# Trust and Confidence in Institutions: Religious Beliefs and Educational Attainment

Daniel Miles, (PhD in economics)
Universidad de Vigo, Spain
Maximo Rossi, (PhD in economics)
Universidad de la Republica, Uruguay

### **Abstract**

The main objective of the paper is the analysis of intergenerational or cultural transmission of religious values during adolescence in order to explain interpersonal trust and confidence in institutions in adulthood. Trust and confidence in institutions outcomes are examined using the International Social Survey Program (ISSP) 2008 Religion III survey.

Overall, the results are in line with previous literature: religious intensity and educational attainment are significantly and positively correlated with trust and confidence in institutions.

When instrumental variables are used, the results suggest that religious engagement does not significantly explain interpersonal trust though it is significantly related to confidence in institutions.

**Keywords:** Religion, education, trust, institutions

#### Introduction

The strong and positive partial correlations between educational attainment and trust or confidence in institutions documented in the literature have supported the view that education is effective at promoting "good" attitudes (La Porta et al. 1997; Putman, 2000). However, several authors have argued that reported correlations may overestimate the true trust returns to education because schooling and civic outcomes are simultaneously influenced by a variety of unobservable traits specific to the environments in which individuals are reared. The confounding effects of these unobservables may bias the estimator of the "trust" returns to education.

For example, there is evidence that the intergenerational or cultural transmission of religious values or civic attitudes during adolescence is relevant to explaining both educational attainment and adult civic behavior. Verba et al. (1995) find that churchgoers are more likely to be engaged in

political activities and to be more confident of institutions. Moreover, it has been observed that religious engagement is fundamentally culturally transmitted (Gutmann, 1999). Notice that, on the one hand, parent's religious attitudes may shape their children's view of the world and also their religious behavior later in life; on the other hand, children of religiously engaged parents are expected to do better in school and to achieve higher levels of educational certification than are children reared in other environments (Rosenstone and Hansen, 1993).

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In this empirical paper we are able to control for the transmission of religious attitudes. We have access to a cross country ISSP survey administered to a representative sample of 40 countries, with a special focus on religious issues. In 2008, the ISSP survey introduced a special questionnaire related to transmission of religious attitudes: information related to the religiosity during the respondent's childhood. We are not only able to observe whether the interviewee was raised religiously or not, as in Guiso et al. (2003), but can also observe the intensity of beliefs in his family during childhood, e.g. the frequency of attending religious services with parents and the interviewee; the religious affiliation of the child.

We use this information to shed some light on the separate influences that educational attainment and transmission of religiosity each have on both trust in people and confidence on institutions. As a general result, we find

trust in people and confidence on institutions. As a general result, we find that religiosity has a positive and significant direct impact on both of these outcomes.

From the viewpoint of political science, disentangling the influence of these two factors on trust or confidence has grown more important in recent years. Nearly everyone agrees that both the stability of democratic institutions and the effectiveness of public policies depend to a great extent on the quality and attitudes of citizens; however, there is considerable disagreement about which is most responsible for the transmission of civic values: schools or families (Kimlycka and Norman, 1994; Gutmann, 1999). The dominant trend since about the 1950s has been to embrace the view that government intervention in education does not extend to the teaching of citizenship or moral-religious education---roles that are considered to be within the family's purview. Following this trend, the education systems in most developed countries have gradually moved from a vision of education for civic virtue to a vision of education for responding to market needs, leaving the inculcation of civic or religious values to the family (Labaree, 2010). Thus, the postwar public educational policies of most developed countries were not designed to encourage trust, confidence or an active involvement of citizens in civil society or in political decision making (Roche, 1992). (Roche, 1992).

This paper contributes in two ways to the literature that analyze trust or confidence in institutions. First, it adds to the limited evidence in the literature concerning a separate effect---on adult behavior ---of educational attainment and cultural transmission. Second, this paper estimates a cultural transmission model confirming that the transmission of civic attitudes is relevant to the promotion of trust and confident in institutions in adulthood.

## Data and methodology

Trust and confidence in institutions outcomes are examined using the International Social Survey Program (ISSP) 2008 Religion III survey. The sample includes near 60,000 observations from 40 countries but we consider a subsample includes only respondents between 25 to 58 years of age, amounting to 34,793 observations.

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We understand that individuals older than 25 years of age have mostly finished their formal education. Furthermore, given that for some survey questions the responses are based on recalling what happened in adolescence, it should be noted that selecting a younger cohort could reduce the possibility and extent of recall bias.

The main dependent variables are specific questions on trusting other people and confidence on institutions. Specifically, the question defining trust is given by: "Generally speaking, would you say that people can be trusted or on the contrary, that carefulness should be exercised when dealing with people?" The answer takes four possible values: 0: You almost always can't be too careful, to 3: People can almost always be trusted. The mean value of trust is 1.28 with a standard deviation of 0.83 value of trust is 1.28 with a standard deviation of 0.83.

The confidence dependent variable is obtained from combining the questions: "Which degree of confidence does the (relevant institution) inspire in you?" where the relevant institutions are the parliament, the church, courts or education. The values of the dependent variable for confidence are obtained by adding up the values of the answers for the different relevant institutions, such that a higher value reflects a higher confidence.

In order to define a measure of educational attainment, the ISSP reports the years of full-time schooling or the highest school level achieved. Here we prefer to use this last which is used to define a dummy variable on whether or not the respondent has achieved post-compulsory schooling. The main reason behind this approach is that we believe that there are important differences in retention rates between countries which could affect the interpretation of the returns to education parameter. Nearly 20% of the individuals in the sample have post-compulsory schooling studies and there is a positive and significant unconditional correlation between post compulsory schooling and trust or confidence (recovered from the OLS parameter estimate with country fixed effects). Furthermore, we have

selected a subsample of individuals older than 25 years of age, expecting that they have already finished the schooling process.

The 2008 ISSP special issue was particularly concerned with characterizing the religious environment where the respondent was raised as well as her current religious engagement. In relation to the first issue, the survey asked questions such as: What religion, if any, were you raised in?; What was your mother's (father's) religious preference when you were a child?; When you were a child, how often did your mother (father; yourself when you were around 11 or 12 years of age) attend religious services?; About how often did you pray?

The survey asks questions related to the respondents actual religious engagement, such as:

How often do you take part in the activities or organizations of a

- How often do you take part in the activities or organizations of a church or place of worship other than attending services?
  Would you describe yourself as extremely religious, very
- religious...?

Furthermore, there are important questions about the transition between states of belief or how the respondent currently sees him/herself

with regard to religious beliefs.

Overall, around four of every five respondents recall being raised in a religious family, although only 2 of every 5 were actively engaged in religion during childhood and basically the same percentage of respondents

religion during childhood and basically the same percentage of respondents are currently engaged in religion.

Finally, the survey ask questions that can be used to capture the respondent's attitudes or values: A husband's job is to earn money; A wife's job is to look after the home and family; Do you think it is wrong or not wrong if a man and a woman have sexual relations before marriage?; Should all religious groups have equal rights?; Must we respect all religions?

Here we follow three different approaches about religious engagement: first, we measure religious engagement by its intensity, obtained by summing up the numerical answers given to each question related to the respondents current religious activities (e.g. frequency she attends to religious services, prays, or helps or participates in church activities) in such a way that a higher number corresponds to a more intense engagement (similar, for example, to Alessina and Giuliano, 2011). Second, we consider the respondent's self-perception of her religious engagement, i.e. a dummy variable that takes a value 1 if the respondent perceives herself as actively engaged in religion. In the third place, we use the respondent's transitions regarding her belief, i.e. whether she was always a believer or whether he/she changed from not being a believer to belief in God and regular religious practice. regular religious practice.

To study trust, confidence, returns to education and religion we follow two approaches. First, we use a standard OLS regression approach as is common in the literature. For this, we introduce a set of comprehensive variables in order to potentially capture those omitted variables that could be confounding the relationship between education, religion and trust. Notice, however, that these results suggest partial correlation effects —association

however, that these results suggest partial correlation effects –association between variables- and cannot be interpreted as causal.

As a second approach we follow an instrumental variable procedure. We assume that actual religious engagement could be related with trust or confidence in institutions due to unobservable effects. As instruments, we use the religious environment that the respondent was born in. In particular, we use the respondent's religious engagement as well as the family religious engagement during the respondent's adolescence. In this sense, we are arguing that the individual's actual religious commitment is, in part, a result of her engagement when she was an adolescent, i.e., those raised in a religious family or taken by their parents to attend to religious services during childhood are more prone to be engaged in religion in adulthood than otherwise similar children who were raised in a different religious environment. Moreover, we assume that the decision to attend religious services during childhood is not the decision of the child but is the parent's decision, i.e. it is not correlated with an individual unobserved characteristic, such as ability. such as ability.

For each model, the educational attainment impact is measured through a dummy variable that captures post-compulsory education. To isolate the effect of religious engagement and educational attainment from other possible confounding effects, we control for variables which represent basic demographic information on age, gender, marital status, and position on the income ladder; variables to control for the opportunity cost of time include income, full-time work, working full-time and being a civil servant; we additionally introduce living area dummies as well as country fixed-effects. Finally, we include some variables that capture values, such as ideology, whether the respondent considers that the traditional breadwinner in the family is the appropriate one; whether having sex with individuals of the same sex or before marriage is correct or tolerance. Standard errors are clustered by countries. clustered by countries.

All regressions include a country fixed effect; sociodemographic variables: sex, age, age squared, fulltime worker, married, lived always in the same place, income, social scale position (poor or rich), rural or urban dummies; values: wife should stay at home; ideology (left or right wing); religious tolerance; conservative views with respect to sexual relations.

Descriptions of the variables used are included in Table 1.

	Table 1: Description of independe	ent variables	
Variable	Description	Mean	Std. Dev.
trust	1 if people can almost always be trusted; 4 if people can not be trusted most of the time	1.280	0.837
confidencei	confidence in institutions index	7.531	3.116
rintens_h	index based on the frequency the individual prays and attends religious services as an adult	10.684	6.778
rintens_n	index based on the frequency the individual prays and attends religious services as a child	4.925	2.734
rintens_m	index based on the frequency the individual's mother prays and attends religious services	4.979	2.685
howyouseeyourself	1 if the person sees him/herself as very religious	0.149	0.357
postc	1 if respondent has attended tertiary education (completed or not)	0.205	0.404
Belief_no_no	1 if respondent does not believe in God neither now nor before	0.143	0.350
Belief_no_yes	1 if respondent does not believe in God but used to	0.081	0.273
Belief_yes_no	1 if respondent believes in God but did not use to	0.071	0.257
Belief_yes_yes	1 if respondent believes in God and used to believe before as well	0.554	0.497
age	age of the respondent	41.466	9.041
ageq	age squared	1801	753
gender	1 if female	1.556	0.497
married	1 if married	0.707	0.455
fulltime	1 if respondent is employed full-time	0.605	0.489
sameplace	1 if respondent has lived in the same place	0.281	0.450
dingresom	Relative income	1.000	0.673
Selpaisti	International Transparency corruption	0.205	0.404

Lower	1 if respondent self-places himself at the bottom of the social scale	0.064	0.245
Upper	1 if respondent self-places himself at the top of the social scale	0.236	0.425
Нарру	0 if respondent is very happy, 3 if respondent is not at all happy	2.056	0.716
womenopp	1 if respondent agrees that sexual relations before marriage are wrong	1.466	1.332
Нарру	1 if respondent is not happy, 4 if very happy	2.056	0.716
conservative_view_sex	index on conservative views about marriage, sexual relations, and abortion	1.725	1.533
religious_respect	1 if respondent thinks is wrong to have sexual relations with other than his/her spouse 1 if respondent would definitely not accept marrying someone	3.028	1.000
religious_marry	from other religion, 4 if definitely accept	2.079	0.934
Pizqda	1 if identifying with left wing ideology	0.046	0.210
Pdcha	1 if identifying with right wing ideology	0.027	0.161

## Religion, trust and confidence in institutions

In Table 2 we present the OLS results of regressing trust or confidence in institutions on different measures of religious engagement, as discussed in the previous section. In column I we use intensity of religious practice, in column II the dummy variable that captures the respondent's perception about his religiosity and in column III the belief transitions.

Table 2: OLS regression of trust and confidence in institutions on religious engagement and educational attainment

	Trust			Confidence in institutions		
	1	II	III	1	II	III
rintens_h	0.006			0.031		
	(0.001)			(0.005)		
howyouseeyorself		0.104			0.326	
		(0.022)			(0.097)	
Belief_yes_yes			0.007			0.315
			(0.017)			(0.070)
Belief_yes_no			0.006			0.330
			(0.022)			(0.079)
Belief_no_yes			0.076			0.189
			(0.020)			(0.061)
postc	0.157	0.160	0.163	0.408	0.425	0.430
	(0.021)	(0.021)	(0.021)	(0.074)	(0.078)	(0.077)
Nº observations	24,631	24,631	24,631	23,396	23,396	23,396
R2	0.205	0.202	0.201	0.184	0.182	0.182

Overall, the results are in line with previous literature: religious intensity and educational attainment are significantly and positively correlated with trust and confidence in institutions. In the above regression we considered that religious engagement and educational attainment additively and separately influence trust or confidence in institutions. However, it is unlikely that the economic theory resulting from this estimation would suggest a linearly additive impact of these variables on trust or confidence. In Table 3 we follow the literature in considering OLS regressions but instead of considering only linearity we introduce an interaction effect between educational attainment and religious engagement.

Table 3: OLS regression of trust and confidence in institutions on religious engagement and educational attainment: interaction effects

	Trust		Confidence in institutions			
	I	II	Ш	I	II	Ш
rintens_h	0.007			0.040		
	(0.001)			(0.006)		
Howyouseeyorself		0.104			0.428	
		(0.021)			(0.122)	
Belief_yes_yes			0.007			0.442
			(0.020)			(0.069)
Belief_yes_no			-0.003			0.416
			(0.028)			(0.089)
Belief_no_yes			0.095			0.229
			(0.023)			(0.066)
Postc	0.190	0.161	0.166	0.828	0.499	0.729
	(0.031)	(0.022)	(0.028)	(0.090)	(0.078)	(0.106)
rintens_h*postc	-0.003			-0.041		
	(0.003)			(0.007)		
now*postc		-0.002			-0.557	
		(0.037)			(0.182)	
Belief_yes_yes*postc			0.003			-0.531
			(0.032)			(0.119)
Belief_yes_no*postc			0.038			-0.326
			(0.049)			(0.156)
Belief_no_yes*postc			-0.071			-0.166
			(0.039)			(0.150)

The results in Table 3 suggest that there is a nonlinear effect of educational attainment and religiosity on trust or confidence in institutions. In particular, the interaction term between these two variables is negative and significant in all models of confidence in institution. More precisely, it seems that there exists a negative association between confidence in institutions and those highly educated religious individuals. With regard to trust, the association is not so clear because the interaction coefficient, though negative, is not significant.

It could be argued that religious engagement is an endogenous variable in the trust or confidence equation. Current religious engagement and trust or confidence in institutions can be simultaneously influenced by a variety of unobservable traits specific to the environments in which individuals interact. In particular, there is evidence that the intergenerational transmission of religious values during adolescence could shape adult behavior. Therefore, in what follows, we use an instrumental variable approach which uses the instrument of the respondent's religious environment when she was a child, i.e. her and her mother's intensity of religious practice when she was a child.

In the Tables 4 and 5 we only present the estimates of interest (religious intensity or how does the respondent see him/herself in religious terms and a dummy variable for post-compulsory education). The top panel shows the two least squares estimates and the lower panel shows the first stage regression estimate of the instrumental variables. We observe that in all cases the first stage coefficient is significantly different from zero. This result could suggest that the parent's imposition of religiosity during adolescence -which was not a decision of the adolescent at that time- could explain the observed variations in the respondents' actual religious engagement (which is now a decision of the individual).

Table 4: Instrumental Variable Regression: Religious intensity as a child as Instrumental Variable

		Confidence in			
	Т	rust	instit	utions	
rintens_h	0.005		0.058		
	(0.003)		(0.013)		
Howyouseeyorself		0.179		2.719	
		(0.133)		(0.554)	
Postc	0.160	0.158	0.367	0.332	
	(0.022)	(0.022)	(0.072)	(0.069)	
Coefficient First Stage I	Regression				
Endogenous					
variable	rintens_h	howyousee			
IV: rintens_n	0.883	0.020			
	(0.056)	(0.002)			
Nº observations	23,391	24,631	21,313	21,313	
R2	0.207	0.203	0.181	0.182	

Confidence in

Table 5: Instrumental Variable Regression: Mothers religious intensity when respondent was adolescent as Instrumental Variable

	Trust		Confidence in institutions		
rintens_h	0.007		0.060		
	(0.004)		(0.014)		
Howyouseeyorself		0.265		2.809	
		(0.186)		(0.708)	
Postc	0.158	0.156	0.387	0.352	
	(0.021)	(0.021)	(0.064)	(0.061)	
Coefficient First Stage I Endogenous variable	Regression				
IV: rintens_m	0.789	0.016			
	(0.050)	(0.002)			
№ observations	21,128	22,670	20,165	21,640	
R2	0.211	0.204	0.187	0.111	

The results of tables 4 and 5 point towards the same direction: an individual's actual religious engagement does not significantly explain interpersonal trust but does explain confidence in institutions. Moreover, educational attainment positively and significantly explains both trust and confidence in institutions. In other words, while educational attainment has a robust effect enhancing trust and confidence in institutions, religiosity only positively affects confidence in institutions but not trust on individuals.

#### **Conclusion:**

The results are in line with previous literature: religious intensity and educational attainment are significantly and positively correlated with trust and confidence in institutions.

But when it is included, interaction between religious intensity and education those with higher educational attainment and religious engagement (present or past) are less confident in institutions than otherwise similar individuals that have lower educational attainment and are less engaged in religion.

When instrumental variables are used, the results suggest that religious engagement does not significantly explain trust, although it is significantly related to confidence in institutions. In other terms, those who are the most religiously engaged do not seem to have trust in individuals but do have confidence in democratic institutions. Moreover, education has a positive and significant effect in all the specifications.

These main findings mean that a blunt discrimination between supporters of religion and civic virtue theorists may no longer hold, and instead that a mixed approach where both education and religion exist. In this case religion and education would have specific roles in the raising of children and in the intergenerational transmission of cultural values, civic responsibilities and viewpoints as well as providing the basis for potentially challenging the dominant political values.

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