

# Regression

Rita Alvarez and Rafael Schmuziger

November 11, 2016

$$\text{Turnout}_{it} = \beta_0 + \beta_1 \text{Youth Unemployment Rate}_{it} + \epsilon_{it}$$

```
Reg1 <- lm(Turnout ~ Unempl_rate_less25, data = Spain_data)
```

```
summary(Reg1)
```

```
##
## Call:
## lm(formula = Turnout ~ Unempl_rate_less25, data = Spain_data)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.16960 -0.03690  0.01063  0.04226  0.09288
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    0.7992339   0.0171272  46.665 < 2e-16 ***
## Unempl_rate_less25 -0.0022214   0.0004454  -4.988 3.92e-06 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.05698 on 74 degrees of freedom
## Multiple R-squared:  0.2516, Adjusted R-squared:  0.2415
## F-statistic: 24.88 on 1 and 74 DF,  p-value: 3.916e-06
```

% Table created by stargazer v.5.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu

% Date and time: do., nov. 27, 2016 - 15:13:30

Table 1:

<i>Dependent variable:</i>	
	Turnout
Unempl_rate_less25	-0.002*** (0.0004)
Constant	0.799*** (0.017)
Observations	76
R <sup>2</sup>	0.252
Adjusted R <sup>2</sup>	0.241
Residual Std. Error	0.057 (df = 74)
F Statistic	24.877*** (df = 1; 74)

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

```
Reg2 <- lm(Turnout ~ Unempl_rate_less25 + Region, data = Spain_data)
```

```
summary(Reg2)
```

```
##
## Call:
## lm(formula = Turnout ~ Unempl_rate_less25 + Region, data = Spain_data)
##
## Residuals:
```

	Min	1Q	Median	3Q	Max
	-0.070112	-0.008874	-0.000297	0.008067	0.057838

```
##
## Coefficients:
```

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	0.770601	0.013073	58.945	< 2e-16 ***
Unempl_rate_less25	-0.001099	0.000187	-5.879	2.39e-07 ***
RegionAragon	0.011345	0.014922	0.760	0.450292
RegionAsturias	-0.021044	0.014765	-1.425	0.159627
RegionBalears	-0.075798	0.014822	-5.114	3.98e-06 ***
RegionCanarias	-0.071002	0.014701	-4.830	1.10e-05 ***
RegionCantabria	0.025146	0.014866	1.692	0.096287 .
RegionCastilla_La_Mancha	0.051866	0.014745	3.518	0.000872 ***
RegionCastilla_y_Leon	0.031933	0.014800	2.158	0.035262 *
RegionCatalunya	-0.025340	0.014830	-1.709	0.093046 .
RegionCeuta	-0.115844	0.014845	-7.804	1.63e-10 ***
RegionComunitat_Valenciana	0.041221	0.014737	2.797	0.007055 **
RegionExtremadura	0.036837	0.014701	2.506	0.015154 *
RegionGalicia	-0.019814	0.014826	-1.336	0.186822
RegionLa_Rioja	0.040443	0.014875	2.719	0.008708 **
RegionMadrid	0.042142	0.014869	2.834	0.006377 **
RegionMelilla	-0.149735	0.014800	-10.117	2.99e-14 ***
RegionMurcia	0.030969	0.014760	2.098	0.040414 *
RegionNavarra	-0.008258	0.015049	-0.549	0.585357
RegionPais_Vasco	-0.038778	0.014889	-2.604	0.011763 *

```
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.02079 on 56 degrees of freedom
## Multiple R-squared:  0.9246, Adjusted R-squared:  0.8991
## F-statistic: 36.16 on 19 and 56 DF, p-value: < 2.2e-16
```