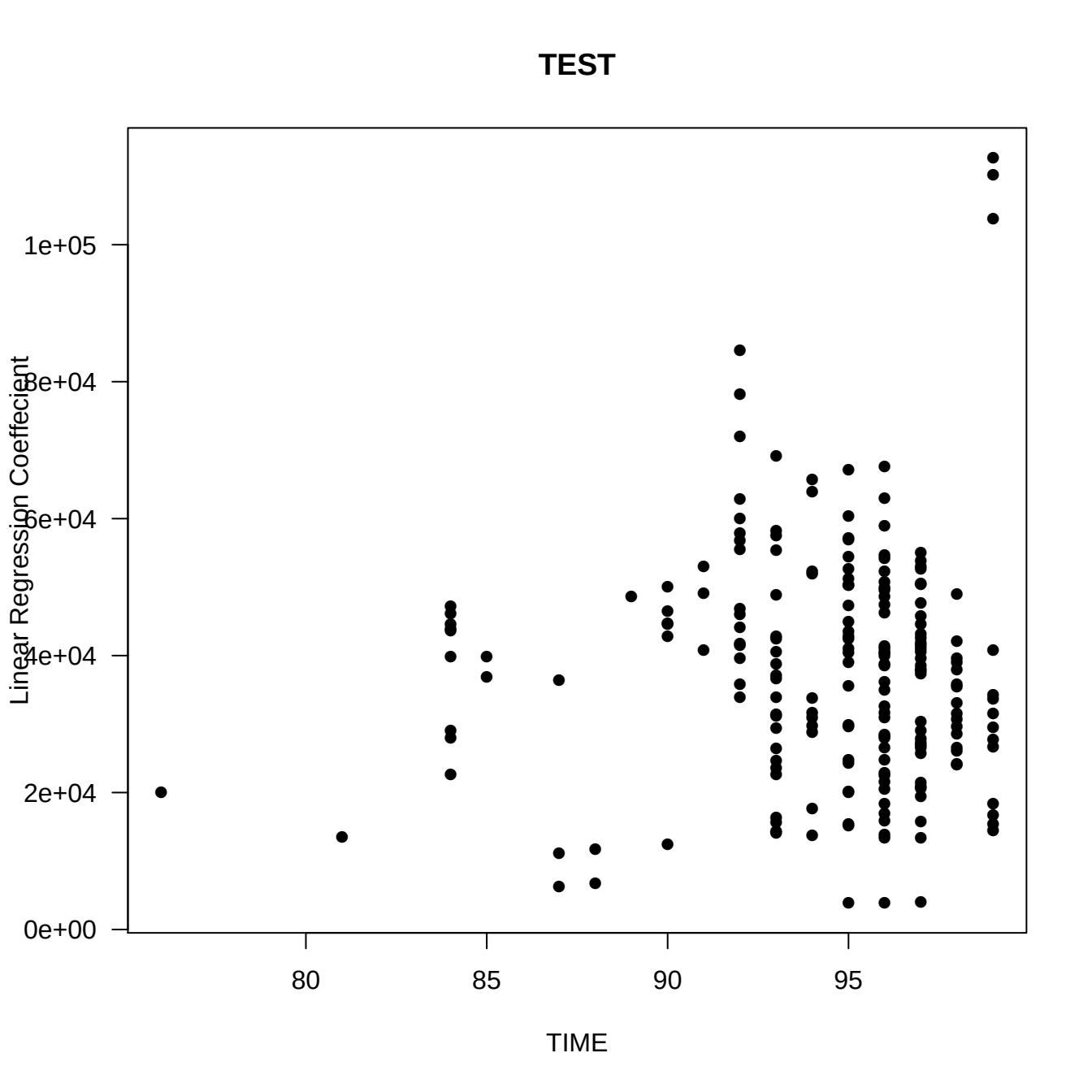

95.050
95.025
95.000
94.975
94.950
rs[i]
2015
2016
2017
2018
dataset$TIME

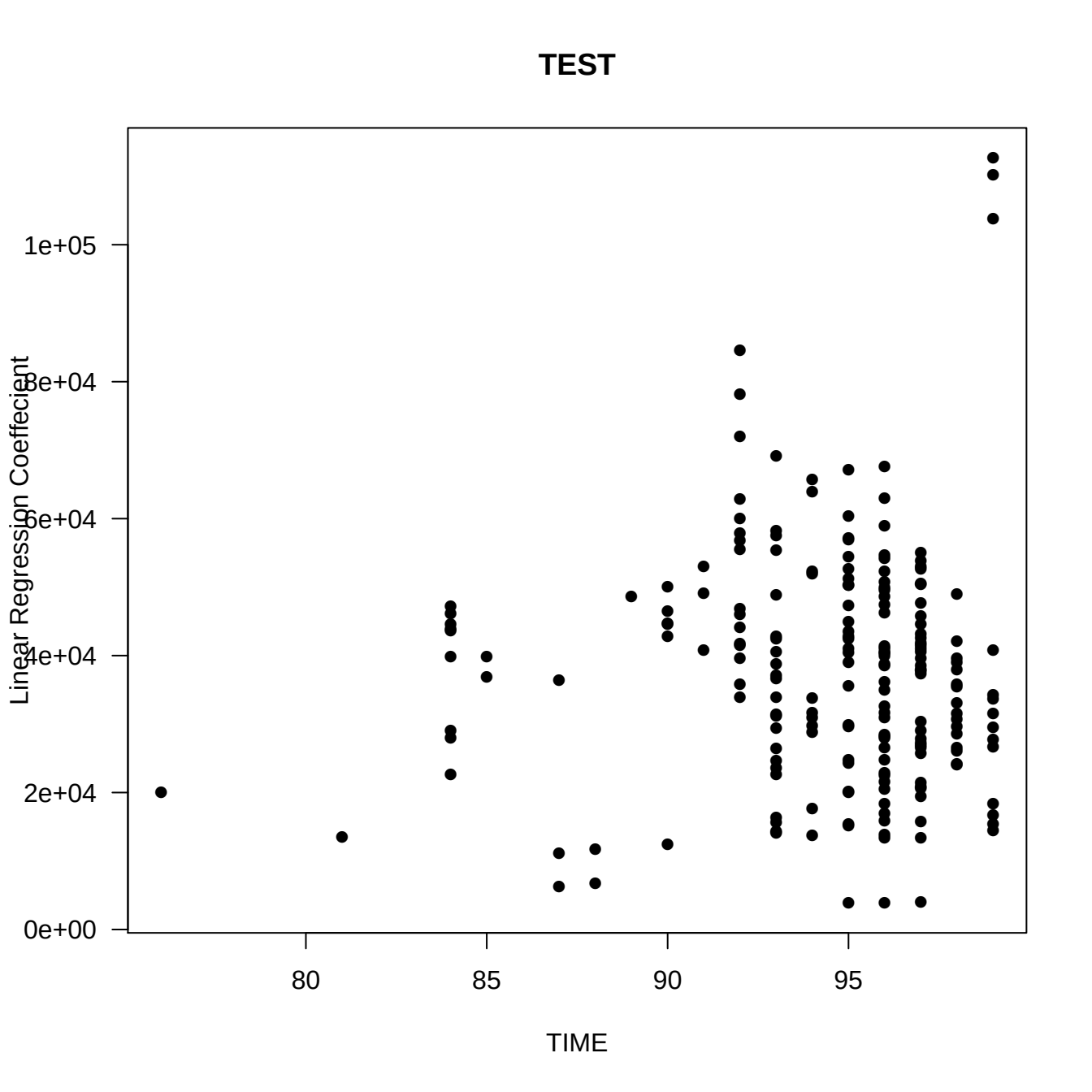

95.050
95.025
95.000
94.975
94.950
rs[i]
2015
2016
2017
2018
dataset$TIME

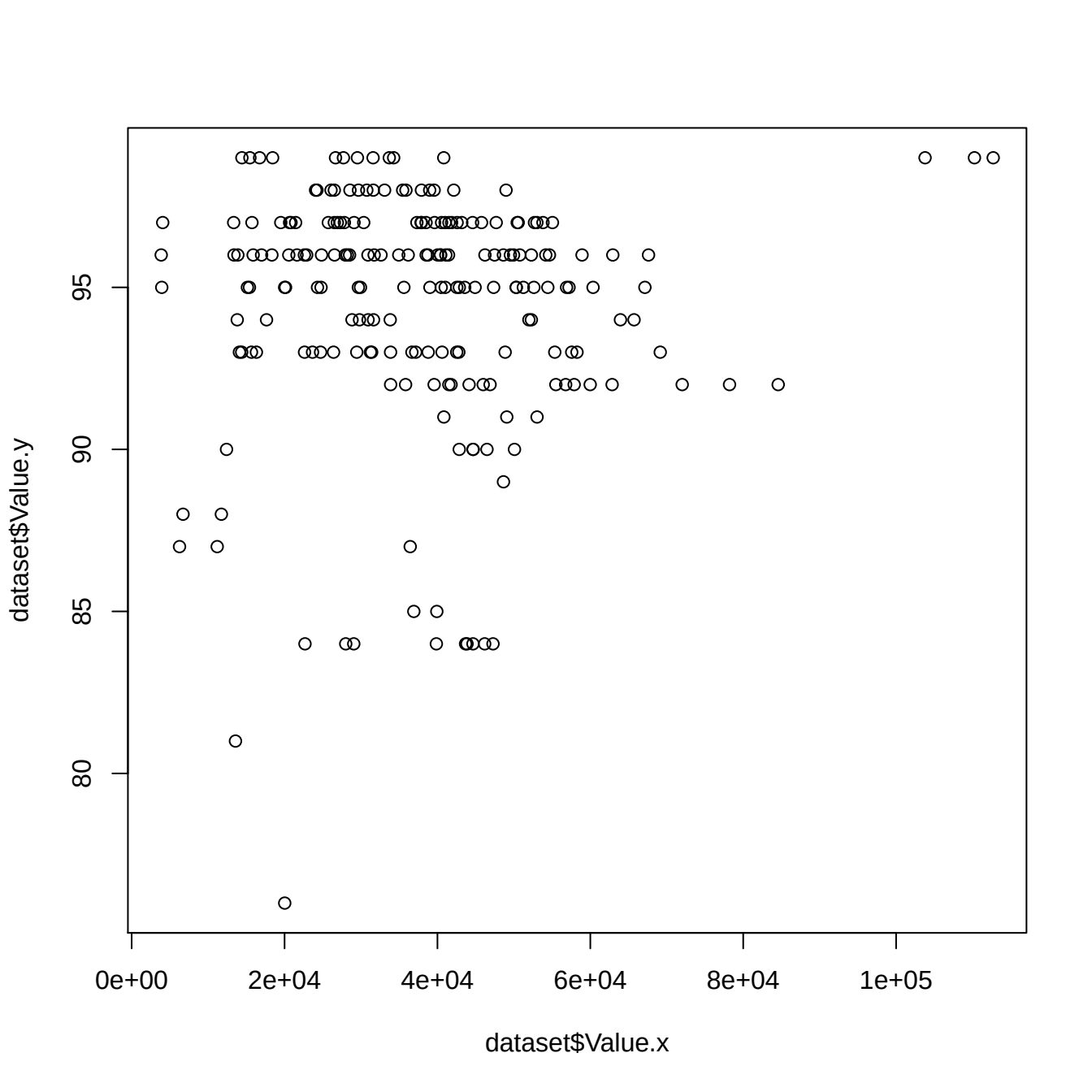

95.050
95.025
95.000
94.975
94.950
rs[i]
2015
2016
2017
2018
dataset$TIME

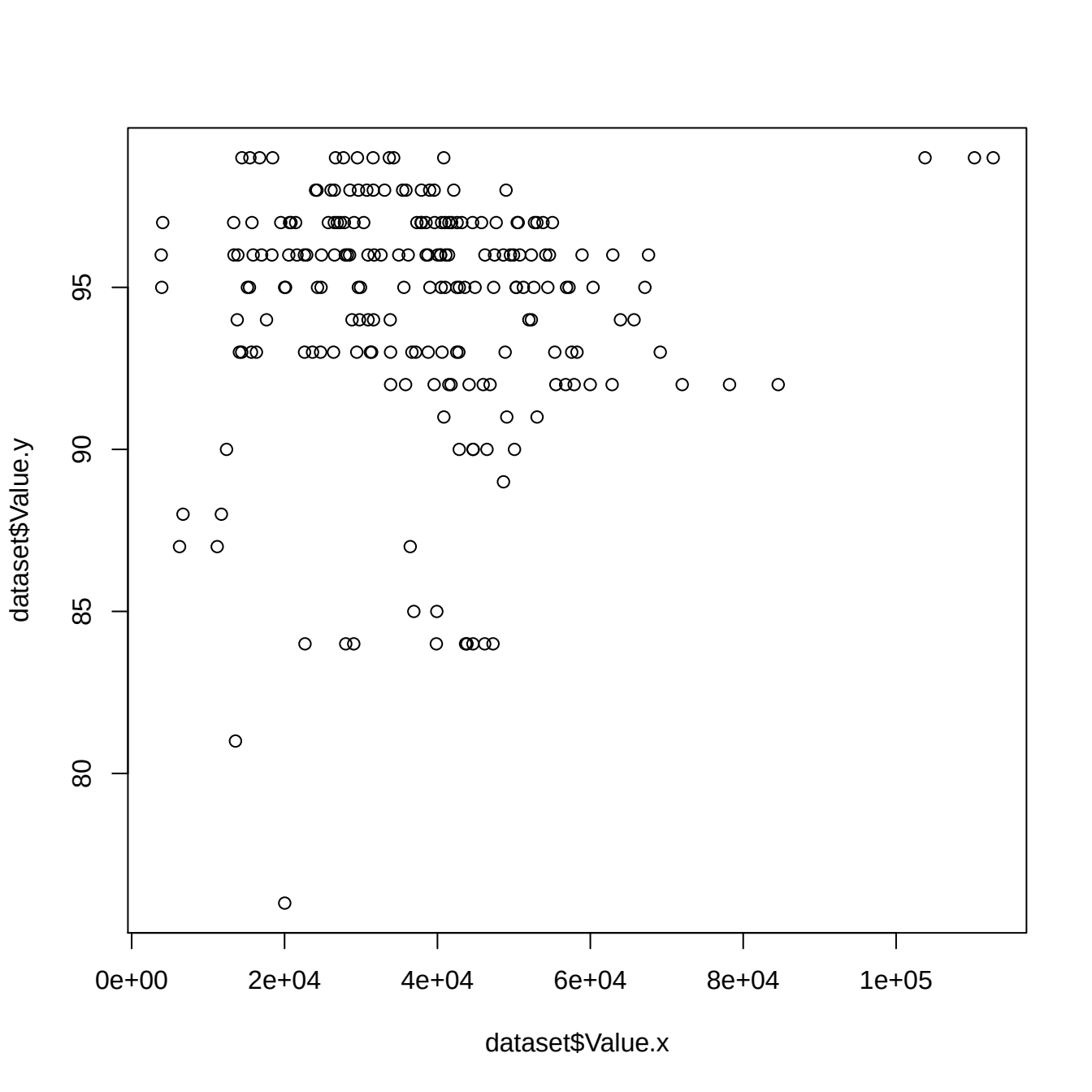

95.050
95.025
95.000
94.975
94.950
rs[i]
2015
2016
2017
2018
dataset$TIME

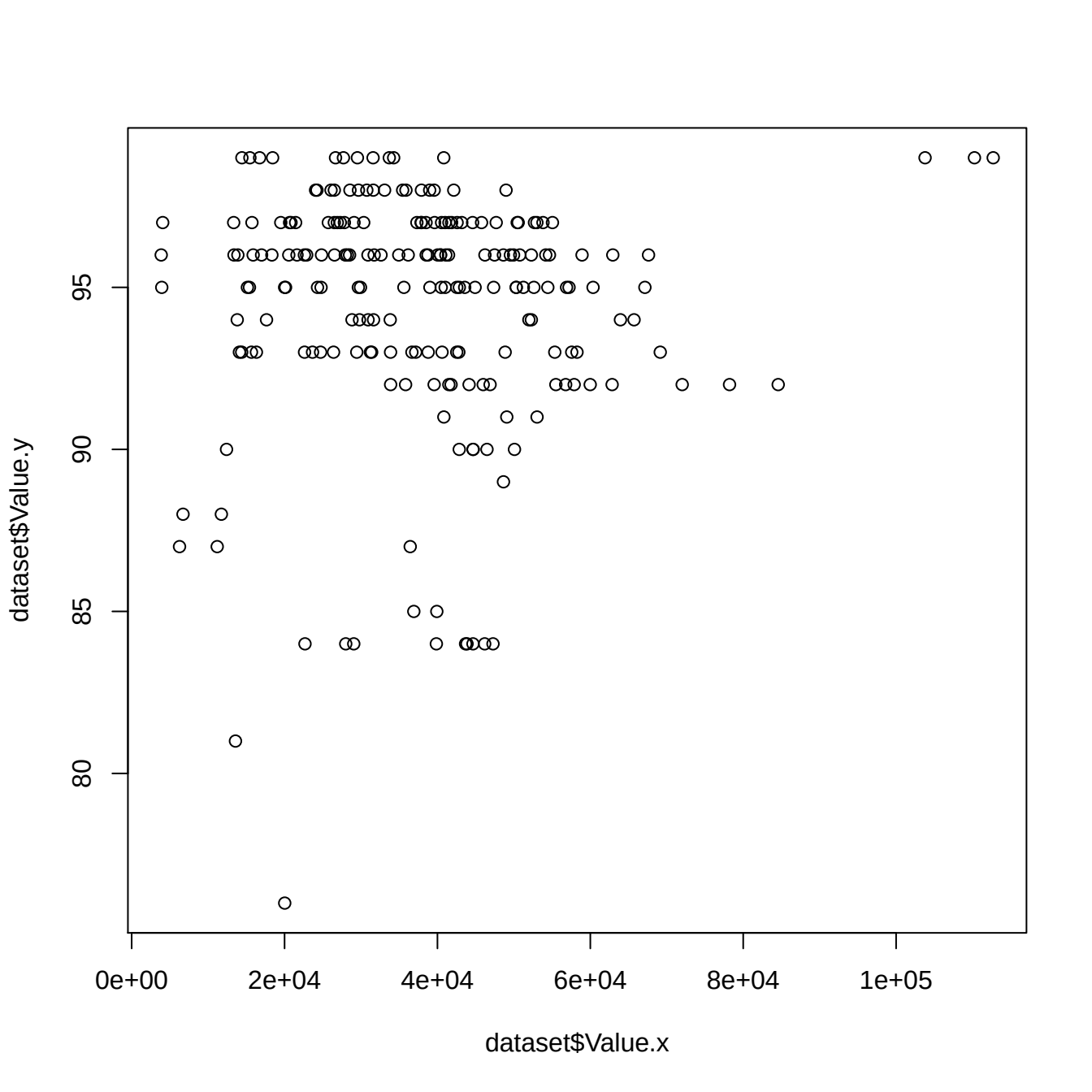

TEST
Linear Regression Coeffecient
1e+05
8e+04
6e+04
4e+04
2e+04
0e+00
80
85
90
95
TIME


TEST
Linear Regression Coeffecient
1e+05
8e+04
6e+04
4e+04
2e+04
0e+00
80
85
90
95
TIME


TEST
Linear Regression Coeffecient
1e+05
8e+04
6e+04
4e+04
2e+04
0e+00
80
85
90
95
TIME


dataset$Value.y
95
90
85
80
0e+00
2e+04
4e+04
6e+04
8e+04
1e+05
dataset$Value.x


dataset$Value.y
95
90
85
80
0e+00
2e+04
4e+04
6e+04
8e+04
1e+05
dataset$Value.x


dataset$Value.y
95
90
85
80
0e+00
2e+04
4e+04
6e+04
8e+04
1e+05
dataset$Value.x