The effect of the canal parade on the Airbnb market in Amsterdam

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Introduction

The Canal Parade in Amsterdam is a parade of about 80 boats through the canals of Amsterdam, representing a variety of representatives and organizations related to the LGBTQI+ society. The Canal Parade is the highlight of the yearly Pride Week and attracts many spectators. The parade is followed by various parties in the city center of Amsterdam. Several hundred thousand visitors attend the events which makes the Canal Parade one of the biggest publicly open events in the Netherlands. The parade is also well known outside of the Netherlands.

Since the event is enormous in size, globally well-known and socially relevant we believe investigating the effect on prices and availability of Airbnb accommodations during this event is very interesting.

Data cleaning

To be able to conduct the research explained above, two datafiles needed to be merged and cleaned. These datafiles were conducted from insideairbnb.nl with the following URLs: http://data.insideairbnb.com/the-netherlands/north-holland/amsterdam/2021-12-05/data/listings.csv.gz http://data.insideairbnb.com/the-netherlands/north-holland/amsterdam/2021-12-05/data/calendar.csv.gz

These files consisted the following data:

We cleaned and merged both of the files to make it usefull to answer the research question, and created the following dataset: airbnb

Statistical tests

For testing significance of this analysis two statistical tests were executed: ANOVA and a linear regression
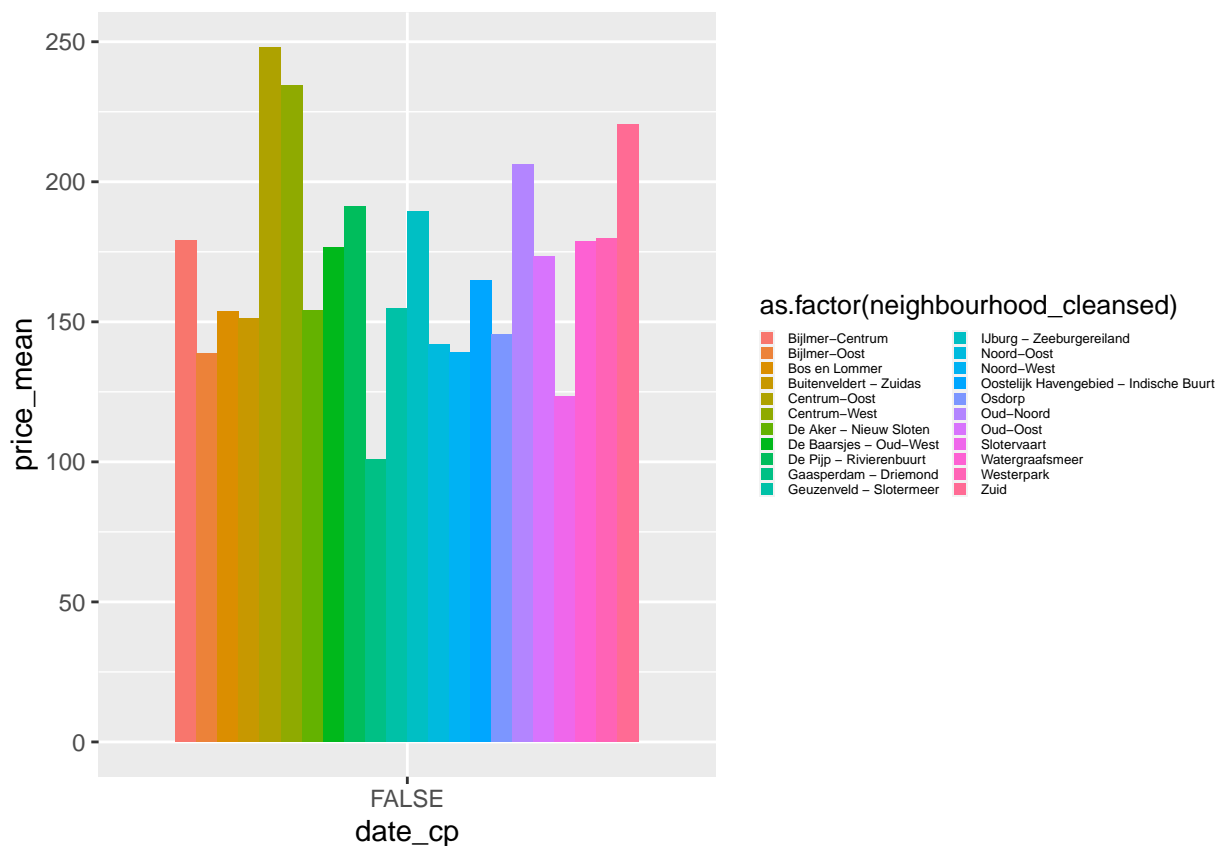
The ANOVA test:

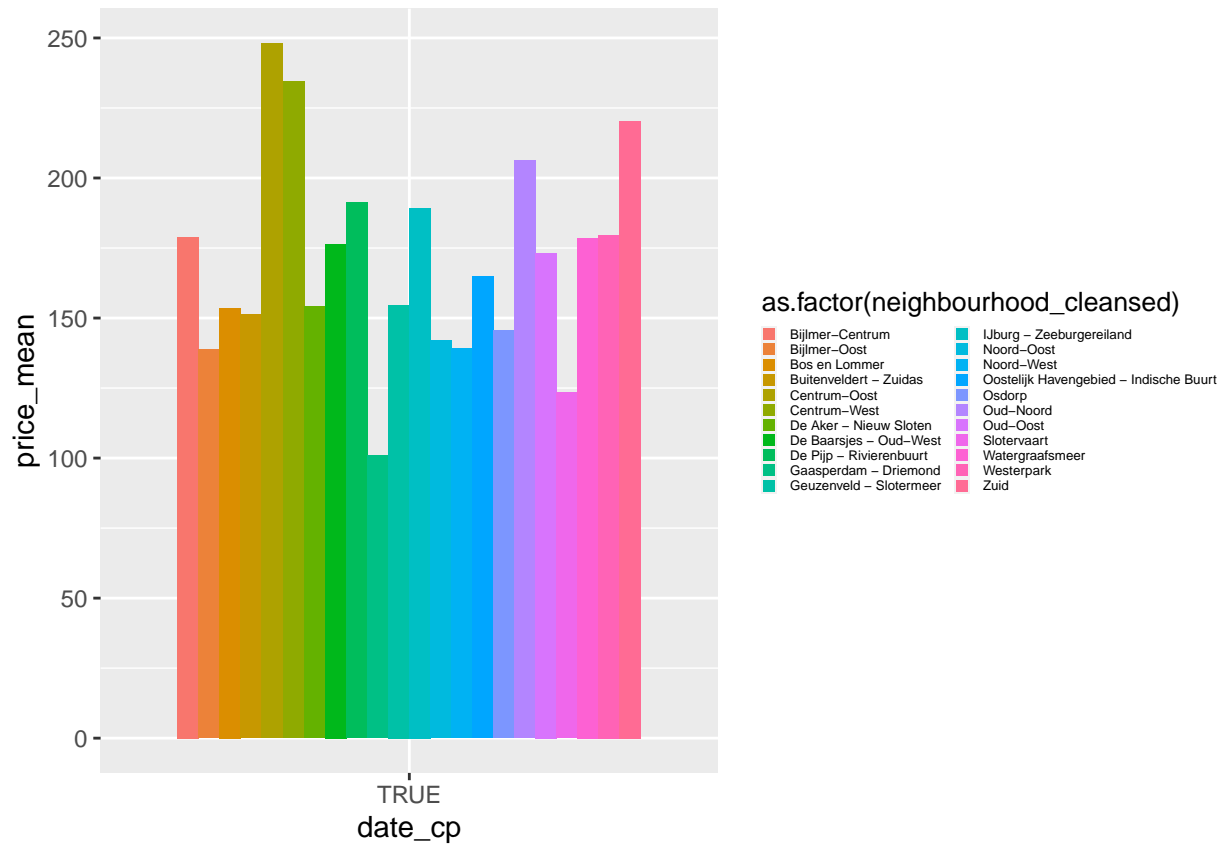**The linear regression:**

Graph representation

From these tests can be seen that there are no significant differences in the prices during 'normal' weekends and the weekends of the canal parade, and that this also does not differ in the different neighbourhoods. This can also be seen in the graphs below:

```
## New names:
## Rows: 27775 Columns: 34
## -- Column specification
## ---------------------------------------------------------- Delimiter: "," chr
## (1): neighbourhood_cleansed dbl (30): ...1, X_calendar, listing_id,
## price_calendar, adjusted_price, X_l... lgl (2): available, date_cp date (1):
## date
## 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 'neighbourhood_cleansed'. You can override
## using the `.groups` argument.
## * `` -> `...1`
```



```
## `summarise()` has grouped output by 'neighbourhood_cleansed'. You can override
## using the `.groups` argument.
```

Conclusion

So found is that there is no significant difference between the prices of airbnb's in Amsterdam during and not during the Canal parade.

Implications