

Suicides in Italy - A comparative analysis among macro regions

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After an accurate process of data cleaning, we came up with the following dataset:

macro_area	year	avg_precipitations	avg_temperature	gdp_pc	gini_index	std_suicides_rate
centre	2006	659	13.63	28100	0.2800	6.30
centre	2007	588	13.83	28900	0.2670	6.30
centre	2008	931	13.69	28700	0.2730	6.50
centre	2009	876	13.51	28000	0.2670	6.60
north	2006	640	10.16	30550	0.2655	7.30
north	2007	644	10.59	31600	0.2600	7.30
north	2008	975	10.30	31800	0.2625	7.50
north	2009	880	10.28	30150	0.2655	7.65
south	2006	658	16.01	17050	0.3010	5.55
south	2007	637	16.19	17600	0.2910	5.70
south	2008	642	16.27	17700	0.2960	5.90
south	2009	827	16.18	17200	0.2960	5.80

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	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	14.63	3.39	4.32	0.00
gdp_pc	-0.00	0.00	-1.43	0.20
avg_precipitations	0.00	0.00	2.29	0.06
avg_temperature	-0.29	0.04	-7.96	0.00
gini_index	-13.53	10.17	-1.33	0.23

(PIETRO)

Sources

Most of the data we needed to estimate our model was available on the ISTAT (Italian National Agency for Statistics) website or in related agencies. The main advantage of using these sources is that data are clear, well structured and easy to use, since they can be downloaded as excel or CSV files, which made it very simple to import the datasets on R.

Firstly, we started file TidyData_meteo.csv, which we had previously obtained from CRA-CMA (Department for meteorology applied to agriculture, ISTAT). Data were already subdivided by macroregions, namely

North, Centre and South Italy. We gathered data regarding annual average temperatures, measured in Celsius degrees, and average annual precipitations, measured in millimeters for all years between 2005 and 2009.

We then imported the Gini Index data we downloaded from the Istat website in the form of a CSV file. Again, data for the three macroregions we are interested in were available, as can be seen in the table below. As expected, Gini coefficient index is slightly higher in Southern Regions compared to the Centre and the North.