

THE ROLE OF EDUCATION IN DETERMINING THE ATTITUDES TOWARDS CRIME  
IN EUROPE

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# **The Role of Education in Determining the Attitudes towards Crime in Europe**

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## **Abstract**

Using data from the European Social Survey, we investigate the relationship between education and attitudes towards offences and crime. Results suggest that years spent in education with regard to the European context are positively associated with more permissive attitudes towards criminal behaviour.

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## **I. Introduction**

Crime is a negative externality with enormous social costs for both victims, who suffer most of the material and psychological costs of the crime, and the rest of the society, in terms of public expenditure for public order and safety. As a consequence crime reduction has always been one of the most important and urgent tasks of any public policy agenda.

Combating crime through prosecution and repression is costly for the society, as well as the management of jails and the care of prisoners, so that other possible pre-emptive measures are very welcome to reduce the crime rate. On this horizon there is a strong consensus that the crime rate is negatively affected by the education level on the inside of the society (see for example among most recent studies, Buonanno and Leonida, 2010). Several studies support this view proving that, on the one hand, high earning rates (usually supported by high education degrees) negatively affect crime activities (Freeman, 1996; Gould, et al., 2000; Machin and Meghir, 2000; Viscusi, 1986); on the other hand, there is evidence that education makes people less reluctant to wait for future earnings and future consumptions (Becker and Mulligan, 1994).

It is also common persuasion that education should also affect the psychological attitude in respect to crime by supporting the social stigma against criminal behaviour (Arrow, 1997).

In a recent paper, Groot and Maassen van den Brink (2010) empirically confirm the negative correlation between crime and education but surprisingly find that high educated people disapprove less of criminal behaviour in respect to low educated people.

To do so, they have collected information about people attitude toward criminal behaviour and social norms in the Netherlands by a questionnaire, where people were asked to anonymously reveal whether they have committed some specific crimes (going from fare dodging in public transport to tax fraud to vandalism, threat, assault and injury). They conclude that low educated people are more likely to commit crime, but petty crimes occur with higher frequency among high educated people.

In order to answer the question whether education affects people attitude toward crime, Groot and Maassen van den Brink explored a set of items where people were asked to approve or disapprove some criminal behaviours, going again from minor crimes, like riding in a bus, to major criminal offences, such as evading tax or threatening someone. The results show that higher educated people disapprove crimes less than lower educated people. Given the surprising result deriving from the inverse relationship between attitudes toward criminal behaviour and time spent in education, we aim at testing the hypothesis emerging in Groot and Maassen van den Brink (2010) in a comparative context taking in consideration a large set of European countries.

In order to test the hypothesis of a negative correlation between attitudes towards criminal behaviour and years of education we use data from the European Social Survey, investigating items that are similar to those used by Groot and Maassen van den Brink (2010) on attitudes toward crime and implemented in many European countries. Dealing with an international survey instead of one limited to the Netherlands allows us to control for possible differences in culture and traditions that may arise among different countries; finally. This procedure improves the robustness of the results.

The article is organized as follows. Section II presents the data and the model used in the analysis; section III discusses the empirical results while section IV concludes.

## **II. Data and Methodology**

In this paper we use cross sectional data from the fifth round of the European Social Survey (ESS from now onward) that was carried out in 2010.

The ESS is a biennial multi-country survey funded jointly by the European Commission, the European Science Foundation and the national funding bodies from each participating country. For the round we take into consideration in this paper participant countries are Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Netherlands, Norway, Poland, Portugal, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK and Ukraine. The sample size in the ESS varies between 1,083 and 3,031 observations according to the country considered. Given all European countries, the full sample amounts to 50,668 observations.

The data includes a core module which has been kept constant from round to round, and rotating modules focusing on specific topics. The core module provides information on socio-economic features of the respondents, while the rotating modules of the fifth round provide information about the attitudes towards criminal behaviour.

Considering the paper from Groot and Maassen van den Brink (2010) as the main reference in choosing similar items from ESS that explore attitudes towards offences, we selected two items to investigate.

The wording of these items is:

- All laws should be strictly obeyed;
- Doing the right thing sometimes means breaking the law.

Respondents are invited to give an answer for every item ranked from 1 to 5,

according as they are disagree or agree for each statement. As attitudes are defined as *questions that ask to what extent respondents approve or disapprove of certain behaviour*, we could consider an agreement to the first statement as an expression of negative attitudes towards offences. On the contrary, the second item is reverse worded: an high score for *Doing the right thing sometimes means breaking the law* means that an individual is more permissive with respect to criminal behaviour.

The aim of the model implemented for the empirical analysis is to explore the impact of education on the probability of observing an agreement (or disagreement) towards the items listed above. In order to simplify the analysis and to allow an immediate interpretation of the coefficients, we decide to recode the responses to the items investigating attitudes towards crime in dummy variables. The results of descriptive statistics are listed below:

**Table 1. Descriptive Statistics for Attitudes toward Criminal Behaviour.**

	<i>All laws should be strictly obeyed</i>	<i>Doing the right thing sometimes means breaking the law</i>
Agree	38,600 (77.2%)	24,284 (50.9%)
Disagree	11,428 (22.8%)	23,451 (49.1%)

Hence, we implement for each of the item listed above two separate models, in which the outcome variable takes value one in case of agreement to the statement and zero otherwise.

Consequently, we assume that the logit for item responses is function of the number of years of education and of a vector of control variables:

$$\text{logit}(Attitudes_{it}) = \beta_0 + \beta_1 \cdot YearsEdu_{it} + X'_{it} \beta_2 + \varepsilon_{it}, \quad (1)$$

$\text{logit}(Attitudes_{it})$  is the logarithm of the odds of observing agreement to the statements for the individual  $i$  at time  $t$ .  $YearsEdu_{it}$  is the number of the years of education of the respondent whereas  $X_{it}$  includes a set of control variables as described below. Finally, we adopt a standard *i.i.d.* logistic distribution for the error component  $\varepsilon_{it}$ .

Following Groot and Maassen van den Brink (2010), the variables used in the model include:

*a. Years of education* of the respondent. It is the number of year officially spent in education by the individual  $i$  at time  $t$ .

*b. Father's education.* It refers to the level of education of the respondent's father. Because of the lack of the information about the exact number of years as in the case of the respondents, we use a set of categories for modelling the educational level; in this framework, we deal with the great heterogeneity of educational system across Europe. Hence, we consider International Standard Classification of Education (*ISCED*) as the base point for the classification of our variable into four categories. Reference category in our model is given by *ISCED* 0 – 1, covering ages between 3 and 11 and indicating pre-primary and primary education; *ISCED* 2 indicates lower secondary education; *ISCED* 3 – 4 means that respondents' father completed upper secondary education, while *ISCED* 5 – 6 – 7 are associated to higher education, such as bachelor, master or doctoral degrees;

*c. Age* of respondents (that is used as a discrete variables such as in Groot and Maassen van den Brink, 2010);

*d. Gender* of respondents (males vs females that is considered as reference category);

*e. Employment Status* of the respondent categorized in five categories (Employed, Student, Retired and Other Occupation. Reference category of the model is Unemployed);

*f. Children* used as a dummy variable, indicating whether each respondent or is cohabitant partner has or less a child;

*g. Born in Country* that is a dummy variable, taking value one if the respondent was born in the same country where he/she is actually resident;

*h. Urbanization level house of first residence* is a dummy variable taking value one if house of first residence is settled in a large town or in a district centre, and zero if it is settled in a small town or in a village.

*i. Religious* recodes in a dummy an item included in ESS asking “How religious are you?”. The answers to the item are ranked from 1 (not religious) to 10 (religious). The dummy introduced in the model takes value 1 if the response level is greater than 6 and 0 otherwise.

Finally we have controlled for country level heterogeneity, introducing country dummies whose coefficients are, as usual, omitted in regression results.

### **III. Empirical results**

Our results are summarized in Table 1, that displays both estimates for the first and second items illustrated in the previous section. Results are consistent with the hypothesis derived from Groot and Maassen van den Brink (2010):



**Table 2. Empirical results.**

	<i>All laws should be strictly obeyed</i> (1= agree; 0= disagree)	<i>Doing the right thing sometimes means breaking the law</i> (1=agree; 0=disagree)
	Coef. (S.E.)	Coef. (S.E.)
<i>Years in education</i>	-.026*** (.010)	.026*** (.008)
<i>Education of the father ISCED 2</i>	.005 (.100)	-.037 (.077)
<i>Education of the father ISCED 3- 4</i>	.008 (.105)	.082 (.083)
<i>Education of the father ISCED ≥ 5</i>	-.182* (.107)	.105 (.092)
<i>Age</i>	.012*** (.003)	-.006** (.003)
<i>Gender</i>	-.147** (.071)	.098* (.058)
<i>Employment Status (Employed)</i>	.074 (.152)	-.091 (.116)
<i>Employment Status (Student)</i>	.284 (.192)	-.141 (.158)
<i>Employment Status (Retired)</i>	.151 (.175)	-.134 (.131)
<i>Employment Status (Other)</i>	.111 (.173)	-.167 (.135)
<i>Children</i>	.057 (.095)	.018 (.072)
<i>Born in country</i>	-.133 (.121)	.153 (.103)
<i>Urbanization level house of first residence</i>	-.140* (.075)	.127** (.061)
<i>Religious</i>	.148** (.070)	-.057 (.056)
<i>Intercept</i>	1.536*** (.302)	-.347 (.244)

Notes: Standard Errors in parentheses. Country level dummies are included.

\*\*\*, \*\* and \* stands for significance 1, 5 and 10% level, respectively.

Regression results for the first item show evidence of a significant correlation between years in education and being in disagreement to the statement *All laws should be strictly obeyed*. Results are coherent if we consider the association between years in education and the second item of interest: *Doing the right thing sometimes means breaking the law*. The coefficient is positive, meaning that individuals with higher education levels are more likely to be agree to the idea that breaking the law is not always to stigmatize.

The implication of the model is that time spent in education contributes to enforce more permissive attitudes towards offences. Also other corollary results are in line with those obtained by Groot and Maassen van den Brink (2010): with respect to the role of father's education, we see that father's higher education is associated with positive attitudes toward criminal behaviour in the case of the first item. The sign of the coefficient is concordant with that of years education also for the second item even if not significant.

Coherent results with literature concern also the correlation between the age of respondents and the attitudes toward criminal behaviour: people belonging to older cohorts seems to have stricter moral values towards criminal behaviour. Similarly, males disapprove criminal behaviour less than women. Also the effect of religiosity is in accordance with the literature: religious individuals are more likely to disapprove criminal behaviour.

A discordant result with Groot and Maassen van den Brink (2010) attains the impact of urbanization level house of first residence that is significant, showing a negative correlation between the population density of the residential area and disapproval of criminal behaviour.

#### **IV. Discussion and Conclusion**

An empirical framework has been proposed to test the effect of education on attitudes towards criminal behaviour. Following Groot and Maassen van den Brink (2010) for the Netherlands and Buonanno and Leonida (2006) that addressed the Italian context, higher levels of education are connected with minor crime rates. On the contrary, Groot and Maassen van den Brink (2010) underline an inverse relationship between disapproval of offences and level of education. Our study extends the result from Groot and Maassen van den Brink (2010), that was limited to the Netherlands, to a European cross country comparative survey, confirming results literature results.

Several reasons can be proposed to justify negative relationship between years in education and permissive attitudes towards offences; in first instance higher educated people are less likely to be victim of violent crimes and this contributes to be more permissive with a problem that is considered so far; secondly, higher educated people are in general those with higher income; some crimes like tax evasion and fraud are widespread among richer classes. This may explain more permissive attitudes in social classes that are more likely to be involved in this kind of crimes.

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