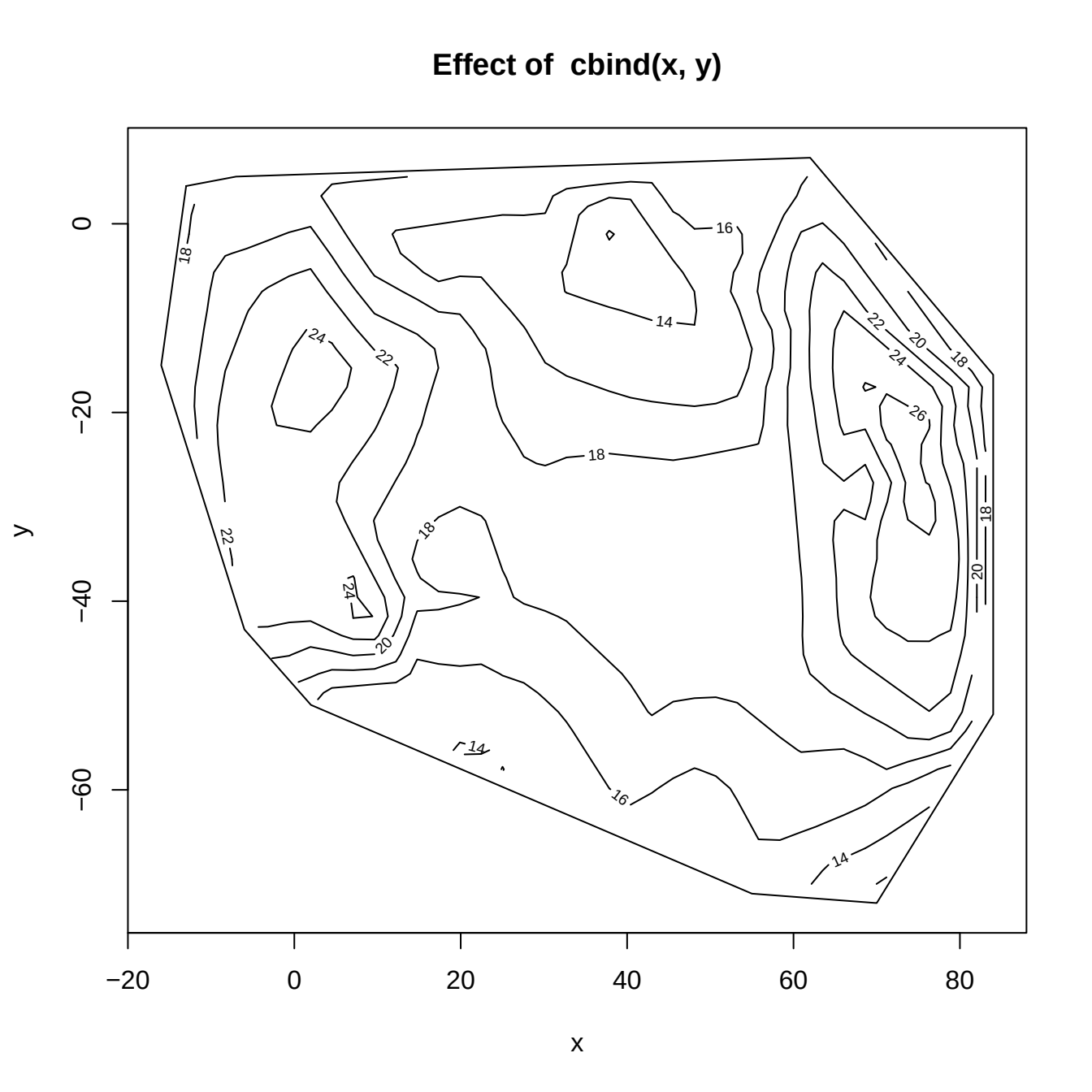
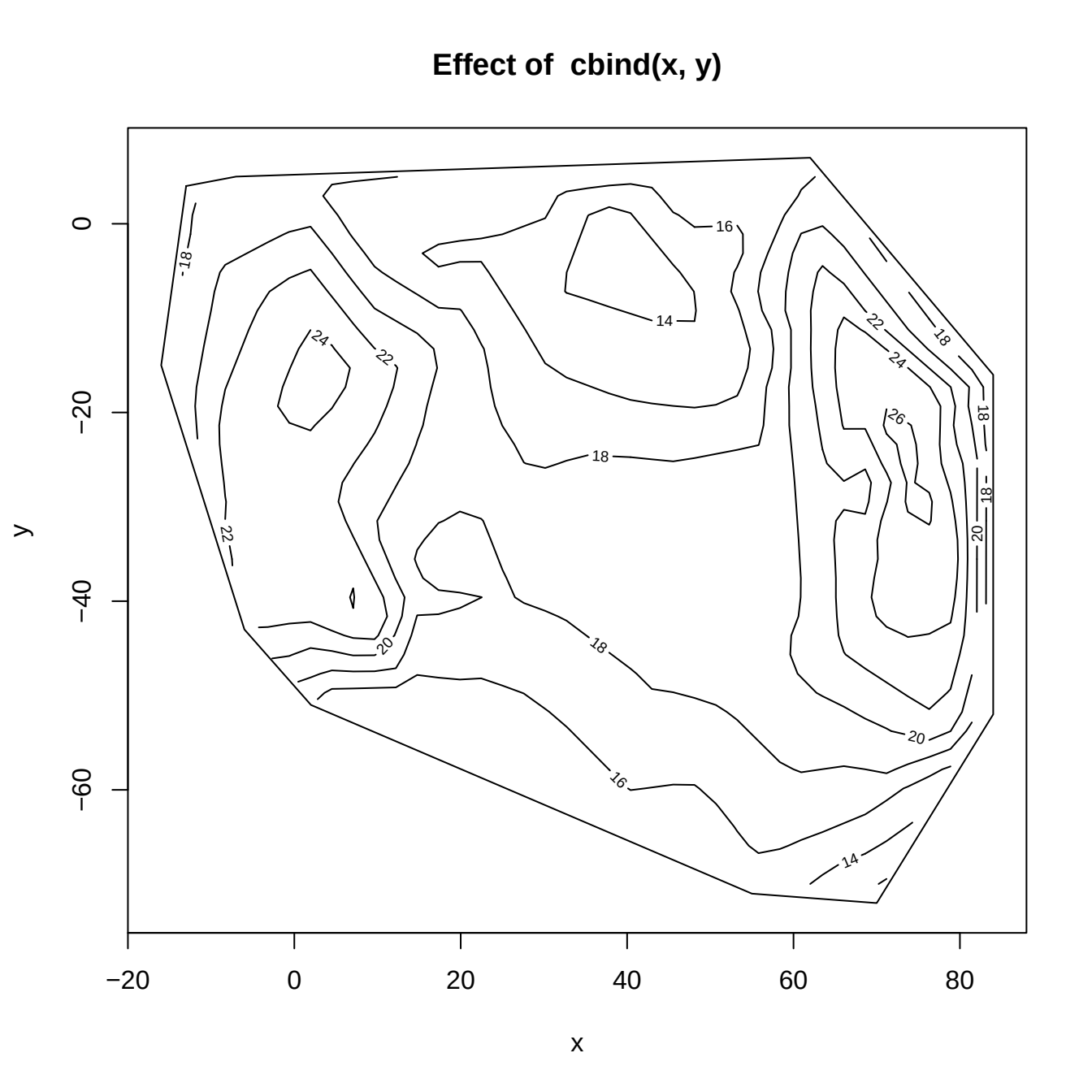
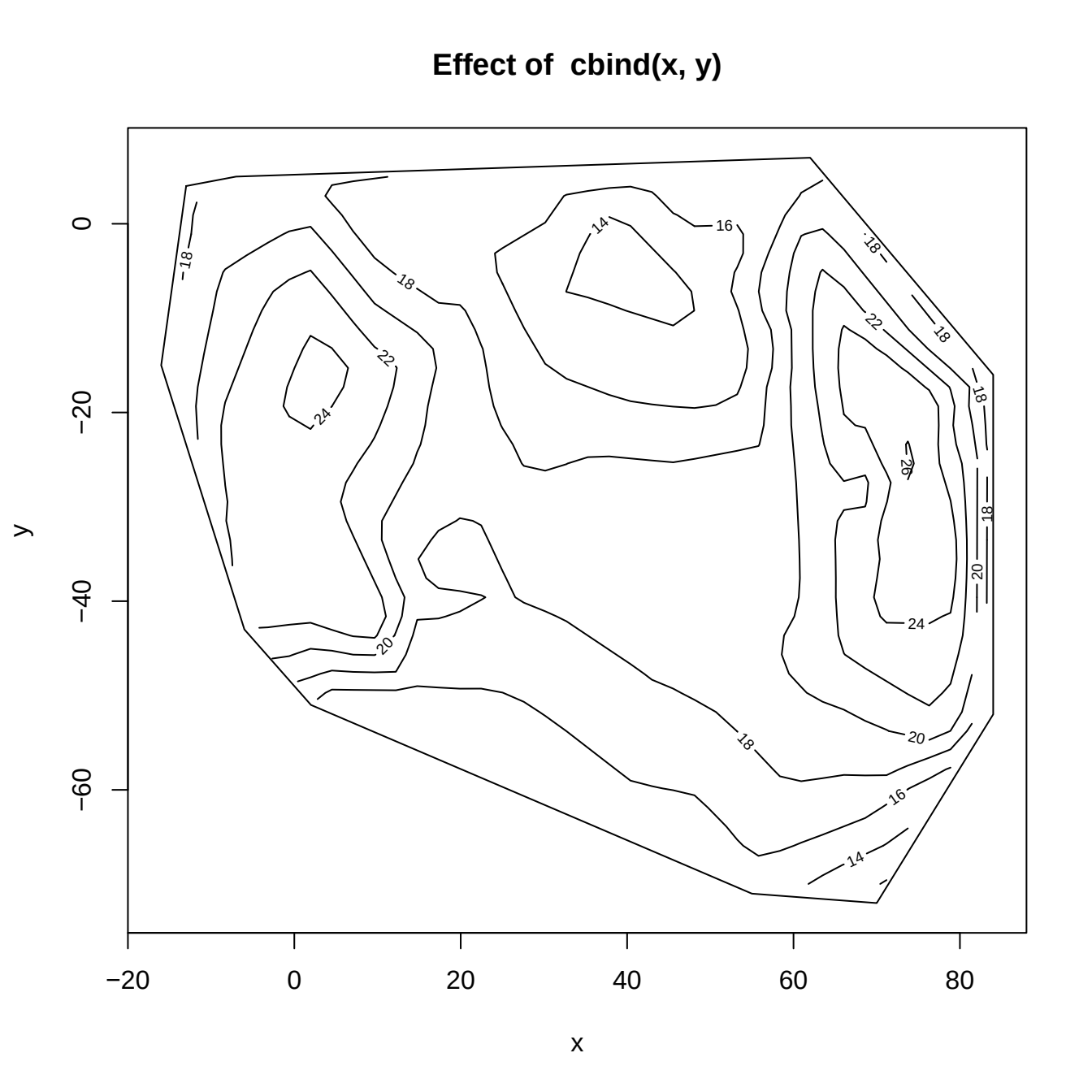
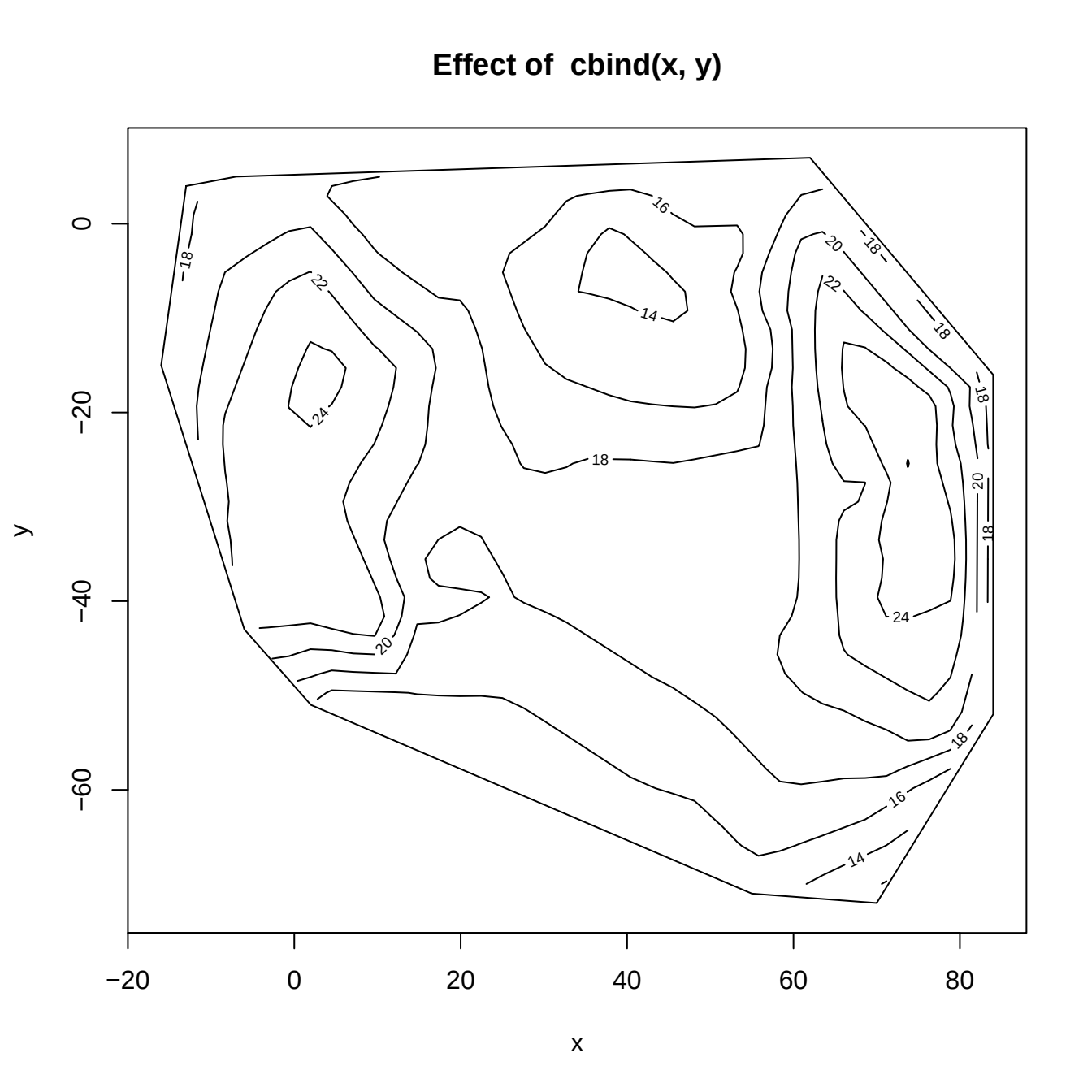
Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
18
20
16
12
14
24
22
18
26
22
18
24
16
20
14
20
18
14
14

Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
18
20
24
22
12
16
14
18
22
20
18
26
22
24
16
14
20
24
18
14

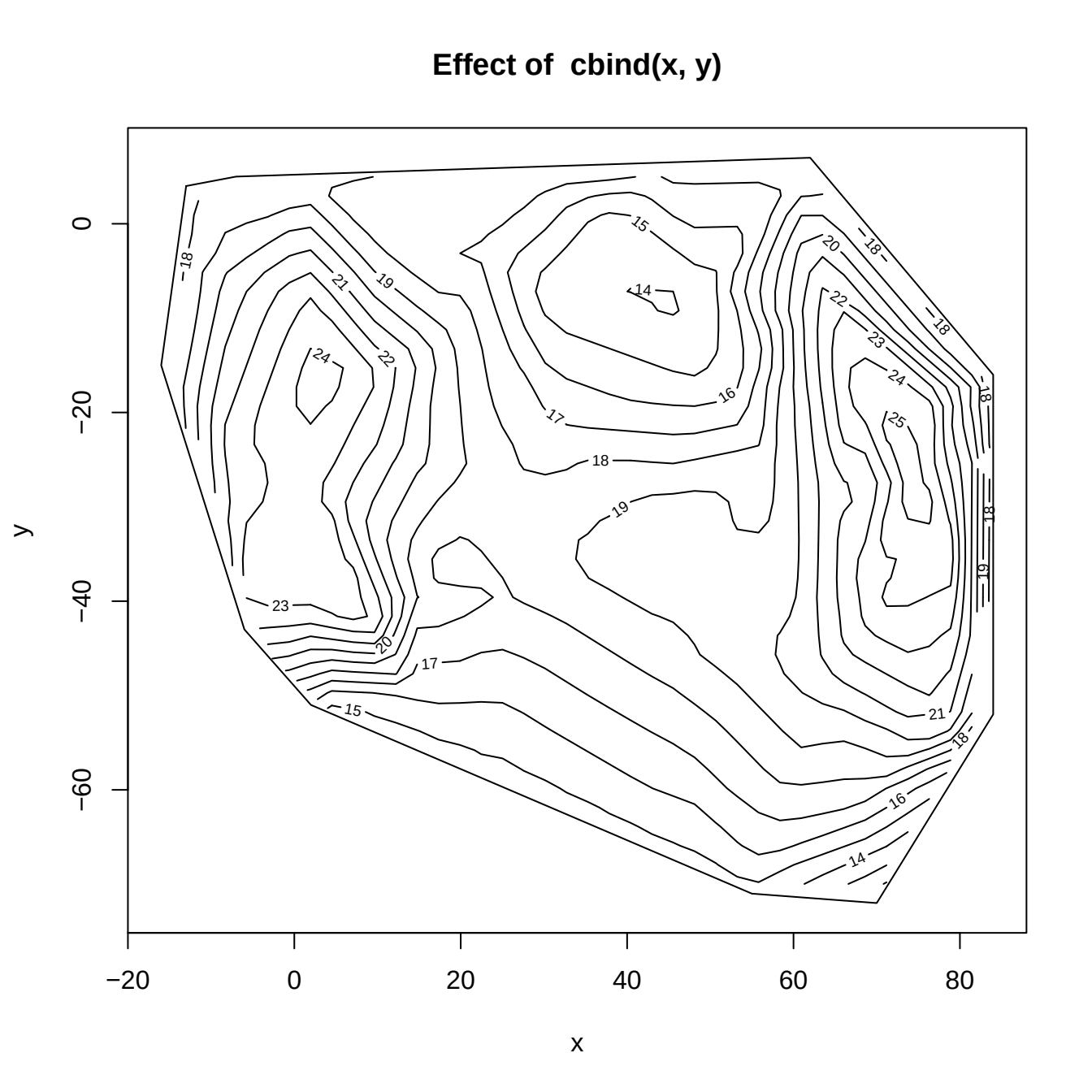

Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
18
16
14
24
22
20
26


Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
16
14
18
22
24
26
20

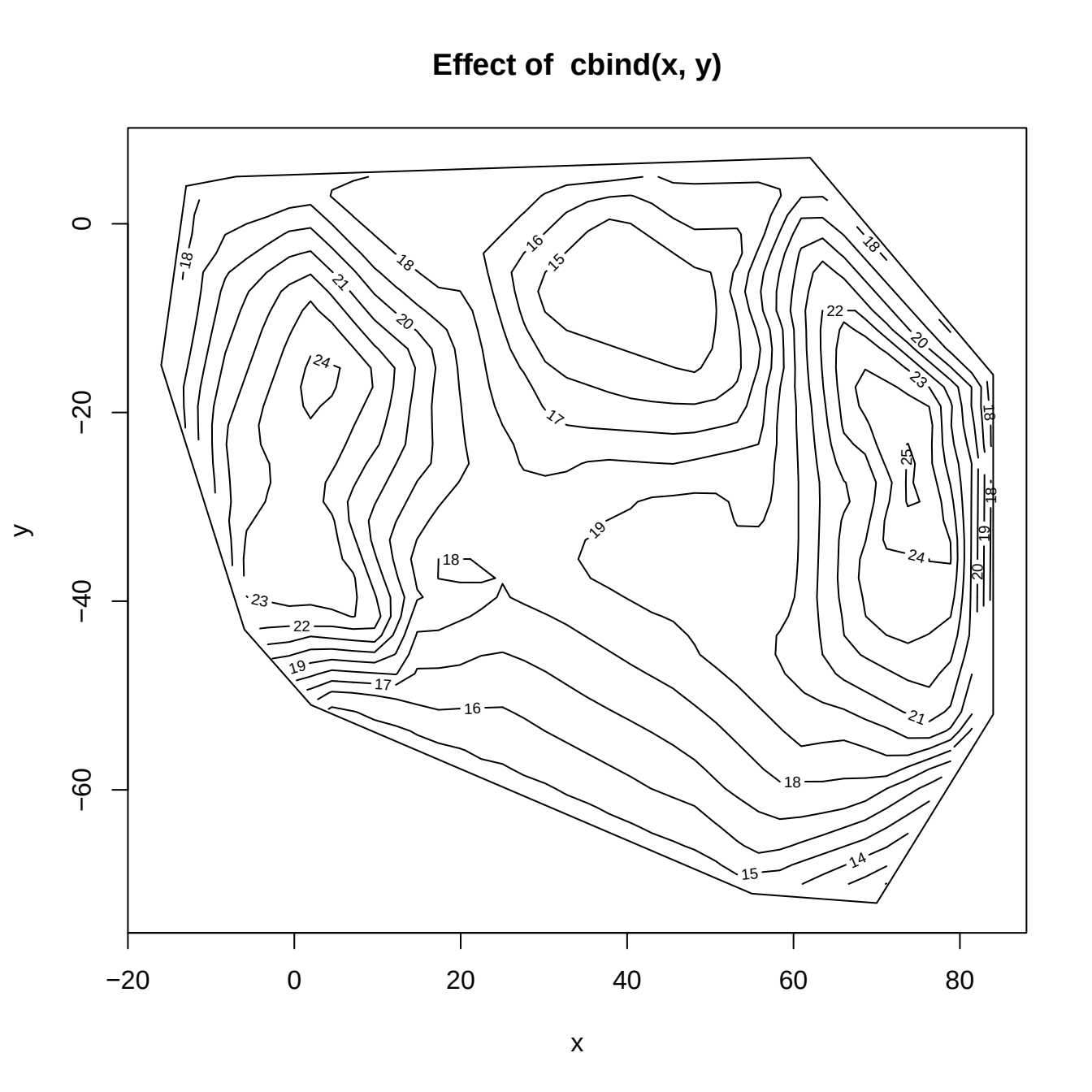

Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
14
16
18
20
22
24
26



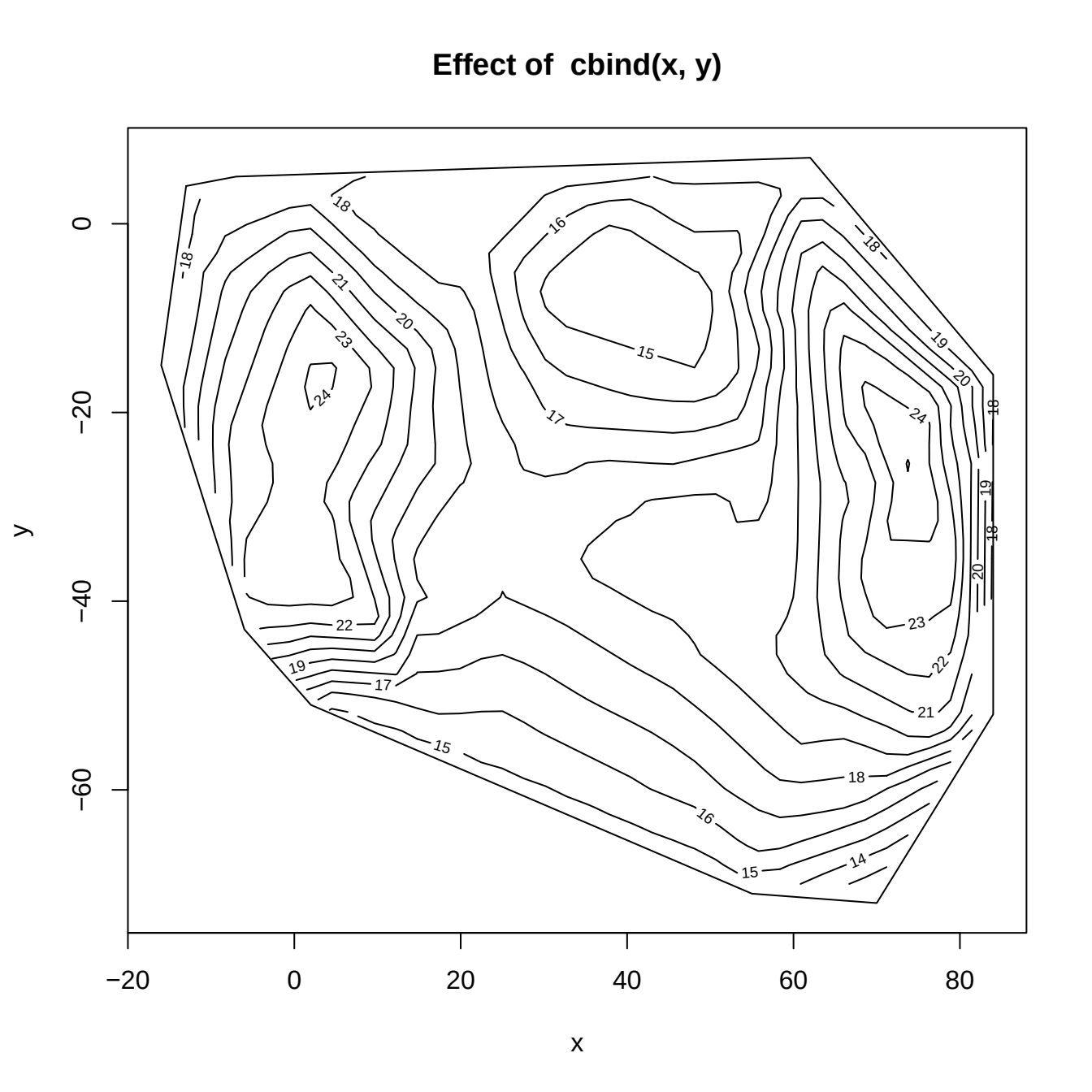
Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
14
16
18
20
22
24



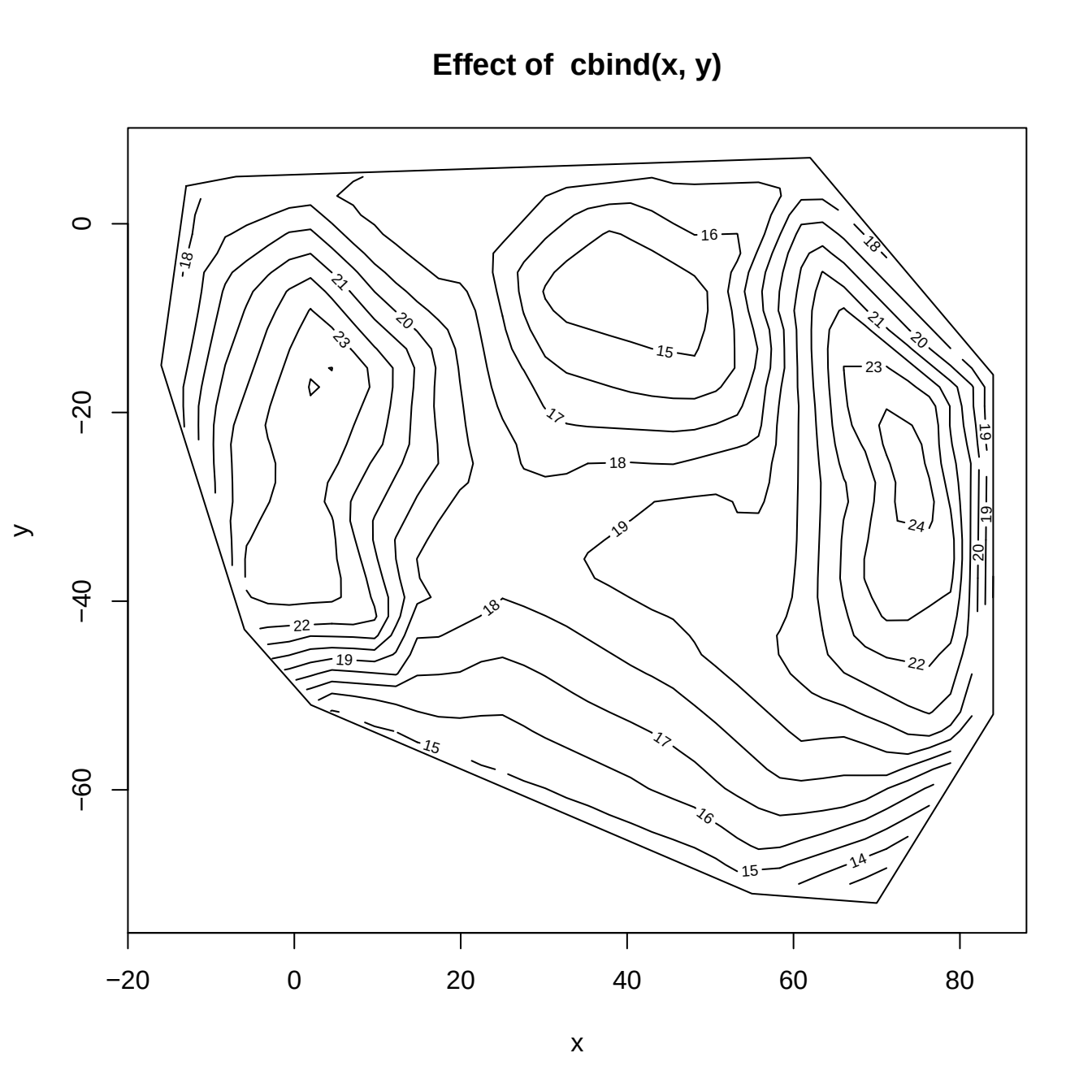
Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
14
15
16
17
18
19
20
21
22
23
24
25

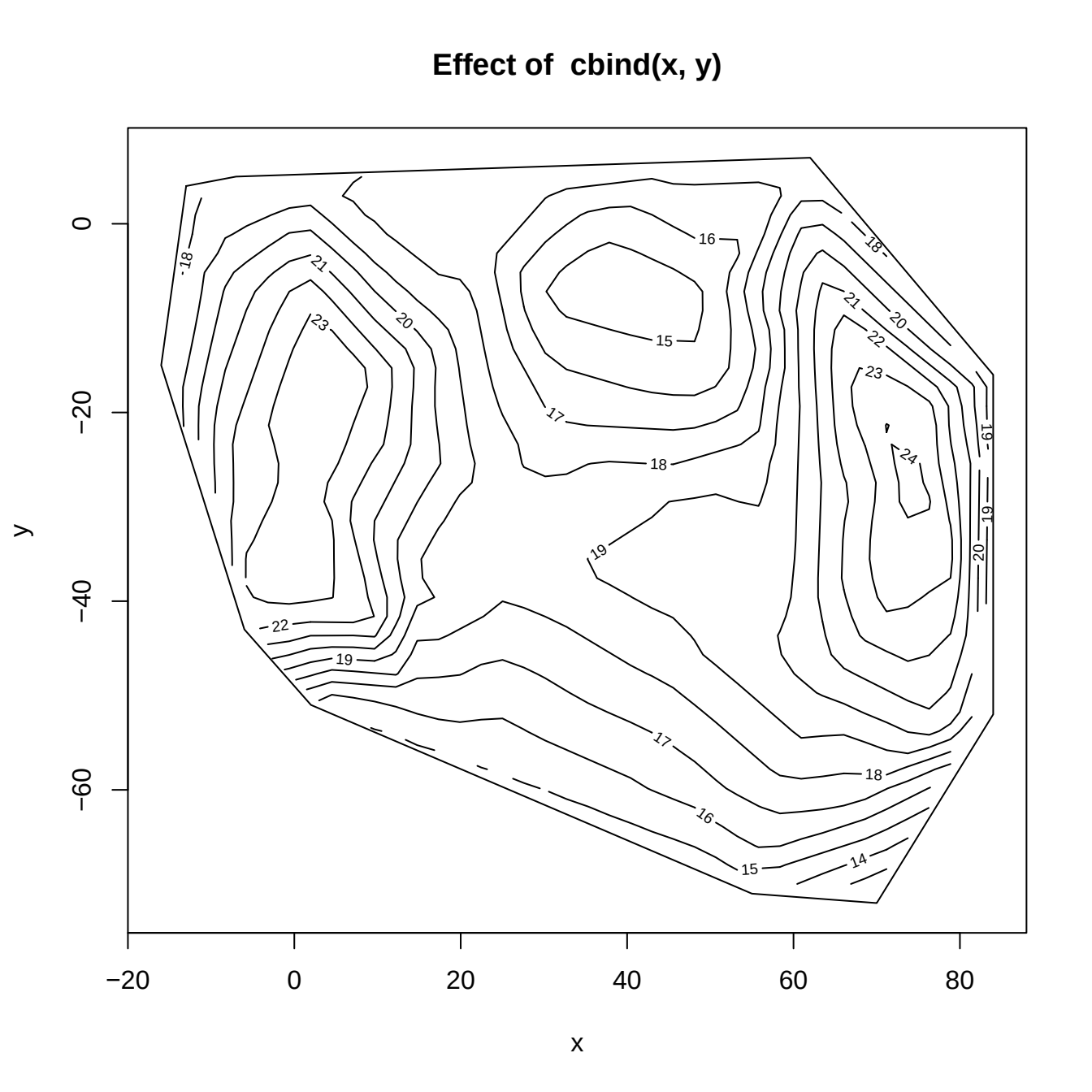


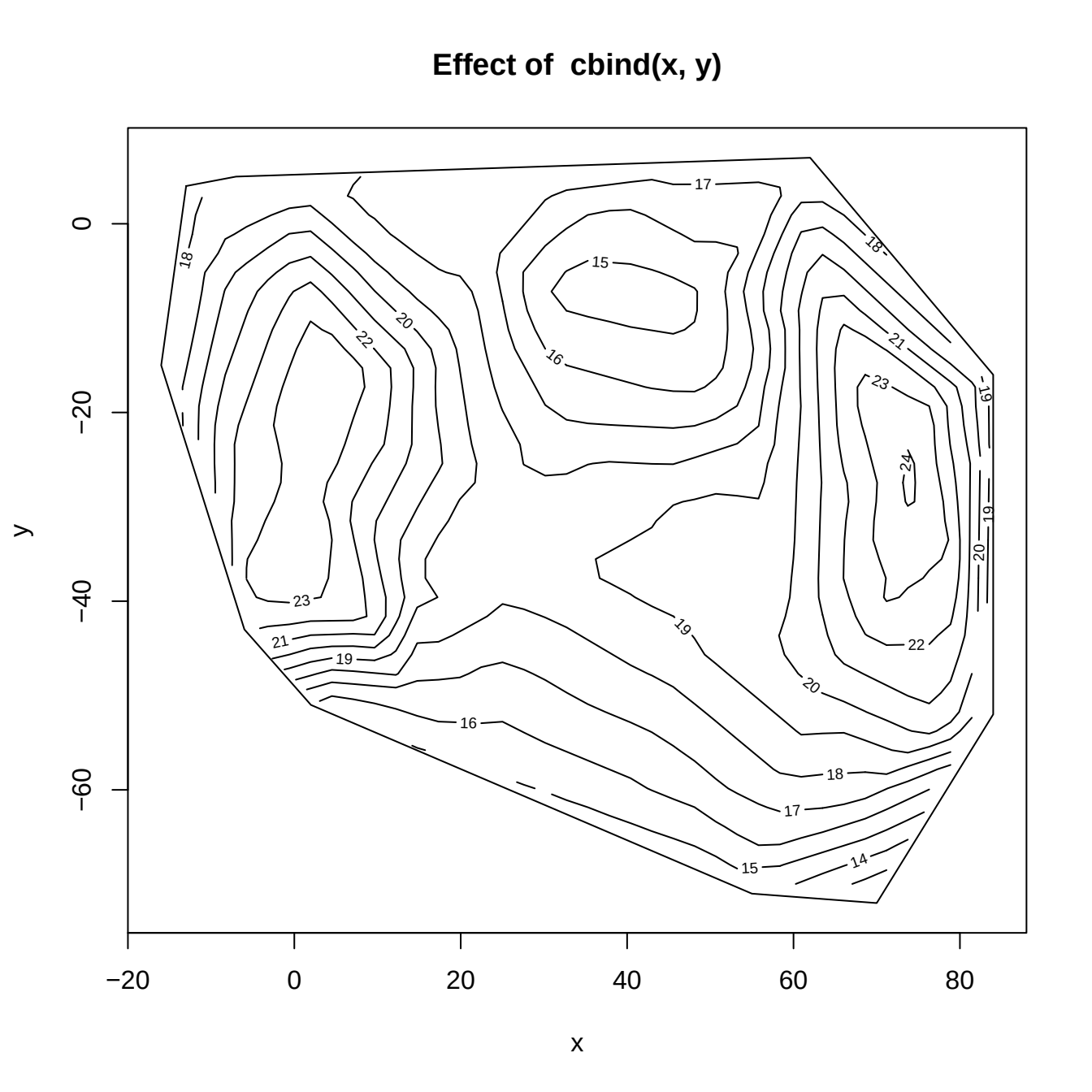
Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
18
21
20
24
23
22
19
17
16
15
14
25

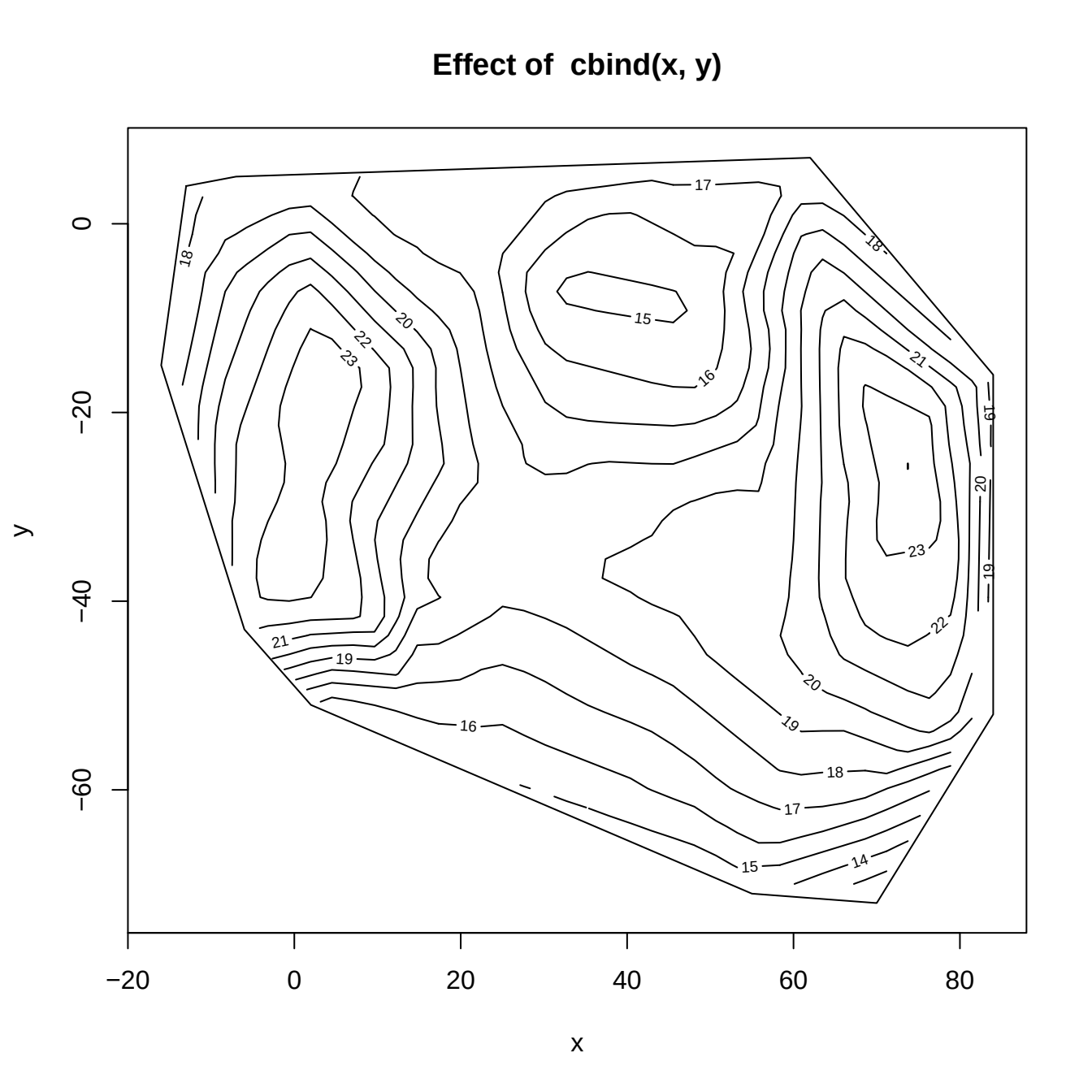


Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
18
16
15
17
19
20
21
22
23
24
14


Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
16
15
18
21
20
23
17
19
24
22
14


Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
16
15
18
21
20
22
23
24
19
17
14


Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
18
17
15
16
20
22
23
21
19
24


Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
17
18
15
16
20
22
23
21
19
18
21
19
20
23
22
20
19
18
17
16
15
14

Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
14
15
16
17
18
19
20
21
22
23

Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
16
17
18
19
20
21
22
23

Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
18
21
22
20
23
18
16
17
20
21
23
20
19
22
19
19
16
18
17
15
14

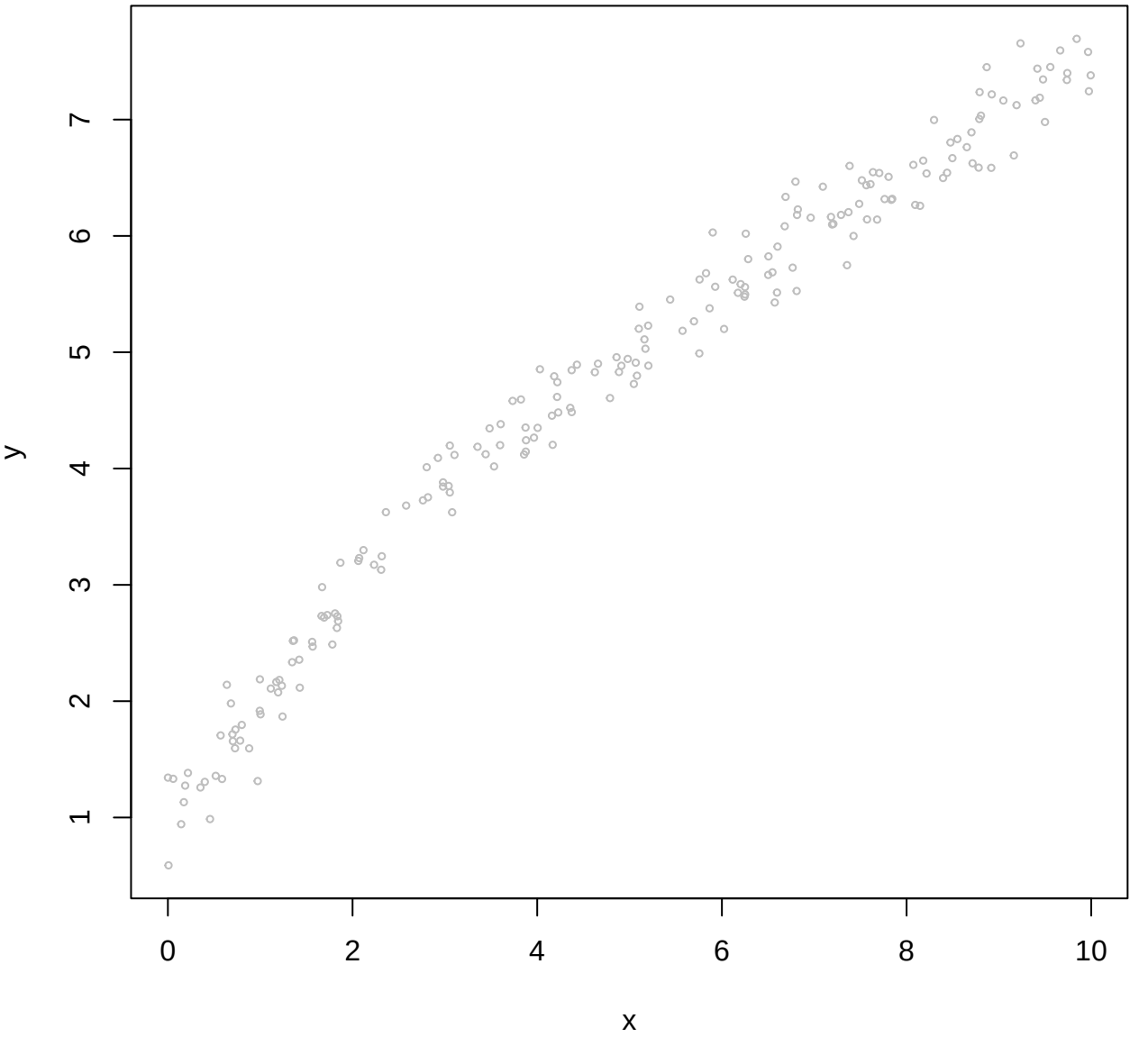
Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
17
18
21
20
23
16
18
20
23
20
22
22
19
21
19
18
16
17
15
14

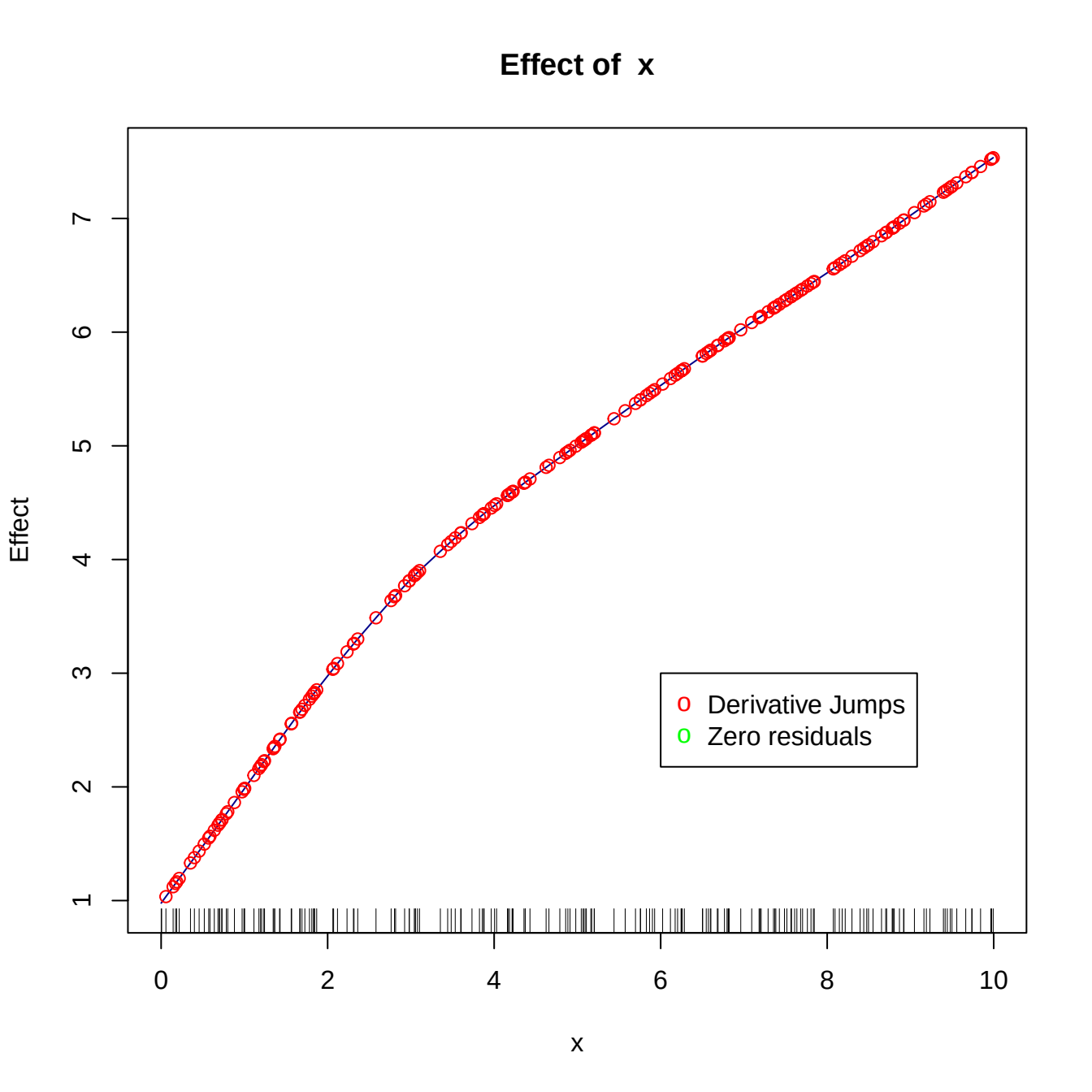
Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
17
18
19
20
21
23
16
22
15
14

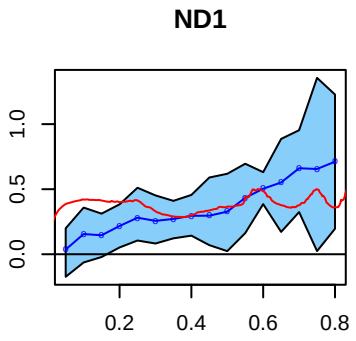
Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
18
20
19
21
16
17
18
19
22
20
21
20
22
18
17
16
15
14

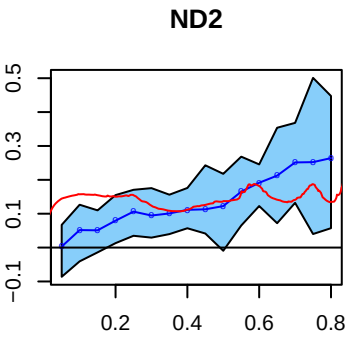
Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
18
19
20
22
21
16
17
18
20
20
22
21
18
19
20
16
17
15
14

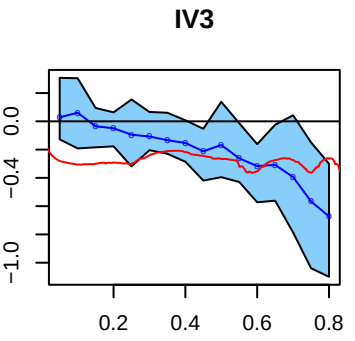
Effect of cbind(x, y)
y
x
0
−20
−40
−60
−20
0
20
40
60
80
18
19
21
22
16
17
18
21
22
20
20
20
19
18
17
16
15
14

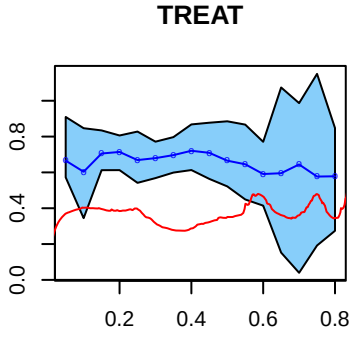

y
1
2
3
4
5
6
7
0
2
4
6
8
10
x

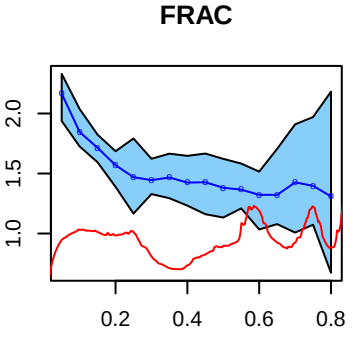

Effect of x
Effect
x
Derivative Jumps
Zero residuals
0
2
4
6
8
10
1
2
3
4
5
6
7

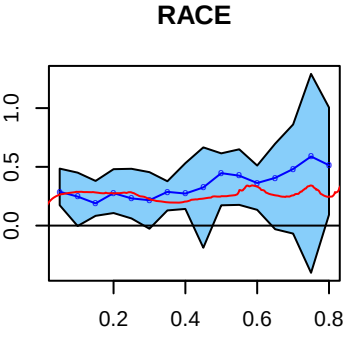

ND1
0.0
0.5
1.0
0.2
0.4
0.6
0.8

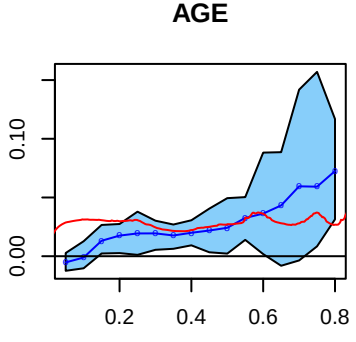

ND2
−0.1
0.1
0.3
0.5
0.2
0.4
0.6
0.8

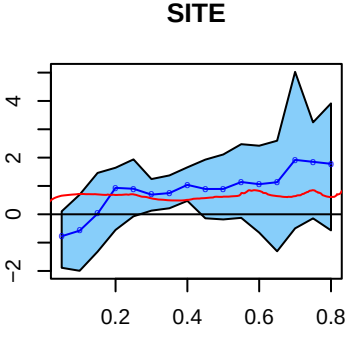

IV3
−1.0
−0.4
0.0
0.2
0.4
0.6
0.8

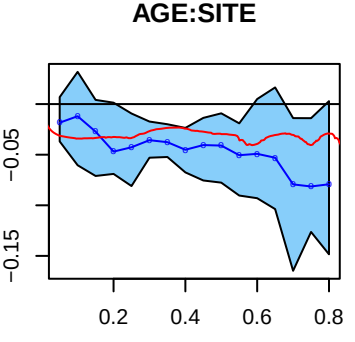

TREAT
0.0
0.4
0.8
0.2
0.4
0.6
0.8

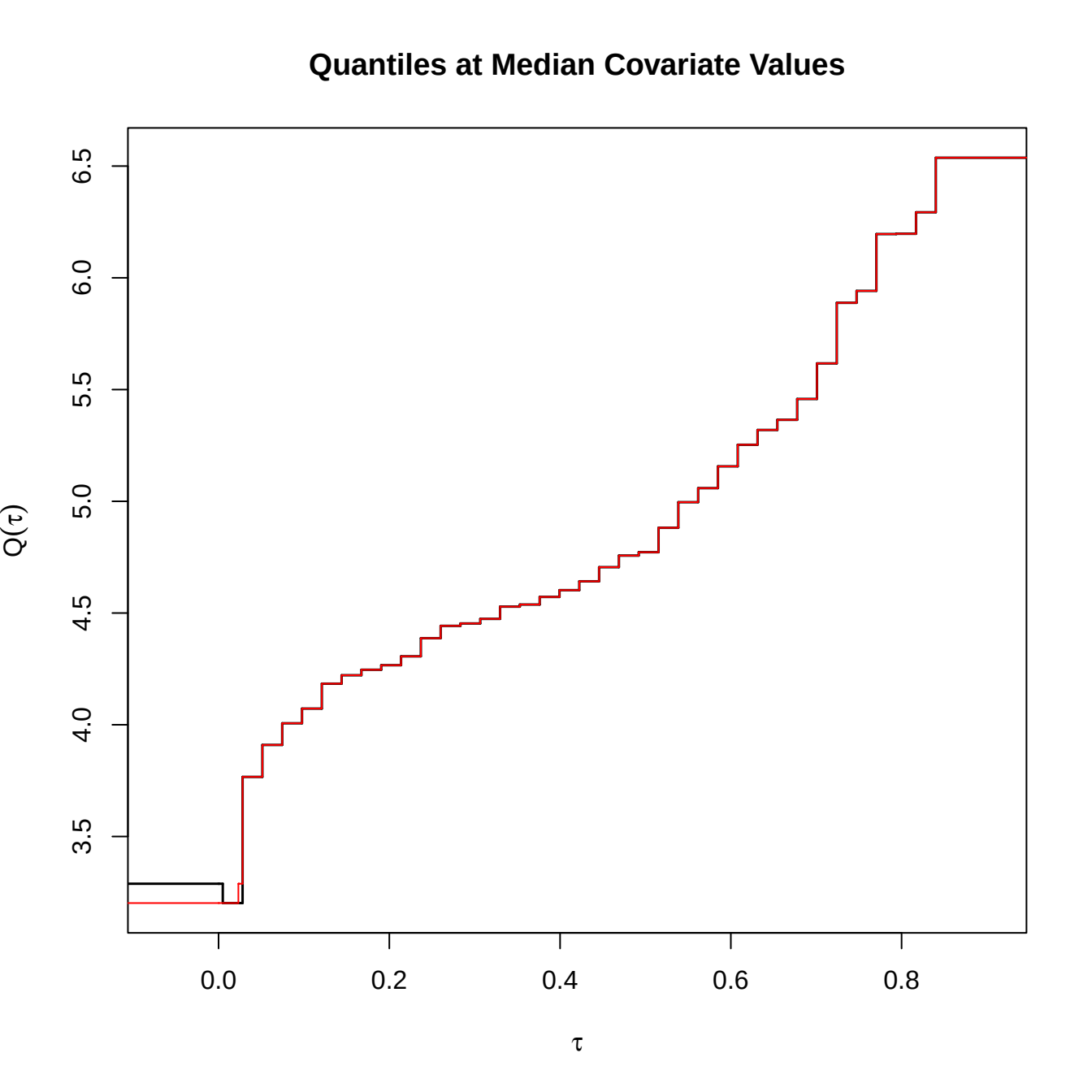

FRAC
1.0
1.5
2.0
0.2
0.4
0.6
0.8

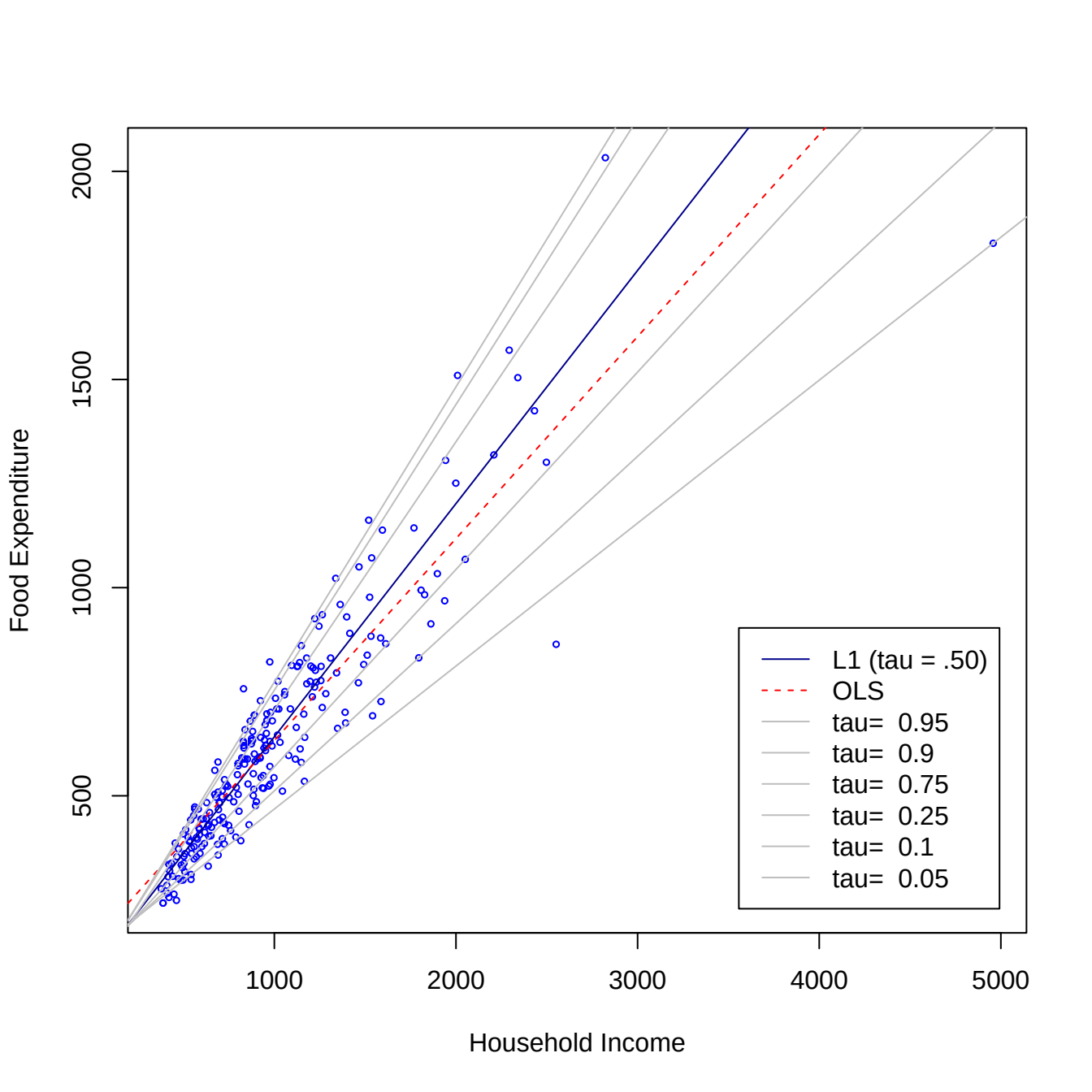

RACE
0.0
0.5
1.0
0.2
0.4
0.6
0.8

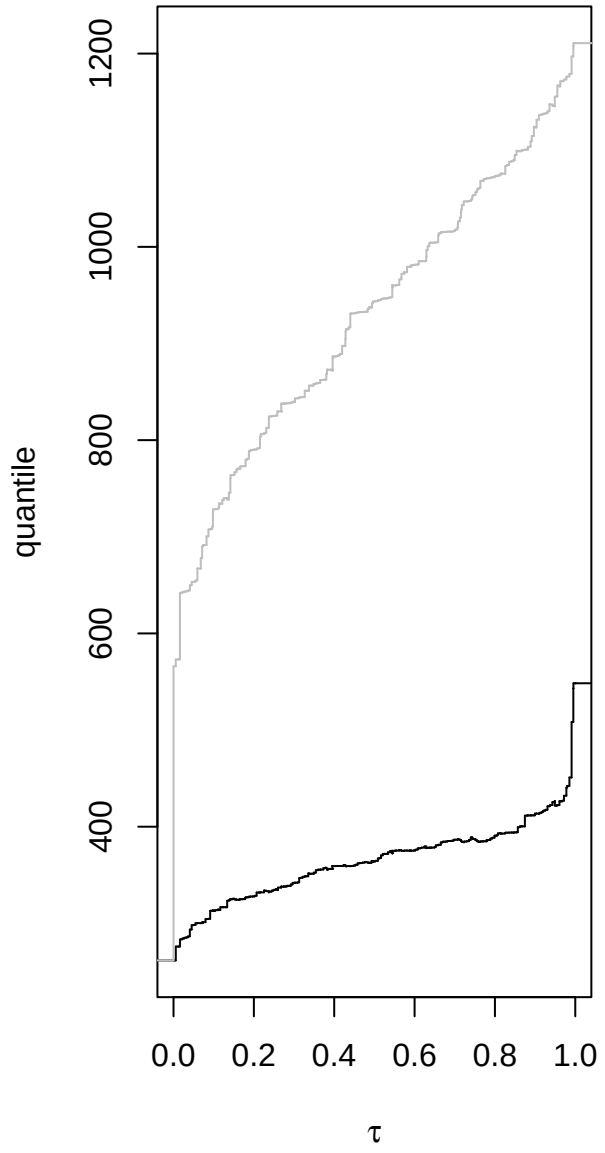

AGE
0.00
0.10
0.2
0.4
0.6
0.8

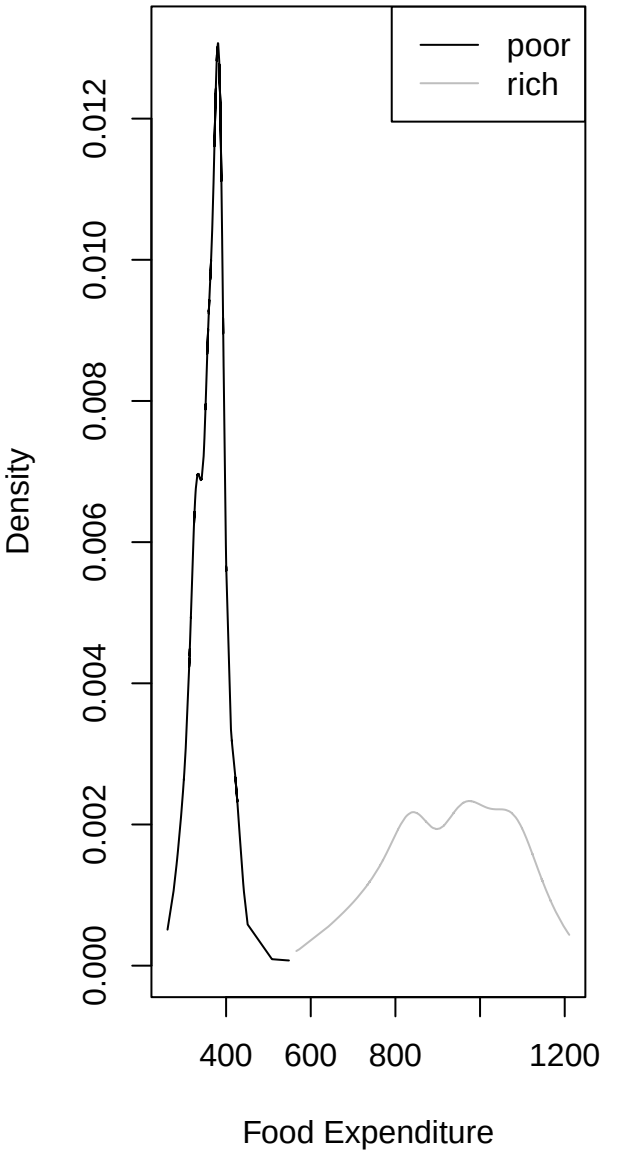

SITE
−2
0
2
4
0.2
0.4
0.6
0.8


AGE:SITE
−0.15
−0.05
0.2
0.4
0.6
0.8


Quantiles at Median Covariate Values
Q(τ)
3.5
4.0
4.5
5.0
5.5
6.0
6.5
0.0
0.2
0.4
0.6
0.8
τ


Food Expenditure
Household Income
500
1000
1500
2000
1000
2000
3000
4000
5000
L1 (tau = .50)
OLS
tau= 0.95
tau= 0.9
tau= 0.75
tau= 0.25
tau= 0.1
tau= 0.05


quantile
400
600
800
1000
1200
0.0
0.2
0.4
0.6
0.8
1.0
τ


Density
0.000
0.002
0.004
0.006
0.008
0.010
0.012
poor
rich
400
600
800
1200
Food Expenditure