

# Canadian Residents' Giving, Volunteering, and Participation (GVP) behavior was mostly motivated by personal matters\*

An analysis to serve as a comparison of the GVP landscape during the COVID-19 pandemic

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20 March 2022

## Abstract

Since the COVID-19 pandemic, the Giving, Volunteering, and Participating (GVP) landscape has changed a lot. In this paper, we investigated the GVP landscape in 2018 so that it can serve as a good reference for the comparison of the GVP landscape during the COVID-19 pandemic. We found that most people gave and volunteered because they were personally affected by their situation. We also found that there were a few groups of the population in Canada that were under-represented in the survey and we proposed solutions to address those issues.

## 1 Introduction

The volunteering landscape in Canada has been changing over the years, especially since the pandemic. With COVID-19 spreading among the population and stay-at-home orders issued by the government to keep people safe, volunteering seems to be harder during the pandemic. Even though people are still trying to find ways to volunteer amidst one of the largest, health, economic, and social challenges throughout history, it is more difficult when most people are prone to staying at home. However, volunteering before the pandemic seems to be a different story than volunteering during the pandemic. In 2018, there are approximately 12.7 million people in Canada participated in some sort of formal volunteering activities and Statistics Canada estimated a total number of 1.7 billion hours people dedicated to volunteering in their own communities, non-profits, and charities (Plessis et al., 2020).

This paper uses the study of the 2018 General Social Survey (GSS) on Giving, Volunteering, and Participating (GVP) to investigate the giving, volunteering, and participating landscape in Canada in 2018. We want to look for some insights into people's GVP behavior before the pandemic. The 2018 GSS GVP provides a holistic insight for people to learn about the contribution people have given in Canada. Although the data and the analysis in this paper are before the COVID-19 pandemic, it does provide us with good insights into the challenges and opportunities of GVP in our current time.

The two main goals of the Canada General Social Survey are:

- 1) Gain insights into the living conditions and well-being of Canadians by gathering data on social trends over time; and
- 2) Provide support for specific social policy issues of interest.

The 2018 Canada General Social Survey on Giving, Volunteering, and Participating was conducted between September to December 2018. The survey interviewed people who are 15 years and over. The individuals came from 10 provinces (excluding the 3 territories) in Canada. There are two components of the Canada GSS Giving, Volunteering, and Participating (GVP) are core and classification content. The core content contains data that measures the living conditions and well-being of Canadians and provides information for specific social policy issues that are of interest. The classification content contains the respondents' demographic

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\*Code and data are available at: [https://github.com/francomomo/gss\\_gvp\\_2018\\_analysis](https://github.com/francomomo/gss_gvp_2018_analysis).

information such as age, gender, education, and income. Combining these two components, the Canada GSS Giving, Volunteering, and Participating aims to provide insights to the charitable and voluntary sector to make informative decisions.

This paper dived into the survey-methodology of the GSS GVP survey to learn about the population, sample, and frame. Then, we take a look into the Strengths in 2.2.3 of the methodologies performed by the survey. The Results in 3 section and Discussion in 4 section follow to gain a more thorough understanding of the GVP landscape. Finally, we talk about the ethics and bias in section 4.6 in the survey and some possible next steps in section 4.7 to address those issues. Through the investigation conducted by this paper, we found that most people gave and volunteered because they were personally affected in the in section 4.2. In terms of participation, most people participated in a team sport in their youth and there weren't many people who participated in religious or spiritual activities. On the other hand, we identified some bias in the survey. Those biases include sampling bias (some populations are under-represented) and also potential self-serving bias (people might not truthfully answer the questions). We also proposed some solutions to augment the survey options to make the survey more inclusive to people with diverse backgrounds. It is important to do this analysis because it serves as a good comparison to the GVP landscape during or after the COVID-19 pandemic.

## 2 Data

In this paper, we use R, a Statistical Computing Language, to analyze this dataset (R Core Team 2021). We use tidyverse for data manipulation (Wickham et al. 2019). We use (Firke 2021) to clean dirty data. Graphs are made with ggplot2 (Wickham 2016).

The dataset can be divided into 4 parts: demographic information, giving questions, volunteering questions, and participating questions. The demographic section asks respondents of the age, marital status, province of residence, and so on. For the three GVP sections, the survey asks respondents of the activities they took in GVP as well as the reasons of why they do something, not do something, or not do something more. Since this survey is created by the government in the attempt to take a census of Canadian population, there is no similar survey on par of the details of this survey. Most data cleaning or the variables that we created for the analysis are either to convert values of the variable to specific categories in words or to combine some variables that can be viewed in one column. We have also created bar plots for each of the variable used in this paper in section A. A summary statistics table of the variables we used for this paper can be viewed in the Summary Statistics section in section B.2.

### 2.1 Survey Overview

The content of the 2018 GSS GVP Questionnaire contains the following sections: (1) Getting Started - This section introduces the survey, selects a respondent, and collects key demographic information. For example, the information collected in this section includes age, marital standards, sex, and gender. (2) Relationship to the selected respondent - This section collects the relationship of each person in the household to the respondent. If there's only one person in the household, this section will be ignored. (3) Volunteering - For those who volunteer, this section collects information about the name and types of organizations they volunteered in, how often do they volunteer, and the duration of their volunteering work. For those who don't volunteer, this section asks about their history of volunteering and why they don't volunteer. (4) Giving - Similar to volunteering, the people who do give will answer questions about their decisions of giving and their reasons for giving. (5) Participating - In this section, respondents are asked about their Youth Experience of participating in activities such as organized team sport, volunteer work, and student government.

### 2.2 Survey Methodology

#### 2.2.1 Population, Sample, Frame

The target population included all people who are older than 15 years old in Canada, excluding the residents of the Northwest Territories, Nunavut, and Yukon and full-time residents of institutions. The target sample

size for the 2018 GVP was 20,000. The actual number of respondents was 16,149. For each province, minimum sample sizes were determined to ensure that each stratum has acceptable sampling variability. Once this requirement has been met, the remaining survey was distributed in a way that balanced the precision for both national-level and stratum-level. The frame of the GVP includes a sub-sample of respondents to Statistics Canada’s Labour Force Survey (LFS), groupings of telephone numbers linked to the same address and are available to Statistics Canada from various sources, and the Address Registrar (AR). The AR is used to group multiple telephone numbers that are linked to the same address.

### **2.2.2 Sampling Strategy**

To attain the sample, each of the ten provinces was divided into strata by their geographic areas. There are a number of the Census Metropolitan Areas (CMAs) were considered as separate strata such as Toronto, Hamilton, Montreal, and Vancouver. There are ten more strata formed by the non-CMA areas of the ten provinces. There are 27 total strata. Each record was in a stratum that is in its province. Simple random sample without replacement was used to select the next one in the stratum. The frame for GSS was created using several sources such as Census of Population, administrative data files, and billing files. Even with the current sampling strategy, the coverage of the population did improve from the previous years. Households without telephones were excluded from the survey population. For the eligible households, each of them needs to include at least one person who was older than 15 years old to be eligible for the survey. Then, one person would be chosen randomly from the household to participate in the survey either by completing an electronic questionnaire or to respond to a telephone interview.

Furthermore, since there are potential difficulties in reaching the volunteers who might want to participate in the survey, the survey used an approach called “rejective sampling” to sample the population. Rejective sampling is similar to sub-sampling. Instead of sub-sampling a portion of the population, it is interpreted as “rejecting” a portion of the population. By “rejecting” a portion of the population and focusing on the portion of the population that is not “rejected,” it enabled more attention to call and focus on the population that might fulfill the survey.

### **2.2.3 Strengths**

The survey made a good effort to reduce systematic error by taking good measures on the interviewers and the process of gathering data. Errors that are not related to sampling errors can occur at every stage of the survey. Interviewers might have a slight bias against the respondents and they might misunderstand the instructions. Respondents might misunderstand the questions and made mistakes when answering the questions. Hence, the estimates from our sample might differ from the actual number if a complete census has been done. Some measures that are taken include 1) having highly skilled interviewers by giving them extensive training. 2) monitor the conversations between the interviewers and the respondents to detect any problems of the questionnaire design or easily misunderstood part. 3) impose off-screen help text, including examples that are relevant to help respondents understand the questions.

Non-response error is one of the biggest non-sampling errors when conducting this survey. Imputation has been carried out to cover those non-response errors. Non-response errors can arise when the respondents was not able to provide the information, refuse to provide the information, the interviewer was not able to reach the respondent, and so on. Imputation is done to provide a complete record of the instance so that the sample can be kept. A nine-step imputation was done to fill in partial or missing data. The holistic and careful imputation allows the survey to keep more data.

## **3 Results**

The paper did an overview of the Giving, Volunteering, and Participating landscape in Canada in 2018. It provides an analysis to serve as a comparison to the GVP landscape in Canada during the COVID-19 pandemic. The largest age group who took the survey are 65 years and older as shown in figure 1. Most respondents are female and have a household size of 1 or 2 as shown in figure 4. The number of respondents from each province is roughly similar to the ratio of the population of each province which makes the sample

representative of the population from a number of people from each province’s perspective. The majority of the focus of this paper is on Giving and Volunteering. For both Giving and Volunteering, most people who gave and volunteered because they were personally affected by their giving and volunteering as shown in figure 11. This might sound selfish to start with but more investigation can be done to see how people are personally affected by their giving and volunteering. Furthermore, out of all the activities in giving, volunteering, and participating, religious reasons are the least among the options listed in the questions. This is also interesting since 68% of the population in Canada is religious (Cornelissen, 2021). More details will be discussed in the Discussion section. This result section serves as a high-level overview of the most significant insights and results from our data analysis.

## **4 Discussion**

### **4.1 A Peak into the Demographics and GVP Landscape in 2018**

This paper mainly focuses on the Giving, Volunteering, and Participating landscape in 2018. By gaining an overview of the GVP landscape in 2018, the paper serves as a point of reference when comparing it to the GVP landscape during the COVID-19 pandemic. Since people tend to stay at home more and avoid physical contact with people from other households as much as possible, the GVP landscape during the COVID-19 pandemic should offer a different insight than the one in 2018. From figure 2 and figure 1, we can see that most respondents are female and most respondents are 65 years and older. A large portion of the respondents have received a post-secondary diploma and there is a small portion of people who have an education that is less than high school as shown in figure 3. From 4, we can see the household size bar plot skews to the left. It shows that most of the respondents either live by themselves or live with another person. From figure 5, we can also see that most of the respondents were from Ontario. If we refer to the population in Canada by province, the ratio of the number of people in each province in the survey is roughly equal to the ratio of the actual number of people in each province. However, if we want to gain a better picture of the population in Canada, we should include respondents in the three territories as well. We will talk more about this in the NEXT STEP section.

### **4.2 The decision of Giving or Not Giving is most affect by personal reasons**

In this subsection, we take a closer look into Canadians’ Giving habits in 2018. We will focus on what kinds of giving activities Canadians do and the reasons why Canadians give or not give. From 6, most Canadians decided to give because they have a tax credit. With the tax credit they have, they would be willing to give back to the world. The decisions to give are the least motivated by organizations that monitor. It is also interesting to see that there are organizations that monitor people’s decision habits. From 7, most Canadians give when they receive a mail of some kind. There is also a significant portion of Canadians gave on their initiatives. This result correlated to 8 which we can see most Canadians gave because they are personally affected. The other reasons for giving are insignificant compared to the ones who are personally affected. On the other hand, the reason why Canadians do not give or do not give more is that they have already given back in some ways in the past as shown in figure 9. The second largest reason is that there are too many organizations to choose from and it is difficult to decide which organization to give to. On top of that, some Canadians do not have the financial freedom to make a significant large donation. Since their donations might not be large, they might decide that their donations are not significant anyway and decide not to give. Charity fraud is also a legit concern for Canadians.

### **4.3 Volunteering was also largely affect by personal reasons with fundraising being the most population volunteering activity**

Among the people who volunteered in 2018, more people volunteered with their family members than volunteered with friends from figure 10. Among all the volunteer experiences listed as options in the survey, people engaged with fundraising the most as shown in 11. Fundraising is the process of gathering either financial or non-financial resources to give to non-profit organizations (Corporativa). Other than fundraising, people also volunteered in teaching and mentoring. The least popular volunteer experience is volunteer

driving and the protection of the environment. Similar to giving, most people volunteered because they were personally affected by some cause. These personally affected reasons can either be volunteering because their family volunteered as shown in 12, but also they were personally affected by the volunteer activity. People also volunteered because they want to network and contribute to their communities. On the other hand, there are various reasons why people do not want to volunteer. Most people do not volunteer or do not volunteer more because no one asked them to or they do not have time to volunteer as shown in 13. This shows us that if we urge people to volunteer more, this might be able to increase the volunteer activities in Canada. Also, some people think they might have already given enough of their time to volunteer. Others are not able to volunteer because of their health problems.

#### **4.4 Team Sport is the most widely attended Youth Activities**

Participating is a relatively less focused part of the GSSP GVP survey compared to Giving and Volunteering. With the limiting number of questions and data the survey collection in this section, the paper focused on the youth experience and the frequency of religious activities. Team sport is the most participated youth activity among the options in the survey as shown in figure 14. Indeed, Canada spent around 3.4 million dollars in 2019-2020 to promote team sport (Government of Canada, 2021). We can see how this can also be translated to 2018. The youth group is the second most participated youth activities. It is insightful to see most people in their youth decided to join some youth groups according to their interests. On the other, from figure 15, religious organization and student government are the least participated youth activities among the options in the survey. In a school, the proportion of students who can participate in the student government is really small. Therefore, it is understandable that most people have never participated in student government in their youth.

#### **4.5 Weaknesses**

Even though the target population of this survey includes all people who are 15 years old or older in the ten provinces of Canada. To gain a better and more comprehensive picture of the volunteering landscape in Canada, those who are less than 15 years old and those who are in the three territories should also be included. Including people in the three territories, will not only improves the inclusion of all people in Canada no matter their geological location, but also learn about the giving, volunteering, and participating behavior of the people who aren't well-studied in previous studies. On the other hand, people who are less than 15 years old also engaged in some sort of GVP, even though the number might be less. However, including them can provide us insights into how the younger generation engages in those activities and the analysis from their data can potentially provide a better education curriculum to them.

Since this survey asked several questions about the reasons why people are giving, volunteering, and participating, both the interviewers and the respondents can make mistakes when asking or answering the questions. Furthermore, the number of respondents in the sample of this survey is high, it is hard to have good control over standardizing every aspect when conducting the interviews. The study did make efforts to reduce these inconsistencies by quality assurance. Some quality assurance methods include the use of highly-skilled interviewers, extensive training of interviewers for the survey procedures and questionnaire, observation of interviewers to find problems. There might still be an error occurring systematically from both the interviewers and the respondents. Some of the ways to further reduce this systematic error can be: 1) assure anonymity for the interviewers or the respondents so that there is no potential bias towards either the interviewer or the respondents. 2) avoid revealing the purpose of the survey to prevent respondents to have suspicious thoughts about the target of the survey. 3) randomize response choice order so that there is further randomization.

#### **4.6 Ethics and Bias**

One of the biases that might contain in this survey is sampling bias. Since the survey is distributed by either mail or by phone, for those people who live in distant areas or without the phone, they might not able to receive the survey and therefore under-represent in the survey. To reduce this bias, one potential solution is to pay more effort to reach those people who are under-represented because of the physical constraints we have

mentioned above. Another bias we might have are self-serving bias. Since all the respondents self-reported their answers to the questions in the survey, people might answer questions in a way that made them sound more philanthropic or nicer. Others might pay less attention to the questions since there are a lot of questions in the survey and they might not answer the questions truthfully or accurately.

Another thing that is worth pointing out is the population of the survey. Even though this survey is intended to gain insights into the giving, volunteering, and participation of the residents in Canada, the survey's demographic questions did not provide options to accommodate or represent the population. For instance, the survey did not provide an option for people who are under 15 years old. Obtaining data from those people can also provide insights into how to improve Canada's youth education. Moreover, the gender questions only have the "Male" or "Female" option. For people to represent their genders more comfortably, the survey should also include options such as "Non-binary," "Transgender," and "Intersex." They should also include "Prefer not to say" or "Others" to provide more flexibility for the respondents.

## 4.7 Next Steps

One of the next steps we can do to represent the population better is to augment some of the options in the survey questions. This has been shown in the supplementary survey attached to this paper in the appendix section. As mentioned in the section 4.6, we can add more options for gender such as "Non-binary," "Transgender," "Intersex," "Prefer not to say," or "Others" to give people more flexibility to express their gender in our survey. Also, there are other questions in the GSS GVP we did not include in this paper because of the scope of this paper. Some additional questions that we can include to understand the population better are questions about disabilities, how much people spent to do financial giving, and the number of time people dedicated to volunteering. This can give us a more holistic picture of the giving and volunteering of Canadian residents in 2018. Furthermore, we can also perform more analysis in a specific area if we want to learn more about the topic. For example, we mentioned religious activities in the section 4.4. If one wants to learn more about GVP among the population that has a religion, one can extract questions and responses relevant to religion to learn more. In the supplementary survey section in section B.1, we address some of the above mentioned issues from figure 16 to figure 26.

## A Graphs

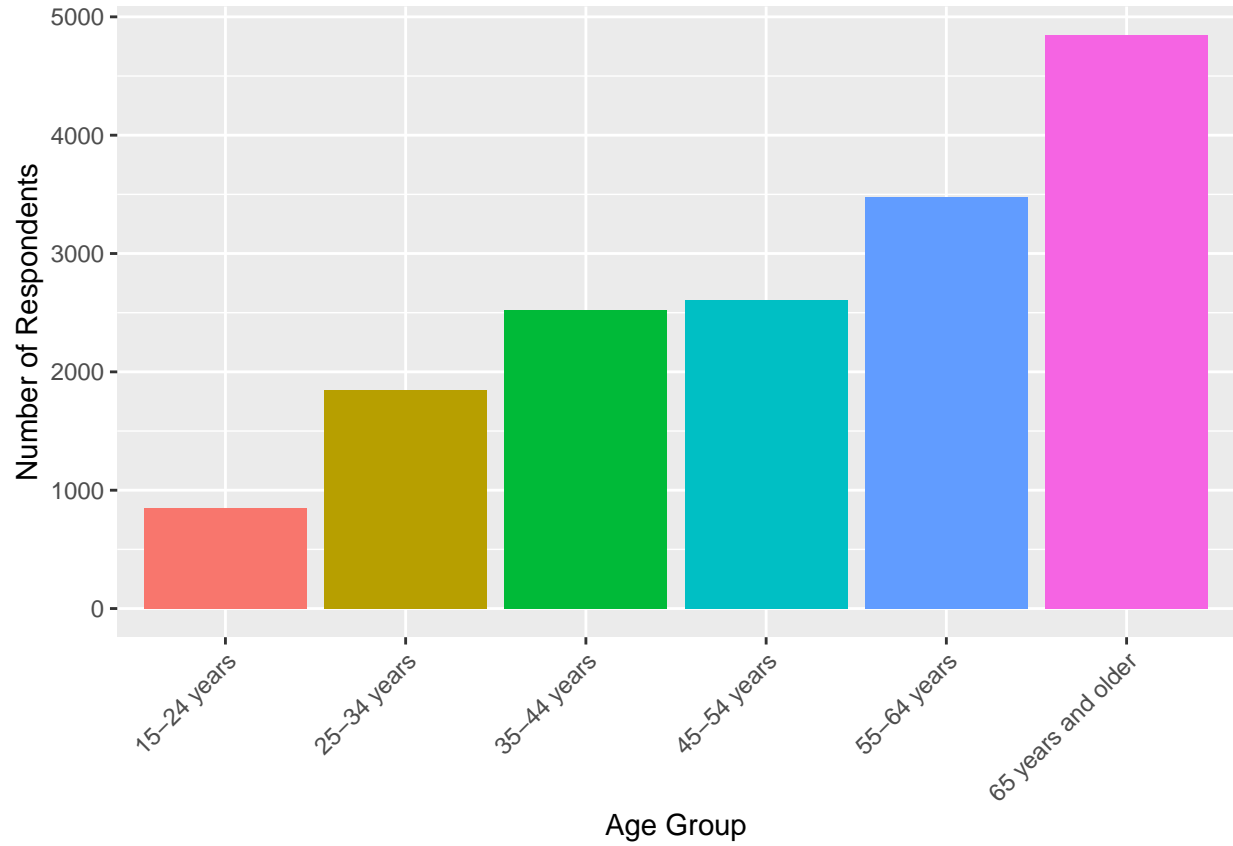


Figure 1: Survey Respondents' age

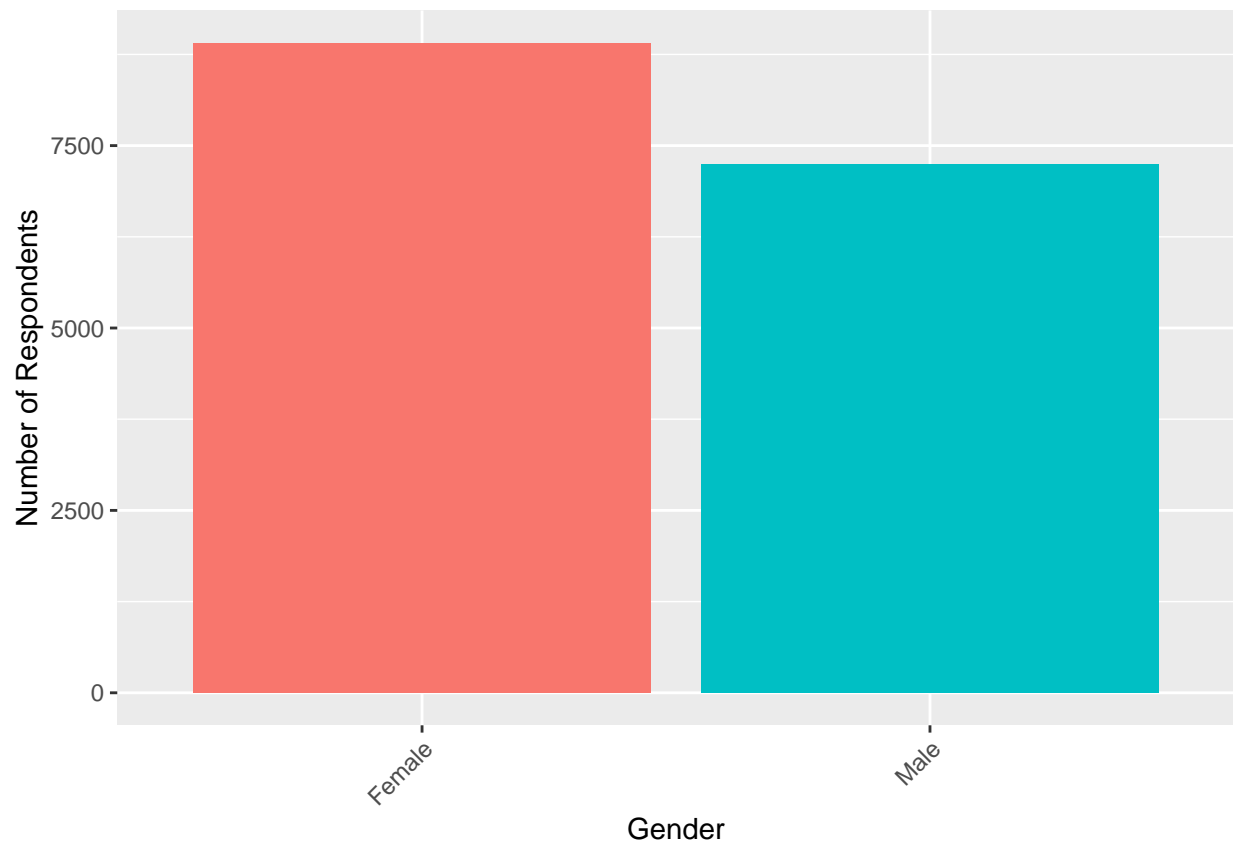


Figure 2: Survey Respondents' Gender



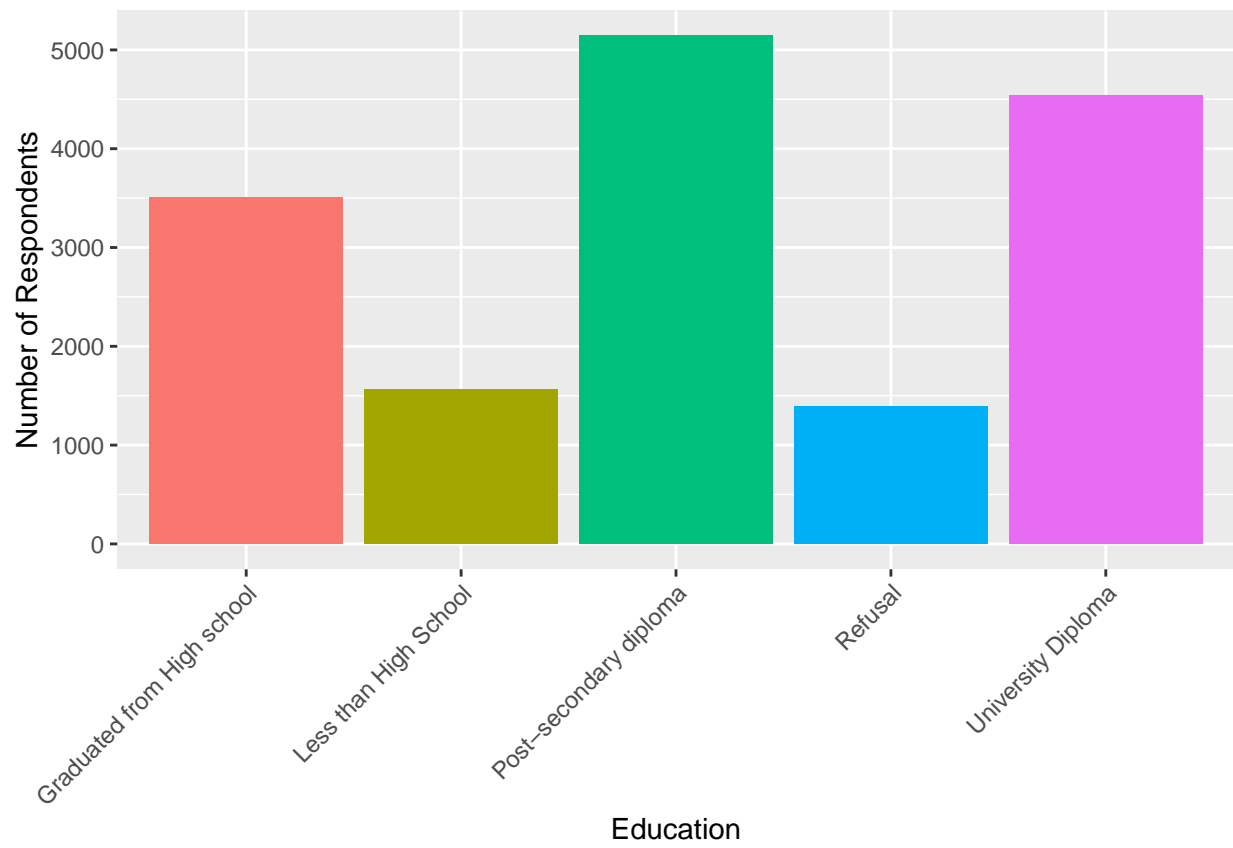


Figure 3: Survey Respondents' Education

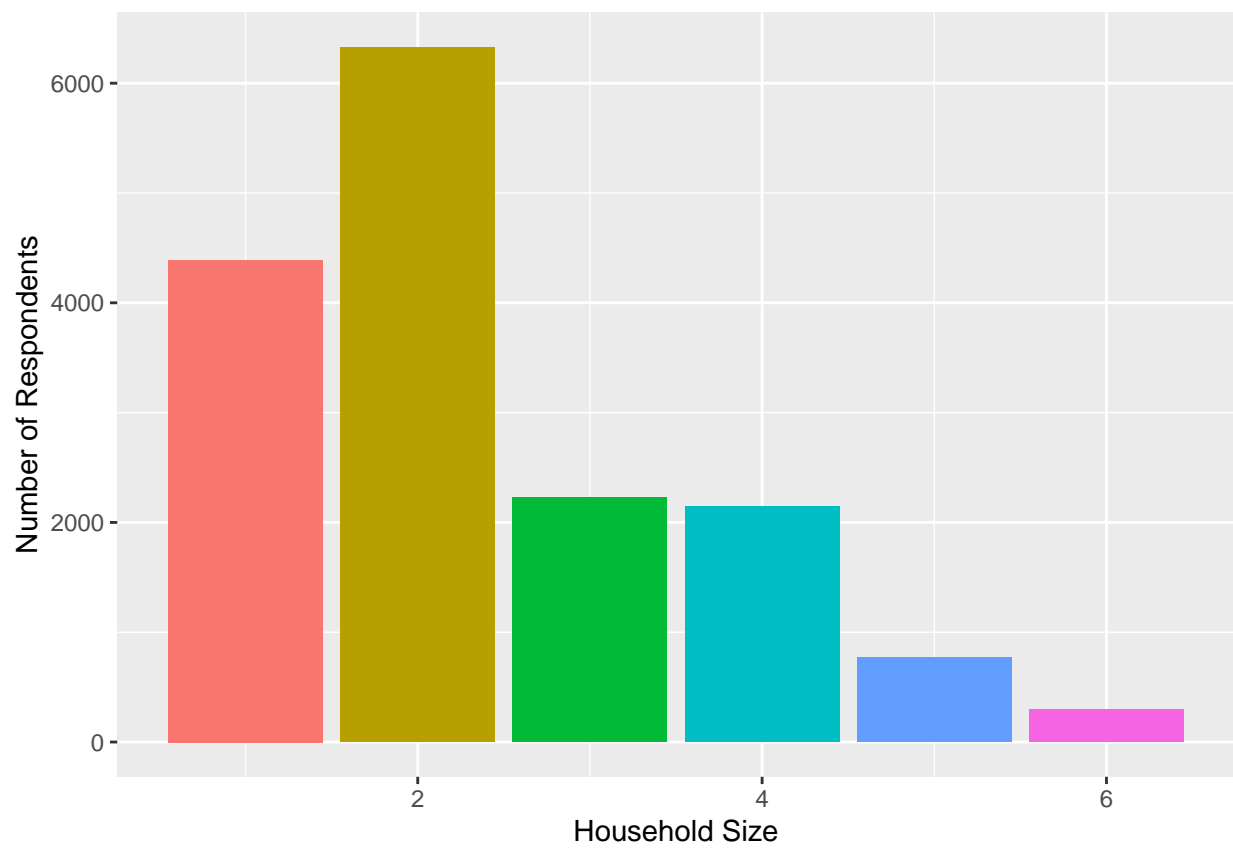


Figure 4: Survey Respondents' Household Size

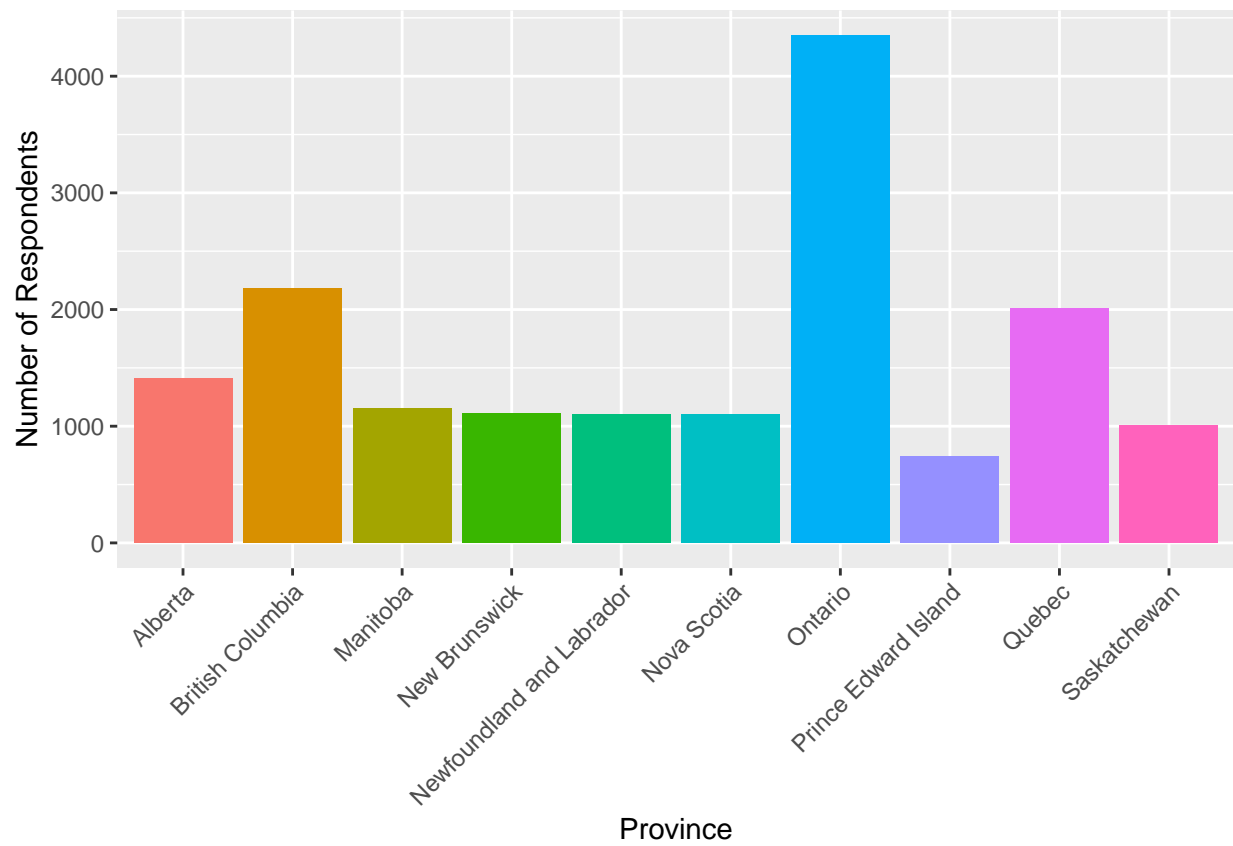


Figure 5: Survey Respondents' Province of Residence

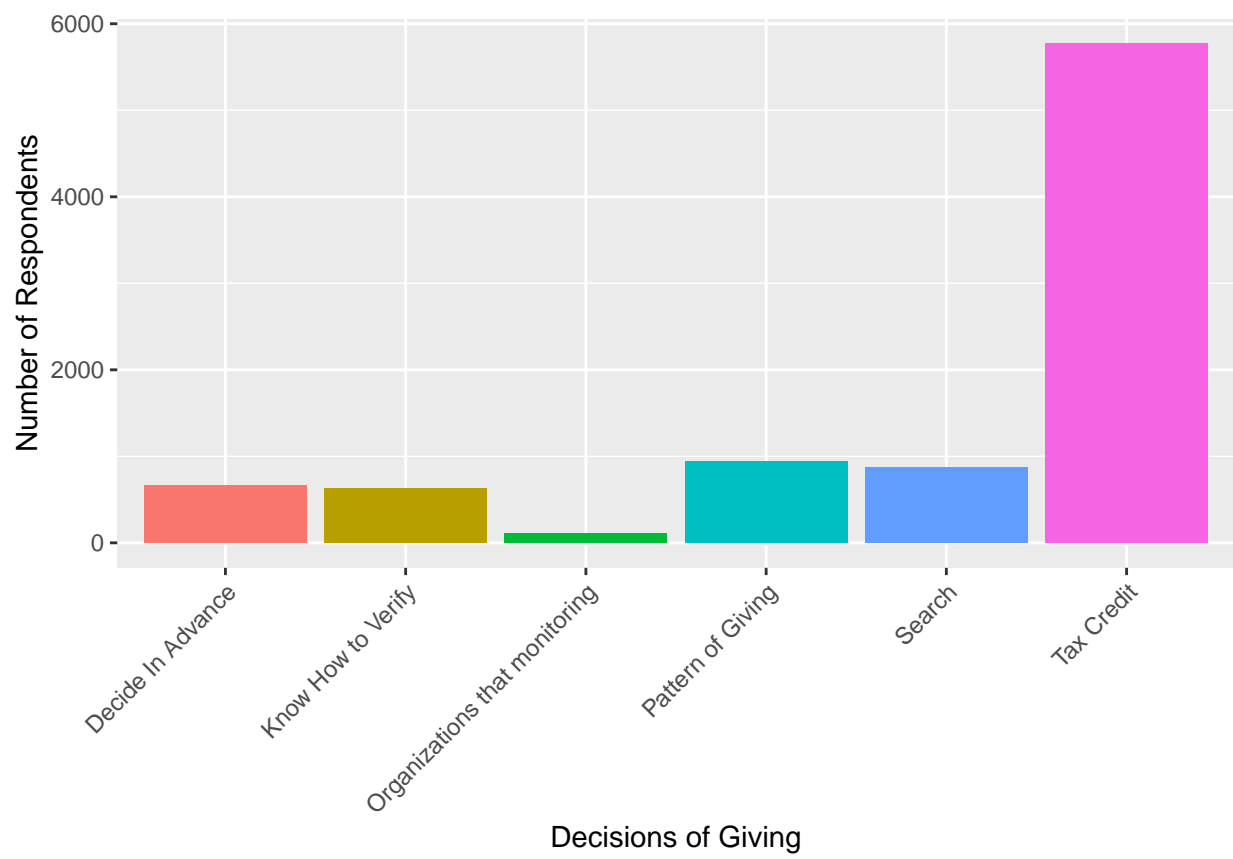


Figure 6: Decisions of Giving

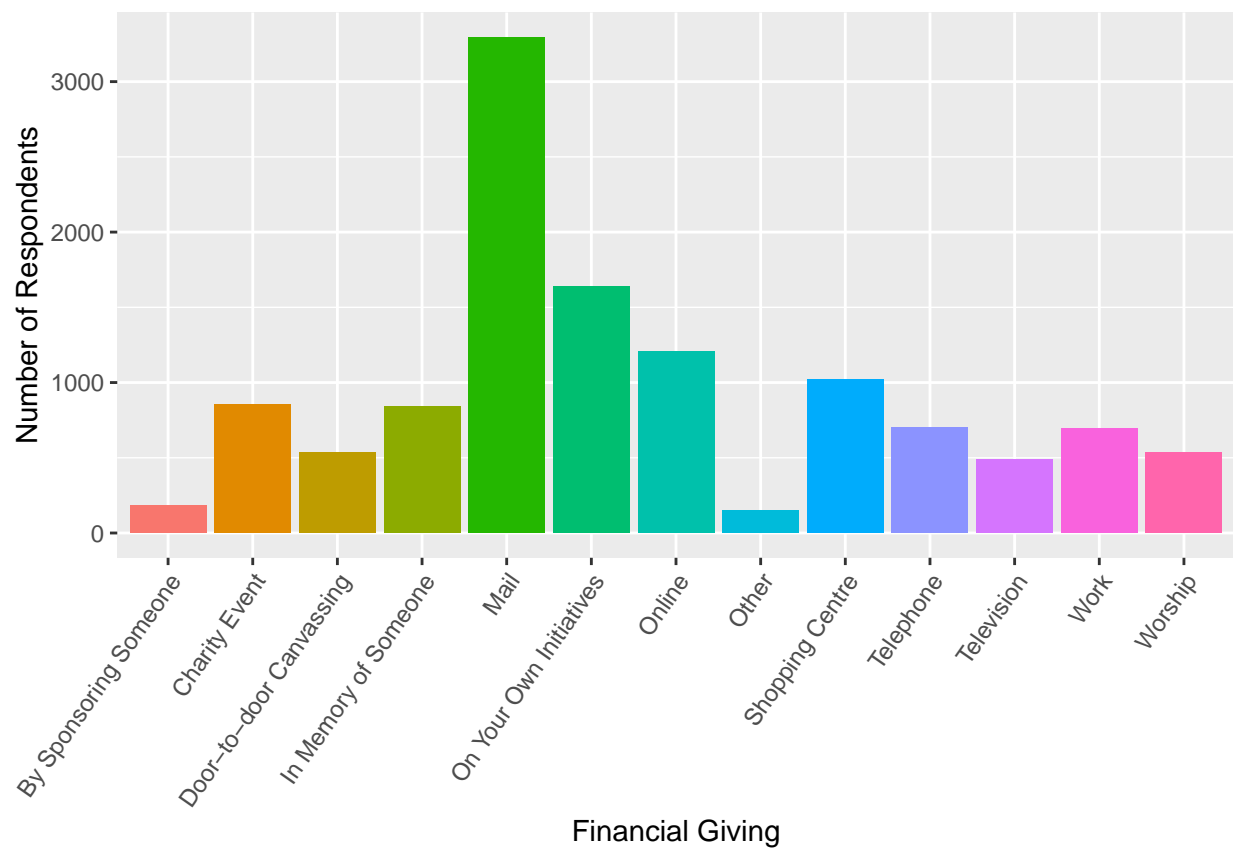


Figure 7: Financial Giving

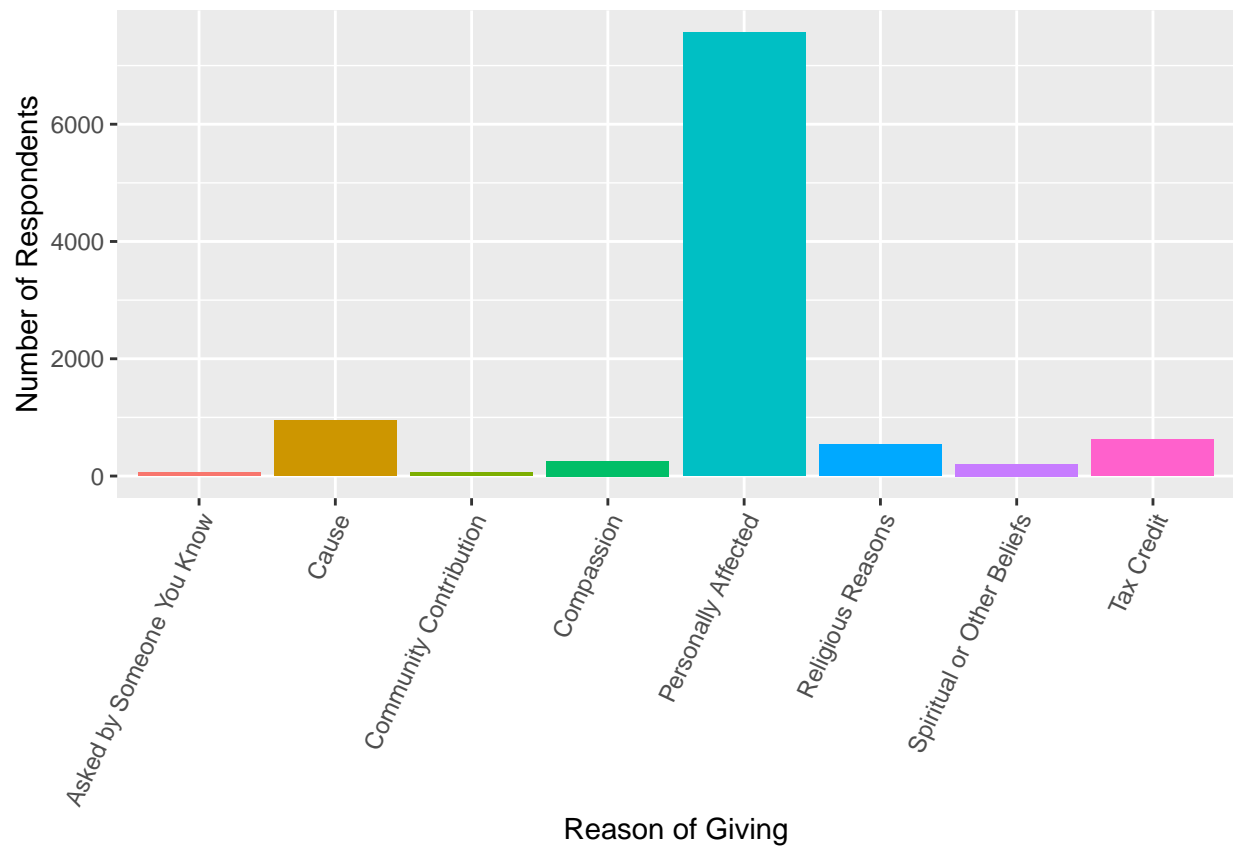


Figure 8: Reasons of Giving

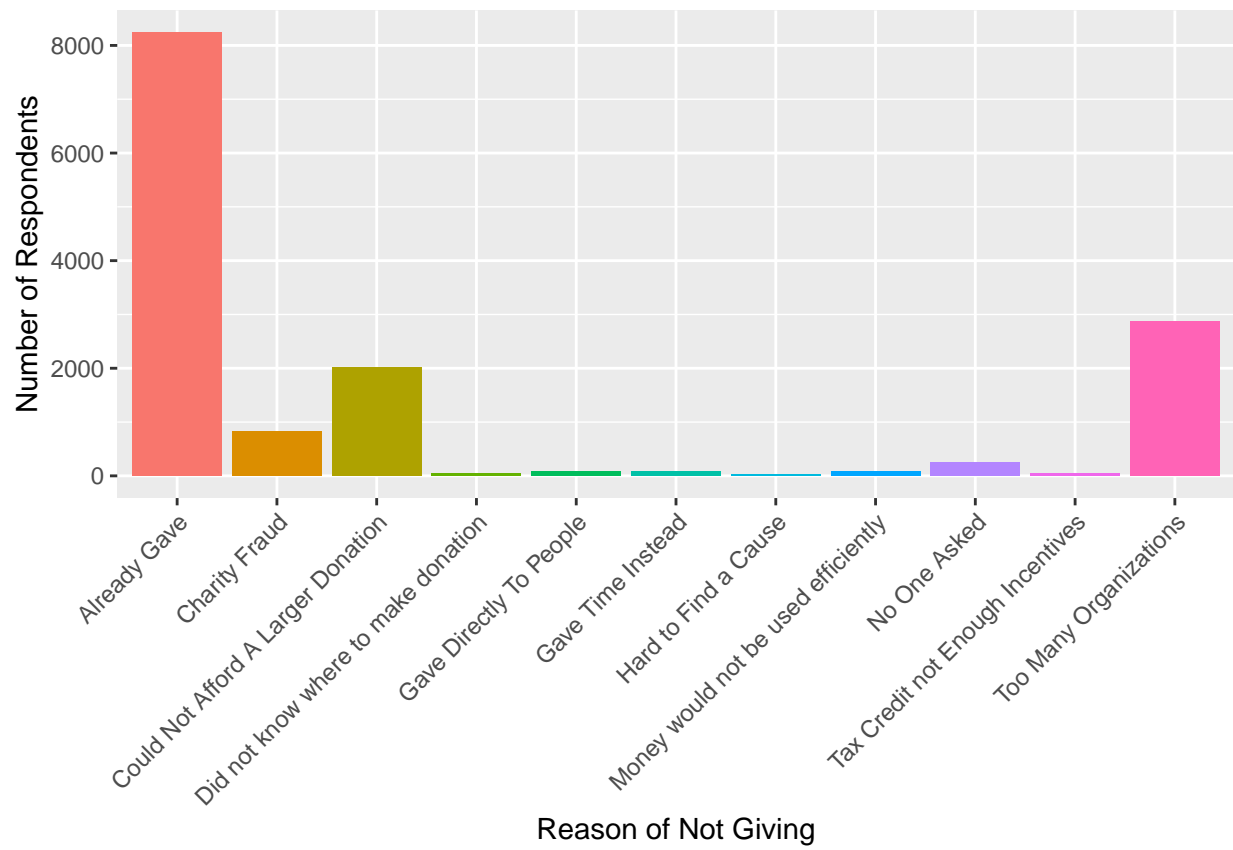


Figure 9: Reasons of Not Giving

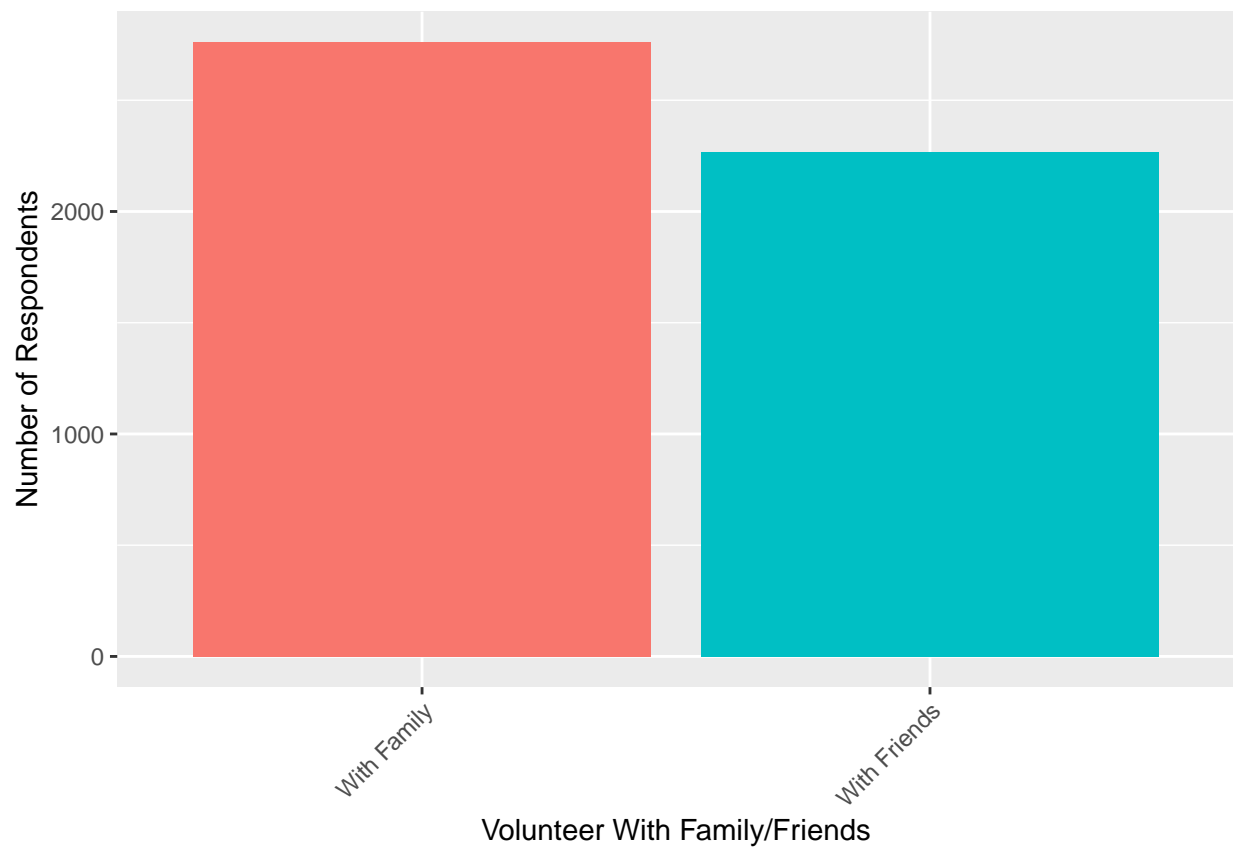


Figure 10: Volunteer with Family/Friends



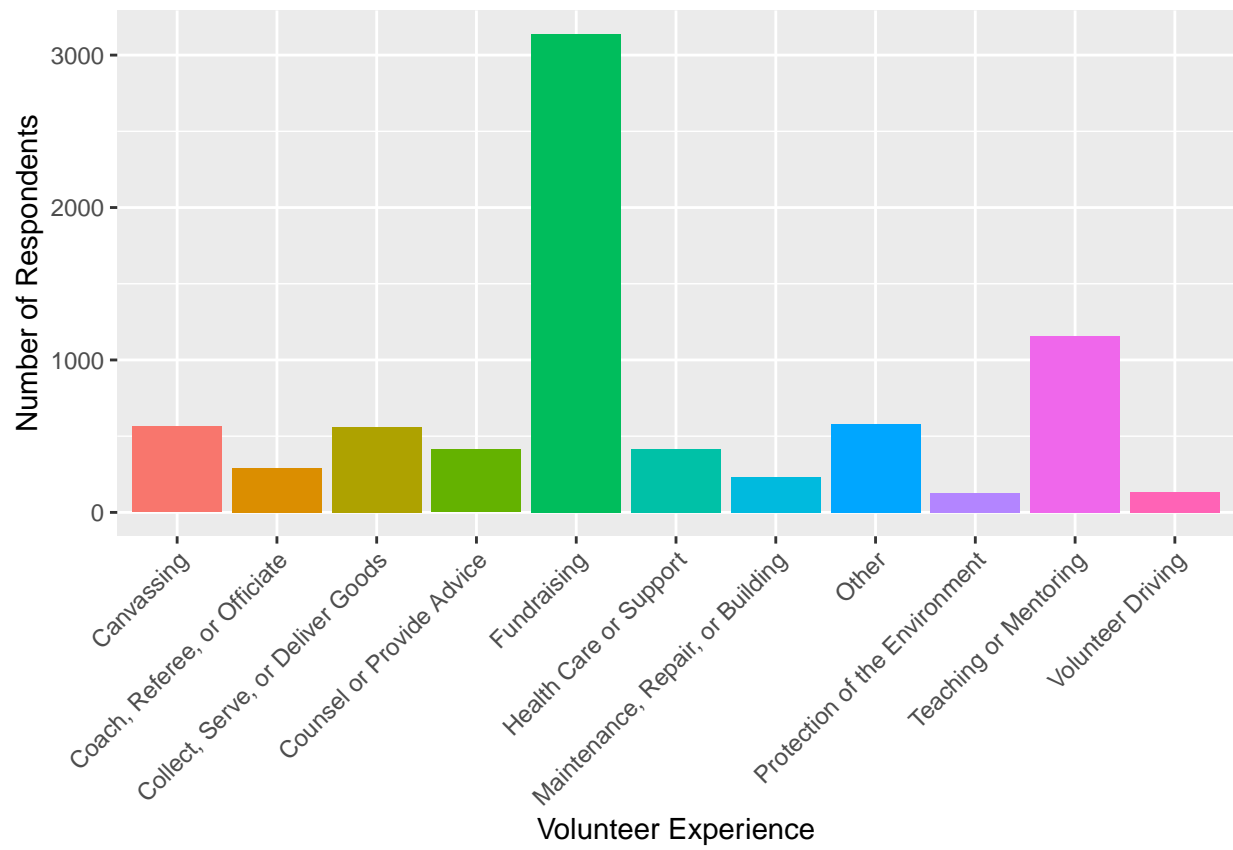


Figure 11: Volunteer Experience

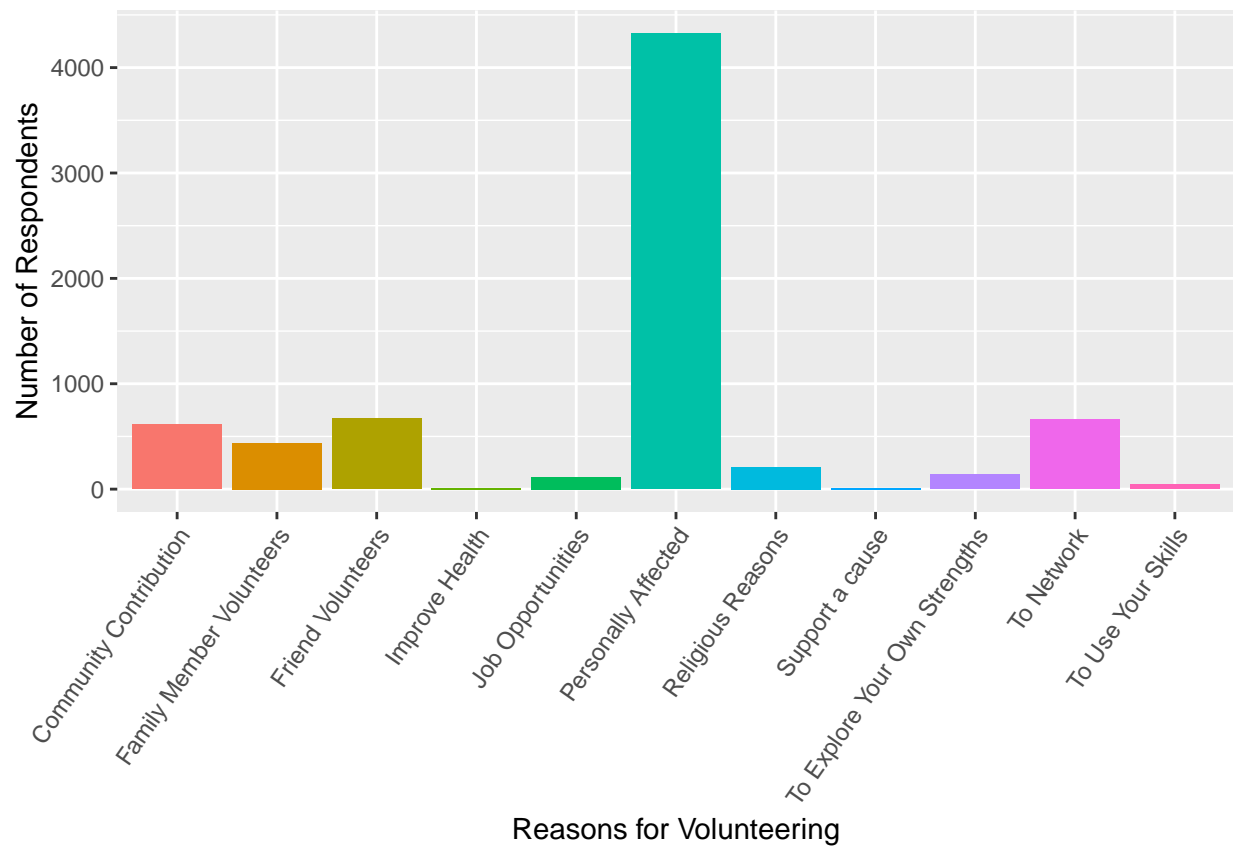


Figure 12: Reasons for Volunteering

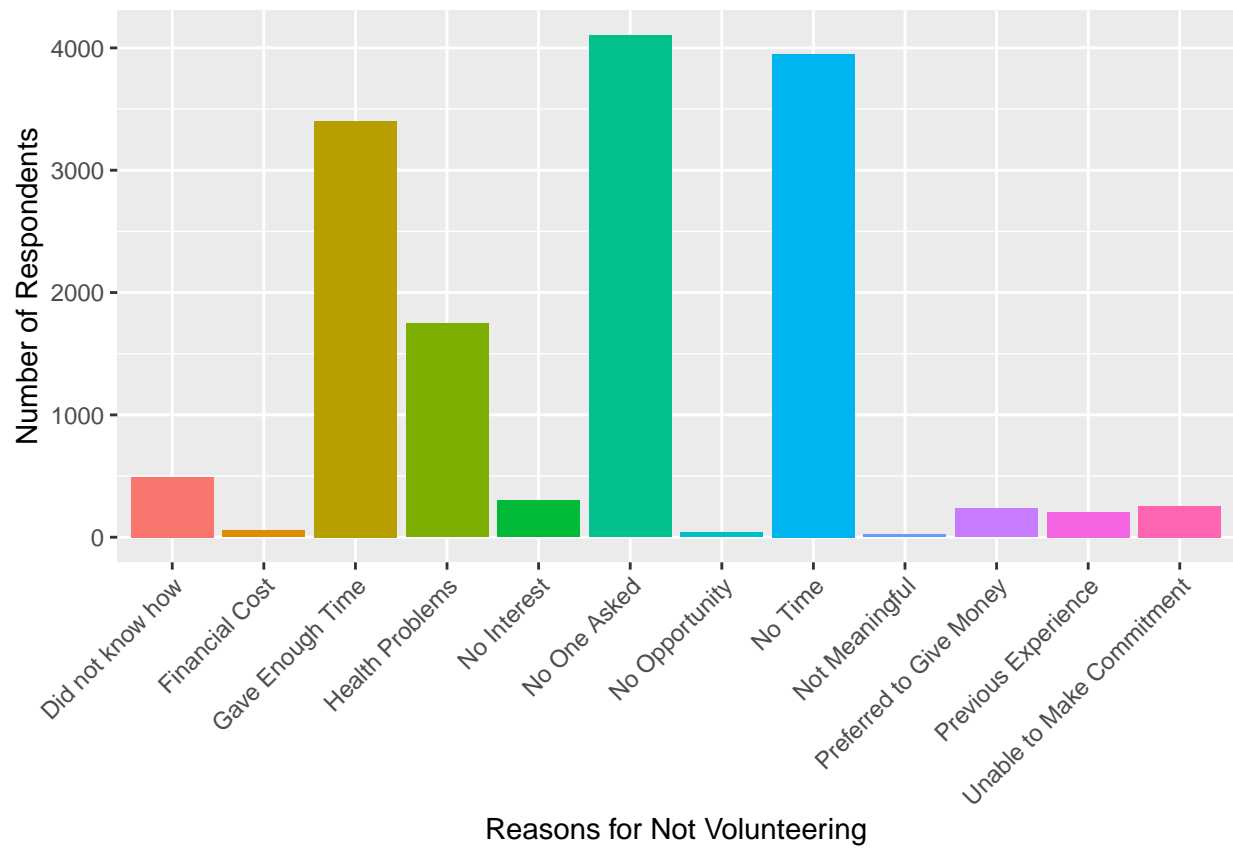


Figure 13: Reasons for Not Volunteering

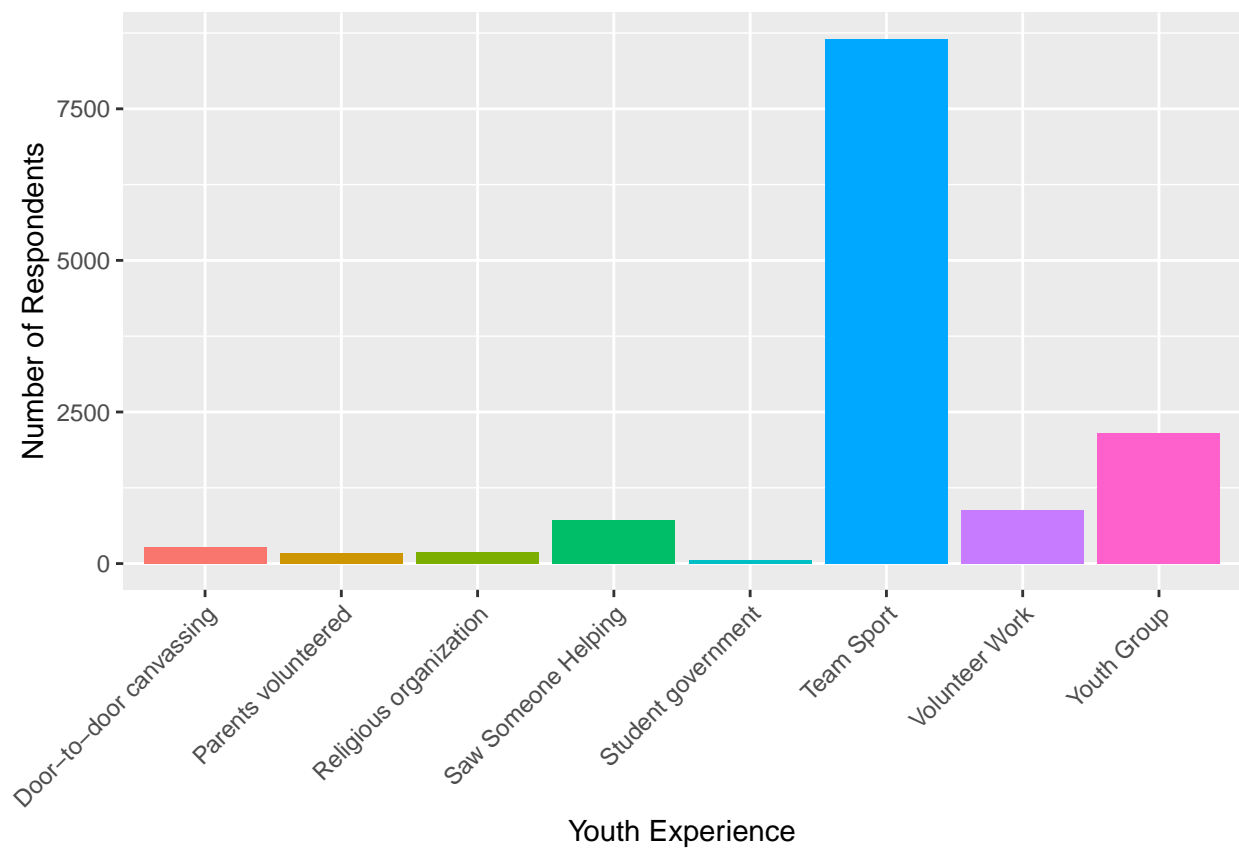


Figure 14: Youth Experience

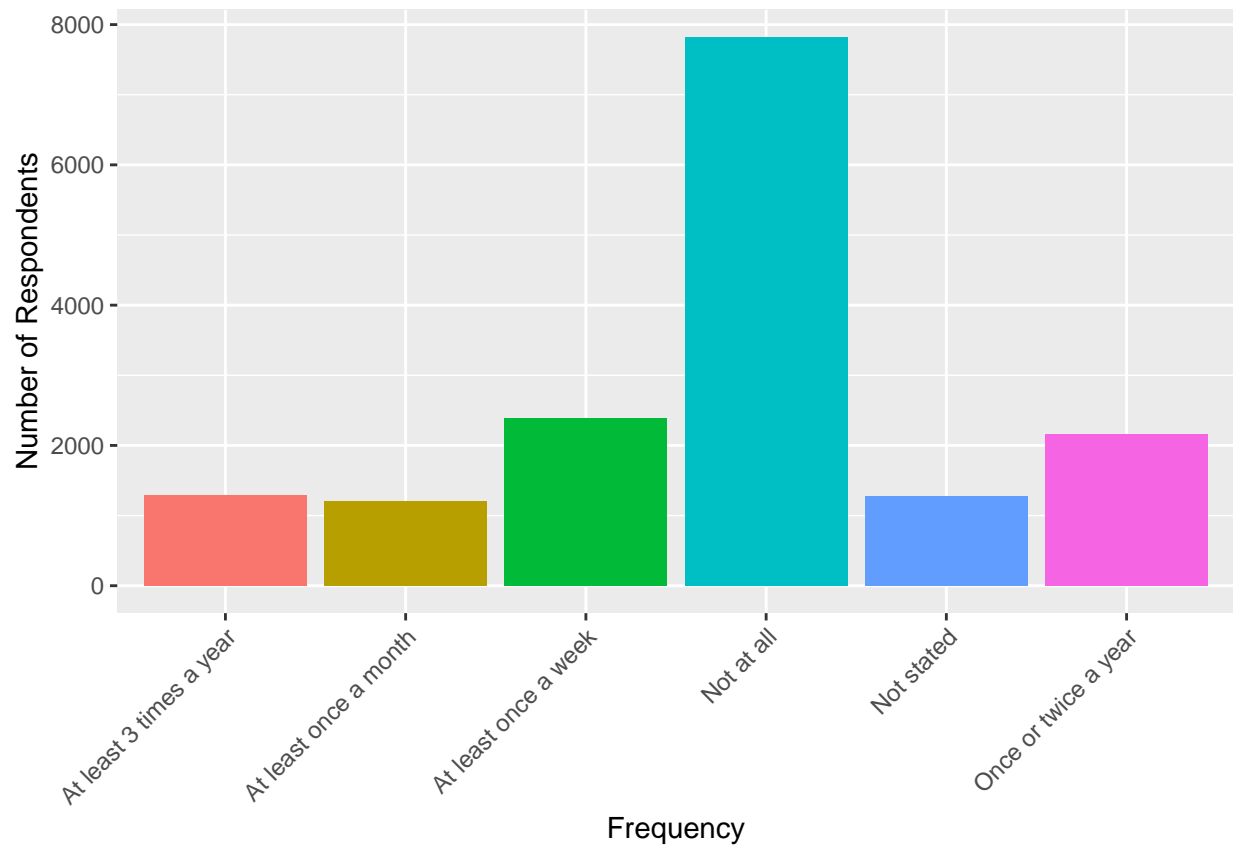


Figure 15: Frequency of Religious Participation - Services

## B Appendix

### B.1 Supplementary Survey

# Giving, Volunteering, and Participating Behaviour of Ontario Residents during the COVID-19 Pandemic

The Giving, Volunteering, and Participating (GVP) landscape in Canada has been changing over the years, especially since the COVID-19 pandemic. With COVID-19 spreading among the population and stay-at-home orders issued by the government to keep people safe, GVP seems to be harder during the pandemic. This survey serves as a tool to learn about the GVP landscape of Canadian residents two years into the COVID-19 pandemic.

By proceeding with this survey, you understand that Statistics Canada will use the result of this survey to analyze the data to learn more about Canadian residents' GVP behavior. The result of the survey will be shared with Statistics Canada, but we ensure that you will remain anonymous and none of your responses can be used to identify you.

The survey is voluntary. There are some required questions and some optional questions. You can choose to skip the optional questions anytime.

If you have any comments or questions, feel free to email the point of contact [franco.mo@mail.utoronto.ca](mailto:franco.mo@mail.utoronto.ca).

 **franco3535@gmail.com** (not shared) [Switch accounts](#)



**\*Required**

What is your age? \*

- ☐ Under 15 years
- ☐ 15-24 years
- ☐ 25-34 years
- ☐ 35-44 years
- ☐ 45-54 years
- ☐ 55-64 years
- ☐ 65 years and older

Figure 16: Demographic Questions Part 1

What is your gender? \*

- ☐ Male
- ☐ Female
- ☐ Prefer not to say
- ☐ Other: \_\_\_\_\_

What is your highest level of education? \*

- ☐ Less than High School
- ☐ Graduated from High school
- ☐ Post-secondary diploma
- ☐ University Diploma
- ☐ Refusal
- ☐ Other: \_\_\_\_\_

Figure 17: Demographic Questions Part 2



What is your province/territories of residence? \*

- ☐ Newfoundland and Labrador
- ☐ Prince Edward Island
- ☐ Nova Scotia
- ☐ New Brunswick
- ☐ Quebec
- ☐ Ontario
- ☐ Manitoba
- ☐ Saskatchewan
- ☐ Alberta
- ☐ British Columbia
- ☐ Yukon
- ☐ Northwest Territories
- ☐ Nunavut

Do you give? \*

- ☐ Yes
- ☐ No

Figure 18: Demographic Questions Part 3

What makes you decide to give (if you do)?

- ☐ Tax Credit
- ☐ Decide In Advance
- ☐ Pattern of Giving
- ☐ Search
- ☐ Know How to Verify
- ☐ Organizations that monitoring

How do you give (if you do give)?

- ☐ Mail
- ☐ Telephone
- ☐ Television
- ☐ Online
- ☐ On Your Own Initiatives
- ☐ Charity Event
- ☐ In Memory of Someone
- ☐ Work
- ☐ Door-to-door Canvassing
- ☐ Shopping Centre
- ☐ Worship
- ☐ By Sponsoring Someone
- ☐ Other: \_\_\_\_\_

Figure 19: Giving Questions Part 1

Why do you give (if you do)?

- ☐ Personally Affected
- ☐ Tax Credit
- ☐ Religious Reasons
- ☐ Spiritual or Other Beliefs
- ☐ Cause
- ☐ Compassion
- ☐ Community Contribution
- ☐ Asked by Someone You Know
- ☐ Other: \_\_\_\_\_

Figure 20: Giving Questions Part 2

Why do you not give/not give more?

- ☐ Already Gave
- ☐ Could Not Afford A Larger Donation
- ☐ No One Asked
- ☐ Did not know where to make donation
- ☐ Hard to Find a Cause
- ☐ Gave Time Instead
- ☐ Gave Directly To People
- ☐ Tax Credit not Enough Incentives
- ☐ Money would not be used efficiently
- ☐ Too Many Organizations
- ☐ Charity Fraud
- ☐ Other: \_\_\_\_\_

Do you volunteer? \*

- ☐ Yes
- ☐ No

Who do you volunteer with (if you do)?

- ☐ With Family
- ☐ With Friends
- ☐ Other: \_\_\_\_\_

Figure 21: Giving Questions Part 3

What volunteer activities do you do (if you volunteer)?

- ☐ Canvassing
- ☐ Fundraising
- ☐ Teaching or Mentoring
- ☐ Coach, Referee, or Officiate
- ☐ Counsel or Provide Advice
- ☐ Health Care or Support
- ☐ Collect, Serve, or Deliver Goods
- ☐ Maintenance, Repair, or Building
- ☐ Volunteer Driving
- ☐ Protection of the Environment
- ☐ Other: \_\_\_\_\_

Figure 22: Volunteering Questions Part 1

Why do you volunteer (if you volunteer)?

- ☐ Personally Affected
- ☐ Family Member Volunteers
- ☐ Friend Volunteers
- ☐ To Network
- ☐ Job Opportunities
- ☐ Religious Reasons
- ☐ To Explore Your Own Strengths
- ☐ Community Contribution
- ☐ To Use Your Skills
- ☐ Support a cause
- ☐ Improve Health
- ☐ Other: \_\_\_\_\_

Figure 23: Volunteering Questions Part 2

Why do you not volunteer/volunteer more?

- ☐ Gave Enough Time
- ☐ Previous Experience
- ☐ No One Asked
- ☐ Did not know how
- ☐ Health Problems
- ☐ No Time
- ☐ Financial Cost
- ☐ Unable to Make Commitment
- ☐ Preferred to Give Money
- ☐ No Interest
- ☐ No Opportunity
- ☐ Not Meaningful
- ☐ Other: \_\_\_\_\_

Figure 24: Volunteering Questions Part 3

What activities have you participated in? \*

- ☐ Team Sport
- ☐ Youth Group
- ☐ Volunteer Work
- ☐ Saw Someone Helping
- ☐ Door-to-door canvassing
- ☐ Student government
- ☐ Religious organization
- ☐ Parents volunteered
- ☐ Other: \_\_\_\_\_

Do you participate in religious activities? \*

- ☐ Yes
- ☐ No

How often do you participate in religious activities (if you do)?

- ☐ At least once a week
- ☐ At least once a month
- ☐ At least 3 times a year
- ☐ Once or twice a year
- ☐ Not at all
- ☐ Not stated

Figure 25: Participating Questions Part 1



How often do you participate in religious activities (if you do)?

- ☐ At least once a week
- ☐ At least once a month
- ☐ At least 3 times a year
- ☐ Once or twice a year
- ☐ Not at all
- ☐ Not stated

**Thank you for filling out this survey! We greatly appreciate your response!**

Submit

Clear form

Figure 26: Thank You

## B.2 Summary Statistics

```
##      caseid      age_group      birth_place_can birth_place_other
## Min.      : 1      Length:16149      Min.      :1.000      Min.      : 1.00
## 1st Qu.: 4038      Class :character      1st Qu.:1.000      1st Qu.:96.00
## Median : 8075      Mode  :character      Median :1.000      Median :96.00
## Mean   : 8075
## 3rd Qu.:12112
## Max.   :16149
##      gender      marstat      education      province
## Length:16149      Min.      :1.000      Length:16149      Length:16149
## Class :character      1st Qu.:1.000      Class :character      Class :character
## Mode  :character      Median :1.000      Mode  :character      Mode  :character
##                               Mean   :2.716
##                               3rd Qu.:5.000
##                               Max.   :6.000
## household_size giving_decision_tax_credit
## Min.      :1.000      Min.      :1.00
## 1st Qu.:1.000      1st Qu.:1.00
## Median :2.000      Median :2.00
## Mean   :2.347      Mean   :3.32
## 3rd Qu.:3.000      3rd Qu.:6.00
## Max.   :6.000      Max.   :9.00
## giving_decision_deceide_in_advanced giving_decision_pattern
## Min.      :1.000
## 1st Qu.:2.000
## Median :2.000
## Mean   :3.529
## 3rd Qu.:6.000
## Max.   :9.000
## Min.      :1.000
## 1st Qu.:2.000
## Median :3.000
## Mean   :3.728
## 3rd Qu.:6.000
## Max.   :9.000
## giving_decision_search giving_decision_know_verify giving_decision_monitoring
## Min.      :1.000      Min.      :1.000      Min.      :1.000
## 1st Qu.:2.000      1st Qu.:1.000      1st Qu.:2.000
## Median :3.000      Median :2.000      Median :2.000
## Mean   :3.742      Mean   :3.403      Mean   :3.531
## 3rd Qu.:6.000      3rd Qu.:6.000      3rd Qu.:6.000
## Max.   :9.000      Max.   :9.000      Max.   :9.000
## fin_giving_mail fin_giving_telephone fin_giving_television fin_giving_online
## Min.      :1.000      Min.      :1.000      Min.      :1.000      Min.      :1.000
## 1st Qu.:2.000      1st Qu.:2.000      1st Qu.:2.000      1st Qu.:2.000
## Median :2.000      Median :2.000      Median :2.000      Median :2.000
## Mean   :1.796      Mean   :1.911      Mean   :1.937      Mean   :1.864
## 3rd Qu.:2.000      3rd Qu.:2.000      3rd Qu.:2.000      3rd Qu.:2.000
## Max.   :2.000      Max.   :2.000      Max.   :2.000      Max.   :2.000
## fin_giving_own fin_giving_charity fin_giving_in_memory_of fin_giving_work
## Min.      :1.000      Min.      :1.000      Min.      :1.000      Min.      :1.000
## 1st Qu.:2.000      1st Qu.:2.000      1st Qu.:2.000      1st Qu.:2.000
## Median :2.000      Median :2.000      Median :2.000      Median :2.000
## Mean   :1.802      Mean   :1.813      Mean   :1.764      Mean   :1.816
## 3rd Qu.:2.000      3rd Qu.:2.000      3rd Qu.:2.000      3rd Qu.:2.000
## Max.   :2.000      Max.   :2.000      Max.   :2.000      Max.   :2.000
## fin_giving_canvassing fin_giving_shopping_centre fin_giving_worship
## Min.      :1.000      Min.      :1.000      Min.      :1.000
## 1st Qu.:2.000      1st Qu.:1.000      1st Qu.:1.000
```

```

## Median :2.000          Median :2.000          Median :2.000
## Mean   :1.795          Mean   :1.644          Mean   :1.723
## 3rd Qu.:2.000          3rd Qu.:2.000          3rd Qu.:2.000
## Max.   :2.000          Max.   :2.000          Max.   :2.000
## fin_giving_sponsoring_someone fin_giving_other reason_giving_personal
## Min.   :1.000          Min.   :1.000          Min.   :1.00
## 1st Qu.:1.000          1st Qu.:2.000          1st Qu.:1.00
## Median :2.000          Median :2.000          Median :2.00
## Mean   :1.716          Mean   :1.941          Mean   :3.27
## 3rd Qu.:2.000          3rd Qu.:2.000          3rd Qu.:6.00
## Max.   :2.000          Max.   :2.000          Max.   :9.00
## reason_giving_tax reason_giving_religious reason_giving_spiritual
## Min.   :1.000          Min.   :1.000          Min.   :1.000
## 1st Qu.:2.000          1st Qu.:2.000          1st Qu.:2.000
## Median :2.000          Median :2.000          Median :2.000
## Mean   :3.592          Mean   :3.612          Mean   :3.638
## 3rd Qu.:6.000          3rd Qu.:6.000          3rd Qu.:6.000
## Max.   :9.000          Max.   :9.000          Max.   :9.000
## reason_giving_cause reason_giving_compassion reason_giving_community
## Min.   :1.000          Min.   :1.000          Min.   :1.000
## 1st Qu.:1.000          1st Qu.:1.000          1st Qu.:1.000
## Median :1.000          Median :1.000          Median :2.000
## Mean   :3.204          Mean   :3.227          Mean   :3.332
## 3rd Qu.:6.000          3rd Qu.:6.000          3rd Qu.:6.000
## Max.   :9.000          Max.   :9.000          Max.   :9.000
## reason_giving_asked reason_not_giving_already reason_not_giving_not_afford
## Min.   :1.000          Min.   :1.000          Min.   :1.000
## 1st Qu.:1.000          1st Qu.:1.000          1st Qu.:1.000
## Median :2.000          Median :1.000          Median :2.000
## Mean   :3.485          Mean   :2.929          Mean   :3.414
## 3rd Qu.:6.000          3rd Qu.:6.000          3rd Qu.:6.000
## Max.   :9.000          Max.   :9.000          Max.   :9.000
## reason_not_giving_no_on_asked reason_not_giving_not_know_how
## Min.   :1.000          Min.   :1.000
## 1st Qu.:2.000          1st Qu.:2.000
## Median :2.000          Median :2.000
## Mean   :3.745          Mean   :3.846
## 3rd Qu.:6.000          3rd Qu.:6.000
## Max.   :9.000          Max.   :9.000
## reason_not_giving_no_cause reason_not_giving_gave_time_instead
## Min.   :1.000          Min.   :1.000
## 1st Qu.:2.000          1st Qu.:2.000
## Median :2.000          Median :2.000
## Mean   :3.843          Mean   :3.753
## 3rd Qu.:6.000          3rd Qu.:6.000
## Max.   :9.000          Max.   :9.000
## reason_not_giving_gave_directly reason_not_giving_no_tax_credit
## Min.   :1.000          Min.   :1.000
## 1st Qu.:2.000          1st Qu.:2.000
## Median :2.000          Median :2.000
## Mean   :3.658          Mean   :3.456
## 3rd Qu.:6.000          3rd Qu.:6.000
## Max.   :9.000          Max.   :9.000
## reason_not_giving_no_use_of_money      ng_130

```

```

## Min.      :1.000           Min.      :1.000
## 1st Qu.:2.000           1st Qu.:2.000
## Median :2.000           Median :2.000
## Mean    :3.413           Mean    :3.764
## 3rd Qu.:6.000           3rd Qu.:6.000
## Max.     :9.000           Max.     :9.000
## reason_not_giving_too_many_org reason_not_giving_charity_fraud
## Min.      :1.000           Min.      :1.000
## 1st Qu.:1.000           1st Qu.:1.000
## Median :1.000           Median :1.000
## Mean    :1.905           Mean    :1.796
## 3rd Qu.:2.000           3rd Qu.:2.000
## Max.     :9.000           Max.     :9.000
## volunteer_with_family volunteer_with_friends reason_volunteering_personal
## Min.      :1.000           Min.      :1.00           Min.      :1.000
## 1st Qu.:2.000           1st Qu.:1.00           1st Qu.:1.000
## Median :6.000           Median :6.00           Median :6.000
## Mean    :3.929           Mean    :3.84           Mean    :4.086
## 3rd Qu.:6.000           3rd Qu.:6.00           3rd Qu.:6.000
## Max.     :9.000           Max.     :9.00           Max.     :9.000
## reason_volunteering_family reason_volunteering_friends
## Min.      :1.000           Min.      :1.000
## 1st Qu.:2.000           1st Qu.:2.000
## Median :6.000           Median :6.000
## Mean    :4.312           Mean    :4.237
## 3rd Qu.:6.000           3rd Qu.:6.000
## Max.     :9.000           Max.     :9.000
## reason_volunteering_network reason_volunteering_job
## Min.      :1.000           Min.      :1.000
## 1st Qu.:2.000           1st Qu.:2.000
## Median :6.000           Median :6.000
## Mean    :4.197           Mean    :4.369
## 3rd Qu.:6.000           3rd Qu.:6.000
## Max.     :9.000           Max.     :9.000
## reason_volunteering_religious reason_volunteering_explore_strength
## Min.      :1.000           Min.      :1.000
## 1st Qu.:2.000           1st Qu.:2.000
## Median :6.000           Median :6.000
## Mean    :4.331           Mean    :4.257
## 3rd Qu.:6.000           3rd Qu.:6.000
## Max.     :9.000           Max.     :9.000
## reason_volunteering_community reason_volunteering_use_skills
## Min.      :1.000           Min.      :1.000
## 1st Qu.:1.000           1st Qu.:1.000
## Median :6.000           Median :6.000
## Mean    :3.921           Mean    :4.034
## 3rd Qu.:6.000           3rd Qu.:6.000
## Max.     :9.000           Max.     :9.000
## reason_volunteering_support_cause reason_volunteering_improve_health
## Min.      :1.000           Min.      :1.000
## 1st Qu.:2.000           1st Qu.:2.000
## Median :6.000           Median :6.000
## Mean    :4.299           Mean    :4.168
## 3rd Qu.:6.000           3rd Qu.:6.000

```

```

## Max.      :9.000                      Max.      :9.000
## reason_not_volunteering_enough_time
## Min.      :1.000
## 1st Qu.   :2.000
## Median    :2.000
## Mean      :3.782
## 3rd Qu.   :6.000
## Max.      :9.000
## reason_not_volunteering_previous_experience
## Min.      :1.000
## 1st Qu.   :2.000
## Median    :2.000
## Mean      :3.997
## 3rd Qu.   :6.000
## Max.      :9.000
## reason_not_volunteering_no_one_asked reason_not_volunteering_not_know_how
## Min.      :1.000                      Min.      :1.000
## 1st Qu.   :1.000                      1st Qu.   :2.000
## Median    :2.000                      Median    :2.000
## Mean      :2.426                      Mean      :2.656
## 3rd Qu.   :2.000                      3rd Qu.   :2.000
## Max.      :9.000                      Max.      :9.000
## reason_not_volunteering_health reason_not_volunteering_no_time
## Min.      :1.000                      Min.      :1.000
## 1st Qu.   :2.000                      1st Qu.   :1.000
## Median    :2.000                      Median    :1.000
## Mean      :2.506                      Mean      :1.788
## 3rd Qu.   :2.000                      3rd Qu.   :2.000
## Max.      :9.000                      Max.      :9.000
## reason_not_volunteering_financial_cost reason_not_volunteering_commitment
## Min.      :1.000                      Min.      :1.000
## 1st Qu.   :2.000                      1st Qu.   :1.000
## Median    :2.000                      Median    :2.000
## Mean      :2.704                      Mean      :2.328
## 3rd Qu.   :2.000                      3rd Qu.   :2.000
## Max.      :9.000                      Max.      :9.000
## reason_not_volunteering_give_money reason_not_volunteering_no_interest
## Min.      :1.000                      Min.      :1.000
## 1st Qu.   :1.000                      1st Qu.   :1.000
## Median    :2.000                      Median    :2.000
## Mean      :2.301                      Mean      :2.492
## 3rd Qu.   :2.000                      3rd Qu.   :2.000
## Max.      :9.000                      Max.      :9.000
## reason_not_volunteering_no_opportunity reason_not_volunteering_no_meaning
## Min.      :1.000                      Min.      :1.000
## 1st Qu.   :2.000                      1st Qu.   :2.000
## Median    :2.000                      Median    :2.000
## Mean      :2.629                      Mean      :2.632
## 3rd Qu.   :2.000                      3rd Qu.   :2.000
## Max.      :9.000                      Max.      :9.000
## volunteer_canvassing volunteer_fundraising volunteer_teaching
## Min.      :1.000          Min.      :1.000          Min.      :1.000
## 1st Qu.   :2.000          1st Qu.   :2.000          1st Qu.   :2.000
## Median    :2.000          Median    :2.000          Median    :2.000

```

```

## Mean :2.003      Mean :1.814      Mean :1.893
## 3rd Qu.:2.000      3rd Qu.:2.000      3rd Qu.:2.000
## Max. :9.000      Max. :9.000      Max. :9.000
## volunteer_coaching volunteer_council volunteer_health volunteer_deliver_goods
## Min. :1.000      Min. :1.000      Min. :1.000      Min. :1.000
## 1st Qu.:2.000      1st Qu.:2.000      1st Qu.:2.000      1st Qu.:2.000
## Median :2.000      Median :2.000      Median :2.000      Median :2.000
## Mean :1.978      Mean :1.919      Mean :1.928      Mean :1.898
## 3rd Qu.:2.000      3rd Qu.:2.000      3rd Qu.:2.000      3rd Qu.:2.000
## Max. :9.000      Max. :9.000      Max. :9.000      Max. :9.000
## volunteer_maintenance volunteer_volunteer_driving volunteer_environment
## Min. :1.000      Min. :1.000      Min. :1.00
## 1st Qu.:2.000      1st Qu.:2.000      1st Qu.:2.00
## Median :2.000      Median :2.000      Median :2.00
## Mean :1.962      Mean :1.958      Mean :1.97
## 3rd Qu.:2.000      3rd Qu.:2.000      3rd Qu.:2.00
## Max. :9.000      Max. :9.000      Max. :9.00
## volunteer_others youth_team_sport youth_youth_group youth_volunteer
## Min. :1.000      Min. :1.000      Min. :1.000      Min. :1.000
## 1st Qu.:2.000      1st Qu.:1.000      1st Qu.:1.000      1st Qu.:1.000
## Median :2.000      Median :1.000      Median :2.000      Median :2.000
## Mean :1.906      Mean :1.969      Mean :2.053      Mean :2.101
## 3rd Qu.:2.000      3rd Qu.:2.000      3rd Qu.:2.000      3rd Qu.:2.000
## Max. :9.000      Max. :9.000      Max. :9.000      Max. :9.000
## youth_saw_someone_helping youth_canvassing youth_student_government
## Min. :1.000      Min. :1.000      Min. :1.000
## 1st Qu.:1.000      1st Qu.:1.000      1st Qu.:2.000
## Median :2.000      Median :2.000      Median :2.000
## Mean :2.106      Mean :2.161      Mean :2.393
## 3rd Qu.:2.000      3rd Qu.:2.000      3rd Qu.:2.000
## Max. :9.000      Max. :9.000      Max. :9.000
## youth_religious_org youth_parents_volunteered religious_participation_services
## Min. :1.000      Min. :1.000      Length:16149
## 1st Qu.:1.000      1st Qu.:1.000      Class :character
## Median :2.000      Median :2.000      Mode :character
## Mean :2.248      Mean :2.168
## 3rd Qu.:2.000      3rd Qu.:2.000
## Max. :9.000      Max. :9.000
## religious_participation_own decision_of_giving financial_giving
## Min. : 1.00      Length:16149      Length:16149
## 1st Qu.: 2.00      Class :character      Class :character
## Median : 6.00      Mode :character      Mode :character
## Mean :11.89
## 3rd Qu.: 6.00
## Max. :99.00
## reason_of_giving reason_of_not_giving volunteer_with
## Length:16149      Length:16149      Length:16149
## Class :character      Class :character      Class :character
## Mode :character      Mode :character      Mode :character
##
##
##
## volunteer_experience reason_for_volunteering reason_for_not_volunteering
## Length:16149      Length:16149      Length:16149

```

```
## Class :character      Class :character      Class :character
## Mode  :character      Mode  :character      Mode  :character
##
##
##
## youth_experience
## Length:16149
## Class :character
## Mode  :character
##
##
##
```

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