

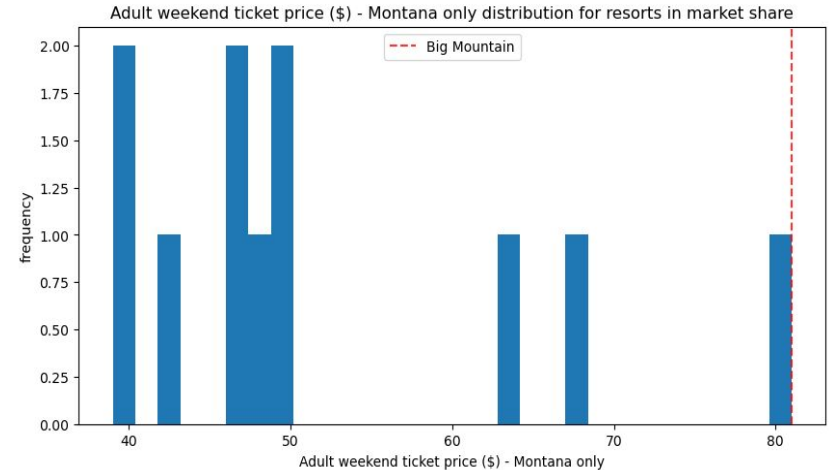
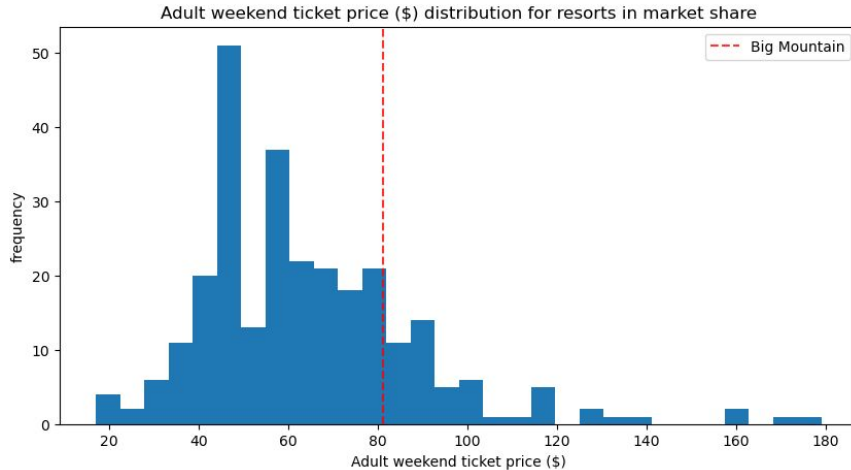
An aerial photograph of a mountain resort. The image shows a vast, snow-covered mountain range in the background. In the foreground and middle ground, there are numerous ski runs, some of which are marked with blue lines. The mountain slopes are dotted with dense evergreen forests. At the base of the mountain, there is a small town or village with buildings and roads. The overall scene is a typical winter mountain landscape.

# Big Mountain Resort

Identifying Ways for Big Mountain Resort to  
Increase Revenue

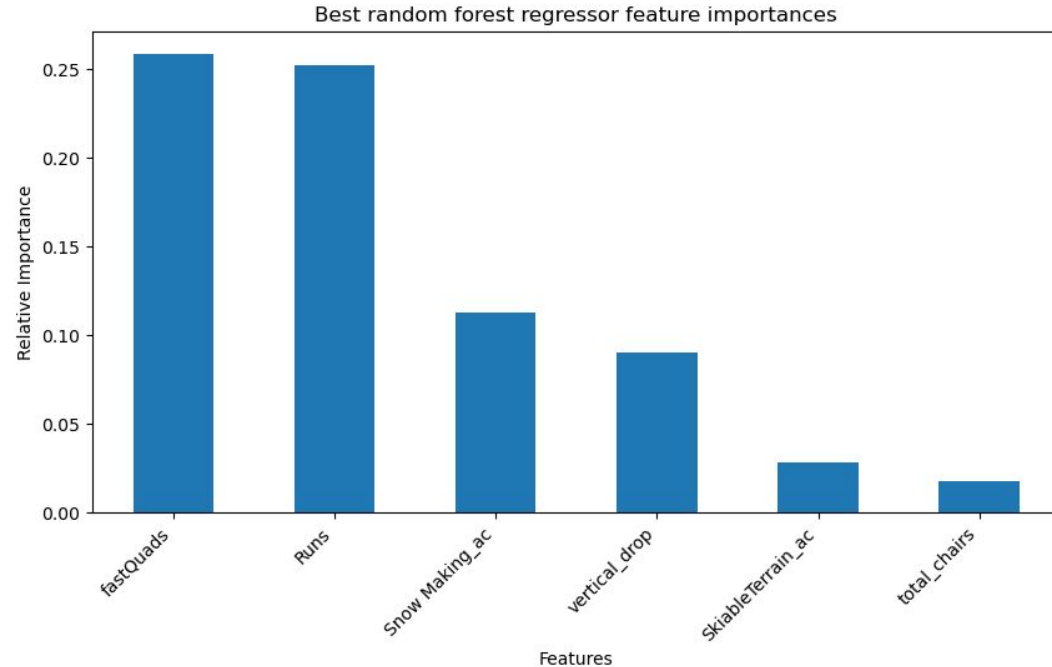
# How can Big Mountain Resort increase yearly revenue by cutting operational costs or increasing ticket prices?

- Big Mountain ticket prices (\$81/adult weekend ticket) are on the high end for Montana but many resorts in the market share charge more.
- Current ticket prices are based on the market average and may not capitalize on Big Mountain's excellent facilities or features.
- ***Can we justify raising ticket prices, and therefore yearly revenue, based on the types of features valued by customers?***



# Recommendations Based on Model Results

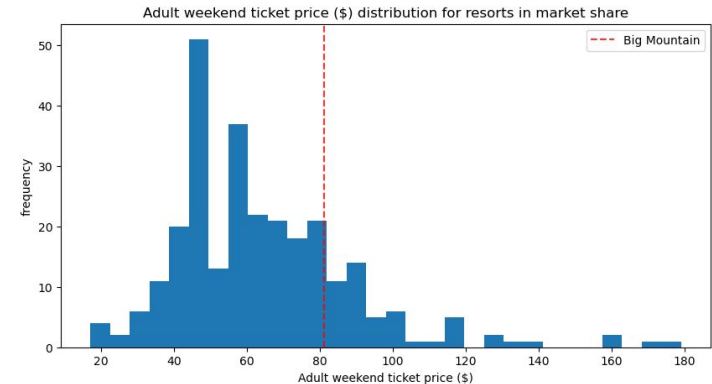
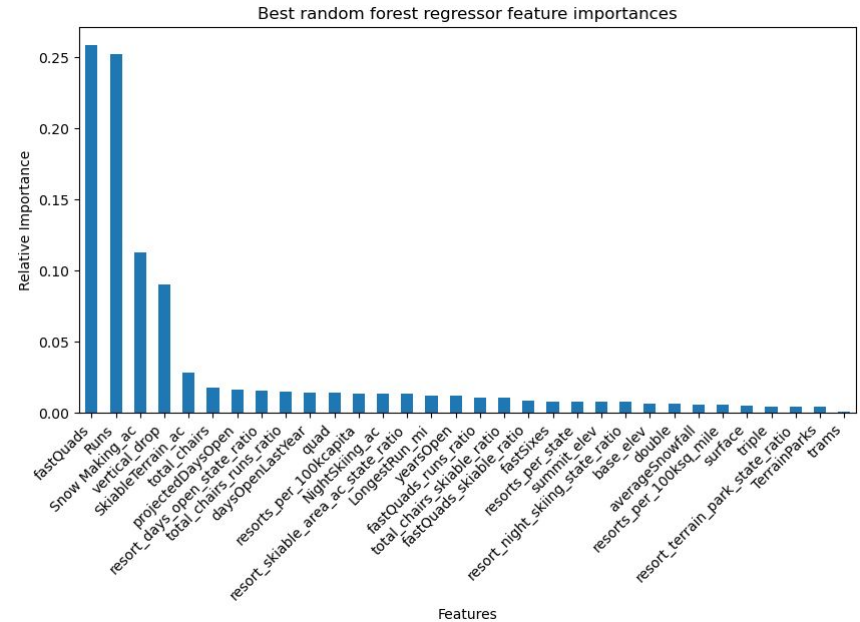
- 1. Increase vertical drop by adding a run to a point 150 feet lower down and installing an additional fast quad to bring skiers back up.**
  - Supports increasing ticket price by \$1.99.
  - Expected \$3,474,638 in increased revenue over the season.
- 2. Further explore closing down 1 or 5 of the least used runs.**
  - Decreases operating costs but could also support a lower ticket price.



# Model Results and Analysis

Random forest model built on **33 ski area attributes** from resorts in market share across the country.

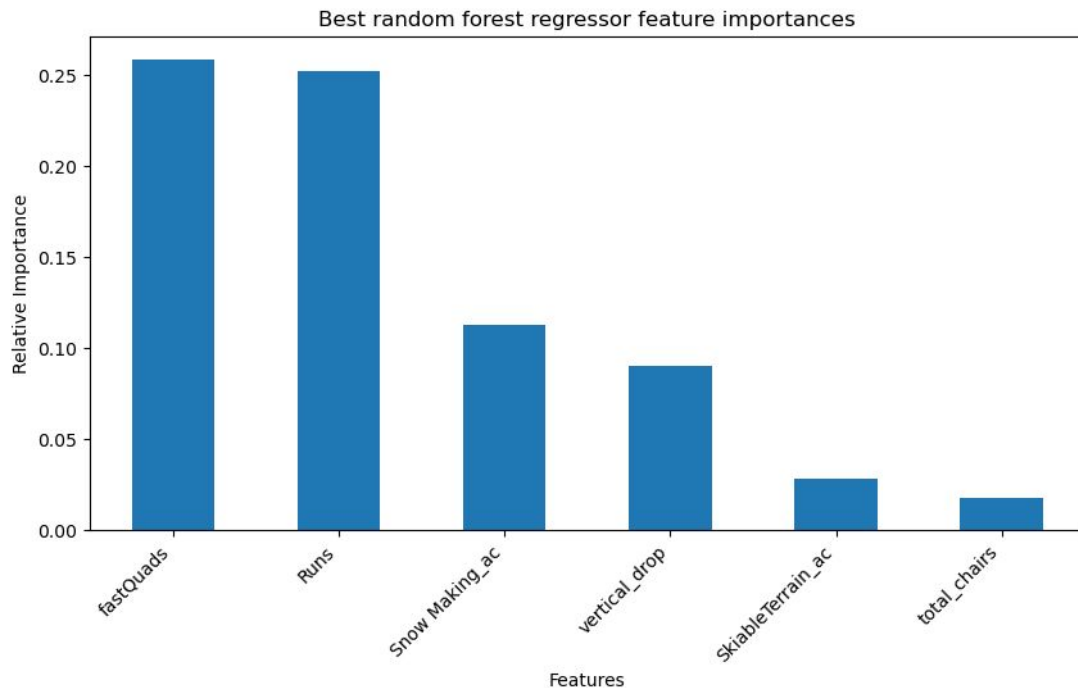
1. Current adult weekend ticket price = \$81
2. Modelled ticket price for Big Mountain = \$95.87
  - Expected mean absolute error of \$10.39
  - Based on fitting the model to all data excluding Big Mountain



# Model Results and Analysis

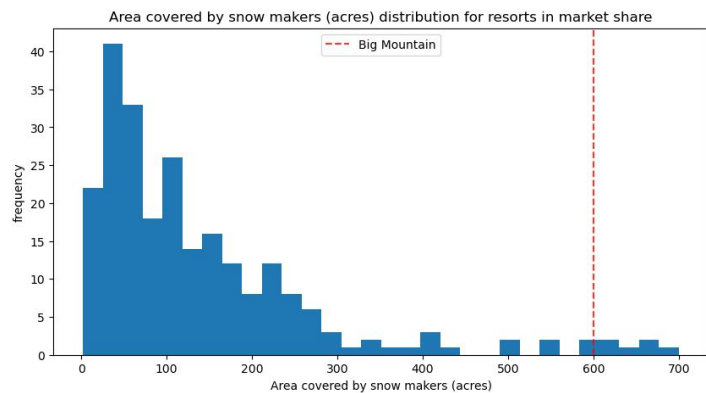
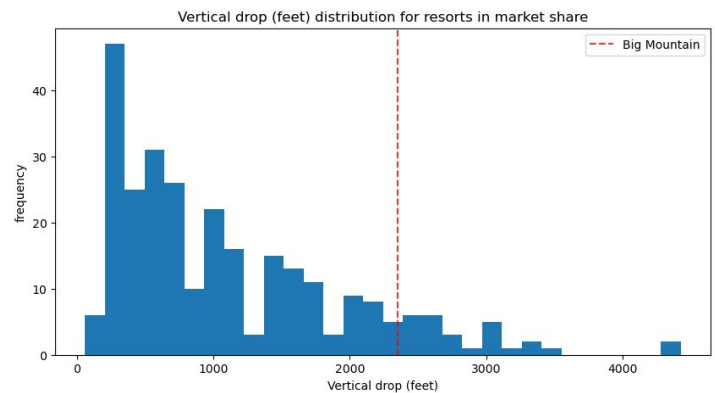
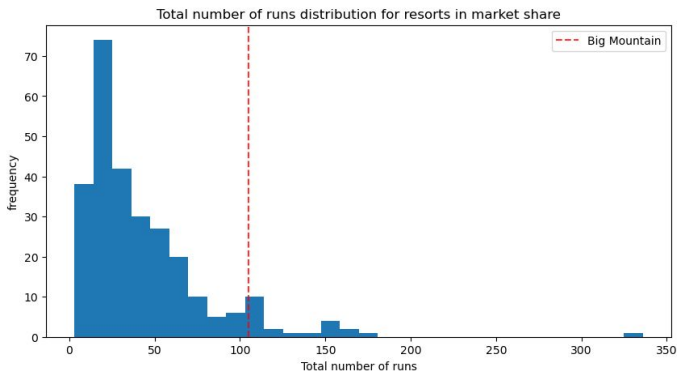
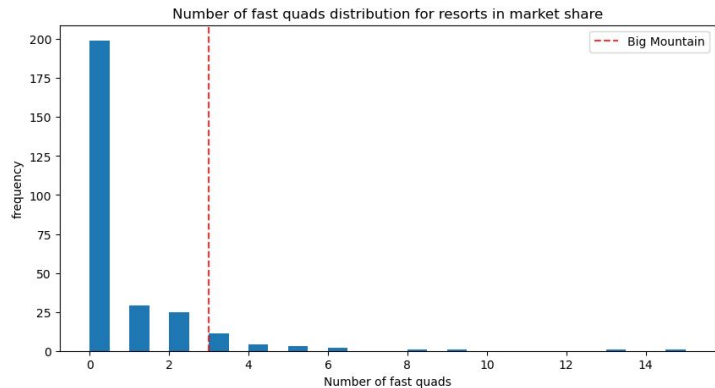
Biggest drivers of ticket price based on the model:

1. Number of fast quads
2. Number of runs
3. Snow making coverage (acres)
4. Vertical drop



# Model Results and Analysis

Big Mountain performs well in terms of top four features that model identifies as major drivers of ticket price.



# Model Results and Analysis

**Tested the model on four scenarios for increasing revenue (best option highlighted):**

1. Permanently closing down up to 10 of the least used runs.
  - *Support for closing some runs depending on how much it decreases operational costs.*
2. Increase the vertical drop by adding a run to a point 150 feet lower down but requiring the installation of an additional chair lift to bring skiers back up, without additional snow making coverage.
3. Same as number 2, but adding 2 acres of snow making cover.
  - *No additional support over scenario 2.*
4. Increase the longest run by 0.2 mile to boast 3.5 miles length, requiring an additional snow making coverage of 4 acres
  - *Not supported by model.*

# Conclusion and Recommendations

**Big Mountain Resort is a facility performs well in many of the key features that skiers seem to care about.**

## **Recommendation 1:**

**Increase vertical drop by adding a run to a point 150 feet lower down and installing an additional lift (fast quad):**

- Increase ticket price by \$1.99.
- Expected \$3,474,638 in increased revenue over the season.

## **Recommendation 2:**

1. Further explore closing down 1 or 5 of the least used runs.
  - *Decreases operating costs but could also support a lower ticket price.*
2. Further explore whether significantly increasing snow making coverage could support an increase in ticket price.
  - *Needs to be weighed against increased operational costs.*