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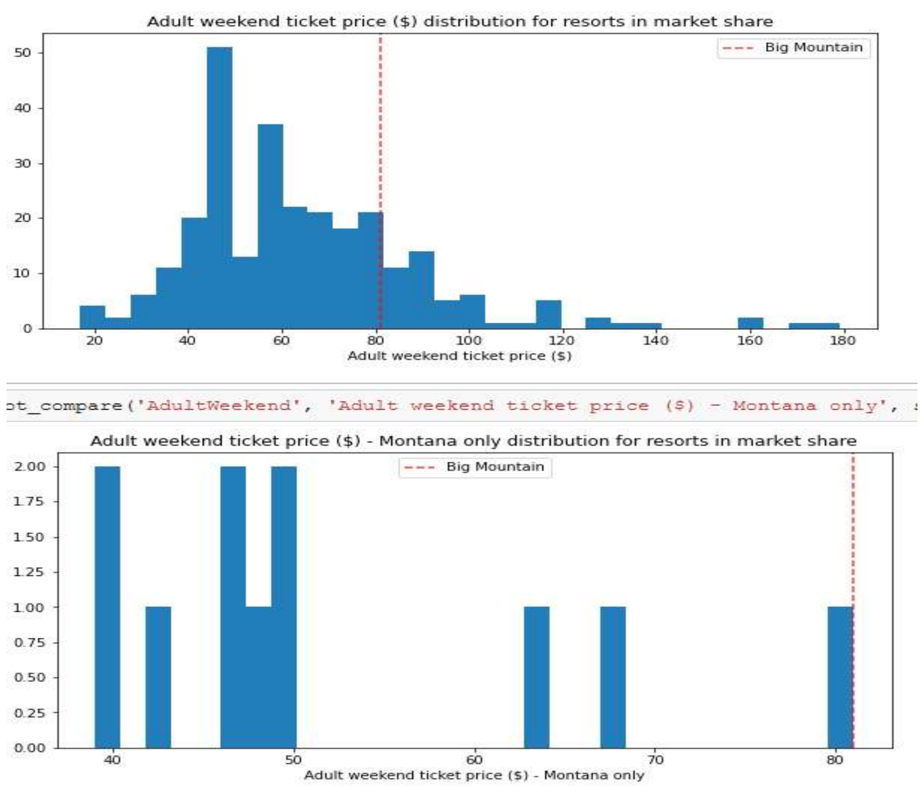
Big Mountain Case Study

The goal of this project was to test essentially one two key questions, whether the addition of an additional chair lift allow Big Mountain Resort to charge a higher price for their lift ticket, covering the operating cost of that additional ski lift.(~$1.5M), and how Big Mountain's pricing was positioned within the market.

Post analysis, the model we created to answer that question shows that simply the answer is 'no'. Adding one additional chair lift does not make sense. It does not allow for the increase on its own merits.

In the analysis however, we uncovered a greater insight, that the resort, based on our model and prediction, is currently charging too little, and could charge more without any feature changes. The model shows that our proxy for price(Weekend Price) is currently set a $81, and the model would predict a that a resort with the same features/predictors as Big Mountain could potentially charge ~$95.87, an %18 increase in price with no feature changes/additions at all.

This may come as a shock to management who already think their price is too high, as they are indeed the highest in their local market(Montana). The current weekend price of Big Mountain is in the upper end of the distribution.(Fig1)

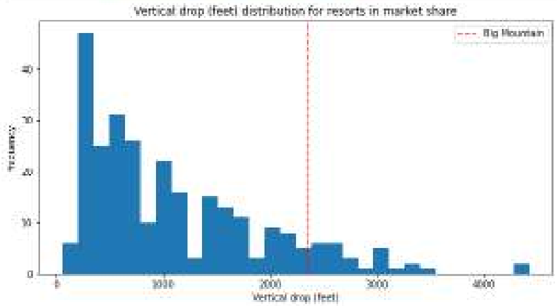


The model shows however, that the predictive features in the model, Vertical Drop, Ski-able Area etc, Longest run, Total Runs, etc...Big mountain also is in the upper distribution of these as well(page 2, Big Mtn seen as the red vertical line) so in a sense they are underselling. They have a lot of value in these features that they are not currently charging enough for.

After reviewing the distributions on page two, it intuitively makes sense. Big Mountain will still be in the upper distribution on price, but they already have the pricing power to charge more. Currently the customer getting a lot of value for $81 and the company is leaving revenue on the table.

5.8.2 Vertical drop

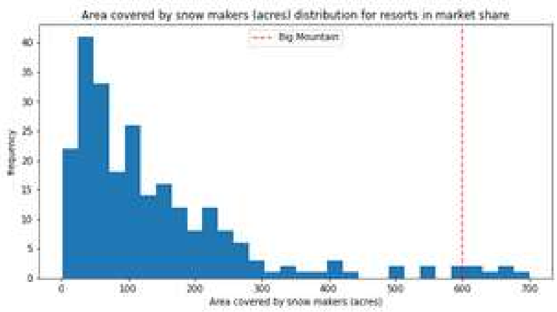
```
In [23]: plot_compare('vertical_drop', 'Vertical drop (feet)')
```



Big Mountain is doing well for vertical drop, but there are still quite a few resorts with a greater drop.

5.8.3 Snow making area

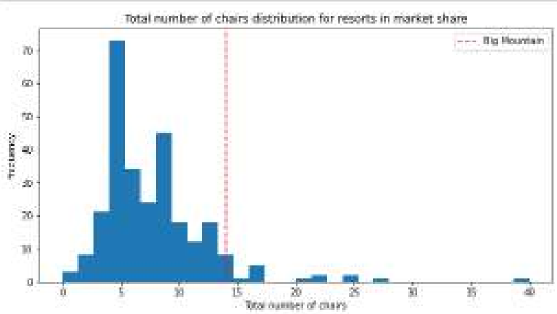
```
In [24]: plot_compare('Snow Making_ac', 'Area covered by snow makers (acres)')
```



Big Mountain is very high up the league table of snow making area.

5.8.4 Total number of chairs

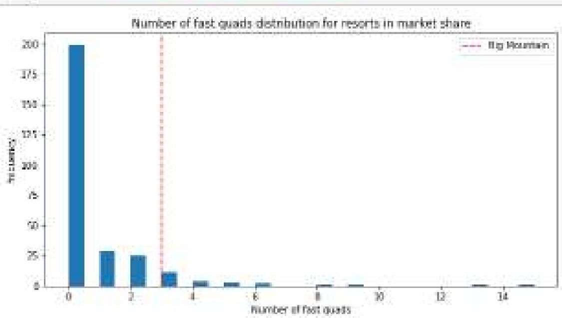
```
In [25]: plot_compare('total_chairs', 'Total number of chairs')
```



Big Mountain has amongst the highest number of total chairs, resorts with more appear to be outliers.

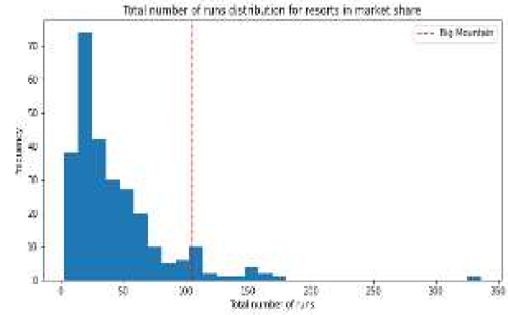
5.8.5 Fast quads

```
In [22]: plot_compare('fastQuads', 'Number of fast quads')
```



5.8.6 Runs

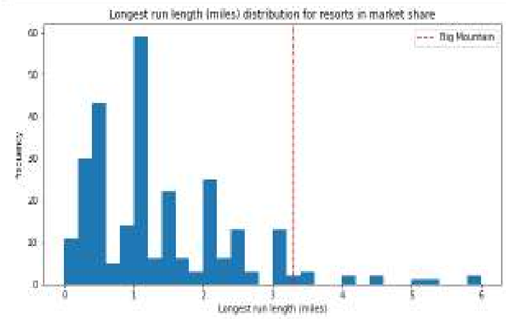
```
[23]: plot_compare('Runs', 'Total number of runs')
```



Big Mountain compares well for the number of runs. There are some resorts with more, but not many.

5.8.7 Longest run

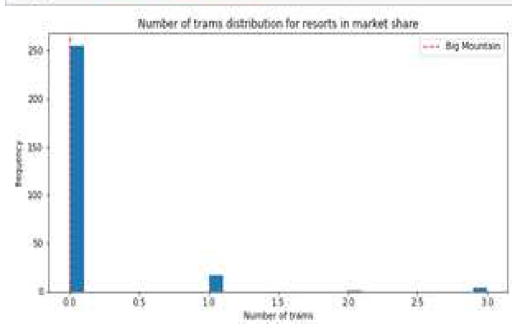
```
[24]: plot_compare('LongestRun_mi', 'Longest run length (miles)')
```



Big Mountain has one of the longest runs. Although it is just over half the length of the longest, the longer ones are rare.

5.8.8 Trams

```
[25]: plot_compare('trams', 'Number of trams')
```



The vast majority of resorts, such as Big Mountain, have no trams.

5.8.9 Skiable terrain area

```
[26]: plot_compare('SkiableTerrain_ac', 'Skiable terrain area (acres)')
```