

DUAL MEMBER PROPORTIONAL: AN ELECTORAL SYSTEM FOR CANADA

Sean Graham

[smg1@ualberta.ca](mailto:smg1@ualberta.ca)

September 18, 2016

## SUMMARY

This submission presents a compelling alternative to Canada's Single Member Plurality (SMP) electoral system called Dual Member Proportional (DMP). It was developed with funding from the University of Alberta and was intended to address the shortcomings of SMP while satisfying Canada's unique needs. The result was a voting system that retains the simple ballot design and highly localized representation of SMP while ensuring that all Canadians are given an effective vote. In brief, DMP would allow Canada to retain local representation, promote collaboration between parties, achieve proportionality, and preserve the SMP voting experience. As a result, DMP satisfies the Committee's five principles of electoral reform.

In addition to meeting the Committee's five principles, DMP avoids the most disliked features of the more commonly discussed alternatives. In particular, DMP avoids the party lists used by Mixed Member Proportional and the large, multi-member districts required by Single Transferable Vote. By eliminating the need for these features, DMP offers great potential to achieve broad based support.

This potential was demonstrated earlier this year when, on April 15, DMP was officially recommended by the PEI Special Committee on Democratic Renewal for inclusion in a plebiscite that will ask Islanders if they wish to change their electoral system. Their decision to include DMP in the upcoming plebiscite is a testament to its ability to make Canadians more comfortable with the idea of electoral system reform.

## 1 INTRODUCTION

The main purpose of the Special Committee on Electoral Reform is to “identify and conduct a study of viable alternate voting systems to replace the first-past-the-post system.” Given that it has been over thirty years since a majority of voting Canadians have cast a ballot in favour of their government, an overhaul of our electoral system is long overdue. My objective in this submission is to present a compelling alternative to Canada’s Single Member Plurality (SMP) electoral system. To meet this objective, I will first introduce this Canadian born alternative, called Dual Member Proportional (DMP), by explaining the motivation for its creation, giving a brief overview of how it works, and summarizing how it improves upon the most prominent alternatives. From there, I will show how DMP adheres to the Committee’s five principles of electoral reform. Then, to conclude my submission, I will demonstrate the efficacy of DMP by using the last election as an example.

## 2 DUAL MEMBER PROPORTIONAL

Three years ago, I received funding from the University of Alberta’s Undergraduate Research Initiative to develop a new electoral system that would address the shortcomings of SMP while satisfying Canada’s unique needs. My research on the history of electoral reform in Canada led me to make three important conclusions. First, Canadians had been presented with a false choice between two systems offering different benefits, Single Transferable Vote (STV) and Mixed Member Proportional (MMP). Second, the electoral systems Canadians had been asked to consider were significantly different from SMP in terms of the voters’ experience and the manner in which voters would be represented. Third, as a result of Canada’s geography and unique constitutional requirements, both STV and MMP would result in the exclusion of many Canadians from the benefits of electoral system reform. These conclusions guided the development of DMP. The result was a voting system that retains the simple ballot design and highly localized representation of SMP while ensuring that all Canadians are given an effective vote.

Stated briefly, DMP works by creating two-member districts where the first candidate is elected by plurality (this ensures that the first place candidate always wins a seat) and the second candidate is elected by a process that ensures proportionality of the results.<sup>1</sup> More specifically, proportionality is achieved by using the regional voting results to determine the number of seats

---

<sup>1</sup> A thorough explanation of this process is contained in Section 6.1 of the DMP report, which can be found at [DMPforCanada.com](http://DMPforCanada.com) on the “How it Works” page under “More Details”.

each party deserves and the individual district results to determine where each party will win its seats. In other words, DMP optimizes election results by simultaneously working to give each district its most preferred representation and each party its deserved number of seats. As a result, DMP respects the principles of regional and local accountability.

By electing all candidates within dual-member districts, two complaints made against MMP and other widely used proportional systems are eliminated: that mixed systems create two tiers of representatives and that proportional systems require the use of long party lists which hinder the electorate's ability to hold candidates accountable. Since every MP would belong to a two-member district, DMP would not introduce a second category of representative. Neither would long party lists be a feature of DMP. As Figure 1 shows, the DMP ballot would retain the simplicity of our current ballot design.

The two-member district structure of DMP would also allow it to bring the benefits of reform to all Canadians. Unlike STV, which struggles to deal with Canada's large geographical area, DMP would be able to fully incorporate rural Canada into the new system. Furthermore, DMP is not beleaguered by the practical constraints that limit MMP. With MMP, the number of candidates required to be listed on the ballot increases with region magnitude. This makes it impractical to have large regions, since, at a certain point, there are simply too many candidates that need to be listed on the ballot. With DMP, however, the ballot is completely independent from region magnitude. This, in addition to the fact that DMP can satisfy the seat distribution requirements mandated by the constitution, would allow DMP to be implemented with regions that span multiple provinces. Therefore, DMP would enable the Committee to bring the full benefits of reform to all regions of Canada, in particular, the three territories and PEI.

Despite being a relatively new system, DMP has already received serious consideration. In fact, it may become the first proportional electoral system to be approved by voters in a plebiscite and adopted by a provincial government. On April 15, DMP was officially recommended by the PEI Special Committee on Democratic Renewal for inclusion in a plebiscite that will ask Islanders if they wish to change their electoral system. Voting for this plebiscite will close on November 7, nearly one month before this committee must report back to the House of Commons. The PEI committee's decision to include DMP in their upcoming plebiscite demonstrates its appeal.

### 3 THE COMMITTEE'S FIVE PRINCIPLES OF ELECTORAL REFORM

#### 3.1 Effectiveness and Legitimacy

DMP would “increase public confidence among Canadians that their democratic will, as expressed by their votes, will be fairly translated” into political representation by virtually eliminating distortions in election outcomes and strengthening the “link between voter intention and the election of representatives.” Not only would DMP ensure parties receive the representation in the House of Commons they deserve, it would also respect votes cast for independent candidates. Unlike some proportional alternatives, DMP places no seats off limits to independent candidates and, as a consequence, would not force the electorate to choose a party when they vote.

When an individual casts a vote under DMP, they would know that it will have a meaningful effect on the outcome of the election. As a result, the logic behind strategic voting would be rendered invalid. Moreover, voters would no longer have a reason to feel that their vote is in vain. These consequences of adopting a proportional system like DMP would give every Canadian the confidence that their voice is helping to shape the composition of their government.

#### 3.2 Engagement

By ensuring that every vote plays an important role in the outcome of elections, DMP would “encourage voting and participation in the democratic process.” DMP would also “foster greater civility and collaboration in politics” by broadening the regional representation of political parties and introducing political diversity at the local level. Simulations of past Canadian elections show that parties would see a substantial increase in their level of regional representation. For instance, in the simulation of the 2015 election, the three major parties see their regional representation more than double, on average. These simulations also show that approximately 80% of districts could be expected to be represented by two different parties. Both of these effects would provide a strong incentive for parties to work together to represent Canadians.

### 3.3 Accessibility and Inclusiveness

DMP utilizes one of the most simple ballot designs possible. As can be seen by the sample ballot shown in Figure 1, it is nearly identical to an SMP ballot. The only difference is the addition of a second candidate for each party that decides to nominate one.<sup>2</sup> Since the experience of voting under DMP would be nearly identical to voting under the current system, Canadians would be knowledgeable enough to vote under DMP before receiving education about the change in voting system.

### 3.4 Integrity

There are three reasons why DMP would maintain the integrity of Canadian elections. First, the results it would produce would be both reliable and verifiable. Second, the method DMP uses to translate votes into election outcomes is objective. Finally, since DMP would utilize a ballot design that is nearly identical to the one currently used, it would permit the retention of current voting practices and counting procedures.

### 3.5 Local Representation

Under DMP, every MP would belong to and represent a two-member district. Importantly, MPs would remain accountable to their local constituents and would rely on their support for re-election. Furthermore, the use of two-member districts would allow Canada to retain the close relationship all MPs have with their constituents. However, DMP would not merely retain the status quo. Instead, it offers to improve upon this relationship. As was previously mentioned, simulations of past Canadian elections demonstrate that approximately 80% of districts could be expected to be represented by two different parties in future elections. This would significantly increase the number of Canadians who are represented by a candidate they voted for and provide a large majority of Canadians with a choice between two MPs from different parties to approach with their concerns.

---

<sup>2</sup> Note that parties would be responsible for ranking their candidates. Ideally, these rankings would be a product of open nomination contests where, for example, the top two candidates receive the nomination. In such a nomination process, the first place candidate would be given the ranking of “1” and the second place candidate that of “2”. When a party wins one seat in a district, their first ranked candidate is elected. In cases where a party wins all of a district’s seats, both candidates are elected.

#### 4 SIMULATION OF THE 2015 FEDERAL ELECTION

This section will show how DMP could have improved the outcome of the 2015 election in concrete terms.<sup>3</sup> Using voting data from last October, a simulation of the last election under DMP was produced, the results of which are displayed in figures 2 through 9. This simulation used a district threshold of 5% and a reserve factor of 10%.<sup>4</sup> It also assumed that each single-member district was a two-member district. Of course, if DMP is used for future elections, the number of districts would likely decrease so that the number of seats would not increase. However, the effect of reducing the number of districts on the simulation results would not be significant.

For the simulation, Canada was divided into four regions:

- Atlantic Canada – Newfoundland and Labrador, PEI, Nova Scotia, and New Brunswick
- Quebec
- Ontario
- Western Canada – Yukon, Northwest Territories, Nunavut, BC, Alberta, Saskatchewan, and Manitoba

With this choice of region size, all Canadians would see the full benefits of adopting DMP. In other words, every Canadian would know that their vote will have a meaningful effect on election outcomes. With that said, the Committee could easily adopt DMP with a different choice of regions. For instance, the Committee could choose to use one region for all of Canada or use one region for each province. However, I would caution the Committee on choosing the latter option. Making each province a separate region would exclude the territories from reform. Additionally, it would bring a much smaller degree of improvement to small provinces, most notably PEI, than to large provinces, such as Quebec. In my view, it is imperative that the Committee give every Canadian, regardless of their place of residence, a meaningful vote. There should be no exceptions.

Figures 2 through 5 display the distribution of the popular vote and the distribution of seats under DMP and SMP for each region.<sup>5</sup> The most jarring discrepancies between the popular vote and the election outcome under SMP occurred in the Atlantic region. The Liberal Party received every

---

<sup>3</sup> For more simulations, see the “Federal Simulations” page of DMPforCanada.com and appendices C through E of the DMP report.

<sup>4</sup> For an explanation of thresholds and the reserve factor, see the “How it Works” page of DMPforCanada.com.

<sup>5</sup> Note that votes cast for independents and parties that received less than 3% of the vote are grouped into the “Other” category.

seat in this region despite the Conservative, New Democratic, and Green parties collectively receiving over 40% of the vote. As the simulation reveals, DMP would have given each party the share of seats they deserved.

Figures 6 through 9 display a summary of the results at the national level. According to Figure 6, the most significant distortions produced by SMP at this level were the 15 percentage point over-representation of the Liberal Party, the 7 percentage point under-representation of the NDP, and the near omission of the Green Party from the House of Commons. As this figure shows, the House of Commons would have closely mirrored the popular vote had DMP been used to determine the election outcome. Furthermore, Figure 7 reveals that 87% of the elected candidates under DMP would have placed first or second within their districts. Stated differently, 87% of the seats would have been assigned to the same candidates as under a plurality formula.

This last point is worth more discussion. At first glance, some object to a third place candidate being elected over one that placed second. However, this objection is unwarranted. DMP requires candidates to have a mandate based on both the regional and district votes. When a second place candidate belongs to a party that doesn't have a mandate for more seats based on the regional vote, the candidate is denied the seat and it is given to the next best performing candidate whose party has such a regional mandate. Thus, these candidates would be elected because they possess the strongest local mandate of the parties that qualify for representation in the House of Commons.

Figures 8 and 9 reveal yet another benefit of using DMP. Figure 8 shows that 82% of the districts would have been represented by two different parties. This effect would improve how Canadians are represented by increasing the number of voters in each district who are represented by a party they support. Moreover, Figure 9 shows that parties would see the regional diversity of their caucuses increase. For example, the Liberal, Conservative, and New Democratic parties would have obtained representation in approximately 75%, 55%, and 40% of Canada's districts, respectively. This would have been a 21, 26, and 27 percentage point improvement for these parties over the result obtained with SMP, respectively.

## 5 CONCLUSION

One of the most fundamental and important processes in our democracy is how the votes of Canadians are translated into representation in the House of Commons. Unfortunately, it is a process that has been taken for granted. Now, for the first time in over a decade, our country has an opportunity to implement change. This committee has the ability to recommend that Canada start a new chapter in its democratic history. However, it is important that this new era in Canadian democracy be inclusive of all Canadians. This submission has put forward an alternative that promises such inclusion while respecting Canada's constitution and the desire of many Canadians for a new system that addresses the flaws of SMP without radically upending the status quo.

DMP would make many significant improvements to election outcomes in Canada. It would distribute each party's seats more evenly across the country, ensuring better regional representation within party caucuses. It would improve how Canadian's are represented at the local level by electing candidates from two different parties in a majority of districts. Most importantly, replacing SMP with Dual Member Proportional would ensure that the choices of all Canadians are accurately reflected in the House of Commons. This would be accomplished by making sure that every vote, wherever it is cast, has a meaningful effect on election outcomes. Regardless of which system the Committee ultimately selects, giving every Canadian a meaningful vote should be considered a necessary feature of our new electoral system.

*For more information about DMP, visit [DMPforCanada.com](http://DMPforCanada.com).*

FIGURES

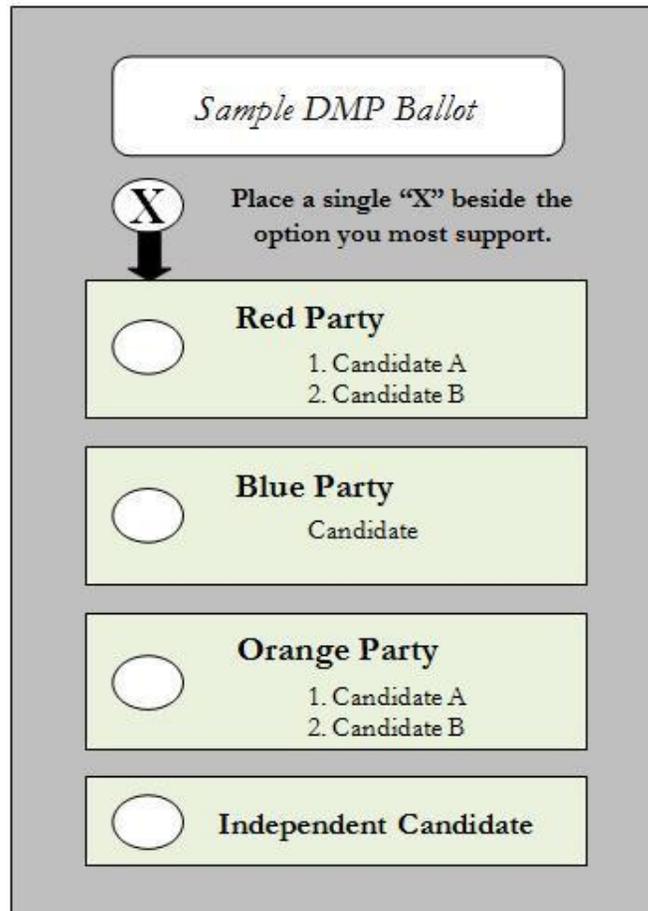
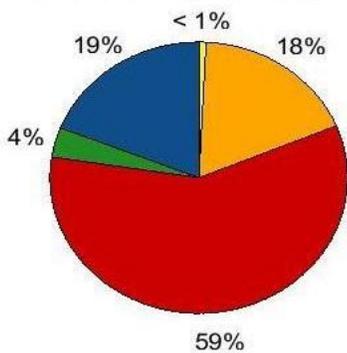


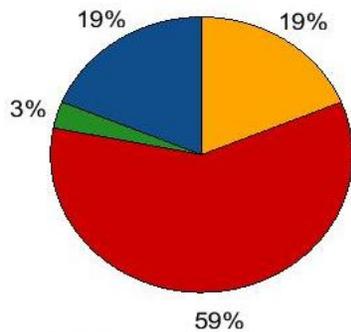
Figure 1

Atlantic Canada

Distribution of the Popular Vote by Major Party



Seat Distribution by Party Under DMP



Seat Distribution by Party Under SMP

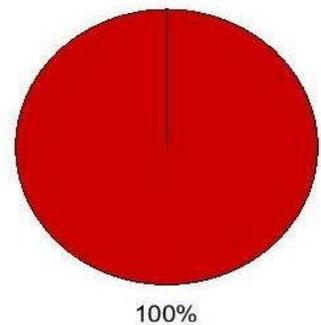
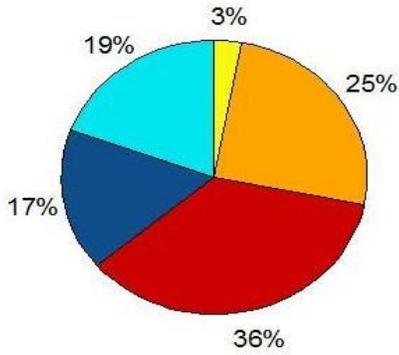


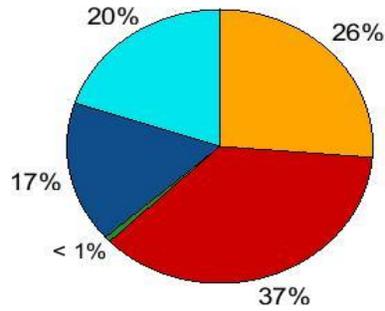
Figure 2

### Quebec

Distribution of the Popular Vote by Major Party



Seat Distribution by Party Under DMP



Seat Distribution by Party Under SMP

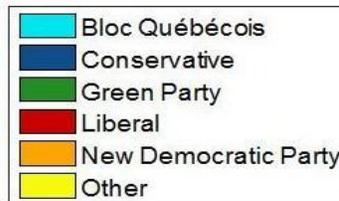
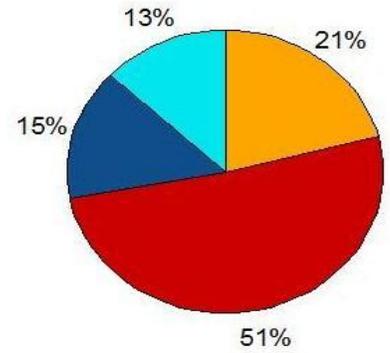
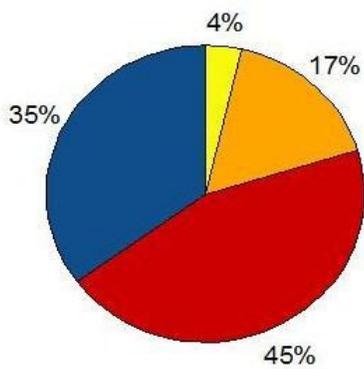


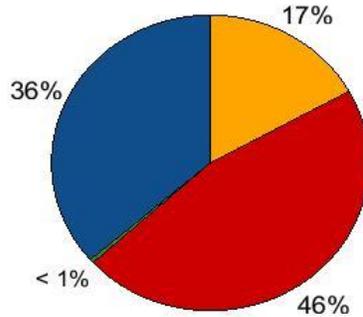
Figure 3

### Ontario

Distribution of the Popular Vote by Major Party



Seat Distribution by Party Under DMP



Seat Distribution by Party Under SMP

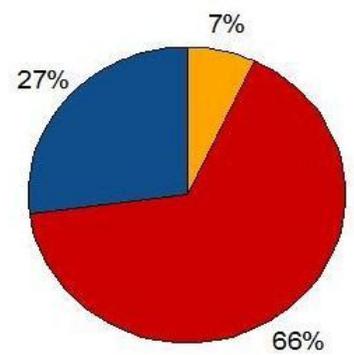
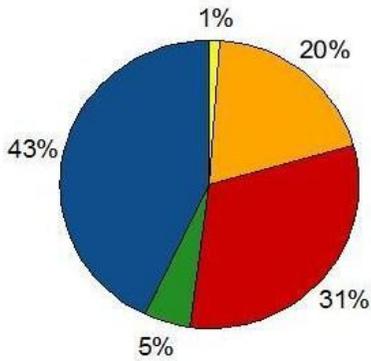


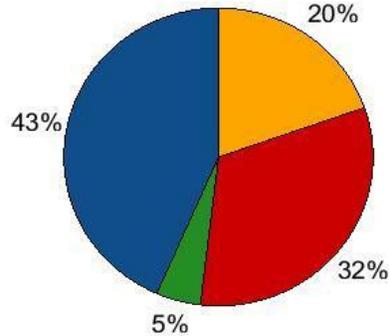
Figure 4

### Western Canada

Distribution of the Popular Vote by Major Party



Seat Distribution by Party Under DMP



Seat Distribution by Party Under SMP

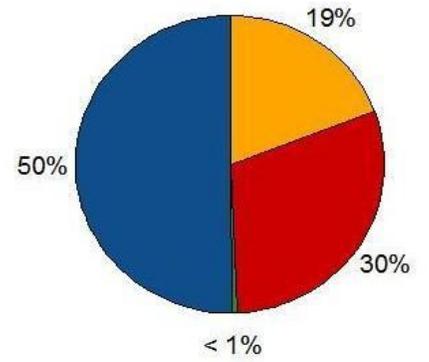
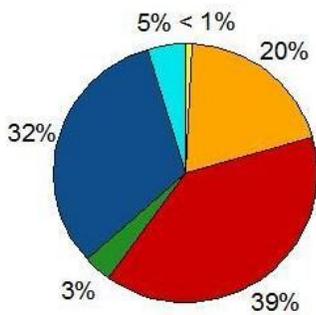


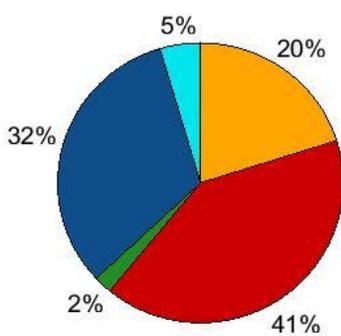
Figure 5

### Canada

Distribution of the Popular Vote by Major Party



Seat Distribution by Party Under DMP



Seat Distribution by Party Under SMP

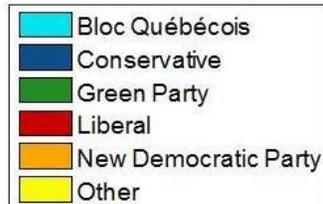
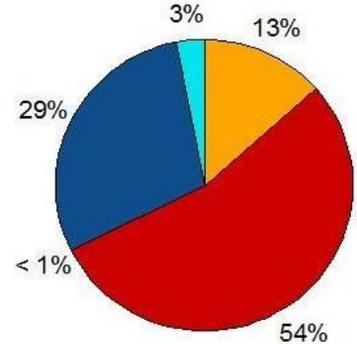


Figure 6

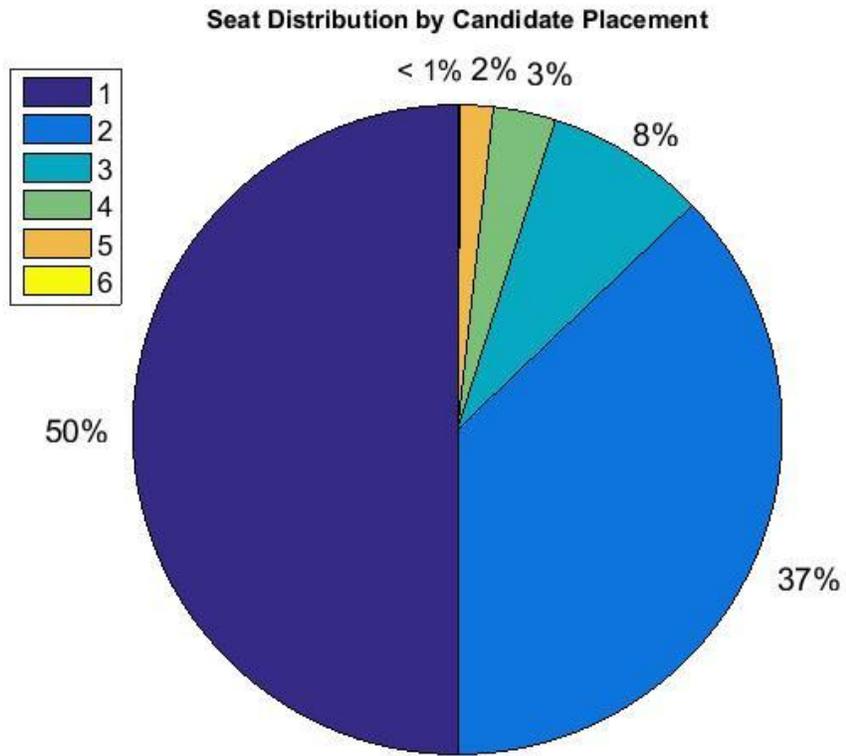


Figure 7

Districts With Single Party Representation vs. Districts With Dual Party Representation

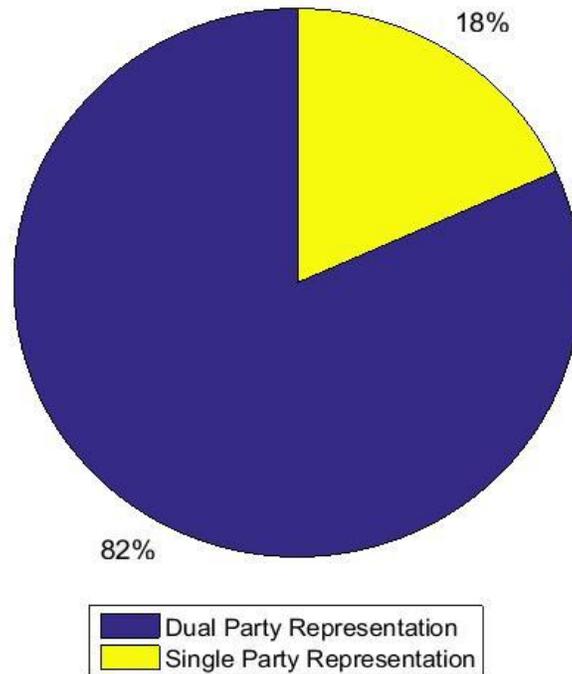


Figure 8

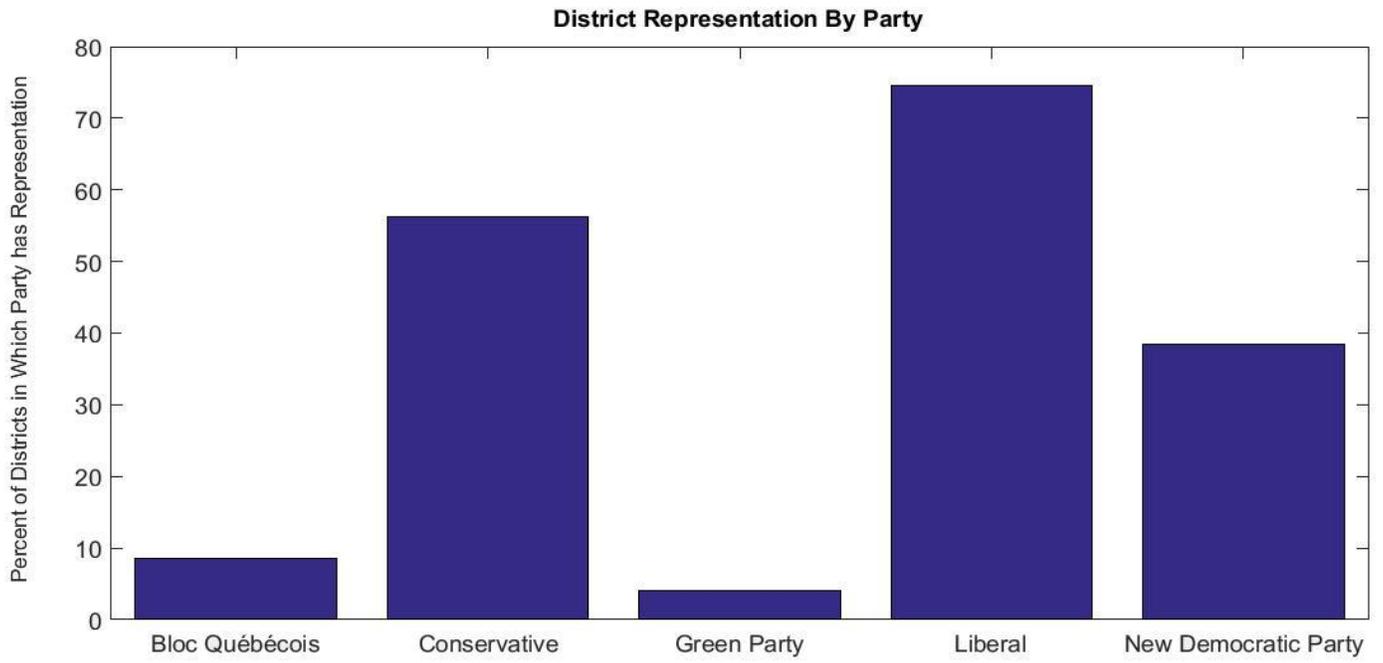


Figure 9