

# High Mortgage Rates

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November 1, 2022







# **Hypothesis:**

Housing prices increase at a greater rate when recreational cannabis sales are legalized.



# Our Process

## First Three States

The first three states to legalize recreational cannabis sales in the continental US:

- Colorado
- Oregon
- Washington

## Housing Price Index

The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. This information is obtained by reviewing repeat mortgage transactions on single-family properties whose mortgages have been purchased or securitized by Fannie Mae or Freddie Mac since January 1975.

## “State Buds” and Relative Years

Colorado : Vermont

- Sales began

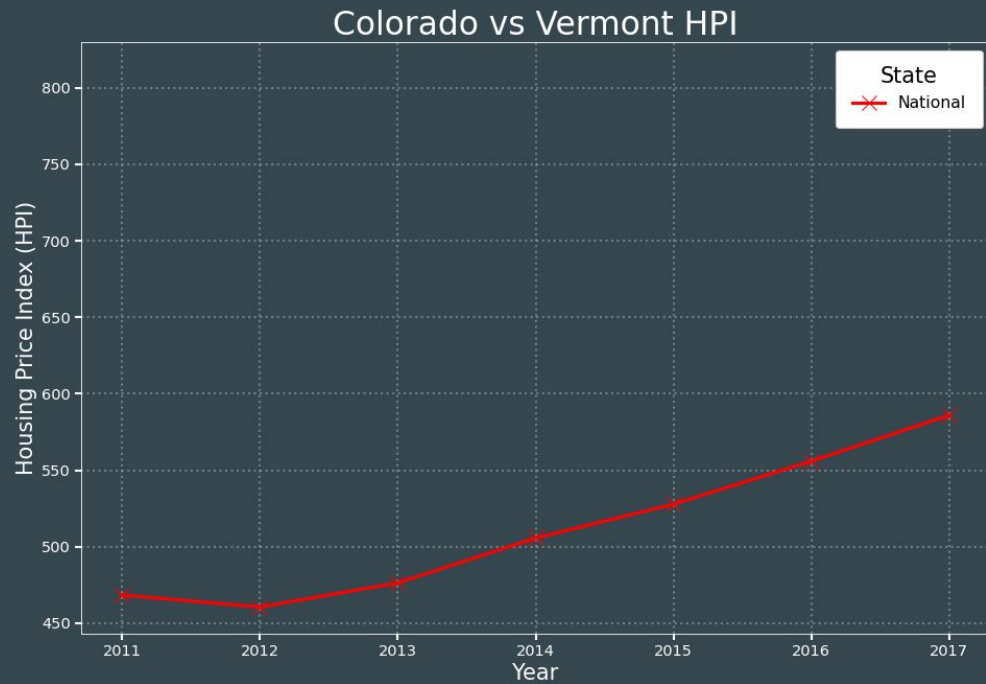
Oregon : Rhode Island

- Sales began

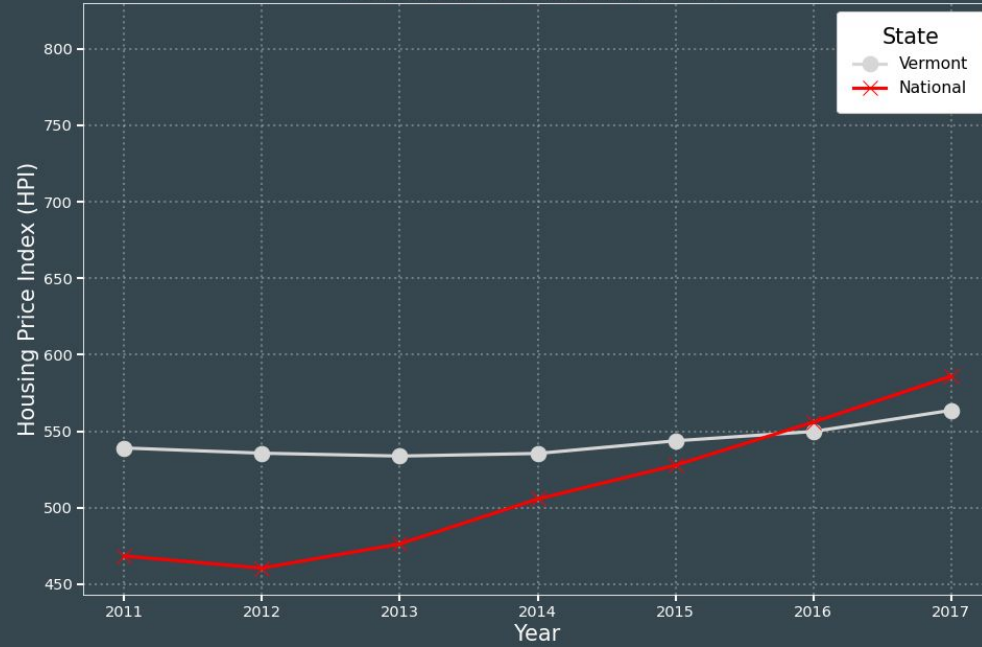
Washington : New Jersey

- Sales began

# State by State

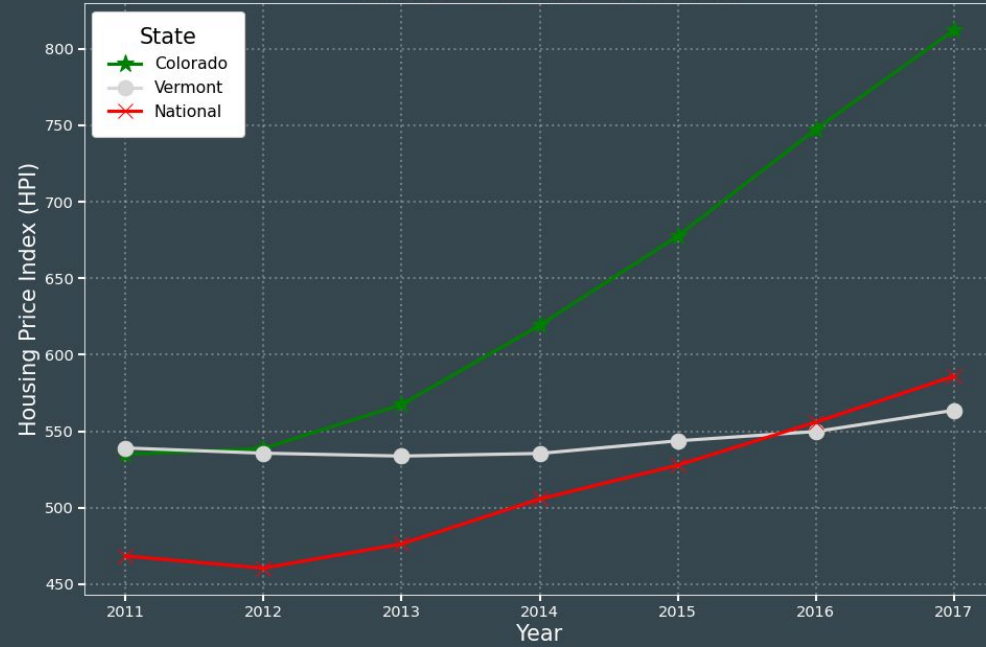


## Colorado vs Vermont HPI

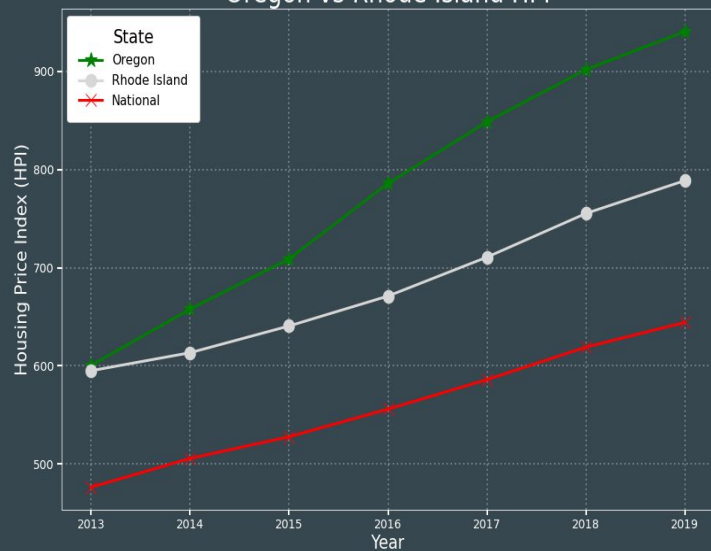




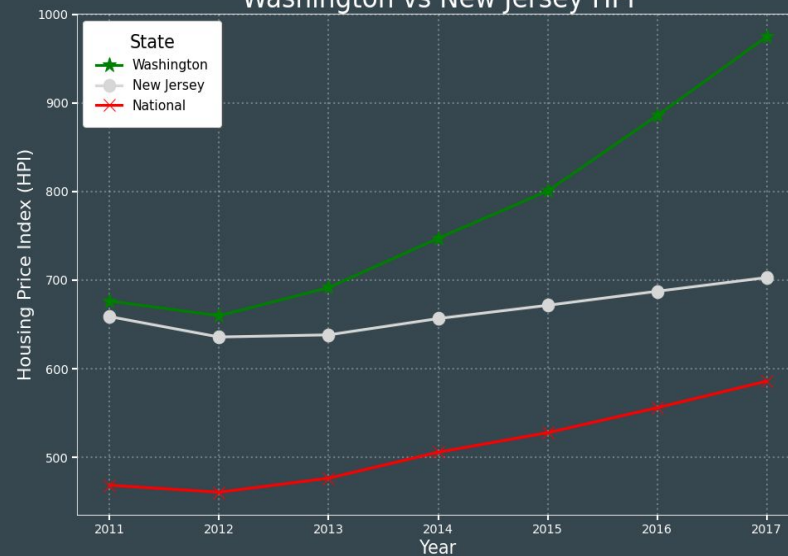
# Colorado vs Vermont HPI



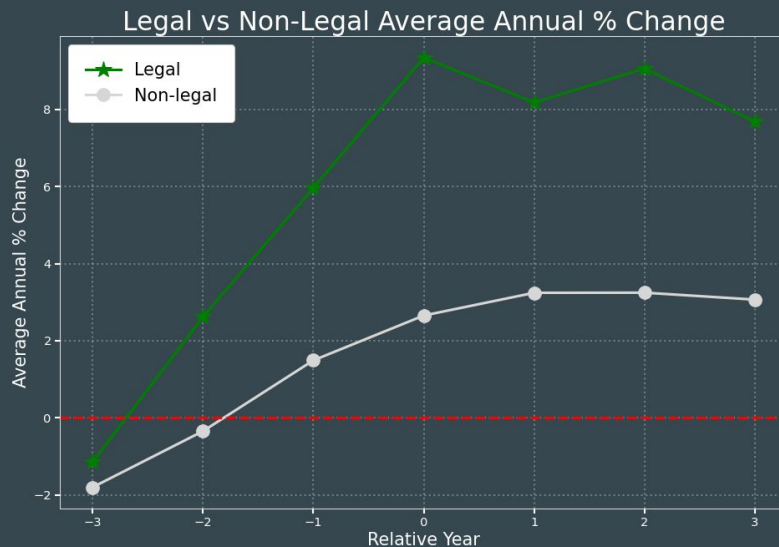
Oregon vs Rhode Island HPI



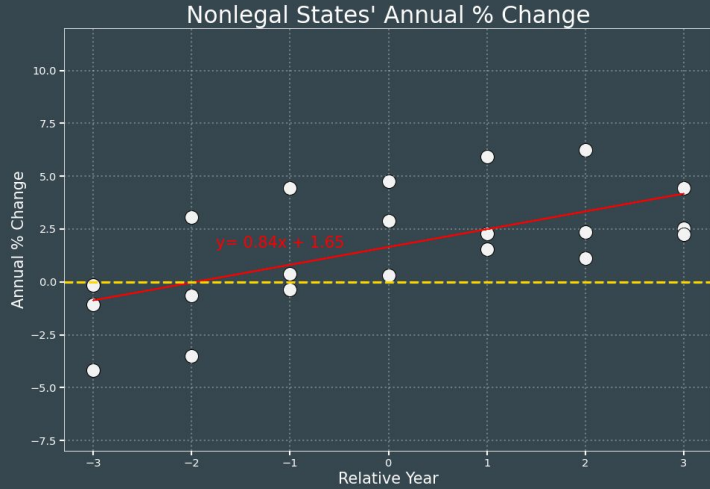
Washington vs New Jersey HPI



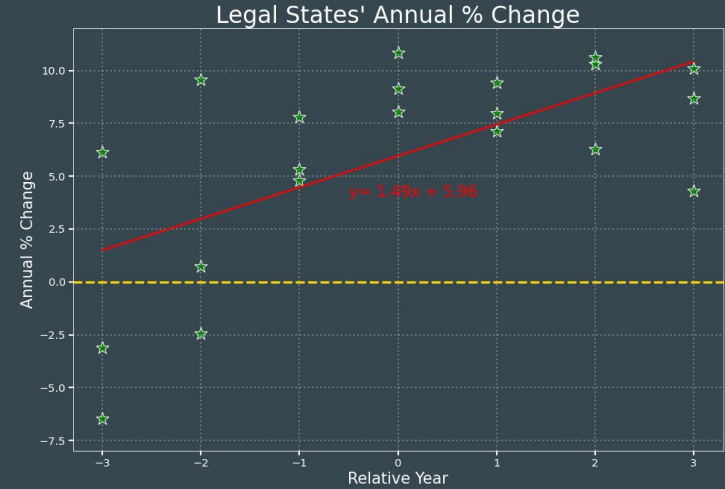
# Legal versus Non-legal



- *Annual % Change* is the % change in HPI relative to its previous year.
- *Relative Year* is relative to the year on which a state's recreational cannabis sales began (Year 0).

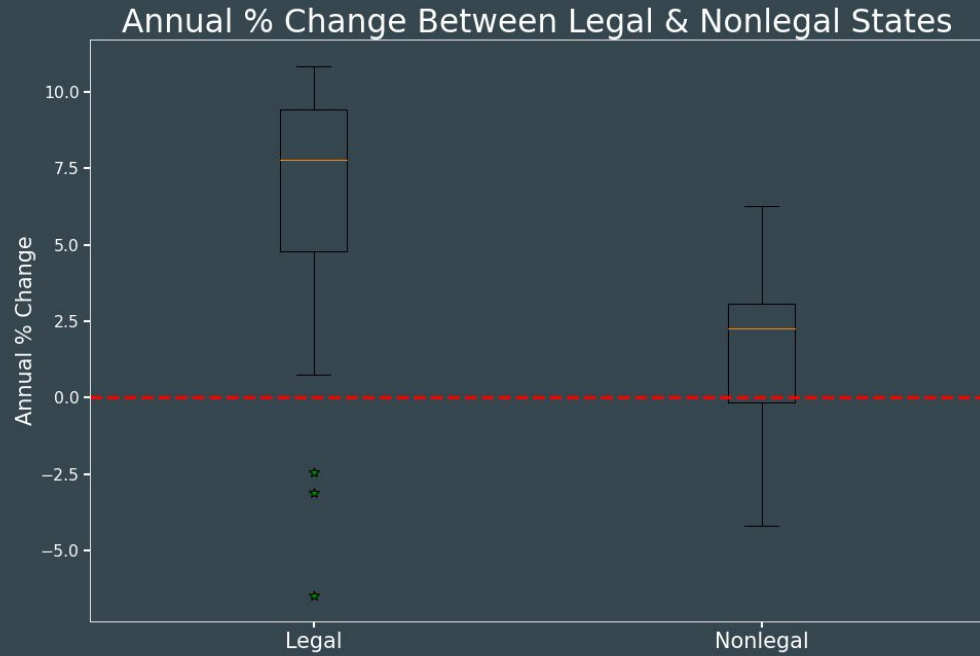


Pearson's  $r = 0.6208$



Pearson's  $r = 0.6241$

*When grouped separately, both legal and non-legal states show positive correlation with Relative Year versus Annual % Change in HPI.*



*With the exception of outliers, the annual % change in HPI is significantly greater for legal states than non-legal states.*

# Conclusions



# The Team



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