

Simple Regression

Single equation regression estimation in EViews is performed using the *Equation Object*.

Etude de Cas:

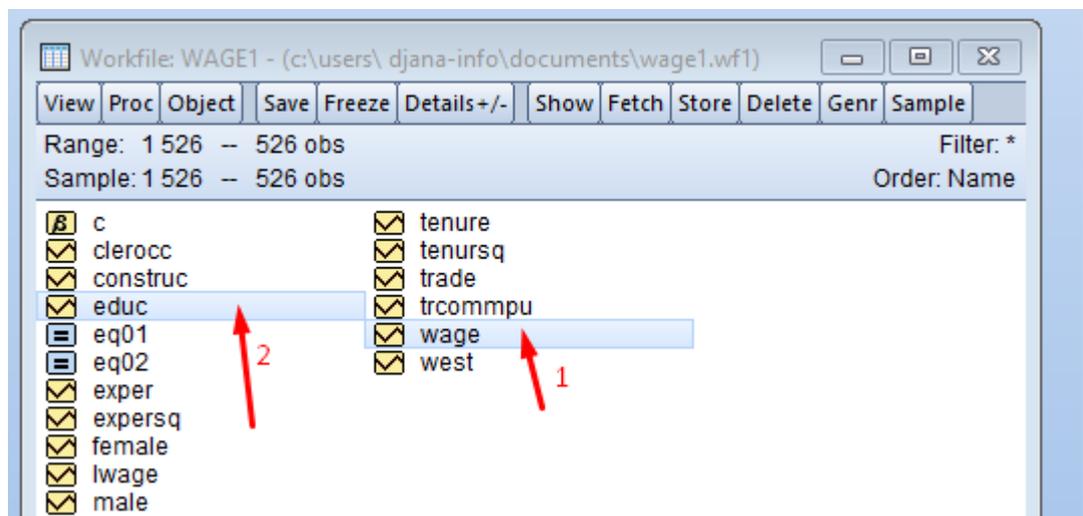
We use the work file given 'Wage1'.

Given the following question: does the level of education influence an individual's salary?

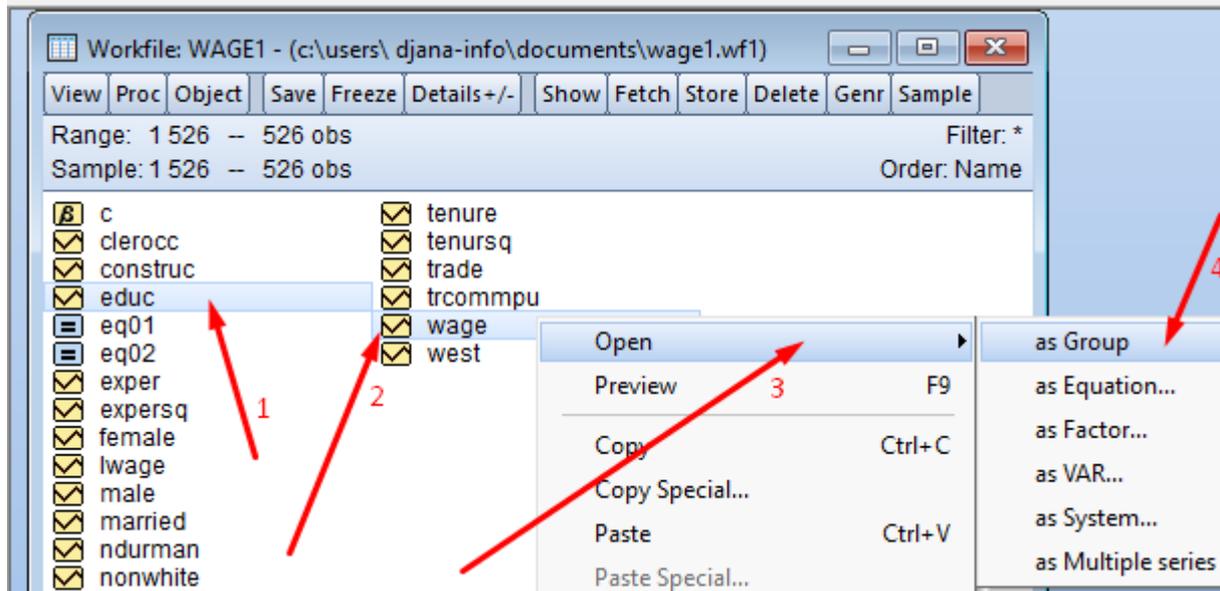
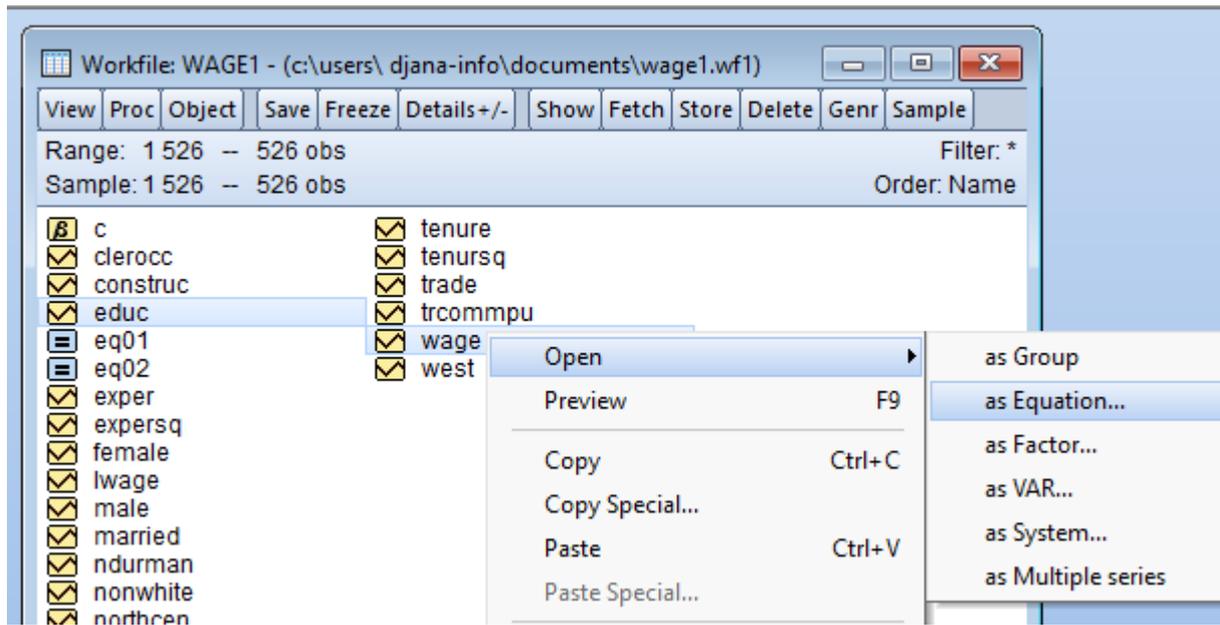
if this influence exists, how can it be quantified?

how to predict an individual's salary based on their level of education

1-Select variables



2- Open Contextual menu



Specify your equation either by:

List or Formula

Specify your estimation method

Specify your sample

Equation Estimation

Specification Options

Equation specification
Dependent variable followed by list of regressors including ARMA and PDL terms, OR an explicit equation like $Y=c(1)+c(2)*X$.

wage educ c

Estimation settings

Method: LS - Least Squares (NLS and ARMA)

Sample: 1 526

OK Annuler

3-Click on OK.

this window is displayed

Equation: (UNTITLED) Workfile: WAGE1=Wage1

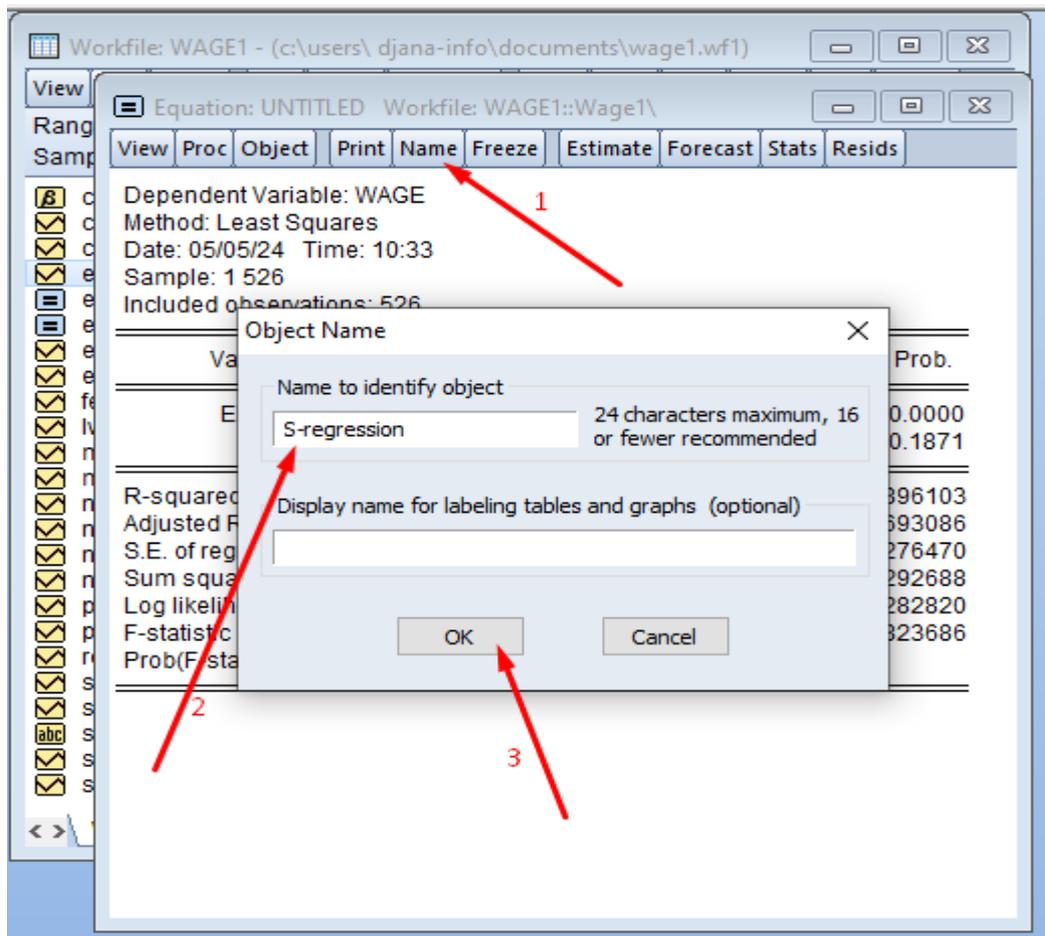
View Proc Object Print Name Freeze Estimate Forecast Stats Resids

Dependent Variable: WAGE
Method: Least Squares
Date: 05/05/24 Time: 10:06
Sample: 1 526
Included observations: 526

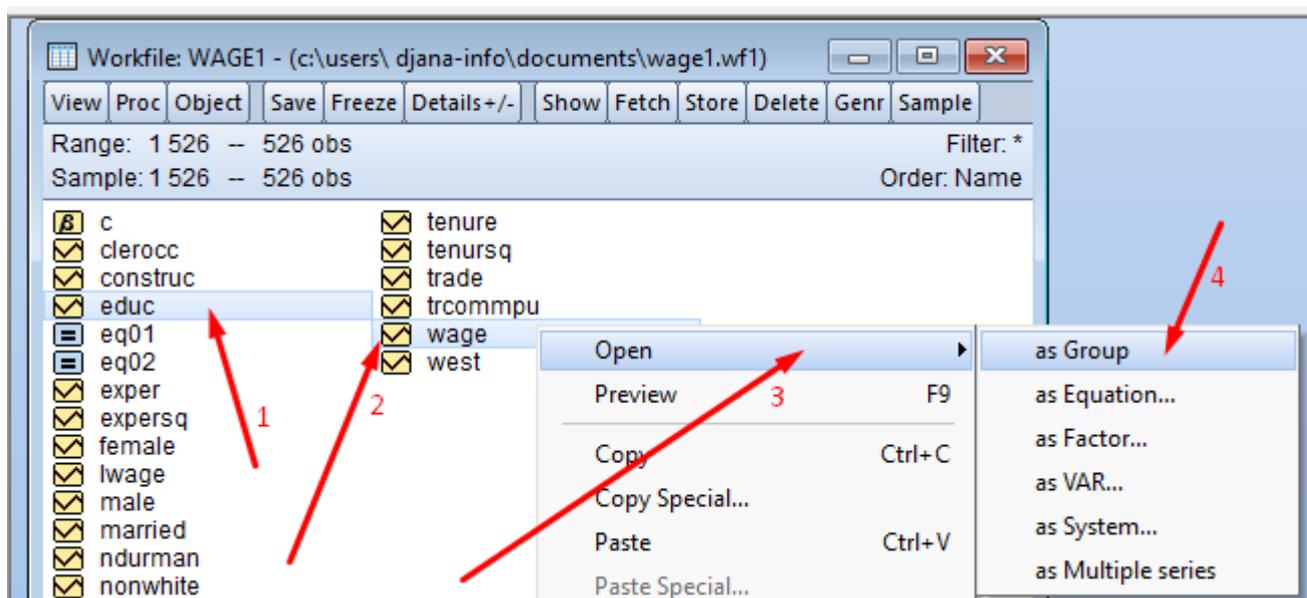
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| EDUC | 0.541359 | 0.053248 | 10.16675 | 0.0000 |
| C | -0.904852 | 0.684968 | -1.321013 | 0.1871 |

R-squared 0.164758 Mean dependent var 5.896103
Adjusted R-squared 0.163164 S.D. dependent var 3.693086
S.E. of regression 3.378390 Akaike info criterion 5.276470
Sum squared resid 5980.682 Schwarz criterion 5.292688
Log likelihood -1385.712 Hannan-Quinn criter. 5.282820
F-statistic 103.3627 Durbin-Watson stat 1.823686
Prob(F-statistic) 0.000000

4- save/name simple regression equation (S-regression)



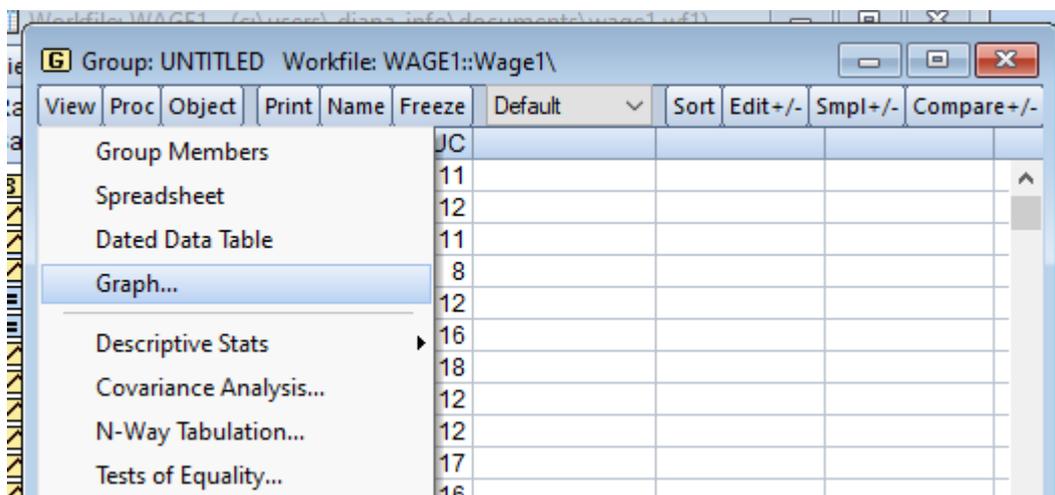
5- Open variables (educ, wage)



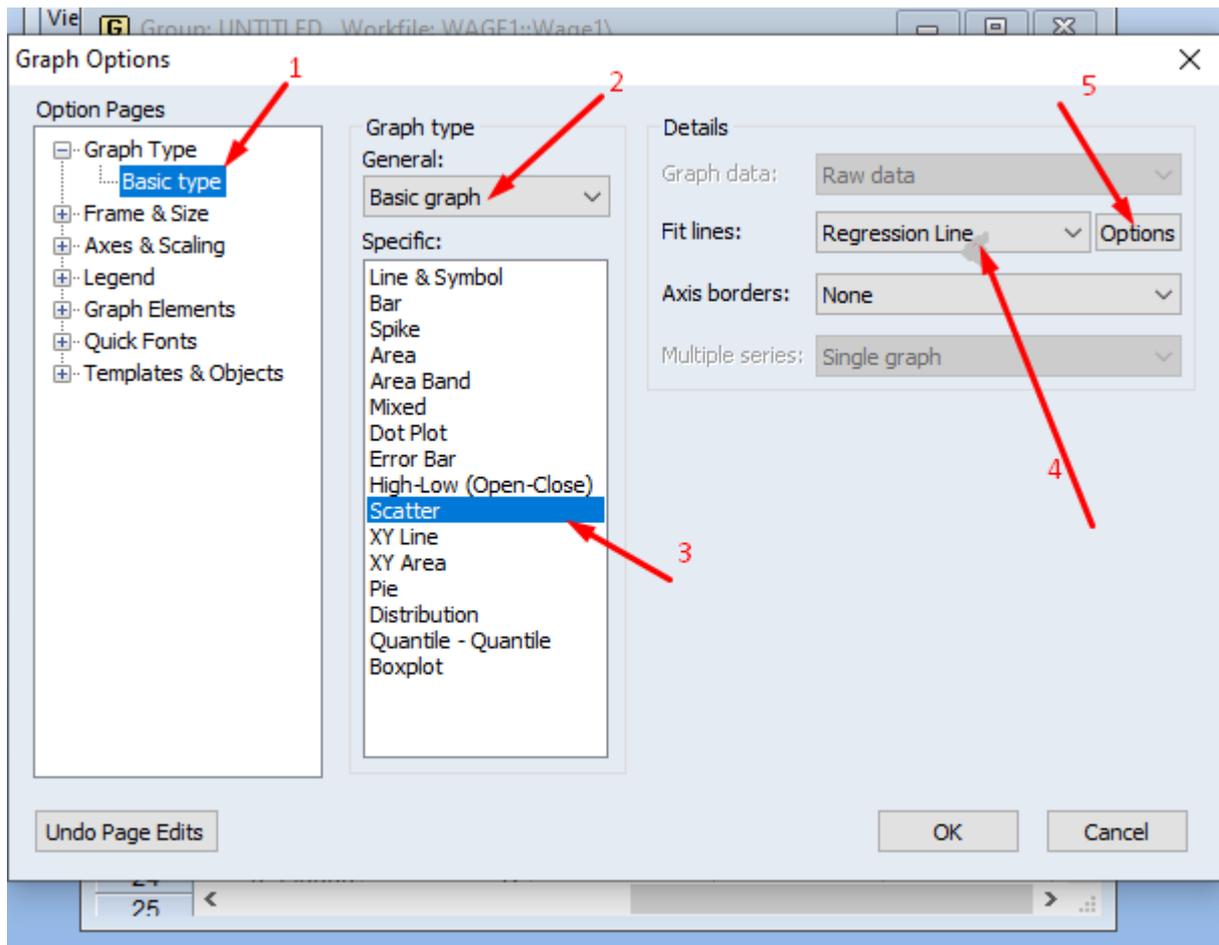
Group: UNTITLED Workfile: WAGE1::Wage1\

| View | Proc | Object | Print | Name | Freeze | Default | Sort | Edit+/- | Smpl+/- | Compare+/- |
|------|------|----------|-------|------|--------|---------|------|---------|---------|------------|
| | | WAGE | | EDUC | | | | | | |
| 1 | | 3.100000 | | 11 | | | | | | |
| 2 | | 3.240000 | | 12 | | | | | | |
| 3 | | 3.000000 | | 11 | | | | | | |
| 4 | | 6.000000 | | 8 | | | | | | |
| 5 | | 5.300000 | | 12 | | | | | | |
| 6 | | 8.750000 | | 16 | | | | | | |
| 7 | | 11.25000 | | 18 | | | | | | |
| 8 | | 5.000000 | | 12 | | | | | | |
| 9 | | 3.600000 | | 12 | | | | | | |
| 10 | | 18.18000 | | 17 | | | | | | |
| 11 | | 6.250000 | | 16 | | | | | | |
| 12 | | 8.130000 | | 13 | | | | | | |
| 13 | | 8.770000 | | 12 | | | | | | |
| 14 | | 5.500000 | | 12 | | | | | | |
| 15 | | 22.20000 | | 12 | | | | | | |
| 16 | | 17.33000 | | 16 | | | | | | |
| 17 | | 7.500000 | | 12 | | | | | | |
| 18 | | 10.63000 | | 13 | | | | | | |
| 19 | | 3.600000 | | 12 | | | | | | |
| 20 | | 4.500000 | | 12 | | | | | | |
| 21 | | 6.880000 | | 12 | | | | | | |
| 22 | | 8.480000 | | 12 | | | | | | |
| 23 | | 6.330000 | | 16 | | | | | | |
| 24 | | 0.530000 | | 12 | | | | | | |

6- clic on View→Graph



7- Select (1,2,3, 4) and clic on 5 (Options)



8-We get the next window: