

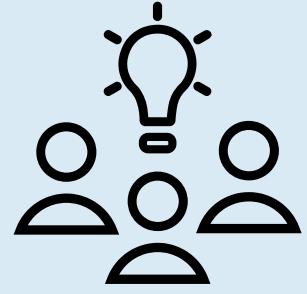
BIG MOUNTAIN RESORT PRICING STRATEGY PROPOSAL



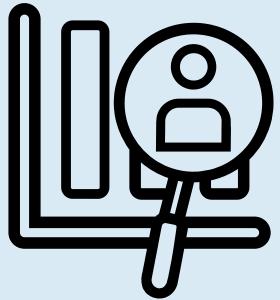
CONTENT

- 01** PROJECT OVERVIEW
- 02** RECOMMENDATION
- 03** DATA SCIENCE PROCESS
- 04** MODEL OVERVIEW
- 05** ASSESSING OPTIONS
- 06** KEY RESULTS
- 07** QUESTIONS

CURRENT PROBLEM

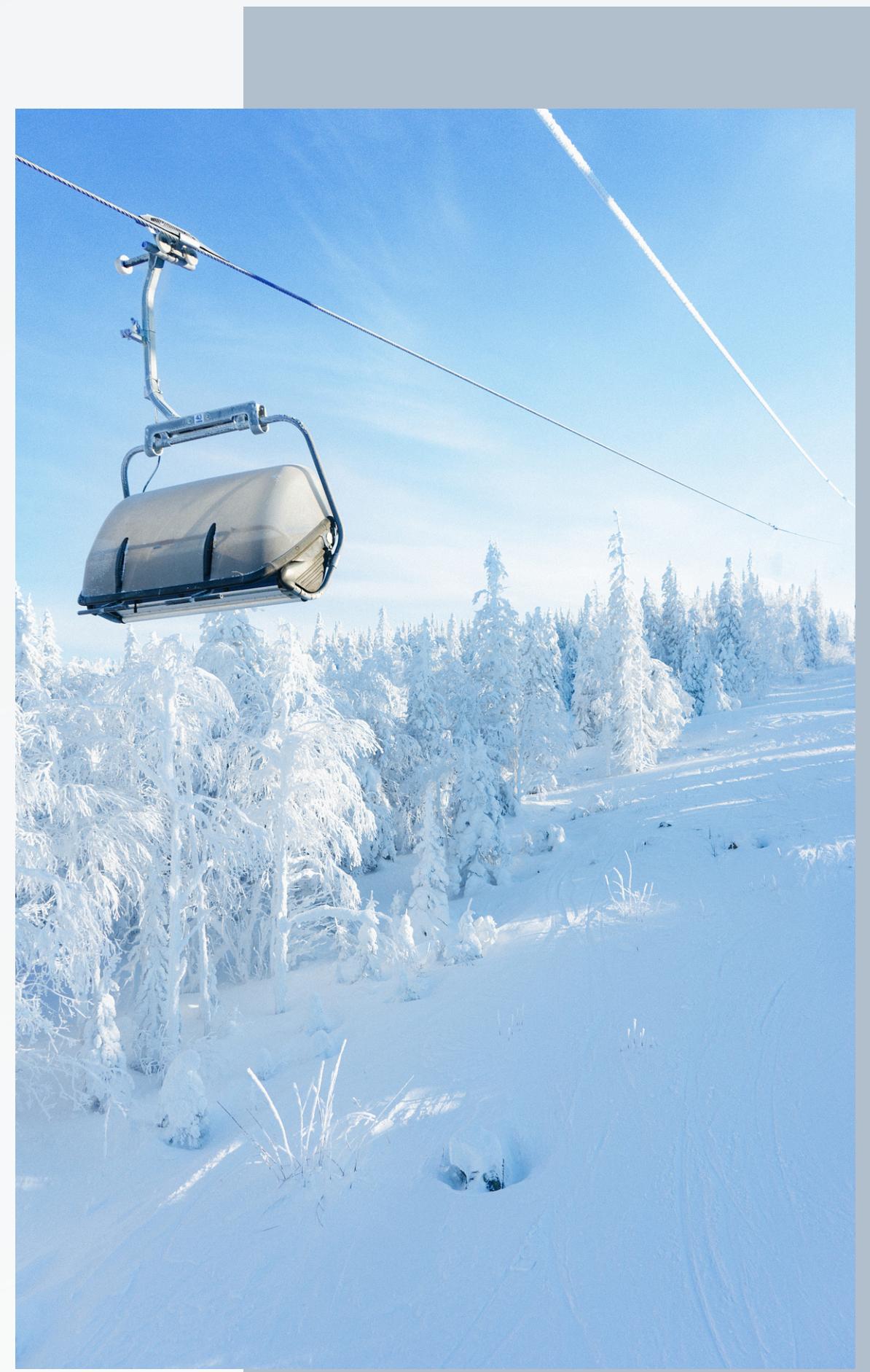


- Big Mountain recently installed a new ski lift that will add \$1.54M in operational expenses
- Leaders are interested in exploring a different pricing model than just charging above average prices



Questions we will explore:

1. Can Big Mountain Resort charge more for premium facility features?
2. Can reducing or removing certain features cut costs without having a significant impact on revenue?
3. What changes can be made to generate at least \$1,540,000 in revenue to break even with the new lift installation?



RECOMMENDATIONS

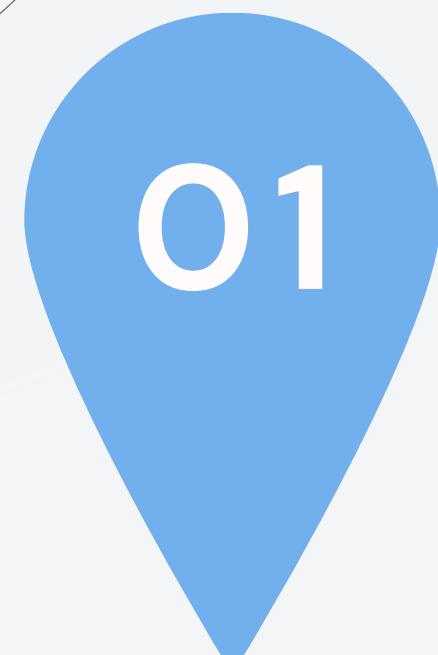
- Increase the vertical drop by 150 feet
- Increase Adult Weekend ticket price by \$1.99

A large, semi-transparent background image of a snow-covered mountain range with jagged peaks and patches of blue rock. It occupies the left side of the slide.

Increase revenue by

\$3.48M

during the season



EXPLORATORY DATA ANALYSIS

- Analyzed 330 records from ski resort dataset
- Removed missing data after extracting state summaries
- Created new features using ratios and state data
- Identified correlation between new features and state data

PROCESSING AND TRAINING

- Compared using average to linear regression
- Identified most useful features
- Created random forest regression model

MODEL SELECTION

- Identified key features to test in predictions
- Created prediction function to test 4 revenue generating or cost cutting options

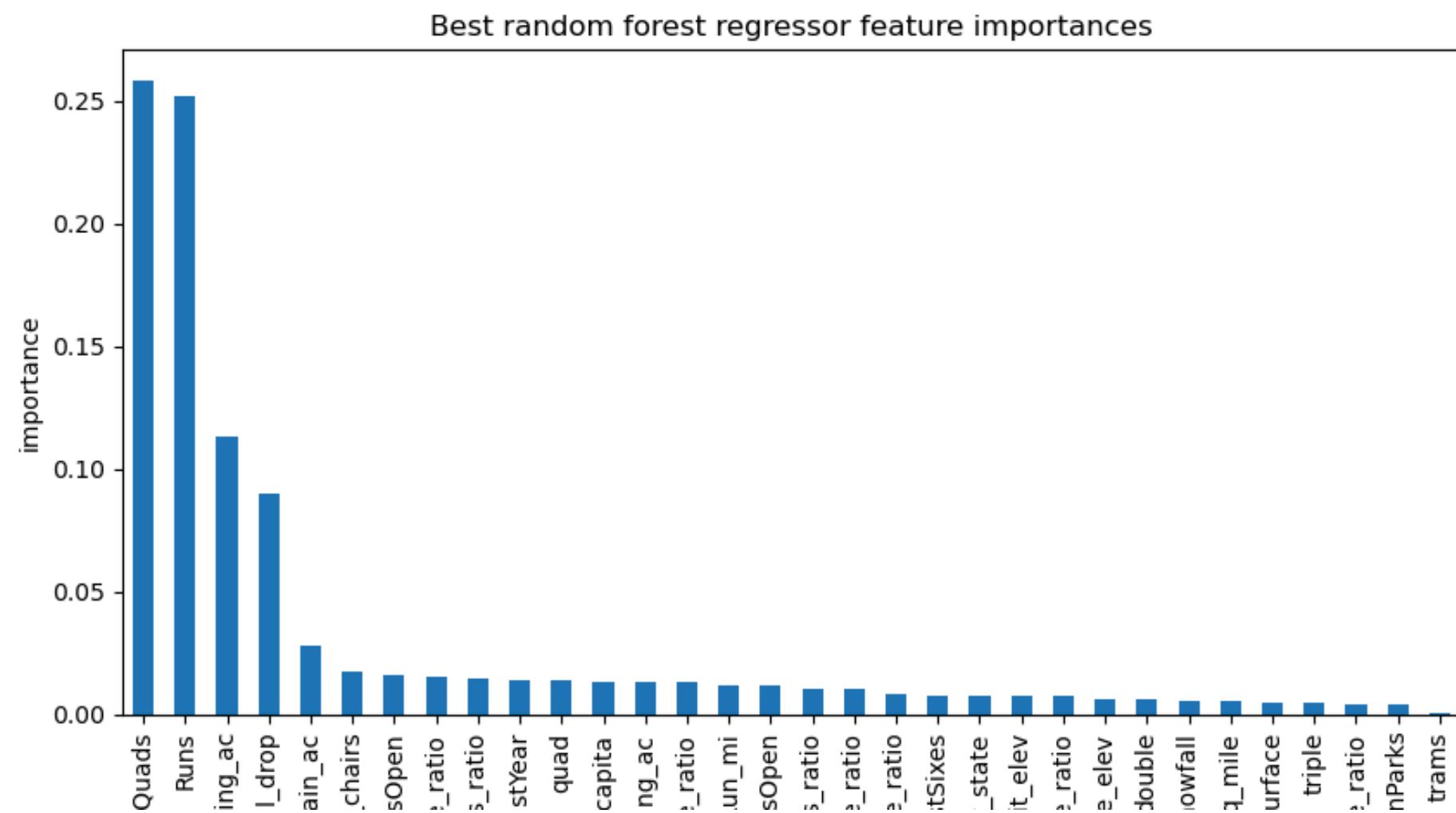
MODEL PREDICTIONS

- Predicted prices for 4 different scenarios

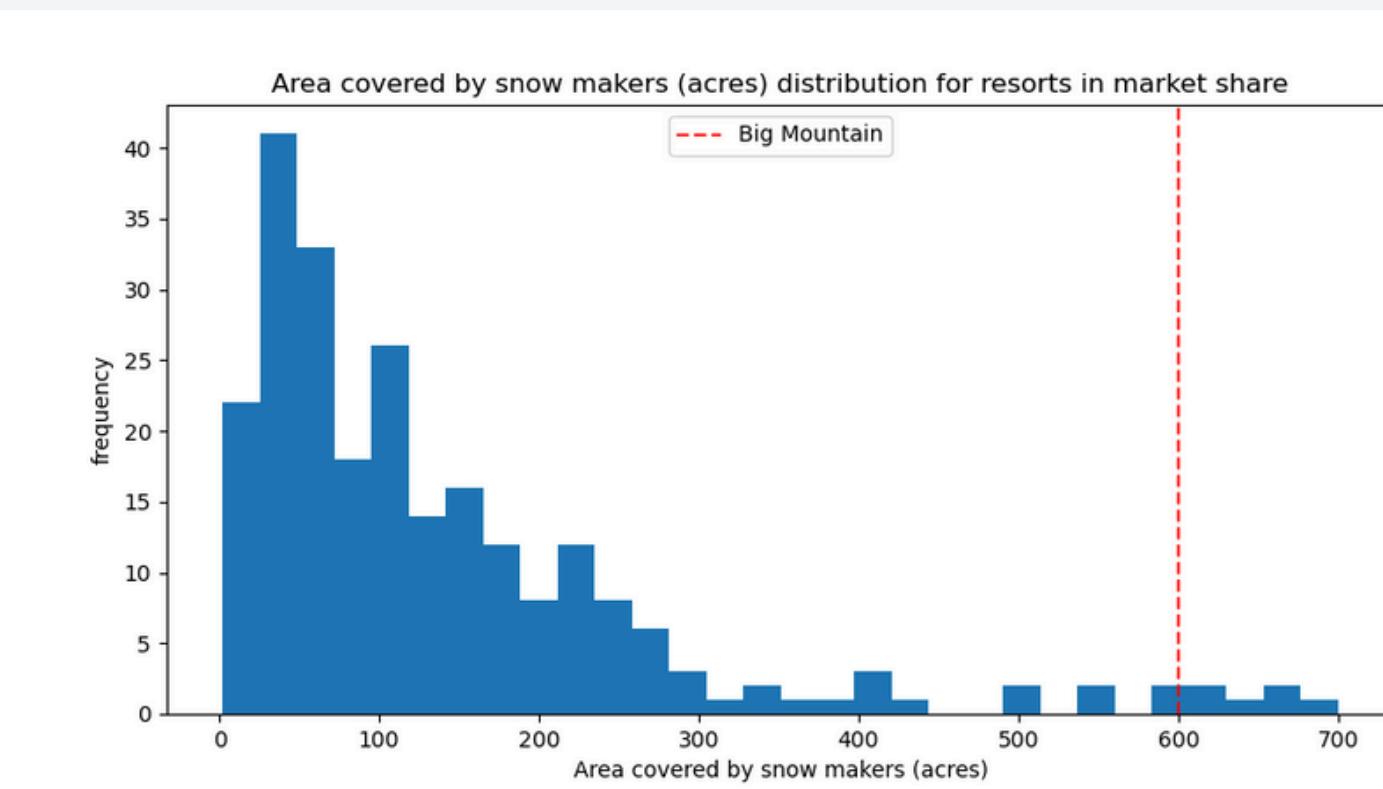
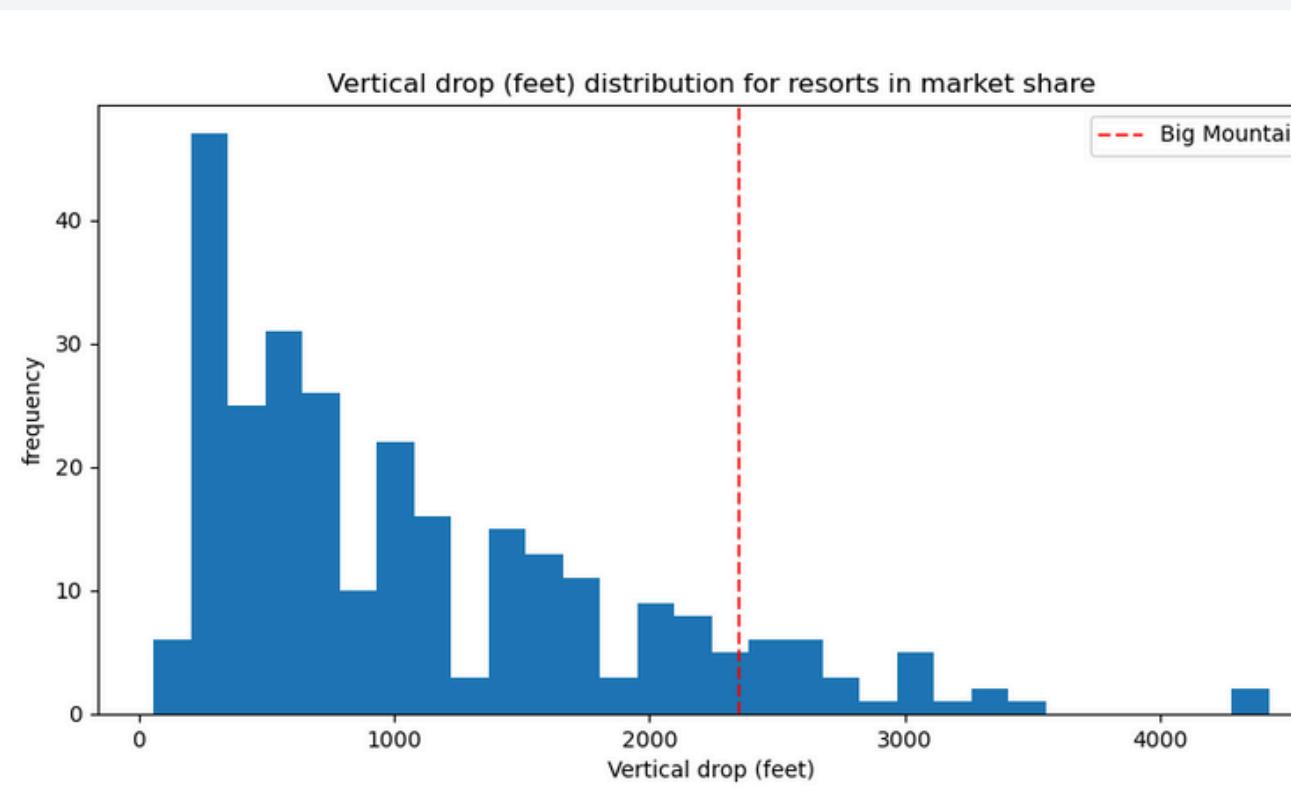
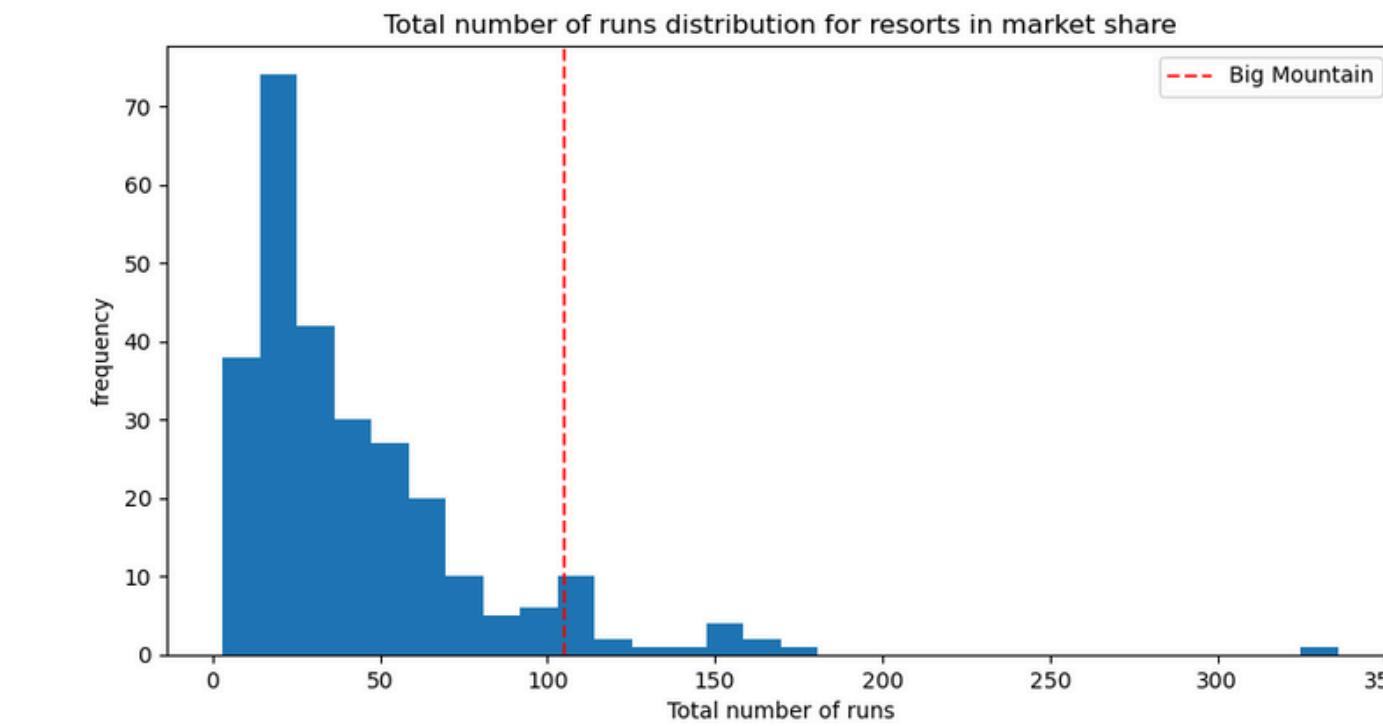
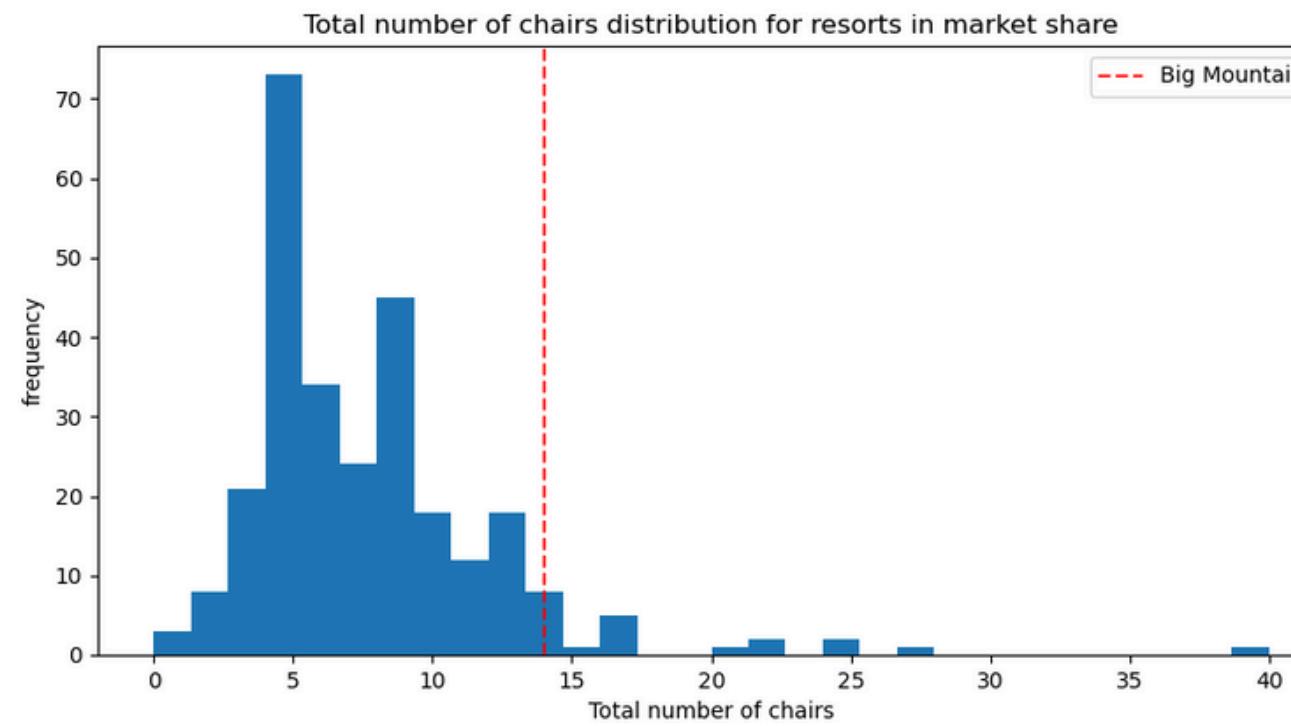
MOST IMPORTANT FEATURES

Features that were important throughout modeling process:

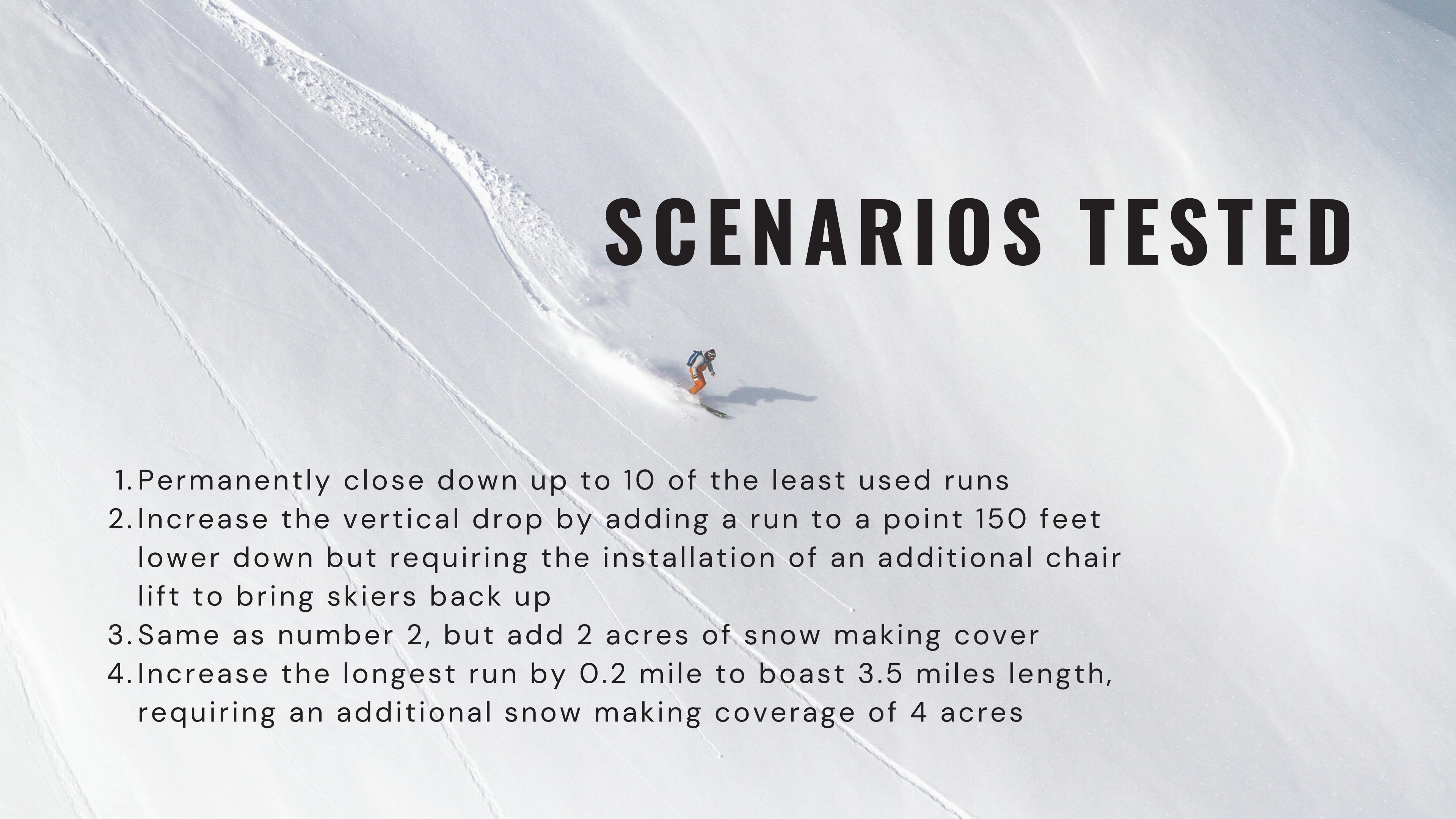
- fast quads
- vertical drop
- snow making
- total chairs
- runs
- longest run



HOW BIG MOUNTAIN COMPARES



SCENARIOS TESTED

- 
- A wide-angle photograph of a snowy mountain slope. A skier in orange pants and a blue jacket is positioned in the center-right, moving down the hill. Numerous parallel tracks from previous skiers are visible across the slope.
1. Permanently close down up to 10 of the least used runs
 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
 3. Same as number 2, but add 2 acres of snow making cover
 4. Increase the longest run by 0.2 mile to boast 3.5 miles length, requiring an additional snow making coverage of 4 acres

RESULTS

- Increasing the vertical drop by 150 feet increases support for ticket price by \$1.99. Over the season, this could be expected to amount to \$3,474,638.
- By contrast, doing both this and adding 2 acres of snow making area makes no additional difference to the suggested ticket price.
- Increasing the longest run would not have an impact on price.



QUESTIONS?

