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U of M Data Analytics & Visualization Bootcamp

1. How do States rank in housing affordability?
   1. Price To Income Ratio: Also known as P/E Ratio details the number of years a household income will be invested to purchase a home. To get the P/E ratio you take the price of the house and divide that by the household income. Generally, a P/E ratio above 4 is not desirable. A high P/E ratio depicts an expensive housing market and you are getting out of affordability range. A P/E ratio under 4 means you have a household income that can better afford the house price you want.
   2. The data below shows the top states that have the best average housing affordability which include Illinois, Oklahoma, Kansas, West Virginia and Arkansas.
   3. The states that have less desirable average housing affordability include Hawaii, California, Colorado, District of Columbia, And Montana.
   4. The highest P/E ratio is Hawaii at 7.9.
   5. Illinois sits at the lowest P/E ratio at 1.7
   6. The average P/E ratio of the United states is 3.44
   7. When you look at the states with the highest % increase in housing prices over the last 4 years, there is a considerable amount of overlap with a high-income ratio.
      1. Idaho, Washington, Nevada, Utah, Oregon, Florida, Montana, and Rhode Island all have income ratio’s above 4 and at the same time have some of the top pricing increases in housing over the last 5 years.

Below are states with a good P/E Ratio below 4.0

Chart

Description automatically generatedBelow are states with a less than desirable P/E Ratio above 4.Chart, bar chart

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There is a slight positive correlation comparing housing price increase over the last 5 years to price to income ratio. The correlation is not enough to be able to predict a trend.

Chart, scatter chart

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