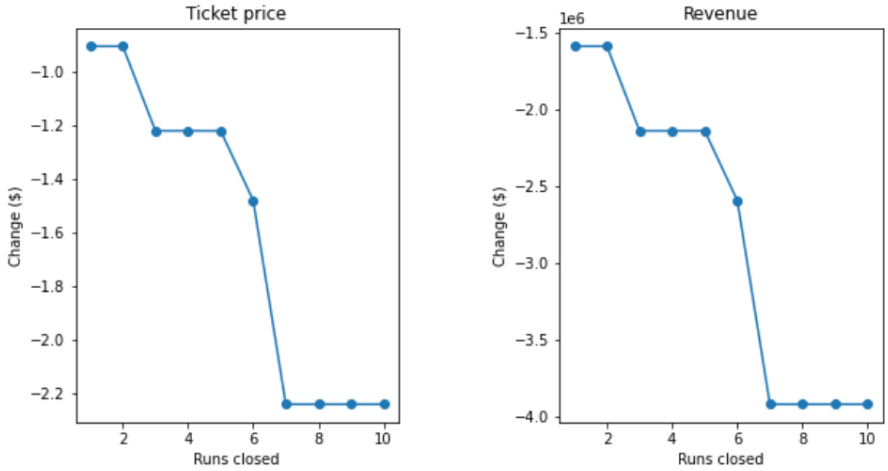
According to the prediction model and based on the assumption that the other resorts accurately set their prices according to what the market supports, Big Mountain Resort modelled price is $91.43, from the current price of $81.00, the model indicates that there's room for an increase. Nevertheless, if Big Mountain Resort is mispricing itself, it is difficult to tell whether other reports are also mispricing itself, therefore, more data such as operation costs, for example, will be helpful to make the conclusion firmer.

With further analysis, there are four options for the business to consider:

1. Permanently closing down up to 10 of the least used runs. This doesn't impact any other resort statistics.



   a.
   b. The model says closing one run makes no difference. Closing 2 and 3 successively reduces support for ticket price and so revenue. If Big Mountain closes down 3 runs, it seems they may as well close down 4 or 5 as there's no further loss in ticket price. Increasing the closures down to 6 or more leads to a large drop.
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
   a. This scenario increases support for ticket price by $0.22; Over the season, this could be expected to amount to $388889
3. Same as number 2, but adding 2 acres of snow making cover
   a. This scenario increases support for ticket price by $0.22; Over the season, this could be expected to amount to $388889. Such a small increase in the snow making area makes no difference!
4. Increase the longest run by 0.2 mile to boast 3.5 miles length, requiring an additional snow making coverage of 4 acres
   a. No difference whatsoever. Although the longest run feature was used in the linear model, the random forest model (the one we chose because of its better performance) only has longest run way down in the feature importance list.