

# Polls Conducted by the City of Toronto in 2021\*

My subtitle if needed

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## Abstract

Polls are a widely used and effective way for administrative divisions to determine the general opinion of residents and businesses on various topics. We obtain and analyze the polls conducted by the city of Toronto broken down on a locational and temporal basis and analyze it using a graph and a table. Third sentence. Fourth sentence.

## 1 Introduction

You can and should cross-reference sections and sub-sections. For instance, Section 2. R Markdown automatically makes the sections lower case and adds a dash to spaces to generate labels, for instance, Section ??.

## 2 Data

Paragraph or two introducing the dataset broadly. We obtain our data from the City of Toronto open data portal, using the `opendatatoronto` package (Friendly et al. 2020) and the statistical programming language R (R Core Team 2020)

Our data is of penguins (Figure ??).

Show an extract of the dataset (Table 1).

Paragraph or two more about Table 1.

We are interested in the relationship between the ratio of ballots cast to ballots distributed and the type of application, because this could be used as a measure of the public's willingness to engage in polls depending on the type of application and affect the choice of poll distribution in the future.

Figure 1 shows the relationship between the number of ballots returned and the number of ballots distributed.

Our data is of poll engagement rate in Toronto

Talk more about it.

Also bills and their average (Figure 2). (Notice how you can change the height and width so they don't take the whole page?)

```
## Warning: It is deprecated to specify 'guide = FALSE' to remove a guide. Please
## use 'guide = "none"' instead.
```

Talk way more about it.

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\*Code and data are available at: [https://github.com/zhan7818/sta304\\_paper1\\_repo](https://github.com/zhan7818/sta304_paper1_repo).

Table 1: First ten rows of a dataset that shows poll engagement in Toronto in 2021

Address	Ballots Cast	Ballots Distributed
26 Birchview Cres	60	96
403 Annette St	23	72
380 Roehampton Ave	50	98
87 Bristol Ave	56	193
463 St Clements Ave	34	88
193 Roe Ave	20	50
193 Atlas Ave	47	109
78 Ranleigh Ave	22	46
42 Warland Ave	59	97
28 Glendonwynne Rd	33	49

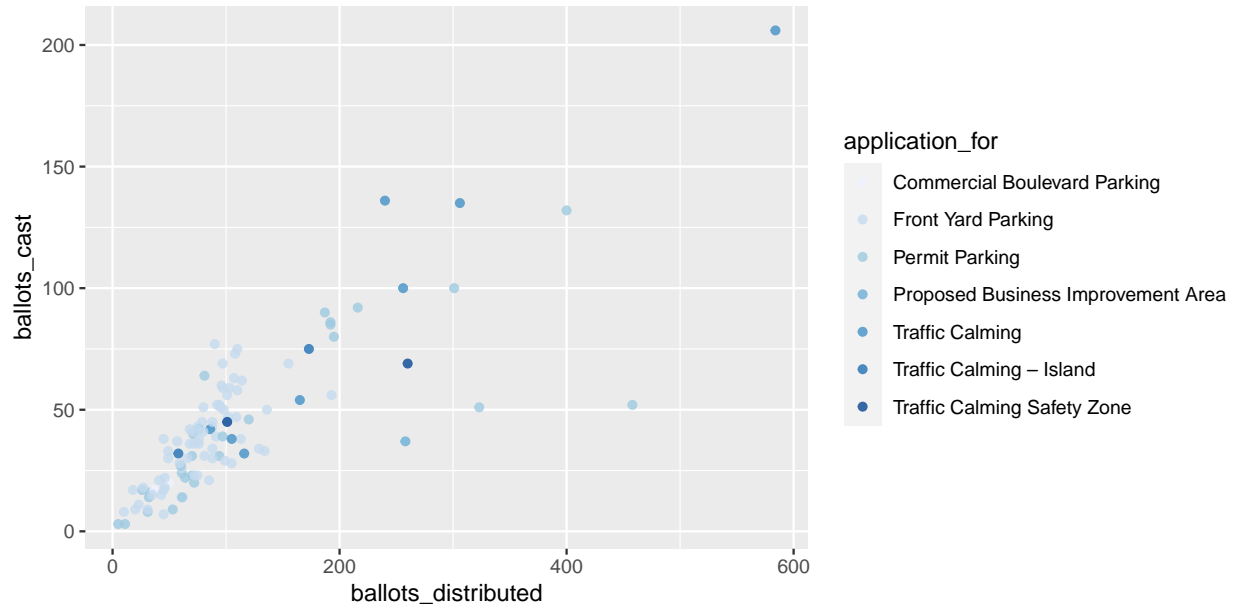


Figure 1: Ballots distributed versus ballots cast for each type of application

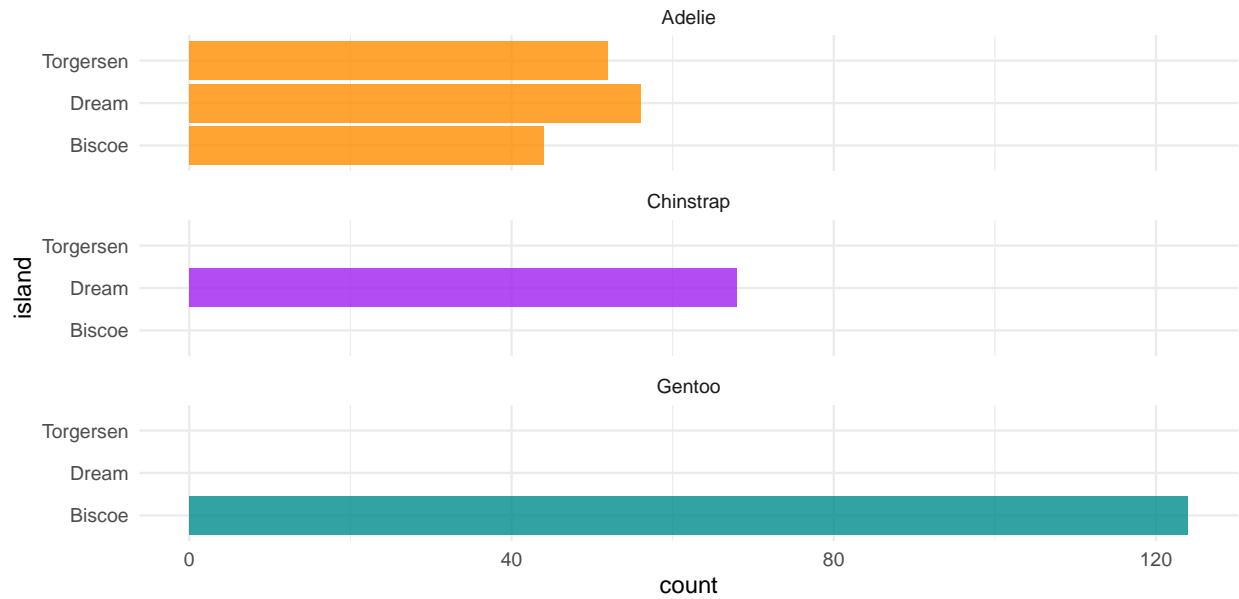


Figure 2: More bills of penguins

### 3 Model

$$Pr(\theta|y) = \frac{Pr(y|\theta)Pr(\theta)}{Pr(y)} \quad (1)$$

Equation (1) seems useful, eh?

Here's a dumb example of how to use some references: In paper we run our analysis in R (R Core Team 2020). We also use the `tidyverse` which was written by (thereferencecanbewhatever?) If we were interested in baseball data then (citeLahman?) could be useful.

We can use maths by including latex between dollar signs, for instance  $\theta$ .

### 4 Discussion

## Appendix

### A Additional details

## References

- Friendly, Michael, Chris Dalzell, Martin Monkman, and Dennis Murphy. 2020. *Lahman: Sean ‘Lahman’ Baseball Database*. <https://CRAN.R-project.org/package=Lahman>.
- R Core Team. 2020. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.