Exploring Crime in Toronto

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Introduction

I'm interested in how BE rates vary by income, and controlling for pop density, seniors and HH size.

Data

These data came from open data toronto..... there's stuff on crime and census

Descriptive analysis

Looking at mean and sd of my variables

Figure 1 is a scatter plot of log of break and enter rate versus hh size., This shows.....

Table 1: summary stats

Variable	Mean	Standard Deviation
BreakAndEnter_Rate2020	227.14	152.36
pop_density	5958.41	3627.34
income	55515.34	39064.59
hh_size	2.50	0.39
prop_senior	0.16	0.04

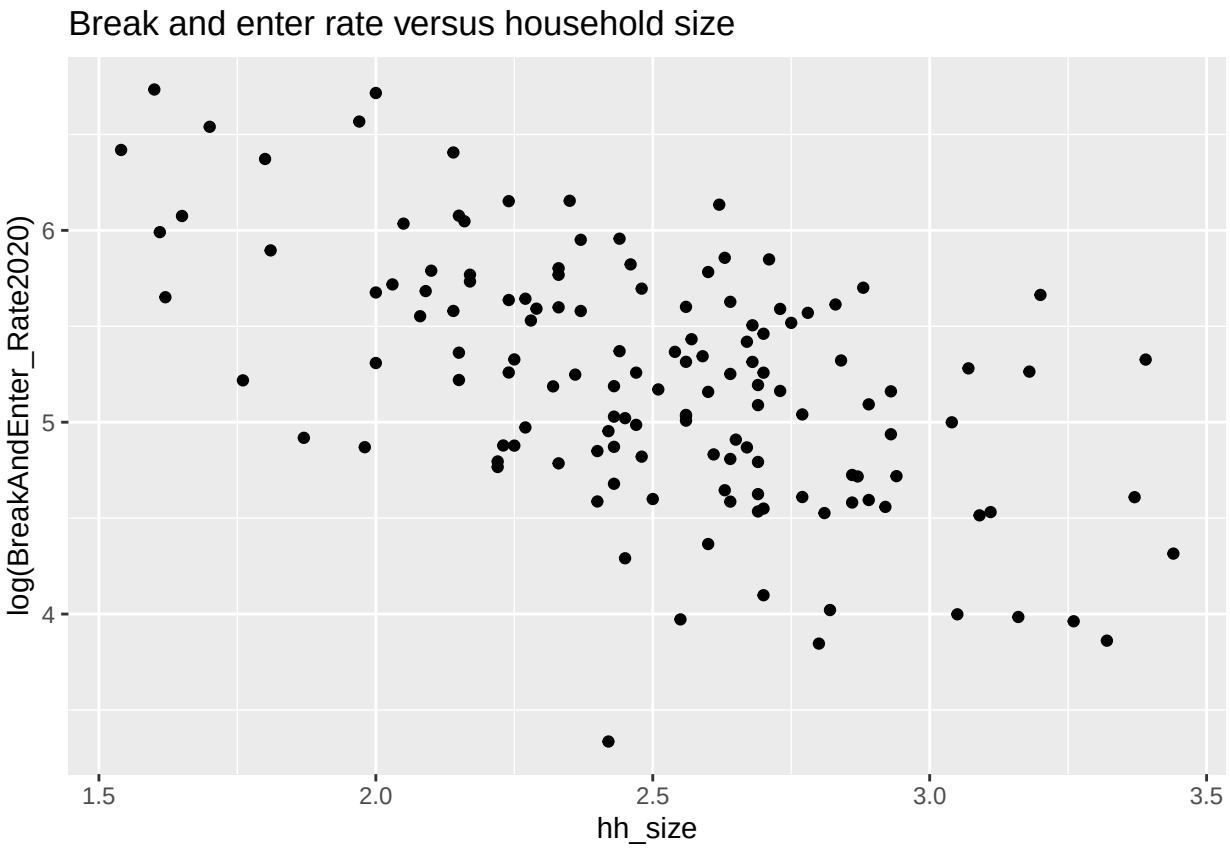
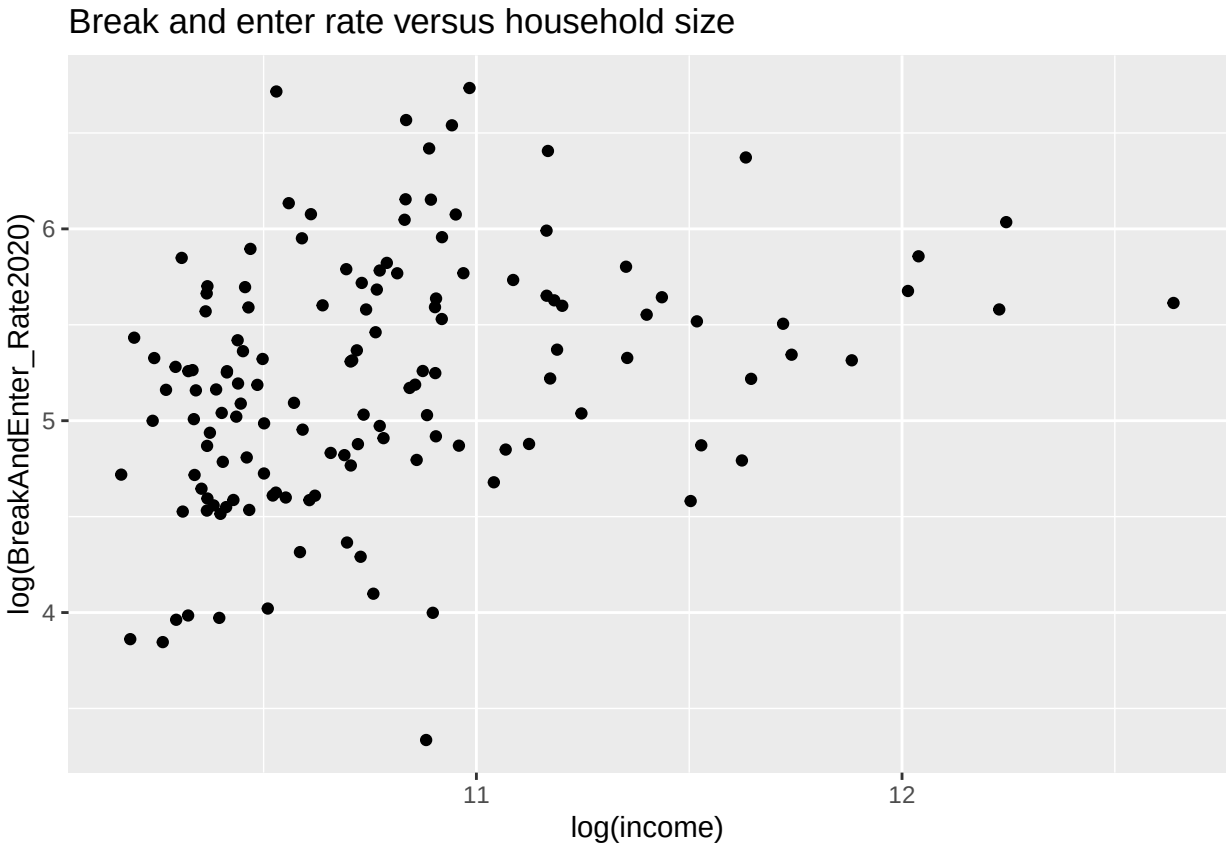


Figure 1: my fig



Model

I'm interested in how BE rates vary by income, and controlling for pop density, seniors and HH size. My model is

$$Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} + \beta_4 X_{i4}$$

where

- i refers to the ith ward
- Y_i is log of break and enter rate in ward i
- X_{i1} is the log income in ward i
- X_{i2} is pop density in ward i
- X_{i3} is proportion of ward i that are aged 65+
- X_{i4} is average household size in ward i