Lista10

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http://fmwww.bc.edu/ec-p/data/stockwatson/datasets.list.html

```
library(foreign)
library(AER)
```

```
## Loading required package: car
```

```
## Loading required package: lmtest
```

```
## Loading required package: zoo
```

```
##
## Attaching package: 'zoo'
```

```
## The following objects are masked from 'package:base':
##
##     as.Date, as.Date.numeric
```

```
## Loading required package: sandwich
```

```
## Loading required package: survival
```

```
dados <- read.dta("fatality.dta")
dados$mrall <- dados$mrall * 10000
dados$mlda <- round(dados$mlda,0)
```

```
fit_1 <- lm(mrall~beertax,data= dados)
#summary(fit_1)
epfit_1robusto <- vcovHC(fit_1, type = "HC1")
#epfit_1robusto
#diag(epfit_1robusto)
coef_fit_1 <- coeftest(fit_1, epfit_1robusto)
coef_fit_1[1:2,]
```

```
##              Estimate Std. Error  t value      Pr(>|t|)
## (Intercept) 1.8533079 0.04712975 39.32353 2.239345e-127
## beertax     0.3646054 0.05285240  6.89856  2.642889e-11
```

```
fit_2 <- lm(mrall ~ beertax + as.factor(state),data = dados)
#summary(fit_2)
epfit_2robusto <- vcovHC(fit_2, type = "HC1")
#epfit_2robusto
#diag(epfit_2robusto)
coef_fit_2 <- coeftest(fit_2, epfit_2robusto)
coef_fit_2[1:2,]
```

```
##               Estimate Std. Error   t value     Pr(>|t|)
## (Intercept)  3.4776300  0.3507844  9.913866 4.086456e-20
## beertax     -0.6558736  0.2032797 -3.226459 1.398373e-03
```

```
fit_3 <- lm(mrall ~ beertax + as.factor(state) + as.factor(year),data = dados)
#summary(fit_3)
epfit_3robusto <- vcovHC(fit_3, type = "HC1")
```

```r
#epfit_3robusto
#diag(epfit_3robusto)
coef_fit_3 <- coeftest(fit_3, epfit_3robusto)
coef_fit_3[1:2,]
```

```
##               Estimate Std. Error   t value     Pr(>|t|)
## (Intercept)  3.5113747  0.4474138  7.848160 8.909071e-14
## beertax     -0.6399799  0.2547149 -2.512534 1.254701e-02
```

```r
fit_4 <- lm(mrall ~ beertax + as.factor(mlda) + jaild + comserd + vmiles + unrate + log(perinc) + as.fa
#summary(fit_4)
epfit_4robusto <- vcovHC(fit_4, type = "HC1")
#epfit_4robusto
#diag(epfit_4robusto)
coef_fit_4 <- coeftest(fit_4, epfit_4robusto)
coef_fit_4[1:10,]
```

```
##                         Estimate   Std. Error    t value     Pr(>|t|)
## (Intercept)       -1.251881e+01 4.542169e+00 -2.7561303 6.244393e-03
## beertax           -4.635768e-01 2.223838e-01 -2.0845798 3.804029e-02
## as.factor(mlda)19 -3.729440e-02 6.307257e-02 -0.5912934 5.548149e-01
## as.factor(mlda)20 -2.705188e-02 6.413529e-02 -0.4217941 6.735085e-01
## as.factor(mlda)21 -3.330317e-02 6.424986e-02 -0.5183383 6.046436e-01
## jaild              1.430645e-02 3.176753e-02  0.4503484 6.528180e-01
## comserd            3.443702e-02 1.147123e-01  0.3002033 7.642514e-01
## vmiles             8.922890e-06 8.102437e-06  1.1012600 2.717571e-01
## unrate            -6.295173e-02 1.163892e-02 -5.4087258 1.391263e-07
## log(perinc)        1.776883e+00 4.725621e-01  3.7601046 2.079350e-04
```