

Positive Side Effects of Affordable Housing Policy

The Impact of Vancouver Empty Homes Tax on Crime in the City

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Introduction

The Vancouver Empty Homes tax (EHT) was created to reduce the number of vacant homes within the city and promote affordable housing. There is a correlation between decrease in vacant properties and decrease in crime based on past studies (Hadavi et al., 2021). When homes are occupied, thieves have less incentive to break in. An occupied neighborhood also has stronger social control than a vacant neighborhood. Although studies of the vacancy and crime relationship have been conducted in the United States and Mexico, a study in Canada has not been done. This study uses the synthetic control method (SCM) to determine the causal effect of the EHT on the aggravated assault rate in Vancouver.

Background

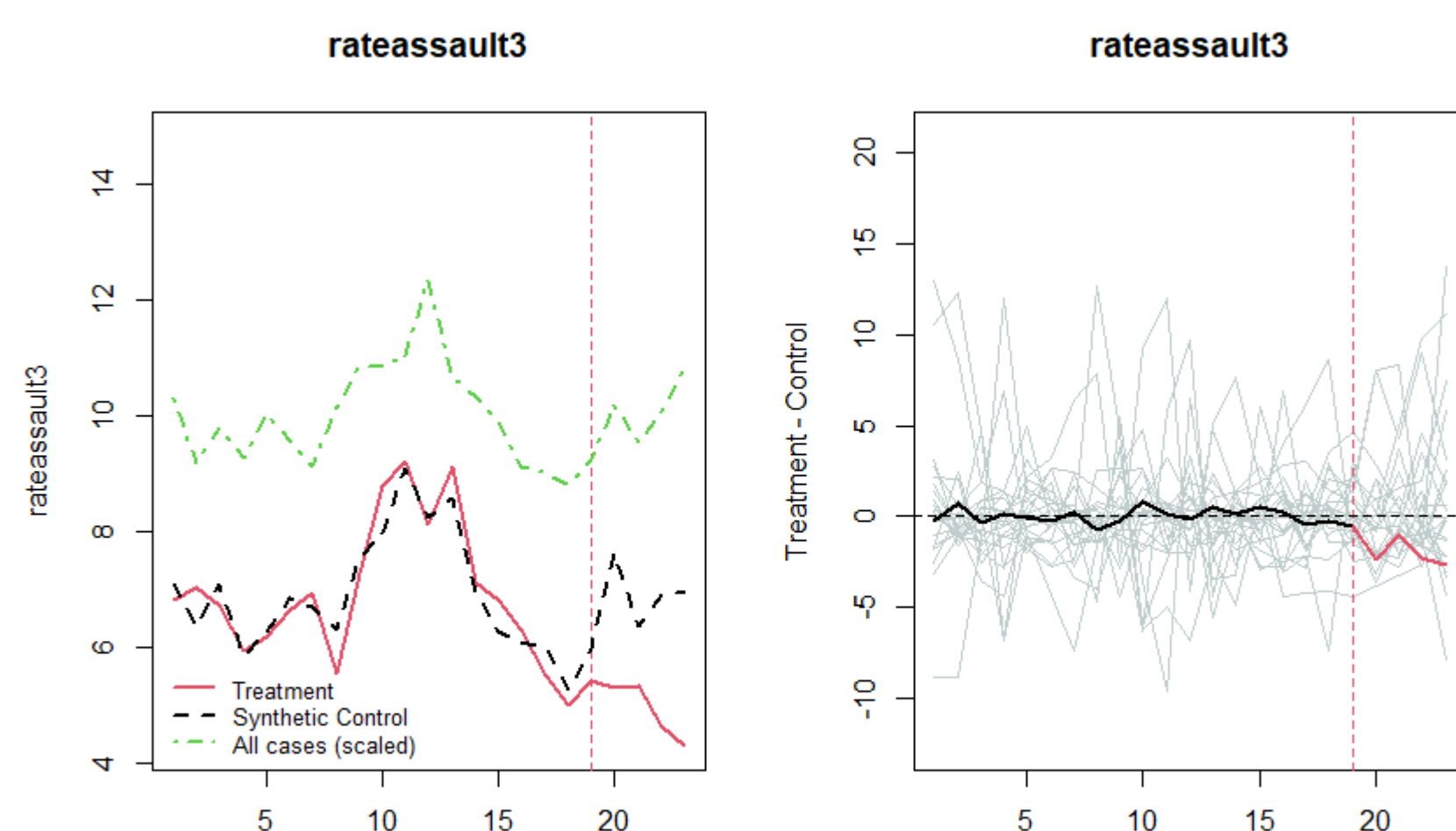
Social disorganization theory states that communities with a lot of vacant homes and high rate of population turnover are disorganized, thus will have weaker institutions of social control. The broken window theory states that signs of civil disorders such as broken windows and vandalism would create an environment that promotes more crime and disorder. Both theories suggest that neighborhood characteristics such as vacancy can attract more crimes. The EHT collects taxes on dwellings that have not been occupied for at least half a year. The tax creates an incentive for vacant properties to be rented out, thus more available homes on the market and less empty properties.

Methods

I used the SCM to estimate the causal effect of the EHT on the aggravated assault rate in the city. To do this, I collected crime rate data on census metropolitan areas across Canada between the period of 1998 and 2020. My sample consisted of 25 units (N=25), with Vancouver as the treatment group and 24 cities as the control group. I selected the outcome variable based on previous literature on vacancy and crime. The outcome variable for this study was the level 3 aggravated assault rate. The rate was measured per 100,000 population. Data was obtained from Statistics Canada. I used the SCM to estimate the causal effect of the tax on the outcome variable. Statistical analysis was done with R Studio software.

Results

The null hypothesis is that there is no significant change in the outcome variable after the implementation of the tax. The SCM creates a synthetic “Vancouver” through weighted combination of 24 census metropolitan areas in the control group. The synthetic “Vancouver” is what Vancouver should look like if the EHT was not implemented. The graph below shows the estimation.



Discussion

At the last period of the study (t=23), which corresponds to the year 2020, the aggravated assault rate in Vancouver is 29.7% lower than the synthetic “Vancouver”. The decrease in the aggravated assault rate (rateassault3) after the implementation of the EHT is statistically significant ($P=0.0005$). Therefore, I can reject the null hypothesis that there is no significant change in the outcome variable after the implementation of the treatment. This finding is similar to Branas et al. (2012) and Hadavi et al. (2021) on the relationship between vacant properties and violent crimes.

This study contributes to the growing literature on vacancy and crime and becomes the first to conduct such a relationship in the Canadian context. The finding of this study shows that there can be additional benefits beside increasing more affordable housing for similar tax programs.

Metropolitan areas similar to Vancouver that are facing housing affordability problems can benefit greatly from this type of tax. The current literature has demonstrated that a decrease in vacant properties is associated with a decrease in certain types of crime. Similar empty homes tax should be able to free up empty and under-utilized properties across Canada, increase housing affordability, and decrease crime. A similar tax to the EHT was implemented in the province of British Columbia in 2018. Future studies can benefit from studying the effect of the newly implemented BC speculation and vacancy tax on crime.

A potential limitation of this study is the small sample size. Carling and Li (2016) and Rudholm et al. (2018) suggest that the appropriate sample size should be 30 units and not more than 50 units. Another limitation is the lack of appropriate covariate variables. In this study, I use the entirety of pre-treatment outcome variable as the predictor for the SCM. Future studies can benefit by adding more predictors such as demographic characteristics to create a better synthetic control group.

Recommendations

The current study estimates the causal effect of the EHT on the aggravated assault rate in the city. There is a statistically significant decrease in the aggravated assault rate after the introduction of the tax when comparing Vancouver to its synthetic counterpart. My recommendation for future studies on vacancy and crime would be to branch out to other regions of the world. The current literature body focuses only on the relationship in North America. More studies can help policymakers to adopt an appropriate housing tax policy which can alleviate housing affordability problems and decrease crime at the same time.

References

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