Where does turnout decline come from?

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Abstract. This article looks at the socio-demographic sources of turnout decline in Canada. The analysis is based on the Canadian Election Studies that have been conducted between 1968 and 2000. There is a small period effect which suggests that the propensity to vote has declined marginally (by about three percentage points) in all demographic groups. There are substantial life cycle effects – that is, turnout shifts within a given cohort as members of that cohort grow older. There are powerful generation effects: turnout differs among the various cohorts even when we compare them at the same stage of their life cycle. The much lower turnout among the post-baby-boomers is the main reason why turnout has declined overall in Canada. The most recent generations are less prone to vote in good part because they pay less attention to politics and because they are less likely to adhere to the norm that voting is not only a right, but also a moral duty. The decline in turnout thus reflects a larger cultural change. Education remains an important correlate of voting. The increase in educational attainment has contributed to dampening the decline in turnout. There is no evidence that the decline in turnout has been more acute among certain sub-groups of the electorate (leaving aside age and education).

Turnout is declining in most established democracies (Blais 2000; Gray & Caul 2000). Where does that decline come from? We focus on the two classic socio-demographic correlates of voting – age and education (Wolfinger & Rosenstone 1980; Blais 2000) – both of which raise intriguing questions about the sources of declining turnout.

It is an established fact that older citizens are more likely to vote than their younger counterparts. The thorny question is whether this reflects a life cycle or a generation effect. Are younger citizens presently less likely to vote because they happen to be young – the implication being that their propensity to vote will increase as they get older – or because they belong to a generation that is less willing to vote – the implication being that their participation rate will always be lower than that of previous generations? It is only by comparing the turnout of different age cohorts at different points in time that it becomes possible to disentangle life cycle and generation effects, and this is precisely what we do in the present study. We wish to establish whether there is a genuine generation effect in turnout and, if so, we wish to

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determine how much of the overall decline in turnout can be explained by generational replacement.

Education raises an interesting paradox. We know that the better-educated are more prone to vote than the less-educated. We also know that the overall level of educational attainment has increased over time. Theoretically, the latter trend should have produced an increase in electoral participation. Yet, we observe precisely the opposite. Why? One possibility is that the impact of education has decreased over time – that is, the decline in turnout has taken place most dramatically among the better-educated, who may have become more prone to abstain from time to time.

We use the Canadian Election Studies (CES) that have been conducted from 1968 to 2000. We consider a total of nine elections: 1968, 1974, 1979, 1980, 1984, 1988, 1993, 1997 and 2000 (only the 1972 election, for which there was no election study, is missing). Our pooled data set includes over 25,000 individuals, an average of close to 3,000 per survey. We use as dependent variable reported vote in the post-election survey. As is always the case, voting is overestimated in these surveys, in part because those who are more interested in politics and more inclined to vote are more prone to answer surveys, and in part (in the case of panel studies in which people are interviewed in the campaign and re-interviewed after the election) because participating in an election survey makes people more inclined to vote (Blais & Young 1999; Granberg & Holmberg 1992). Furthermore, there is some misreporting due to social desirability. Social desirability does introduce a bias, but the evidence suggests that 'it is a general human trait that is uncorrelated with specific characteristics of the respondents' (Brady et al. 1995: 292) and that it does not substantially affect the findings (for a different view, see Bernstein et al. 2001). We use weighted data so that the turnout figure in our surveys matches the official turnout.[1]

The average turnout over these nine elections is 72 per cent, but it is 74 per cent for the six elections held before 1990 and 67 per cent for the three held after. This seven-point drop, a relative decline of 10 per cent, is an important focus of our study. We determine what fraction of that drop (if any) can be accounted for by the process of generational replacement, and we specify among which subgroups (if any) of the electorate it is concentrated.

Life cycle, generation and period effects

We start with the crucial question concerning the relationship between age and voting. We know that age is the best predictor of voting: the older one is,

the more likely one is to vote. The challenge is to unravel the meaning of that relationship, to ascertain whether this reflects a life cycle effect (people become more prone to vote as they grow older), a generation effect (members of new generations are less inclined to vote than those of previous generations at the same age) or both. In order to determine this, we need to combine surveys conducted at different points in time, so as to compare the turnout of different cohorts at different stages of their life cycle.

We follow the methodology proposed by Johnston (1989, 1992), which incorporates direct measures of life cycle, generation and period effects. The life cycle effect is assumed to be a continuous one, and is measured by the age of the respondent. We tested three different forms of relationship: linear, logarithmic and curvilinear. The linear model assumes that the propensity to vote increases monotonically as one gets older. The logarithmic model assumes that the increase is greater at the beginning of the life cycle and smaller at the end, while the curvilinear model supposes that the propensity to vote decreases in the last stage of the life cycle. We retain the latter model, which is consistent with what we know about life cycle effects on voting (Wolfinger & Rosenstone 1980) and produced the most satisfactory results.

Generational effects are tapped through a set of dichotomous variables that indicate whether or not an individual belongs to a given cohort group. We distinguish four generations: the pre-baby-boomers (born before 1945), the baby-boomers (born between 1945 and 1959), and, among the post-baby-boomers, those born in the 1960s (the so-called 'generation X') and those born in the 1970s. The hypothesis is that the latter generations are less prone to vote and are mainly responsible for the recent drop in turnout.[2]

We finally created two dummy variables to capture period effects: one for the 'recent' elections held after 1990, and one for the 'seasonal' elections of 1974 (held in July) and 1980 (held in February). Turnout is typically six points lower when the election takes place in the summer or winter (Nevitte et al. 2000: 166, Note 4). What matters is probably not summer or winter as such, but the presence of the holiday season.

Table 1 presents the findings. The table confirms the presence of life cycle, generational and period effects. Careful readers will notice that the pseudo R squared in Table 1 is quite low. This is to be expected since we are looking for the impact of one factor (age) on turnout. It would be possible to obtain a higher R squared by incorporating additional variables, in particular attitudes, such as sense of duty, that are related to voting (see Table 4), but it does not make sense to control for such attitudes if the objective is to ascertain the full effect, both direct and indirect, of age. These attitudes are intervening variables – they explain in part why younger generations are less prone to vote

Table 1. Logit analysis of the impact of age, generation and periods on the propensity to vote, 1968–2000

	Dependent variable: vote participation	
Independent variable	B	(s.e.)
Age	0.0669*	(0.0061)
Age^2	–0.0005*	(0.0001)
Baby-boomer	–0.1576*	(0.0514)
Generation 60s	–0.6120*	(0.0718)
Generation 70s	–0.9261*	(0.0990)
Period post-1990	–0.1643*	(0.0431)
Summer/winter	–0.3213*	(0.0417)
Constant	–0.2790	(0.1630)
N	25,214	
Pseudo R^2	0.0493	
Log likelihood	–14,288.358	

* $p < 0.01$.

and help us better understand the reasons why there are generational effects, but not whether there are generational effects to start with.

Our approach is similar to that of Miller and Shanks (1996). The principle is that one should control only for prior antecedent variables when the purpose is to assess the full impact of a given set of variables. Because age is by definition the 'most' antecedent variable (with gender), there is no reason to control for other variables. Finally while the low R squared indicates that age is only one small factor that affects turnout, the simulations performed later show that generational replacement is a crucial factor that explains most of the turnout decline that has occurred since 1990.

Table 2 illustrates the relative and combined import of each by providing the mean predicted probability of voting for individuals of a given age, belonging to a given generation, before and after 1990. The pre-1990 results concern 'normal' elections, and exclude the two 'abnormal' elections held in summer 1972 and winter 1980. Predicted turnout is 6 to 8 percentage points lower for those two elections. Table 2 confirms the presence of important life cycle effects. The propensity to vote increases by 8–11 points from age 20 to 30, 4–5 points from age 30 to 40, 2–3 points from age 40 to 50, stays stable from 50 to 70, and declines by 3–4 points from 70 to 80. All in all, the propensity to vote increases by about 15 percentage points from age 20 to age 50. This is clearly a very substantial effect.

Table 2. Predicted turnout according to age, generation and periods, 1968–2000 (percentage)

	Age						
	20	30	40	50	60	70	80
Period pre-1990							
Pre-baby-boomers	–	77	81	83	83	81	78
Baby-boomers	66	74	78	–	–	–	–
Generation 60s	55	–	–	–	–	–	–
Generation 70s	–	–	–	–	–	–	–
Period post-1990							
Pre-baby-boomers	–	–	–	80	81	79	75
Baby-boomers	–	–	75	78	–	–	–
Generation 60s	–	62	66	–	–	–	–
Generation 70s	43	52	–	–	–	–	–

Table 2 also confirms the presence of generation effects. At the same age, turnout is 2 or 3 points lower among baby-boomers than among pre-baby-boomers, a very substantial 10 points lower among generation X than among baby-boomers, and another huge 10 points lower among the most recent generation than among generation X. All in all, age being held constant, the propensity to vote decreases by more than 20 points from the oldest to the most recent cohort. These findings clearly indicate that generation effects are at least as important as life cycle ones.

Table 3 shows that the pattern is basically the same among men and women.[3] In both groups, we observe substantial life cycle and generation effects. There are some slight differences. It is only among women that turnout drops significantly in the later stages of life. However, it could be that this pattern applies only to pre-baby-boomers. Among pre-baby-boomers, men are slightly more likely to vote, and women have a slightly higher turnout among baby-boomers. No systematic difference emerges among the most recent generations.

These data enable us to determine to what extent the recent decline in turnout can be imputed to generational or life cycle effects. Mean turnout was 75 per cent in the four 'normal' elections held before 1990, and 67 per cent for the three held after. Could it be that most of that drop is attributable to generational replacement?

The short answer is yes. The specific contribution of period effects can be ascertained by computing the mean probability of voting when the election is

Table 3. Predicted turnout according to age, generation and period for men and women, 1968–2000 (percentage)

	Age						
	20	30	40	50	60	70	80
Men: Period pre-1990							
Pre-baby-boomers	–	78	81	83	84	85	84
Baby-boomers	67	72	76	–	–	–	–
Generation 60s	57	–	–	–	–	–	–
Generation 70s	–	–	–	–	–	–	–
Men: Period post-1990							
Pre-baby-boomers	–	–	–	82	83	84	83
Baby-boomers	–	–	74	77	–	–	–
Generation 60s	–	60	65	–	–	–	–
Generation 70s	43	49	–	–	–	–	–
Women: Period pre-1990							
Pre-baby-boomers	–	75	80	82	82	79	72
Baby-boomers	65	75	80	–	–	–	–
Generation 60s	54	–	–	–	–	–	–
Generation 70s	–	–	–	–	–	–	–
Women: Period post-1990							
Pre-baby-boomers	–	–	–	79	78	75	67
Baby-boomers	–	–	76	79	–	–	–
Generation 60s	–	60	67	–	–	–	–
Generation 70s	43	55	–	–	–	–	–

pre- and post-1990, holding everything else (age and generation) constant. This is obtained by putting every individual at 0 or at 1 on the post-90 variable, and keeping intact his or her age and generation and computing the mean predicted probability of voting under the two scenarios (in all the scenarios, because the contrast is to be drawn between 'normal' elections before and after 1990, every individual was put at 0 on the 'seasonal election' variable). The simulation indicates that the mean probability is three points lower in a post-1990 election. (The same estimate is obtained when comparing turnout pre- and post-1990 within the same age and cohort groups in Table 2.) The implication is that turnout declined by about three points in all age and cohort groups after 1990, and also that much of the eight-point drop after 1990 is *not* a period effect.

The other crucial factor is generational replacement. The relative weight of the four cohorts in the total electorate is quite different in the two periods. The two post-baby-boomer generations represent 44 per cent of the electorate after 1990 and only 11 per cent before, whereas the pre-baby-boomers repre-

sent 24 per cent now, compared to 59 per cent previously. We can compute the mean probability of voting in our sample for a post-1990 election under a scenario in which the relative weight of the various cohorts is set to remain at pre-1990 levels (i.e., if pre-baby-boomers constitute 59 per cent of the electorate instead of 24 per cent, and post-baby-boomers 11 per cent instead of 44 per cent). In that case, the mean probability would have been 73 per cent, instead of 68 per cent. Most of the eight-point drop in the turnout rate, then, flows from the gradual replacement of pre-baby-boomers by post-baby-boomers.

What about life cycle effects? Table 1 (as well as Tables 2 and 3) unequivocally confirms the presence of strong life cycle effects. These life-cycle effects do not, however, explain the recent drop in turnout. The reason is simple. The age composition of the electorate has not changed substantially over time. In fact, there has been a slight increase in the relative weight of the middle age groups, who tend to participate the most. As a consequence, life cycle effects are not the source of declining turnout.

Our analysis thus demonstrates the presence of life cycle, generational and period effects. There is a generalized period effect that affects all age groups and cohorts; for every individual, the propensity to abstain has increased slightly (by about three percentage points) since 1990. There are also strong life cycle effects, with turnout increasing by about 15 points from age 20 to age 50 or 60, but these effects are unrelated to the recent drop in turnout. Finally, there are powerful generational differences, the propensity to vote (at the same age and period) being at least 20 points lower among the most recent cohorts than among the pre-baby-boomers. The gradual replacement of the latter by the former accounts for most of the turnout gap between pre- and post-1990 elections.

Our findings are consistent with those of Lyons and Alexander (2000) and Miller and Shanks (1996), who show that most of the decline in turnout in American presidential elections is attributable to the process of generational replacement.

Why is turnout lower among the most recent cohorts?

That interpretation raises another question: Why are the most recent generations less prone to vote than their predecessors? Two broad societal changes seem to have taken place in Canada, and, perhaps, elsewhere. First, younger generations view the act of voting differently. In part because they tend to be less deferential (Nevitte 1996), young people are less wedded to the norm that voting is not only a right, but also a civic duty (Blais 2000). As a consequence,

they do not feel morally obliged to vote whenever they are not particularly interested in a given election. Second, younger generations pay less attention to politics (Blais et al. 2002: Chapter 3), perhaps because they tend to attach less importance or value to that field of activity than to others.

Table 4 provides support for that interpretation. The 2000 Canadian Election Study included a number of questions designed to tap sense of duty. Respondents were asked whether they agreed or disagreed with the statements that: 'It is the duty of every citizen to vote', 'It is important to vote even if my party or candidate has no chance of winning' and 'If I did not vote, I would feel guilty'. Responses to each of the three questions were scaled from 0 (strongly disagree) to 1 (strongly agree). (The 'sense of duty' index is the sum of the scores divided by 3. Cronbach's alpha for the scale is 0.63.)

The study also included a number of questions that measure respondents' level of attention to politics. There were three questions about the level of attention to election news on television, in the newspapers and on radio, one question about their overall level of political interest, and four questions tapping the level of factual political information (i.e., the names of the premier in the respondent's province, Canada's Finance Minister, the Prime Minister at the time of the Free Trade Agreement with the United States, and the United States capital). (The 'attention to news' and 'political interest' questions were on a scale from 0 to 10, and were transformed to a 0 to 1 scale. All correct answers to the factual information questions were given a score of 1. The 'attention to politics' index is the sum of all scores divided by 8. Cronbach's alpha for the scale is 0.72.)

Table 4. Logit analysis of the impact of generation, sense of duty and attention to politics on the propensity to vote, 2000

	Dependent variable: vote participation			
Independent variables	B	(s.e.)	B	(s.e.)
Baby-boomer	–0.5695**	(0.2843)	–0.2731	(0.3090)
Generation 60s	–1.0508*	(0.2947)	–0.4715	(0.3314)
Generation 70s	–1.9324*	(0.2772)	–1.3023*	(0.3113)
Sense of duty			5.6670*	(0.5483)
Attention to politics			3.3808*	(0.5001)
Constant	2.9741	(0.2336)	–3.2544	(0.5244)
N	1,378		1,378	
Pseudo R^2	0.0449		0.1753	
Log likelihood	920.478		713.673	

* $p < 0.01$; ** $p < 0.05$.

Table 4 shows that sense of duty and level of attention to politics together account for much of the differences between the cohorts. Most importantly, it seems that once these two attitudes are taken into account, there is no longer any significant gap between the generation born in the 1960s and the two oldest cohorts. It appears that it is only because they have a weaker sense of duty and because they pay less attention to politics that those born in the 1960s are less likely to vote. According to Table 4, these two attitudes explain about half of the initial gap between the cohort born in the 1970s and the pre-baby-boomers. The most recent cohort has a weaker sense of duty and pays less attention to politics, and while these two factors are an important part of the story, other considerations not examined here seem to play their part.

These findings suggest that the lower turnout among the most recent cohorts reflects a larger cultural change in the level of attention that people pay (and the importance they attach) to politics and in their propensity to think that voting is a moral obligation. This interpretation should ideally be borne out by pooling surveys conducted at different points in time, so as to sort out life cycle and generational effects. Unfortunately, this is not possible because 'sense of duty' was not tapped in previous Canadian election studies. The cross-sectional evidence is, however, consistent with that interpretation.

The impact of education

Education is a classic and powerful determinant of voting. In nearly every country, the better-educated are much more likely to vote than the less-educated, and Canada is no exception. The problem, of course, is why, if this is the case and if the overall level of educational attainment has increased over time, has turnout not increased rather than decreased. One possibility that we want to explore is that education has lost some of its leverage recently – that is, that the better-educated are not voting as heavily as in the past.

We first need to establish the powerful impact of education on voting. We have three educational groups: the better-educated with a university degree, the less-educated who have not completed secondary school, and the middle group. The first column of Table 5 confirms that turnout is higher in the first group and lower in the second. Everything else being equal, the propensity to vote is 17 points higher in the first group than in the second.

We also find in our sample that the percentage with a university degree is higher after 1990 than before, and higher among post-baby-boomers than among the earlier generations. Why, then, has turnout decreased? To address this question, we need to look at possible interaction effects between education and cohort groups and/or periods. The results of our exploration are

Table 5. Logit analysis of the impact of age, generation, periods and education on the propensity to vote, 1968–2000

	Dependent variable: vote participation			
Independent variables	B	(s.e.)	B	(s.e.)
Age	0.0614*	(0.0063)	0.0599*	(0.0063)
Age^2	–0.0005*	(0.0001)	–0.0005*	(0.0001)
Baby-boomer	–0.3759*	(0.0534)	–0.3797*	(0.0533)
Generation 60s	–0.8611*	(0.0741)	–0.8842*	(0.0743)
Generation 70s	–1.1580*	(0.1013)	–1.1774*	(0.1015)
Period post-1990	–0.2950*	(0.0443)	–0.3498*	(0.0457)
Summer/winter	–0.3539*	(0.0426)	–0.3444*	(0.0425)
Lesser educated	–0.6087*	(0.0356)	–0.6283*	(0.0359)
Better educated	0.3548*	(0.0453)	0.1558*	(0.0604)
Better educated x post-1990	–		0.4132*	(0.0866)
Constant	0.2005	(0.1672)	0.2737	(0.1680)
N	25,007		25,007	
Pseudo R^2	0.0665		0.0672	
Log likelihood	–13,903.507		–13,892.085	

* $p < 0.01$.

presented in column 2 of Table 5. We found a substantial interaction effect with period, and this indicates that the drop in turnout that occurred after 1990 did not affect the better-educated.

Table 6 illustrates the implications of this interaction effect. It can be seen that the propensity to vote among those with a university degree is the same before and after 1990. The situation was quite different among the two other educational groups in which turnout typically declined by about five points. The consequence is that the educational gap has considerably widened (a similar pattern has been observed in the United States by Lyons & Alexander 2000 and Miller & Shanks 1996). Consider the situation of a 30 year-old baby-boomer in elections held before 1990. Her predicted probability of voting is 80 per cent if she has a university education and 64 per cent if she has not completed secondary school – an important gap of 16 points. Yet compare the situation of those born in 1970 and who were aged 30 at the time of the 2000 election. Their predicted probability of voting is 66 per cent if they have completed a university degree and only 37 per cent if they have not completed secondary education – a huge gap of 29 points.

Table 6. Predicted turnout according to age, generation, period and education, 1968–2000 (percentage)

	Age						
	20	30	40	50	60	70	80
Lesser educated: period pre-1990							
Pre-baby-boomers	–	73	77	79	80	78	75
Baby-boomers	56	64	70	–	–	–	–
Generation 60s	44	–	–	–	–	–	–
Generation 70s	–	–	–	–	–	–	–
Lesser educated: period post-1990							
Pre-baby-boomers	–	–	–	73	73	72	68
Baby-boomers	–	–	62	65	–	–	–
Generation 60s	–	44	49	–	–	–	–
Generation 70s	29	37	–	–	–	–	–
Middle educated: period pre-1990							
Pre-baby-boomers	–	83	86	88	88	87	85
Baby-boomers	71	77	81	–	–	–	–
Generation 60s	59	–	–	–	–	–	–
Generation 70s	–	–	–	–	–	–	–
Middle educated: period post-1990							
Pre-baby-boomers	–	–	–	83	84	83	80
Baby-boomers	–	–	75	78	–	–	–
Generation 60s	–	59	65	–	–	–	–
Generation 70s	43	52	–	–	–	–	–
Better educated: period pre-1990							
Pre-baby-boomers	–	85	88	89	90	89	87
Baby-boomers	74	80	83	–	–	–	–
Generation 60s	63	–	–	–	–	–	–
Generation 70s	–	–	–	–	–	–	–
Better educated: period post-1990							
Pre-baby-boomers	–	–	–	90	90	89	88
Baby-boomers	–	–	84	86	–	–	–
Generation 60s	–	72	76	–	–	–	–
Generation 70s	58	66	–	–	–	–	–

According to our findings, therefore, education has been an important factor in dampening the decline in turnout. The better-educated overwhelmingly vote if they belong to older generations and their turnout is still relatively high if they are post-baby-boomers, but the situation is quite different among the lesser educated. While a good majority used to cast a vote, only one out of three or four now votes among those born in the 1970s. The increase in educational attainment has prevented turnout from decreasing even more.

In short, education remains a powerful determinant of voting; in fact it is even more powerful than it used to be, at least in Canada (and the United States; see Lyons & Alexander 2000; Miller & Shanks 1996). We have thus found one group where turnout has not declined (i.e., better-educated). Note, however, that generational effects are present: the new cohorts of better-educated citizens vote less than their predecessors. The point is that the better-educated baby-boomers and pre-baby-boomers vote as much as they used to, while their less educated counterparts vote less. The overall increase in educational attainment has also contributed to dampening the decline in turnout. The implication is that turnout will decline more sharply unless levels of formal education continue to rise.

The impact of other socio-demographic characteristics

The last stage of our analysis examines the impact of other socio-demographic characteristics to see whether turnout has declined more significantly among certain subgroups of the electorate. Table 7 incorporates the following additional socio-demographic characteristics: gender, income, religiosity, marital status, unionization, ethnicity, immigration and region. The findings confirm that the propensity to vote is higher among those with higher income, who are married and more religious, who were born in Canada and who belong to an union, and lower among those of non-European origin and living in the Western provinces. Turnout is also slightly higher among men. The gender difference becomes (marginally) significant only if we incorporate religiosity into our model. Women are more religious than men, and it is in good part because of their greater religiosity that they are as likely to vote as men. At a given level of religiosity, men are slightly more inclined to vote. The two most important correlates of voting, after age and education, are income and religiosity.

Have any of these socio-demographic characteristics become more (or less) important since 1990? We have tested for potential interaction effects between each of these variables and our post-1990 dummy variable. The outcome of these tests is simple and easy to report. We found no significant interaction effect except for the fact that the decline in turnout after 1990 is more acute in the central province of Ontario. There is no evidence that the decline in turnout has been more substantial, or more muted, in certain subgroups of the electorate. This conclusion applies obviously only to socio-demographic characteristics other than age and education.

A comparison of Tables 5 and 7 indicates that generational effects are somewhat reduced when additional socio-demographic characteristics are considered. (The baby-boomer coefficient slips from –0.3797 to –0.1946, that

Table 7. Logit analysis of the impact of some demographic characteristics on the propensity to vote, 1968–2000

	Dependent variable: vote participation	
Independent variable	B	(s.e.)
Age	0.0501*	(0.0075)
Age^2	–0.0004*	(0.0001)
Baby-boomer	–0.1946*	(0.0620)
Generation 60s	–0.5837*	(0.0866)
Generation 70s	–0.8253*	(0.1222)
Period post-1990	–0.6427*	(0.0581)
Summer/winter	–0.4060*	(0.0463)
Lesser educated	–0.5855*	(0.0431)
Middle educated	0.0510	(0.0655)
Better educated x post-1990	0.4836*	(0.1036)
Male	0.0665	(0.0351)
Union member	0.1197*	(0.0364)
Religiosity	0.4483*	(0.0484)
Atlantic	–0.0196	(0.0673)
Quebec	–0.0390	(0.0458)
West	–0.1608*	(0.0426)
Foreign born	–0.1525*	(0.0515)
Non-European origin	–0.2711*	(0.0804)
Married	0.2429*	(0.0406)
Income	0.6212*	(0.0626)
Constant	–0.3484	(0.1993)
N	18,768	
Pseudo R^2	0.0828	
Log likelihood	–10,164.068	

*$p < 0.01$.

of 'generation 60s' from –0.8842 to –0.5837, and that of 'generation 70s' from –1.1774 to –0.8253. Note that period effects get larger.) This indicates that some of these characteristics help to 'explain' the generational gap. It is in part because the more recent generations tend to be less religious, with more of them being of non-European origin, in particular, that they are more likely to abstain. This is, however, only part of the story. Table 7 shows that, even after controlling for all these socio-demographic variables, powerful generational differences remain. Certainly, the propensity to vote is related to a host of socio-demographic variables, the most important being religiosity and income.

In addition, some of the generational gap flows from declining religiosity among recent generations. However, there is no evidence that the decline in turnout was particularly acute among certain segments of the electorate.

Conclusion

Our objective has been to look at the socio-demographic sources of turnout decline in Canada. To that effect we have pooled nine Canadian Election Studies conducted from 1968 to 2000. We have found that there is a small period effect that suggests the propensity to vote has declined marginally (by about three percentage points) in all groups. In addition, there are substantial life cycle effects, with turnout increasing by about 15 points from age 20 to age 50, remaining stable from 50 to 70, and slightly declining thereafter. These life cycle effects, however, do not explain the recent decline in turnout. There are also powerful generation effects, with turnout being about 20 points lower among the most recent generation than among pre-baby-boomers. This is the main reason why turnout has declined in Canada. The most recent generations are less prone to vote in good part because they pay less attention to politics and because they are less likely to adhere to the norm that voting is a moral duty. The decline in turnout thus reflects a larger cultural change. Education remains an important correlate of voting: the increase in educational attainment has contributed to dampening the decline in turnout. There is no evidence that the decline in turnout has been more acute among certain subgroups of the electorate (leaving aside age and education). These patterns are consistent with those that have been reported in the United States. Whether the same story applies to European countries remains to be seen.

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Notes

1. We rely on official turnout figures in which the denominator is the number of registered electors. Many studies now use the age-eligible population as the denominator. This latter measure is particularly problematic in countries with many immigrants such as Canada.

To the extent that there are many non-citizens, the measure underestimates the 'true' level of turnout. Black (1991) has shown that while the average registered as a percentage of age-eligible was 92 per cent in the 1980s in Canada, they represent 97 per cent of the age-and-citizenship eligible. As a consequence, turnout based on registered electors appears to be a more reliable measure than turnout based on age-eligible population. The official turnout measure may have become more problematic since 1997, with the move to a new permanent list (see Black 2000; Johnston 2000). It is possible, therefore, that we are slightly overestimating turnout in 1997 and 2000 and, therefore, slightly underestimating the recent drop in electoral participation. The turnout figures for 1980 and 1993 have been adjusted (upward) to take into account the inflated number of registered electors. In both cases, the electoral list had been drawn one year earlier (for the 1979 election and for the 1992 referendum on the Charlottetown Accord) and, as a consequence, the names of many people who had died or moved had not been deleted (see Nevitte et al. 2000: 166, Note 1).

2. We also tested a typology based on the party system that prevailed at the time a cohort first had the right to vote, along the lines of Johnston (1992) (see also Carty et al. 2000; Johnston 2000), but that typology proved less fruitful.
3. We pay particular attention to gender for two reasons. First, contrary to the other sociodemographic characteristics, gender is an exogenous variable. Education and income, for instance, are intervening variables that can 'explain' why certain age groups or generations have a higher turnout. The question with respect to gender is whether life cycle, generational or period effects are qualitatively different for men and women. Second, there is conflicting evidence on whether gender differences with respect to political activity have declined over time in Canada (see Kay et al. 1987; Black & McGlen 1979). It is interesting to see what the pattern looks like when a longer time period is considered and when life cycle and generational effects are taken into account. The estimations presented in Table 3 are based on separate logit analyses of the impact of age, generation and periods for men and women.

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