

# Food Deserts or Food Oases? Predicting Grocery Store Locations in Hamilton, Ontario

Zehui Yin<sup>a,\*</sup>

<sup>a</sup>*School of Earth, Environment & Society, McMaster University, 1280 Main Street West, Hamilton, L8S 4K1, Ontario, Canada*

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## Abstract

This is the abstract.

It consists of two paragraphs.

*Keywords:* Grocery Store, Hamilton

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## 1. Bibliography styles

Here are two sample references: Feynman and Vernon Jr. (1963; Dirac, 1953).

By default, natbib will be used with the `authoryear` style, set in `classoption` variable in YAML and with `elsearticle-harv.bst` which is among provided style by `elsarticle` documentclass. Other available style are `elsarticle-num.bst` and `elsarticle-num-names.bst` — the first one can be used for the numbered scheme, second one for numbered with new options of natbib.sty.

You can sets extra options with `natbiboptions` variable in YAML header. Example

```
natbiboptions: longnamesfirst,angle,semicolon
```

There are various more specific bibliography styles available at [https://support.stmdocs.in/wiki/index.php?title=Model-wise\\_bibliographic\\_style\\_files](https://support.stmdocs.in/wiki/index.php?title=Model-wise_bibliographic_style_files). To use one of these, add it in the header using, for example, `biblio-style: model1-num-names`.

### 1.1. Using CSL

If `citation_package` is set to `default` in `elsevier_article()`, then pandoc is used for citations instead of `natbib`. In this case, the `cs1` option is used to format the references. Alternative `cs1` files are available from <https://www.zotero.org/styles?q=elsevier>. These can be downloaded and stored locally, or the url can be used as in the example header.

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\*Corresponding author

Email address: [yinz39@mcmaster.ca](mailto:yinz39@mcmaster.ca) (Zehui Yin)

	Zero inflated negative binomial model
Count model: Spatial lag of grocery store count	-2.64** (0.81)
Count model: Percentage of population aged below 24 years old	0.03 (0.03)
Count model: Percentage of population aged above 65 years old	0.02 (0.02)
Count model: Percentage of population don't know official language	-0.01 (0.10)
Count model: Percentage of population don't speak official language at home	0.15** (0.05)
Count model: Percentage of population live in single detached houses	-0.01 <sup>.</sup> (0.01)
Count model: Percentage of population have annual total income less than 40K	-0.02 (0.03)
Count model: Percentage of population have annual total income more than 100K	-0.02 (0.04)
Count model: Percentage of population that are married or live in common-law	0.04 (0.03)
Count model: Natural log of (population density + 1)	-0.45** (0.16)
Count model: Natural log of distance from DA centroid to Hamilton downtown	-0.54** (0.19)
Zero model: Spatial lag of grocery store count	-7.52** (2.72)
Zero model: Percentage of population don't speak official language at home	0.16 <sup>.</sup> (0.09)
Zero model: Percentage of population that are married or live in common-law	0.13* (0.06)
Zero model: Natural log of (population density + 1)	-1.67 <sup>.</sup> (0.93)
Zero model: Number of HSR bus stops (50-75 percentile)	-1.27* (0.59)
Zero model: Number of HSR bus stops (75-100 percentile)	-3.15*** (0.84)
Zero model: Natural log of area size in square kilometres	-1.84* (0.86)
AIC	503.46
Log Likelihood	-230.73
Num. obs.	876

\*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; <sup>.</sup> $p < 0.1$

Table 1: Regression results

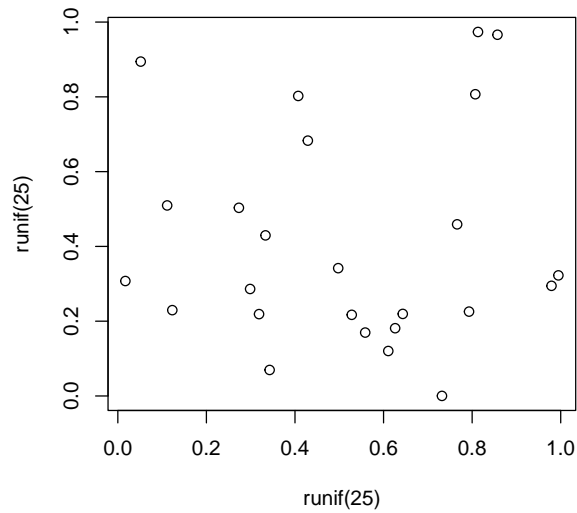


Figure 1: A meaningless scatterplot.

## 2. Equations

Here is an equation:

$$f_X(x) = \left(\frac{\alpha}{\beta}\right) \left(\frac{x}{\beta}\right)^{\alpha-1} e^{-\left(\frac{x}{\beta}\right)^\alpha}; \alpha, \beta, x > 0.$$

Here is another:

$$a^2 + b^2 = c^2. \tag{1}$$

Inline equations:  $\sum_{i=2}^{\infty} \{\alpha_i^\beta\}$

## 3. Figures and tables

Figure 1 is generated using an R chunk.

## 4. Tables coming from R

Tables can also be generated using R chunks, as shown in Table 2 for example.

```
knitr::kable(head(mtcars)[,1:4],
  caption = "\\label{tab1}Caption centered above table"
)
```

Table 2: Caption centered above table

	mpg	cyl	disp	hp
Mazda RX4	21.0	6	160	110
Mazda RX4 Wag	21.0	6	160	110
Datsun 710	22.8	4	108	93
Hornet 4 Drive	21.4	6	258	110
Hornet Sportabout	18.7	8	360	175
Valiant	18.1	6	225	105

## References

- Dirac, P.A.M., 1953. The Lorentz transformation and absolute time. *Physica* 19, 888–896. doi:10.1016/S0031-8914(53)80099-6.
- Feynman, R.P., Vernon Jr., F.L., 1963. The theory of a general quantum system interacting with a linear dissipative system. *Annals of Physics* 24, 118–173. doi:10.1016/0003-4916(63)90068-X.