

# Unemployment evolution in Spain 2005-2014

## User Manual

### Introduction

Unemployment is the most severe problem of Spanish economy as a result of the global financial crisis of 2008. In rough terms, it climbed from 2 millions by the end of 2007 to 5 millions in its peak by the beginning of 2013. These figures are published monthly by the Spanish Employment Public Service (<http://www.sepe.es/>).

Political debate emerges when the figure is made available, and focus is put in the absolute rise or fall compared to the previous month, or more occasionally to the last year. But unemployment is a mid and long term variable and it is uncommon finding this kind of analysis in the press.

This application may help to have a long term picture in mind.

### Data

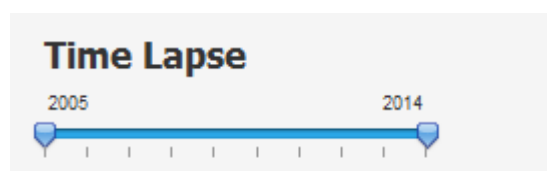
The original data set was downloaded from the SEPE site. It contains the whole series from January 2005 to September 2014. [http://www.sepe.es/contenidos/que\\_es\\_el\\_sepe/estadisticas/datos\\_avance/paro/index.html](http://www.sepe.es/contenidos/que_es_el_sepe/estadisticas/datos_avance/paro/index.html)

As data are filled by columns, we have applied a preprocessing to transform it in a suitable source for our analysis. The resulting CSV file has 468 rows, each one containing five columns:

- YEAR: integer, range 2005-2014
- MONTH: integer, range 1-12
- UNEMPLOYED: integer, figure of unemployed as measured by the SEPE
- GENDER: character, values "M" (Male), "F" (Female).
- AGEGROUP: character, values "LESS25" (age under 25 years), "EQMORE25" (age  $\geq$  25).

### Application

The application is available at . User may create 4 kinds of graphs, using the input options on the left side bar.



With this slider you select the initial and final years for the analysis. It applies to any of the four possible graphs. It is reactive, that means that changing its value graphs are displayed automatically. You may choose just one year.

## Time evolution by Gender

**Evolution by Gender**

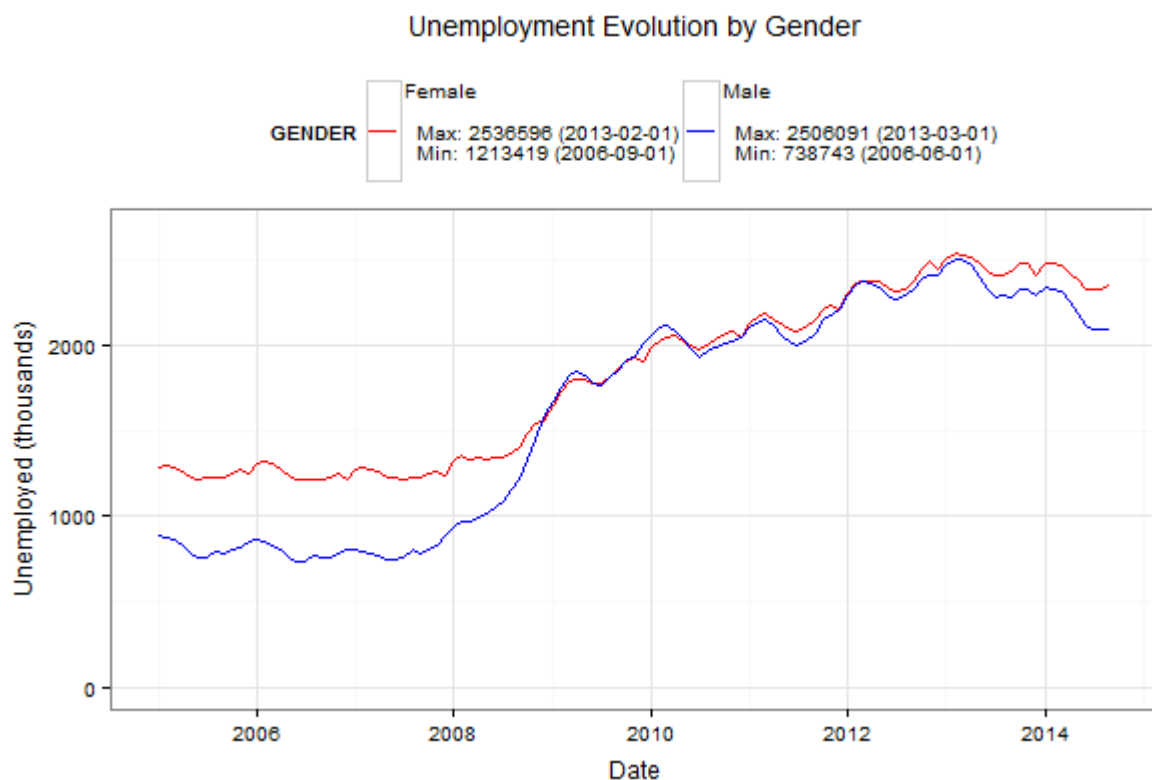
☒ Graph

☒ Male

☒ Female

☐ Total

This graph shows the absolute number of unemployed by month. If "Graph" is unchecked it won't be displayed. You may choose any combination of the evolution of Male, Female or Total time series.



The legend includes the maximum and minimum values for each chosen series.

## Time evolution by Age Group

**Evolution by Age**

☒ Graph

☒ Young

☐ Adult

☒ Total

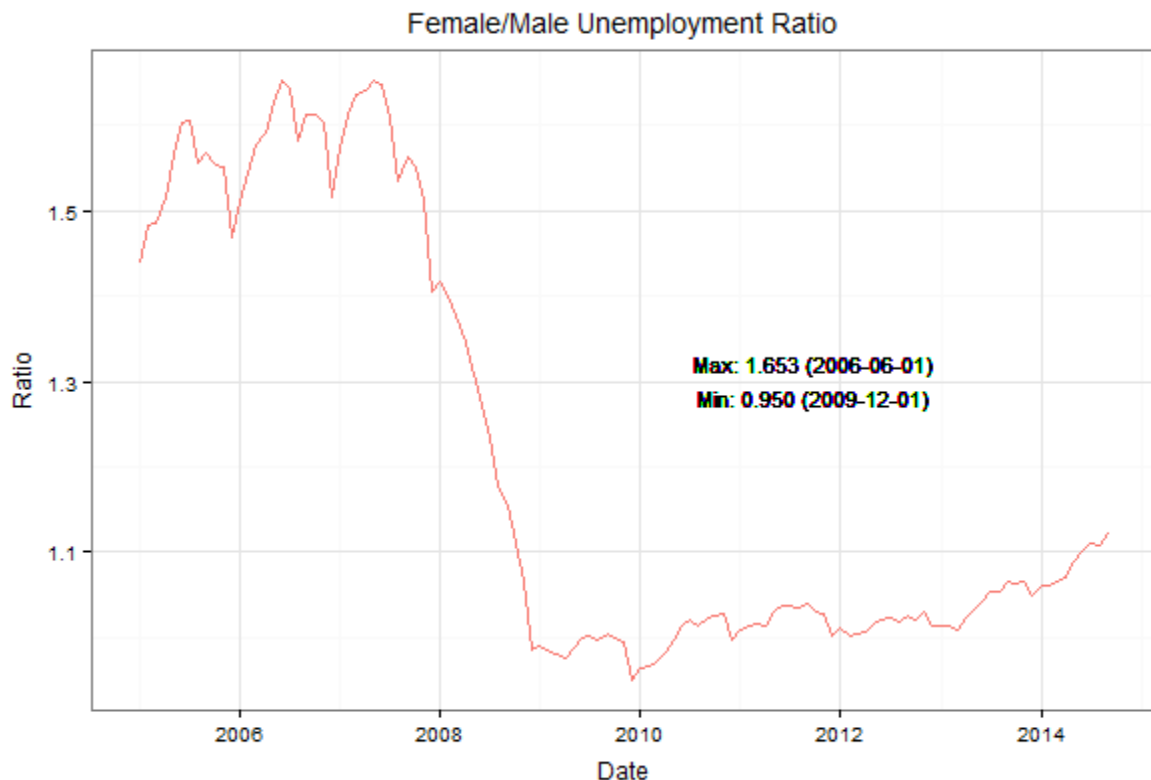
Equivalent to the previous one, but this time you may choose by Group Age, "Young" (less than 25 years), "Adult" ( $\geq 25$  years) or "Total". Gender is not taken into account.

## Female/Male ratio evolution

### Female/Male ratio

☒ Graph

Due to structural reasons, female unemployment has been higher in Spain. Before the 2008 crisis, ratio was about 1.6. Crisis reduced the ratio, but late signs of recuperation show that the gap is growing again. Despite the undesirable gender bias, this figure seems to be a predictor of the turning point and that is what Female/Male Ratio graph shows.



## Monthly speed

### Monthly Speed

☒ Graph

This magnitude measures the percentage of monthly rise or fall of total unemployment. It is the derivative of time evolution. When positive it is displayed as a red bar, when negative in colour green. For instance, by a quick inspection you may find how severe was employment destruction in the period 2008-2010.

