

Zillow & Covid-19 Rent Market Analysis

Zillow & Covid-19 Rent Market Analysis	Agenda	Problem Context	Summary	Rent Prices Across The US	Covid-19 - New + Total Cases	Rent Prices VS Covid-19 - East Coast (1/2)	Rent Prices VS Co..
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Zillow Rent & Covid-19 Rent Market Analysis

By: Bart Teeuwen
Date: 12/23/2020



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Topics of discussion:

- 1. Client introduction & problem context
- 2. Summary analysis
- 3. Trends in avg rent prices US and Covid-19 cases
- 4. The effects of Covid-19 on avg rent prices by state
- 5. Forecast changes in avg rent prices and Covid-19 cases for 2021
- 6. Recommendations for 2021
- 7. Q&A

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The client:

- Real estate company "Elevated Living"
- Owns and manages several properties within the United States
- Properties are typically located in the suburbs
- The brand exudes a modern and warm aesthetic
- Luxury amenities

Key stats:

- Tenant occupancy rate averages 93%
- ~\$500M a year in revenue in 2019
- Average tenant satisfaction score of 4/5 stars

The problem:

- Effects of Covid-19 on business unknown (February 2020)
- Fear for tenants' inability to pay rent
- Lack of action plan

The solution:

- Partnering with consulting firm Theo & Associates Consulting
- Analysis of real estate market and effect of Covid on avg. rent prices in the US
- Set of recommendations for next steps

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their jobs, and bills went unpaid. For the real estate industry this meant an evolving customer journey, downward pressure and competition on rent prices, and general uncertainty

The effects have been profound on the US economy

- Revenue loss
- Bankruptcies
- Unemployment
- Financial instability

Implications for real estate industry:

- Considerable decrease in avg rent pricing
- Geographies differed in impact
- Accelerated consumer behavior in real estate:
 - Waiting for deals
 - Buying houses
 - Moving out of state
- Avg rent prices dipped in some states while others increased over time
- The Covid-19 data shows a repeating V-shape effect in rent pricing
- Data shows rent prices across the US leveling near the end of 2020

Vaccination & recommendation:

- Vaccines in late november/december 2020
- Key recommendations for client Elevated Living includes a mix of tenant acquisition & retention:
 - Adapting rent
 - Offering rent payment assistance

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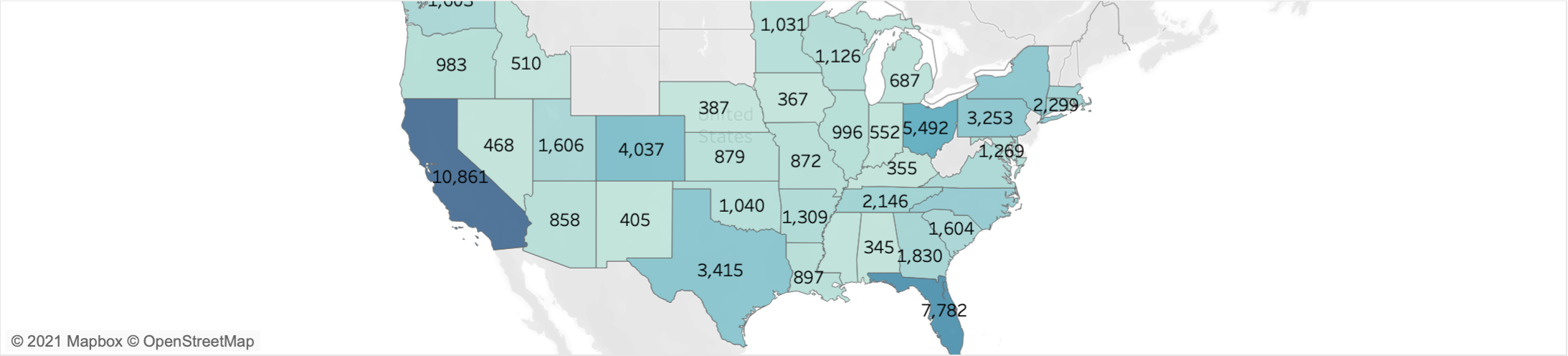
Avg. rent prices have increased in the US. Coastal states in particular have higher avg. rent prices than landlocked states

For this presentation we will focus our analysis only on states where Elevated Living has properties

Date
1/1/2017 to 9/1/2020



Rent by US State



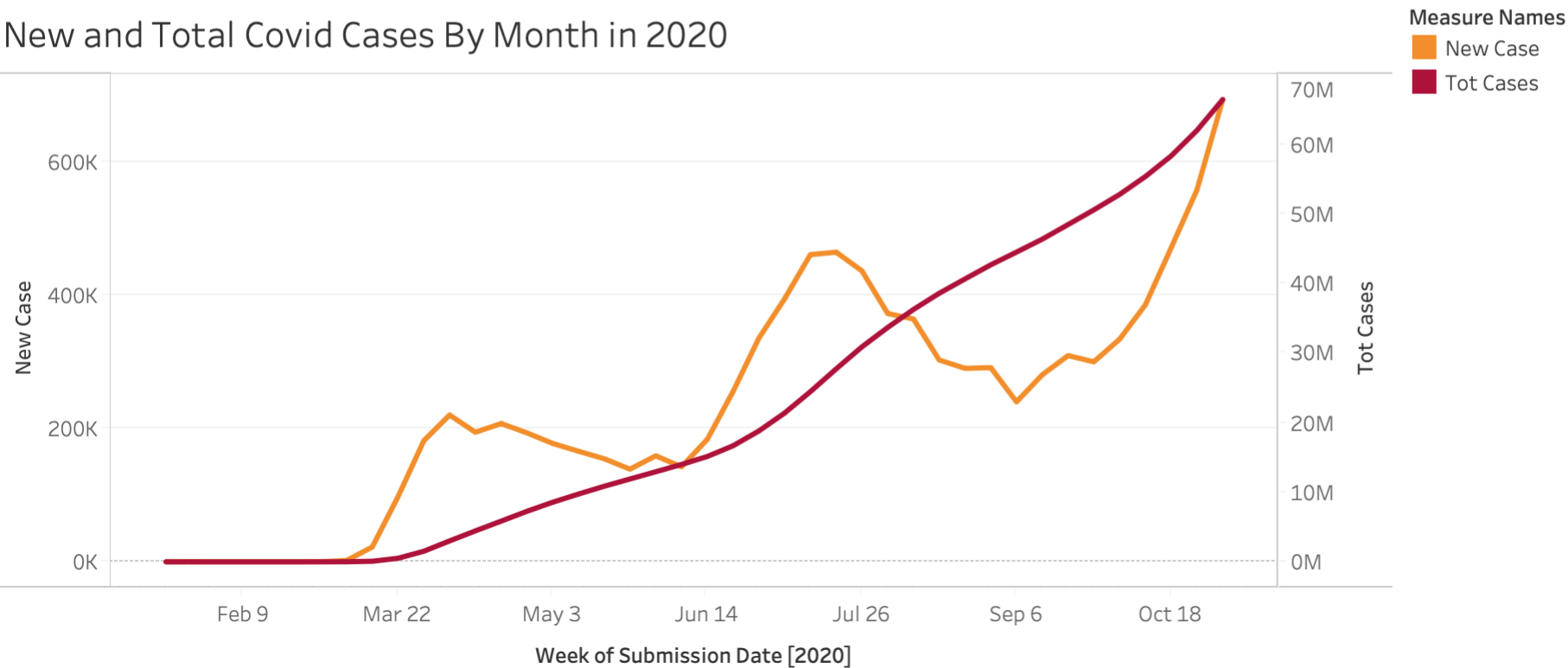
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Covid-19 cases have risen consistently in the US, particularly spiking around national holidays towards 700,000 cases by November 2020

- **Nationwide holidays** seems to cause **spikes in infections** (Memorial Day Weekend, Thanksgiving Weekend)
- **July to August and October to November** are experiencing a **rapid rise** in Covid-19 cases
- Covid-19 cases increased **1910%** between **April and November 2020**

New and Total Covid Cases By Month in 2020



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As the count of total Covid-19 cases rises the rent pricing seems to drop substantilly before recovering in MA and FL

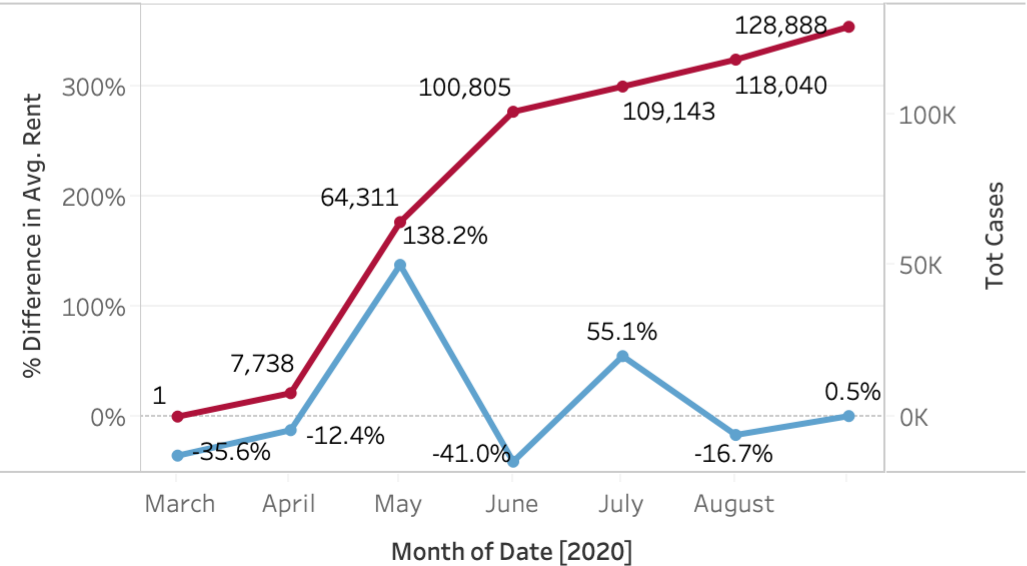
Data highlights:

- Potential explanations are **emigration, lower demand, and shifting market**
- Massachusets avg rent price drops early in 2020 before recovering in April
- The avg rent price in Florida is less volatile in early 2020, dropping in the summer

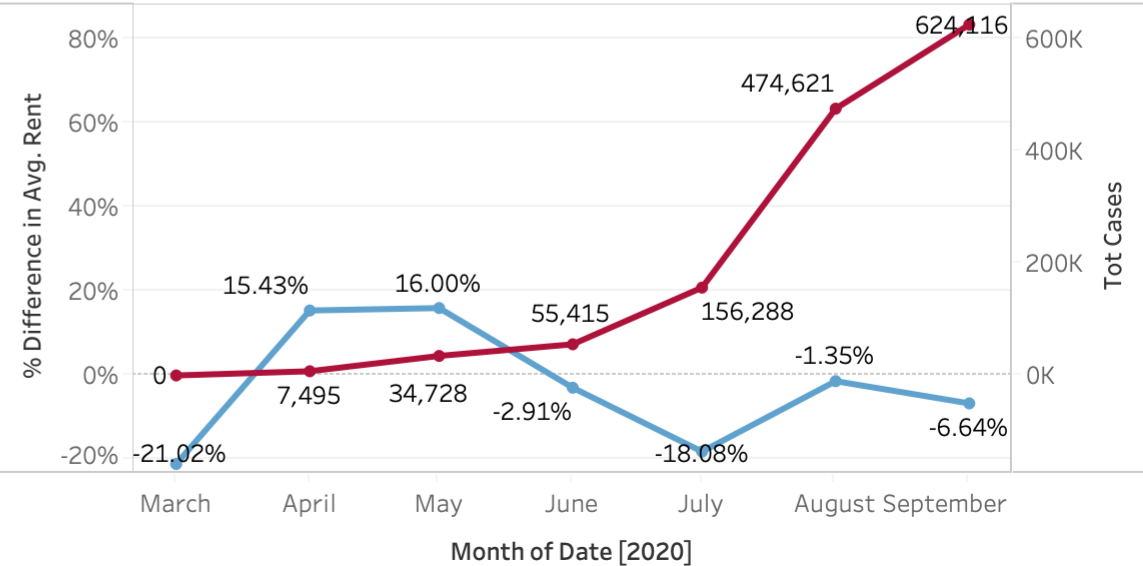
Measure Names

■ % Difference in .. ■ Tot Cases

Rent Prices VS Covid MA



Rent Prices VS Covid FL



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The pandemic seems to have a different effect on avg. rent prices by state based on the total number of Covid-19 cases (e.g. NY and PA)

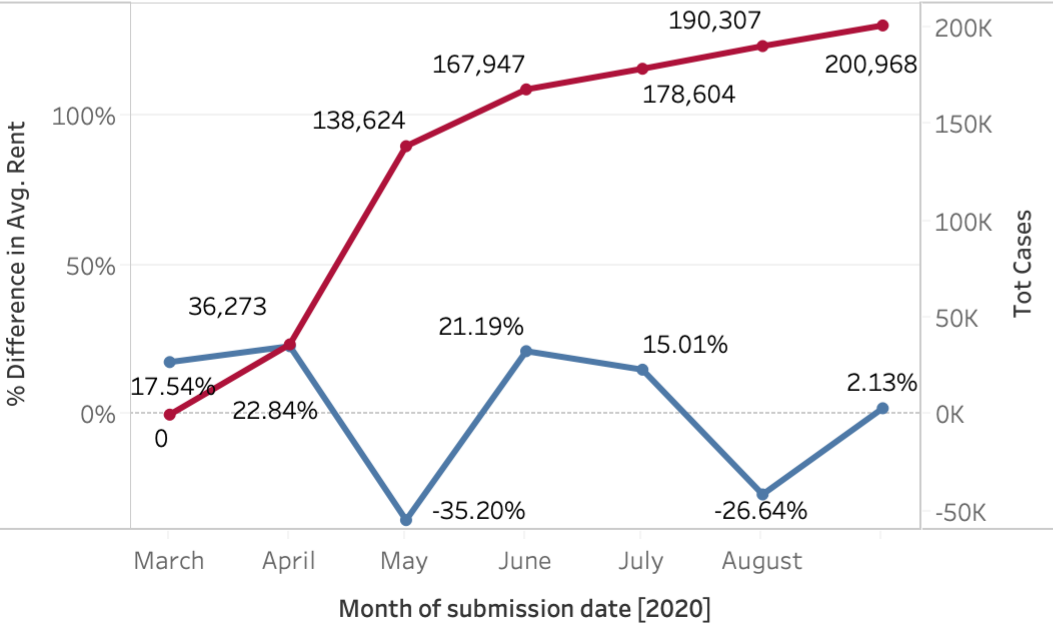
Data highlights:

- New York initially saw higher avg rent prices before it dropped in April and July 2020
- Pennsylvania saw a drop in March, May, and July 2020

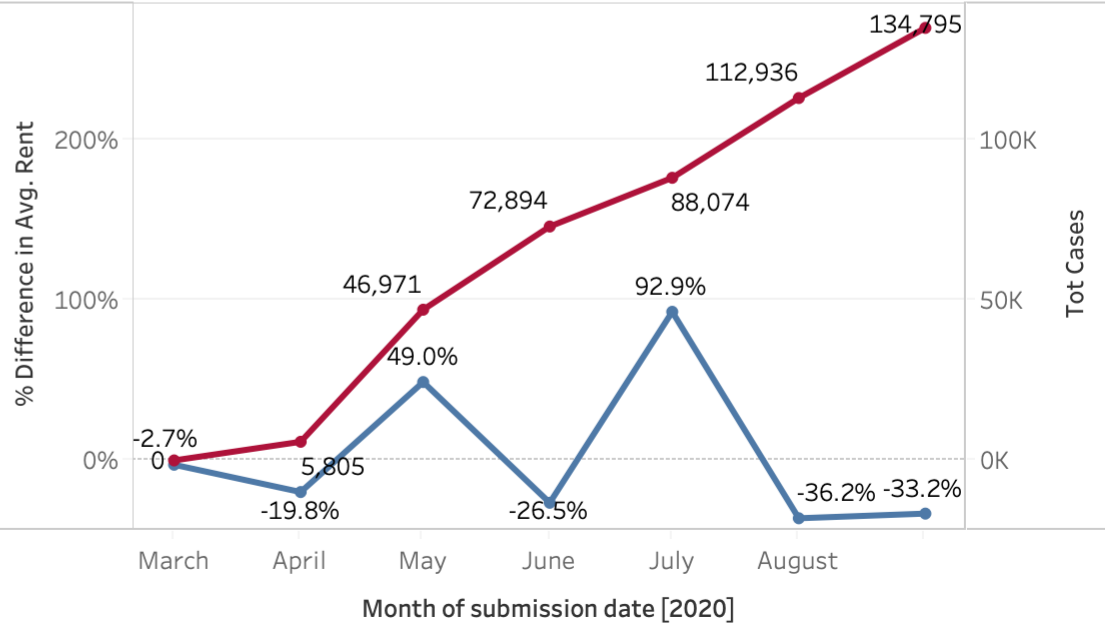
Measure Names

■ % Difference in .. ■ Tot Cases

Rent Prices VS Covid NY



Rent Prices VS Covid PA



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Where for example expensive states such as CA experienced a smaller dip than other states (e.g. WA)

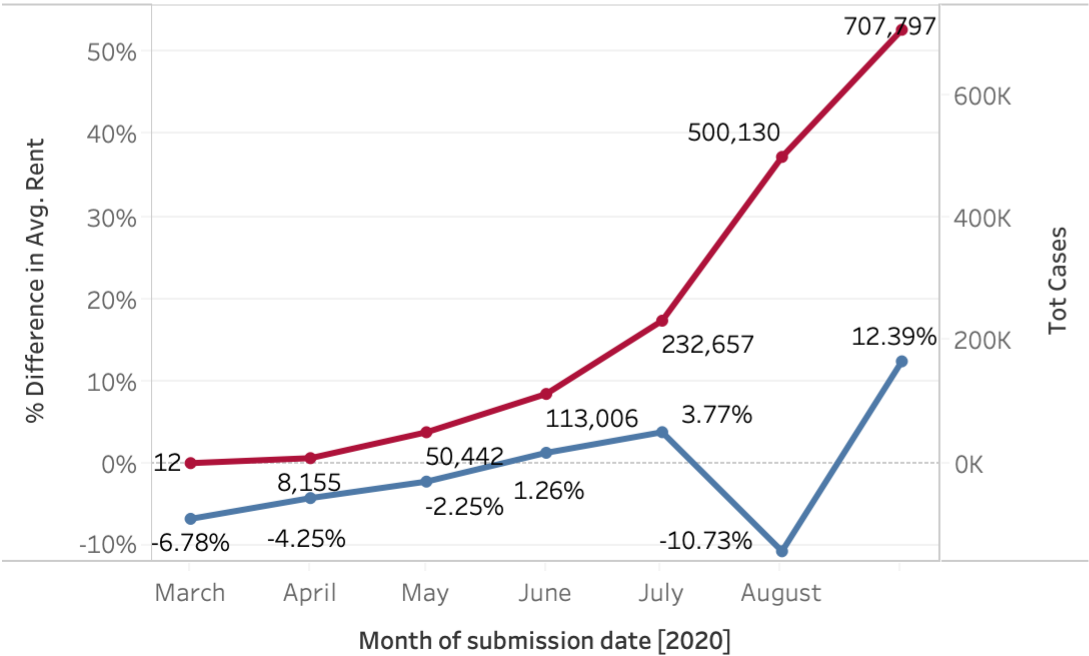
Data highlights:

- California avg rent prices were mostly increasing for most of 2020, but starting to dip in July 2020
- Washington experienced deep avg rent price reductions and hefty rent price increase as the pandemic grew

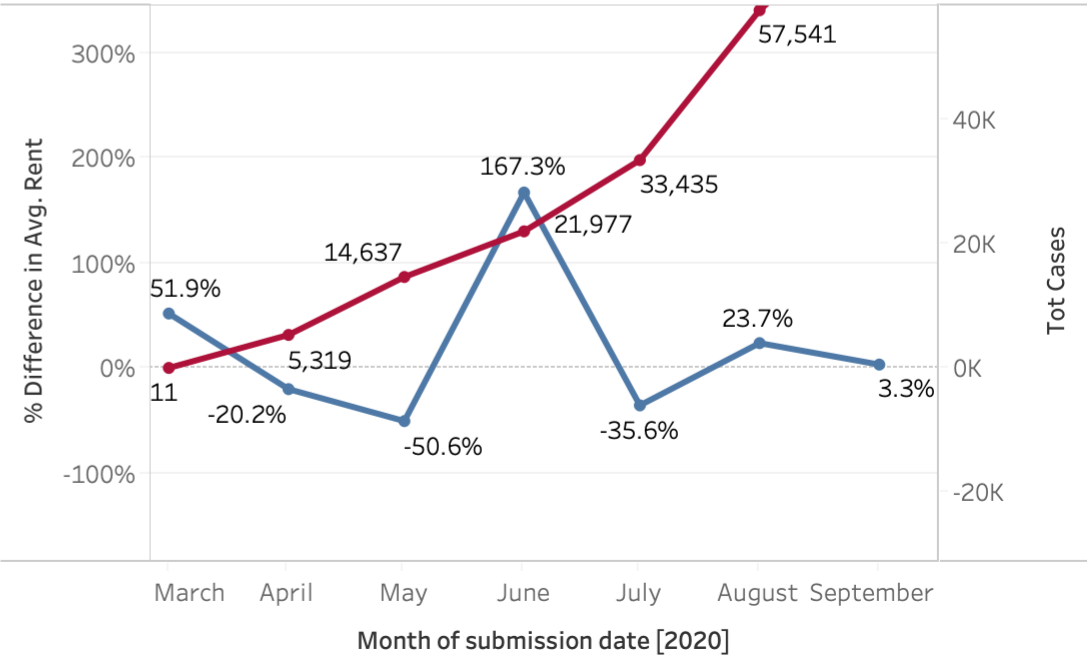
Measure Names

■ % Difference in .. ■ Tot Cases

Rent Prices VS Covid CA



Rent Prices VS Covid WA



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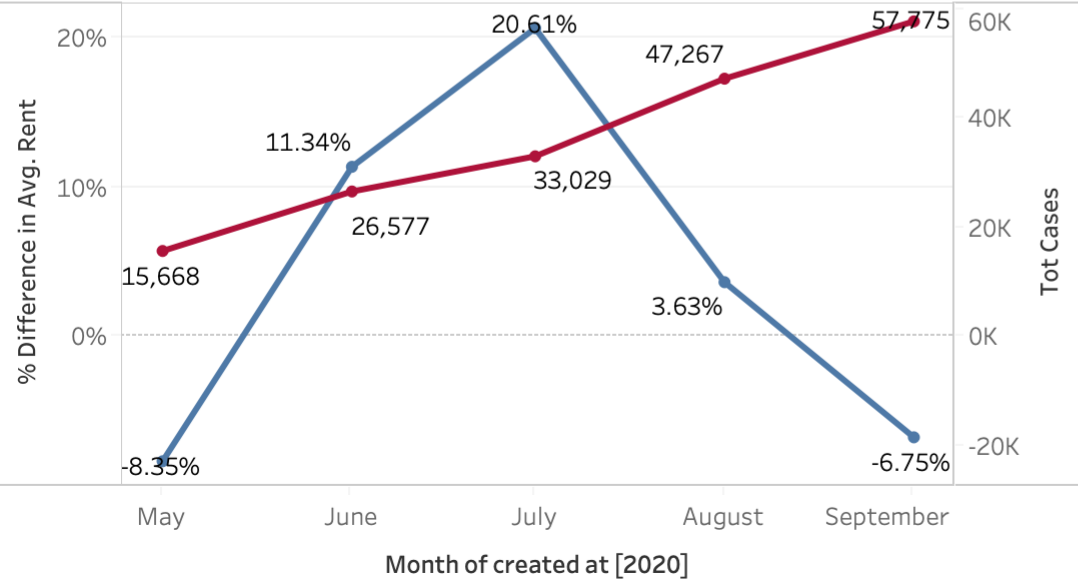
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Overall, Covid-19 seems to cause a zigzag effect where property owners lower rent temporarily to attract tenants but try to avoid long-term rent pride reductions. Some states like CO and TX showed stronger avg. rent price recovery, which may be due to people emigrating from more expensive states

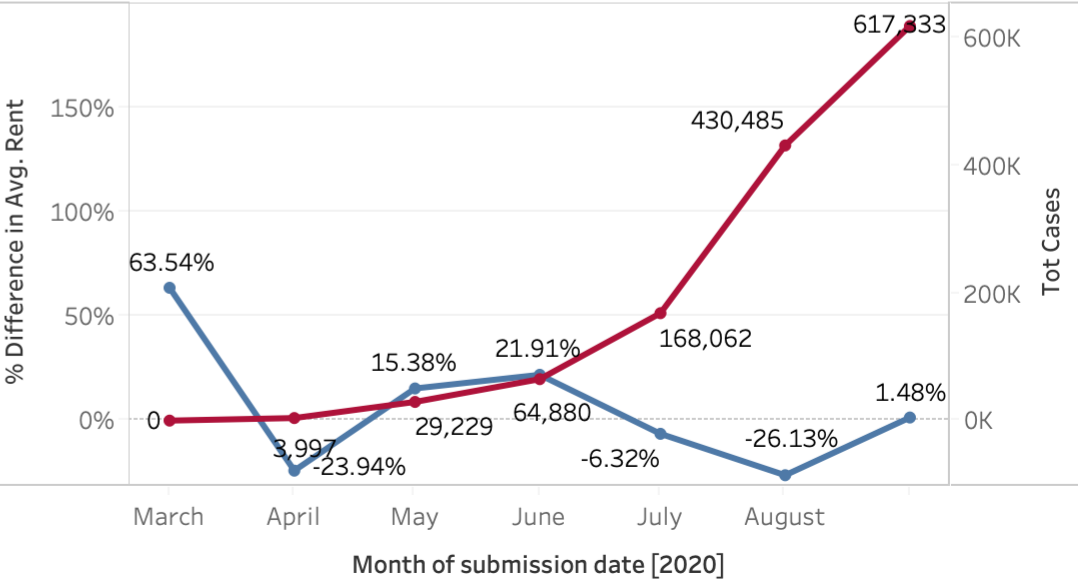
- Data highlights:
- Colorado avg rent prices dipped briefly in April before consistently rising until the end of year
 - Texas shows a similar pattern with a dip in April and then another dip from June to July as the pandemic worsened

Measure N.. ■ % Difference in .. ■ Tot Cases

Rent Prices VS Covid CO



Rent Prices VS Covid TX



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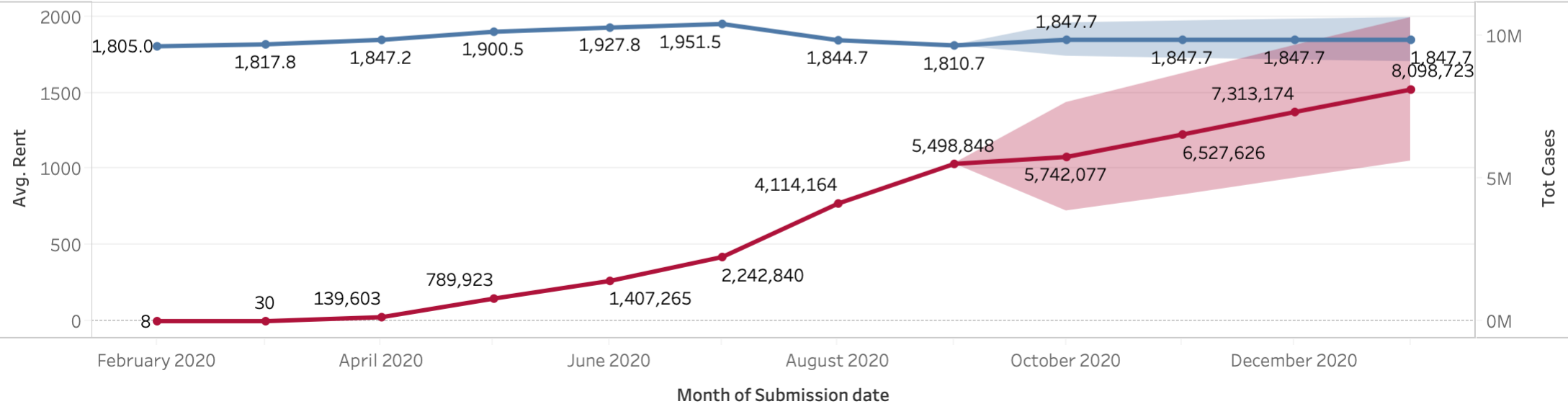
The latest news on Covid-19 suggests a big spike towards 15M total cases by end of December, with avg. rent prices reach a plateau between the range of \$1,800 and \$2,000

- Data highlights:
- Vaccine news - it gets worse before it gets better
 - Rent prices reaching plateau
 - New equilibrium
 - Individual states may be affected more so by Covid-19

Measure Names

Avg. Rent Tot Cases

Covid & rent Forecast



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Dynamic pricing by state and tenant retention programs could be a great way for Elevated Living to maintain it’s 93% occupancy rate and revenue

Key insights & recommendations

Insights:

- Rent prices react differently to Covid infections per geography
- Coastal living = expensive living
- High avg rent + #remotework = people moving to Colorado, Texas, etc.
- National holidays + impatience were a major factor in escalating Covid-19 cases
- Rent prices seem to react to Covid-19 in a zizzag pattern (cyclical nature)

Recommendations:

- **Attract new tenants** - Adjust rent in states where “Elevated Living” has properties according to local demand
- **Retain existing tenants (1/2)** - Engage with current tenants to offer rent payment assistance to those who need it
- **Retain existing tenants (2/2)** - Send tenants nearing the end of their lease a “Thank you gift” and open conversation to renewal

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THANK YOU!

We are excited for the opportunity to work with you as a trusted partner

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Data Sources

1. Zillow Observed Rent Index (ZORI)
(<https://www.zillow.com/research/data/>)
2. CDC - United States COVID-19 Cases and Deaths by State over Time:
<https://healthdata.gov/dataset/united-states-covid-19-cases-and-deaths-state-over-time>