

# **Estimation of Voter Turnout by Age Group and Gender at the 2021 General Election**

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# Summary

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## ***Methodology***

For Canadian federal elections, official voter turnout is calculated as the number of votes cast divided by the number of registered electors. Because registration rates vary over time, this measure can be misleading when comparing turnout from two different elections.

To overcome this limitation, this study defines turnout as the number of votes cast divided by the estimated number of eligible voters, regardless of their registration status. These estimates are generally larger than the number of registered electors, because not all potential electors are registered, so the resulting turnout estimates are typically lower than official turnout figures.

Using this method, comparisons over time and between demographic groups reflect only changes in participation, regardless of any variations in registration rates. This makes historic comparisons between elections more accurate.

Many factors can influence turnout in an election. While this study does not look into those factors, it should be noted that the 2021 election was held under unprecedented pandemic conditions.

Elections Canada has been producing turnout reports by age of electors since the 2004 general election. In 2008, the sex of electors was introduced as a metric. Following changes to Canada's census in 2021, the 2021 report is the first to produce estimates based on *gender* as opposed to *sex*.

## ***Voter Turnout Highlights***

Official turnout for the 44th general election held on September 20, 2021, was 62.6%. This is 4.4 percentage points lower than the previous general election in 2019 (67.0%) and 3.8 percentage points higher than the all-time low of 58.8% for the 2008 election. Using the denominator of eligible voters instead of registered electors, the national turnout figure for 2021 is 62.2%—a decrease of 4.8 percentage points from the previous general election in 2019 (67%). The following highlights follow this methodology.

In 2021, turnout gradually increased with age groups, from 46.7% for ages 18–24 to 74.9% for ages 65–74, and then declined to 65.9% for those aged 75 and over. This pattern is reflected across all provinces and territories and has been observed in every general election since 2004, when Elections Canada first began producing these reports.

The participation of voters aged 18–24 decreased by 7.2 points from 53.9% in 2019 to 46.7% in 2021. Electors eligible to vote for the first time in 2021<sup>1</sup> voted at a rate (44.7%) that was 9.9 percentage points lower than those who were eligible to vote for the first time in 2019<sup>2</sup> (53.6%).

Women participated at a higher rate (63.8%) than men (60.6%) across all age groups up to age 65, at which point men participated at a comparable or higher rate than women. This is the same pattern seen in all general elections since 2008.

The 2021 election marks the highest percentage of voters who chose to cast their ballot using a method other than in-person voting on polling day. For the first time, over 50% of voters over the age of 65 voted using a method other than in-person voting on polling day.

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<sup>1</sup> Citizens born between October 22, 2001, and September 20, 2003, were eligible to vote for the first time in the 44th general election in 2021.

<sup>2</sup> Citizens born between October 20, 1997, and October 21, 2001, were eligible to vote for the first time in the 43rd general election in 2019.

# Acknowledgements

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The current study is the result of the involvement of several sectors at Elections Canada. From Analytics and Performance Measurements, Marcello Barisonzi was in charge of the estimation and prepared the report with assistance from Jessica Lachance; Clayton Block prepared the final list of electors and Stephen Warner conducted the estimations of the electoral population.

We would like to thank Shannon Blake, Patrick Gilliland, and Richard St-Louis from Field Governance and Operational Readiness, who provided the official vote counts and electoral lists. We also thank Graham Laurie, Nicole Fournier-Sylvester, Miriam Lapp, Nathalie Lewis and Charles Tardif for their comments on previous versions of the report.

# Introduction

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This report presents estimates of voter turnout by various demographic groups defined by age and gender, at the national, provincial, and territorial levels for the 44th general election, held on September 20, 2021.

The official turnout for the 2021 election was 62.6%. Historically, electoral participation peaked in Canada at 79.4% for the 1958 general election. Throughout the 1960s, turnout remained relatively high, fluctuating between 75% and 79%. The next two decades saw it decline slightly but still ranging from 70% to 75%. In the 1990s, electoral participation began to decline to a historic low of 58.8% in the 2008 general election.

Differences in electoral participation among various demographic groups have been the subject of much academic research and analysis. Most of this research has been based on estimates from surveys, which is often biased towards overestimating voter turnout.<sup>3</sup>

Since 2004, after each general election, the Chief Electoral Officer has used administrative data from the electoral process to produce turnout estimates by age group. This research is free from the biases that are common in voluntary survey-based studies. Between 2004 and 2015, Elections Canada drew a sample of the physical copy of these records to produce estimates. Then, starting with the 2019 election, the complete set of records was digitized. Now, turnout estimates are produced using the entire data, instead of a sample. This change allows for increased accuracy compared to previous elections.

Also, since 2019, electors are given the opportunity to register as a third gender, “Gender X”. This third gender option was subsequently revised to “Another gender”. Information about these electors has been published accordingly.

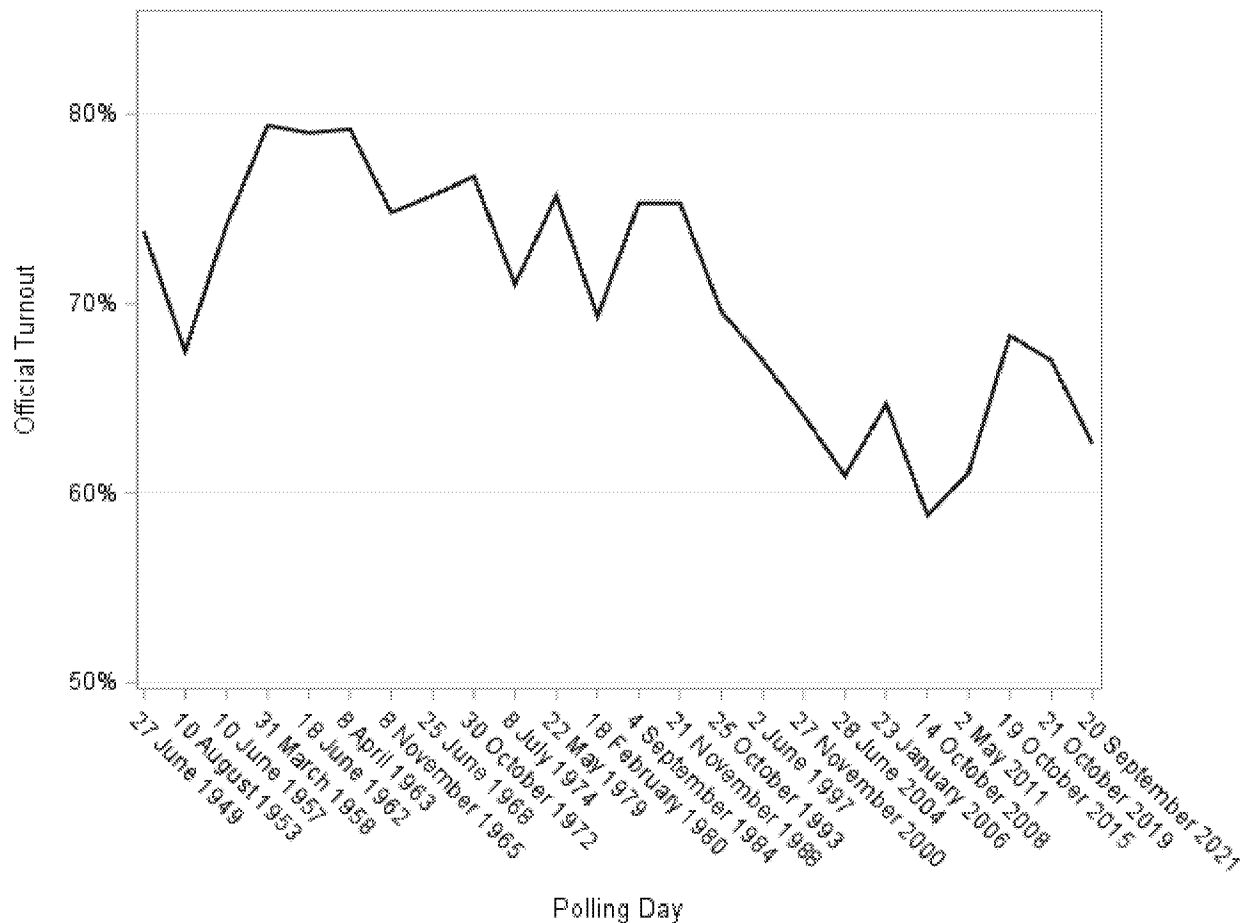
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<sup>3</sup> For an example of the discussions on the gap between actual and self-reported turnout numbers, see: Holbrook, Allyson L., and Jon A. Krosnick. “Social Desirability Bias in Voter Turnout Reports: Tests Using the Item Count Technique.” *The Public Opinion Quarterly*, vol. 74, no. 1 (2010): 37–67  
<http://www.jstor.org/stable/40660537>.

DeBell, Matthew, Jon A. Krosnick, Katie Gera, David S. Yeager, and Michael P. McDonald. “The Turnout Gap in Surveys: Explanations and Solutions.” *Sociological Methods & Research*, vol. 49, no. 4 (November 2020): 1133–62.  
<https://doi.org/10.1177/0049124118769085>

For Canadian federal elections, official voter turnout is calculated as the number of votes cast divided by the number of registered electors. Because registration rates vary over time, this measure can be misleading when comparing turnout from two different elections. That is, the differences observed in Figure 1 are partly due to changes in list coverage (the percentage of eligible electors on the list) over time. The list coverage can vary across different segments of the population as well, and can also differ by region. For example, youth ages 18-24 consistently have lower coverage compared to the rest of the electorate.

**Figure 1: Official Turnout Rates in Canadian General Elections, 1949 to 2021\***



\*Official turnout in Canada is based on the count of individuals on the final list of electors.

To overcome these limitations, this study defines turnout as the number of votes cast divided by the estimated number of eligible voters, regardless of their registration status. Because these estimates are generally larger than the number of registered electors, the resulting turnout estimates are typically lower than official turnout figures. Therefore, comparisons over time and

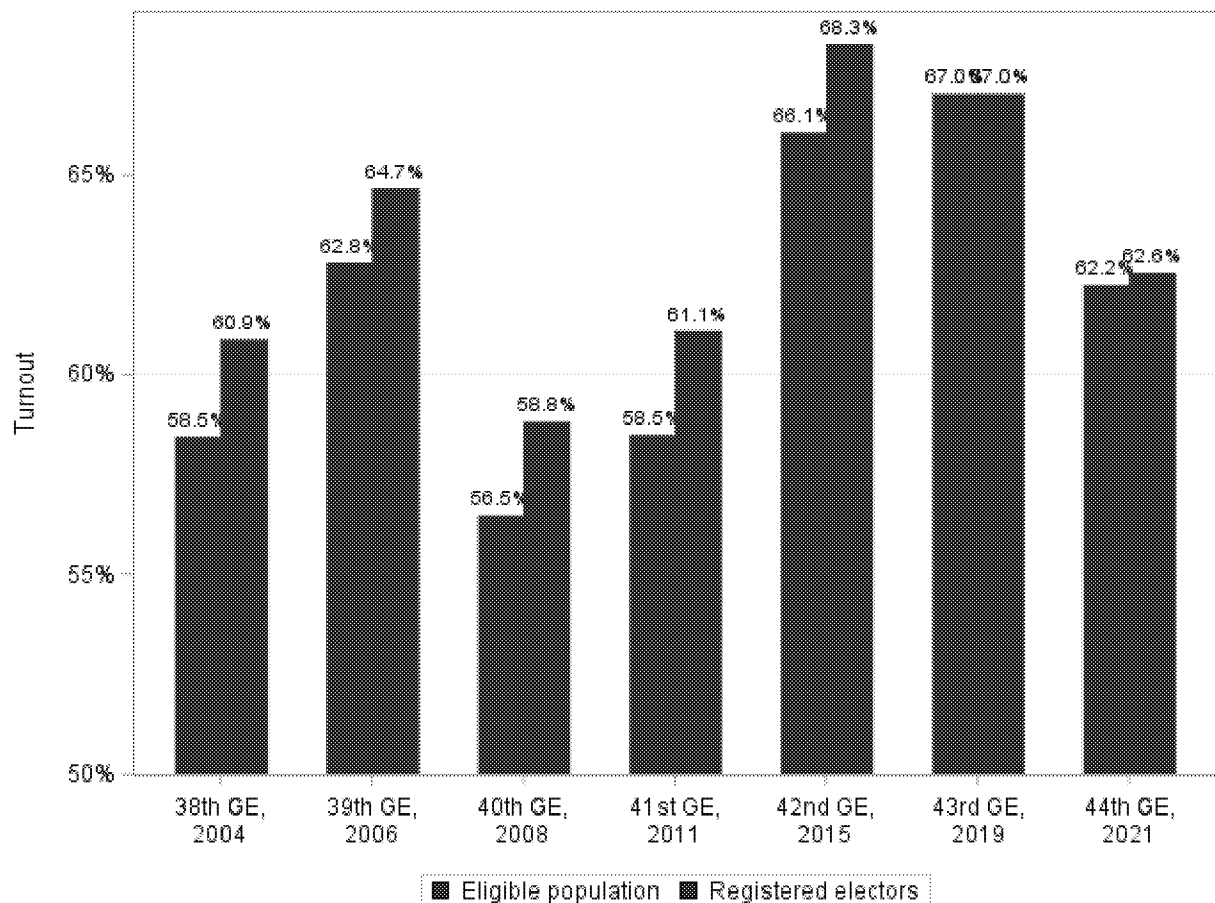
between demographic groups reflect only changes in participation, net of any variations in registration rates.

For the purposes of this study, the estimated number of eligible voters is based on the 2016 Census and annual demographic changes provided by Statistics Canada (eligible population adjusted to September 2021). Gender proportions from the 2021 Census were applied to the September 2021 eligible population estimates. More details on how turnout is defined, the methodology used to determine the size of the electoral population, and the estimation methodology are presented in the Appendix.

# Overall turnout

Turnout average since maximums of previous two elections

**Figure 2: Voter Turnout Based on Registered Electors and Eligible Electors in the Population, General Elections 2004 to 2021**

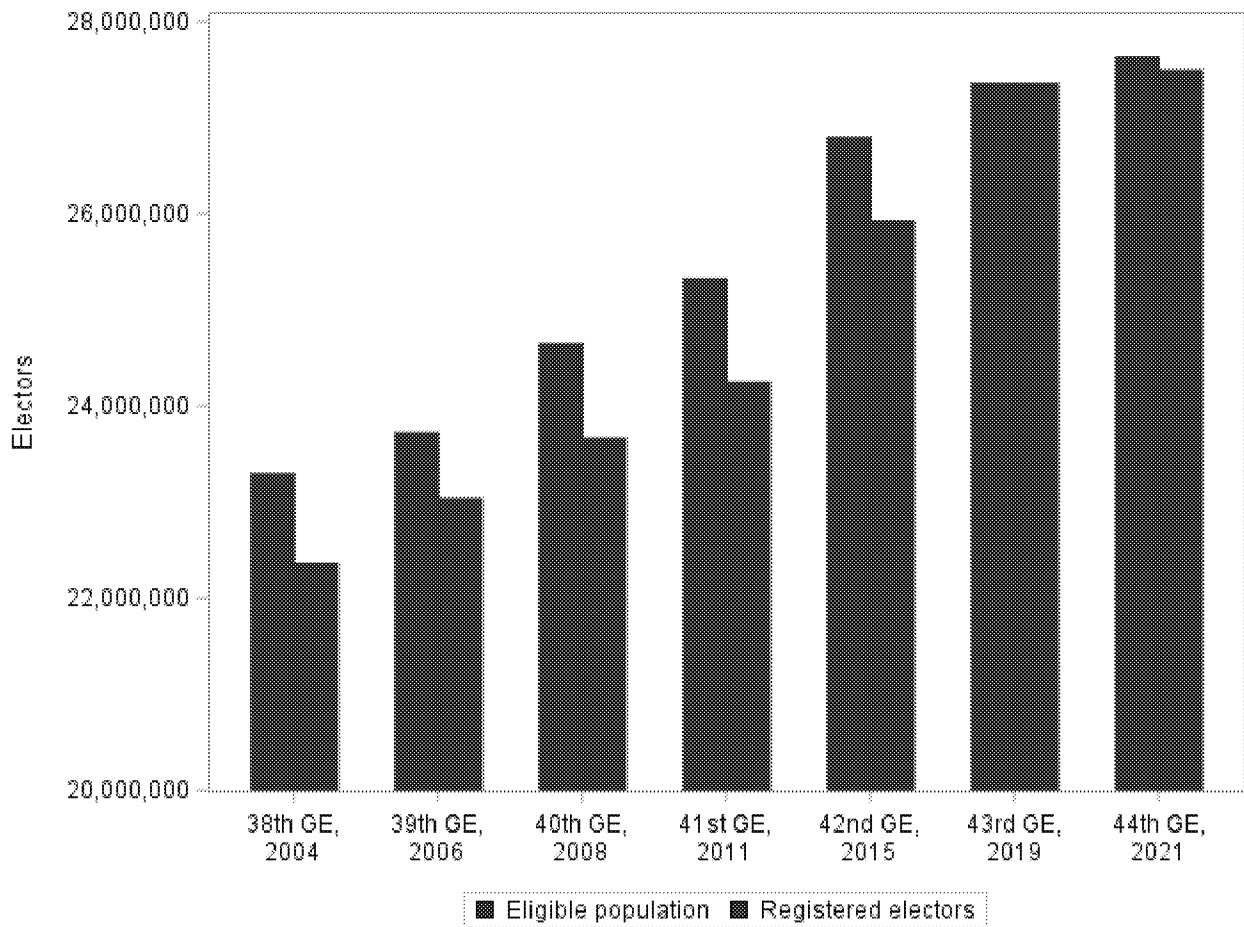


Replacing the number of registered electors with an estimated electoral population in the denominator of the turnout measure does not change the observed trend in turnout since 2004, as shown in Figure 2. Using this alternative measure, participation still reached an all-time low in 2008, when 56.5% of the voting population voted. The 2021 election's participation rate among eligible electors (62.2%) is the 4<sup>th</sup> most participated election in the 2004-2021 period. The most participated election in this period is the 2019 election (67.0%).



Figure 3 shows the number of registered and eligible electors for all general elections since 2004. Since 2019, both numbers are very close due to the higher coverage achieved by the National Register of Electors.

**Figure 3: Counts of Registered Electors and Eligible Electors in the Population, General Elections 2004 to 2021**



# Turnout by age

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The report breaks down age into the following groups:

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75+

The report further breaks down the category of 18-24-year-olds into “1<sup>st</sup> time” and “not 1<sup>st</sup> time” voters. The “1<sup>st</sup> time” category includes youth eligible to vote federally for the first time. For the 2021 general election, this includes those born between October 22, 2001, and September 20, 2003. The category “not 1<sup>st</sup> time” includes those youth under 25 years old who were previously eligible to vote federally. For the 2021 general election, this includes those born between September 21, 1996, and October 21, 2001.

Previous studies by Elections Canada<sup>4</sup> have shown youth have the largest gap between registered electors and eligible electors. Relatively fewer eligible electors in the 18-24 age group would have been sent a voter information card telling them when and where to vote during the 2021 general election; this could explain in part the lower turnout rates for this age group.

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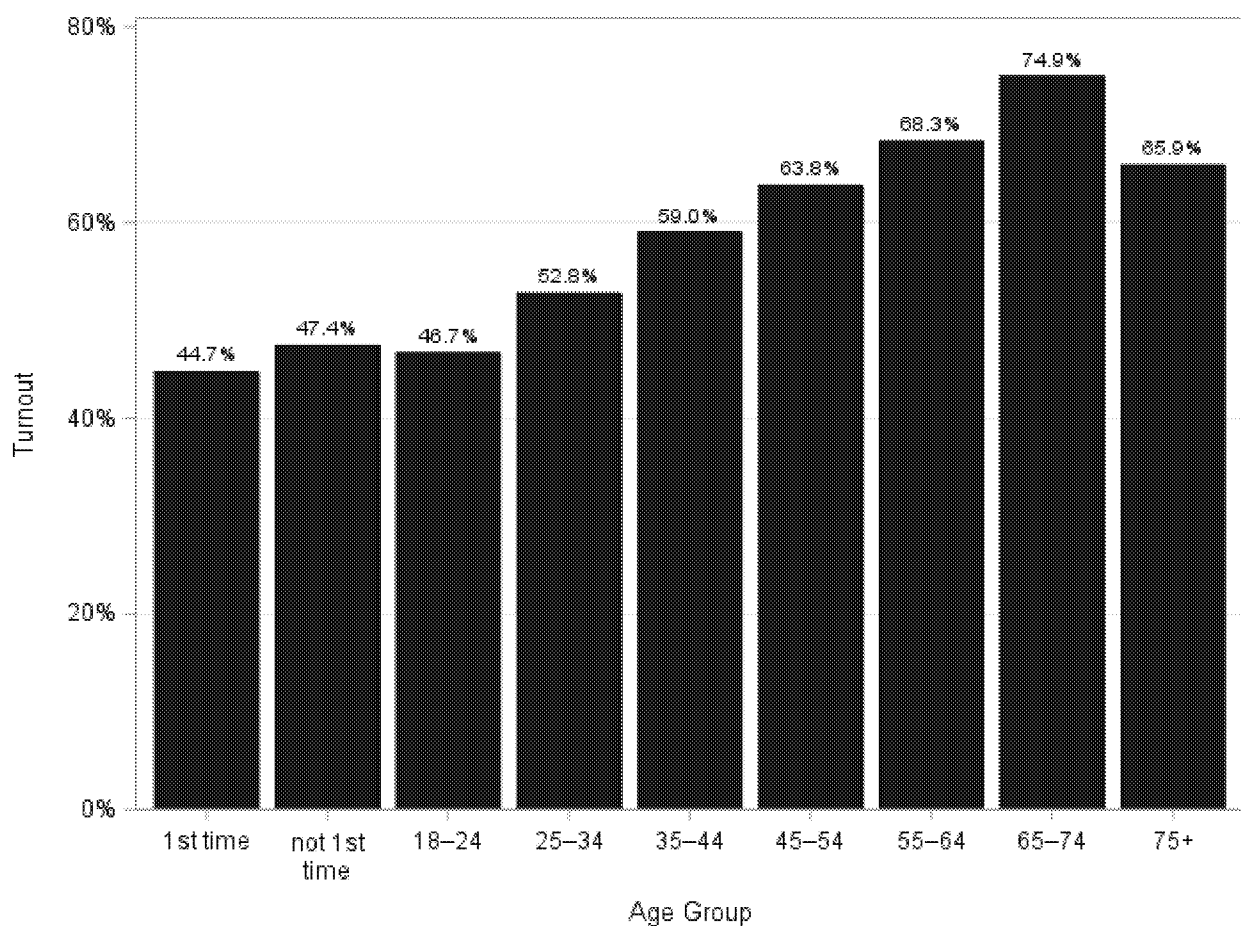
<sup>4</sup>Source: National Register of Electors - Updates: November 2020 Annual Lists of Electors. Elections Canada. <https://www.elections.ca/content.aspx?section=poi&document=index&dir=ann/upd&lang=e>

## Youth turnout keeps decreasing after peak in 2015, and women still voted at higher rates than men

For the 2021 general election, the breakdown of participation by age group is shown in Figure 4.

Turnout gradually increases with age from 46.7% for ages 18–24 to 74.9% for ages 65–74, and then declines to 65.9% for those 75 and older. This pattern has been seen in every general election since 2004.

**Figure 4: Voter Turnout by Age Group, 2021 General Election**



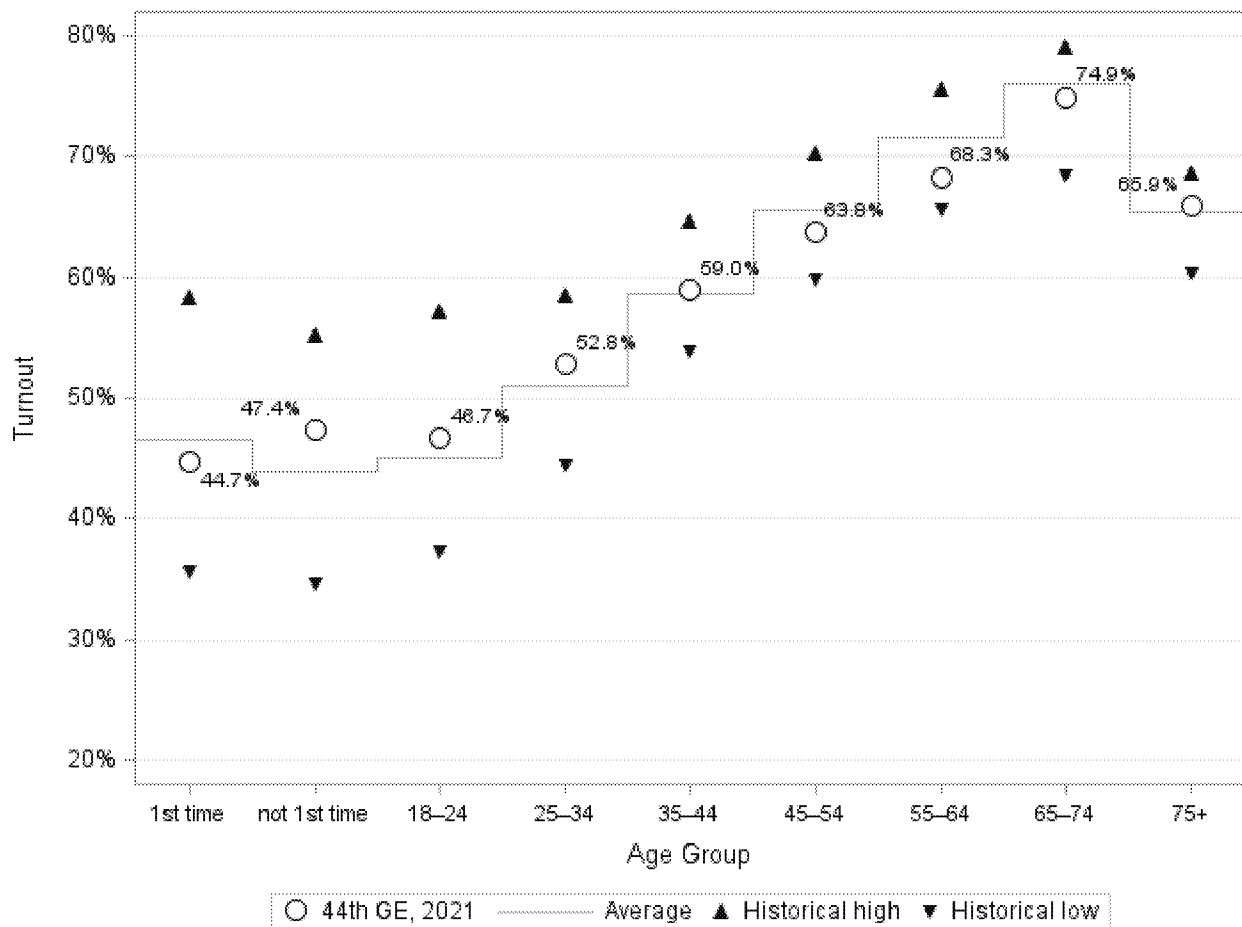
Participation of voters aged 18–24 had declined, but is still above the historical average (minus 10.4 points to 46.7%), after seeing the maximum participation on record (57.1%) in 2015.

Among the 18–24 age group, those electors eligible to vote for the first time federally, i.e., those born between September 20, 2003, and October 22, 2001, voted at a comparable rate (44.7%) as those who were previously eligible to vote (47.4%).

Figure 5 shows how turnout by age group in 2021 compares with the range of turnout rates for all elections since 2004.

- The grey line indicates the average turnout for elections from 2004 to 2021, inclusive
- The upward pointing triangle indicates the highest turnout rate for a given age group in the same timeframe
- The downward pointing triangle indicates the lowest turnout rate for a given age group
- The circle and the numeric label indicate the results for the 44th general election; when the circle overlaps with a triangle, the result reached a high or low point in the 2004–2021 period

**Figure 5: Voter Turnout by Age Group, General Elections 2004 to 2021\***



From this chart, we observe that the turnout for the 44th general election is around the historical average in this period for all age groups.

# Turnout by Gender

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In 2021, the Census of Population asked Canadians about their sex at birth, and for the first time, gender. This new information enabled Elections Canada to estimate the eligible population by gender.

In this report, we follow Statistics Canada's convention for publishing data on gender at two levels<sup>5</sup>. The “non-binary persons” definition from Statistics Canada corresponds to Elections Canada’s “Another gender” option given to electors when registering for an election or performing an update of their personal record. Those electors who identify as another gender are split 50/50 across the two binary gender options. This procedure is used to protect the confidentiality of the electors.

We use the terms “Men+” and “Women+” throughout this report to reflect the fact that our totals for men and women include some non-binary people.

## Another Gender (Gender X)

In September 2018, the Treasury Board of Canada Secretariat and the Department of Justice Canada presented a report to the Clerk of the Privy Council with recommendations on ways to modernize how the Government of Canada handles information on sex and gender. One of the recommendations was allowing Canadian citizens to identify with a third, non-binary gender other than “male” or “female”. Beginning in 2019, Elections Canada began offering a third gender option that electors could choose when registering or updating their registration. Following the recommendations of the [Policy Direction to Modernize the Government of Canada’s Sex and Gender Information Practices](#), Elections Canada uses the designation “Another gender” when collecting gender information from individuals, while the term “Gender X” is used for reporting purposes.

In Canada and abroad, 3,910 Canadians self-identified as gender X at the 2021 general election—in 2019 the number was 1,317. Given the recent implementation and the limited number of individuals, gender X electors are grouped by broad geographic location; using finer groupings could create disclosure risks. Table 1 below shows the geographic breakdown of gender X electors, and Table 2 the age structure of the gender X electors.

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<sup>5</sup> Source: Statistics Canada; *Filling the gaps: Information on gender in the 2021 Census*; <https://www12.statcan.gc.ca/census-recensement/2021/ref/98-20-0001/982000012021001-eng.cfm>

**Table 1: Gender X Electors and Voters by Location<sup>6</sup>**

Region	Registered Electors	Voters	Turnout
Atlantic	315	245	77.8%
Quebec	300	240	80.0%
Ontario	1,455	1,180	81.1%
Prairies	1,115	875	78.5%
British Columbia	665	555	83.5%
Territories <sup>7</sup>	—	—	—
Canada	3,850	3,095	80.4%
Abroad <sup>8</sup>	60	60	100%

<sup>6</sup> Elector and voter counts are randomly rounded for reasons of confidentiality. For this reason, subtotals may not always add up.

<sup>7</sup> Data for the Territories has been removed for reasons of confidentiality.

<sup>8</sup> Elections Canada does not keep a permanent register of Canadian electors abroad. International voters can indicate their gender when they request a ballot.

**Table 2: Gender X Electors and Voters by Age Group<sup>9</sup>**

Age	Registered Electors	Voters	Turnout
1st time	540	465	86.1%
not 1st time	995	785	78.9%
Total 18–24	1,535	1,250	81.4%
25–34	1,465	1,185	80.9%
35–44	555	460	82.9%
45–54	165	135	81.8%
55–64	125	105	84.0%
65–74	55	40	72.7%
75+ <sup>10</sup>	—	—	—

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<sup>9</sup> Elector and voter counts are randomly rounded for reasons of confidentiality.

<sup>10</sup> Data for electors aged 75+ has been removed for reasons of confidentiality.

## Men+ and Women+

Figure 6 shows the age and gender structure of the eligible electoral population in 2021. The most populous age cohorts for both genders are in the range 55–64. About two thirds of the eligible population is between the ages of 25 and 64; the corresponding age cohorts have the largest impact on the overall national turnout.

**Figure 6: Age and Gender Structure of the Eligible Electoral Population in 2021**

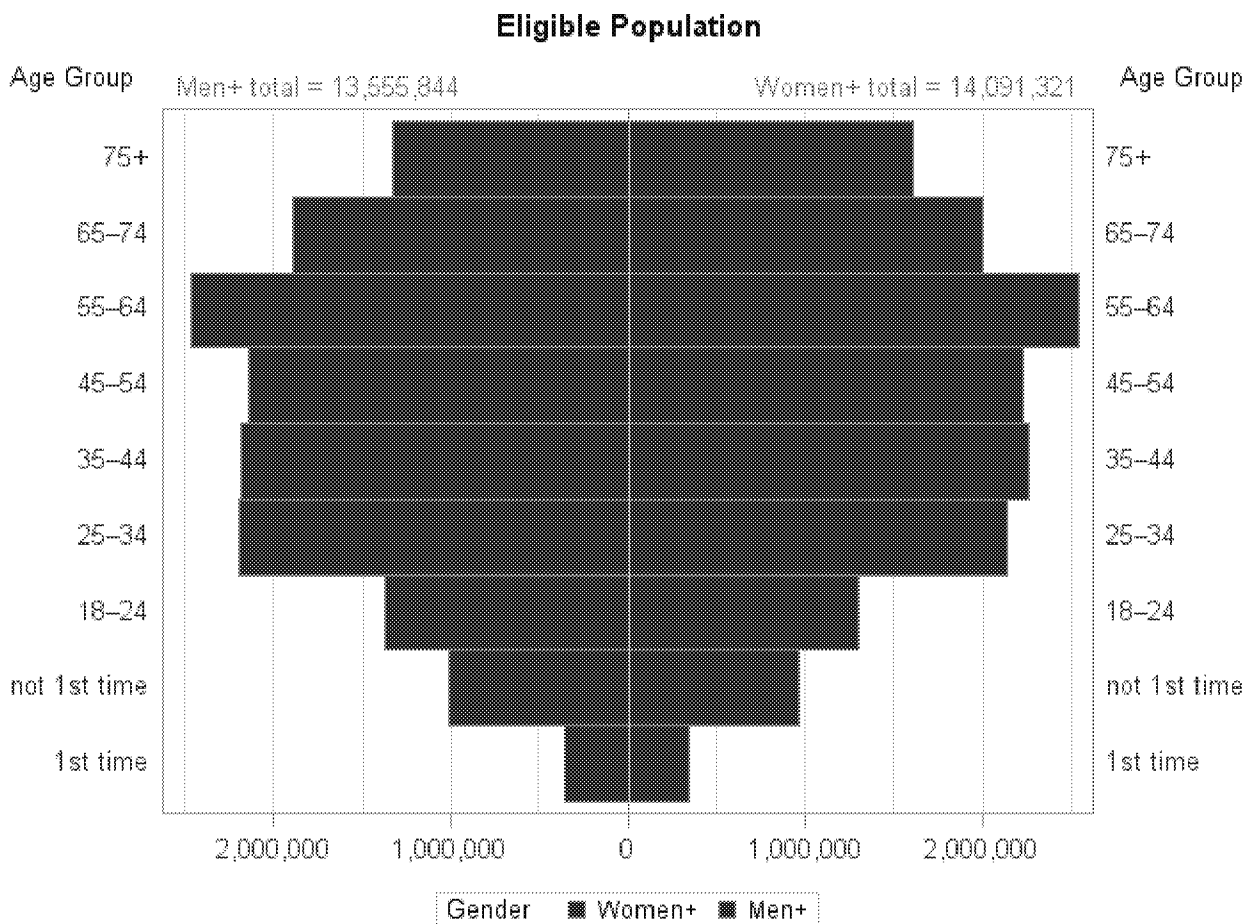
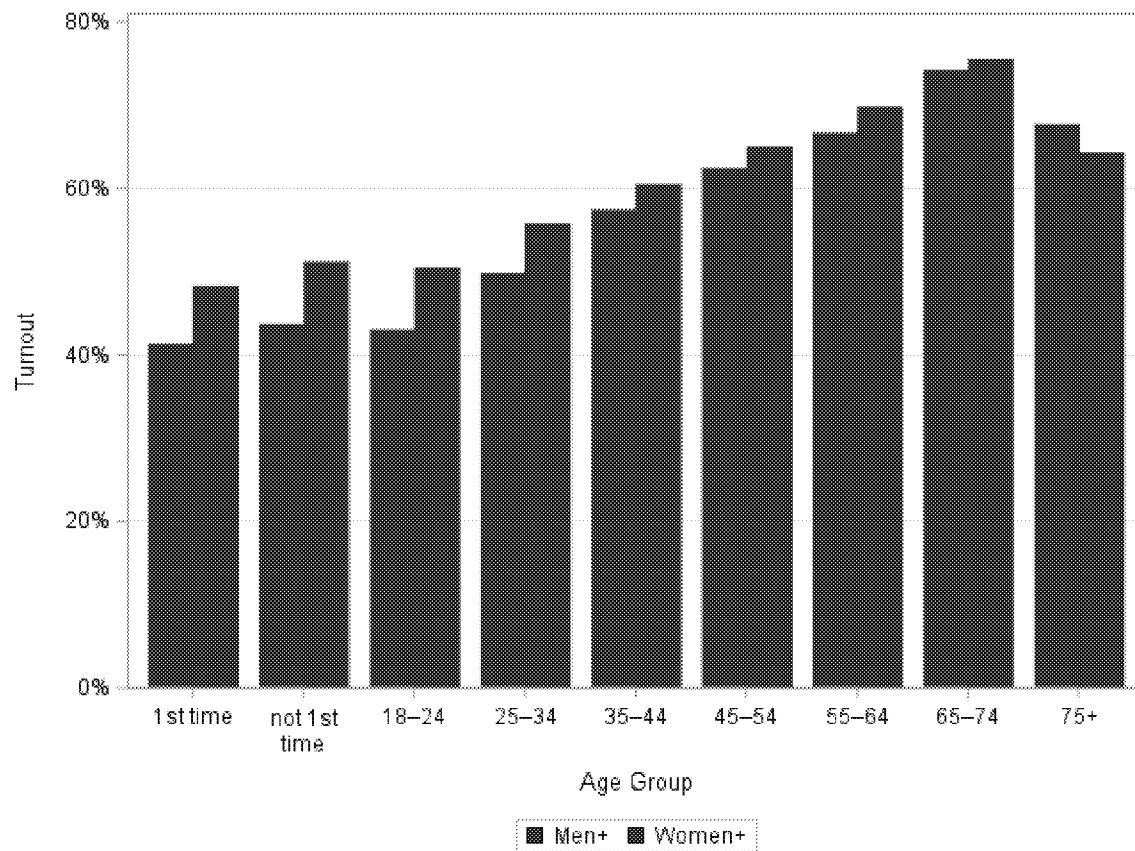




Figure 7 shows turnout rates for the 2021 general election broken down by both age group and gender. The participation rate across all age groups was 60.6% for men+ and 63.8% for women+ (see Table 4). Women+ voted at higher rates than men in all age groups up to age group 65–74, after which the trend reversed.

**Figure 7: Voter Turnout by Age Group and Gender, 2021 General Election**



Figures 8 and 9 show how turnout by age group and gender compares with the range of turnout rates for all elections since 2008.

- The grey line indicates the average turnout for elections from 2008 to 2021, inclusive
- The upward pointing triangle indicates the highest turnout rate for a given age group in the same timeframe
- The downward pointing triangle indicates the lowest turnout rate for a given age group
- The circle and the numeric label indicate the results for the 44th general election; when the circle overlaps with a triangle, the result reached a high or low point in the 2008-2021 period

**Figure 8: Men+ Voter Turnout by Age Group, General Elections 2008 to 2021**

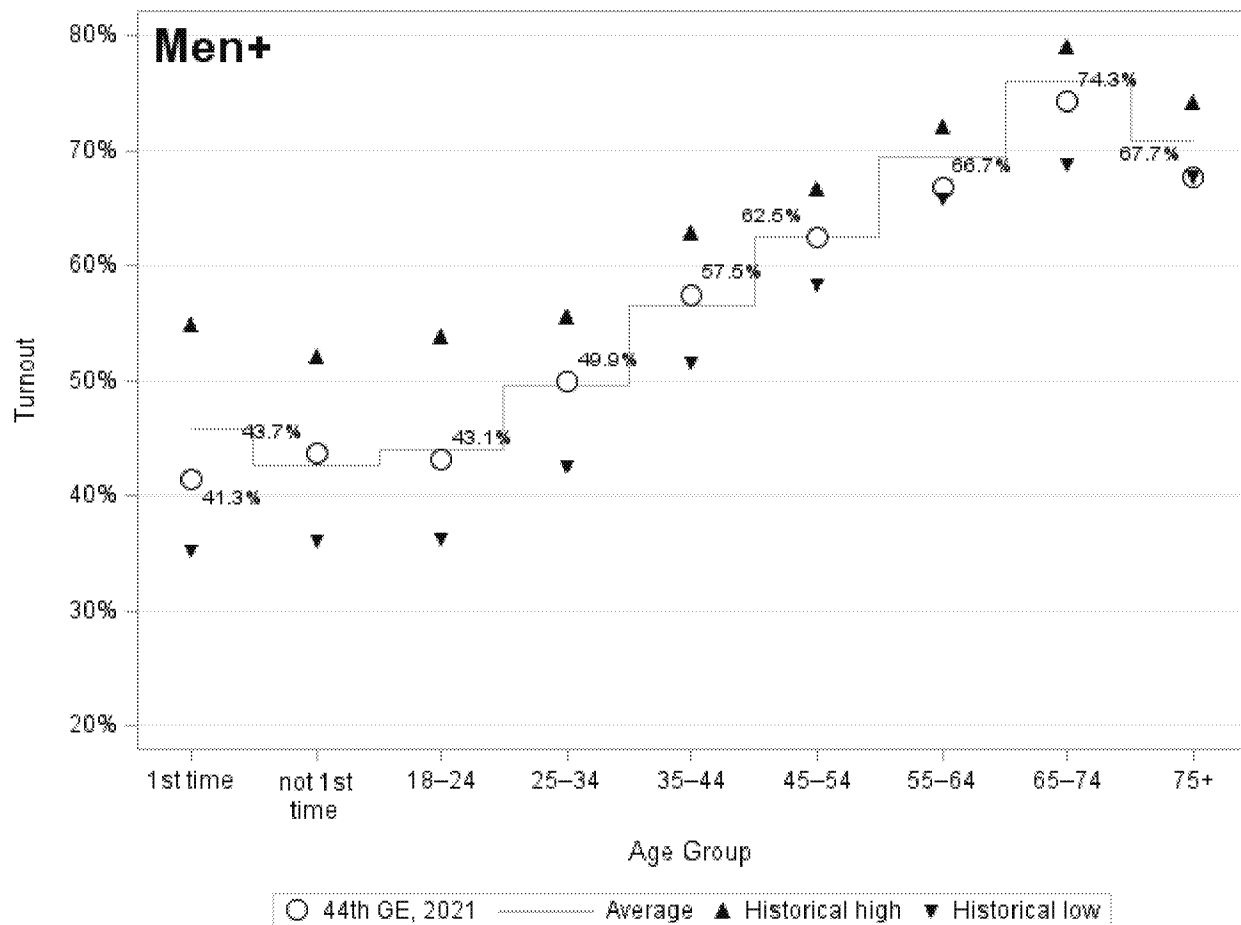
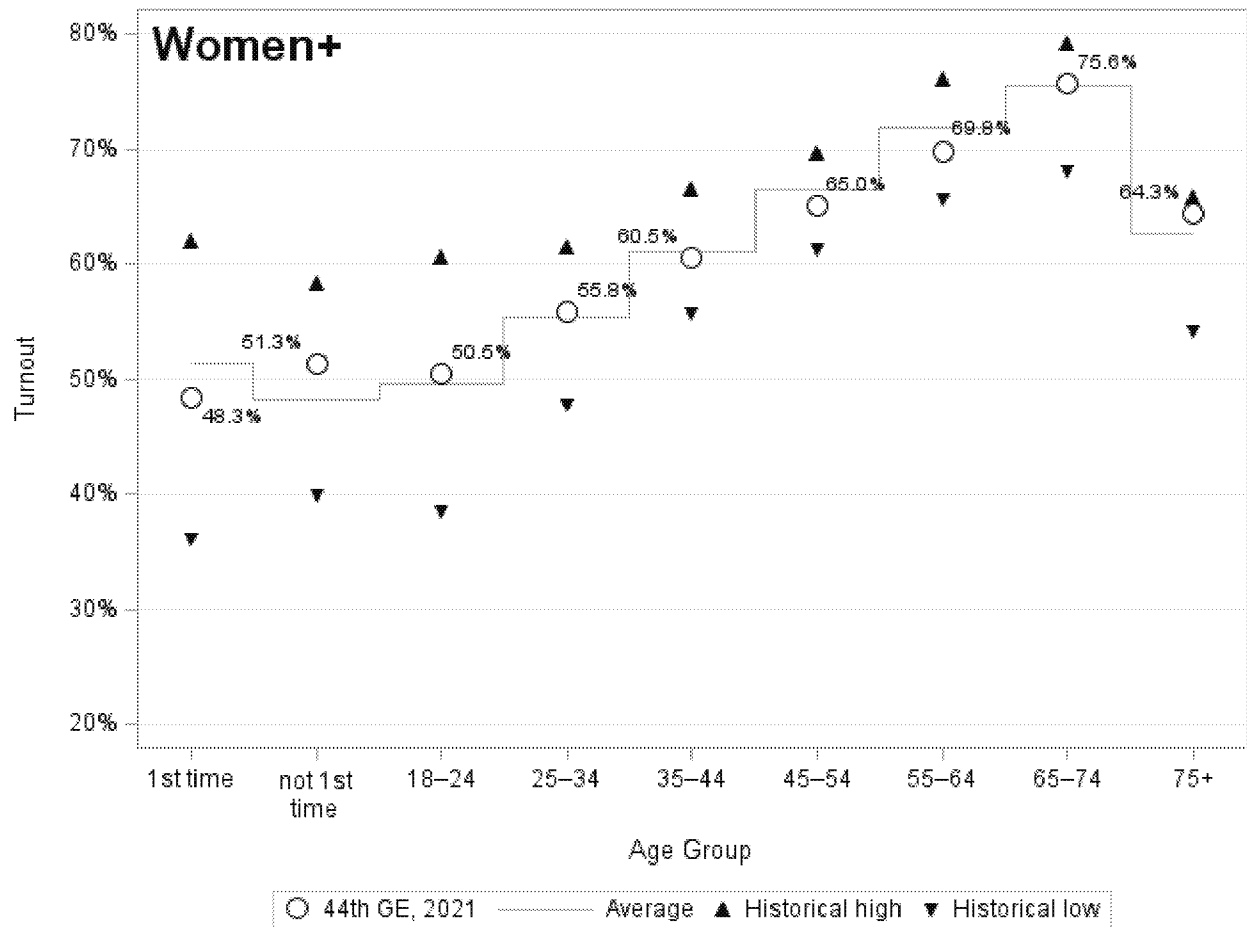


Figure 9: Women+ Voter Turnout by Age Group, General Elections 2008 to 2021



We can observe that the turnout for the 44th general election is average for all age groups and both genders, with a few notable exceptions:

The participation rate for men+ aged 65–74 and 75+ is respectively close to, and equal to, the historical minimum for these age groups since 2008.

The participation rate for women+ aged 75+ is close to the historical maximum.

# Turnout by Province and Territory

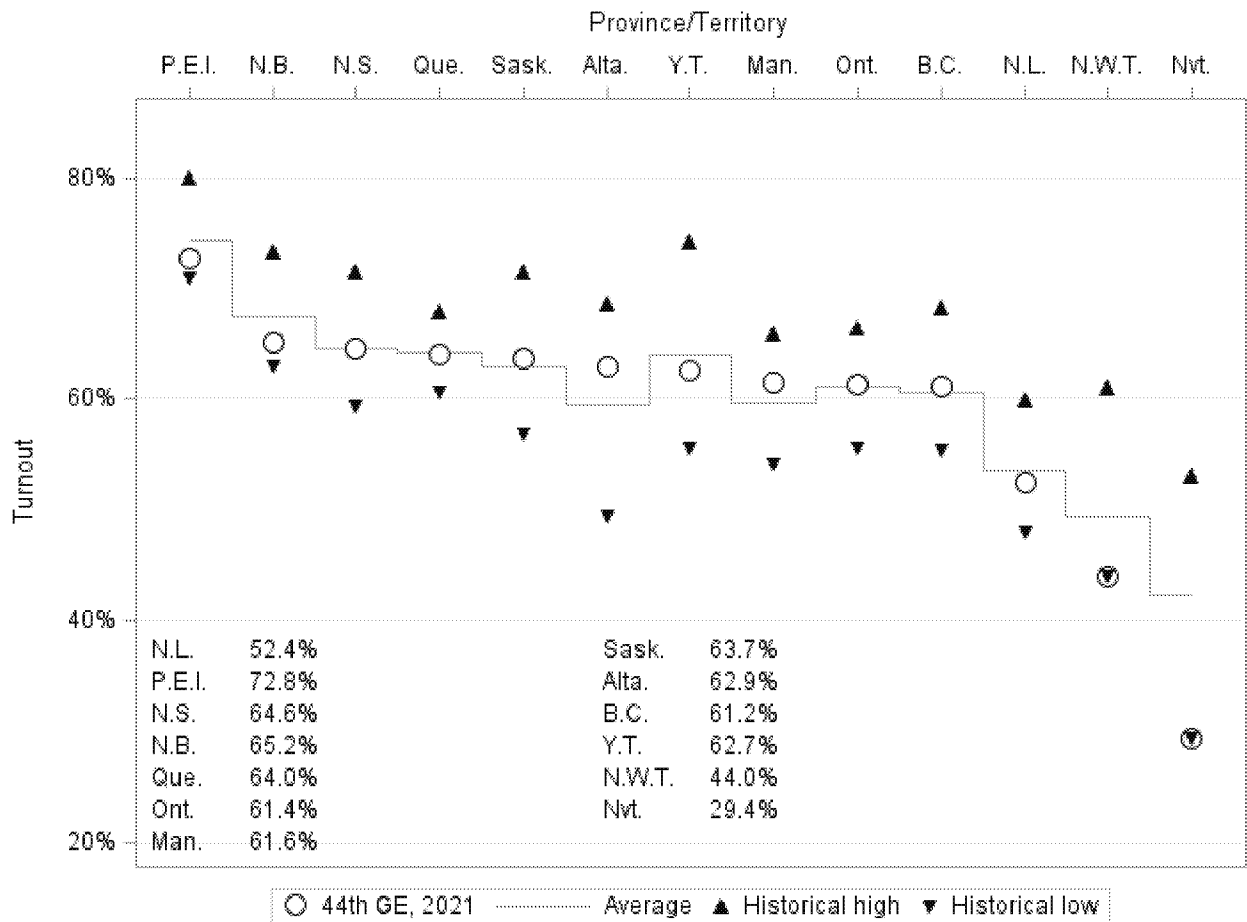
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**Prince Edward Island had the highest turnout, and Nunavut the lowest, among all provinces and territories**

Figure 10 shows how voter turnout by province and territory compares with the range of turnout rates for all elections since 2004.

- The grey line indicates the average turnout for elections from 2004 to 2021, inclusive
- The upward pointing triangle indicates the highest turnout rate for a given province/territory in the same timeframe
- The downward pointing triangle indicates the lowest turnout rate
- The circle and the numeric label indicate the results for the 44th general election; when the circle overlaps with a triangle, the result reached a high or low point in the 2004–2021 period

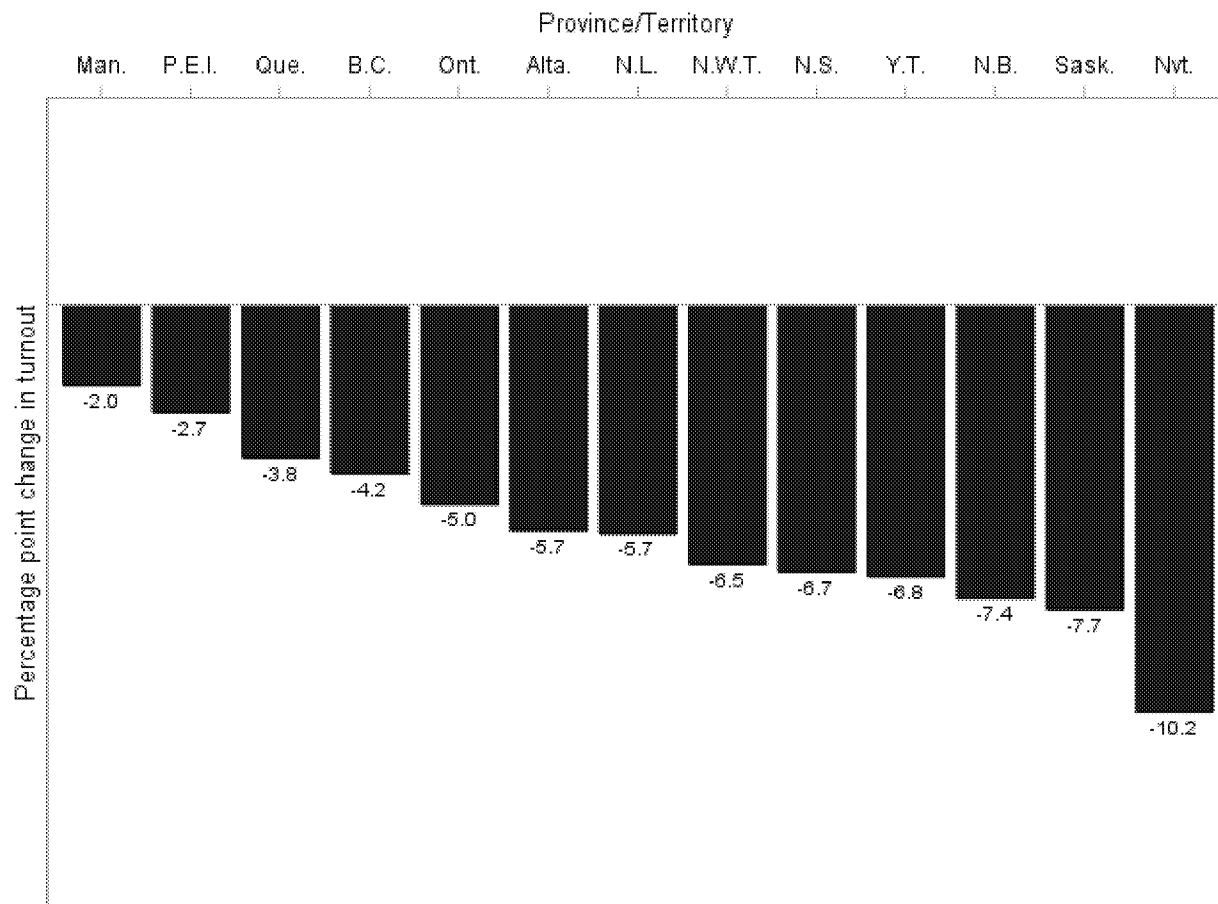
**Figure 10: Voter Turnout by Province/Territory, General Elections 2004 to 2021**



In the 2021 general election, Prince Edward Island saw the highest turnout at 72.8%, and Nunavut the lowest at 29.4%, which is the lowest recorded turnout for this territory since 2004. Turnout was about or below average for most provinces and territories, with the exception of Alberta (62.9%, above average) and the Northwest Territories (44%, historical minimum).

Figure 11 shows how turnout changed within provinces and territories between the general election of 2019 and that of 2021.

**Figure 11: Change in Voter Turnout by Province/Territory between the 2019 and 2021 General Elections**



In the 2019 election, turnout reached a high point for most provinces, and in 2021 all provinces and territories registered a decrease, reaching double digits (minus 10.2 percentage points) for Nunavut. This is the second general election in a row in which Nunavut experienced a double-digit dip in turnout—in 2019, Nunavut saw a decrease of minus 13.4 percentage points from the 2015 result.

Table 3 shows the complete dataset of voter turnout by province or territory by age and gender for the 2021 general election. Table 4 shows the total turnout by age and gender for Canada.

**Table 3: Voter Turnout by Province/Territory, Age Group and Gender, 2021 General Election**

Age and Gender	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
1st time*	29.0%	42.9%	46.2%	41.5%	59.2%	45.8%	44.0%	41.5%	49.3%	44.8%	31.3%	24.9%	7.4%
not 1st time*	34.7%	47.4%	52.8%	48.2%	53.7%	51.6%	47.4%	45.6%	51.8%	50.9%	42.5%	27.1%	15.7%
18–24	33.2%	46.3%	51.1%	46.4%	55.1%	50.1%	46.5%	44.5%	51.1%	49.3%	39.6%	26.5%	13.4%
25–34	40.1%	64.9%	58.5%	54.9%	57.2%	54.5%	52.8%	56.0%	59.0%	56.1%	66.6%	45.7%	27.3%
35–44	48.4%	73.5%	62.0%	63.5%	62.2%	59.2%	59.2%	63.0%	62.2%	59.6%	65.0%	47.0%	31.6%
45–54	53.3%	77.4%	65.6%	66.9%	66.6%	64.4%	64.9%	67.1%	67.6%	62.7%	66.3%	51.2%	39.0%
55–64	61.8%	84.4%	74.0%	74.1%	71.7%	68.4%	71.5%	73.1%	71.5%	67.4%	69.6%	53.2%	44.0%
65–74	68.3%	86.8%	79.7%	79.1%	77.8%	73.8%	77.8%	79.3%	75.3%	74.4%	75.6%	52.5%	48.8%
75+	58.5%	78.1%	66.9%	69.1%	64.4%	63.5%	68.4%	68.9%	65.0%	62.9%	71.7%	48.5%	45.8%
Women+	54.2%	74.9%	66.9%	66.9%	66.0%	62.6%	63.3%	65.1%	64.8%	62.7%	65.9%	46.6%	31.1%
1st time*	24.6%	41.3%	37.3%	36.8%	50.1%	39.3%	37.2%	38.1%	43.4%	37.2%	30.5%	15.5%	4.2%
not 1st time*	29.1%	39.8%	41.2%	40.8%	44.9%	44.4%	41.1%	41.5%	45.5%	42.6%	30.6%	19.8%	10.6%
18–24	27.9%	40.2%	40.2%	39.8%	46.3%	43.1%	40.0%	40.6%	44.9%	41.2%	30.6%	18.8%	8.8%
25–34	34.9%	58.2%	49.5%	48.4%	50.5%	49.3%	48.5%	52.2%	53.0%	49.3%	53.9%	36.4%	19.8%
35–44	45.0%	70.2%	58.2%	60.1%	57.4%	57.1%	56.5%	61.3%	58.8%	57.1%	61.3%	42.5%	28.3%
45–54	47.9%	73.6%	61.4%	63.6%	62.3%	62.9%	62.1%	64.2%	64.1%	61.5%	63.9%	50.1%	36.2%
55–64	56.9%	81.7%	69.9%	70.7%	67.4%	66.2%	68.2%	69.8%	68.0%	64.4%	62.5%	49.1%	43.2%
65–74	66.6%	83.1%	77.6%	78.0%	75.4%	73.3%	76.0%	77.5%	73.9%	73.3%	69.2%	47.4%	50.7%
75+	61.1%	76.0%	69.5%	69.5%	68.1%	67.5%	70.1%	69.9%	68.2%	66.3%	71.2%	46.1%	50.3%
Men+	50.5%	70.5%	62.2%	63.3%	61.9%	60.1%	59.8%	62.3%	61.1%	59.7%	59.5%	41.4%	27.7%

**Table 4: Voter turnout by Age and Gender in the 2021 General Election, Canada**

Age / Gender	1st time*	not 1st time*	18–24	25–34	35–44	45–54	55–64	65–74	75+	All
Women+	48.3%	51.3%	50.5%	55.8%	60.5%	65.0%	69.8%	75.6%	64.3%	63.8%
Men+	41.3%	43.7%	43.1%	49.9%	57.5%	62.5%	66.7%	74.3%	67.7%	60.6%

\*The “1st time” category includes youth eligible to vote federally for the first time. For the 2021 general election, this includes those born between October 22, 2001, and September 20, 2003. The category “not 1st time” includes those youth under 25 years old who were previously eligible to vote federally. This includes those born between September 21, 1996, and October 21, 2001.

\*\*The “Men+” category includes all men and some gender X electors. The “Women+” category includes all women and some gender X electors.



# Use of alternative voting methods

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Alternative voting methods include:

- advance polls,
- voting at an Elections Canada office,
- voting by mail, or
- other special ballot methods.

More and more Canadians are choosing alternatives to voting on election day. The popularity of these alternative voting methods has soared in the last two elections, reaching its highest peak in the 2021 election.

The COVID-19 pandemic had a visible effect on the number of voters choosing to vote by mail from inside their electoral district. Prior to 2021, it was extremely rare for electors to choose this method of voting. However, in 2021, Elections Canada heavily promoted vote by mail as a COVID-19-safe way of voting. As a result, over 500,000 people chose to cast their ballots this way.

The COVID-19 pandemic was not, however, the only contributing factor. The increase in popularity of alternative voting methods has been on a steady upward trend since the 42<sup>nd</sup> general election in 2015, with advance polls being the favourite alternative voting method.

Table 5 shows the number and percentage of ballots cast by each voting method for the 2019 and 2021 general elections.

**Table 5: Ballots cast by voting method<sup>11</sup>**

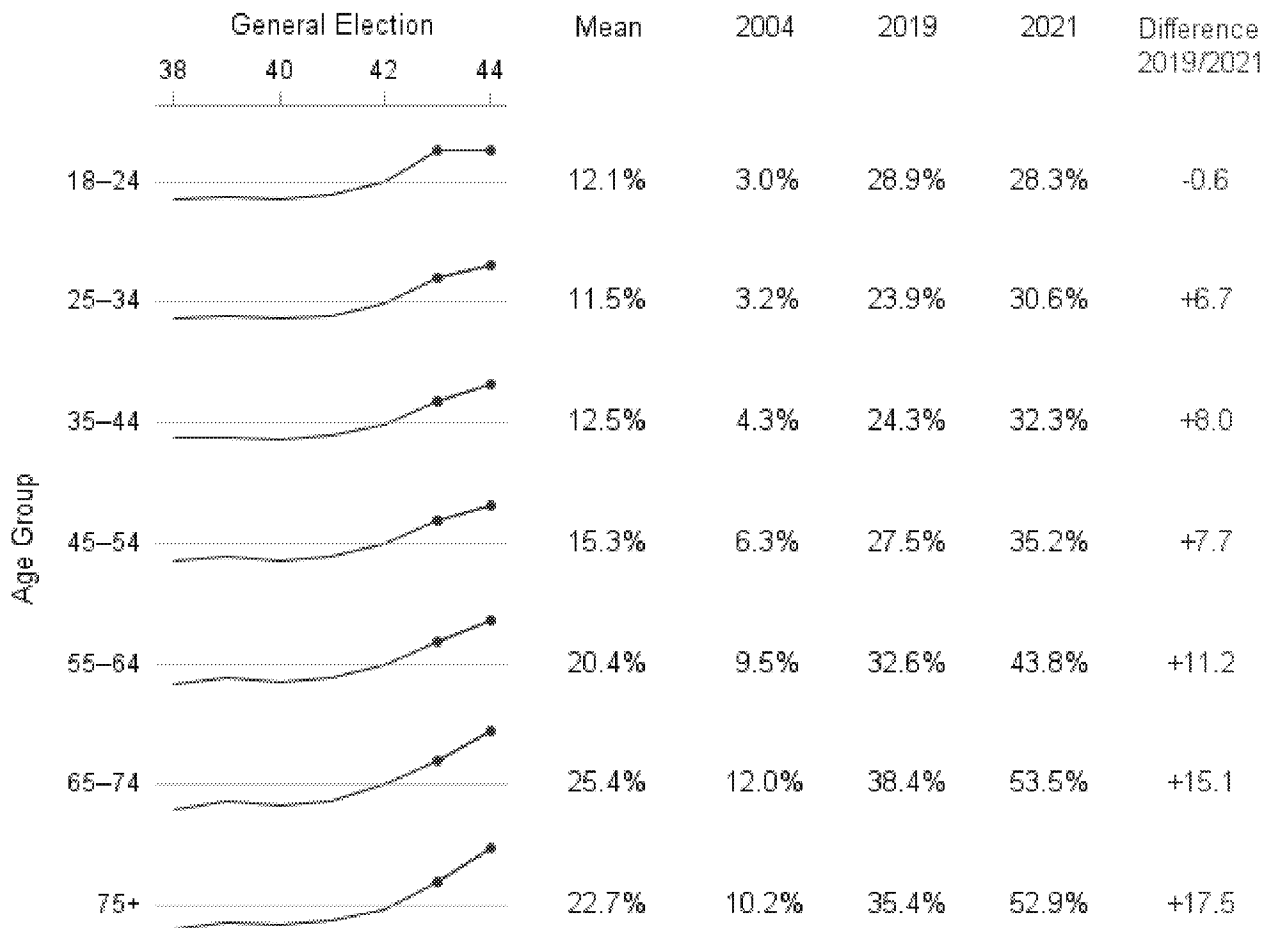
Voting method	2019 general election ballots cast	% of Ballots cast	2021 general election ballots cast	% of Ballots cast
Electors voting by mail from inside their electoral district	4,980	0.03%	507,722	2.95%
Electors voting at a local office from inside their electoral district	392,141	2.14%	375,093	2.18%

<sup>11</sup> Source: Elections Canada; *Report on the 44th General Election of September 20, 2021*; [https://www.elections.ca/content.aspx?section=res&dir=rep/off/sta\\_ge44&document=p2&lang=e](https://www.elections.ca/content.aspx?section=res&dir=rep/off/sta_ge44&document=p2&lang=e)

Electors absent from their electoral district voting by mail, at a local office, Canadian Forces base, or correctional facility	228,755	1.25%	158,693	0.92%
Electors living outside of Canada voting by mail	34,144	0.19%	27,035	0.16%
Electors voting at their assigned advance polling station	4,879,312	26.59%	5,895,072	34.25%
Total alternative voting methods	5,539,332	30.19%	6,963,615	40.46%
Electors voting at their assigned election day polling station	12,811,027	69.81%	10,246,196	59.54%
<b>Total</b>	<b>18,350,359</b>	<b>100%</b>	<b>17,209,811</b>	<b>100%</b>

Figure 12 shows the trends in the use of these methods, broken down by age group, in the last six general elections.

**Figure 4: Use of Advance Polls or Special Ballot by Age Group, 38th to 44th General Elections**



The proportion of electors using these alternative methods soared to a new all-time high in 2021. In this election, 40.5% of voters used such methods, compared with 30.2% in 2019. As was seen in previous elections, this proportion also increases with age.

For the youngest voters (18-24), the use of alternative voting methods has stabilised after a sustained growth in the past elections.

For the oldest voters, aged 65-74 and 75+, their preference for alternative voting methods continued to grow. Voters aged 65-74 had the highest proportion (53.5%), followed by those aged 75 and over (52.9%). This is the first general election where poll day voting was not the preferred method of voting for all age groups.

# Conclusion

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In 2021, the overall federal voter turnout based on eligible electors decreased by 4.8 percentage points to 62.2% from 67.0% in 2019.

Participation of voters aged 18–24 saw two consecutive decreases in turnout—minus 3.2 percentage points in 2019 and minus 7.2 percentage points in 2021—dropping to 46.7% after seeing the higher turnout set at the 2015 general election (57.1%). While other age groups also saw a decrease from 2019, it was not as large.

For the 2021 general election, women participated at a higher rate (63.8%) than men (60.6%), and this was true across all age groups up to age 65, at which point men started participating equally or more than women. This is the same pattern seen in all general elections since 2008.

When looking at turnout by province, most provinces saw turnout at around the historical average, with two notable exceptions. Both the Northwest Territories and Nunavut saw the lowest turnout in their respective territories since 2004. For Nunavut this trend is especially concerning; this is the second general election in a row that Nunavut saw a double-digit dip in turnout.

Finally, the rising trend of alternative voting methods continued in 2021 with 40.5% of electors choosing to cast a ballot during advance polling days or by special ballot. As was seen in previous elections, this proportion also increases with age. These two factors combined led to a new milestone in 2021. For the oldest voters, aged 65-74 and 75+, ordinary voting is no longer the preferred voting method. Over 50% of these age groups voted using an alternative voting method.

# Appendix: Methodology

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The purpose of this study is to estimate voter turnout rates for several different demographic groups of interest defined by age and gender at the national, provincial and territorial levels.

## Definition of turnout

The official turnout results published by Canada's Chief Electoral Officer are calculated using the number of registered electors in the denominator instead of the size of the electoral population. However, the coverage of the electors list (that is, the percentage of eligible electors listed) changes over time, depending, among other things, on many factors related to list maintenance activities. If turnout is calculated relative to the number of electors on the list, then measures of change in turnout over time will be confounded by these other factors.

This problem is exacerbated when turnout is broken down by age, since the changes in coverage over time may be quite different for different age groups. For example, an apparent decrease in youth turnout may be partly due to Elections Canada's efforts to increase coverage of youth on the list.

For this study, turnout is defined as the number of ballots cast divided by the number of eligible electors. This number is an estimate based on several sources (Census 2016 and 2021 data augmented by other administrative data) to include only citizens 18 years of age or over as of polling day (September 20, 2021).

In order to get the numerator, we need to know how many people cast a ballot and what group they fall into. Ultimately, the numerator is obtained by adding the known numbers of ballots cast by members of the different groups, whether at advance polls, by special ballot or by persons registering when they voted on polling day.

Until 2015, a random sample of electors was used to estimate the numerator for each demographic group of interest. Since the 43rd general election, lists of voters are recorded on digital support at the end of election day, resulting in a faster, more accurate estimate of voter turnout for the entire country.

## Use of the term *gender* in this report

Historically, the turnout estimates by age and gender reports have used the terms sex and gender interchangeably. Elections Canada would like to be transparent and as accurate as possible in this report going forward. To simplify our language and to better reflect the data, we

refer to this field as gender throughout this report. However, more information about our data collection for each post-election turnout report is detailed below.

### **General elections 2008-2015**

The estimate for the total number of eligible electors is based on Census of Population, which between 2001 and 2016 asks for Canadians' sex. In 2016 the census asked transgender and intersex Canadians to indicate the sex (male or female) with which they most associated themselves.

Elections Canada also received data on sex of electors through their registration directly with Elections Canada or through administrative sources, (e.g. drivers' licence registration).

### **General election 2019**

Starting in 2019 Elections Canada began asking electors for their gender, and electors could choose to identify themselves as "gender X" instead of male or female. Previously, electors could only identify themselves as "male" or "female" according to their legal documentation.

Additionally, the administrative sources received by Elections Canada began having more diverse gender options, including sources which allow the identifier "X" on legal documentation while others submit self-reported gender.

In the post-election report for turnout on age and sex in 2019, Elections Canada published data on electors who identified as "gender X" for the first time, though estimates for the eligible population remained available for sex only.

### **General election 2021**

Following the recommendations of the Policy Direction to Modernize the Government of Canada's Sex and Gender Information Practices, Elections Canada now uses the designation "Another gender" when collecting gender information from individuals, while the term "Gender X" is used for reporting purposes.

In 2021, the Census of Population asked Canadians about their sex at birth, and for the first time, gender. This new information enabled Elections Canada to estimate the eligible population by gender.

In this report, we follow Statistics Canada's convention for publishing data on gender at two levels. Those who identify as non-binary or as "Another gender", are split 50/50 across the two binary gender options. To reflect the fact that our totals for men and women include some non-binary people we use the terms "Men+" and "Women+"

## Electoral population

The size of the electoral population within a demographic group of interest is required for the denominator of the turnout estimates. This was based on Statistics Canada’s 2021 Census, with adjustments made to remove non-citizens and those under 18 years of age, who are not eligible to vote, and to consider population growth during the time elapsed between census day and polling day, using demographic information provided by Statistics Canada and Immigration, Refugees and Citizenship Canada. The electoral population estimates were also adjusted to account for the net number of citizens missed in the 2016 Census.

For the purposes of this study, age as of polling day was divided into eight groups, consistent with previous studies. These groups were defined as follows:

Age group	Date of birth	
	From	To
1st time*	22 October 2001	20 September 2003
not 1st time*	21 September 1996	21 October 2001
25–34	21 September 1986	20 September 1996
35–44	21 September 1976	20 September 1986
45–54	21 September 1966	20 September 1976
55–64	21 September 1956	20 September 1966
65–74	21 September 1946	20 September 1956
75+	2 January 1900	20 September 1946

\*Youth aged 18–24 are split into two groups: those who were eligible to vote for the first time in the 2021 general election (born between October 22, 2001, and September 20, 2003) and those who were eligible to vote in the 2019 general election (born between September 21, 1996, and October 21, 2001).

## Data collection, processing and quality

Elections Canada maintains the National Register of Electors, a database of Canadians who are 18 years or older. The Register is regularly updated between and during elections, using data received directly from electors, administrative data received through agreements with federal, provincial, and territorial agencies, and data received from other sources, in accordance with the *Canada Elections Act*. This administrative data contains the address, date of birth and

gender for everyone on the final voters list. They do not indicate which electors cast ballots, except in special circumstances. The administrative data from the elections, however, can be used to identify all those who voted at advance polls, by special ballot, or who registered to vote on polling day. For those who voted on polling day but were registered earlier, the information required was only available on the strike lists and sequence number (bingo) sheets used to administer the election.

Prior to the 2019 general election, a sample of polling divisions was used to retrieve strike lists and count the number of voters, since it would have been very difficult to collect all data in paper form. Changes to the *Canada Elections Act* under Bill C-76 required Elections Canada to prepare a compilation of all data of electors who voted and make them available to political parties and candidates in electronic format. As a consequence, during the 43rd general election, for the first time, voters' information was collected electronically and allowed Elections Canada to use a complete and consistent set of data to produce these estimates without having to resort to sampling, thus greatly improving the accuracy of the estimates.

In previous elections, because estimates were produced by means of a random sample, turnout rates were subject to sampling errors, and confidence intervals were calculated to show the accuracy of estimates and to measure sampling errors. Other errors can still exist that cannot be attributed to sampling variations. These are errors that can occur at the stage of data collection and processing, since collection of elector information at Elections Canada relies for the most part on human input. Even though Elections Canada has put in place procedures to minimize them, errors can still be found. Users should be aware of the types of errors that can occur, so they can assess the adequacy of the data for their own purposes.

Typical errors impacting the turnout analysis include:

- Missing or erroneous voter information (gender, date of birth)
- Missing or erroneous strike list information (misplaced sheets, data capture errors)
- Errors introduced during imputation to replace missing or invalid data
- Errors in estimating the electoral population

## Estimation

In each polling division, the number of voters for each gender and age group is obtained by adding up the individual voters. The sum of the initial estimates gives the estimate at the electoral district level. The estimate at the provincial or territorial level is obtained by adding the estimates of the districts belonging to a given province or territory. Finally, the sum of the provincial and territorial estimates is used to determine the national estimate.

Voter counts are tallied from the Final List of Electors and the National Register of Electors; these contain the date of birth and gender of individual electors and are used when estimating



voter turnout by age and gender. The Final List of Electors and the National Register of Electors collect data from different sources:

- advance voters are collected by poll workers at the poll site. These data are then digitized and early voters are struck from electoral lists come election day, to avoid double voting;
- special voters (incarcerated voters, international voters, voters in the Canadian Armed Forces, and mail-in ballots) are collected at the offices of returning officers or other Elections Canada service points; these voters are struck from the list to avoid double voting;
- polling day registrations and sequence numbers of electors who voted on election day were manually recorded on forms by poll workers in each polling station; these forms were sent to the returning office for data capture in each of the 338 returning offices and the data transferred onto the Final List of Electors.

There is no fully automated and digitized procedure to collect data; all data sources require one or more manual data entry processes. Data entry and data capture errors, misplaced or missing documents, however rare, do exist. Therefore, estimates of the number of voters computed from the Final List of Electors and the National Register of Electors are not entirely consistent in general with the totals derived from the official voting results. Voter estimates are thus adjusted to the official voting results, broken down by age and gender group, and the results are divided by the corresponding group of the electoral population to determine voter turnout by age and gender.