Clase3

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Quarto

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Ejemplo 2: Análisis de regresión

```
-- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
v dplyr     1.1.3     v readr     2.1.4
v forcats   1.0.0     v stringr   1.5.0
v ggplot2   3.4.3     v tibble    3.2.1
v lubridate 1.9.3     v tidyr     1.3.0
v purrr     1.0.2
-- Conflicts ------------------------------------------ tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag()    masks stats::lag()
i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to beco
```

```
Warning: package 'equatiomatic' was built under R version 4.3.3
```

```
Please cite as:

 Hlavac, Marek (2022). stargazer: Well-Formatted Regression and Summary Statistics Tables.
 R package version 5.2.3. https://CRAN.R-project.org/package=stargazer
```

```
[1] 75  7
```

```
   sav   inc size educ age black  cons
1   30  1920    4    2  40     1  1890
2  874 12403    4    9  33     0 11529
3  370  6396    2   17  31     0  6026
4 1200  7005    3    9  50     0  5805
5  275  6990    4   12  28     0  6715
6 1400  6500    4   13  33     0  5100
```

```
      sav              inc             size            educ
 Min.   :   6.0   Min.   : 1920   Min.   : 2.000   Min.   : 2.00
 1st Qu.: 631.5   1st Qu.: 6600   1st Qu.: 3.000   1st Qu.: 9.00
 Median :1105.0   Median : 8703   Median : 4.000   Median :12.00
 Mean   :1616.2   Mean   : 9252   Mean   : 4.333   Mean   :11.49
 3rd Qu.:2033.5   3rd Qu.:11100   3rd Qu.: 5.000   3rd Qu.:12.50
 Max.   :6120.0   Max.   :19362   Max.   :10.000   Max.   :20.00
      age            black             cons
 Min.   :27.00   Min.   :0.00000   Min.   : 1366
 1st Qu.:33.00   1st Qu.:0.00000   1st Qu.: 5664
 Median :38.00   Median :0.00000   Median : 7210
 Mean   :38.21   Mean   :0.06667   Mean   : 7636
 3rd Qu.:44.00   3rd Qu.:0.00000   3rd Qu.: 9438
 Max.   :54.00   Max.   :1.00000   Max.   :16772
```

```
Call:
lm(formula = sav ~ inc, data = saving)

Residuals:
    Min      1Q  Median      3Q     Max
-2667.8  -874.5  -302.7   431.1  4606.6

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept) 316.19835  462.06882   0.684  0.49595
inc           0.14052    0.04672   3.007  0.00361 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1413 on 73 degrees of freedom
Multiple R-squared:  0.1102,    Adjusted R-squared:  0.09805
F-statistic: 9.044 on 1 and 73 DF,  p-value: 0.003613
```

$$\text{sav} = \beta_0 + \beta_1(\text{inc}) + \epsilon \tag{1}$$

$$\hat{\text{sav}} = 316.2 + 0.14(\text{inc}) \tag{2}$$

$$\underset{(462.069)}{\hat{\text{sav}} = 316.198} + \underset{(0.047)}{0.141(\text{inc})} \tag{3}$$

Table 1: Regresión lineal simple

	Dependent variable:
	sav
inc	0.141^{***}
	(0.047)
Constant	316.198
	(462.069)
Observations	75
R^2	0.110
Adjusted R^2	0.098
Residual Std. Error	1,413.472 (df = 73)
F Statistic	9.044^{***} (df = 1; 73)
Note:	*p<0.1; **p<0.05; ***p<0.01