# Consultant Expenditures and Fair Allocation in Toronto*

## An assessment of Toronto's capital allocation

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The Canadian federal government has been under scrutiny since the widely reported ArriveCAN scandal, which brought to light a sever misappropriation of funds through contractors. In light of these events, I investigate the allocation of funds to consultants by the City of Toronto. Exploring expenditure, I find an increasing budget allocation to consultants, and a tendency to allocate to a few key consultants. I suggest future work which could lead to a more complete evaluation and a possible investigation into the bidding process.

## 1 Introduction

The CBSA (Canadian Border Security Agency) and Public Health Agency of Canada spent over \$53 Million Dollars on an app which was created using 23 subcontractors. The contract process was unfair and non-competitive, with an internal report finding that the government criteria preferred one contractor over others Canada (2024). The people of a city benefit from fair and efficient markets, as such the allocation of its tax dollars should follow a transparent and robust tender process.

In this paper I seek to explore the City of Toronto's consultant expenditure data, sourced from Gelfand (2022) You can and should cross-reference sections and sub-sections. We use R Core Team (2023) and Wickham et al. (2019).

The remainder of this paper is structured as follows. Section 2....

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*Code and data are available at: LINK.

# 2 Data

Some of our data is of penguins (**?@fig-bills**), from Horst, Hill, and Gorman (2020).

```
Rows: 3918 Columns: 8
-- Column specification --------------------------------------------------
Delimiter: ","
chr (6): budget_type, city_abc, expense_category, division_board, consultant...
dbl (2): year, expenditure

i Use `spec()` to retrieve the full column specification for this data.
i Specify the column types or set `show_col_types = FALSE` to quiet this message.
`summarise()` has grouped output by 'year'. You can override using the `.groups` argument.

Warning: Using `size` aesthetic for lines was deprecated in ggplot2 3.4.0.
i Please use `linewidth` instead.
```

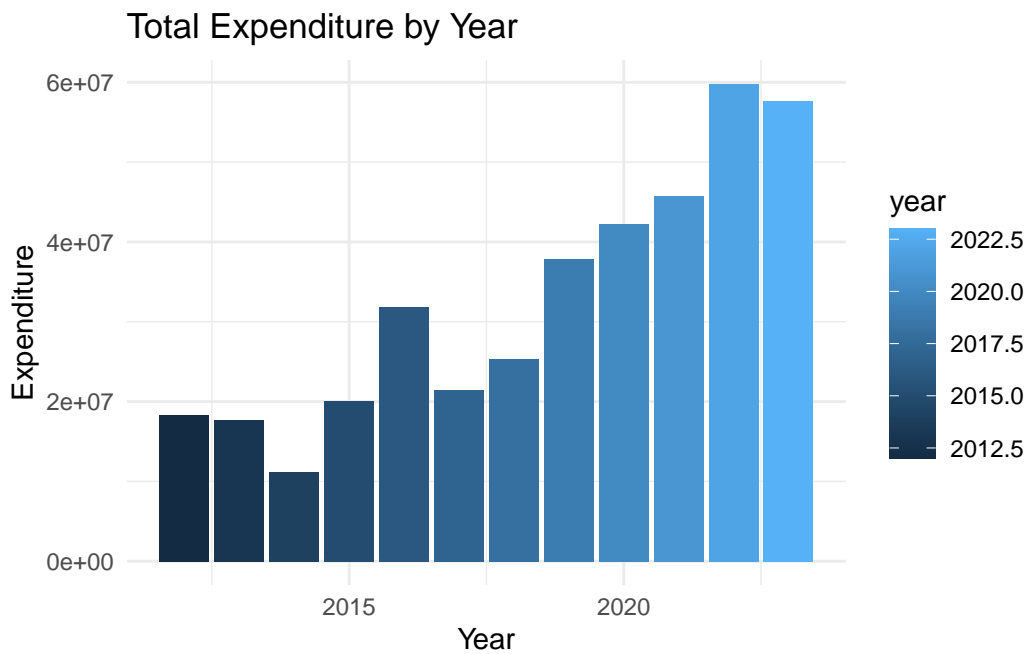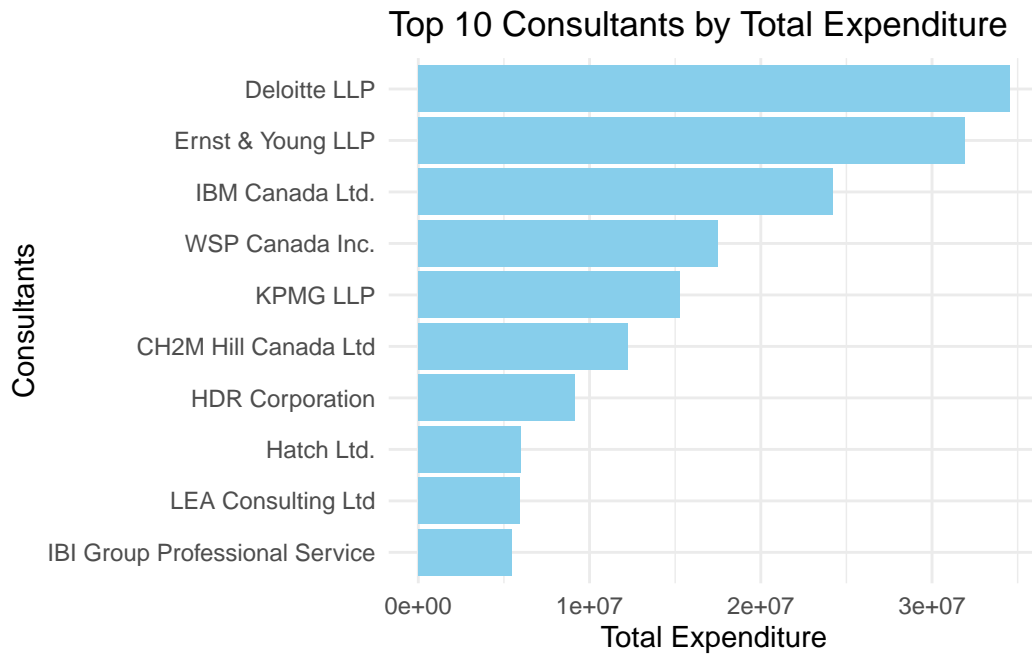

Figure 1: Bills of penguins
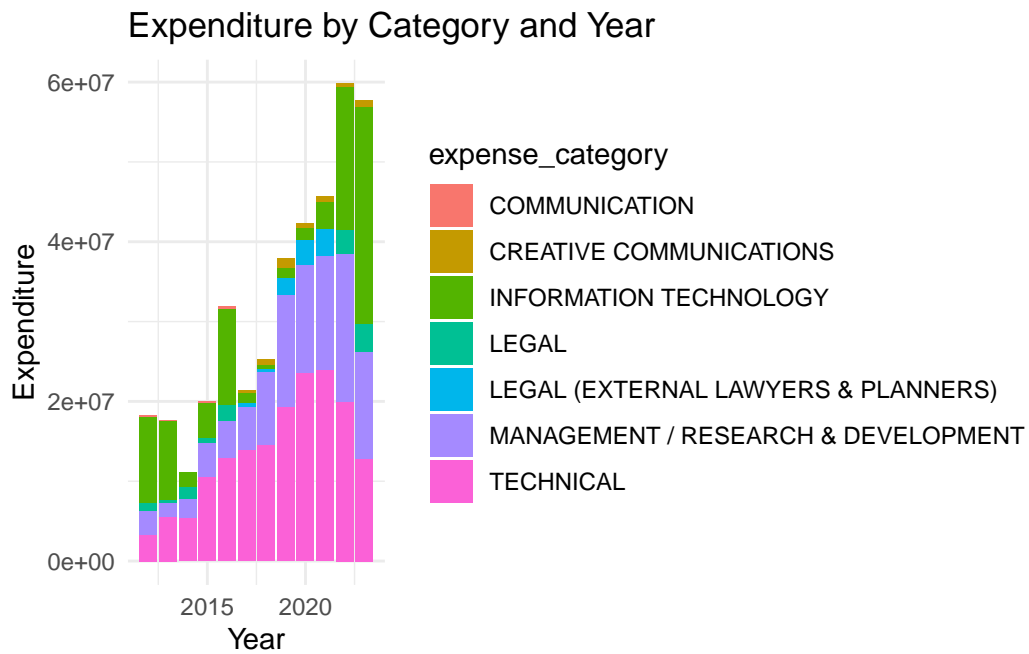
Talk way more about it.

Figure 2: Bills of penguins



Figure 3: Bills of penguins

Figure 4: Bills of penguins



Figure 5: Bills of penguins
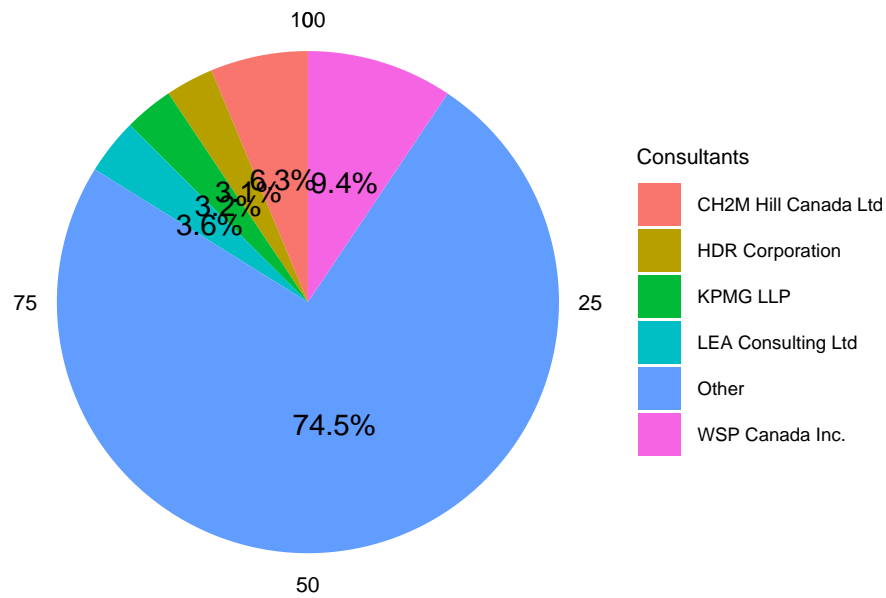
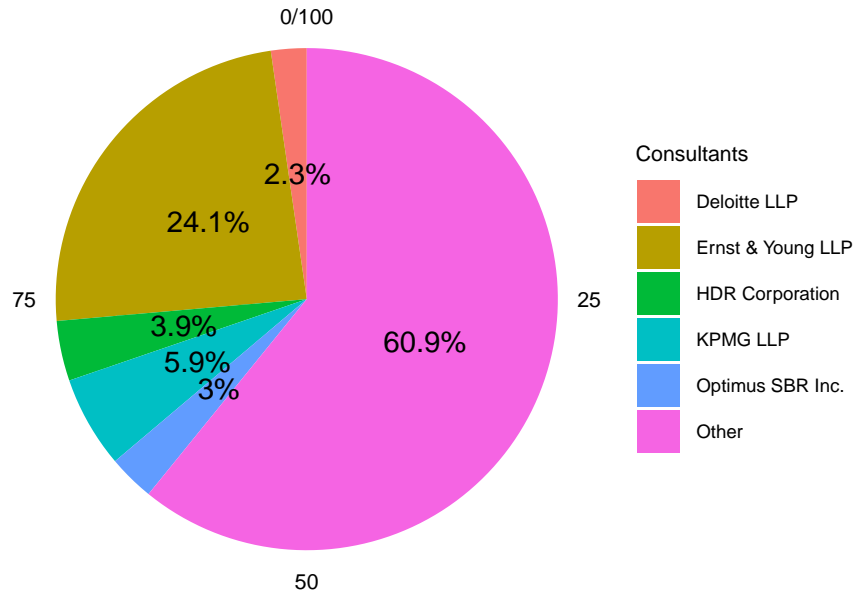Expenditure Breakdown for MANAGEMENT / RESEARCH & DEVELOPMENT

0/100

2.3%

24.1%

75

3.9%

5.9%

3%

60.9%

25

50

Consultants

Deloitte LLP

Ernst & Young LLP

HDR Corporation

KPMG LLP

Optimus SBR Inc.

Other

Figure 6: Bills of penguins

Expenditure Breakdown for INFORMATION TECHNOLOGY

0/100

4.2%

5.5%

24%

75

33.6%

6.4%

26.3%

25

50

Consultants

Calian Ltd.

Comtech

Deloitte LLP

Ernst & Young LLP
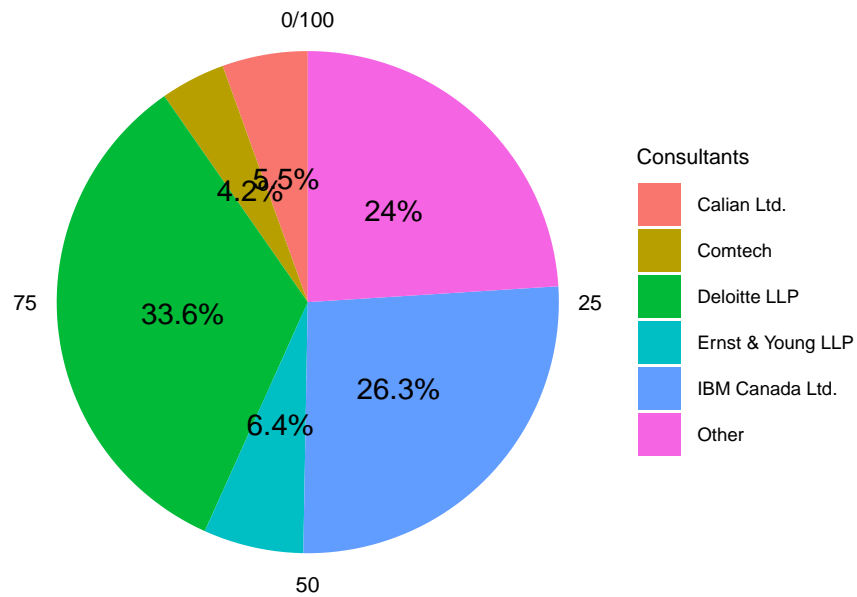
IBM Canada Ltd.

Other

Figure 7: Bills of penguins
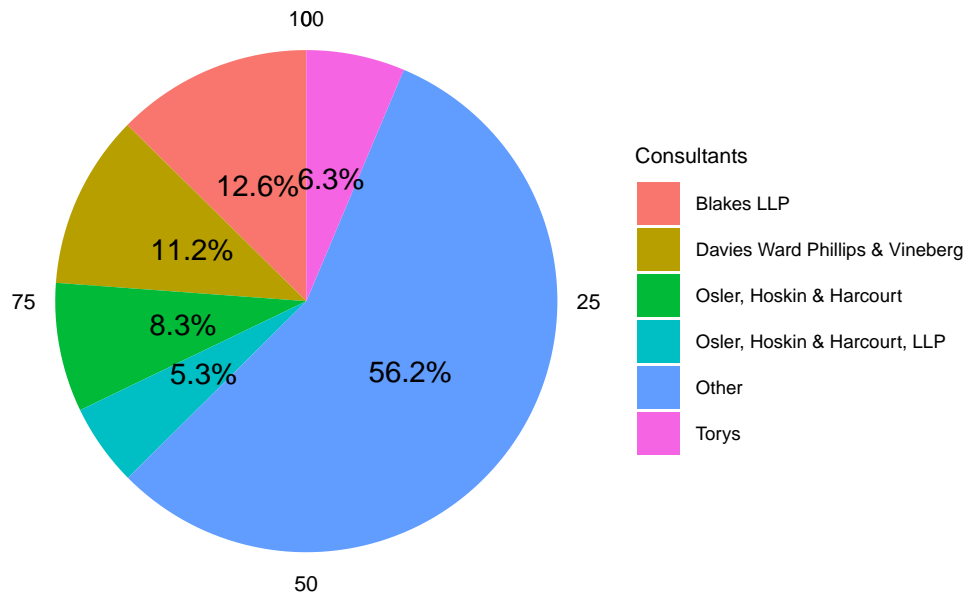
Expenditure Breakdown for LEGAL



Figure 8: Bills of penguins

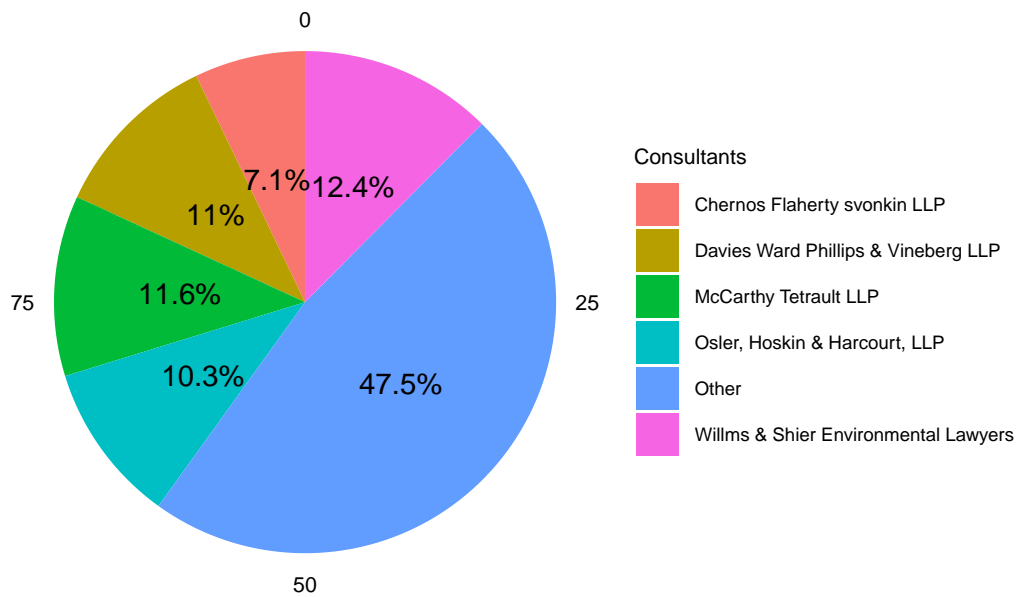Expenditure Breakdown for LEGAL (EXTERNAL LAWYERS & PLANNERS)
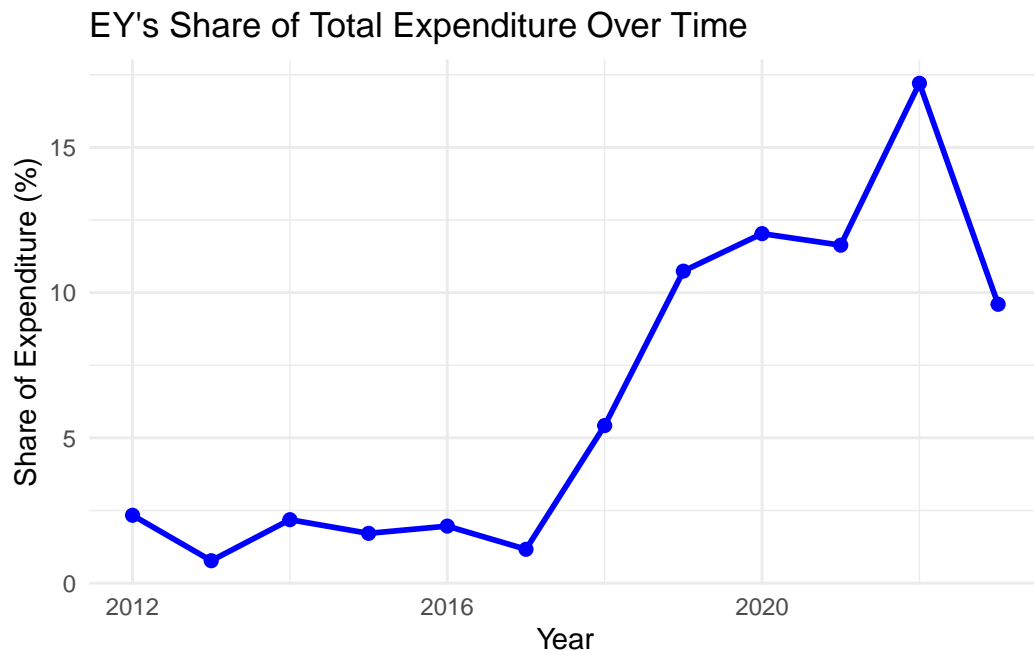
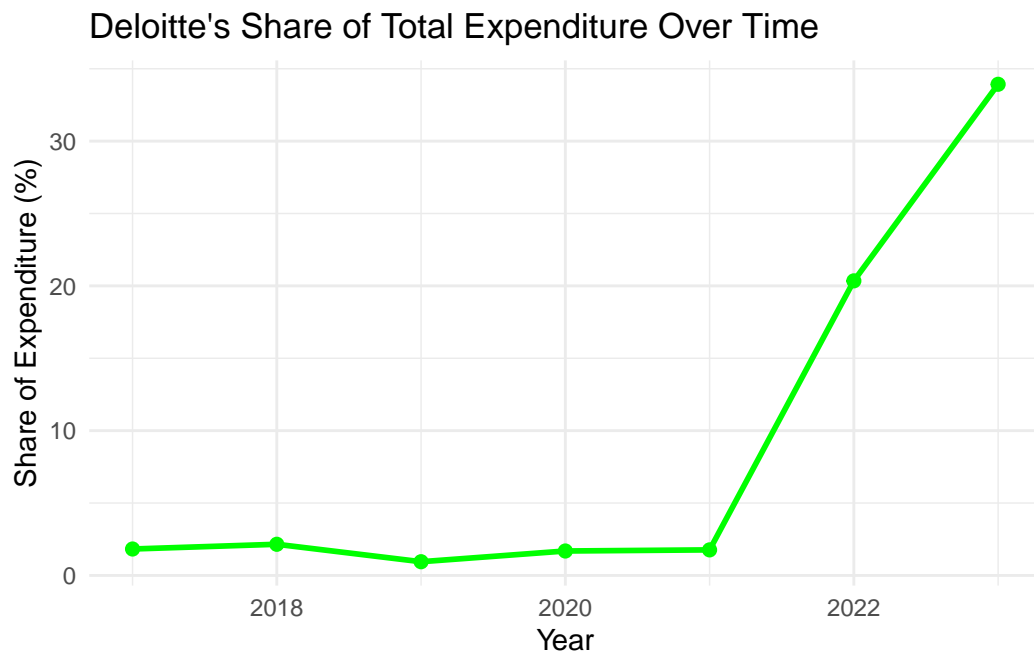

Figure 9: Bills of penguins

Figure 10: Bills of penguins



Figure 11: Bills of penguins

# 3 Results

Our results are summarized in **?@tbl-modelresults**.

# 4 Discussion

## 4.1 First discussion point

If my paper were 10 pages, then should be be at least 2.5 pages. The discussion is a chance to show off what you know and what you learnt from all this.

## 4.2 Second discussion point

## 4.3 Third discussion point

## 4.4 Weaknesses and next steps

Weaknesses and next steps should also be included.

# Appendix

## A  Additional data details

# References

Canada. 2024. "Procurement Practice Review of ArriveCAN - Office of the Procurement Ombudsman." *Opo-Boa.gc.ca.* https://opo-boa.gc.ca/praapp-prorev/2024/epa-ppr-01-2024-eng.html.

Gelfand, Sharla. 2022. *Opendatatoronto: Access the City of Toronto Open Data Portal.* https://sharlagelfand.github.io/opendatatoronto/.

Horst, Allison Marie, Alison Presmanes Hill, and Kristen B Gorman. 2020. *Palmerpenguins: Palmer Archipelago (Antarctica) Penguin Data.* https://doi.org/10.5281/zenodo.3960218.

R Core Team. 2023. *R: A Language and Environment for Statistical Computing.* Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.

Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Grolemund, et al. 2019. "Welcome to the tidyverse." *Journal of Open Source Software* 4 (43): 1686. https://doi.org/10.21105/joss.01686.