

Business Report: Zillow 3-Bedroom Insights Dashboard

Executive Summary

The **Zillow 3-Bedroom Insights Dashboard** is a comprehensive analytical tool designed to evaluate housing price trends, affordability, and growth across states in the United States. By analyzing data from January 2000 to December 2024, the dashboard provides actionable insights that can benefit real estate analysts, investors, policymakers, and buyers. Key metrics such as housing price growth, state affordability rankings, and price distributions are visualized using Excel, making it an accessible and insightful project.

Project Objectives

- Identify states with the highest housing price growth from 2000 to 2024.
- Determine the most and least affordable states based on housing prices.
- Analyze housing price trends to identify patterns and outliers.
- Provide a distribution of housing prices for 2024 to understand market spread.

Key Findings

1. **Housing Price Growth:**
 - Hawaii exhibited the steepest growth in housing prices from 2000 to 2024, showcasing significant real estate market expansion.
2. **Affordability:**
 - Wyoming emerged as the most affordable state, consistently offering lower average housing prices compared to other states.
 - Conversely, Hawaii, District of Columbia, and California ranked among the least affordable.
3. **2024 Housing Price Distribution:**
 - The majority of housing prices in 2024 fell between \$600,000 and \$900,000, highlighting a concentrated price range in the current market.
4. **Top Contributing States:**
 - States like Hawaii and California were identified as major contributors to the real estate market, reflecting their economic importance and demand.

Methodology

1. **Data Cleaning:**
 - Missing values in monthly price data were replaced with column-specific averages.
 - Irrelevant columns were removed to ensure a focused analysis.
2. **Calculations:**
 - Housing price growth was calculated by subtracting January 2000 prices from December 2024 prices for each state.

- Average housing prices were computed for each state and year to provide a holistic view of affordability and trends.
- 3. **Visualizations:**
 - Line charts were used to track housing price trends over time for states with the highest growth.
 - Bar charts displayed state-wise average housing prices and affordability rankings.
 - A pie chart highlighted the top 5 contributing states in 2024.
 - A histogram presented the distribution of housing prices for 2024.

Insights and Implications

- **Investment Opportunities:** States like Hawaii, with significant price growth, indicate strong demand and potential investment returns. Conversely, affordable states like Wyoming may attract first-time homebuyers.
- **Market Dynamics:** The concentration of housing prices within a specific range (\$600,000-\$900,000) in 2024 suggests stability but also potential barriers to entry for buyers.
- **Policy Recommendations:** Policymakers can use affordability rankings to allocate resources for housing subsidies or affordable housing programs in high-ranking states.

Conclusion

The Zillow 3-Bedroom Insights Dashboard effectively transforms complex housing market data into actionable insights. By leveraging Excel's advanced features, this project demonstrates how data analysis and visualization can guide decision-making in real estate. The dashboard's findings can inform investment strategies, market analysis, and housing policy development, making it a valuable tool for various stakeholders.

Next Steps

- **Enhancements:** Integrate interactive features like slicers for dynamic filtering by year or state.
- **Broader Data Integration:** Incorporate additional metrics such as population growth or income levels for a more comprehensive analysis.
- **Expansion:** Develop a Power BI version of the dashboard for advanced analytics and real-time updates.

This project serves as a compelling demonstration of data-driven insights, showcasing the potential for structured data analysis to inform strategic decisions in the housing market.