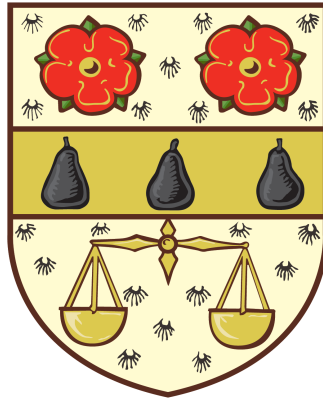


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**The Compensation Effect of Civic Education on Political
Engagement: How Civics Classes Make Up for Missing
Parental Socialization**

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Abstract The development of political engagement in early life is significant given its impact on political knowledge and participation. Analyses reveal a large influence of parents on their offspring's curiosity about politics during their teenage years. Increasingly, civic education is also considered an important influence on political interest and orientations of young people as schools are assigned a crucial role in creating and maintaining civic equality. We study the effects of civic education on political engagement, focusing especially on whether and how civic education can compensate for missing parental political socialization. We use data from the Belgian Political Panel Study (2006-2011) and the U.S. Youth-Parent Socialization Panel Study (1965-1997), which both contain information on political attitudes and behaviors of adolescents and young adults, those of their parents, and on the educational curriculum of the young respondents. Our findings suggest that civics training in schools indeed compensates for inequalities in family socialization with respect to political engagement. This conclusion holds for two very different countries (the U.S. and Belgium), at very different points in time (the 1960s and the 2000s), and for a varying length of observation (youth to old age and impressionable years only).

Keywords: Civic education, political engagement, young people, latent growth curve analysis.

It has long been known that the family plays an important role in the political socialization of pre-adults, notably with respect to party identification (Campbell et al. 1960), but also with respect to a host of other political attitudes and behaviors, including political interest (Hyman 1959, ch. 4; Jennings and Niemi 1966). The sources of parent-offspring correspondence are varied, including deliberate teaching by parents, but also the socioeconomic environment shared by family members and even genetic inheritance (Alford et al. 2005). Whatever the mechanism, the influence is substantial and long lasting (Jennings et al. 2009; Zuckerman et al. 2007). Increasingly, civic education is also considered an important influence on knowledge and political orientations among young people (Galston 2001; Niemi and Junn 1998), even though the precise mechanisms by which classroom instruction and organization influence students are open to debate (Torney-Purta 2002; Campbell 2008; Martens and Gainous 2013; Kisby and Sloam 2012).

A less settled question is how family and school interact. In particular, does civic education, broadly conceived, reduce differences among youths that originate in the family, or does it possibly enhance pre-existing differences? Can civics training make up in some way for having come from a household in which there is less access to academic and similar resources and less interaction related to political news and the public sphere generally? Can schools, in other words, compensate for what Levinson (2012, ch. 1) calls the “civic empowerment gap” between young people from privileged backgrounds and those from impoverished backgrounds?

These questions are important inasmuch as civic education, especially in the

United States, where much of the research has been conducted, has long been thought to be key to the development and maintenance of a democratic system in which all citizens have the knowledge, skills and attitudes to understand and influence their government. Everyone, so the argument goes, should be part of an enlightened citizenry, and to the extent that differences exist, schools play a crucial role in creating and maintaining civic equality (Guardian of Democracy nd, 13; Levine 2007, 119, 152; Händle et al. 1999, 264). Much as the Head Start program in the United States was intended to provide an opportunity for children from poor economic environments to develop strong academic skills, one purpose of civic instruction is to assist children from politically barren backgrounds develop the knowledge and skills to participate on an equal footing in the political sphere. Using the vocabulary of recent research into this role (Campbell 2008; Gainous and Martens 2012; Persson 2014), a function of civic education is to *compensate* for possible deficiencies in knowledge, skills and attitudes among those whose family backgrounds or socialization have left them behind their wealthier or more involved classmates.

In this paper, we consider the compensation question with respect to political engagement, with a particular focus on whether civic education makes up for differing levels of family socioeconomic status and frequency of student-parental political discussions. Using the three waves of the Belgian Political Panel Study (2006-2011) and the four waves of the U.S. Youth-Parent Socialization Panel Study (1965-1997), we find that compensation does occur. We note, in addition, that the most important school variables are the amount of formal civic education and the inclusion of group projects, but not classroom climate.

Parental Socialization and Civic Education in the Literature

That the family plays a role in political socialization has never been in doubt. Studies of current and recalled parental partisanship suggested close correspondence (Campbell et al. 1960), a fact that was later confirmed by interviews with youths and their parents (Jennings and Niemi 1966; Westholm and Niemi 1992; Jennings et al. 2009; Kroh and Selb 2009). Agreement on other matters proved to be not as strong, but similarities existed and were found to persist as teenagers turned into young and then even older adults (Jennings and Niemi 1981; Jennings et al. 2009).

How much influence comes from civic education is a more controversial matter. Education itself is highly correlated with political knowledge, interest, and voter turnout and other forms of political participation. Yet it has been repeatedly suggested that this connection might exist largely because education serves as a proxy for social class or cognitive ability, or that education simply serves as a sorting mechanism that divides the population into higher and lower statuses (Nie et al. 1996; Campbell 2009). These and similar questions about the effects of education mean, in David Campbell's words, that "we know relatively little about the civic development of adolescents. Specifically, we have a limited understanding of how schools do, or do not, foster political engagement among their adolescent students" (2009, 438).

With respect to civic education per se, the uncertainty is much greater. For a long time, it was argued that civic education and the curriculum more broadly had almost no influence at all on students' attitudes (Langton and Jennings 1968). That proposition has been under fire for well over a decade now (Niemi and Junn 1998;

Nie and Hillygus 2001). Still, the precise way in which schooling influences students is unclear. One possibility, of course, is that civics instruction itself – the classes students take that teach about one’s government and one’s role as a citizen – is the causal agent. Even then, the influence may stem from specific features of the class – whether it consists mostly of lectures, incorporates class discussions, involves students in group projects, and so on. Another possibility, which has found support from a major cross-national study, is that the climate of the classroom – how free students feel to express their opinions and have them discussed and respected – underlies student attitudes, political engagement, and even political knowledge (Torney-Purta 2002). Community service, which may or may not be a part of formal classroom instruction, is yet another factor that may influence youths’ feelings and actions about civic and political participation (Finlay et al. 2010).

Further adding to the complexity of school effects is how they interact with family and other outside influences. If one of the goals of civic education is to create and maintain civic equality, one might hope that schools compensate for the considerable inequalities that students bring with them. Families vary considerably in the extent to which they introduce their children to the political world. Some parents provide a rich literacy environment, often operationalized simply by the number of books found in a home (Campbell 2008; Evans et al. 2010; Persson 2014). Their children are provided with a basis for learning of all sorts, political and otherwise. Children from other homes may be less well prepared to absorb classroom lessons. Similarly, some parents are themselves politically active, or they may display an interest in politics through frequent discussions and media

use, while others eschew any mention of politics. The compensation hypothesis asks whether schools have more influence on youths who are less strongly socialized by their families. Does civic education, in whatever form, in some way make up for the absence of strong family effects?

There is some evidence in support of the compensation hypothesis. The early findings of Langton and Jennings (1968) suggested that civics coursework, though generally ineffective, might have a positive impact on children from disadvantaged backgrounds. Strongly supportive evidence was recently found by Campbell and Niemi (2015), who uncovered a disproportionate effect of high-stakes civics exams on immigrant and Latino students' political knowledge.¹ In a study of the open classroom effect, Campbell (2008) found that "exposure to an open classroom climate at school can partially compensate for the disadvantages of young people with low socioeconomic status," more strongly influencing low SES students' appreciation of conflict in politics and their anticipated turnout behavior. In a quasi-experimental study of a newspaper-in-the-school program in Argentina, Chaffee et al. (1998, 161) reported what they dubbed "gap-closing patterns" in indices of media use, political discussions, political knowledge, and tolerance.

Yet not all tests have supported the compensation hypothesis. Campbell's (2008) positive results did not extend to civic knowledge, and Persson (2014), in a study similar to Campbell's, found no compensatory effect on civic knowledge in a

¹ Humphries, Muller, and Schiller (2013) reported that the academic rigor of high school course work (but not the number of social science credits) had a greater positive effect on the likelihood of registering to vote for Latino children of immigrants than among white third-generation-plus young adults.

Swedish panel study or in the full 28 countries of the IEA civic education study from which Campbell drew his American sample. And Gainous and Martens (2012), using the same data as Campbell but different operationalizations, found that open classrooms did have a greater effect on political knowledge among students from lower than average “home environments” but a smaller effect on intent to vote. In the Belgian study that underlies our work, Hooghe and Dassonneville (2011, 333), found a mix of compensation, acceleration (greater learning among those with initial high levels) and no effect depending on the civic education variable involved.²

The Theory of Civic Education Compensation

To the extent that civic education leads to heightened political engagement, it is likely to have a greater impact on some groups than others. After all, attention to politics and political information can be quite easily acquired through channels other than the classroom. In some families there are frequent political discussions. The same is true of some young people’s friendship networks. Likewise, students may consume political news in the media, especially now that it is so readily available. Indeed, one might posit that nowadays it is difficult *not* to tune in to at least some political information.

The logic of the compensation hypothesis suggests that civics classes will have their greatest impact on the political engagement levels of young people with less exposure to political information at home, in their social networks, and through the media. Students from lower SES families and less intellectually

²Hooghe and Dassonneville interacted students’ initial knowledge levels and classroom characteristics, thus looking only indirectly at compensation for limited family socialization.

stimulating households may receive lesser amounts of political input. Whatever the reason for the relative absence of political stimuli, youths with diminished interest and information are likely to gain more from school classes – civics classes in the study at hand. If education in general plays a role in creating and maintaining civic equality, civic education classes help those with fewer political resources to *catch up* with their peers who come from families with high levels of political socialization. This is not to say that those from high socio-economic backgrounds and from families where political discussions frequently take place do not gain anything from civic education classes. Rather, those coming from highly socialized environments have higher starting levels of political engagement, which leads to less room for growth (i.e., a ceiling effect). This, in a nutshell, is the compensation hypothesis.

Thus, the first question we investigate is which elements of civic education and parental socialization matter for the development of political engagement during adolescence and young adulthood. Then we assess how the two factors interact, aiming especially to determine the extent – if any – to which civic education compensates for a low level of parental political socialization. We focus on various facets of the civic education curriculum (formal civic education, open class room climate, active learning strategies) but also on the various ways in which parents may influence their offspring's political attitudes and behaviors (through socioeconomic status, intellectual environment, and frequency of political discussions). We consider the effect of these factors on a political engagement index that gauges the extent to which students follow socio-political issues.

Data and Variables

The main empirical test of the compensation hypothesis uses the rich data of the Belgian Political Panel Study (BPPS). The three waves of the study were carried out between 2006 and 2011. The panel offers information on political attitudes of adolescents and young adults between the ages of 14 to 24. Respondents were, in addition, asked about their educational curriculum as well as their parent's political attitudes and behaviors.³

Respondents were first interviewed in 4th grade (equal to grade 10 in the U.S. system). The 2006 survey, in which 6,330 adolescents participated, was representative for region, school type, gender and educational track. The respondents were surveyed again at school in 2008 and through regular mail in 2011 as they had left high school by then. Respondents who had changed schools or dropped out of school received the 2008 survey by regular mail. In the second wave, 4,235 pupils (67%) of the first wave participated and of these 3,025 respondents (71.4%) participated again in the third wave (for more details see Hooghe et al. 2011 and Hooghe et al. 2015). Only those respondents who had participated both in 2006 and 2008 were contacted for the third wave (see Hooghe et al. 2011, 19). Our analyses are thus based on a dataset including only those respondents who participated in all three waves of the panel study (2,821 respondents).⁴

³ Belgium is an established democracy that offers a common core curriculum to pupils in secondary education, as is true for many other European countries (European Commission 2014). It is, moreover, unexceptional in Europe with regard to the level and development of political engagement (Torney-Purta 2002). We thus have no reason to believe that Belgium would be an unusual case with respect to civic education, which is in the focus of this study.

⁴ The main reason for requiring participation in all three waves is a methodological one, as it is required by our modeling strategy – latent growth curve modeling. This means, however, that we

Our focus is on one dependent variable: an index of political engagement.⁵ The political engagement index gauges the extent to which respondents follow societal issues and politics and is based on three questions: one asking how often a respondent reads, watches or listens to the news (also on the internet), a second measuring how interested the respondent is in societal issues and politics, and a third assessing how often the respondent discusses politics or problems in society when (s)he is with good friends (for the exact wording of all questions see Appendix A). The political engagement index ranges from 1 'never reads or watches the news/not interested/never discusses politics' to 5 'reads or watches the news daily/very interested/always discusses politics'. The Cronbach's alpha for the index increases from 0.54 in 2006 to .61 in 2008 and 0.65 in 2011.⁶ The distribution of the political engagement index is very close to normal (see Appendix C), which fulfills one requirement for modelling continuous-level variables.

Since the main goal is to assess the extent to which civic education classes

only work with 44.6% of the original sample. In the online Appendix H, we compare the demographic attributes, civic education scores, parental socialization, and the mean dependent variable for those who dropped out of the panel in either 2008 or 2011 and those who remained in the panel throughout all three waves. The main and significant differences relate to the demographic attributes (see also Hooghe et al. 2011, 16). Those who dropped out of the panel were on average 5 months older in 2006. Also, more boys and respondents from Wallonia dropped out. Further, those who remained in the panel had higher educational aspirations (37% aimed to go to university in 2006, compared to only 25% of those that dropped out of the panel). Our models control for all these variables, which makes it less problematic that the three-wave panel is somewhat less representative than the initial wave. Regarding the key variables (civic education scores, parental socialization, and the dependent variable), the differences between the two samples are very small and negligible. We therefore do not believe that panel attrition affects our conclusions.

⁵ See Ansolabehere et al. 2008 for more on the advantages of using indexes to measure attitudes and behavior.

⁶ A factor analysis confirmed that all three items load very strongly on only one dimension (Eigenvalue: 2.387; proportion: 0.478). To make sure that using an index as a dependent variable does not influence our results, we also estimated our models with the single independent variables (political news consumption, political interest, and political discussion). The results are presented in Appendix E and are largely the same as those presented in results section below.

compensate for missing parental socialization, our main independent variables of interest are various measures of parental and educational influences asked in the first wave in 2006.⁷ Starting with the latter, we largely follow Dassonneville et al. (2012) by looking at formal civic education, open classroom climate and active learning strategies. In doing so, our study focuses on different facets of civic education classes studied by various other researchers (see e.g. Campbell 2008; Finlay et al. 2010; Kisby and Sloam 2012; Martens and Gainous 2013; Torney-Purta 2002). Most of the civic education measures are based on multiple questions and all are aggregated at the class level in the first wave of the panel in 2006.⁸

Formal civic education refers to conversations about socio-political issues and institutions in class and is measured through a number of questions on how often on a scale from 1 'never' to 4 'often' the following topics were discussed in class: 1.) the way parliament works; 2.) the United Nations; 3.) the European Union; 4.) federalism; 5.) elections; and 6.) recent political events. The Cronbach's alpha for the formal civic education measure is 0.81 in 2006.

Open classroom climate is measured on a scale from 1 'totally disagree' to 4 'totally agree' and taps whether students: 1.) felt encouraged to develop their own opinions; 2.) felt free to express their own opinion in class, even when it deviates

⁷ As discussed in the methods section below, we are modelling the change in the dependent variable as respondents age. We treat the initial parental socialization and civic education as the starting points that (at least partly) predict the initial level of political engagement observed in the 2006 wave, when respondents were between 14 and 20 years old (average = 15.7).

⁸ Students are clustered in 337 classes in 108 schools. There are between 1 and 47 pupils per class, with an average of 14 pupils per class. Using the average score of civic education per class accounts for measurement error, as it is expected that some students under- or over-report the amount and content of their civic education. See Dassonneville et al. (2012) for more on this topic. In order to assess whether the civic education measures are affected by varying reliability due to changing class sizes, we replicated our models with those in classes of at least 10 pupils. Appendix G reports the results of these models, which are based on 1,485 pupils in 110 classes. The substantive conclusions remain the same.

from the majority; and 3.) were under the impression that their teacher provided several views on topics in class. The Cronbach's alpha for open classroom climate is 0.60 in 2006.

The presence of active learning strategies, lastly, is measured through three different indicators.⁹ The first records overtly political contacts – i.e., whether pupils visited the parliament or town hall as part of their civic education course and whether any politicians or important people in society came to give a talk in class. The 'visits' measure runs from 0 'none' to 2 'both activities'. The second measure of active learning strategies measures how often students had to engage in group work for which they received a joint grade in the past year (1 = never, 4 = often). Group work is thought to foster one's ability to work cooperatively and understanding of the efficacy of coordinated behavior, both key elements of active political engagement. The third and last indicator of active learning strategies measures on a scale from 0 'no' to 3 'more than 20 hours' whether and how much voluntary work students were obliged to do by their school. Such work is often thought of as a kind of "new engagement" that may be replacing more traditional modes of political behavior (Zukin et al. 2006).

The second set of independent variables aims to tap various parental socialization influences. We focus on family socioeconomic status, the overall intellectual atmosphere of the home and the frequency of student-parent political discussions. Parental socio-economic status is measured through the average educational level of the mother and the father of the respondent (ranging from 1

⁹ We refrained from putting the three indicators into an index measuring active learning. First, each item taps different forms of active learning, some being explicitly political (visits to the parliament and from politicians) and others being very unspecific (group work). Second, as the alpha coefficient of 0.04 indicates, these items are empirically unrelated.

'lower secondary education' to 4 'a university diploma').¹⁰ The intellectual character of the home is assessed through the estimated number of books students have at home (ranging from 0 'none' to 6 'more than 500').¹¹ Next, we include a dummy variable measuring whether parents are considered the respondent's main source of information about problems in society and about politics. We also measure on a scale from 1 'never' to 4 'always' the frequency with which students discuss politics or problems in society with their parents. Since all civic education and parental socialization variables are measured from less to more, in principle we expect a positive relationship between each of the measures and our dependent variable.

Lastly, we also include a number of control variables in our analysis. The first is age. Following a standard life-cycle hypothesis we expect that levels of political engagement increase over the life span. We also include a dummy variable for gender (1 = female) with the expectation that females are less politically engaged and less politically active. To control for the educational level of the students we include a dummy variable selecting those respondents who aspire to go to university. Since the Belgian educational system is stratified, with educational tracks that are considered to be of different quality, we also include a dummy variable selecting those in the highest educational track (general secondary

¹⁰ We decided to capture the average educational attainment of the parents rather than including the education of the mother and the father separately. First, the education of the parents is reported by the children themselves. We hence hope that by averaging the education of the parents, we account for possible over- or under-reporting. Second, the education of parents is highly correlated ($r=0.54$) and we hence feel confident that we capture a family status rather than a maternal or paternal influence only. We nevertheless ran the models separately for mothers' and fathers' education and find the same, insignificant effects as for the combined parental education. The results are available upon request from the authors.

¹¹ The number of books at home is often used as a proxy for the parental status (Campbell 2008; Persson 2014), though the modest correlation with parental education ($r=0.35$) suggests that it taps into something else as well.

education), which prepares students for higher education.¹² We expect these variables to be positively related to the dependent variable. Because Belgian schools can be strictly divided between Dutch- and French-language schools (i.e. there are no bilingual schools) we also include a dichotomous variable to capture the differences between the two Belgian language communities. Appendix B reports the full list of descriptive statistics for all variables analyzed below.

Latent Growth Curve Modeling

Here, we are interested in the way civic education and parental socialization affect the development of political engagement during adolescence and young adulthood. This implies intra-individual variation as we assume that – on average – levels of political engagement increase with age.¹³ We also expect to observe differences in starting levels and growth patterns between respondents. Some have high levels of political engagement from an early age onwards. Others, however, might have low levels of political engagement when they are young but become more active over time and catch up with their more politically engaged peers.

¹² While the educational tracks in Flanders and Wallonia are slightly different, in general, there are three different tracks in the Belgian secondary education system: a vocational, a technical, and a general track. Anyone with a secondary education diploma is free to enroll in post-secondary education. However, those taking the vocational track have to take an extra year in post-secondary education. Moreover, the success rate for those coming from vocational and technical tracks is lower than for those from the general track, which prepares students for higher education (not surprisingly, this is also related to factors such as socio-economic status). We categorized the educational track variable into a dummy, as the tracks below the general secondary education track differ slightly between Flanders and Wallonia and a more nuanced distinction is therefore problematic.

¹³ As a robustness check, we also estimated our growth models as a function of time instead of as a function of age. The results are presented in Appendix F and show very few differences to the models estimated with age. We present the models with growth as a function of age in the remainder of this paper, as the theoretical expectation is that levels of political engagement increase with the life experiences that accompany the ageing process.

Latent growth curve (LGC) modeling is a statistical methodology that permits each respondent to have a unique trajectory as they age through the estimation of random slopes and random intercepts (cf. Bollen and Curran, 2006; Preacher et al., 2008; and van Ingen and van der Meer, 2015, for a recent application in political behavior). The actual scores of the dependent variable – the level of political engagement – during adolescence and young adulthood are not of primary interest. Rather, repeated individual observations are used to estimate an underlying trajectory or line that best describes this growth of political engagement for every individual in the sample over the three waves of the panel study that we have at our disposal.

Figure 1 illustrates these individually fitted trajectories for the first ten (random) respondents in our sample. The bold line shows the overall development of political engagement of these young adults. From this illustrative picture it becomes apparent how growth curve models work. Clearly respondents differ in their initial level (intercepts) of the dependent variable. Moreover, as Figure 1 shows, respondents also differ in their growth or development in political engagement as they age. While some have a steep increase, some have decreasing levels of engagement as they pass through the crucial years between childhood and adulthood.

< Figure 1 about here >

When estimating these trajectories, three questions are crucial: First, what is the mean starting level and further development of political engagement for the entire sample? This is captured by the mean intercept and mean slope, which are

comparable to the standard OLS regression coefficients. Second, to what extent do individual trajectories deviate from the mean? Lastly, how can we explain this variation? The latter can be done through the incorporation of explanatory variables to better understand the variability observed in individual trajectories. For the present paper these questions can be reformulated as follows: What is the average trajectory of political engagement over time in our sample of adolescents and young adults? Is there significant individual level variance in the intercepts and slopes, i.e., in the observed starting levels of political engagement and the subsequent development or growth as respondents age? And most importantly, to what extent do parental socialization and civic education explain these individual differences?

In order to answer these questions we first need to examine the overall development of political engagement as well as the amount of deviation from the mean (questions 1-2). Subsequently we include covariates in the model to predict the individual trajectories (question 3). LGC models assume the existence of continuous underlying latent trajectories, which track how levels of political engagement change or develop for each person as they grow older. The following is the trajectory equation for an unconditional LGC model, which does not consider covariates affecting the latent trajectories (see Neundorff et al. 2013 for a more detailed description of the method):

$$y_{i\alpha} = \alpha_i + \lambda_{\beta} \beta_i + \epsilon_{i\alpha}$$

where $y_{i\alpha}$ is the observed value of the variable y – in our case political engagement – for the i th case at age α , α_i is the random intercept, representing the initial level

of political engagement for respondent i . β_i is the slope for i , measuring the ‘true’ rate of change for each individual as they grow older. λ_β is a vector that measures the functional form of the aging process.

Assuming a linear growth function, we get a constrained rate of change in the repeated measures of political engagement that is constant across all periods.¹⁴ Besides the growth factor λ_β , the variances of the intercept ($\psi_{\alpha\alpha}$) and the slope ($\psi_{\beta\beta}$) are important components in an LGC model. They provide a measure of the variability of individuals on this growth function. The larger these variances are the more people differ with regard to their development of political engagement. If we want to try to explain these individual differences we can include covariates (X), such as parental characteristics and measures of civic education. The aim is to estimate the effect these factors have on the unobserved, underlying (latent) trajectory of our dependent variable.

Important in the LGC models we present in the next section is the distinction between fixed effects and random effects. The fixed effects explain the intercept, i.e., the starting level of political engagement at the age of 14 when respondents were first interviewed. The random effects explain the slope, i.e., the development of levels of engagement as respondents age. Positive random coefficients indicate a *faster than average* growth or development, whereas negative coefficients point to a *depressed growth rate*. Rather than thinking of positive or negative slopes,

¹⁴ We assume a fixed (linear) parameterization of the growth function of political engagement during the (pre-)adulthood years, which is partially due to data restrictions and partially for theoretical reasons. Bollen and Curran (2006) show that three waves are the minimum requirement for testing a linear model (see also the more recent study by Little 2013). In any event, Prior (2010) and Neundorff et al. (2013) found that the growth of political engagement between ages 17-25 is linear and then flattens or stabilizes.

one should thus think in terms of steeper or flatter slopes when interpreting the results presented in the next section.

Results

This section has a two-fold aim. First, our analyses are aimed at understanding whether civic education and parental characteristics influence starting levels and the subsequent development of patterns of political engagement among young citizens. We then ask whether civic education can compensate for differing levels of family socioeconomic status, intellectual environment and frequency of student-parental political discussions. Before presenting the statistical results, we present the data descriptively.

Explorative Analyses

To explore the relationship between parental socialization, civic education and our dependent variable descriptively, we divided respondents according to levels of family discussion levels and formal civic education. The former is based on the average political discussion of parents with their children (mean: 2.1 on a 1-4 scale). Those above the average are classified as having high levels of parental socialization. Similarly, we classified respondents who received above average formal civic education as having high levels of civic education (mean: 1.7 on a 1-4 scale). Based on these two classifications, we can differentiate four different types of respondents. Table 1 reports the distribution of these types: 41.2% of all adolescents have civic education that is below average and discuss politics less frequently than the mean. On the other side, 11.8% have above average civic

education *and* parental socialization.

< Table 1 about here >

In a next step, we plot the average development of political engagement for these four different types of respondents. Figure 2 illustrates the compensation hypothesis in an explorative way. We simply fitted a straight line of the growth in political engagement for these four types. The order of these different types of young adults in terms of the dependent variable is as expected – those who reported high levels of parental socialization and high levels of civic education in the first panel wave are also most politically engaged at all ages. Conversely, those with low parental socialization and low civic education are always least interested and politically active.

For our research, the important question remains of how parental socialization and civic education affect the *development* of political engagement as adolescents age. For this, we can compare the slopes of the four types illustrated in Figure 2. As it appears, those with low parental socialization but high civic education have the steepest development of political engagement over the age-span analyzed here. In other words, civic education seems to allow these students catch up with their peers from families with higher levels of parental socialization. This confirms the compensation hypothesis for this explorative analysis. It is further interesting to note that those with high parental socialization always show higher levels of political engagement, independent of whether they experience civic education in school. This confirms previous research that overall, parental socialization is very strong. The growth trajectory of those coming from families

with high levels of parental socialization is less steep, which suggests the existence of a ceiling effect.

< Figure 2 about here >

Latent Growth Curve Models

In the next step, we estimate latent growth curve models, which statistically test the descriptive results presented in Figure 2. We thus model the slopes for each respondent (not just four types) and test whether the level and form of parental socialization and civic education affect the growth (or not) in political engagement. The results are shown in Table 2,¹⁵ which reports the results of four different models.¹⁶ Model 1 includes only age and tells us the average starting levels of engagement at age 14 and the average growth rate of the dependent variable as our respondents age. In Model 2 we look at factors that influence the intercept, i.e., the starting level of political engagement, by including fixed-effect class-level indicators of civic education and fixed-effect parental socialization variables measured in the first wave of the panel study in 2006. This model – as well as the subsequent ones – also includes the control variables.

As noted, however, we are not only interested in seeing which elements of the civic education curriculum and of parental socialization influence starting levels of political engagement; we also want to know how they influence the development of political engagement as respondents grow older. Therefore, in

¹⁵ Note that we include only respondents who answered all questions in our models. We report the results of the full sample in Appendix C. Reducing the sample to 6,570 observations (i.e., 2,190 respondents over three time points) does not change the results.

¹⁶ We additionally estimated the models separately for parental socialization and civic education rather than estimating both sets of variables together. The results are generally the same and are available upon request from the authors.

Model 3 we include random effects variables by interacting our indicators of civic education and parental socialization with age as growth parameters.

While Models 2 and 3 help us understand which measures of civic education and parental socialization matter more or less when it comes to explaining variation in the starting levels and subsequent growth of political engagement, Model 4 assesses the compensation hypothesis. In this model we include an interaction effect between the civic education and parental socialization variables.

Turning to the results, Model 1 shows that our 14 year old participants have a staggeringly low political engagement starting level of 1.27 on a scale of from 1 'never read or watch the news/not interested/never discusses politics' to 5 'reads or watches the news daily/very interested/always discusses politics'. Levels of political engagement on average grow .09 points with every year that passes. This modest growth rate shows that political engagement is already relatively stable at an early age (see also Prior 2010; Neundorf et al. 2013). Nonetheless, the growth over, say, a five-year period is significant. Moreover, as the variance component of the slope parameter indicates, there is significant variation in the development in political engagement in our sample. It appears that the variance in the intercept (2.302) is much larger than in the slope coefficient (0.007), with both being significant at the 1% level.

The fixed-effects of civic education and parental socialization in Model 2 explain the variance among respondents at the age of 14. Of the civic education variables only formal civic education and group projects influence starting levels of political engagement. Both coefficients are positive, so the more often socio-

political issues and institutions are discussed in class and the more often students engage in group work, the higher are the starting levels of political engagement.

Turning to the socialization measures, we find that the number of books at home and the frequency of political discussion with parents positively influence the intercept of political engagement. In contrast, having one's parents as the only source of political information makes children have lower levels of political engagement at the age of 14. Moreover, the significant drops in the log-likelihood¹⁷ and the Bayesian Information Criterion (BIC) indicate that parental socialization and civic education explain variation in political engagement at the age of 14 very well.

In Model 3 the random effects variables show how our civic education and socialization measures influence both the starting level and the development of political engagement. Formal civic education still matters for the intercept at the age of 14. Being obliged by school to do a lot of volunteer work also has a weakly significant and positive effect on starting levels of political engagement, but the effect on the growth curve is negative. This implies that those who volunteer have a depressed growth rate as they age. The frequency of group work influences the starting level of political engagement negatively but has a positive and significant effect on the development of engagement as the respondents age. Thus, while those who engage in group work on average have lower starting levels, their levels of political engagement develop faster than those who did not engage in group work in their class.

¹⁷ We estimated a log-likelihood ratio test for all models. Including the fixed-effects on the intercept as well as including the random effects on the slope coefficients significantly improves the model compared to Model 1, which simply models the mean growth parameters for each respondent.

< Table 2 about here >

As for the parental variables, having parents as the main source of political information is once again found to have a negative effect on the starting levels of political engagement, and the variable does not influence subsequent development. In contrast, a higher frequency of discussion of socio-political issues with parents heightens the level of political engagement at age 14. Yet while starting levels are higher when parental political discussion is frequent, the same variable has a dampening effect on the development of engagement.

Based on the results of Models 2 and 3 we can reject the expectation that an open classroom environment, active learning strategies such as school visits, or parental education have an impact on the initial level or the development of political engagement among young people. In the subsequent models testing the compensation hypothesis by including cross-level interaction effects, these variables were excluded to estimate more parsimonious models.

Model 4 in Table 2 reports one of the nine possible combinations of parental socialization (measured by political discussions at home, parents as main political information, and books at home) and civic education (measured as formal civic education, group work, and volunteering). In order to test the compensation hypothesis, we include two interaction terms. First, we interact parental socialization and civic education on the initial level of political engagement. A positive coefficient suggests that young people, who are exposed to high parental socialization as well as high civic education, are more likely to have a higher starting level in political engagement. As Model 4 in Table 2 confirms, this is the

case for those who frequently discuss politics with the parents and also have high formal civic education ($b = +0.230$; $p < 0.01$). This confirms that both parental socialization and civic education boost political engagement, especially if they come together.

Secondly, Model 4 includes a cross-level interaction term, which captures how parental socialization and civic education jointly affect the development of political engagement as young people age. The interaction effect between the two variables is negative and significant ($b = -0.016$, $p < 0.01$), meaning that when parents and children discuss politics frequently, school has a weaker effect on levels of political engagement. Reversing this finding, when parents do not discuss political issues with their children, school has a stronger impact. This confirms the compensation hypothesis.

Table 3 summarizes all potential interaction effects of the parental socialization and civic education variables that were shown to impact political engagement either on the initial level or in the developmental process. Not all of the nine combinations of variables are significant. However, generally, the direction of the effects remains the same. First, high parental socialization and civic education boost the starting level of political engagement. Second, Table 3 further supports the compensation effect as the significant and negative interaction effects with the slope confirm. The effect of civic education is lower for those from very political families or, vice versa, civic education is particularly important for young people from less political families.¹⁸

¹⁸ There are two surprising effects. In families with many books, which is an indicator for families' socio-economic status, having group projects in class reduces the starting levels of political engagement of young people. Furthermore, those who do a lot of group work and who mainly get

< Table 3 about here >

The compensation effects are further illustrated in Figure 3, which plots the predicted trajectories of political engagement. The models were estimated separately for respondents from families, in which politics is discussed above (right panel) or below average (left panel). The figure then plots the predicted values for those with low formal civic education (black circles) and those with high formal civic education (grey diamonds). It is striking how big the difference in initial political engagement is. Those with low parental socialization and very good civic education, have a starting level that is equal to those that have very bad civic education but frequently discuss politics with their parents. Those who are disadvantaged on both dimensions have the lowest starting level of only 2.2 on the scale 1 to 5.

Most importantly, Figure 3 confirms the importance of civic education especially for the group of young people that is not socialized at home. We can see this in two ways. First, the difference between low and high formal civic education is significant and large at each age. Second, the development in political engagement is much steeper among the group that did not receive much parental political socialization. The growth in the dependent variable is about 1 point on the 5-point scale between the ages of 14 and 24. Among the group of respondents who discussed politics more frequently with their parents, this growth is only 0.5 points over the same period. This confirms that parental socialization already

their political information from their parents seem have a steeper development of political engagement. This is counter to what we would have expected based on the compensation hypothesis.

drives political engagement at a very young age. Yet those who do not receive much political education at home can, in time, catch up by receiving better civic education in school.

< Figure 3 about here >

Turning lastly to the control variables presented in Table 2, we see that girls have lower average levels of political engagement than boys. Those who at the age of 14 aspire to go to university and those in the highest educational track have higher levels of political engagement. These results are all as expected. The differences between the two language communities are not statistically significant.

A remaining question is how much of the intra- and inter-individual variation is explained by our models. The variance components in Table 2 provide us with answers to this question. The variance component for the intercept tells us how much variation there is in the starting levels of political engagement at the age of 14. Model 1 shows significant variation in starting levels and this variation remains significant, but lower, once covariates are included in the model. The variance component for the slope indicates the extent to which there is variation in the development or growth of engagement as our respondents age. Model 1 confirms that there is significant variation in the growth curves. Not surprisingly we do not manage to explain away all between-respondent differences in growth trajectories with our covariates, as there are other factors driving the development in political engagement in young adulthood that go beyond parental socialization and civic education.

Robustness Test: The Long-term Effects of Civic Education

Our results presented above are based on data from one country only at a specific time in history. We investigated the development of political engagement for the crucial formative years between 14 and 24 (Bartels and Jackman 2014). Our conclusions based on this data are hence limited to the case, time, and age. To make our conclusion more generalizable, we replicated the models presented above using the Youth-Parent Socialization Panel Study (YPSPS; Jennings et al. 2005),¹⁹ which is based on a nationally representative sample of 1,669 United States high school seniors from the graduating class of 1965. Subsequent waves conducted in 1973, 1982, and 1997 resulted in a panel of 935 respondents who participated in all four waves. Similar to the BPPS, the YPSPS includes information on political engagement in each wave as well as information about school curriculum and political discussions with parents in the first wave. The questions are comparable to the ones used in the models above.²⁰ However, the measure for civic education is limited to an indicator capturing whether respondents had any civics courses (rather than the type of civics courses), which 70% reported they had.

The advantage of using the YPSPS data is that it covers a much longer time period. While the Belgian panel data only cover the ages 14 to 24, the U.S. data

¹⁹ The data are available for download from the University of Michigan's Survey Research Center and Center for Political Studies (ICPSR, study number 4037): <http://doi.org/10.3886/ICPSR04037.v1>. Jennings and Niemi (1966, 1981) and Jennings et al. (2009) provide more information about the data.

²⁰ The exact question wording of the variables is reported in Appendix I. To measure political engagement, we used political interest as well as news consumption only. Unlike in the BPPS, there was no comparable measure for political discussion over time, which was hence not included in the index. We measure parental socialization using frequency of discussion with family about public affairs. We did not include parental education, which did not prove to be of significance in the Belgian or the U.S. models. There was no question about the number of books in the home.

allow us to follow individuals between the ages 17 and 50. We are hence able to track the long-term effects of parental socialization and civic education as well as their interaction. Figure 4 plots the development of political engagement dividing the 1965 high school graduating cohort into four distinct groups, parallel to the ones presented in Figure 2. The figure shows the respondents having or not having civic courses in school as well as those below and above average (mean: 3.1) political discussion with parents.²¹

< Figure 4 about here >

The most striking result of Figure 4 is the stability of political engagement, especially for those who profited from a strong parental political socialization. The respondents who grew up in less politicized families need a considerable length of time to catch up with the levels of political engagement of the former group. Respondents who had a civics course in high school do so much more quickly and seem to stabilize their level of political engagement by the age 25, while those had neither politically active parents nor civic education in school need the longest to become politically engaged (growth up to the age of 35). These findings are in line with previous research on the development of political interest that showed that political interest generally stabilizes around the age of 25 (Prior 2010; Neundorff et al. 2013). But it appears that there is some heterogeneity, depending on parental

²¹ Note that the average political discussion with the parents in the U.S. in 1965 is much higher than in Belgium in 2006 (mean: 1.7). Both variables are measured on a scale 1 to 4, where 4 represents almost daily political discussions at home. Similarly, the average political engagement in the U.S. in 1965 among high school seniors is 3.15 (on a scale of 1 to 4), compared to 2.65 (on a scale 1 to 5) in Belgium in 2006. Based on these and other comparable measures, it appears that generally today's youth in numerous countries are much less political than in the past, at least on conventional activities (e.g., Howe 2010, Wattenberg 2012).

socialization (high = stabilization appears earlier) and civic education (low = stabilization appears later). Based on Figure 4, we conclude that civic education helps to compensate for missing parental socialization, as respondents catch up more quickly with those who grew-up in political families. Those not exposed to politics in their youth at all – whether at home or in school – need the longest to catch up and only gradually become relatively politically engaged.

In order to assess whether the observed, descriptive picture of Figure 4 also withstands a more rigorous statistical test using latent growth curve models, we replicated the same models presented in Table 2 using the U.S. data. Focusing on Model 4 in Table 4 the compensation hypothesis is also confirmed using data from a very different country, time, and length of observation. The interaction between civics courses and parental discussion with the development of political engagement is much smaller ($b = -0.001$, $p < 0.001$) than in the Belgian case ($b = -0.016$, $p < 0.001$), which is related to the extended age period studied and the observed stabilization. Nevertheless, the interaction effect is highly significant, supporting the compensation hypothesis. These additional analyses furthermore strengthen the generalizability of our conclusions, as we can replicate the same patterns across very different countries and time periods.

< Table 4 about here >

Conclusion and Discussion

The literature on political socialization increasingly recognizes that both parents and schools – the latter in the form of civic education – influence the political

attitudes and behavior of children, including teens. Of course, not all family and school effects are equal. The principal objective of our study was thus to understand whether civic education could compensate for a lack of parental political socialization. If one of the goals of civic education is to create and maintain civic equality, one might hope that schools, at least to some degree, make up for the considerable inequalities that originate in the family.

The answer found in our analysis is positive: the compensation effect exists for political engagement. While our findings suggest that high levels of parental socialization and civic education boost starting levels of political engagement at the age of 14, civic education affects the development of political engagement for respondents from less political families more. The importance of this result can hardly be overestimated. In Campbell's (2008) words, "it is particularly significant that civic education in school appears to have the potential to partially compensate for the persistent class bias in political engagement" (451). To the extent that one of the historic goals of schools (at least in the U.S.) has been to assist immigrants and marginalized groups in general to participate effectively in the political system, it appears as if they are achieving what they were designed to do.

That we have found evidence of compensation in two countries at very different historical times (cohorts of young people from the 1960s and 2000s) and for varying lengths of observations (youth to old and impressionable years only) is especially encouraging. Widespread (though not universal) supportive evidence indicates that compensation effects now have to be considered a leading hypothesis of the role civic education plays in the development of youthful political orientations.

Beyond our findings regarding compensation as such, the details of our more extended analysis of the Belgian Panel Study are also worth noting. Utilizing three waves from 2006-2011, we estimated latent growth curve models, making a distinction between factors that influence the starting levels of engagement and participation at the age of 14 and factors that influence the development or growth as respondents age. Of the school variables we found that the amount of formal civic education and the frequency of group projects influence starting levels of engagement most. Involvement in group projects also influenced the development in political engagement as our respondents aged. Volunteering and receiving visits from politicians or making visits as a class may as well have influenced the growth rate of our dependent variable. Among the home and family variables, the number of books at home and the frequency of political discussions with parents mattered most for starting levels of political engagement, while parent-child political discussion was found to influence the growth in political engagement.

When we looked at fixed and random effects simultaneously, formal civic education, volunteering, and political discussion affected starting levels of political engagement positively. The frequency of group projects was the only school variable to positively affect the growth rate of political engagement. The other statistically significant variables – volunteering and acquiring political information mainly from parents – lead to a flatter growth rate. Overall, these findings are encouraging in the sense that civic education classes are found to have an impact on the political engagement of young citizens even after they leave the secondary educational system.

Most importantly, however, is that civic education appears not only to be an important socializing effect on young people, but it contributes to the democratic goal of making citizen involvement more equal.

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Tables and Figures

Table 1 Distribution of high and low parental socialization and civic education in 2006 (%).

Civic low; parent low	41.2
Civic high; parent low	31.7
Civic low; parent high	15.4
Civic high; parent high	11.8

Data: Belgian Political Panel Survey (BPPS), 2006-2011.

Table 2 The effects of civic education and parental socialization on the development of political engagement (in Belgium).

	Model 1	Model 2	Model 3	Model 4
	b/(se)	b/(se)	b/(se)	b/(se)
Fixed-effects (measured in 2006)				
Age	.091*** (.004)	.091*** (.004)	.136*** (.053)	.065*** (.021)
Girls		-.209*** (.023)	-.210*** (.023)	-.206*** (.023)
French-speaking		-.002 (.033)	-.003 (.033)	
Educational goal: university		.130*** (.026)	.130*** (.026)	.128*** (.026)
Educational track: Highest		.152*** (.034)	.152*** (.034)	.149*** (.034)
<i>Class-level variables:</i>				
Formal civic education		.181*** (.049)	.474* (.261)	.305** (.132)
Open classroom climate		0.057 (.062)	0.23 (.292)	
Active learning: volunteering		-0.064 (.072)	.527* (.276)	.623** (.275)
Active learning: visits		-0.019 (.082)	0.128 (.381)	
Active learning: group projects		.091** (.036)	-.563*** (.166)	-.611*** (.162)
<i>Parental variables:</i>				
Pol. info mainly from parents		-.184*** (.036)	-.438*** (.164)	-.400** (.163)
Pol. discussion with parents		.321*** (.019)	.903*** (.100)	.413*** (.098)
Books at home		.041*** (.009)	.044 (.041)	.061 (.040)
Parental mean education		-.008 (.017)	-.003 (.082)	
Random-effects (with age)				
Formal civic education			-.016 (.014)	
Open classroom climate			-.010 (.015)	
Active learning: volunteering			-.034** (.015)	-.039*** (.015)
Active learning: visits			-.008 (.020)	
Active learning: group projects			.037*** (.009)	.039*** (.008)

Pol. info mainly from parents			.014 (.009)	.012 (.009)
Pol. discussion with parents			-.033*** (.005)	
Books at home			.000 (.002)	.001 (.002)
Mean parental education			.000 (.004)	
Interaction effects (Formal civic edu * disc. with parents)				
Intercept				.230*** (.071)
Slope				-.016*** (.003)
Intercept	1.267*** (.080)	-.211 (.205)	-.998 (.987)	.183 (.460)
Variance components				
Slope	.007*** (.001)	.006*** (.001)	.005*** (.001)	.005*** (.001)
Intercept	2.302*** (.274)	1.967*** (.263)	1.723*** (.242)	1.739** (.243)
N of observations	6,565	6,565	6,565	6,565
N of respondents	2,190	2,190	2,190	2,190
N of classes	314	314	314	314
Log-likelihood	-6,368	-6,007	-5,967	-5,971
BIC	12,788	12,180	12,181	12,126

Significance: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Table continued from previous page. Standard errors clustered by class.

Data: Belgian Political Panel Survey (BPPS), 2006-2011.

Note: The table reports the coefficients of a latent growth curve model, in which age is the growth process. The dependent variable is an index of political engagement ranging from 1 “not at all engaged” to 5 “absolutely engaged.”

Table 3 Testing the compensation hypothesis: Interaction effects of parental socialization and civic education on the initial (intercept) and development (slope) of political engagement.

<i>Civic education:</i>	<i>Parental socialization</i>	Interaction effect on	
		<i>Intercept</i>	<i>Slope</i>
Formal civic education	Pol. discussion	.230***	-.016***
	Main source pol. info	-.160	.007
	Nr. of books	-.021	-.001
Active learning: volunteering	Pol. discussion	.489***	-.025***
	Main source pol. info	-.643	.018
	Nr. of books	.193***	-.009***
Active learning: group projects	Pol. discussion	.063	-.005***
	Main source pol. info	-.127	.007*
	Nr. of books	-.041**	.001

Significance: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Data: Belgian Political Panel Survey (BPPS), 2006-2011.

Note: The table reports the results of the interaction terms with the intercept and the slope as presented in Model 4 in Table 2.

Table 4 The effects of civic education and parental socialization on the development of political engagement (in U.S.) (YPSPS, 1965-1997).

	Model 1	Model 2	Model 3	Model 4
	b/(se)	b/(se)	b/(se)	b/(se)
Fixed effects (at 1965)				
Age	.000 (.001)	.000 (.001)	.010*** (.003)	.004*** (.001)
Girls		-.180*** (.030)	-.180*** (.030)	-.181*** (.030)
Civics classes		.056* (.033)	.184*** (.057)	.269** (.110)
Parents: Pol. discussion		.145*** (.016)	.206*** (.027)	.193*** (.028)
Random-effects (with age)			-.005***	
Civics classes			(.002)	
Parents: Pol. discussion			-.002*** (.001)	
Interaction effects (Civic edu * par. disc.)				
Intercept				-.027 (.037)
Slope				-.001*** (.000)
Intercept	3.196*** (.027)	2.799*** (.061)	2.523*** (.097)	2.560*** (.099)
Variance components				
Slope	.000*** (.000)	.000*** (.000)	.000 (.000)	.000 (.000)
Intercept	.175*** (.035)	0.139*** (.034)	0.133*** (.033)	.133*** (.033)
N of obs	3,723	3,723	3,723	3,723
N of respondents	931	789	789	789
Log-likelihood	-3,375	-3,319	-3,312	-3,312

*Significance: * p<0.1; ** p<0.05; *** p<0.01.*

Data: Youth-Parent Socialization Panel Study, 1965-1997.

Note: The table reports the coefficients of a latent growth curve model, in which age is the growth process. The dependent variable is a political engagement index.

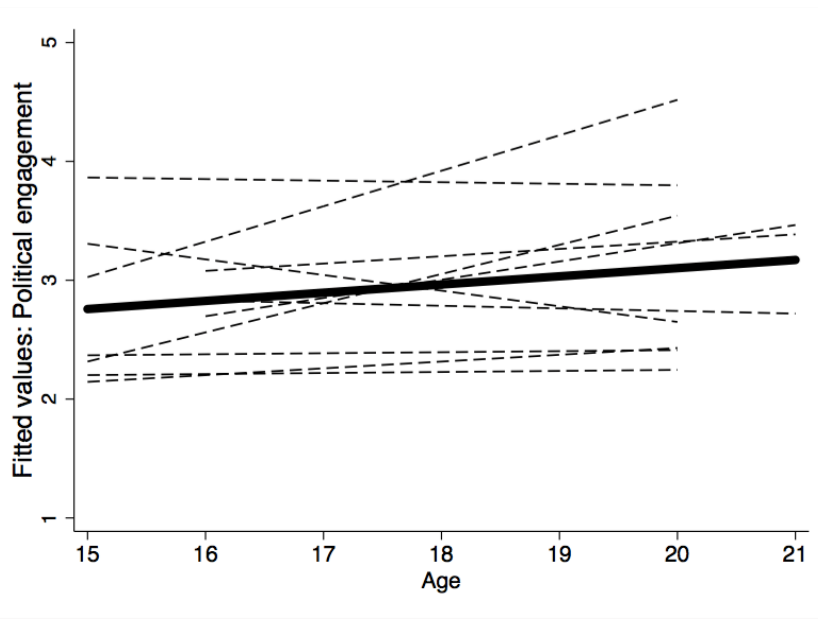


Figure 1 Individual development of political engagement for 10 random respondents (in Belgium).

Data: Belgian Political Panel Survey (BPPS), 2006-2011.

Note: Lines show fitted values of a linear regression of age on political engagement for 10 random respondents.

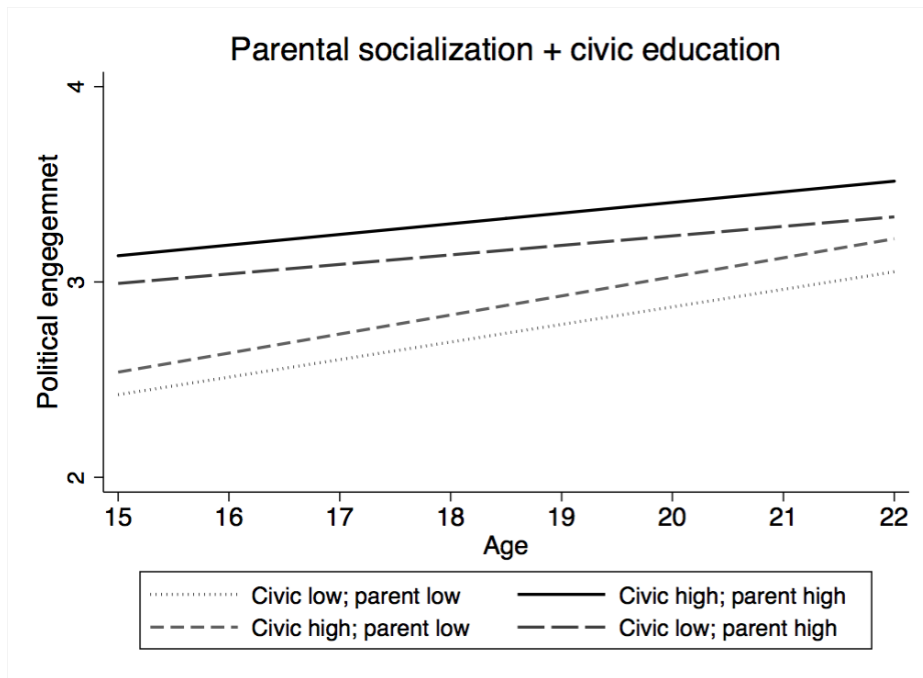


Figure 2 Fitted trajectories of political engagement for four types of respondents (in Belgium).

Data: Belgian Political Panel Survey (BPPS), 2006-2011.

Note: Lines show fitted values of a linear regression of age on political engagement by respondent type. Low and high civic education is based on or below and above average (mean: 1.7) formal civic education. Low and high parental socialization is based on below and above average (mean: 2.1) political discussion with parents. Civic education and parental socialization are measured in the first wave of the panel in 2006.

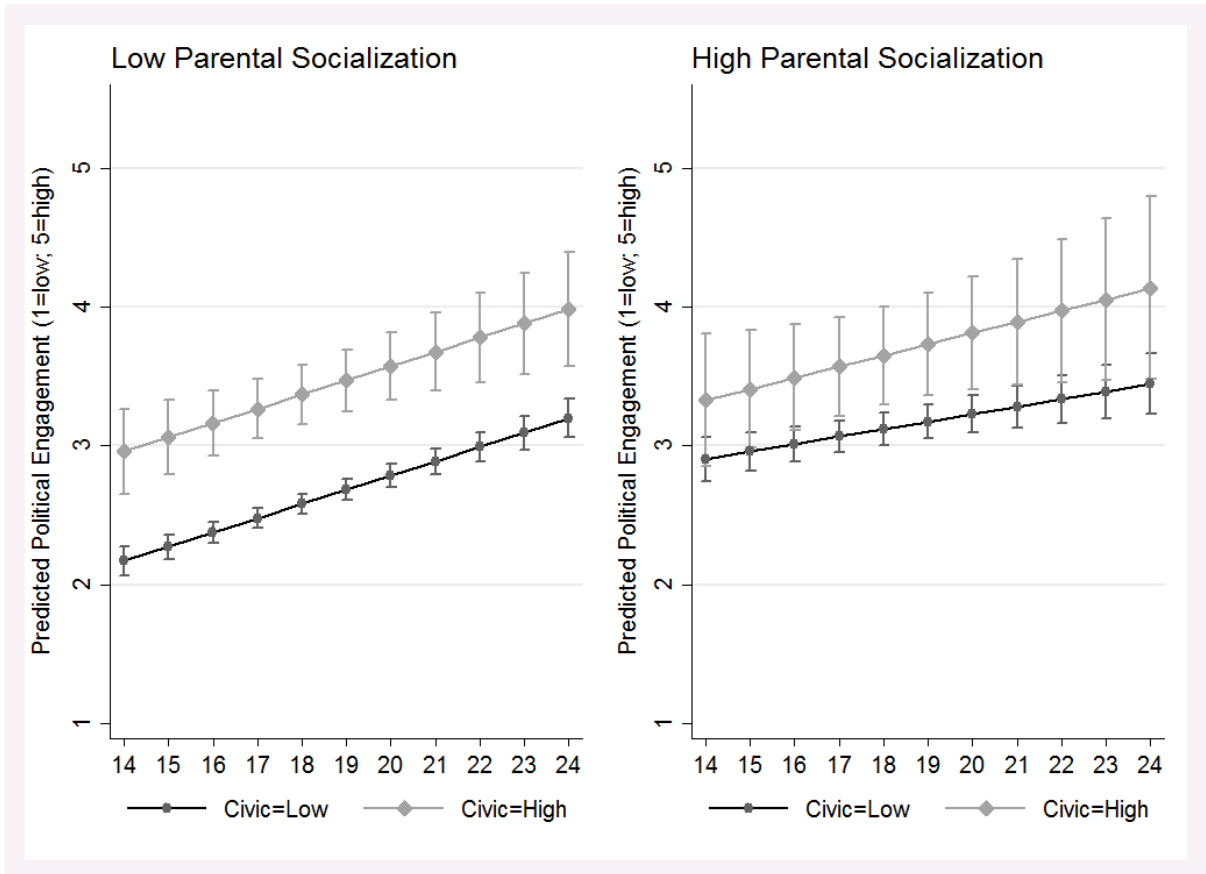


Figure 3: Predicted values of political engagement by parental socialization (below and above mean political discussion) and formal civic education (1=lowest; 4=highest) (in Belgium).

Data: Belgian Political Panel Survey (BPPS), 2006-2011.

Note: The figure is based on two separate models, dividing the respondents into those with below average parental discussion about political affairs (≤ 1.7) and those above average. The model controls for the basic demographic variables gender, degree goal, and educational track. Other variables related to parental socialization and civic education were deleted from the model for reasons of parsimoniousness. The figure was created using the command “margins” in Stata 13.

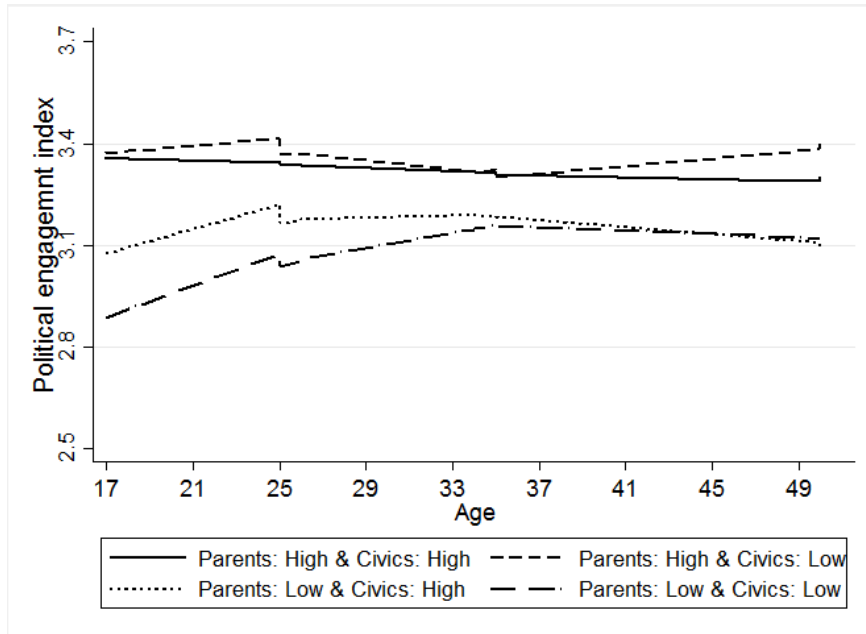


Figure 4 Fitted trajectories (lowess) of political engagement for four types of respondents (in U.S.).

Data: Youth-Parent Socialization Panel Study (YPSPS), 1965-1997.

Note: Lowess of age on political engagement by respondent type. Low and high civic education are based on having or not having civic courses in school (70% do). Low and high parental socialization are based on below and above average (mean: 3.1) political discussion with parents. Civic education and parental socialization were measured in the first wave of the panel in 1965.