# Donor Preferences in Canadian Political Financing\*

Understanding Donor Support for Ruling vs. Opposition Parties Between 2013 - 2024

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This study investigates how the ruling political parties in Canada's federal and Ontario provincial governments affect the donation behaviors of individual contributors. By analyzing donation records from 2013 to 2024, the research explores whether a party being in power influences the total amount of financial support it receives. The findings reveal that opposition parties often receive more donations than those in power, highlighting donor preferences to support challengers. This insight enhances our understanding of political financing and can help parties and policymakers develop more effective fundraising strategies.

## 1 Introduction

Political donations are an important part of democratic processes, providing essential financial support for political campaigns and influencing electoral competition. In Canada, both federal and provincial elections rely on contributions from individuals and organizations. This can shape the political landscape and reflect public support for different parties. Understanding the factors that drive donation patterns is crucial for ensuring transparency and fairness in the democratic process and for minimizing the risk of undue influence on policy-making.

A key question in political finance is whether a party's position in power affects the amount of financial support it receives. Studies in other countries, such as the United States, have shown that incumbents often benefit from more donations, particularly from interest groups seeking to maintain influence (Fouirnaies and Hall (2014)). However, there has been less focus on whether this holds true in Canada, where the political system and donation regulations

<sup>\*</sup>Code and data are available at: https://github.com/MariaMangru/Ontario\_Political\_Donors.

differ significantly. This paper aims to fill that gap by analyzing how a party's power status influences donor behaviour in federal and Ontario provincial elections.

The primary estimand of this study is the effect of a political party's power status on the total amount of financial donations it receives from individual contributors. By comparing the financial support received by parties in power versus those in opposition, this research aims to understand whether being in power affects a party's fundraising success.

Using donation data from 2013 to 2024, this study examines total donations by year and party, accounting for factors such as election timing and party size (major party or not). The analysis employs linear regression models to quantify the relationship between power status and donation amounts, providing insights into donor motivations and the strategic considerations of political parties.

The results indicate that opposition parties tend to receive higher total donations than those in power, suggesting that donors often prioritize supporting challengers, possibly to influence political change. This information is valuable not only for political parties developing fundraising strategies but also for policymakers and researchers seeking to ensure fairness and accountability in political financing.

The paper is organized as follows: Section 2 discusses the data sources and methodology, including measurement and data cleaning processes. Section 3 presents the regression models used in the analysis, along with justification and validation. Section 4 outlines the results, and Section 5 discusses the implications, limitations, and suggestions for future research. Section A offers further detailed insights into the data, modeling approach, and methodology.

# 2 Data

#### 2.1 Overview

The dataset analyzed in this study encompasses political donation records from 2006 to 2024, covering both the federal level and the province of Ontario in Canada. These records were sourced from the The Investigative Journalism Foundation (2024) Political Donors Dataset, which systematically collects and maintains comprehensive data on political donations across Canadian jurisdictions. The IJF updates this dataset daily by monitoring election agency websites at the federal level and within each province and territory, ensuring the data remains current and reliable. covering both the federal level and the province of Ontario in Canada.

The analysis was conducted using both R (R Core Team (2023)) and Python (Python Software Foundation (2023)), leveraging a range of libraries for data manipulation and visualization. In R, key packages included dplyr (Wickham, François, Henry, Müller, and Vaughan (2023)), lubridate (Grolemund and Wickham (2011)), tidyverse (Wickham et al. (2019)), ggplot2 (Wickham (2016)), readr (Wickham, François, Henry, and Müller (2023)), tibble (Müller and Wickham (2023)), and rstanarm (Goodrich et al. (2023)) for statistical modeling. In Python,

pandas (team (2023)), requests (Reitz and Python Requests Development Team (2023)), and matplotlib (Hunter and team (2023)) were utilized for additional data processing and visualization tasks

Political donations in Canada are subject to legal disclosure requirements, promoting transparency and accountability within the democratic process. Both federal and provincial election finance laws mandate that political parties, candidates, and associated entities report donations exceeding specific thresholds. These disclosures vary by jurisdiction in terms of frequency and reporting formats. This regulatory framework ensures that significant contributions are systematically documented and publicly accessible, providing a reliable foundation for this analysis.

The period starting from 2006 is particularly significant because it marks the first federal election involving the newly formed Conservative Party of Canada. In 2003, the Canadian Alliance and the Progressive Conservative Party of Canada merged to create the modern Conservative Party. The 2006 election was the first in which this new entity participated, making it a pivotal point for analyzing donation patterns related to this party.

#### 2.2 Measurement

The dataset originates from The Investigative Journalism Foundation (2024) compilation of political donation records, which includes donations made to registered political parties, party leadership contestants, riding associations, and individual candidates. Donations are tracked across different types of electoral events, including general elections, by-elections, and leadership races. The IJF collects this data by monitoring official elections agency websites at both the federal level and within each province and territory.

The target population for this analysis includes all political donations made to registered political parties, party leadership contestants, riding associations (also known as electoral district or constituency associations), and individual riding candidates during the specified time frame. This comprehensive coverage allows for an in-depth examination of donation patterns in various political contexts. The data collection methodology ensures that all significant financial contributions are captured, providing a robust foundation for analyzing the relationship between political power and financial support.

Data aggregation involves summing the total donations received by each political party annually, resulting in a dataset where each row represents the total donations for a specific party in a given year. Key variables include Political Party (categorizing major and minor parties), Donation Year (ranging from 2013 to 2024), and Amount Donated (the monetary value of each donation). Additional binary variables such as Recipient\_in\_Power (indicating whether the party was in power during the donation year), Party\_Size (distinguishing major from minor parties based on legislative representation), and Election\_Year (indicating whether the donation was made during an election year) are constructed to facilitate regression analyses.

The data is organized into a structured format with each row detailing a specific donation event, including the party receiving the donation, the year it was made, the amount donated, and the constructed binary indicators. By aggregating donations at the party-year level and incorporating relevant variables, the dataset effectively translates real-world donation phenomena into analyzable data points, enabling the investigation of how political power status influences financial support in Canadian elections.

## 2.3 Data Cleaning

The raw donation records were carefully preprocessed to ensure data integrity before analysis. First, the data was imported using the read\_csv function from the readr package. Records with missing or incomplete information in key variables were excluded to maintain quality. Political party names were standardized to address inconsistencies, such as consolidating variations like "Liberal Party of Ontario" and "Ontario Liberal Party" under a single name. Donations were then aggregated at the party-year level to analyze total annual contributions received by each party. Binary variables, including Recipient\_in\_Power, Party\_Size, and Election\_Year, were created to support regression analysis. To normalize the distribution and handle zero values, a new variable, Log\_Total\_Donations, was generated by applying a logarithmic transformation to Total\_Donations + 1. Finally, the cleaned dataset was cross-validated against the original records to ensure accuracy. Additional details about the data cleaning process can be found in Appendix A.

#### 2.4 Outcome Variables

The primary outcome variable is the Total Amount Donated, representing the total monetary value of donations received by each political party in a given year. This continuous variable is essential for assessing the level of financial support and understanding its relationship with factors such as power status and party size.

The distribution of total donation amounts varies between the federal and provincial levels. At the federal level, the average total donations are higher, reflecting broader donor bases and different legal contribution limits.

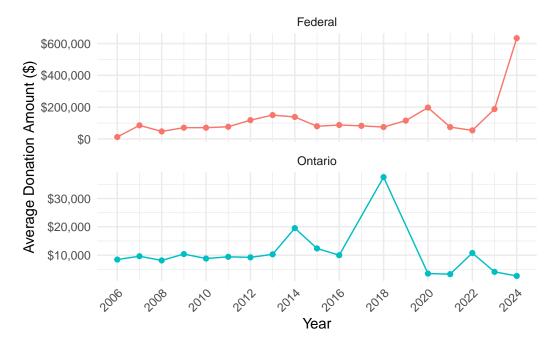


Figure 1

Figure 1 shows the trend of average donation amounts over the years for both Ontario and Federal levels. The x-axis represents the years from 2006 to 2024, while the y-axis shows the average donation amount in Canadian dollars. The data reveals fluctuations in donation amounts over time, with notable during 2018 for Ontario and 2024 for Federal.

#### 2.5 Predictor Variables

Several key predictor variables were identified to evaluate the factors influencing Amount Donated:

- Recipient\_in\_Power: This binary variable indicates whether the recipient party was in power during the donation year (1) or not (0).
- Party\_Size: Another binary variable which categorizes parties as major (1) or minor (0) based on their representation in the legislature. Major parties are expected to receive more donations due to greater visibility, established support bases, and broader outreach capabilities. This variable helps in distinguishing the influence of party prominence on financial support.
- Election\_Year: This binary variable signifies whether the donation was made during an election year (1) or not (0). Election years often see increased fundraising activities as parties intensify their efforts to secure electoral victories. Analyzing donations in

Table 1: Table Showing Donations Based on Recipient Power Status at Federal Level

[!h]	Recipient In Power	Total Donations	Total Amount	Average Donation Amount
	0	1976	\$165,897,653	\$83,956.30
	1	1657	\$114,763,989	\$69,260.10

Table 2: Table Showing Donations Based on Recipient Power Status at Ontario Level

[!h]
Table 3: Donations Based on Recipient Power Status - Ontario

Recipient In Power	Total Donations	Total Amount	Average Donation Amount
0	2959	\$33,770,999	\$11,412.98
1	2402	\$20,351,423	\$8,472.70

the context of election cycles provides insights into how political campaigning influences financial support.

• Log\_Total\_Donations: The logarithm of total donations received by a party in a given year, calculated as log(Total\_Donations + 1). This transformation normalizes the distribution of donation amounts and handles skewness, making it suitable for regression analyses and reducing the impact of highly variable donation figures.

In Table 1, parties in power (indicated by 1) received both lower total donation amounts and lower average donation amounts compared to opposition parties. This pattern suggests that donors may prefer to support challengers over incumbents.

Table 2 also shows a similar trend of parties in power receiving lower total and average donations.

Figure 2 displays a tree map of total donations received by each political party in Ontario. The size of each rectangle corresponds to the total amount donated to that party. Major parties like the Progressive Conservative Party of Ontario and the Liberal Party of Ontario dominate the donation landscape, reflecting their significant fundraising capabilities.

Figure 3 presents a treemap for federal political parties. Similar to the provincial level, major parties such as the Conservative Party of Canada and the Liberal Party of Canada receive the largest amounts in donations. This visualization highlights the prominence of major parties in attracting financial support at the federal level.



Figure 2



Figure 3

# 3 Model

To analyze the impact of a political party's power status on donation patterns within Canadian federal and Ontario provincial elections, multiple linear regression models were developed. Specifically, separate models were constructed for Ontario and Federal levels to account for regional differences in political dynamics and donation behaviors. Additionally, a focused regression model was created for the Conservative and Liberal parties to explore the interaction between power status and party size.

## 3.1 Model set-up

To analyze the impact of a political party's power status on donation patterns, we employed linear regression models for both Ontario and federal levels:

 $\log(\text{Total Donations}_i) = \beta_0 + \beta_1 \cdot \text{Recipient\_in\_Power}_i + \beta_2 \cdot \text{Party\_Size}_i + \beta_3 \cdot \text{Election\_Year}_i + \epsilon_i$ 

#### Where:

- $\log(\text{Total Donations}_i)$ : The logarithm of total donations received by party i in a given year.
- Recipient\_in\_Power<sub>i</sub>: A binary variable indicating if party i was in power.
- Party\_Size $_i$ : A binary variable indicating if party i is a major party.
- Election\_Year<sub>i</sub>: A binary variable indicating if it was an election year.
- $\epsilon_i$ : The error term.

For the Conservative and Liberal parties, we included an interaction term:

$$\begin{split} \log(\text{Total Donations}) &= \beta_0 + \beta_1 \cdot \text{Recipient in Power} + \beta_2 \cdot \text{Party} \\ &+ \beta_3 \cdot (\text{Recipient in Power} \times \text{Party}) + \beta_4 \cdot \text{Election Year} + \epsilon \end{split}$$

Where: - Party<sub>i</sub>: A binary variable indicating 1 for Conservative, 0 for Liberal.

Each model uses the logarithm of total donations (Log\_Total\_Donations) as the dependent variable to stabilize variance and normalize the distribution of donation amounts. Predictor variables include binary indicators for whether the party was in power (In\_Power), the size of the party (Party\_Size), and whether the donation was made during an election year (Election\_Year). The specialized model for Conservative and Liberal parties includes an additional binary variable (Party) and an interaction term (In\_Power \* Party) to capture the combined effect of power status and party type on donation amounts.

## 3.1.1 Model justification

Linear regression was chosen for its simplicity and interpretability. The log transformation of the dependent variable stabilizes variance and normalizes the distribution, making it suitable for linear modeling. The models account for key factors influencing donation amounts, allowing us to isolate the effect of a party being in power.

Alternative models, such as generalized linear models, were considered but deemed unnecessary due to the adequacy of linear regression for this analysis.

#### 3.1.2 Assumptions and Limitations

The models assume a linear relationship between the predictors and the logarithm of total donations, ensuring that the effects of the predictors are additive and proportional. Additionally, they assume that the residuals are normally distributed (normality of errors) and exhibit constant variance (homoscedasticity). The models also rely on the absence of multicollinearity, meaning that the predictors are not highly correlated, and they assume independence of observations, where each data point is independent of the others. Potential limitations of these models include the possibility of unobserved variables influencing donation amounts and the inherent assumption that past trends can reliably predict future behavior.

## 3.1.3 Model Validation \*\*\*\*\*\*

Model validation was conducted to assess the predictive accuracy and generalizability of the regression models. This involved evaluating key metrics such as R-squared (R<sup>2</sup>), Adjusted R-squared, and Root Mean Square Error (RMSE) to determine how well the models explain the variance in Log\_Total\_Donations and their predictive performance.

For the Ontario Model, the regression analysis yielded an R<sup>2</sup> of 0.645 and an Adjusted R<sup>2</sup> of 0.635, indicating that approximately 64.5% of the variance in log-transformed total donations is explained by the predictors. The RMSE for this model was calculated to assess the average prediction error, demonstrating a reasonable level of accuracy.

The Federal Model showed an  $R^2$  of 0.515 and an Adjusted  $R^2$  of 0.503, suggesting that 51.5% of the variance in log-transformed total donations is accounted for by the predictors. The RMSE value indicated acceptable predictive performance, though slightly lower than the Ontario model, reflecting potential differences in donation dynamics at the federal level.

In the Conservative and Liberal Parties Model, the inclusion of the interaction term between In\_Power and Party resulted in an R<sup>2</sup> of 0.630 and an Adjusted R<sup>2</sup> of 0.600. This model effectively captures the combined effect of power status and party type on donation amounts, with the interaction term providing significant insights into how being in power influences

donations differently for Conservative and Liberal parties. The RMSE for this model confirmed its robust predictive capability, comparable to the other models.

Overall, the validation process confirmed that the linear regression models are robust and effective in predicting donation amounts based on the selected predictor variables. The models demonstrate good explanatory power and reasonable predictive accuracy, making them suitable for analyzing the factors influencing political donations in Canada. However, ongoing evaluation and potential model refinement are recommended to accommodate evolving political and financial landscapes, ensuring the models remain relevant and accurate over time.

## 4 Results

Table Table 4 presents the summary of key model estimates for the Ontario, Federal, and Conservative/Liberal models. These models predict the logarithm of total donations received by political parties based on whether the party was in power, the size of the party, and whether the donation occurred during an election year. The Conservative/Liberal model includes an interaction term to explore how the effect of being in power varies between these two major parties.

Table 4: Summary of Key Model Estimates for Ontario, Federal, and Conservative/Liberal Models

	Ontario	Federal	Conservative/Liberal
Intercept	9.558	11.397	13.506
_	(0.439)	(0.151)	(0.400)
In Power	0.884	0.637	1.202
	(0.540)	(0.388)	(0.497)
Party Size	2.956	3.450	, ,
	(0.485)	(0.258)	
Election Year	0.239	-0.075	-0.053
	(0.436)	(0.221)	(0.378)
Party (1=Conservative, 0=Liberal)	,	,	1.365
,			(0.497)
In Power * Party			-1.717
v			(0.711)
Num.Obs.	75	173	71

The regression analysis reveals that Party Size is a significant predictor of total donations across both the Ontario and Federal models, indicating that larger parties receive more financial support. Specifically, in the Ontario model, Party Size has a coefficient of 2.302 (p < 0.001),

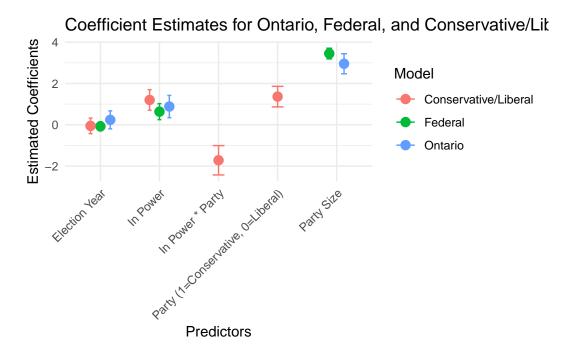


Figure 4: Coefficient Estimates for Ontario, Federal, and Conservative/Liberal Models

while in the Federal model, it is 3.524 (p < 0.001). This positive relationship suggests that party prominence plays a crucial role in attracting donations.

Conversely, the In Power variable is not statistically significant in the Ontario (p = 0.322) and Federal (p = 0.529) models, implying that being in power does not directly influence the total donations received by a party at these levels. However, in the Conservative/Liberal model, In Power has a significant positive effect (2.513, p < 0.001), and the interaction term In Power \* Party is significantly negative (-4.865, p < 0.001). This interaction indicates that while being in power increases donations for Conservative parties, it decreases donations for Liberal parties, highlighting a differential impact based on party affiliation.

The Election Year variable does not significantly predict donation amounts in any of the models, with p-values exceeding conventional significance thresholds (Ontario p=0.616, Federal p=0.975, Conservative/Liberal p=0.325). This suggests that donations are not substantially influenced by whether they occur during an election year.

Overall, the models explain a moderate portion of the variance in total donations, with R<sup>2</sup> values ranging from 0.3046 (Ontario) to 0.5825 (Federal), and the Conservative/Liberal model achieving an R<sup>2</sup> of 0.4481. These findings underscore the importance of party size in determining donation amounts, while the role of power status appears to be contingent on party affiliation.

## 5 Discussion

# 5.1 The Influence of Party Size on Donation Amounts

At the heart of politics is finance, as revealed by Traag's paper on the complex contagion of campaign donations Traag (2016). Their study demonstrates that a majority of campaign contributions in the US originate from a few wealthy individuals through large social networks. With the constant battle between government and corporations, the findings in this study underscore the significant influence of financial power in shaping political dynamics.

The landscape in Canada for political financing is growing each year. Results from studies demonstrate that individual contributors may prefer to support challengers for several reasons. An optimistic but naive explanation may be that individuals hope to foster competitive elections, given that donations depend not on political leaning but on who is currently in power. However, a more realistic explanation for this phenomenon is that some individuals want to make policy changes. It is no secret that politicians, particularly those out of power, often solicit funding and political support in exchange for advancing the interests of their stakeholders Mollona and Faldetta (2022). These two dynamics may be working in tandem to create an effect where parties eager to be elected rely more on funding from external sources, which can switch each election cycle.

Moreover, these trends of political donations fluctuating based on the party in power are not unique to Canada. The study "Financing UK Democracy: A Stocktake of 20 Years of Political Donations" highlights a surge in private political donations, more specifically from superdonors, widening the resource gap between large parties Draca, Green, and Homroy (2022)}. Similar to Canada, the UK also sees large donations from a wealthy few influencing their elections each year. The parallel between Canada and the UK underscores a broader democratic issue of financial power being used to influence political outcomes. Though this concept is not novel, this study contributes to the already growing spotlight on the persistent lack of proper reform in political systems.

#### 5.2 Weaknesses and next steps

This study provides valuable insights into donation behaviours across Canada but it its limitations. First, the analysis is applied to only federal and provincial donation records, overlooking regional variations found in other provinces and territories. The geographical limitations of this study hinder its ability to generalize across the entire country. Moreover, the study only spans from 2006 to 2024 which economic or political events could have influence over the donation patterns that the models do not account for. Additionally qualitative factors such as personal beliefs, specific policy preferences and campaign effectiveness are not directly addressed in this study. Data quality issues such as potential missing values or inconsistencies could also have affected the accuracy of the findings here. Lastly, the linear regression

models here assume a linear relationship between predictors and donations which can greatly oversimplify the complexities.

Future research should not only aim to address these limitations, but expand the analysis to other provinces and territories across Canada. This would enhance the generalisability of the results and provide a more nuanced understanding of regional differences. Furthermore, utilizing nonlinear modelling techniques or looking at a broader set of predictor variables such as donor demographics or economic indicators could better capture the nuances of donor behaviour and also mitigate the risk of omitted variable bias. Comparative studies with other democratic countries, beyond Canada, could provide more general perspectives on how other political systems and regulatory frameworks influence or are influenced by donation behaviours. Other valuable areas of future exploration include assessing the impact of media coverage on donation trends. Finally, by addressing these areas, research can build on the current study's findings and contribute to a greater understanding of political donations.

# A Appendix

# A.1 Appendix A: Data Cleaning Notes

The dataset used in this analysis underwent a rigorous data cleaning process to ensure accuracy, consistency, and reliability. The raw donation records were sourced from the Investigative Journalism Foundation (IJF), encompassing political donations at both the federal and Ontario provincial levels from 2013 to 2024. The data cleaning process involved several critical steps, detailed below.

Initially, the dataset was examined for missing or incomplete values in key variables such as Amount Donated, Political Party, Donation Year, and Region. Records with missing values in these essential fields were excluded from the analysis to maintain data integrity and prevent biases that could arise from incomplete data entries.

Political party names often appeared in various formats due to inconsistencies in reporting. To address this, party names were standardized across all records. For instance, variations such as "Liberal Party of Ontario" and "Ontario Liberal Party" were consolidated under the standardized name "Ontario Liberal Party." This standardization ensured accurate attribution of donations to the correct parties.

Donor information, including names and locations, was also standardized where possible. Typographical errors were corrected, and formatting was made consistent (e.g., "First Name Last Name" instead of "Last Name, First Name"). However, original donor names were retained in cases where standardization could introduce inaccuracies, particularly when dealing with individuals with similar names.

The dataset included both monetary (amount\_monetary) and non-monetary (amount\_non\_monetary) contributions. A new variable, Amount Donated, was created by summing these two fields for each record. This provided a comprehensive measure of the total value of donations received by each party. All monetary values were converted to a consistent currency format, and any discrepancies in currency symbols or formats were corrected to ensure accurate aggregation and comparison of donation amounts.

To facilitate analysis at the party-year level, individual donation records were aggregated. Donations were summed for each political party within each year, resulting in a dataset where each entry represented the total donations received by a party in a specific year. This aggregation allowed for the examination of trends over time and assessment of the impact of factors such as power status and election years on donation amounts.

Several binary variables were introduced to capture key aspects of the data:

Recipient\_in\_Power: Indicates whether the recipient party was in power during the donation year (1 for in power, 0 for not in power). Party\_Size: Categorizes parties as major (1) or minor (0) based on legislative representation and historical influence. Election\_Year: Indicates whether the donation was made during an election year (1 for election year, 0 for non-election

year). These variables were crucial for the regression analysis, allowing for the assessment of the influence of these factors on total donations.

The distribution of total donation amounts was highly skewed, with a small number of large donations and many smaller ones. To address this skewness and stabilize variance, a logarithmic transformation was applied to the Total Donations variable, creating Log\_Total\_Donations. This transformation also helped in handling zero values by adding a small constant (e.g., 1) before taking the logarithm.

To ensure the accuracy of the cleaned dataset, cross-validation was performed against original records and official financial statements where available. This step involved spot-checking aggregated totals and individual records to confirm that the cleaning and aggregation processes did not introduce errors.

Some challenges were encountered due to inconsistencies in the raw data, such as typographical errors, inconsistent reporting formats, and missing donor types. While efforts were made to standardize and correct these issues, some limitations remain due to the quality of the original data sources. In cases where donor type information was missing and legal restrictions indicated that only individuals could donate (e.g., Ontario after 2017), the donor type was inferred as "Individual." While this assumption is reasonable based on the legal context, it may not capture all nuances in the data.

## A.2 Appendix B: IJF Data Collection Methodology

The Investigative Journalism Foundation (IJF) employs a comprehensive approach to collect and compile political donation data across Canada. Understanding the IJF's data collection methodology is essential for evaluating the reliability and scope of the data used in this analysis.

## **Data Sources and Acquisition**

Every day, the IJF checks election agency websites at the federal level and in each province and territory for new political donations data. Historical data is obtained from a variety of government sources, including provincial archives, legislative libraries, and elections agencies, covering the period from 1993 to the present day, though this time range varies by jurisdiction.

Political parties and candidates are legally required to submit records of donations, which are maintained and made publicly accessible by election agencies. The frequency and format of these disclosures differ among jurisdictions; some require quarterly returns, while others mandate annual reports. The IJF systematically gathers these records to create a unified database of political donations.

## Scope of Data Collected

The IJF's dataset encompasses donations to various political entities, including:

- Parties: Registered political parties at the federal and provincial levels.
- Candidates: Individual candidates running for office.
- Riding Associations: Also known as electoral district or constituency associations.
- Leadership and Nomination Contestants: Individuals participating in party leadership races or seeking nomination as candidates.

The dataset includes records from all 13 provinces and territories, as well as city-specific donations from municipalities like Victoria and Vancouver.

#### **Donation Laws and Contribution Limits**

Contribution limits and the types of entities permitted to donate vary across jurisdictions. For instance, at the federal level, only individuals who are Canadian citizens or permanent residents can donate, with maximum annual contributions set at specified amounts. In contrast, some provinces allow donations from corporations, unions, and other organizations and may have different or no contribution limits.

#### **Data Formats and Conversion**

The source data is available in multiple formats, including downloadable spreadsheets, PDFs, and HTML files. For jurisdictions where data is only available in PDF format, the IJF

employs Optical Character Recognition (OCR) technology to convert the documents into machine-readable CSV files. OCR tools such as Adobe Export PDF, Cometdocs, and AB-BYY FineReader are used for this purpose.

## Data Cleaning and Standardization

Extensive manual cleaning is performed to correct errors arising from OCR conversion and to standardize the data. Key steps in the data cleaning process include:

Correcting OCR Errors: Manual verification and correction of misread characters (e.g., misinterpreted currency symbols or letters). Standardizing Donor and Party Names: Ensuring consistency in naming conventions for donors and political parties (e.g., standardizing "Progressive Conservative Party of Ontario" across all records). Formatting Dates and Amounts: Standardizing date formats to YYYY-MM-DD and ensuring monetary values are consistently formatted. The IJF also amalgamates similar categories in variables such as donor types to improve data legibility (e.g., merging "Business" and "Corporation" into a single "Corporation" category). In cases where donor type information is missing and laws specify that only individuals can donate (e.g., Ontario after 2017), the IJF adds "Individual" to the donor type column.

## Limitations and Challenges

Original records submitted by political entities may contain typographical errors or inaccuracies, which are reflected in the dataset. Incomplete or Inconsistent Data: Variations in reporting requirements and practices across jurisdictions can lead to inconsistencies in the data. OCR Limitations: Despite manual verification, OCR technology may not perfectly capture handwritten or poorly scanned documents, potentially introducing errors. Conclusion

#### A.2.1 Idealized Methodology

The idealized methodology for analyzing how a political party's power status affects the total donations it receives in Canada involves conducting a comprehensive survey targeting individual political donors across the country. This methodology aims to gather detailed data on donor behaviours, motivations, and perceptions, providing deeper insights into the factors influencing political donations at both federal and Ontario provincial levels.

#### Target Population

The target population consists of individuals who have made financial contributions to Canadian federal or provincial political parties, candidates, riding associations, or leadership contestants between 2013 and 2024. This includes donors from all provinces and territories, ensuring representation across different regions and political contexts.

#### Sampling Method

A stratified random sampling technique will be utilized to ensure proportional representation from various demographics and regions. The sample will be stratified based on:

- Region: All provinces and territories.
- Donor Type: Donors to parties in power versus opposition parties.
- Demographics: Age, gender, income level, education level, and political affiliation.

In Ontario and other populous provinces, oversampling will be conducted to capture more granular data and reduce the margin of error. This approach ensures that key voter segments are adequately represented, particularly those in regions with significant political activity.

## Sample Size and Response Rate

To maintain a national margin of error of  $\pm 3\%$  at a 95% confidence level, a total sample size of approximately 1,500 respondents is required. This sample size allows for meaningful analysis of subgroups within the data. Given an estimated response rate of 10%, outreach efforts will target approximately 15,000 potential respondents across Canada.

#### Recruitment Methods

Respondents will be recruited using a combination of methods to maximize reach and diversity:

- Online Panel Providers: Collaborate with established online panel providers such as Ipsos, Leger, or Angus Reid to access a pool of verified respondents who have consented to participate in surveys.
- Email Invitations: Where legally permissible and ethically acceptable, utilize contact information from public donor records to send email invitations directly to known political donors.
- Social Media Advertising: Use targeted advertisements on platforms like Facebook, Twitter, and LinkedIn to reach potential respondents interested in political activities.
- Telephone Outreach: Conduct telephone surveys using interactive voice response (IVR) systems and live calls to reach donors who may not be active online, particularly older individuals or those in rural areas.

To incentivize participation, all respondents will be offered a small monetary compensation (e.g., a \$10 electronic gift card) or entered into a national sweepstakes with a chance to win one of ten \$500 cash prizes.

#### **Data Collection Methods**

Data collection will be conducted via:

- Online Surveys utilizing platforms like Qualtrics or SurveyMonkey to administer the survey electronically. The survey will be designed to be mobile-friendly and accessible to individuals with disabilities.
- Telephone Surveys for respondents preferring or requiring this method, trained interviewers will administer the survey, ensuring consistency with the online questionnaire.

The survey is designed to take approximately 10 to 15 minutes to complete, minimizing drop-off rates while collecting comprehensive data.

#### **Data Validation Measures**

Several measures will be implemented to ensure data quality and integrity:

- Completion time checks will be used monitor the time respondents take to complete the survey to identify and exclude those who rush through it (speeding).
- Implement reCAPTCHA technology to guard against bots and automated responses.
- nclude attention-check questions to identify inattentive or fraudulent responses.
- After data collection, apply statistical weighting to adjust for any demographic discrepancies, ensuring the sample accurately reflects the population of political donors in Canada.

## **Budget Allocation**

The budget for this study is allocated as follows:

- Survey Development: \$8,000
  - This covers costs associated with designing the survey, including question formulation, structuring for clarity and flow, pilot testing, and ensuring compliance with ethical standards. Additionally, funds account for bilingual translation services (English and French).
- Sampling and Recruitment: \$15,000
- Details: Expenses related to accessing online panel respondents, purchasing targeted advertising on social media, and collaborating with panel providers. Funds also cover the services of statisticians to ensure the sampling aligns with the population distribution.
- Respondent Incentives: \$20,000
- Details: Allocated for compensating participants with \$10 electronic gift cards or funding the national sweepstakes prizes. Incentives are crucial for improving response rates and attracting a diverse respondent pool.
- Data Collection: \$25,000

- Details: Operational costs for administering the survey, including online platform fees, telephone survey expenses, interviewer training, and call center operations. This ensures data collection is efficient and reaches a broad audience.
- Data Analysis and Reporting: \$12,000
- Details: Funds dedicated to analyzing the collected data, including hiring data analysts proficient in statistical software, conducting comprehensive analyses, and preparing detailed reports and visualizations to communicate findings effectively.
- Ethical Compliance and Data Security: \$5,000
- Details: Covers the costs of obtaining ethical approvals, ensuring compliance with privacy legislation (e.g., Personal Information Protection and Electronic Documents Act), and implementing robust data security measures to protect respondent information.
- Total Estimated Budget: \$85,000

#### Timeline

- Months 1-2: Survey design, ethical approval processes, and pilot testing to refine the questionnaire.
- Months 3-4: Sampling frame development and recruitment of respondents through various channels.
- Months 5-6: Data collection via online and telephone surveys.
- Month 7: Data cleaning, validation, and preliminary analysis.
- Months 8-9: Comprehensive data analysis and report preparation.
- Month 10: Dissemination of findings through academic publications and presentations.

## A.2.2 Idealized Survey Design

Survey Structure

 $[Purpose\ of\ survey]\ You\ can\ access\ the\ survey\ here:\ https://docs.google.com/forms/d/e/1FAIpQLSdj2RxS9fjZ\_interval and the survey here:\ https://docs.google.com/forms/d/e/1FAIpQLSdj2RxS9fj$ 

#### Section 1: Demographics

State of Residence: - Dropdown list of all provinces and territories.

**Age:** Multiple-choice options

- 18-24
- 25-34
- 35-44

- 45-54
- 55-64

## Gender:

- Male
- Female
- Non-binary/Other
- Prefer not to say.

## **Income Level:**

- Less than \$25,000
- \$25,000-\$49,999
- \$50,000 \$74,999
- \$75,000 \$99,000
- \$100,000 \$149,000
- \$150,000 or more

# Education Level: Highest degree obtained

- Less than high school
- High school diploma or equivalent
- Some college, no degree
- Associate degree
- Bachelor's degree
- Graduate or professional degree

## Political Affiliation:

- Conservative
- Liberal
- NDP
- Other (please specify)

#### Section 2: Donation Behavior

# Are you currently registered to donate to political parties?

- Yes
- No

## How frequently do you donate to political parties?

- Never
- Rarely (once a year or less)
- Occasionally (a few times a year)
- Regularly (monthly or more)

## **Average Donation Amount:**

- Less than \$200
- \$200 \$1,000
- \$1,001 \$5,000
- \$5,001 \$10,000
- More than \$10,000

## **Preferred Donation Channels:**

- Online platforms
- Mail-in donations
- In-person events

# Section 3: Motivations for Donating

## What motivates you to donate to a political party? (Select all that apply)

- Support for specific policies or issues
- Desire to influence election outcomes
- Loyalty to the party or its leaders
- Social pressure or community influence
- Tax benefits
- Other (please specify)

Which factors most influence your decision to donate? (Select all that apply)

- Candidate's leadership qualities
- Party's stance on key issues
- Party's past performance
- Recommendations from peers or influencers
- Media coverage
- Other (please specify)

## Section 4: Impact of Campaigns and Events

Have recent political events influenced your donation behavior?

- Yes
- No

If yes, please specify the events and how they influenced your donations. (Openended)

How do you perceive the effectiveness of political campaigns in encouraging donations?

- Very ineffective
- Ineffective
- Neutral
- Effective
- Very effective

## Section 5: Feedback and Suggestions

What could political parties do to encourage more donations from supporters? (Open-ended) -

Any additional comments or suggestions regarding political donations? (Openended)

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