

Learning (Not) to Vote: the Generational Basis of Turnout Decline
in Established Democracies

by

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ABSTRACT

Using survey data from all six countries where elections have been studied continuously since the 1960s, we examine the role of generational replacement in turnout change. Early electoral experiences leave an imprint on citizens who generally continue to vote or not vote just as they generally continue to support the same political party (or no party). Based on this insight we propose a partial explanation for declining turnout in countries which, in the 1960s and 70s, lowered the age at which citizens could vote. The lower voting age allowed unmotivated individuals to become socialized into non-voting behavior with unfortunate consequences for turnout in many countries. Continuing turnout decline since the early 1970s reflects at least in part the normal mechanism of generational replacement as voters leave the electorate whose early electoral experiences were more positive. The findings have far-reaching implications for our understanding of the mainsprings of electoral change.

The decline in voter turnout that has occurred in many advanced democracies since the late 1960s has occasioned concern among commentators and politicians, and a veritable explosion of academic research. In particular, commentators are excited by the possibility that turnout decline might reflect growing disengagement and even disaffection by voters (Tiexera 1992, Dalton 2000, Wattenberg 2000). The fact that turnout decline among new voters has been even greater than decline among established voters causes particular concern (Miller and Shanks 1996; Putnam 2000; Blais 2001) because of the possibility that these young voters provide a foretaste of the very much reduced turnout that could result from the death and replacement of older, more highly motivated individuals. The IDEA voting project has particularly fastened upon the role of young voters in turnout change (IDEA 1998) and has launched an educational initiative designed to make elections more interesting to young people and to inculcate in them the civic value of voting.

The idea that generational replacement plays a role in turnout change is one that has not been extensively explored in the literature. Newly enfranchised individuals are known to be particularly open to recruitment by new parties and to be largely responsible for such changes as occur in the support for existing parties (Campbell et al. 1960). The same importance of newly enfranchised individuals has been found in regard to turnout (Miller and Shanks, 1996). Such individuals are also known to rapidly become immunized against changing their minds if they support the same party at even a quite small number of consecutive elections (Butler and Stokes 1974).¹ The implications of this last insight for turnout change has not been explored, though it may well supply an explanation for the fact that it took fifty years after female suffrage for the gender gap in turnout to be eliminated (Carol 1987; Norris 2001).² Similar processes will presumably also have been at work following other franchise extensions in the US and elsewhere.

In this paper we set out to establish the role of generational change in voter turnout across

all six countries that have conducted election studies continuously since the 1960s. We show that incoming cohorts are particularly responsive to changes in the character of elections, being at the forefront of increases in turnout as well as of declines in all countries. Further, we document the tendency of new voters to retain the habit of higher or lower voting gained in their first elections, leaving a ‘footprint’ in the electorate (like the ring of an aging tree) that both records and transmits forward in time the formative experience of the cohort, as recently established by Plutzer (2002). We also confirm the unsurprising fact, already documented repeatedly in past research, that newer cohorts turn out at lower rates than more established cohorts.

In the light of these characteristics of electoral cohorts we set out a rather prosaic proposal that contributes towards an explanation for declining turnout in those countries that lowered the voting age (generally from 21 to 18) in elections starting in the 1960s or 1970s. In brief we propose that, by lowering the voting age, politicians in these countries exposed young citizens to an electoral experience from which many of them would not benefit. These young people had many of them not yet completed their educations, not yet had the opportunity to become settled in an occupation, and not yet had the opportunity to establish the links to groups and communities that would give an election relevance (Huckfeldt and Sprague 1987, 1991; cf. Huckfeldt, Plutzer and Sprague 1993).

That the expansion of the electorate to include a group less likely to vote would cause a drop in turnout is not an original idea. Indeed, the drop in turnout to be expected from lowering the voting age should have been particularly large because the change generally coincided with the entry into the electorate of the post-1945 ‘baby boom’ generation, yielding a cohort twice as large, in most countries, as any previous cohort. If voters aged 18-21 are 5 percent less likely to vote than those aged 21-24,³ and if the typical electorate in established democracies consists of 13 four-year electoral cohorts,⁴ then the decline in turnout to have been expected from lowering the voting age to 18 would have been 0.38 percent. If the cohort concerned was twice the size of other cohorts then

the effect would have been to cause a turnout decline of 0.76 percent – still a barely measurable blip in the turnout of most countries.

The socializing effect of younger enfranchisement

This effect of the lowered voting age was well-understood and widely expected. What we wish to point out in this paper, however, is that if the socialization processes that governs the acquisition of political habits apply in the realm of voter turnout then this is only the beginning of the story. The fact that the incoming cohort was younger than before not only would affect the electorate of which it forms part, but also the formative experiences of that cohort. Because their first opportunity to vote yielded an experience that was less meaningful to its members than a later initial experience would have been, the socializing effect of this experience will have created a footprint in the electorate of lower turnout than would have been generated by an older entering cohort. In other words, the socializing experience of the act of voting (or of non-voting) will have tended to lock in the lower turnout of the newly enfranchised 18-year-olds, making them permanently less likely to vote than an older entering cohort would have been.⁵ Cohorts following this initial group into the electorate at four-year intervals would also vote at the same lower rate. Older cohorts who had entered the electorate when the voting age was higher, and who received their formative electoral experience at an election that was more meaningful to them, will at the same time be dying off. So the lower rate of turnout that was generated by the lowering of the voting age will have slowly spread through the electorate as older cohorts were replaced by new ones with a generally lower rate of turnout.

A decline of only 0.7 percent or so when those first eligible to vote at 18 made up only 1 of 13 cohorts could rise to as much as 5 percent when everyone socialized in an earlier era has left the electorate and all 13 electoral cohorts consist of those whose first electoral experience was relatively less meaningful than it would have been during that earlier era.

The numbers used in the illustration are imaginary. One of the purposes of this paper is to estimate the actual decline in turnout that was to be expected as an immediate consequence of the lowering of the voting age. Another is to describe the nature of the footprint resulting from the socializing force of these electoral experiences. Butler and Stokes (1974) estimated that it took three consecutive elections to immunize a voter against change in partisanship. A single unsatisfactory electoral experience will presumably not immunize the entire cohort against later electoral participation. Moreover, the sizes of incoming cohorts declined in later years. So even if the initial impact was 0.7 percent, the enduring impact might be less than 0.7 percent per cohort. We cannot be sure about the numbers until we have done the analysis. What we can confidently hypothesize is that there will have been an effect of lowering the voting age and that this effect will have been felt by each successive cohort entering the electorate after the lowering of the voting age. The consequence will have been declining turnout in every country that lowered its voting age, and that decline will continue until the last of those socialized in an earlier era has left their country's electorate. In other words, the decline due to this change in election laws has only half-way run its course.

Some thirty years after the reforms were enacted that lowered the voting age in the six countries we investigate and elsewhere, there are still some 5-7 electoral cohorts left to go before the decline in turnout set in motion by those reforms will run its course. Until we have estimated the extent of this decline there is no point in talking about any other effects on turnout change. Have people become more disengaged from politics? Perhaps so, but how much effect this has had on turnout cannot be estimated until we know how much decline is taking place for other reasons. Is globalization causing further disaffection? Perhaps so, but the extent of this effect also cannot be estimated until we can include in any properly specified model effects of an electoral reform that occurred 20-30 years ago, but whose long-term consequences will continue to be felt for 20-30 years to come.

One of the most important implications of the ideas set out above is that changes in turnout are

primarily due to the ways in which new voters (and those voting for the second and third times) react to the character of each election. More established voters are more set in their ways, so it is ironically the least experienced voters who decide not only the outcome of an election (as demonstrated repeatedly in past research) but also the turnout at that election.

Interestingly, in Cambridge, Massachusetts, the voting age in local elections has recently been lowered to 17 (Bloom, 2002). By giving children the vote while they are still in high school it is possible that the proportion of newly enfranchised voters who will be socialized by a good first-time voting experience will increase. The election could be turned into a meaningful class project for new would-be voters still in high school, with students being graded on their ability to find campaign literature and assess campaign promises. Voting would be a natural part of such a class project, and the fact that everyone in the class was participating would help to ensure its relevance. If this opportunity is taken, in due course the reform will provide us with a natural experiment that may help to confirm the theory presented in this paper. Meanwhile, we can only employ a quasi-experimental method to confirm the reasoning set out above, taking advantage of natural variation in the character of elections (from country to country and over time) to confirm our ideas.

The hypotheses that follow from our line of reasoning are as follows:

H1. The most recently enfranchised cohorts voting in any election are the ones most likely to register changes in turnout, increases as well as decreases.

H2. Inertia (the tendency to vote at the same rate as previously) will be strongest among established cohorts.

H3. Features of an election that drive turnout change (party structure, closeness of the race, voting age, etc.) will have greatest effect on new cohorts.

H4. Cohorts entering the electorate after the lowering of the voting age will vote at a lower rate than cohorts entering the electorate before this reform.

H5. As post-reform cohorts become established, the gap between their turnout and that of pre-reform cohorts does not decline.

These hypotheses are logically connected. The first two take the findings of past research regarding party choice and apply them to turnout. They concern the preconditions which, if present, should ensure that H5 follows from H4. H3 is an implication of H1, which in turn implies the need to take account of other determinants of turnout change in any investigation of the effects of voting age if the latter effects are to be properly estimated.

Data and methods

Our study is made possible by the existence of survey data going back to the time of the reform in six established democracies. These are Britain, Germany, Netherlands, Norway, Sweden, and the United

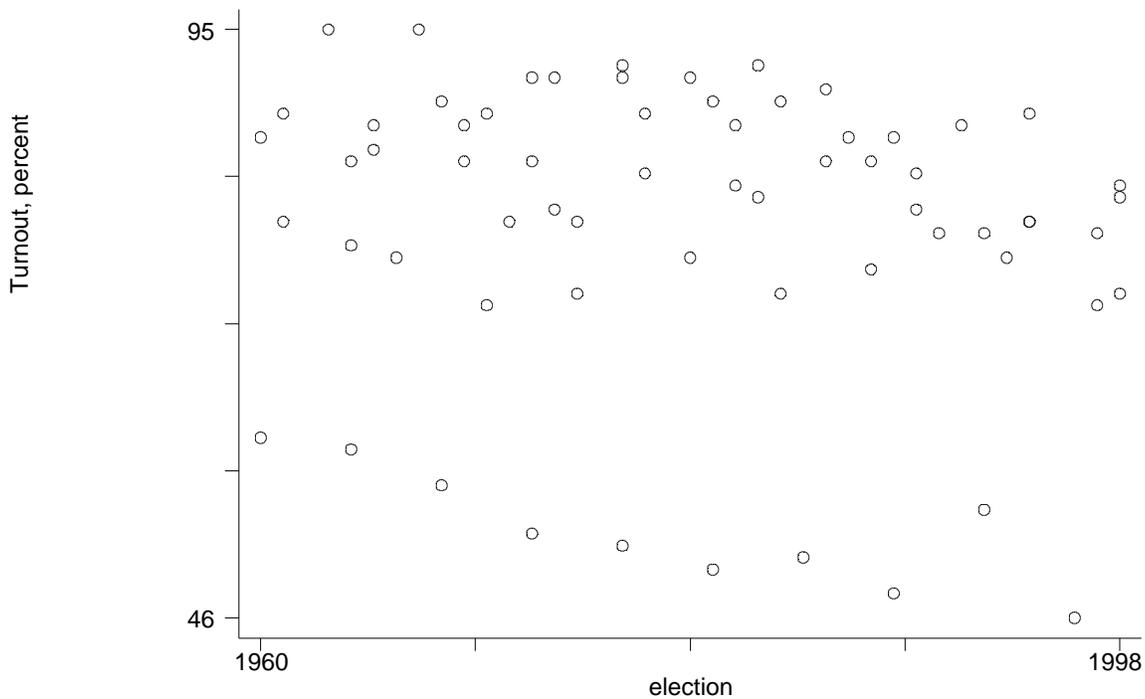


Figure 1 Turnout at legislative elections in six countries, 1960-1999

States.⁶ Figure 1 shows the evolution of turnout in these countries over the period. The countries fall into two clear groups in that figure, with the lower group of points belonging to the United States, while other countries provide a cloud of points in the upper portion of the graph. As can be seen, both groups of points show a gentle decline in turnout over the period since immediately before the lowering of the voting age. Our series ends in 1998 because none of these countries held elections in 1999 and elections since 2000 are not included in the dataset.

In the pages that follow we will first present tables for each country giving evidence that the preconditions outlined above (H1 and H2) indeed are in place – tables which that also provide the raw material for estimating the effects of cohort replacement. Our analysis of the consequence of lowering the voting age (H3 to H5) is done at the level of the electoral cohort in each election,⁷ where we can pick out the precise groups of individuals in each country who entered the electorates immediately following the reform of the voting age, and employ multivariate analysis to compare these groups with others that entered earlier and later, controlling for additional effects on the turnout of each cohort.

The generational basis of turnout variations

Table 1 shows the full cohort table for one exemplary country, Britain. In the upper part of the table electoral cohorts are tabulated across election years, and each cell contains the mean turnout recorded for that cohort at that election.⁸ These figures should not be taken at face value because, even though British election studies are among the largest fielded anywhere, with sample sizes often in excess of 4,000 cases (with an average of 3,000 cases), nevertheless the number of cases in each cell is generally under 300 and often under 100 (the minimum size of any cell is 73). Consequently the standard deviations of the means reported in the table is very high: 40 on average! Thus it follows that much of the movement we see there is certainly due to sampling variation.

We will be more confident of the reliability of our summary table based on all six countries taken together (see below), but since that overall pattern largely repeats the pattern seen for Britain, it is appropriate to use Table 1 as a basis for explaining how the summary table will be derived.

The summarizing process is illustrated in the lower portion of Table 1 where we see four rows of percentages (numbered 1 to 4+). Row #1 gives the change in turnout for the incoming cohort compared to the previous cohort when it entered the electorate (differences down the diagonal). Row #2 shows the change in turnout for that previous cohort compared to its turnout at its first election. Row #3 provides

Table 1 Average turnout by cohort and year for British elections 1964-1997

| | Year of election(s)* | | | | | | | | | | Mean |
|---------------------------------|----------------------|-------|------|------|------|------|------|------|-------|-------|---------------------|
| | 1964 | 1966 | 1970 | 1974 | 1979 | 1983 | 1987 | 1992 | 1997 | Mean | |
| Pre-1955 cohorts | 90.1 | 87.0 | 85.5 | 89.8 | 90.6 | 86.4 | 88.5 | 88.9 | 86.0 | 87.54 | |
| 1959 cohort | 77.4 | 78.8 | 77.6 | 89.7 | 89.8 | 89.8 | 92.5 | 86.5 | 87.6 | 87.60 | |
| 1964 cohort | 85.1 | 74.2 | 75.3 | 84.3 | 83.9 | 86.6 | 91.8 | 91.3 | 88.6 | 84.02 | |
| 1966 cohort | | 65.5 | 75.4 | 88.6 | 80.8 | 91.9 | 82.0 | 90.8 | 80.7 | 82.06 | |
| 1970 cohort | | | 73.9 | 78.4 | 80.3 | 82.2 | 85.3 | 89.6 | 84.8 | 82.40 | |
| 1974 cohort | | | | 75.8 | 78.3 | 77.1 | 87.1 | 87.8 | 80.5 | 82.57 | |
| 1979 cohort | | | | | 70.3 | 72.5 | 82.7 | 87.4 | 74.5 | 77.60 | |
| 1983 cohort | | | | | | 73.7 | 80.3 | 87.4 | 70.6 | 78.00 | |
| 1987 cohort | | | | | | | 73.2 | 79.7 | 70.0 | 74.29 | |
| 1992 cohort | | | | | | | | 75.3 | 63.2 | 69.25 | |
| 1997 cohort | | | | | | | | | 59.4 | 59.39 | Average |
| Overall turnout | 87.8 | 83.0 | 81.7 | 83.6 | 83.0 | 81.0 | 83.8 | 86.8 | 76.2 | 82.60 | gross change |
| Mean turnout change | | -4.8 | -1.3 | 1.9 | -0.6 | -2.0 | 2.8 | 3.0 | -10.6 | -1.45 | 3.38 |
| # of election for cohort | | | | | | | | | | | |
| 1. New voters difference | | -19.7 | 8.4 | 1.9 | -5.5 | 3.4 | -0.6 | 2.1 | -15.9 | -3.22 | 7.19 |
| 2. Second cohort change | | -11.0 | 9.9 | 4.5 | 2.5 | 2.2 | 6.6 | 6.5 | -12.1 | 1.13 | 6.89 |
| 3. Previous cohort change | | 1.5 | 1.1 | 13.2 | 1.9 | -1.2 | 10.1 | 7.1 | -9.6 | 3.01 | 5.72 |
| 4+ All prior cohorts change | | 3.2 | -1.4 | 8.5 | -3.8 | 2.3 | 2.2 | 1.8 | -7.0 | 0.72 | 3.76 |

* Two elections in 1974 taken together.

the same comparison for the cohort now facing its third election. The final row provides an average of all the differences in turnout higher up each column. At the right of the summary we see two columns of means: the first is simply the average of all the changes registered in the row concerned. The second is the average of the absolute changes, where reductions in turnout are taken as positive and added to increases in turnout. It is that final column that we will focus on, but an understanding of the penultimate column will be helpful in understanding what it is that is being summarized.

First of all, when we look at that column in the upper half of the table (it is there the right-most column) we see confirmation of the generally understood phenomenon of declining turnout in successive electoral cohorts. Even in Britain, where overall turnout only dropped some 7 points between 1966 and 1997 (and where the pattern of turnout change included notable increases in 1974, 1987 and 1992) we see a steady decline from cohort to cohort, amounting to almost 30 points in all, with only the smallest of occasional upticks in average turnout as we move down the column.⁹

Secondly, when we look at this cell in the mean turnout change row (this cell is in the penultimate column of the lower part of the table), we see that, on average, turnout declined in Britain by 1.45 percent per election. Over eight inter-election periods this totals 11.6 percent (the same as the difference between the 1997 and 1964 overall turnout cells). Looking lower down the same column, we see that this average decline is entirely the work of new cohorts. More established cohorts – especially (in the British case) those facing their third election – see a net increase in turnout at successive elections (perhaps an aging effect – see below).

Finally, let us turn to the average gross change column. There we see, first, that the average decline of 1.45 percent per election does not give a remotely adequate accounting of the amount of change from election to election. As already noted, British elections saw rises in turnout as well as declines. The average gross change, treating declines as positive and averaging them with the increases, is 3.38

percent – more than twice the average net change of 1.45 percent. Looking further down the column we again see that the greatest contribution to this overall change comes from new cohorts, with the cohorts that face their second and third elections contributing almost as much. The big distinction in this column is between the most recent three cohorts and the rest. Of course, much of the movement we record could be sampling error, so what must be focused on is the difference between cohorts with different amounts of experience. Newer cohorts see more volatility than do more established cohorts.¹⁰

Tables 2 and 3 summarize the findings for Britain and the five other countries where election studies have been conducted continuously at least since the lowering of the voting age. Table 2 contains the mean turnout for each cohort in each country (for Britain this is the final column in the top half of Table 1). For the sake of comparability we focus only on the ten most

Table 2 Average turnout by cohort for six countries, earliest and most recent cohorts

| | <u>Britain</u> | <u>Germany</u> | <u>Netherlands</u> | <u>Norway</u> | <u>Sweden</u> | <u>USA</u> |
|--|----------------|----------------|--------------------|---------------|---------------|------------|
| Earliest cohorts | 87.5 | 88.3 | 84.7 | 87.2 | 89.5 | 72.4 |
| Cohort 10 | 87.6 | 86.2 | 82.4 | 85.8 | 89.0 | 88.3 |
| Cohort 9 | 84.0 | 86.6 | 83.5 | 84.5 | 88.1 | 86.2 |
| Cohort 8 | 82.1 | 88.4 | 83.4 | 83.3 | 87.1 | 86.6 |
| Cohort 7 | 82.4 | 85.3 | 82.6 | 83.5 | 85.4 | 88.4 |
| Cohort 6 | 82.6 | 79.8 | 76.3 | 79.6 | 83.8 | 85.3 |
| Cohort 5 | 77.6 | 77.7 | 69.1 | 76.5 | 83.0 | 79.8 |
| Cohort 4 | 78.0 | 72.8 | 74.4 | 74.7 | 82.0 | 77.7 |
| Cohort 3 | 74.3 | 80.2 | 67.9 | 75.3 | 78.0 | 72.8 |
| Cohort 2 | 69.3 | 70.3 | 73.7 | 65.3 | 85.5 | 80.2 |
| Cohort 1 | 59.4 | 89.9 | 69.8 | 61.5 | 78.0 | 70.3 |
| Change since voting age was lowered for cohort | -22.7 7 | 3.2 8 | -13.7 8 | -21.9 6 | -11.5 10 | -16.4 7 |

recent cohorts in each country, with prior cohorts being taken together in the first row of the summary table. Here we see that all countries except Germany saw a steady decline in turnout by cohort since the lowering of the voting age (the first cohort to vote at 18 is indicated in the final row). We will have more to say below about the German case.

Table 3 reports the lower half of Table 1 or its equivalent for each of the six countries. In order to keep the table to a reasonable size, we display figures only for the nine most recent elections in each country (in every case this does encompass the election at which the voting age was lowered). The final subtable gives an overall summary, which (as already mentioned) looks remarkably like the British case, with about twice the volatility among newest cohorts as among established cohorts. Second-election and third-election cohorts fall in between, with progressively less volatility being evident as cohorts become more established. There are country differences, however, as we look further up the table. The Dutch and US cases show less distinctiveness between new and established cohorts than does the British case, while the Norwegian, Swedish and German cases show greater distinctiveness. However, the overall pattern is essentially repeated for each country.

The only real anomaly is to be found in the Dutch subtable. The Netherlands is the only country in which the most recently entering cohorts do not on average show most volatility. The newest three cohorts do show more volatility than established cohorts do, but there is no real progression among the first three cohorts, and the distinction between this group and the group of established cohorts is least of any. This is not the first time that lack of structure has been noted among Dutch electoral cohorts (see Franklin et al., 1992),¹¹ but the general pattern is still evident.

These findings confirm hypotheses H1 and H2 listed earlier. Greatest change is evident among newly enfranchised cohorts and the greatest evidence of inertia is to be seen among established cohorts. Although the remaining hypotheses can only be formally tested in multivariate perspective, Table 2 does also seem to confirm Hypothesis 4 by showing turnout decline among electoral cohorts that entered the electorate after the lowering of the voting age. The reason why we need to address this hypothesis in multivariate perspective is also clear in Table 2. Though all countries saw a decline in turnout among cohorts entering each electorate since the lowering of

Table 3 Cohort effects in six countries

| British averages | <u>1964</u> | <u>1966</u> | <u>1970</u> | <u>1974</u> | <u>1979</u> | <u>1983</u> | <u>1987</u> | <u>1992</u> | <u>1997</u> | <u>Mean</u> | <u>Mean absolute</u> |
|-----------------------------|---------------|--------------|---------------|--------------|--------------|----------------|---------------|--------------|-------------|----------------------|----------------------|
| 1. New voters difference | -19.67 | 8.40 | 1.92 | -5.50 | 3.42 | -0.56 | 2.12 | -15.89 | -3.22 | 7.19 | |
| 2. Second cohort change | -10.98 | 9.89 | 4.47 | 2.46 | 2.23 | 6.56 | 6.50 | -12.07 | 1.13 | 6.89 | |
| 3. Previous cohort change | 1.46 | 1.10 | 13.21 | 1.90 | -1.20 | 10.13 | 7.13 | -9.63 | 3.01 | 5.72 | |
| 4+ All prior cohorts change | 3.16 | -1.36 | 8.46 | -3.75 | 2.32 | 2.21 | 1.77 | -7.04 | 0.72 | 3.76 | |
| Dutch averages | <u>1971</u> | <u>1972</u> | <u>1977</u> | <u>1981</u> | <u>1982</u> | <u>1986</u> | <u>1989</u> | <u>1994</u> | <u>1998</u> | <u>Mean</u> | <u>Mean absolute</u> |
| 1. New voters difference | 17.81 | 6.97 | -9.40 | 4.12 | -4.73 | -10.19 | 9.81 | -9.19 | 0.65 | 9.03 | |
| 2. Second cohort change | 20.48 | 3.45 | -5.51 | -6.57 | -19.52 | -13.08 | 2.31 | -7.79 | -3.28 | 9.84 | |
| 3. Previous cohort change | 14.90 | 4.44 | -3.31 | -8.78 | 6.29 | 7.89 | 16.96 | -6.17 | 4.03 | 8.59 | |
| 4+ All prior cohorts change | 5.8 | 3.8 | -0.2 | 5.9 | 8.3 | 4.8 | 1.3 | 4.0 | 4.2 | 6.33 | |
| German averages | <u>1969</u> | <u>1972</u> | <u>1976</u> | <u>1980</u> | <u>1983</u> | <u>1987</u> | <u>1990</u> | <u>1994</u> | <u>1998</u> | <u>Mean</u> | <u>Mean absolute</u> |
| 1. New voters difference | 9.22 | -14.29 | -6.37 | 7.84 | -5.92 | 6.83 | -22.47 | 26.48 | 1.37 | 12.27 | |
| 2. Second cohort change | 6.62 | -1.81 | 3.47 | 6.05 | 0.28 | -23.77 | -4.21 | 13.78 | 1.84 | 8.46 | |
| 3. Previous cohort change | 0.91 | -1.03 | -8.00 | 5.76 | -3.85 | -20.12 | 26.78 | -8.68 | -1.55 | 8.99 | |
| 4+ All prior cohorts change | 6.5 | -2.7 | -2.3 | 0.4 | -5.9 | -2.1 | -1.8 | 0.6 | -0.9 | 4.52 | |
| Norwegian averages | <u>1965</u> | <u>1969</u> | <u>1973</u> | <u>1977</u> | <u>1981</u> | <u>1985</u> | <u>1989</u> | <u>1993</u> | <u>1997</u> | <u>Mean</u> | <u>Mean absolute</u> |
| 1. New voters difference | -8.39 | -23.29 | 15.84 | 8.40 | -6.82 | 1.14 | -5.10 | -3.43 | -2.71 | 9.05 | |
| 2. Second cohort change | -1.26 | -6.46 | 24.51 | 10.47 | -2.90 | 3.76 | -5.79 | 5.75 | 3.51 | 7.61 | |
| 3. Previous cohort change | -5.48 | -7.28 | 9.18 | 2.73 | 2.30 | 6.08 | -2.49 | 9.33 | 1.80 | 5.61 | |
| 4+ All prior cohorts change | -2.5 | 1.2 | 1.7 | 0.7 | 0.6 | -1.9 | -4.8 | 2.0 | -0.3 | 3.81 | |
| Swedish averages | <u>1973</u> | <u>1976</u> | <u>1979</u> | <u>1982</u> | <u>1985</u> | <u>1988</u> | <u>1991</u> | <u>1994</u> | <u>1998</u> | <u>Mean</u> | <u>Mean absolute</u> |
| 1. New voters difference | -6.00 | -1.00 | -3.00 | -2.00 | -4.00 | -2.00 | 11.00 | -11.00 | -0.31 | 6.77 | |
| 2. Second cohort change | -2.00 | -3.00 | -1.00 | -4.00 | -7.00 | 1.00 | 5.00 | -7.00 | 0.15 | 5.69 | |
| 3. Previous cohort change | 1.00 | -6.00 | 3.00 | -6.00 | -4.00 | 7.00 | 6.00 | -10.00 | 1.77 | 5.77 | |
| 4+ All prior cohorts change | 1.17 | 2.00 | 1.00 | 1.33 | 3.20 | 2.91 | 2.25 | 3.08 | 2.18 | 2.18 | |
| US averages | <u>1964</u> | <u>1968</u> | <u>1972</u> | <u>1976</u> | <u>1980</u> | <u>1984</u> | <u>1988</u> | <u>1992</u> | <u>1996</u> | <u>Mean</u> | <u>Mean absolute</u> |
| 1. New voters difference | 6.90 | -6.60 | -6.10 | 5.30 | -10.80 | -3.70 | 13.60 | -12.20 | -1.70 | 8.10 | |
| 2. Second cohort change | 7.80 | 5.40 | 8.50 | -2.30 | 0.60 | 3.00 | 13.90 | -16.50 | 2.55 | 7.20 | |
| 3. Previous cohort change | 8.10 | 5.30 | -8.50 | -3.80 | 11.80 | -4.00 | 18.80 | -2.20 | 3.19 | 7.80 | |
| 4+ All prior cohorts change | -4.5 | -5.7 | 4.5 | 3.4 | 5.9 | -2.0 | 8.7 | 0.8 | 1.4 | 4.40 | |
| Overall averages | <u>Second</u> | <u>Third</u> | <u>Fourth</u> | <u>Fifth</u> | <u>Sixth</u> | <u>Seventh</u> | <u>Eighth</u> | <u>Ninth</u> | <u>Mean</u> | <u>Mean absolute</u> | |
| 1. New voters difference | -0.02 | -4.97 | -1.19 | 3.03 | -4.81 | -1.41 | 1.49 | -4.21 | -0.99 | 8.73 | |
| 2. Second cohort change | 3.45 | 1.24 | 5.74 | 1.02 | -4.38 | -3.76 | 2.95 | -3.97 | 0.99 | 7.62 | |
| 3. Previous cohort change | 3.48 | -0.58 | 0.93 | -1.36 | 1.89 | 1.16 | 12.20 | -4.56 | 2.04 | 7.08 | |
| 4+ All prior cohorts change | 4.35 | 2.74 | 3.69 | 2.87 | 4.96 | 3.81 | 4.60 | 3.56 | 1.21 | 4.17 | |

The voting age (the cohort first affected is indicated in the final row of Table 2) all countries also see later increases in the turnout of entering cohorts in one election or another – most notably in the last of the German elections and the second to last Swedish and US elections. So other forces can override the process of generational replacement, if it exists, and those other forces must be taken into account if we are going to detect the impact of early socialization on turnout change. This is the purpose of the next section.

Multivariate analysis

If newly enfranchised cohorts show the greatest volatility from election to election, is this just random movement, or does it reflect rational responses to differences in the character of successive elections, as required by our second hypothesis? And does it also reflect the different socializing experience of those who first voted after the lowering of the voting age, as required by our fourth hypothesis? These two questions can only be addressed by use of multivariate analysis. They have to be addressed together because, if addressed in different models, each model would be mis-specified through omission of a critical influence on turnout.

Apart from whether each cohort entered the electorate after the lowering of the voting age (what we will call ‘young initiation’, what variables need we include in order to properly specify the considerations that would lead turnout to be higher or lower? Recent research (Franklin 2002; Norris 2002) has shown that turnout responds to a variety of phenomena that together make up an election’s character: the size of the largest party (how close to commanding a majority), the margin of victory,¹² compulsory voting, absentee voting, and electoral salience (a dummy variable picking out Switzerland and the United States). However, the countries for which we have survey data extending back to the time when the voting age was lowered do not differ in terms of postal voting, or of compulsory voting during the period of our concern (the Netherlands abolished compulsory voting in 1967). For these countries the variables needed to characterize each election are thus size of largest party (what we will call its ‘majority status’), margin of victory, time since last election, and a dummy variable picking out the United States as a country where elections are particularly

lacking in salience (Franklin, 2002: 156-7). In addition we include average district magnitude – a variable found significant in several other past studies (Powell 1986; Jackman 1987; Jackman and Miller 1995; Radcliff 1992). Other variables employed in past research were evaluated for inclusion in our models but, as was found by Franklin (2002), none of them proved significant. One variable that was found significant in past research (Radcliff 1992; Franklin 2002; Norris 2002) is not found significant here. Size of electorate fails to show any impact, presumably because it serves as a surrogate for the number of new voters in the electorate at any given time. As we have seen, new voters vote at lower rates than established voters, so anything that registers variations in their numbers will gain a surrogate importance. In this research we model the role of new voters explicitly.

The way we model the role of new voters (and test our second hypothesis, H2) is by interacting each of the components of electoral character listed above with a variable (‘new’) that picks out the cohorts facing any one of their first, second or third elections.

Because we would like to know whether those who enter the electorate after the lowering of the voting age see an increase in turnout relative to older cohorts, as they gain experience, we define a variable that we refer to as ‘experience’ which starts at 0 in the year in which a cohort enters its electorate and rises to 1 after 50 years (the maximum length of time that any cohort did remain in any of our electorates). This variable is employed in interaction with young initiation to see whether there is any evidence of a reducing gap between those who entered the electorate at 18 and previous cohorts. We would have liked to also employ experience on its own, to control for the general aging effect that is evident in our cohort tables (older cohorts generally see turnout increases in Tables 1 and 3). However, a regression equation cannot include an interaction together with both components of that interaction, so instead we include a variable (‘established’) that picks out cohorts in their fourth or subsequent elections. We expect a positive value for this variable’s coefficient, since more established cohorts do vote at a higher rate than new cohorts.

We have strong expectations for the direction of the effects of all but one of these variables. Period, established, time since previous election, and the interaction of experience with young

initiation should all see positive coefficients. Young initiation itself, together with majority status and margin of victory should have negative coefficients. Interactions with new should retain the same signs as each of the relevant variables without interaction. The only variable about which we have any uncertainty is average district magnitude. It has been argued that larger districts permit greater choice and that this will boost turnout (Blais 2000). However, it is also true that larger districts mean a greater distance between the voter and his or her representative who is likely to be less able to tailor appeals to specific interests. Because of our uncertainty as to the direction of the effect of this variable, we will use two-tailed statistical tests when we evaluate its importance (either on its own or in interaction). For all other variables we will employ one-tailed tests.

The unit of analysis is the cohort-year. Each non-blank cell in the upper half of Table 1 constitutes a cohort-year, as does each equivalent cell in each of the other cohort tables summarized in tables 2 and 3. We have 10-13 cohorts in each country, and 9-15 elections yielding 555 cohort-years altogether. The data are weighted according to the number of respondents represented in each cohort-year, ensuring that cells in any of the cohort tables that are based on few respondents contribute less to the findings than cells based on large numbers of respondents (whose mean values are more reliable); but the N for our analyses is the number of cohort-years.¹³ Our coefficients are estimated using OLS regression.¹⁴

The findings in Table 4 are presented in two related models. Model A shows the effects of all the variables of interest. In particular, it includes all the electoral character variables, both alone and interacted with new cohorts. In Model B we remove variables that lacked statistical significance in Model A and recalculate the effects of other variables.¹⁵ The findings are very much as hypothesized. At the bottom of the table, we see that all of the variables relating to the character of elections prove significant among new cohorts, confirming H3. At the top of the table we see that cohorts that experienced young initiation (as a consequence of entering the electorate at 18) are some 3.5 percent less likely to vote than cohorts that entered the electorate at a later age, confirming H4; and this gap is not reduced with the passage of time (experience * young initiation is not statistically significant), confirming H5. Cohorts do vote at higher rates as they age (the coefficient for

Table 4 Regression findings

| <u>Independent variables (values)</u> | Unstandardized coefficients | |
|---|-----------------------------|-------------------|
| | <u>Model A</u> | <u>Model B</u> |
| (Constant) | 87.423(1.081)*** | 87.293(1.054)*** |
| Young initiation cohort (0,1) | -3.281(0.667)*** | -3.546(0.616)*** |
| Established cohort (0,1) | 3.839(1.179)*** | 3.945(1.154)*** |
| Experience * young initiation (0-1) | -0.105(0.109) | |
| Majority status, percent (0-14) | -0.335(0.059)*** | -0.355(0.053)*** |
| Mean margin of victory, percent (0-45) | -0.446(0.032)*** | -0.437(0.031)*** |
| Average district magnitude, seats (0-328) | -0.003(0.003) | |
| New * majority status (0-14) | -0.342(0.134)** | -0.296(0.127)** |
| New * mean margin of victory (0-45) | -0.277(0.044)*** | -0.276(0.044)*** |
| New * average district magnitude (0-328) | 0.049(0.016)*** | 0.045(0.015)** |
| USA (0,1) | -16.031(1.210)*** | -16.571(1.135)*** |
| Adjusted R ² | 0.831 | 0.831 |
| Number of cohort-years | 555 | 555 |

Significant at the *0.05, **0.01, *** 0.001 level, one-tailed (except for average district magnitude).

NOTE: Standard errors in parentheses.

established cohort shows that these vote at a rate 3.84 percent higher than new cohorts on average), but the distinction between young initiation cohorts and older cohorts is maintained as they age. The negative effect on turnout of being a cohort from the USA is somewhat smaller than the gap shown in Figure 1 between US turnout and turnout in other countries. This implies that some part of the difference is accounted for by one or more of the substantive variables included in the model, most likely mean margin of victory which, in the US, is very high.

Discussion

A 2.6 percent effect to date from lowering the voting age is not large.¹⁶ Commentators who have focussed with alarm on the low turnout of new cohorts as compared with established cohorts have

been looking at a difference which is primarily due to the lack of experience of younger cohorts.¹⁷ As new members of each electorate gain experience many of them ‘transition’ from habitual non-voting to habitual voting (Plutzer 2002) at rates that appear to have remained unchanged over the past 40 years (to judge by the lack of significance of experience * young initiation in Table 4). The effect of lowering the voting age gives more ground for concern. It amounts to about half the average decline in voter turnout experienced by our six countries over the period of our study (5.6 percent).¹⁸ Still, it is an effect that has greater importance than its numerical consequence for voter turnout. Its presence confirms the importance of learned behavior, as well as the long-term consequences of early learning, with implications that go far beyond this study. Indeed, this insight may be instrumental in helping us to understand the remaining 3 percent drop that has occurred in these countries since the 1960s (and any future turnout declines – or, for that matter, increases).¹⁹

Our study of the consequences for voter turnout of a lowering of the voting age in six countries has made it clear that there are two components in turnout change – one from features of a particular election that differ from features of the previous election and the other from the delayed effects of past changes. This implies that virtually all of the models previously used to study voter turnout (both at the aggregate and individual levels) have been mis-specified. Most of the factors that impact turnout have significantly more impact on individuals facing one of their first three elections. Established cohorts are less strongly affected (indeed, our findings suggest that some factors impact established cohorts not at all, as is the case for average district magnitude in Table 4). This in turn implies that many individuals have adopted a ‘standing decision’ to vote or not to vote and that models that do not take this into account will yield biased and unstable results.

Our findings suggest two ways in which conventional models are mis-specified. The first lies in their attempts to measure effects on all voters which apply particularly to new voters. This will result in such effects being under-estimated. The more important way in which conventional models are mis-specified lies in their failure to take account of the long-term effects of factors that played a role in the socialization of established voters. Individual-level effects generally ascribed to

social status or education may in fact be the effects of early experiences. Aggregate models need to include the indirect consequences of features of elections long past. In cross-national studies the need is to take account of how long particular electoral arrangements have been in place. We find that it is not enough to determine whether citizens are entitled to vote at 18 years of age. It also matters how long this provision of the electoral system has existed. Only that will tell us how many electoral cohorts will have been affected by the provision and, thus, how much lower we can expect turnout to be than in a country with a voting age of 21.

The cumulative changes ascribable to a lower voting age that we find in this research are likely also to apply to other changes in election laws that primarily affect new cohorts – the cohorts which, our research implies, are most largely affected by the character of an election. Thus the abolition of compulsory voting in Italy in 1993 and the move to proportional representation in New Zealand in 1994 have so far had only limited effects (cf. Vowles 2001; 2002); but perhaps these effects will cumulate over the time that it takes for all Italian and all New Zealand voters to have experienced their first election under the new rules. On the other hand, our findings suggest that variables such as the closeness of the race and size of largest party, that can move in both directions over a relatively short timespan, will not have much, if any, socializing effect.

Butler and Stokes, it will be recalled, suggested that it took three mutually reinforcing experiences to inculcate a habit of voting for one party. Our findings suggest that this process applies more generally. Changes in institutional arrangements such as the voting age have the chance to partake of the phenomenon. Variables that do not generally take on the same value for that many elections would not be expected to have equivalent long-term effects.

One by-product of this insight might be to explain the apparent contradiction that arises from the fact that weekend voting appears potent in cross-national perspective but not in over-time perspective (Franklin 2002). Countries that change the day of the week on which they hold elections generally do so repeatedly, thus eliminating the possibility of a learning experience among new cohorts. Countries that do not change the day on which they hold elections have (by definition) kept

to that day over the course of many elections. Citizens have thus had the chance to become socialized by the experience of easier or more difficult voting arrangements, affecting overall turnout in such a country. The mechanics of voter turnout have been shown in this research to be quite tricky, depending as they do on the learning experiences of cohorts during their formative years and thus on the history of electoral arrangements as well as on their current state.

So the study of voter turnout calls for inventive research strategies that can tease out from the data the gradually operating as well as the immediate causes of turnout change. Only by taking both long-term and short-term effects into account can we hope to come to a proper understanding of the mainsprings of electoral participation.

The findings also remind us of long-neglected insights about the role of immunization in electoral behavior more generally. The idea that voters become set in their ways was well-established 30 years ago, but does not fit well with contemporary attempts to find rational bases for party and candidate choice. If the same mechanisms operate in regard to party choice as operate in regard to turnout (and it was the supposition that they would do so that led to the hypotheses tested in this paper) then most contemporary models of party choice are just as seriously mis-specified as are most contemporary models of voter turnout. If members of newer cohorts are more responsive to the context of elections then they are will also presumably be more responsive to the appeals of parties and candidates and more inclined to take account of their recent performance. Any theory that proposes a basis for party choice in the recent performance of governments or the recent performance of the economy might obtain somewhat different parameter estimates if party choice were interacted with the same variable (new cohorts) that is employed in this research.

So this paper's findings have quite general implications for the study of parties and elections; not just for the study of voter turnout.

NOTES

¹ In a ground-breaking article, Plutzer (2002) looks at persistence and inertia in the propensity to turnout, a different take on the same concerns that motivate us here.

² The idea that increasing female turnout was generational in nature has been well-understood (see, for example, Norris 2001), but there appears to have been no understanding that this generational shift might have to do with the socializing power of the electoral experience itself (see below). The diagnosis was rather that “Long-term secular trends in social norms and in structural lifestyles seem to have contributed towards removing many factors that inhibited women’s voting participation” (Norris 2001).

³ Most countries hold general elections every four years, so an entering cohort encompasses those coming of age in the four years prior to each election. The voting age was lowered by three years in most countries, so there will have been an overlap of one year between those voting under the new rules and those who would have voted under the old rules. This is why the 21 year-olds occur in each of the two groups being compared. We will determine the actual difference between these two groups later in the paper.

⁴ 13 four-year cohorts encompasses a 50-year span, about the remaining life expectancy of an 18-year-old in 1970.

⁵ Individuals do become more likely to vote as they age (see below) – an insight that provides the rationale for Rosenstone and Hanson’s (1993) life experience approach to explaining individual-level electoral participation. However, the initial level of turnout in any group serves as a constraint on the level to which turnout in that group can rise (Plutzer 2002). In this research we take that insight and apply it to groups defined in terms of the date at which they entered the electorate.

⁶ These are the only countries where academic election studies have been conducted continuously since the lowering of the voting age or earlier. The data were collected by different (and changing) groups of researchers in each country, and are available from the national social science data archives of each country or from the Inter-University Consortium for Political Research, University of Michigan. The only variables taken from these studies are date of birth (or age at time of survey) of each respondent and whether or not the respondent claimed to have voted in the election being studied.

⁷ Though we derive these cohorts from individual-level data – specifically the age of each respondent and whether or not they voted – age and vote are almost the only variables available in identical form across countries, so we would gain nothing from analyzing the data at the individual level. Because our interest is in the behavior of electoral cohorts, the cohort-year is the appropriate level of analysis in this investigation.

⁸ For these analyses (unlike the multivariate analyses presented below) the data have been weighted to the historical turnout recorded at each election.

⁹ This decline involves two different processes: first the fact that new cohorts vote at lower rates than more established cohorts (rows lower down the table include increasingly fewer established cohorts) and, second, the fact that new cohorts have driven the overall decline in turnout. Because the changes in mean turnout involve both processes they are not very useful analytically. In what follows we will be estimating the separate contributions of each process.

¹⁰ It might be argued that the entire table could be an artifactual result of the smaller cell sizes lower in the table. The top row, after all, averages a large number of cohorts and constitutes a large fraction of the ‘all prior cohorts’ row. But if the differences between the rows of the lower part of Table 1 were an artifact of this method of constructing the table, then the final row (labeled 4+) would show a steady increase in the

amount of change from election to election as later cohorts contribute a larger share of this change, to the right of the table. This does not happen. Moreover, a summary based on an entire cohort table, with thirteen rows (not shown), yields the same results as Table 1.

¹¹ Dutch turnout saw a massive drop in the first election for which we have an election study, 1971, which was the first election after the abolition of compulsory voting. Turnout recovered in the following election, primarily among newly enfranchised cohorts, even though this second election was the one in which the voting age was lowered to 18. This unfortunate starting point to our series of Dutch elections could be responsible for the unusual pattern shown in that country.

¹² This proved not significant among PR countries in our data. For countries with plurality elections (Britain and the United States) we employ the average of the lead in each congressional district (US) or in each constituency (Britain), on the basis of research into turnout at US congressional elections which has shown average margin of victory to be a powerful predictor of turnout (Franklin and Evans 2000). The variable essentially speaks to the ‘wasted vote’ syndrome (Blais 2000) which does not exist in PR countries, so those countries are coded 0 on this variable (matching the code that would be given in Britain and the US if the average margin of victory across all electoral units were zero).

¹³ If, before aggregating, we weight the data to reproduce the turnout actually recorded historically at each election, findings are substantially similar. However, weighting the data in this way could yield anomalous results. Because people often ‘mis-remember’ having voted when they did not in fact do so, we generally have to weight up the cases which reported not voting. In some instances these cases are dramatically upweighted, as would have been necessary in Germany in 1972 where two cohorts had only two respondents each who reported not having voted. These individuals would have had to count five times each in order to

reproduce the actual turnout recorded at that election. Placing this sort of reliance on a small number of cases can result in anomalous findings if the individuals concerned were atypical in some respect. Our procedure of weighting on the basis of cell size is preferable because we place reliance on cells where the number of respondents is such as to give us confidence in the reported data while placing less reliance on cells where the small number of respondents gives us less reason to trust the data.

¹⁴ A problem arises in the use of this method because of the nature of our dependent variable. Though turnout is measured as a percentage and is thus interval level, it is subject to ceiling effects. It cannot exceed 100 percent, and actually reaching this figure is difficult or impossible. For this reason it has the same limitations in regression analysis as does a binary dependent variable, and Ordinary or Generalized Least Squares may yield the same sort of biased coefficients as they would with a dummy dependent variable. To see whether this was occurring in practice, we subjected our dependent variable to a logistic transformation and repeated our analyses with the resulting transformed variable. The transformation is achieved by taking $\text{LOG}((\text{turnout} / \text{MAX}(\text{turnout}) / (1 - \text{turnout} / \text{MAX}(\text{turnout}))))$. Analyses employing this variable explained less variance than the corresponding analyses with an un-transformed dependent variable, indicating that effects on turnout are better estimated if they are assumed to be linear than if ceiling effects are assumed. Nor is the possibility that estimates of turnout could exceed 100% realized when predictions are made from any of models used here. Thus we chose to stick with the un-transformed turnout measure.

¹⁵ Recall that we apply a two-tailed test to the average district magnitude variable.

¹⁶ Three-fifths of the cohorts in each electorate (except Norway where the proportion is only one half) had by 1999 enjoyed (if that is the word) the experience of facing an election at 18-21 years of age. However, as already noted, the earliest cohorts will have been enlarged by the baby boom generation that came of age at

about the same time. Thus the proportion of our electorates exposed to young initiation will be more like three fourths than three fifths, yielding this estimate of the effect to date of lowering the voting age.

¹⁷ The 4 percent effect of being established that we estimate in Table 4 is the difference between the average turnout of individuals facing one of their first three elections and individuals during the remainder of their lives. The difference in turnout between youngest and oldest cohorts is far greater than that (some 18 percent on average).

¹⁸ 4.5 percent if the Netherlands is excluded (see footnote 19).

¹⁹ The number of cohorts available in each country are too few for country-by-country analyses to be viable. However, jack-knife tests (in which each country in turn is eliminated from the analysis) demonstrate that the major findings are not dominated by any one country and produce quite consistent estimates of the parameters of interest. It is noteworthy, however, that when the Netherlands with its peculiar cohort structure (see footnote 11) is eliminated from the analysis, the effect of being an established cohort rises to 6.2 percent and variance explained to 0.85 percent. Other coefficients remain almost identical to those reported in Table 4.

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