**New Voters and Old Voters Online Appendices**

**Appendix A- Results for Models That Exclude Ridings With Large Changes in Numbers of Eligible Voters**

|  |
| --- |
| **Table A1: Where Parties’ 2011 Vote Came From (in 2008 votes, without ridings with large changes in eligible voters between elections)** |
|  | **LPC 08** | **NDP 08** | **CPC 08** | **BQ 08** | **Green 08** | **Other 08** | **Non-Voter 08** |
| **LPC 11** | 0.878\*\* (0.064) | 0.027 (0.064) | 0.001 (0.074) | 0.000 (0.094) | 0.048\* (0.020) | 0.003 (0.011) | 0.042 (0.063) |
| **NDP 11** | 0.079 (0.043) | 0.218\*\* (0.042) | 0.144\*\* (0.049) | 0.367\*\* (0.063) | 0.043\*\* (0.013) | 0.001 (0.007) | 0.148\*\* (0.042) |
| **CPC 11** | 0.009 (0.041) | 0.040 (0.040) | 0.748\*\* (0.047) | 0.024 (0.060) | 0.012 (0.012) | 0.003 (0.007) | 0.164\*\* (0.040) |
| **BQ 11** | 0.004 (0.052) | 0.021 (0.052) | 0.057 (0.060) | 0.876\*\* (0.077) | 0.002 (0.016) | 0.005 (0.009) | 0.035 (0.051) |
| **Green 11** | 0.141 (0.683) | 0.132 (0.677) | 0.122 (0.790) | 0.124 (1.007) | 0.242 (0.209) | 0.097 (0.113) | 0.142 (0.673) |
| **Other 11** | 0.147 (1.291) | 0.145 (1.281) | 0.136 (1.493) | 0.140 (1.905) | 0.145 (0.396) | 0.145 (0.214) | 0.143 (1.273) |
| **Non-Voter 11** | 0.110\* (0.043) | 0.013 (0.043) | 0.015 (0.050) | 0.005 (0.064) | 0.001 (0.013) | 0.000 (0.007) | 0.856\*\*\* (0.043) |
| Estimates show proportions of parties’ 2011 vote (rows add to 100)Standard errors are in brackets.\* p<0.05, \*\* p<0.01 |

|  |
| --- |
| **Table A2: Where Parties’ 2011 Vote Went in 2015 (without ridings with large changes in eligible voters between elections)** |
|  | **LPC 11** | **NDP 11** | **CPC 11** | **BQ 11** | **Green 11** | **Other 11** | **Non-Voter 11** |
| **LPC 15** | 0.757\*\* (0.138) | 0.287\*\* (0.095) | 0.123 (0.086) | 0.032 (0.125) | 0.164 (1.444) | 0.145 (2.404) | 0.186\*(0.090) |
| **NDP 15** | 0.078 (0.114) | 0.378\*\* (0.079) | 0.070 (0.072) | 0.232\* (0.103) | 0.152 (1.195) | 0.149 (1.990) | 0.045 (0.075) |
| **CPC 15** | 0.069 (0.123) | 0.095 (0.085) | 0.638\*\* (0.077) | 0.035 (0.111) | 0.143 (1.288) | 0.142 (2.144) | 0.009 (0.080) |
| **BQ 15** | 0.003 (0.098) | 0.169\* (0.068) | 0.010 (0.061) | 0.537\*\* (0.088) | 0.150 (1.024) | 0.139 (1.704) | 0.001 (0.064) |
| **Green 15** | 0.031\* (0.015) | 0.019 (0.010) | 0.025\* (0.009) | 0.022 (0.013) | 0.135 (0.153) | 0.146 (0.254) | 0 .000 (0.010) |
| **Other 15** | 0.023 (0.022) | 0.002 (0.015) | 0.014 (0.014) | 0.011 (0.019) | 0.120 (0.225) | 0.139 (0.375) | 0.000 (0.014) |
| **Non-Voter 15** | 0.038 (0.054) | 0.049 (0.038) | 0.120\*\* (0.034) | 0.130\*\* (0.049) | 0.135 (0.567) | 0.141 (0.943) | 0.759\*\* (0.035) |
| Estimates show proportions of parties’ 2011 vote (columns add to 100)Standard errors are in brackets.\* p<0.05, \*\* p<0.01 |

|  |
| --- |
| **Table A3: Where Parties’ 2015 Vote Went in 2019 (without ridings with large changes in eligible voters between elections)** |
|  | **LPC 15** | **NDP 15** | **CPC 15** | **BQ 15** | **Green 15** | **Other 15** | **Non-Voter 15** |
| **LPC 19** | 0.658\*\* (0.094) | 0.167 (0.143) | 0.064 (0.090) | 0.076 (0.137) | 0.155 (1.040) | 0.148 (0.809) | 0.076 (0.116) |
| **NDP 19** | 0.042 (0.058) | 0.265\*\* (0.088) | 0.032 (0.056) | 0.049 (0.085) | 0.143 (0.644) | 0.144 (0.501) | 0.013 (0.072) |
| **CPC 19** | 0.029 (0.065) | 0.065 (0.098) | 0.576\*\* (0.062) | 0.072 (0.094) | 0.136 (0.717) | 0.135 (0.558) | 0.033 (0.080) |
| **BQ 19** | 0.045 (0.097) | 0.311\*\* (0.148) | 0.142 (0.093) | 0.653\*\* (0.142) | 0.156 (1.079) | 0.154 (0.840) | 0.112 (0.120) |
| **Green 19** | 0.052\*\* (0.017) | 0.061\* (0.026) | 0.021 (0.016) | 0.016 (0.025) | 0.157 (0.189) | 0.126 (0.147) | 0.001 (0.021) |
| **Other 19** | 0.011 (0.031) | 0.028 (0.047) | 0.074\* (0.029) | 0.035 (0.045) | 0.128 (0.340) | 0.139 (0.264) | 0.002 (0.038) |
| **Non-Voter 19** | 0.163\*\* (0.027) | 0.104\* (0.042) | 0.092\*\* (0.026) | 0.100\* (0.040) | 0.125 (0.303) | 0.154 (0.236) | 0.763\*\* (0.034) |
| Estimates show proportions of parties’ 2015 vote (columns add to 100)Standard errors are in brackets.\* p<0.05, \*\* p<0.01 |

|  |
| --- |
| **Table A4: Where Parties’ 2019 Vote Came From (in 2011 votes without ridings with large changes in eligible voters between elections)** |
|  | **LPC 11** | **NDP 11** | **CPC 11** | **BQ 11** | **Green 11** | **Other 11** | **Non-Voter 11** |
| **LPC 19** | 0.676\*\* (0.199) | 0.282\*\* (0.138) | 0.036 (0.125) | 0.047 (0.180) | 0.154 (2.083) | 0.150 (3.467) | 0.210 (0.130) |
| **NDP 19** | 0.065 (0.123) | 0.127 (0.085) | 0.073 (0.077) | 0.092 (0.111) | 0.141 (1.282) | 0.145 (2.135) | 0.028 (0.080) |
| **CPC 19** | 0.025 (0.130) | 0.075 (0.090) | 0.554\*\* (0.081) | 0.065 (0.117) | 0.136 (1.358) | 0.139 (2.260) | 0.027 (0.085) |
| **BQ 19** | 0.007 (0.178) | 0.326\*\* (0.123) | 0.108 (0.111) | 0.612\*\* (0.161) | 0.146 (1.863) | 0.136 (3.101) | 0.040 (0.116) |
| **Green 19** | 0.086\*\* (0.029) | 0.055\*\* (0.020) | 0.015 (0.018) | 0.022 (0.026) | 0.147 (0.304) | 0.148 (0.506) | 0.001 (0.019) |
| **Other 19** | 0.032 (0.054) | 0.017 (0.037) | 0.077 (0.034) | 0.030 (0.049) | 0.130 (0.567) | 0.140 (0.943) | 0.002 (0.035) |
| **Non-Voter 19** | 0.109 (0.061) | 0.118\*\* (0.042) | 0.138\*\* (0.038) | 0.131\* (0.055) | 0.145 (0.635) | 0.142 (1.057) | 0.690\*\* (0.040) |
| Estimates show proportions of parties’ 2019 vote (rows add to 100)Standard errors are in brackets.\* p<0.05, \*\* p<0.01 |

**Appendix B- Full Tables for Generalized Maximum Entropy Models**

|  |
| --- |
| **Table B1: Where Parties’ 2011 Vote Came From (in 2008 votes)** |
|  | **LPC 08** | **NDP 08** | **CPC 08** | **BQ 08** | **Green 08** | **Other 08** | **Non-Voter 08** |
| **LPC 11** | 0.844\*\* (0.063) | 0.042 (0.053) | 0.003 (0.067) | 0.000 (0.087) | 0.051\*\* (0.018) | 0.007 (0.025) | 0.053(0.055) |
| **NDP 11** | 0.078 (0.044) | 0.214\*\* (0.038) | 0.141\*\* (0.047) | 0.377\*\* (0.062) | 0.041\*\* (0.013) | 0.006 (0.018) | 0.143\*\* (0.039) |
| **CPC 11** | 0.014 (0.041) | 0.031 (0.035) | 0.764\*\* (0.044) | 0.012 (0.057) | 0.014 (0.012) | 0.010 (0.017) | 0.155\*\* (0.036) |
| **BQ 11** | 0.005 (0.054) | 0.020 (0.046) | 0.048 (0.058) | 0.883\*\* (0.076) | 0.005 (0.016) | 0.007 (0.022) | 0.032(0.048) |
| **Green 11** | 0.143 (0.673) | 0.137 (0.573) | 0.125 (0.716) | 0.130 (0.941) | 0.201 (0.192) | 0.117 (0.274) | 0.147(0.592) |
| **Other 11** | 0.119 (0.125) | 0.153 (0.106) | 0.100 (0.133) | 0.121 (0.175) | 0.073\* (0.036) | 0.245\*\* (0.051) | 0.190\*(0.110) |
| **Non-Voter 11** | 0.114\*\*\ (0.044) | 0.013 (0.038) | 0.013 (0.047) | 0.003 (0.062) | 0.001 (0.013) | 0.000 (0.018) | 0.855\*\* (0.039) |
| Estimates show proportions of parties’ 2011 vote (rows add to 100)Standard errors are in brackets.\* p<0.05, \*\* p<0.01 |

|  |
| --- |
| **Table B2: Where Parties’ 2011 Vote Went in 2015**  |
|  | **LPC 11** | **NDP 11** | **CPC 11** | **BQ 11** | **Green 11** | **Other 11** | **Non-Voter 11** |
| **LPC 15** | 0.731\*\* (0.133) | 0.299\*\* (0.096) | 0.146 (0.088) | 0.030 (0.125) | 0.164 (1.424) | 0.153 (0.269) | 0.181\*\* (0.090) |
| **NDP 15** | 0.091 (0.100) | 0.379\*\* (0.073) | 0.077 (0.066) | 0.208\* (0.095) | 0.152 (1.076) | 0.175 (0.203) | 0.048 (0.068) |
| **CPC 15** | 0.07 (0.111) | 0.097 (0.081) | 0.618\*\* (0.074) | 0.031 (0.105) | 0.145 (1.193) | 0.227 (0.226) | 0.011 (0.075) |
| **BQ 15** | 0.002 (0.095) | 0.160\* (0.069) | 0.004 (0.063) | 0.574\*\* (0.090) | 0.146 (1.024) | 0.119 (0.194) | 0 .000(0.065) |
| **Green 15** | 0.036\* (0.014) | 0.018 (0.010) | 0.025\*\* (0.009) | 0.021 (0.014) | 0.135 (0.154) | 0.109\*\* (0.029) | 0.000 (0.010) |
| **Other 15** | 0.024 (0.020) | 0.001 (0.014) | 0.014 (0.013) | 0.008 (0.019) | 0.119 (0.211) | 0.120\*\* (0.040) | 0.000 (0.013) |
| **Non-Voter 15** | 0.045 (0.05) | 0.045 (0.037) | 0.115\*\* (0.033) | 0.128\*\* (0.048) | 0.138 (0.541) | 0.096 (0.102) | 0.759\*\* (0.034) |
| Estimates show proportions of parties’ 2011 vote (columns add to 100)Standard errors are in brackets.\* p<0.05, \*\* p<0.01 |

|  |
| --- |
| **Table B3: Where Parties’ 2015 Vote Went in 2019** |
|  | **LPC 15** | **NDP 15** | **CPC 15** | **BQ 15** | **Green 15** | **Other 15** | **Non-Voter 15** |
| **LPC 19** | 0.657\*\* (0.085) | 0.160 (0.135) | 0.061 (0.082) | 0.065 (0.124) | 0.155 (0.977) | 0.149 (0.798) | 0.076 (0.104) |
| **NDP 19** | 0.046 (0.051) | 0.260\*\* (0.080) | 0.030 (0.049) | 0.041 (0.074) | 0.144 (0.580) | 0.145 (0.473) | 0.013 (0.062) |
| **CPC 19** | 0.026 (0.058) | 0.065 (0.091) | 0.598\*\* (0.056) | 0.061 (0.084) | 0.134 (0.659) | 0.135 (0.538) | 0.029 (0.070) |
| **BQ 19** | 0.051 (0.093) | 0.327\* (0.146) | 0.134 (0.089) | 0.690\*\* (0.135) | 0.154 (1.061) | 0.153 (0.867) | 0.104 (0.113) |
| **Green 19** | 0.053\*\* (0.015) | 0.062\* (0.024) | 0.019 (0.014) | 0.016 (0.022) | 0.160 (0.171) | 0.126 (0.140) | 0.001 (0.018) |
| **Other 19** | 0.011 (0.026) | 0.028 (0.042) | 0.071\*\* (0.026) | 0.033 (0.039) | 0.127 (0.303) | 0.139 (0.248) | 0.002 (0.032) |
| **Non-Voter 19** | 0.156\*\* (0.025) | 0.098\* (0.039) | 0.087\*\* (0.024) | 0.095\* (0.036) | 0.126 (0.284) | 0.153 (0.232) | 0.775\*\* (0.030) |
| Estimates show proportions of parties’ 2015 vote (columns add to 100)Standard errors are in brackets.\* p<0.05, \*\* p<0.01 |

|  |
| --- |
| **Table B4: Where Parties’ 2019 Vote Came From (in 2011 votes)** |
|  | **LPC 11** | **NDP 11** | **CPC 11** | **BQ 11** | **Green 11** | **Other 11** | **Non-Voter 11** |
| **LPC 19** | 0.337\*\* (0.061) | 0.293\*\* (0.083) | 0.083 (0.077) | 0.051 (0.058) | 0.010 (0.006) | 0.006 (0.037) | 0.221\*\* (0.031) |
| **NDP 19** | 0.059 (0.087) | 0.330\*\* (0.119) | 0.127 (0.111) | 0.239\*\* (0.083) | 0.014 (0.009) | 0.062 (0.053) | 0.169\*\* (0.045) |
| **CPC 19** | 0.019 (0.055) | 0.247\*\* (0.075) | 0.438\*\* (0.071) | 0.075 (0.053) | 0.008 (0.006) | 0.063 (0.034) | 0.151\*\* (0.029) |
| **BQ 19** | 0.000 (0.044) | 0.409\*\* (0.060) | 0.032 (0.056) | 0.439\*\* (0.042) | 0.017\*\* (0.004) | 0.003 (0.027) | 0.100\*\* (0.023) |
| **Green 19** | 0.127 (0.369) | 0.206 (0.503) | 0.145 (0.471) | 0.149 (0.352) | 0.113\*\* (0.037) | 0.108 (0.225) | 0.151 (0.191) |
| **Other 19** | 0.156 (0.188) | 0.160 (0.257) | 0.188 (0.241) | 0.117 (0.180) | 0.038 (0.019) | 0.134 (0.115) | 0.207\*(0.098) |
| **Non-Voter 19** | 0.001 (0.061) | 0.137 (0.084) | 0.033 (0.078) | 0.024 (0.059) | 0.004 (0.006) | 0.000 (0.037) | 0.800\*\* (0.032) |
| Estimates show proportions of parties’ 2019 vote (rows add to 100)Standard errors are in brackets.\* p<0.05, \*\* p<0.01 |

**Appendix C- Analysis for vote shifts between 2019 and 2021**

Figure C1 shows that, compared to the elections analyzed in the main body of the paper, there was little vote switching or voter mobilization between 2019 and 2021. This fits with an election in 2021 that saw results that were similar to the prior election in 2019. The biggest shift in vote share for the major parties in Quebec between these two elections was for the Conservatives who went from 16% of the vote in 2019 to 19% in 2021. No other party saw their vote share change by more than 1.5 percentage points. In line with this, our analysis estimates that most 2021 Liberal, Conservative, and Bloc Québécois voters voted for each respective party in 2019. The NDP is the exception to this. We estimate that only 40% of the 2021 NDP voters voted for the NDP in 2019. However, because the none of our other estimates for where the NDP vote came from in 2021 are statistically significant from 0, we cannot say much about vote switching to the NDP in the 2021 election.

**Figure C1: Where did Parties’ 2021 Vote Come From (in 2021 Votes)**



Bars show estimates based on table C1 in appendix B. Bars for the Green Party as well as other small parties have been omitted to improve the graph’s readability. \* p<0.05, \*\* p<0.01.

|  |
| --- |
| **Table C1: Where Parties’ 2021 Vote Came From (in 2019 votes)** |
|  | **LPC 19** | **NDP 19** | **CPC 19** | **BQ 19** | **Green 19** | **Other 19** | **Non-Voter 19** |
| **LPC 21** | 0.713\*\*(0.062) | 0.073(0.046) | 0.014(0.037) | 0.058(0.059) | 0.058\*\*(0.014) | 0.005(0.014) | 0.079(0.021) |
| **NDP 21** | 0.194(0.112) | 0.393\*\*(0.082) | 0.058(0.067) | 0.132(0.107) | 0.113\*\*(0.024) | 0.048(0.026) | 0.062(0.039) |
| **CPC 21** | 0.050(0.054) | 0.034(0.040) | 0.701\*\*(0.032) | 0.078(0.051) | 0.016(0.012) | 0.038(0.012) | 0.084\*\*(0.019) |
| **BQ 21** | 0.082(0.055) | 0.085\*(0.041) | 0.046(0.033) | 0.743\*\*(0.053) | 0.022(0.012) | 0.004(0.013) | 0.017(0.019) |
| **Green 21** | 0.153(0.740) | 0.148(0.547) | 0.129(0.445) | 0.140(0.708) | 0.178(0.161) | 0.122(0.171) | 0.131(0.256) |
| **Other 21** | 0.155(0.290) | 0.141(0.215) | 0.165(0.175) | 0.158(0.278) | 0.101(0.063) | 0.161\*(0.067) | 0.119(0.100) |
| **Non-Voter 21** | 0.094(0.063) | 0.016(0.047) | 0.011(0.038) | 0.076(0.061) | 0.000(0.014) | 0.000(0.015) | 0.803\*\*(0.022) |
| Estimates show proportions of parties’ 2021 vote (rows add to 100)Standard errors are in brackets.\* p<0.05, \*\* p<0.01 |