

Test

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Estimation sans prendre en compte l'hétérogénéité

```
library(plm)
```

```
## Loading required package: Formula
```

```
load('panel_psid_exemple1.RData')
```

```
summary(plm(log(wage) ~ educ + experience, data = df, index = c("pid", "year"),  
          model = "pooling"))
```

```
## Pooling Model
```

```
##
```

```
## Call:
```

```
## plm(formula = log(wage) ~ educ + experience, data = df, model = "pooling",  
##     index = c("pid", "year"))
```

```
##
```

```
## Balanced Panel: n = 2084, T = 4, N = 8336
```

```
##
```

```
## Residuals:
```

| | Min. | 1st Qu. | Median | 3rd Qu. | Max. |
|----|------------|-----------|----------|----------|----------|
| ## | -10.842813 | -0.316410 | 0.077228 | 0.454271 | 4.745900 |

```
##
```

```
## Coefficients:
```

| ## | | Estimate | Std. Error | t-value | Pr(> t) |
|----|-------------|------------|------------|---------|---------------|
| ## | (Intercept) | 8.75821402 | 0.06090874 | 143.792 | < 2.2e-16 *** |
| ## | educ | 0.12262350 | 0.00424355 | 28.896 | < 2.2e-16 *** |
| ## | experience | 0.02374722 | 0.00099522 | 23.861 | < 2.2e-16 *** |
| ## | --- | | | | |

```
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
```

```
## Total Sum of Squares:    6765.9
```

```
## Residual Sum of Squares: 5790.3
```

```
## R-Squared:    0.14419
```

```
## Adj. R-Squared: 0.14398
```

```
## F-statistic: 701.979 on 2 and 8333 DF, p-value: < 2.22e-16
```

Estimation en prenant en compte l'hétérogénéité

```
summary(plm(log(wage) ~ educ + experience, data = df, index = c("pid", "year"),  
          model = "within"))
```

```
## Oneway (individual) effect Within Model  
##  
## Call:  
## plm(formula = log(wage) ~ educ + experience, data = df, model = "within",  
##      index = c("pid", "year"))  
##  
## Balanced Panel: n = 2084, T = 4, N = 8336  
##  
## Residuals:  
##      Min.      1st Qu.      Median      3rd Qu.      Max.  
## -6.792246 -0.117163  0.011723  0.149364  2.722799  
##  
## Coefficients:  
##              Estimate Std. Error t-value Pr(>|t|)  
## educ           0.0397879  0.0092493  4.3017 1.721e-05 ***  
## experience 0.0187873  0.0012910 14.5525 < 2.2e-16 ***  
## ---  
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1  
##  
## Total Sum of Squares:    1502.8  
## Residual Sum of Squares: 1448.3  
## R-Squared:              0.036252  
## Adj. R-Squared:        -0.28525  
## F-statistic: 117.55 on 2 and 6250 DF, p-value: < 2.22e-16
```