

# Whitefish Mountain Resort Project Summary

September 17, 2020

## Overview

The goal of this project was to develop a pricing model for ski resort tickets in the Whitefish (Big Mountain) Mountain Resort's market segment. The deliverable is a predictive model intended to provide guidance for Big Mountain's pricing and future facility investment plans by exploring machine learning models and statistical analysis related to opportunity sizing, targeting, and optimization. In addition, four business scenarios were provided by Big Mountain Resort's leadership for evaluation of their viability.

## Findings: Predictive Pricing Model

Big Mountain's current pricing is at \$81.00 for an adult weekend ticket. However, the model I created suggests a ticket price of \$95.87 is viable. This increase in ticket price is supported by the presence of specific features at the resort, that when compared to other resorts in the same market, were able to charge an increased ticket price. These features were the following: vertical drop, total snow making area, number of total chairs, number of fast quads, number of runs, length of longest run, and the amount of skiable terrain [Figure 1].

## Findings: Scenarios<sup>1</sup>

Four scenarios<sup>2</sup> were offered by the leadership at Big Mountain Resort were each examined and the third modeled scenario is recommended for further consideration, since it projected the greatest return on investment and support for an increase in ticket price.

**Scenario 3:** Increase the vertical drop by adding a run to a point 150 feet, but requiring the installation of an additional chair lift to bring skiers back up, and add an additional 2 acres of snow making coverage.

The third scenario provided support for an increase in ticket price by \$9.90 and projected over the season, to amount to \$15,782,717 dollars, once the operating costs for an additional chair are taken into consideration. This additional \$9.90 a ticket, puts Big Mountain Resort, if rounded up, to \$91.00 dollars a ticket. This puts the resort closer to the suggested ticket price of \$95.87. Additionally, closing one run [Figure 2], to decrease any associated operating costs caused by having a chair lift, should be considered as well.

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<sup>1</sup> Note, the expected number of visitors over the season is 350,000 on average and visitors ski for five days. With the additional assumption, the provided data includes the additional lift that Big Mountain recently installed.

<sup>2</sup> **S1:** Permanently closing down up to 10 of the least used runs. **S2:** Increase the vertical drop by adding a run to a point 150 feet, but requiring the installation of an additional chair lift to bring skiers back up, without additional snow making coverage. **S4:** Increase the longest run by 0.2 mile to boast 3.5 miles length, requiring an additional snow making coverage of 4 acres.

Figure 1:

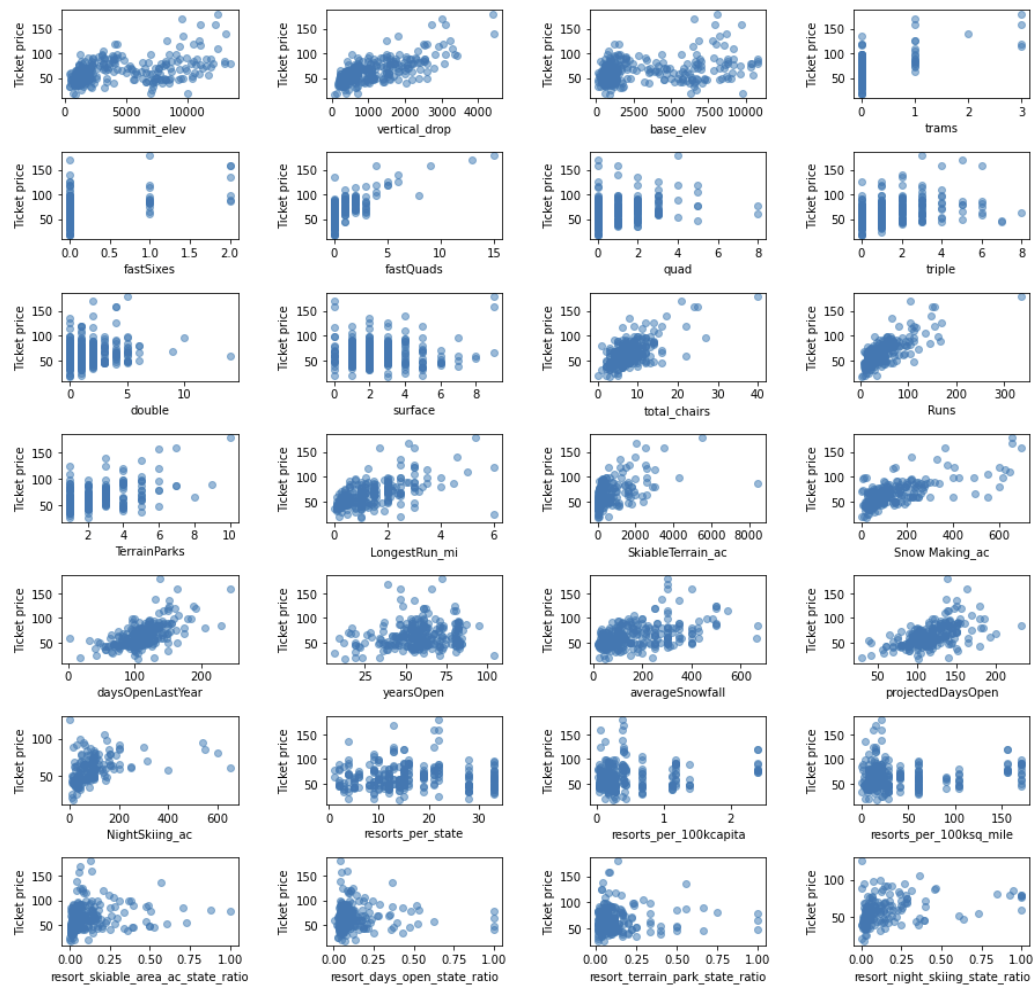


Figure 2:

