



Does Formal Education Have an Impact on Active Citizenship Behaviour?

Bryony Hoskins, Béatrice d'Hombres
and JoAnn Campbell

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European Commission
Joint Research Centre
Institute for the Protection and Security of the Citizen
Centre for Research on Lifelong Learning (CRELL)

Contact information

Address: JRC, TP 361, Via Fermi, 21020, Ispra (VA), Italy
E-mail: bryony.hoskins@jrc.it
Tel.: +39-0332-786134
Fax: +39-0332-785226

<http://ipsc.jrc.ec.europa.eu/>
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Abstract

In the European context Active citizenship [1] has been promoted within the education and training Lisbon Strategy as a tool to support the continuation of democracy, human rights and greater social inclusion. In this article we analyse the impact of education on Active Citizenship and contribute to the existing debates relating to education levels and participation. Our results uniformly suggest that there is a significant democratic return associated with formal education. Indeed, using a large sample of individuals from the 2006/2007 European Social Survey, we find that education is positively and significantly correlated with Active Citizenship behaviour. Tertiary education has by far the biggest impact and this impact is the strongest for the domain of Protest. The findings are robust to the introduction of a large set of control variables and to alternative measures of educational attainment.

1. Introduction

Education has been promoted as a tool for the creation of social outcomes, such as social cohesion and democracy, ever since compulsory education was first developed (Dewey, 1916). Over the years the role of education as a contributory factor in the development and sustainability of democracy has been underlined by political sciences (Lipset, 1959; Putnam, 2000). Nevertheless, recently, several papers have put into question the relationship between education and participation without being able to conclude in favour of a strong positive effect (Milligan et al, 2004; Dee, 2004). At this moment, where there is an acknowledged gap between the policymakers and their citizens and an increasing concern about apathy, social cohesion and common values in a multicultural Europe, the need to find possible responses for enhancing Active Citizenship has become increasingly pertinent. In this context, the question that this paper addresses is if, and to what extent, there is an impact of formal education on Active Citizenship.

In September 2005 the Centre for Research on Lifelong Learning (CRELL, JRC-EC) began an exploratory research project in order to support the development of indicators on Active Citizenship. The research was supported by a European wide network, ‘Active Citizenship for Democracy’ comprised of researchers from the fields of education, political science and sociology. The first major output from this research project was the development of a measurement of Active Citizenship in Europe: the Active Citizenship Composite Indicator ACCI (Hoskins et al. 2006, and revised in Hoskins and Mascherini, forthcoming). The revised model is based on 61 indicators from existing data, predominantly European Social Survey data from the 2002 specific module developed on this topic.¹ The composite indicator was comprised of 3 distinct forms of participation: Representative Democracy, Protest and Social Change, Community Participation and a fourth dimension on Democratic Values combining items on democracy, human rights and intercultural understanding. The results of the calculations of this composite indicator generally gave Northern European countries the highest performances, with Sweden gaining the highest results across the different domains. Western Europe and Finland gained mid-table performances. Southern and Eastern European countries gained the lowest scores. This composite Indicator marked a useful starting point for measuring Active Citizenship and was used in the 2007 Education and Training Progress Report on the Lisbon Strategy (European Commission, 2007).

However, at that point in time, the policy impact of formal education on this indicator had not been established and as a result one of the responses from the experts nominated by the education ministries in European countries from the production of ACCI was to inquire about the relationship with formal education and its affect on Active Citizenship behaviour. In this article, we address this question by examining for a large sample of individuals the impact of formal education on Active Citizenship behaviour.

¹ The European Social Survey is a biennial survey covering over 30 nations. The first round was fielded in 2002/2003, the second in 2004/2005 and the third in 2006/2007. See section 5 for additional details.

Education research predominantly focuses on specific curriculum lessons and their impact on citizenship such as the UK Citizenship Education Longitudinal Study 2001 – 2009 (Ireland et al, 2006) or evaluations of training courses such as the evaluation of the European Citizenship training courses (Chisholm, 2006). This research gives us an important in-depth understanding of the process of learning citizenship competences and gives us an insight into the educational practices that facilitate better the learning of citizenship practices. However, this literature does not give an indication of the overall quantitative impact of education; this type of research has been covered more in the economic and political science studies. Thus this article aims to discuss interdisciplinary research combining both expertise and literature from the disciplines of education, sociology of education, economics and political sciences.

The structure of the paper is as follows. In section 2 we outline the theoretical conceptual framework, developed by Hoskins (2006), of the process of how education has an impact on Active Citizenship. In section 3, we describe how we empirically measure Active Citizenship. After a brief review of the existing literature on the effect of education on citizen behaviour in section 4, we turn to the empirical analysis in section 5. In this section, we describe the methodology and the dataset used to estimate the effect of education on citizen behaviour. Section 6 presents the empirical results, and section 7 summarises and concludes.

2. How does education impact Active Citizenship?

In a previous part of this research project, we have developed a theoretical model of Active Citizenship in a learning context (Hoskins, 2006). This theoretical model (figure 1) presents the ideal relationship, taking into account the background variables between learning inputs, civic competence and Active Citizenship. The theory is that, through learning experiences such as formal education, civic competence (civic knowledge, skills, attitudes and values) is developed, and this enables people to become active citizens. Formal education is an important element of the majority of persons' learning experiences in Europe and thus is represented in column 2 as a key learning experience. Through formal education it is hypothesised that a person has the opportunity to develop the learning outcomes of civic competence, in particular 'participatory attitudes, social justice values, citizenship values and cognition about democratic institutions' (Hoskins et al, 2008) that are expected to facilitate Active Citizenship.

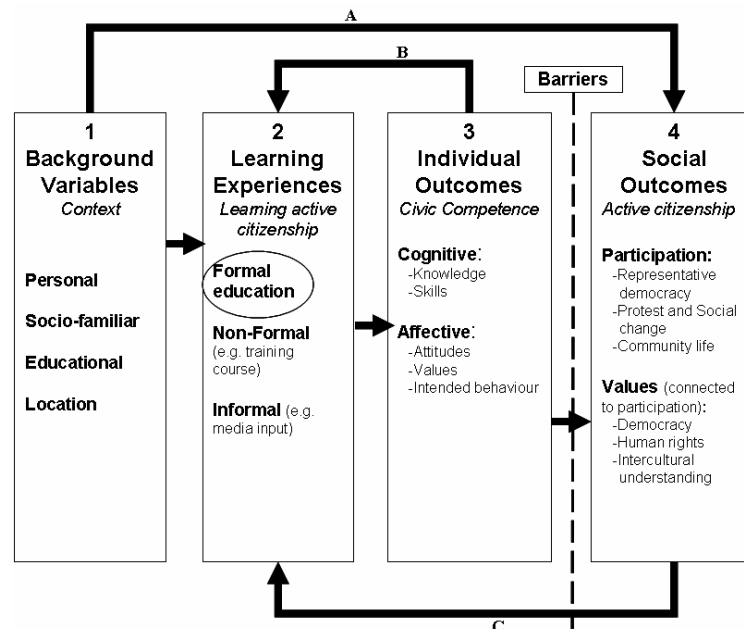


Figure 1: Working model of Active Citizenship (Hoskins, 2006)

Civic competence has been measured by Hoskins et al (2008). However, the international comparable data on civic competence, the IEA 1999 CIVED data [2], is only available for 14 year olds, preventing the possibilities for establishing the relationship between competence and overall levels of education. Nevertheless, the wealth of the information included in the European Social Survey allows us to investigate the impact of column 2 learning experiences in terms of formal education and column 4 on social outcomes of Active Citizenship. In other words, we focus on the democratic outcomes associated with formal education and relinquish the possibility of exploring other aspects of learning which are contained in column two. This implies, for instance that in this paper we are not examining the impact of non-formal learning (e.g. a youth club training on Anti-Racism) or informal learning (learning from family, peers and community) on Active Citizenship [3].

Isolating the impact of formal education is difficult due to the surrounding complexities. Dee (2004) has highlighted the possibility that the impact of education could be spurious as both could be attributed to the values contained in the family towards both education and civic participation. We agree that the impact of the informal learning in the family on the attitudes of the importance and motivation for education and the impact of informal learning in the family on the motivation and importance for value based engagement on both levels of participation and staying at school could be similar and have a large effect. This is also the case for informal learning from peers and the community in which the individual lives. Figure 1 shows further some of the complexities of learning and its impact on Active Citizenship. The broken line between individual and social outcomes represents the barriers to participation. Learning is clearly not the only factor as to why people participate. For example, opportunities are also limited by financial concerns (e.g. paying subscriptions to be a party member), in terms of spare time (e.g. if an individual is both working and looking after a family), geographical location (e.g. in the countryside without good public transport) and information (e.g. being part of networks that keep you informed). These will all to some extent play a role in whether a person can participate. The complexities expressed in this diagram show some of the difficulties that make it hard to determine a causal relationship between levels of formal education and Active Citizenship[4]. It is also the case that the background variables such as the social status of the family have a direct impact on social outcomes regardless of learning opportunities (arrow a). We should also recognise that this model is not taking place in a vacuum and that national, and increasingly global, environmental and sociopolitical events can provide a motivation or deterring effect on participation this also includes the possible effects of feeling good and therefore deciding it is unnecessary to protest.

It is therefore crucial if we want to study the impact of education on Active Citizenship to control for the effect of the contextual factors (family background, personal, household and country characteristics) that might simultaneously affect the decision to participate in education and citizenship behaviours of the respondent.

3. How measuring Active Citizenship

Before moving to explore the impact of education on Active Citizenship it is necessary to define our terminology and which indicators we will use to measure Active Citizenship. The term 'Active Citizenship' was first used in a European level context when developing the proposals for the European Commission Lisbon 2010 Strategy towards developing a competitive 'knowledge society' and 'greater social cohesion' (European Council, 2000). In this context Active Citizenship was described as way of empowering citizens to have their voices heard within their communities, a sense of belonging and a stake in the society in which they live, the value of democracy, equality, and understanding different cultures and different opinions (European Commission, 1998). Since this time, Active Citizenship has been defined by European researchers in a number of different but, nevertheless, in the majority of cases, complementary manner and primarily based upon Marshal's (1950) notion of rights and responsibilities with a more recent notion of participatory democracy (Barbara 2003). It has been defined as an eclectic of participatory activities including political participation (de Weerd et. al., 2005) in a participatory and deliberative manner (Ivančič, 2003), and community and voluntary action (Irish Government Taskforce, 2007 and de Weerd et. al., 2005). The term contains the values of Democracy and Human Rights (ed Weerd et. al., 2005; van Nierop, 2006) and is situated in a number of different contexts: 'formal politics, the work place, civil society and the home' (Holford and Ruud van der Veen, 2003). The definition used within this paper is;

Participation in civil society, community and/or political life, characterised by mutual respect and non-violence and in accordance with human rights and democracy. (Hoskins, 2006 [5])

This definition includes a broad range of activities which are considered necessary for a stable democracy and social inclusion. For example, it highlights the actions of civil society which include protest activities such as working in NGOs, signing petitions and demonstrations that assure government accountability. It also includes forms of representative democracy, including actions such as voting and membership of political parties that form the backbone of the democratic system. The definition also includes participation in the everyday life of the communities that enable greater social inclusion. Although Active Citizenship is specified on the individual level in terms of actions and values, the emphasis in this concept is not on the benefit to the individual but on what these individual actions and values contribute to the wider society in terms of ensuring the continuation of democracy, good governance and social cohesion.

Framework of indicators

Based on this definition, the Centre for Research on Lifelong Learning (CRELL, JRC-EC) in cooperation with Council of Europe recently developed the Active Citizenship Composite Indicator ACCI (Hoskins et al. 2006, and revised in Hoskins and Mascherini, forthcoming). The measurement model is comprised of four dimensions: *Protest and social change* (civil society action that hold governments to account), *Representative democracy*, *Community life*, and *Democratic values*.

While the Active Citizenship Composite Indicator is very rich in encompassing a broad range of possible activities in which people could participate, we have deliberately decided in the remainder of the paper to focus on 2 single indicators plus a mini composite indicator

combining 5 individual indicators out of the 61 indicators that compose the ACCI. The 2 single indicators belong to the domain of *Representative democracy* while the third mini composite indicator belongs to the *Protest and social change* domain. The reasons for this choice are threefold. First, in the empirical analysis, we rely on the most up-to-date data for ESS 2006 which only contains a small set of the original questions from the original citizenship survey. Second, those indicators, in particular the one belonging to the Protest and Social Change domain are strongly correlated with the overall composite indicator and thus constitute a good proxy of the ACCI. Third, we believe that the interpretation in terms of the impact of formal education on civic behaviour will be easier if we restrict the analysis to a limited number of indicators rather than the ACCI that embraces several dimensions of Active Citizenship.

4. Relationship between formal learning and citizenship

Previous research over the last forty years has shown a positive effect from formal education and different forms of Active Citizenship mostly in the domain of Representative Democracy, in particular voting (Dee, 2004; Milligan, Moretti and Oreopoulos, 2003; Campbell, 2006), some research in the domain of civic competence including attitudes (Almond and Verba, 1989) and political knowledge (Milligan, Moretti and Oreopoulos, 2003), some in the domain of community life on associational involvement and volunteering (Putnam, 2000; Campbell, 2006; Dee, 2004) and in the domain of Protest and Social Change (Campbell, 2006).

The conclusions from those studies are mixed. On the one hand, Dee (2004) shows that in the USA educational attainment has a large and significant causal effect on voter participation and attitudes towards free speech. In order to control for any possible unobservable variables that affect both schooling and civic attitudes, Dee (2004) uses supply-side sources of variation in schooling - geographic availability of colleges and teen exposure to the variation in child labor laws - to instrument the level of education of the respondent. Similarly, Milligan et al (2004), using changes in compulsory schooling legislation and child labor laws across states as exogenous variations in schooling confirms that education has a positive and significant effect on the probability to vote in USA. On the other hand, using 14 waves of the German Social General Survey, Siedler (2007) examines in West Germany the impact of education on a wide set of civic engagement indicators. His results suggest that education is positively associated with all political outcomes. However, when the author employs a statistical procedure that tackles the problem of endogeneity of education, he cannot conclude in favour of a positive causal effect of education on civic outcomes [6]. Touya (2006) and Milligan et al (2004) reach a similar conclusion, respectively for Spain and UK, once the endogeneity of education is taken into account.

Our study differs from the others in the sense that we propose to undertake an analysis of the effect of education on civic behaviour for a sample of 19 European countries. Contrary to Milligan et al (2004), Dee (2004), Touya (2006) or Siedler (2007), we do not attempt to circumvent the endogeneity problems by using instrumental variable estimates [7]. However, the wealth of the European Social Survey allows us to distinguish the impact of education from other individual, household, local and family background effects that are simultaneously correlated with citizen behaviour and measures of educational attainment. To the best of our knowledge, Campbell (2006) is the only study that investigates with a cross-country dataset the effect of education. Yet Campbell (2006) controls for a very limited number of personal characteristics and uses the first round of the European Social Survey, while we use the third round which has just been released.

5. Empirical analysis

5.1 Data and methodology

The data used in this paper are drawn from the 2006/2007 European Social Survey (henceforth ESS). The ESS is a biennial multi-country survey. The first round was in 2002/2003, the second round in 2004/2005 and the third one in 2005/2006. The ESS is funded jointly by the European Commission, the European Science Foundation and the national funding bodies from each participating country.

This cross-country survey was administered on a nationally representative sample in 19 European countries: Belgium, Bulgaria, Cyprus, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, UK and Ukraine [8]. The sample size in the ESS varies between 995 and 2,916 observations according to the country considered.

The data includes a core module which has been kept very similar from round to round, and 2 or 3 rotating modules devoted to specific topics. The core module provides detailed information on socio-economic characteristics of the respondents and the household to which he/she belongs to. In addition to this information, the ESS includes a large number of variables related to the individual citizenship behaviour. The two rotating modules in the third round were dedicated to the timing of life and personal and social well-being

For the purpose of the analysis, we have selected individuals who are at least 18 years old and citizens of the country where they are living at the time of the interview. The full sample, once we exclude observations with missing values for the set of covariates used in the statistical analysis, amounts to 20441 observations.

Tables Ia and IIa in the appendix present the explanatory variables of the model and descriptive statistics of each variable. The controls include variables related to the family background, personal characteristics and region of residence of each respondent.

We explore the impact of education on citizen behaviour using the following econometric framework:

$$Y_{ij} = \beta_0 + X_{ij}\beta_1 + \text{Education}_{ij}\beta_2 + \varepsilon_{ij}, \quad (1)$$

where Y_{ij} is an indicator of citizen behaviour for the individual i living in the country j , X_{ij} is a set of observable covariates, Education_{ij} measures the number of years of full-time completed (from primary to tertiary) education of the respondent and ε_{ij} is the error term of the equation (1) and β_0, β_1 and β_2 are parameters to be estimated.

We investigate the impact of education on 3 different dichotomous measures of civic behaviour.

1. The first indicator, denoted “voting behaviour”, takes on the value one if the respondent voted in the last country national election and zero otherwise.
2. The second indicator, denoted by “membership”, is equal to one if the respondent is a member (official membership or registration) of a political party, and zero otherwise.
3. Finally, the third observed citizen outcome, “Protest”, is equal to one if the respondent has taken part in one or several of those actions with the purpose to improve things or prevent things from going wrong: (i) worked in an organization or association, (ii) worn or displayed a campaign badge/sticker, (iii) signed a petition, (iv) taken part in a lawful public demonstration, or (v) boycotted certain products.

5.2 Summary statistics: A picture of Europe: Active Citizenship, 2006

We report in Table I below the country-statistics regarding the three indicators of citizenship behaviour.

Table I: A picture of Europe: Active Citizenship, 2006

	Vote (in %)	Membership (in %)	Protest (in %)
Belgium	96.06	8.39	50.92
Bulgaria	71.67	7.93	8.26
Denmark	83.46	4.93	54.87
Germany	94.46	6.69	62.18
Estonia	75.05	4.95	18.76
Spain,	83.51	3.80	43.19
Finland	84.68	8.25	63.46
France	80.21	2.72	54.25
UK	76.05	3.15	56.90
Hungary	78.48	1.82	10.81
Poland	69.49	2.35	14.80
Portugal	81.95	3.52	13.48
Romania	84.68	7.17	10.31
Slovenia	80.86	6.75	24.05
Slovakia	73.25	2.11	31.23
Sweden	91.16	6.45	68.16
Norway	87.28	9.52	64.29
Switzerland	67.82	9.29	31.35
Russia	70.52	3.98	14.70

Source: European Social Survey, third round.

It is evident in table I is that the indicators for Protest and Social Change, and representative democracy (vote and membership of political parties) show marked differences in the levels of participation across Europe.

Voting

As would be expected, Belgium tops the reported voter turnout level, most probably, as a result of their compulsory voting laws. Germany is also high, without compulsory voting, reporting 94.46% of those surveyed turning out to vote in 2006 while Sweden is next, reporting a 91.16% turn out. Switzerland reports the lowest voter turn outs across Europe scoring levels of 67.82% in 2006. One explanation could be that in Switzerland people have to vote regularly in national referendums and such a system requires a large amount of dedication on behalf of the population to vote each time. Other countries that report low levels of turn out are Russia 70.52%, Poland 69.49% and Slovakia 73.25%.

What is equally clear from the results on voting is that the scores are much higher than actual voter turn out (Bertrand and Mullainathan, 2001; Mulligan et al, 2003). Thus what we must highlight is that what we are actually measuring is self-reported participation and to a certain extent the social desirability to participate.

Membership of political parties

Membership of political parties is quite low across Europe: Norway has the highest percentage score with 9.52% of people surveyed belonging to a political party in 2006. Switzerland is also high with 9.29%. Notable are the very low levels for Hungary and Poland where only 1.82% and 2.35% respectively declare themselves members of a political party.

Protest and Social Change

For the indicator of Protest and social change Sweden scored the highest in 2006 with 68.16% participation rate. Norway is next followed by Germany and Switzerland with the highest percentage of individuals reporting having taken part in a protest over the year preceding the interview. Bulgaria, Poland, Hungary and Portugal have low levels of participation. Bulgaria gives the lowest participation rate 8.26% in 2006 while in Poland and Hungary participation rates reach only 14.80% and 10.81%, respectively. This ranking is very close to the results of the ACCI based on 2002 data as both show a tendency for northern European countries to participate the most, followed by central and western European countries. Southern Europe comes next, followed by Eastern Europe. This confirms that this indicator is a good proxy for the overall ACCI (Hoskins et al 2006, and Hoskins and Mascerini, forthcoming). The length of time of democracy in these countries is given as a preliminary explanation for these results (Hoskins and Mascerini, forthcoming).

What is necessary to keep in mind for this indicator is that we are not covering many of the new forms of protest such as those that use the internet and mobile phone which are currently not covered in these large scale international surveys. It is therefore possible that these gaps of forms of participation covered could change the results.

6. Results

Results are presented in Tables II-V [9]. We report the estimated coefficient associated with each covariate included in the equation (1). Below coefficients, are displayed into brackets the corresponding t-statistics.

We adopt a stepwise approach in order to see how sensitive are the estimates of the impact of education on citizenship behaviour to the introduction of additional control variables. In Table II, we report the marginal effects for the three indicators of citizenship behaviour when X_{ij} only includes personal characteristics. Individual variables comprise sex, the employment status, and two variables indicating whether the individual was born in the country and whether he/she self-reports to belong to a minority group. Country-specific effects are included in each of the specifications so as to take into account the country characteristics that might simultaneously influence citizen behaviour and the level of education of the respondent.

Table II: Impact of education on civic behaviour conditioning on personal characteristics

	Voting behaviour	Membership	Protest
Individual characteristics			
Sex	0.005 (0.94)	0.028 (8.95)**	-0.006 (0.80)
Education	0.009 (12.20)**	0.003 (6.56)**	0.031 (28.94)**
Religious	0.066 (10.95)**	0.021 (6.42)**	0.012 (1.42)
Very religious	-0.030 (2.46)*	0.011 (1.55)	0.019 (0.99)
Born in country	0.062 (4.57)**	0.008 (1.05)	0.051 (2.82)**
Minority group	-0.027 (2.20)*	-0.000 (0.07)	-0.016 (0.81)
Paid work	-0.024 (4.15)**	-0.015 (4.51)**	0.032 (3.93)**
Unemployed	-0.127 (8.51)**	-0.021 (2.82)**	-0.039 (1.93)
Local characteristics			
Country dummies	YES	YES	YES
Observations	20441	20441	20441

Source: European Social Survey, third round.

Note * significant at 5%; ** significant at 1%

In Table III, we introduce household covariates while in Table IV we additionally control for the family environment of the respondent. Finally, in Table V, we add regional-fixed effects.

Results reported in Table III show that there is a positive association between years of schooling and *all* Active Citizenship outcomes. The first column indicates that, after conditioning for the personal characteristics of the respondent, the probability of voting increases by almost 1% for each additional year of education with a similar pattern for being a member of a political party. Similarly, each additional year of education increases by 2.9% the probability of taking part in a protest activity to improve things in their country during the year preceding the interview [10].

Our results provide an estimate of the causal effect of education on citizen behaviour if and only if $E(\text{Education}_{ij}; \varepsilon_{ik})=0$. This will be the case if we are not omitting variables that are

simultaneously correlated with education and citizen behaviour. For instance, not introducing family background-related covariates or household characteristics in equation (1) will probably upwardly bias the estimates of β_2 . Indeed, household income is likely to be positively correlated with the educational level of the respondent as well as with his/her probability to be a member of a political party. In table III, we report the results once we condition for the several household characteristics - household size, presence of children, marital status and household income - to which the respondent belongs to. Results displayed in Table III suggest that controlling for the effect of the household characteristics on citizenship behaviour does not change the magnitude and the significance of the coefficient associated with education.

Table III: Impact of education on civic behaviour, with the household characteristics as additional control

	Voting behaviour	Membership	Protest
Individual characteristics			
Sex	-0.001 (0.18)	0.025 (8.03)**	-0.007 (0.93)
Education	0.009 (11.48)**	0.003 (5.86)**	0.029 (26.15)**
Religious	0.057 (9.67)**	0.020 (6.09)**	0.011 (1.30)
Very religious	-0.026 (2.13)*	0.013 (1.85)	0.023 (1.20)
Born in country	0.071 (5.17)**	0.008 (1.14)	0.054 (2.96)**
Minority group	-0.022 (1.83)	0.003 (0.40)	-0.016 (0.79)
Paid work	-0.031 (4.97)**	-0.012 (3.43)**	0.010 (1.09)
Unemployed	-0.107 (7.29)**	-0.016 (2.00)*	-0.035 (1.76)
Household characteristics			
Household size	-0.018 (6.64)**	-0.002 (1.18)	0.001 (0.23)
Cohabitation status	0.100 (16.75)**	0.013 (4.03)**	0.006 (0.75)
Children	0.020 (2.79)**	-0.012 (2.67)**	0.025 (2.27)*
Income (16 dummies)	YES	YES	YES
Local characteristics			
Country dummies	YES	YES	YES
Observations	20441	20441	20441

Source: European Social Survey, third round.

Note * significant at 5%; ** significant at 1%

Similarly, educated individuals are more likely to have educated parents and at the same time, educated parents are more likely promote the learning of civic values. In table IV, we report the results once we condition for the family background of the respondent. We include as additional covariates the level of education and the occupational status of the parents when the respondent was 14-year old. The results are consistent with those reported in Tables II and III. Education is positively and significantly correlated with the three measures of citizenship behaviour. Each year of education increases the probability of voting and being member of a political party by 0.9% and 0.3%, respectively. Similarly, the affect of education on the variable Protest and social change amounts to 2.6%.

Finally, in Table V, we report the impact of education on our three indicators of Active Citizenship once we partial out for regional specificities. We also include 4 variables taking respectively the value one if the local area is a (1) big city, (2) suburbs or outskirts of big

city, (3) town or small city, (4) country village and zero otherwise [11]. The group of individuals living in a farm in the country side is the omitted category [12]. We believe that it is worth partialling out for those local effects to the extent that they are related to access to educational opportunities, i.e. proximity to quality learning facilities and access to participation activities, i.e. proximity and information about public demonstrations, campaigns and polling stations. The results are virtually identical to those reported in the previous table.

Table IV: Impact of education on citizenship behaviour, with the family background as additional control

	Voting behaviour	Membership	Protest
Individual characteristics			
Sex	-0.001 (0.21)	0.025 (8.02)**	-0.006 (0.77)
Education	0.009 (11.24)**	0.003 (5.91)**	0.026 (22.93)**
Religious	0.058 (9.71)**	0.019 (6.04)**	0.014 (1.75)
Very religious	-0.026 (2.12)*	0.013 (1.84)	0.025 (1.34)
Born in country	0.020 (1.20)	0.005 (0.51)	0.044 (1.92)
Minority group	-0.013 (1.11)	0.004 (0.49)	-0.011 (0.53)
Paid work	-0.030 (4.88)**	-0.012 (3.43)**	0.009 (1.01)
Unemployed	-0.105 (7.14)**	-0.015 (1.97)*	-0.037 (1.81)
Household characteristics			
Household size	-0.017 (6.48)**	-0.002 (1.14)	-0.001 (0.14)
Cohabitation status	0.097 (16.23)**	0.013 (3.83)**	0.016 (1.87)
Children	0.021 (2.87)**	-0.011 (2.65)**	0.027 (2.49)*
Income (16 dummies)	YES	YES	YES
Family background			
Father: tertiary or postsecondary education	0.019 (2.42)*	-0.007 (1.53)	0.054 (4.80)**
Mother: tertiary or postsecondary education	-0.039 (4.06)**	0.003 (0.68)	0.052 (4.02)**
Father: born in country	0.066 (4.63)**	0.006 (0.84)	0.037 (1.93)
Mother: born in country	0.006 (0.47)	-0.001 (0.19)	-0.012 (0.62)
Father: unemployed	-0.061 (4.06)**	-0.011 (1.29)	-0.002 (0.11)
Mother : unemployed	0.001 (0.11)	0.002 (0.48)	-0.014 (1.68)
Local characteristics			
Country dummies	YES	YES	YES
Observations	20441	20441	20441

Source: European Social Survey, third round.

Note * significant at 5%; ** significant at 1%

Our results are in line with Dee (2004), Michigan (2004) and Campbell (2006), and suggest that there are democratic externalities associated with education. The magnitude and significance of the marginal effects of education on the three measures of civic behaviour are robust to the introduction of additional covariates.

Needless to say, we have to be careful before giving a causal interpretation to these results. Indeed, we may still omit unobservable confounding factors that are simultaneously correlated with citizenship behaviour and education. One solution would be, as Dee, (2004), Milligan et al (2004), to rely on “instrumental variables estimates” [13]. However, we were unable to find variables that satisfy the two necessary conditions to be considered as valid instruments. However, given that we control for a large set of covariates, we are quite confident that the correlation between education and the three indicators of civic behaviour is actually a causal effect.

Table V: Impact of education on civic behaviour, with regional-fixed effects

	Voting behaviour	Membership	Protest
Individual characteristics			
Sex	-0.006 (1.06)	0.021 (7.08)**	-0.012 (1.54)
Education	0.009 (11.12)**	0.003 (6.93)**	0.026 (21.83)**
Religious	0.058 (9.68)**	0.017 (5.51)**	0.018 (2.19)*
Very religious	-0.028 (2.26)*	0.013 (1.85)	0.022 (1.18)
Born in country	0.016 (1.00)	0.004 (0.42)	0.053 (2.30)*
Minority group	-0.015 (1.22)	0.004 (0.58)	-0.015 (0.71)
Paid work	-0.032 (5.16)**	-0.014 (4.10)**	0.009 (0.94)
Unemployed	-0.113 (7.60)**	-0.015 (1.97)*	-0.036 (1.75)
Household characteristics			
Household size	-0.018 (6.49)**	-0.003 (1.71)	-0.003 (0.67)
Cohabitation status	0.099 (15.69)**	0.011 (3.20)**	0.018 (2.00)*
Children	0.023 (3.13)**	-0.012 (2.76)**	0.047 (4.16)**
Income (16 dummies)	YES	YES	YES
Family background			
Father: tertiary or postsecondary education	0.020 (2.42)*	-0.004 (0.94)	0.048 (3.97)**
Mother: tertiary or postsecondary education	-0.032 (3.32)**	0.005 (0.92)	0.050 (3.61)**
Father: born in country	0.067 (4.56)**	0.004 (0.50)	0.041 (1.96)*
Mother: born in country	0.008 (0.60)	-0.003 (0.34)	-0.000 (0.00)
Father: unemployed	-0.056 (3.59)**	-0.011 (1.34)	0.018 (0.80)
Mother : unemployed	0.005 (0.87)	0.001 (0.25)	-0.013 (1.51)
Local characteristics			
Country dummies	YES	YES	YES
Regional dummies	NO	NO	NO
Local area dummies	NO	NO	NO
Local area not safe	-0.008 (2.67)**	-0.004 (1.97)*	-0.020 (3.94)**
Observations	20441	20441	20441

Source: European Social Survey, third round.

Note * significant at 5%; ** significant at 1%

Finally, as a last check of the robustness of our results, we have re-estimated equation (1) without constraining the democratic returns to education to be linear. More precisely, instead of the number of years of education of the respondent, we rely on two dichotomous variables to measure their educational level. The first one, $E_{ijsecondary}$, takes the value one if the individual has a lower or upper secondary education and zero otherwise, while the second dummy variable, $E_{ijtertiary}$, is equal to one if the respondent has a post secondary or a tertiary educational level, zero otherwise. The omitted category includes individuals with a completed or not completed primary education. Results reported in Table VI show that, after conditioning for personal, household and local effects as well as for the family background, the probability of voting is 8.5% higher for individuals with a post-secondary or tertiary education with respect to those with a primary educational level. Similarly, the probability of being member of a political party increases by 3.3% for tertiary and post-secondary graduates and those individuals are 27.3% more likely to have taken part in a Protest activity over the last year. On the other hand, individuals with a secondary education are not significantly more likely to have voted or to have been a member of a political party relatively to the individuals with only a primary education. This last result suggests that the impact of education on citizenship behaviour is non linear, as there are higher effects being observed for tertiary education.

7. Concluding remarks

In this paper, we aimed to analyze the effect of education on Active Citizenship. To that end, in the first part of the paper, we have described the complex picture of how an individual can become an active citizen. This has led us to highlight a number of contributory factors in both the learning process (eg informal learning in the family) and access to participation and education (eg wealth and proximity). Based on the citizenship composite indicator developed by Hoskins et al (2007), we have also discussed the large cross country differences in participation across Europe with Northern and Central European countries performing well followed by Southern and then Eastern European countries.

In the second part of the paper, we have empirically investigated the relationship between formal education and citizenship behaviour using the 2006 European Social Survey. We find that education has a positive impact on Active Citizenship behaviour which, we believe, from the robustness of the findings is likely to be causal. More precisely, we have found that the number of years in education of the respondent is positively and significantly correlated with an individuals' engagement in Protest and social change activities, being a member of a political party and voting. Based on results displayed in Table 4, each year of education increases the probability of voting and being part of a political party by respectively 0.9% and 0.3%. In addition, the return to education is equal to 2.6% in terms of the probability of taking part in a Protest to improve things. Our last results suggest that the return to education is non-linear with tertiary education being strongly associated with the three indicators of citizen behaviour.

The strong effect of tertiary education on participation in Protest and social change activities is particularly interesting given the high correlation between this indicator and the global Active Citizenship composite indicator developed by Hoskins et al (2006) that also includes the dimension of community life and democratic values.

The benefits associated with education are numerous. While most of the economic literature emphasises the monetary returns to education both at the individual and national level, our analysis also indicates that formal education, in particular tertiary education, promotes Active Citizenship. This is certainly noteworthy for policy makers as this may be a justification for the massification of higher education which could be as strong as the economic argument.

These research results have been convincing about the positive impact of education on Active Citizenship but we should acknowledge one aspect that needs further research. While on the one hand we observe at the individual level that education is strongly associated with Active Citizenship, on the other hand this relationship seems not to hold at the aggregated level. Education levels have been increasing in European countries but not the levels of engagement at a country level (Campbell, 2006). Those apparent contradictions will be the object of future research.

Endnotes

[1] Active Citizenship is defined as, '*Participation in civil society, community and/or political life, characterised by mutual respect and non-violence and in accordance with human rights and democracy*'. (Hoskins, 2006)

[2] IEA CIVED 1999 data available from their website <http://www.iea.nl/cived.html>.

[3] The reason for this is not because we do not believe that this is relevant but simply because the focus for this article is on formal education and the impact of this variable on active citizenship. We are also not able to focus on other learning inputs such as policy or the different types of formal education or the pedagogical methods used as this data does not exist in the same surveys as the data on active citizenship in Europe.

[4] Note also that citizenship activities are in themselves informal learning experiences which is why there is an arrow back from the social outcomes to the learning experiences (arrow c). The arrow back from competence (arrow b) to learning experiences highlights the fact that the greater the levels of your competence on this topic the more that you can gain from further learning experiences.

[5] Developed by the CRELL research network "Active Citizenship for Democracy" as part of this project.

[6] By endogeneity, we mean that the correlation between education and citizen behaviour is due to other variables like the family background of the individual that simultaneously affect citizen behaviour and education. If this is the case, the observed correlation between education and citizen behaviour does not mean that education causes citizen behaviour *per se*.

[7] Instrumental variable estimates are the conventional way to deal with endogeneity. See Wooldridge (2002) for additional details.

[8] See <http://www.europeansocialsurvey.org/> for additional details. The ESS was carried out for the first time in 2002/2003, the second time in 2004/2005 and the third time in 2006/2007. Cyprus is not included in the following empirical exercise because the information on education is missing.

[9] We use an univariate probit model to estimate equation (1). We report the marginal effects at the average values of the independent variables in the sample.

[10] Note that, for the third indicator of civic behaviour we have also estimated an ordered probit given that the variable "Protest" can take 5 values. Results are not reported but available upon request. The conclusions are not different from those obtained with the probit model.

[11] We also include an indicator taking on the value one if the respondent reports to feel unsafe/ very unsafe of walking after dark in the local area where he/she lives.

[12] The omitted category is the category to which all local area types are compared in the model.

[13] See Wooldridge (2002) for additional information on this statistical procedure.

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Appendix - Table 1a: Definition of the variables

Active Citizenship	
Voting behaviour	Indicator taking on the value one if the respondent voted in the last country national election, zero otherwise
Membership	Indicator taking on the value one, if the respondent is member (official membership or registration) of a political party, zero otherwise
Protest	Indicator taking on the value one if the respondent has taken part to one or several of those actions: worked in another organization or association, worn or displayed a campaign badge/sticker, signed a petition, taken part in a lawful public demonstration, or boycotted certain products.
Individual variables	
1- Individual characteristics	
Sex	Indicator taking on the value one if the individual is a male, zero otherwise
Primary education	Indicator taking on the value one if the individual has a primary education level (completed or not completed), zero otherwise
Secondary education	Indicator taking on the value one if the individual has a lower or upper secondary education level, zero otherwise
Tertiary education	Indicator taking on the value one if the individual has a post secondary or a tertiary education level, zero otherwise
Religious belonging	Indicator taking on the value one if the individual belongs to a particular religion or denomination, zero otherwise
Very religious	Indicator taking on the value one if the individual report to be "very religious", zero otherwise
Born in the country	Indicator taking on the value one if the individual was born in the country where he is currently living, zero otherwise
Unemployed	Indicator taking on the value one if the individual unemployed during the 7 days preceding the interview, zero otherwise
Paid work	Indicator taking on the value one if the individual has been undertaking a paid job during the last 7 days preceding the interview, zero otherwise
Minority group	Indicator taking on the value one if the individual self-reports to belong to a minority group, zero otherwise
2- Family background	
Father : tertiary education	Indicator taking on the value one if the father of the respondent has a post secondary or a tertiary education level, zero otherwise
Mother : tertiary education	Indicator taking on the value one if the mother of the respondent has a post secondary or a tertiary education level, zero otherwise
Father: born in the country	Indicator taking on the value one if the father of the respondent was born in the country where the respondent is currently living, zero otherwise
Mother: born in the country	Indicator taking on the value one if the mother of the respondent was born in the country where the respondent is currently living, zero otherwise
Father: absent or dead	Indicator taking on the value one if the father of the respondent was dead or absent from home when the respondent was 14 years old, zero otherwise
Mother: absent or dead	Indicator taking on the value one if the mother of the respondent was dead or absent from home when the respondent was 14 years old, zero otherwise
Father: unemployed	Indicator taking on the value one if the father of the respondent was unemployed when the respondent was 14 years old, zero otherwise
Mother: unemployed	Indicator taking on the value one if the mother of the respondent was unemployed when the respondent was 14 years old, zero otherwise
Household characteristics	
Household size	Size of the household
Children	Indicator taking on the value one if there are children living at home, zero otherwise
Cohabitation status	Indicator taking on the value one if the respondent is married or living with his/her partner, zero otherwise
Community characteristics	
Local Area not safe	Indicator taking on the value one if the respondent reports to feel unsafe or very unsafe of walking in the local area after dark
Local area characteristics	5 dummies taking respectively the value one if the local area is a (1) big city, (2) suburbs or outskirts of big city, (3) town or small city, (4) country village, (5) farm or home in countryside, zero otherwise
Regional and country dummies	Indicator taking on the value one if the community is classified as a village, zero otherwise

Note: European Social Survey, Round 3

Table 2a: Summary statistics

Individual characteristics	BE	BL	DE	DK	EE	ES	FI	FR	UK	HU	PL	PT	RO	SE	SI	SK	RU	NO	CH	Full sample
Sex	0.47	0.38	0.52	0.50	0.45	0.51	0.50	0.48	0.48	0.41	0.49	0.40	0.49	0.51	0.43	0.48	0.38	0.53	0.48	0.480
Secondary	0.15	0.67	0.53	0.51	0.53	0.47	0.48	0.30	0.52	0.58	0.57	0.29	0.67	0.52	0.58	0.82	0.34	0.48	0.61	0.501
Tertiary or postsecondary education	0.62	0.28	0.46	0.48	0.44	0.22	0.36	0.54	0.47	0.14	0.23	0.12	0.22	0.38	0.22	0.16	0.61	0.50	0.35	0.385
Religious	0.43	0.76	0.53	0.62	0.25	0.67	0.61	0.46	0.45	0.60	0.91	0.86	0.93	0.30	0.48	0.76	0.50	0.52	0.68	0.589
Very religious	0.04	0.03	0.02	0.01	0.02	0.04	0.01	0.02	0.03	0.05	0.09	0.02	0.11	0.01	0.06	0.11	0.02	0.02	0.07	0.044
Born in country	0.94	0.99	0.95	0.97	0.89	0.96	0.98	0.93	0.94	0.98	0.98	0.96	0.99	0.92	0.92	0.96	0.93	0.96	0.92	0.956
Minority group	0.01	0.14	0.02	0.01	0.17	0.03	0.009	0.02	0.05	0.05	0.005	0.02	0.09	0.02	0.03	0.08	0.18	0.02	0.03	0.051
Paid work	0.59	0.49	0.56	0.65	0.65	0.66	0.62	0.61	0.65	0.47	0.55	0.56	0.43	0.72	0.50	0.58	0.60	0.71	0.64	0.601
Unemployed	0.04	0.09	0.07	0.01	0.01	0.03	0.05	0.05	0.02	0.05	0.05	0.06	0.03	0.03	0.05	0.05	0.02	0.01	0.01	0.043
Household characteristics																				
Household size	2.93	2.96	2.48	2.56	2.69	3.17	2.46	2.59	2.44	2.63	3.51	2.61	3.08	2.57	3.35	3.51	2.61	2.66	2.28	2.74
Cohabitation status	0.68	0.61	0.56	0.60	0.47	0.62	0.56	0.53	0.56	0.55	0.61	0.67	0.67	0.49	0.70	0.65	0.50	0.55	0.55	0.589
Children	0.47	0.49	0.36	0.41	0.39	0.51	0.36	0.42	0.39	0.41	0.55	0.44	0.46	0.40	0.55	0.52	0.46	0.43	0.31	0.433
Family background																				
Father: tertiary or postsecondary education	0.33	0.10	0.29	0.26	0.27	0.07	0.14	0.19	0.23	0.06	0.08	0.03	0.08	0.17	0.12	0.07	0.34	0.34	0.21	0.197
Mother: tertiary or postsecondary education	0.26	0.09	0.14	0.22	0.27	0.02	0.12	0.19	0.18	0.03	0.07	0.02	0.04	0.15	0.08	0.05	0.36	0.20	0.07	0.144
Father: born in country	0.92	0.96	0.92	0.95	0.78	0.96	0.99	0.87	0.91	0.96	0.96	0.97	0.99	0.88	0.86	0.95	0.92	0.95	0.84	0.932
Mother: born in country	0.92	0.96	0.92	0.94	0.79	0.97	0.99	0.88	0.91	0.96	0.97	0.97	0.99	0.87	0.87	0.95	0.93	0.95	0.82	0.931
Father: unemployed	0.03	0.006	0.02	0.02	0.03	0.02	0.03	0.02	0.04	0.04	0.03	0.006	0.04	0.02	0.11	0.03	0.01	0.02	0.01	0.032
Mother: unemployed	0.58	0.14	0.38	0.35	0.11	0.71	0.22	0.49	0.40	0.40	0.26	0.57	0.41	0.30	0.42	0.26	0.12	0.40	0.55	0.383
Number of observations																				20 441

Note: European Social Survey, Round 3

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Abstract

In the European context Active citizenship has been promoted within the education and training Lisbon Strategy as a tool to support the continuation of democracy, human rights and greater social inclusion. In this article we analyse the impact of education on Active Citizenship and contribute to the existing debates relating to education levels and participation. Our results uniformly suggest that there is a significant democratic return associated with formal education. Indeed, using a large sample of individuals from the 2006/2007 European Social Survey, we find that education is positively and significantly correlated with Active Citizenship behaviour. Tertiary education has by far the biggest impact and this impact is the strongest for the domain of Protest. The findings are robust to the introduction of a large set of control variables and to alternative measures of educational attainment.

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