

Working Paper Series

Estimation of Voter Turnout by Age Group at the 2008 Federal General Election

Table of Contents

Summary	3
Introduction	4
National Estimates	5
Estimates by Province and Territory	7
Use of Voting Methods	9
Estimates by Gender	10
Conclusion	10
Appendix: Methodology	11

Summary

Based on a methodology first used in 2004, Elections Canada has repeated its study of voter turnout by age group for the 2008 federal general election. The results indicate that turnout, calculated here on the voting age population, is positively correlated with age. As a general rule, the older the age group, the higher the turnout. No significant difference is noted by gender.

The turnout rate among 18 to 24 year olds remains low. Youth turnout went from 37 percent in 2004 up to 43.8 percent in 2006, and back down to 37.4 percent in 2008, However, it should be noted that, for the 2008 general election, other age groups had even larger declines, including those aged 35 to 44 years old (a decrease of 7.8 percentage points), 45 to 54 year olds (a decrease of 10.3 percentage points), and 55 to 64 year olds (a decrease of 9.8 percentage points). Part of the decline observed in youth turnout may therefore be due to factors other than age.

For 2008, turnout among those eligible to vote for the first time was lower than for those youth who were previously eligible to vote in each province and territory except Quebec, where it was only slightly higher.

The 2006 study benefited from comments received by academics and Statistics Canada, including: André Blais, Karla Fox, Lawrence LeDuc, Henry Milner and Jon H. Pammett. The methodology used in 2008, while similar to previous studies, was further reviewed by Pierre Daoust from Statistics Canada.

This study is the result of the involvement of several sectors at Elections Canada. In particular, we would like to thank Charlie Arcaro, Pascal Barrette, Jean-Sébastien Bargiel, Clayton Block, Sylvie Jacmain, Katherine Kit, Miriam Lapp, Daniel Larrivée, Pierre Parent, Alain Pelletier and Michel Roussel for their involvement.

Note: An observed difference is considered statistically significant if it is larger than its associated margin of error. The Appendix provides further information on how the margins of error are calculated.

Introduction

The Chief Electoral Officer of Canada has a mandate to make the electoral process better known to Canadians, particularly to those who might experience difficulty in exercising their right to vote. For this reason, Elections Canada is carrying out research on how people participate in elections. This study is one of the initiatives aimed at better understanding the dynamics of electoral participation, chiefly among the youngest voters.

Until 2004, the analysis of electoral participation by age group was based on estimates from survey research, a method that tends to exaggerate the turnout rate considerably. Under the Chief Electoral Officer's authority, in 2004 Elections Canada used administrative data from the electoral process to obtain a sample of electors who voted at an advance poll, by special ballot or at a polling station on election day. The year of birth of each sampled elector was then obtained from the National Register of Electors to produce estimates by age group. The same methodology was used in 2006 and in 2008, thus allowing for comparison. For 2008, a breakdown by gender is also included.

Voter turnout is officially measured by dividing the number of votes cast by the number of registered electors. However, because registration rates vary across age groups, and the youth population of interest¹ has a lower registration rate, the official measure of turnout may overestimate youth participation. Therefore the estimated voter turnout rates for this study use the estimated number in the voting age population rather than the number of registered voters. This population was estimated based on the 2006 Census data. The methodology used to collect and analyse the 2008 data is presented in the Appendix.

At 58.8 percent, the official turnout at the October 14, 2008 general election is the lowest turnout rate in a federal general election since Confederation. As was noted in Elections Canada's previous studies of voter turnout by age group², the decline in Canadian electoral participation has been the focus of considerable academic research and analysis, particularly since the 2000 federal general election. While such research has identified a number of factors related to non-participation³, the major reason for the decline in Canadian voter turnout over the past two

¹ Youth are defined as those eligible voters aged 18 to 24 years. To allow a more refined analysis, the 18-to-24 age group was subdivided into youth who were eligible to vote for the first time and those who had previously been eligible. The age group of first time eligible and previously registered voters differs from one general election to another and is a function of the length of the time lapsed between elections. In 2008, first time eligible voters include those Canadians aged 18 to 20.5 years; in 2006, it is those aged 18 to 19.5 years; and in 2004, it is those aged 18 to 21.5 years. Previously registered voters are defined in 2008 as those aged 20.5 to 24 years; in 2006 it is those aged 19.5 to 24 years; and in 2004 it is those aged 21.5 to 24 years.

² Elections Canada, *Estimation of Voter Turnout by Age Group at the 39th Federal General Election, January 23, 2006*, http://www.elections.ca/loi/res/rep39ge/estimation39ge_e.pdf, and Elections Canada, *Estimation of Voter Turnout by Age Group at the 38th Federal General Election (June 28, 2004)*, http://www.elections.ca/content.asp?section=loi&document=index&dir=rep&lang=e

³ André Blais et al., *Anatomy of a Liberal Victory: Making Sense of the Vote in the 2000 Canadian Election* (Peterborough, Ontario: Broadview Press, 2002). See also Elisabeth Gigengil et al., "Turned Off or Tuned Out? Youth Participation in Politics," *Electoral Insight* 5 no. 2 (July 2003): 9–14; and André Blais et al., "Where does the

decades can be traced to the continuing drop-off in voting among the youngest cohorts of electors. As confirmed most recently by Blais and Loewen (2009), there has been a persistent downward trend in the turnout rate of new cohorts of electors, beginning in the 1970s. Coupled with a noticeable decline in the life-cycle effect⁴ over the same time period, the result is that younger generations of electors are no longer replacing older generations at rates that are sufficient to maintain overall levels of turnout.

In light of the current state of research, we must continue to deepen our understanding of the decline of turnout at federal elections, and to track voter turnout rates by age. This report examines the voter turnout by age group at both the national and provincial levels, and for the first time, presents data on voting patterns by gender. Comparison with the 2004 and 2006 elections are made where appropriate.

National Estimates

At the national level, the official turnout rate, based on registered voters, was 58.8 percent in 2008, compared to 56.5 percent when based on the voting age population. As Figure 1 indicates, this difference is similar to that observed for 2006 and 2004.

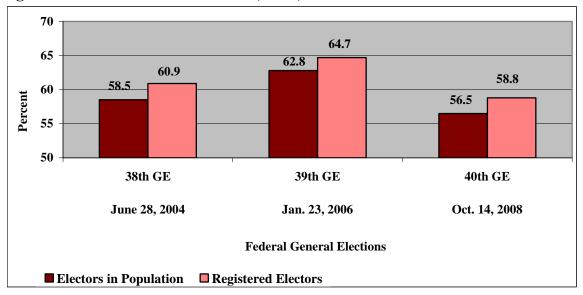


Figure 1: Estimates of Voter Turnout, 2004, 2006 and 2008 Federal General Elections

turnout decline come from?" *European Journal of Political Research* 43 no. 2 (March 2004): 221–236; Jon Pammett, Lawrence LeDuc, *Explaining the Turnout Decline in Canadian Federal Elections: A New Survey of Non-voters*, http://www.elections.ca/content.asp?section=loi&document=index&dir=tur/tud&lang=e&textonly=false

⁴ "Life cycle effects simply correspond to the impact of age. ... [A]s people grow older, as they get more involved in their social milieu and develop stronger preferences over time, their propensity to vote increases." In André Blais and Peter Loewen, *Youth Electoral Engagement in Canada*, Working Paper Series, April 2009, p. 12, http://www.elections.ca/loi/res/youeng/youth_electoral_engagement_e.pdf

Figure 2 presents the estimates of turnout in the 2008 general election by age group. The 18 to 24 year-olds are also further broken down to show those eligible to vote for the first time and those that were previously eligible. As in previous studies, the data show a positive correlation between age and turnout. When based on the voting age population, turnout steadily increases with age, from 37.4 percent for 18 to 24 year olds, up to 68.4 percent for 65 to 74 year-olds. Among the youngest age group, turnout was slightly lower for those eligible to vote for the first time than for those that were previously eligible.

As Figure 2 shows, the official turnout based on registered electors is much higher for the youngest age groups, especially for those eligible to vote for the first time. This is because one of the principal ways that voters in this cohort get registered is by actually voting. To eliminate this bias, turnout estimates for this study are based solely on the voting age population

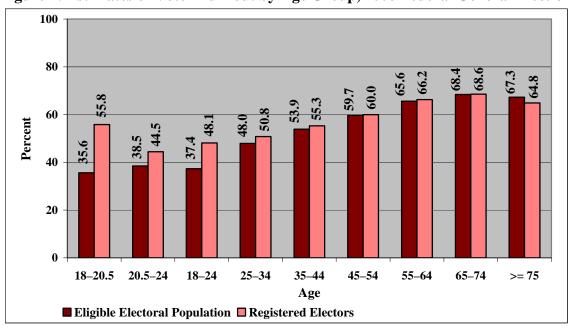


Figure 2: Estimates of Voter Turnout by Age Group, 2008 Federal General Election

Figure 3 shows the turnout rates for youth aged 18 to 24 years for the last three general elections. Overall, youth turnout has decreased by 6.4 percentage points amongst that age group between the 2008 and the 2006 general elections. This decrease is particularly noticeable among first-time eligible voters (6.6 percentage points) compared to those previously eligible (5.7 percentage points).

Despite this decrease in youth turnout, it should be noted that most other age groups also had decreases, most notably and respectively those aged 35 to 44 years old (a decrease of 7.8 percentage points), those aged 55 to 64 years old (a decrease of 9.8 percentage points), and those aged 45 to 54 years old (a decrease of 10.3 percentage points). Therefore part of the observed drop in youth turnout for the 2008 general election could be related to factors other than age.

100 **80** ■ 1st Time Percent 60 42.2 44.2 43.8 39.6 34.3 37 35.6 38.5 37.4 ■ 2nd Time 40 □ 18-24 years 20 38th GE 39th GE 40th GE **June 2004** Jan. 2006 Oct. 2008 Federal General Elections

Figure 3: Estimates of Youth Voter Turnout, Based on Voting Age Population, 2004, 2006 and 2008 Federal General Elections

Estimates by Province and Territory

Estimates by age group were calculated for each province and territory. The data are presented in Table 1.

The positive correlation between age and turnout observed at the national level emerges in every province and territory. In New Brunswick and Ontario, those aged 75 years and over were found to be slightly more likely to vote than the other groups. Of all age groups, youth aged 18 to 24 had the lowest turnout in every province and territory.

While in 2006, turnout among first-time eligible voters and previously eligible youth voters tended to not differ significantly from one jurisdiction to another, the difference is much more acute in 2008. In fact, turnout among first-time eligible voters in 2008 is significantly lower than for previously eligible voters in most jurisdictions, except Quebec.

Table 1: Estimates of Voter Turnout by Province and Territory, Based on Voting Age Population, 2008 Federal General Election

	Youth 18–24		Age group							All
Jurisdiction	18–	20.5–		25-	35-	45_	55–	65–		
	20.5	24	18–24	34	44	54	64	74	75+	
Canada	35.6	38.5	37.4	48.0	53.9	59.7	65.6	68.4	67.3	56.5
Newfoundland	31.7	36.3	34.4	42.4	48.3	51.9	55.9	50.8	44.2	48.1
Prince Edward	44.7	53.8	50.1	63.5	73.3	73.7	80.5	79.0	72.1	71.0
Island										
Nova Scotia	40.6	43.3	42.3	47.1	52.7	61.2	70.6	74.9	70.6	59.5
New	35.4	49.9	44.2	59.7	59.8	63.8	66.1	73.9	77.1	62.9
Brunswick										
Quebec	49.2	45.2	46.8	53.5	61.3	66.7	65.8	66.3	66.5	61.3
Ontario	32.4	35.2	34.1	47.5	52.2	57.2	66.0	68.9	71.7	55.5
Manitoba	20.4	31.2	26.9	41.5	48.5	58.1	71.4	76.6	64.7	54.1
Saskatchewan	27.9	30.3	29.3	40.9	55.1	60.8	71.9	80.6	67.9	56.8
Alberta	29.5	33.7	32.2	38.6	46.5	54.9	63.5	68.0	57.5	49.4
British	33.5	42.7	39.2	49.8	52.6	57.4	62.2	66.0	63.0	55.4
Columbia										
Yukon	31.3	40.8	37.0	49.8	55.4	68.3	70.6	70.1	68.4	59.3
Northwest	16.0	23.2	20.3	40.3	46.7	56.6	53.3	56.7	40.0	44.2
Territories										
Nunavut	13.4	26.2	20.8	38.9	47.0	52.3	58.5	69.6	66.5	42.0

Use of Voting Methods

This study includes all electors who voted at an advance poll or by special ballot, all who registered or modified their registration information on election day (and are therefore considered to have voted) and a random sample of electors who voted on election day without having to register at the polls.

As Figure 4 shows, the age breakdown differs significantly from one voting method to another. Of those who registered at the time of voting on polling day, 50.8 percent were aged 18 to 34; among those who were previously registered, 58 percent were aged 35 to 64. Turning to the special ballot (also called SVR), nearly half (48.8 percent) of those who voted under SVR national were aged 18 to 34, while 55 percent of those who voted under SVR local were aged 55 and over. These results are largely similar to 2006 with two exceptions: SVR national voters are more likely to be in the 18 to 34 year-old age group in 2008 than in any other group, whereas in 2006, SVR national voters were more likely to be aged 65 and over. While this study cannot explain the reasons for these age patterns, it may be possible that the timing of the 2006 election (which took place in January) resulted in a higher proportion of older Canadians – many of whom travel to warmer climates during the winter months – using SVR national to cast their ballots.

30 20 10 0 **Election day Election day SVR Local Advance Poll SVR National** (previously (not previously % % % registered) % registered) % 7.1 27.2 4.0 29.4 5.8 ■ 18 to 24 yrs. 7.3 19.4 7.8 ■ 25 to 34 yrs. 14.0 23.6 18.2 15.9 11.1 8.0 8.4 □ 35 to 44 yrs. 22.5 13.9 19.2 10.8 14.7 ■ 45 to 54 yrs 17.9 24.3 13.9 ■ 55 to 64 yrs. 9.6 24.1

5.1

4.8

19.7

14.4

9.8

8.7

21.1

18.0

10.7

9.7

■ 65 to 74 yrs.

■ 75 yrs. and over

Figure 4: Estimates of Voting Method Used by Age, 2008 Federal General Election

Estimates by Gender

The estimates indicate that, for the 2008 general election, overall turnout is slightly lower for men (55.3 percent) than for women (57.6 percent). As shown in Figure 5, this trend holds until age 54 and is inversed for those 75 years and older, where turnout for men is somewhat higher.

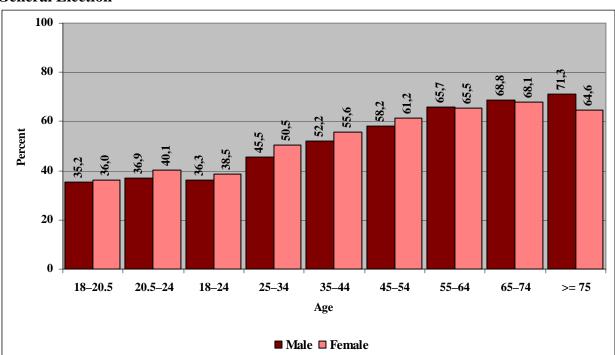


Figure 5: Voter Participation by Gender, Based on Voting Age Population, 2008 Federal General Election

Conclusion

Young voters in Canada continue to vote at levels well below all other age groups. While the decline in voter participation has been shown to be a result of declining turnout among youth, it is important to add that the underlying causes of the declining youth turnout remain poorly understood⁵. Voter participation is a complex action, motivated by a variety of factors. More research is required to answer the question of low voter participation among Canadian youth. The use of actual turnout results to estimate voter participation rates across age groups has provided a more accurate portrait of electoral participation in Canada. Longitudinal studies are also recommended to understand how and why voter participation rates vary over time.

⁵ See Blais and Loewen, Youth Electoral Engagement in Canada.

-

Appendix: Methodology

The study methodology was designed to obtain the voter turnout data for the 2008 general election by age, province and gender, and highlight youth participation. Elections Canada maintains administrative records of the voting methods used by electors, including voting on election day, by special ballot, and at advance polls. Each of these voting methods was included in the sampling strategy for the study.

For Canadian federal elections, voter participation is measured by dividing the number of votes cast by the number of registered electors. However, because registration rates vary across age groups, estimated voter turnout rates were based on the voting age population rather than the number of registered voters, using adjusted data from the 2006 Census conducted by Statistics Canada. If youth electoral participation was calculated using registered voters as the denominator, instead of total electors in the population, the youth participation rate would be significantly over-estimated and would not reflect the true magnitude of their low participation.

In order to break down participation by demographic characteristics such as age and gender, we need to know who voted and what their characteristics are. Date of birth and gender information is available on the final list of electors, produced after each electoral event. The difficult part is how to determine who voted and who did not.

The final list of electors was split into three components. The first component included all 1,737,245 electors who voted at advance polls or by special ballot. The second component included all 854,693 electors who registered to vote on polling day. The third component included all other electors on the final list.

We know that all those electors in the first component voted. For the second component, we can assume that they also all voted, or they would not have bothered to register themselves on polling day. This leaves the third component, for which the only evidence of who voted and who did not is contained on the cross-off list used at each polling station. This information is not captured electronically, and is not readily available. The cross-off lists themselves are stored in ballot boxes⁶. Obtaining and capturing all of these lists would be an onerous task. Therefore, a random sample of the lists was selected and the electors crossed off were captured and matched back to the final list. The first and second components required no sampling, and therefore contribute nothing to the margin of error in the estimates.

For practical reasons, the sample for the third component needed to be carried out in two stages: 50 electoral districts were selected at random from the 308 across Canada, and 30 polling divisions were then selected at random within each of the 50 selected electoral districts. The sample for the third component included 262,446 pre-registered electors who went to the polls on election day.

⁶ It is not possible to refer back to previous election material because it is destroyed after one year, in accordance with the *Canada Elections Act*.

The first-stage sample of 50 electoral districts was initially stratified by province and territory. Within strata, electoral districts with large university campuses were identified and sampled separately. For the second stage of sampling, 30 polling divisions were selected from each electoral district, with polling divisions on university campuses identified and sampled separately.

The separation of university campuses from the rest of the population was done in case youth voting patterns are different for the two sub-populations. Analysis of registration patterns by Elections Canada suggests that higher than normal voter registration occurs in areas with universities. If they are indeed different, sampling them separately ensures good coverage of both and reduces the margins of error of the resulting estimates.

Estimates produced from the sample from the third component of the population were combined with the other two components to produce the participation rates of demographic groups. When combined across all demographic categories, these estimates would not necessarily add up to the official participation rates obtained from simply counting the ballots. The estimates were therefore ratio-adjusted to agree with the official results.

Margins of error for the estimates were obtained by producing 95 percent confidence intervals around the calculated estimates, using the calculated standard errors for the estimates and assuming a normal sampling distribution. For the 2008 general election, this sampling and estimation methodology produced for each demographic group margins of error roughly between 2 and 5 percent at the Canada level and between 3 and 15 percent at the province and territory level. The true participation rate should be within the margin of error for the estimate 19 times out of 20.