

betaSandwich: Staging

Ivan Jacob Agaloos Pesigan

Staging...

References

R Core Team. (2022). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. Vienna, Austria. <https://www.R-project.org/>

```
object <- lm(QUALITY ~ NARTIC + PCTGRT + PCTSUPP, data = nas1982)
sqrt(diag(sandwich::vcovHC(object)))

#> Error in loadNamespace(x): there is no package called 'sandwich'

hc <- BetaN(object)
out <- rsq(hc)
print(out)

#> Multiple correlation with MVN standard errors:
#>      est      se      t p 0.05%  0.5%  2.5% 97.5% 99.5% 99.95%
#> rsq 0.8045 0.0328 24.5344 0 0.6885 0.7161 0.7383 0.8707 0.8930 0.9205
#> adj 0.7906 0.0351 22.5014 0 0.6663 0.6958 0.7197 0.8615 0.8854 0.9149

summary(out)

#> Multiple correlation with MVN standard errors:
#>      est      se      t p 0.05%  0.5%  2.5% 97.5% 99.5% 99.95%
#> rsq 0.8045 0.0328 24.5344 0 0.6885 0.7161 0.7383 0.8707 0.8930 0.9205
#> adj 0.7906 0.0351 22.5014 0 0.6663 0.6958 0.7197 0.8615 0.8854 0.9149

coef(out)

#>      rsq      adj
#> 0.8045263 0.7905638

vcov(out)

#>      rsq      adj
#> rsq 0.001075300 0.001152107
#> adj 0.001152107 0.001234400
```

```
confint(out)
```

```
#>           2.5%      97.5%  
#> rsq 0.7383498 0.8707027  
#> adj 0.7196605 0.8614672
```

```
object <- lm(QUALITY ~ NARTIC + PCTGRT + PCTSUPP, data = nas1982)  
sqrt(diag(sandwich::vcovHC(object)))
```

```
#> Error in loadNamespace(x): there is no package called 'sandwich'
```

```
hc <- BetaADF(object)  
out <- rsq(hc)  
print(out)
```

```
#> Multiple correlation with ADF standard errors:
```

```
#>      est      se      t p 0.05%  0.5%  2.5% 97.5% 99.5% 99.95%  
#> rsq 0.8045 0.0287 28.0431 0 0.7030 0.7271 0.7466 0.8624 0.8819 0.9060  
#> adj 0.7906 0.0307 25.7193 0 0.6818 0.7076 0.7285 0.8526 0.8735 0.8993
```

```
summary(out)
```

```
#> Multiple correlation with ADF standard errors:
```

```
#>      est      se      t p 0.05%  0.5%  2.5% 97.5% 99.5% 99.95%  
#> rsq 0.8045 0.0287 28.0431 0 0.7030 0.7271 0.7466 0.8624 0.8819 0.9060  
#> adj 0.7906 0.0307 25.7193 0 0.6818 0.7076 0.7285 0.8526 0.8735 0.8993
```

```
coef(out)
```

```
#>      rsq      adj  
#> 0.8045263 0.7905638
```

```
vcov(out)
```

```
#>      rsq      adj  
#> rsq 0.0008230557 0.0008818454  
#> adj 0.0008818454 0.0009448343
```

```
confint(out)
```

```
#>           2.5%      97.5%  
#> rsq 0.7466296 0.8624229  
#> adj 0.7285317 0.8525960
```

```
object <- lm(QUALITY ~ NARTIC + PCTGRT + PCTSUPP, data = nas1982)  
sqrt(diag(sandwich::vcovHC(object)))
```

```

#> Error in loadNamespace(x): there is no package called 'sandwich'

hc <- BetaHC(object)
out <- rsq(hc)
print(out)

#> Multiple correlation with HC3 standard errors:
#>      est      se      t p 0.05% 0.5% 2.5% 97.5% 99.5% 99.95%
#> rsq 0.8045 0.0313 25.6916 0 0.6937 0.72 0.7413 0.8677 0.8890 0.9153
#> adj 0.7906 0.0336 23.5627 0 0.6719 0.70 0.7229 0.8583 0.8811 0.9093

summary(out)

#> Multiple correlation with HC3 standard errors:
#>      est      se      t p 0.05% 0.5% 2.5% 97.5% 99.5% 99.95%
#> rsq 0.8045 0.0313 25.6916 0 0.6937 0.72 0.7413 0.8677 0.8890 0.9153
#> adj 0.7906 0.0336 23.5627 0 0.6719 0.70 0.7229 0.8583 0.8811 0.9093

coef(out)

#>      rsq      adj
#> 0.8045263 0.7905638

vcov(out)

#>      rsq      adj
#> rsq 0.0009806163 0.001050660
#> adj 0.0010506603 0.001125707

confint(out)

#>      2.5%      97.5%
#> rsq 0.7413304 0.8677221
#> adj 0.7228540 0.8582736

```