



TRAVEL OREGON

**PRELIMINARY RESULTS OF
SEASONALITY ANALYSIS**

10.14.19

OUTLINE

- SEASONALITY IN TOURISM
- QUANTIFYING SEASONALITY
- DATAPOINTS
- PRELIMINARY FINDINGS
- IMPLICATIONS
- NEXT STEPS





SEASONALITY IN TOURISM

Seasonality has become a hot topic for the global tourism industry, and Oregon is no exception.



QUANTIFYING SEASONALITY

VOLUME:

- Number of tourists
(Overnight stays, Day visits)

FINANCIAL:

- Tourist expenditure

TIME UNIT:

- Month
- Season



SEASONALITY MEASURE

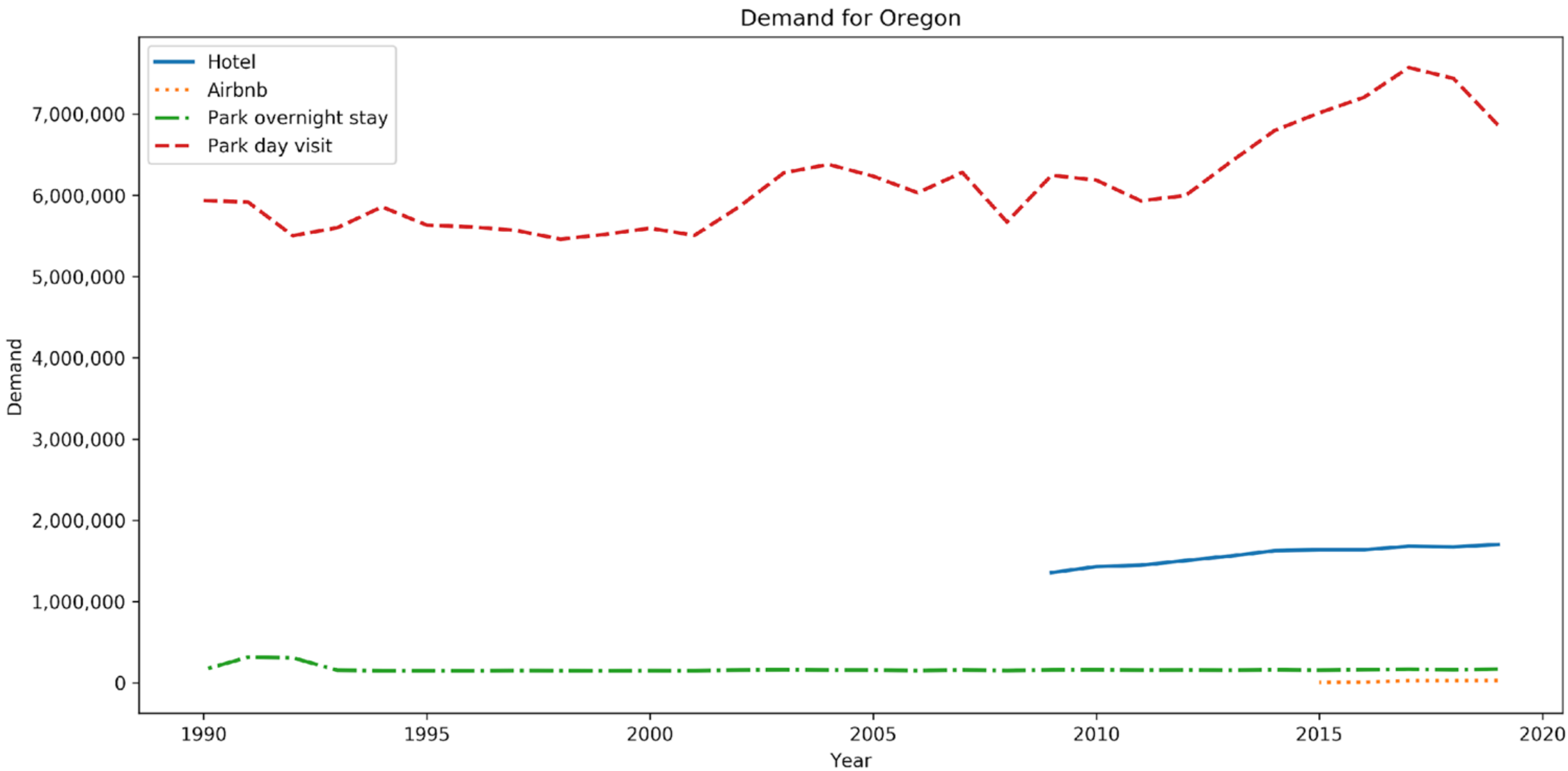
Seasonality Ratio (R)

$$R_t = \frac{v_h}{\bar{v}}$$

$$\bar{v} = \frac{v_{sum}}{12}$$

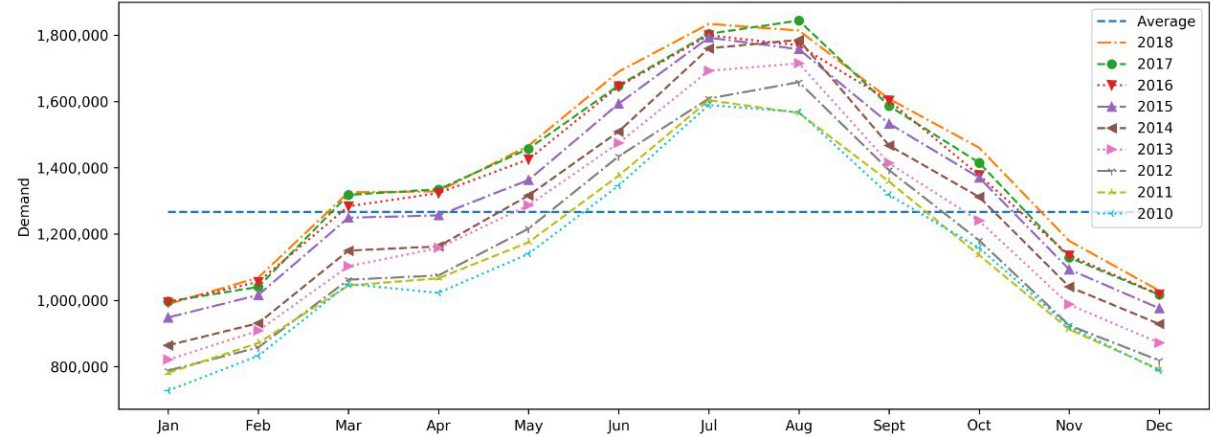
$$1 \leq R \leq 12$$

DATAPOINTS: YEARLY NUMBER OF OVERNIGHT STAYS AND DAY VISITS IN OREGON

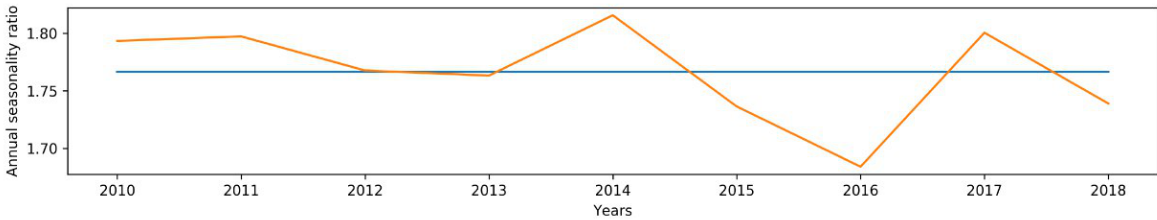
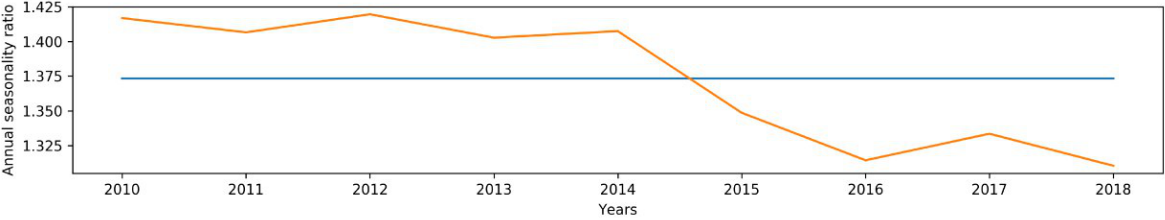
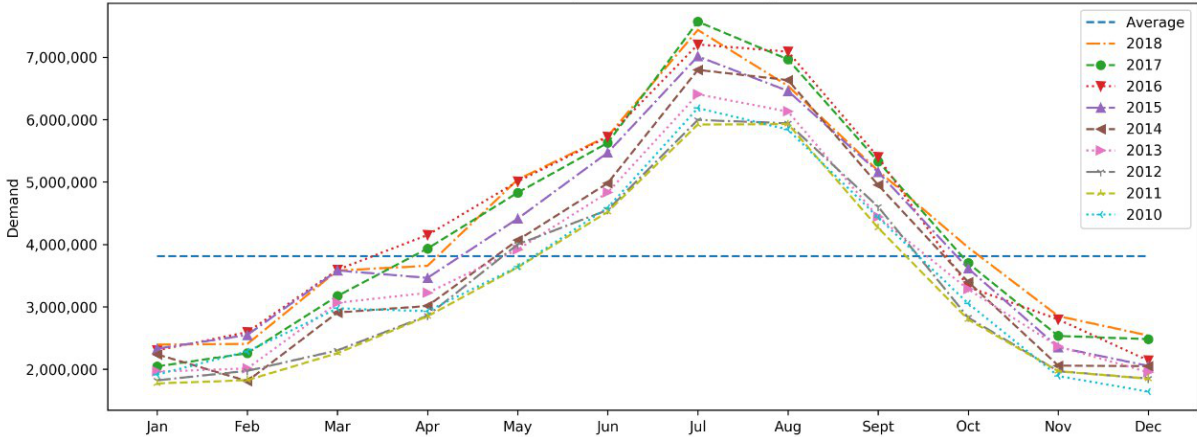


COMPARISON OF CALCULATED R VALUES: OVERNIGHT STAYS VS. DAY VISITS (2010-2018)

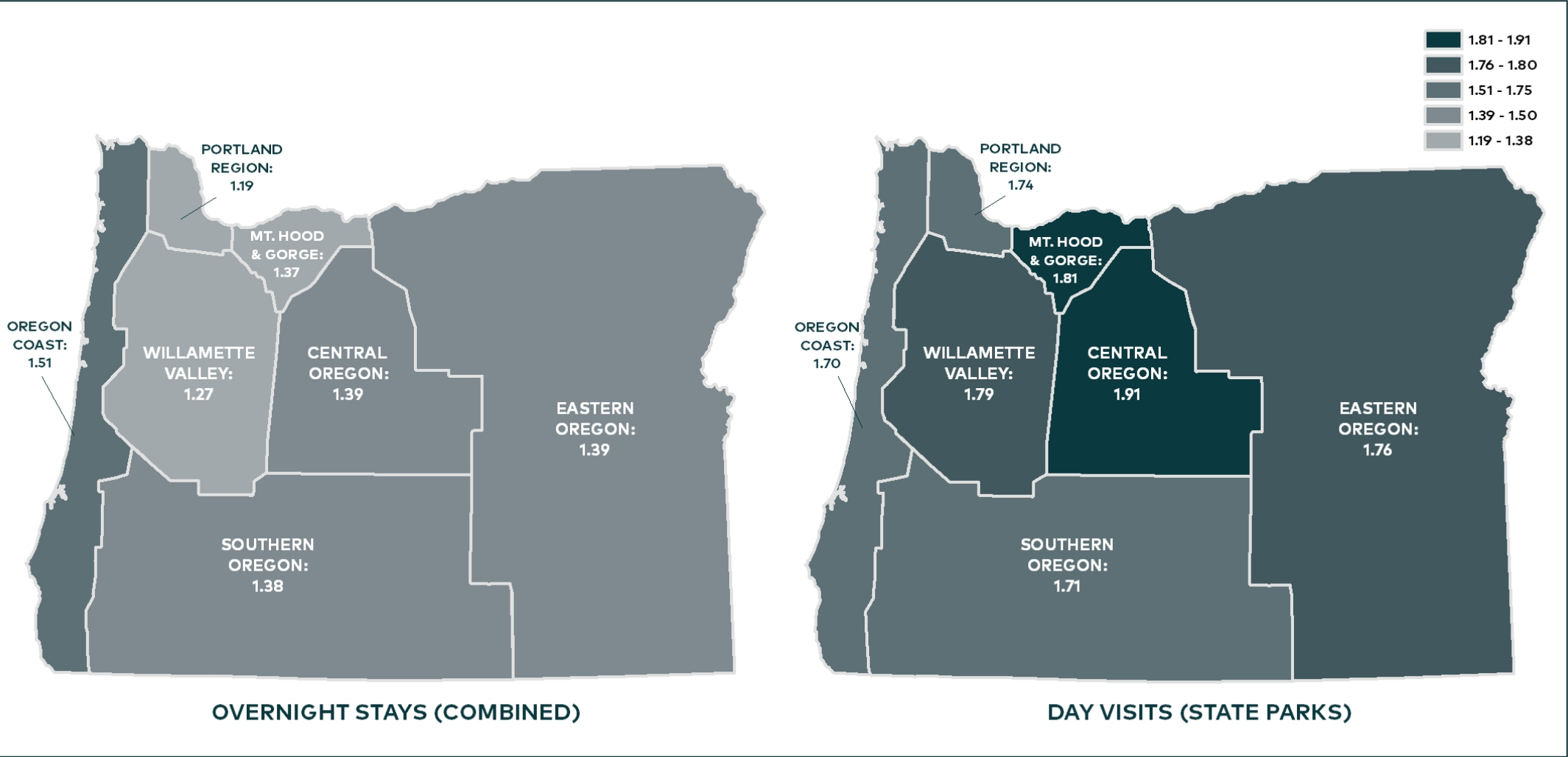
OVERNIGHT STAYS (COMBINED)



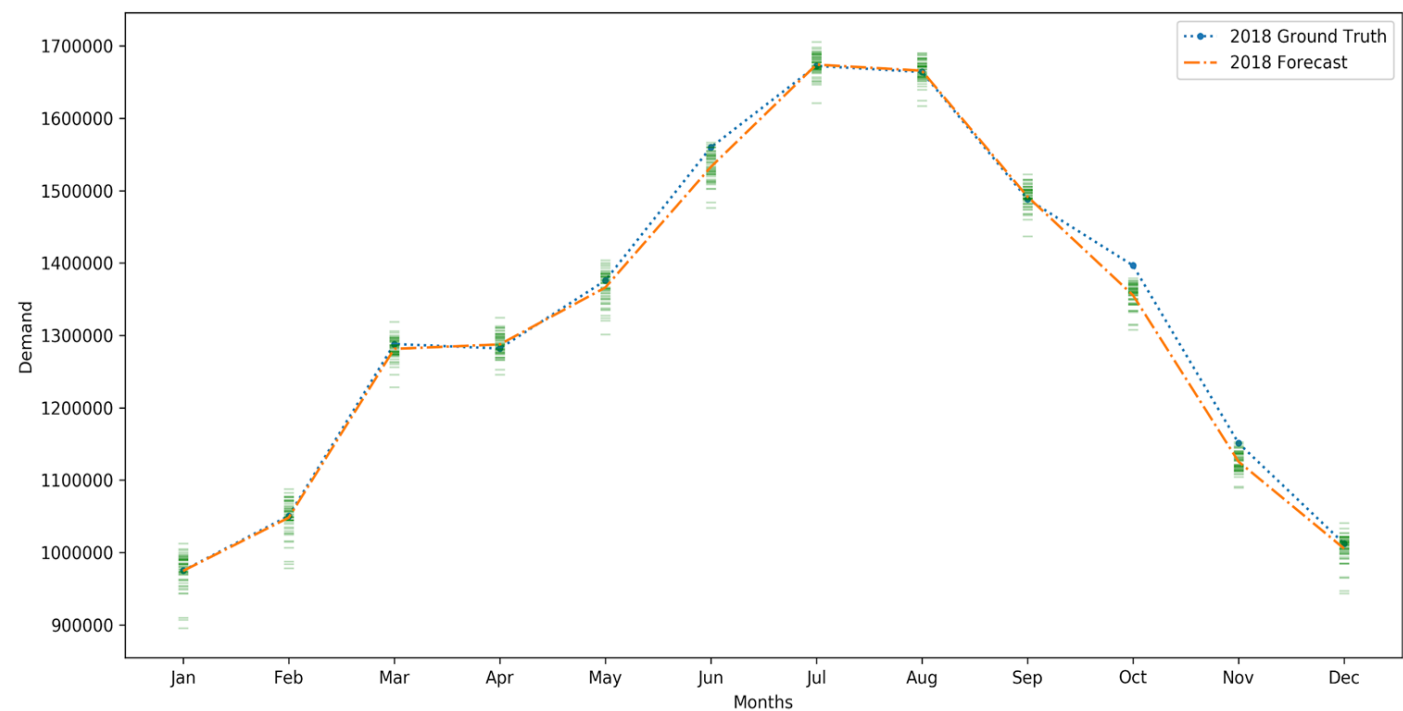
DAY VISITS (STATE PARKS)



REGIONAL COMPARISON OF R VALUES: OVERNIGHT STAYS VS. DAY VISITS (2018)



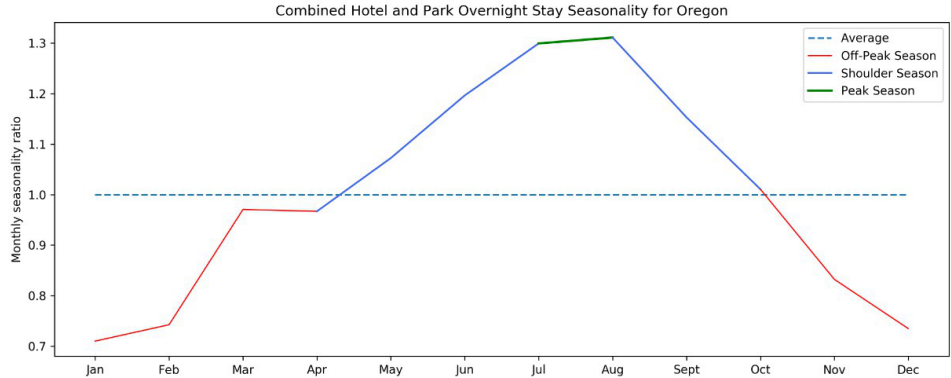
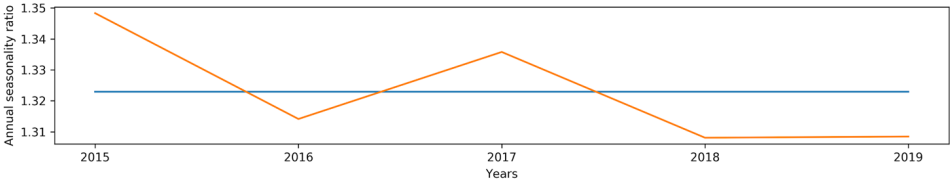
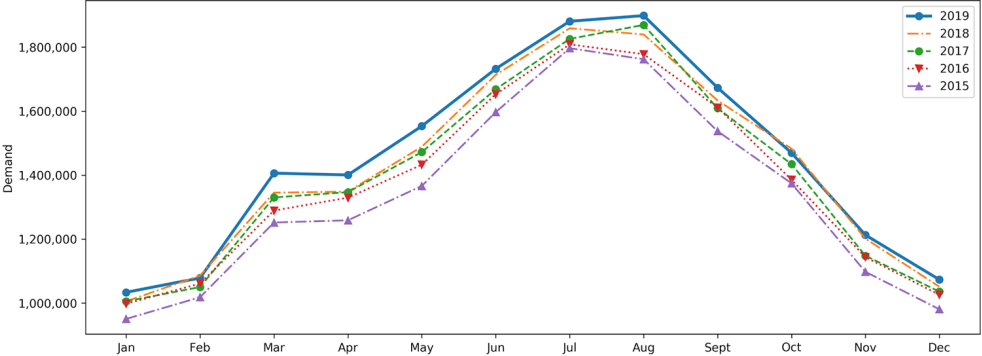
2018 FORECAST VS. GROUND TRUTH: OVERNIGHT STAYS IN OREGON



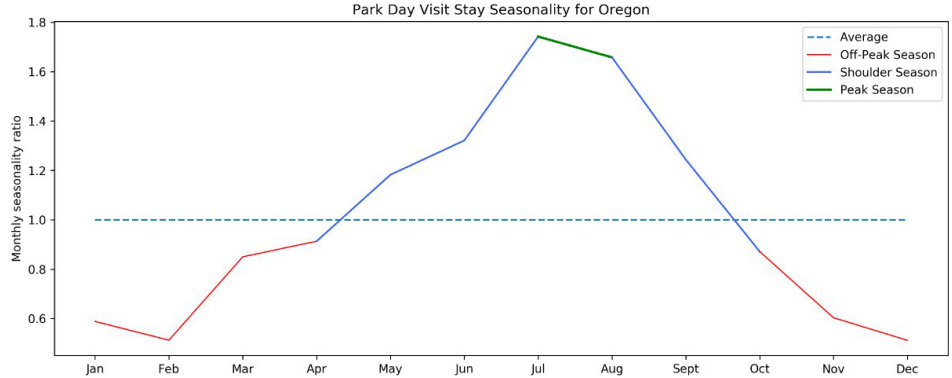
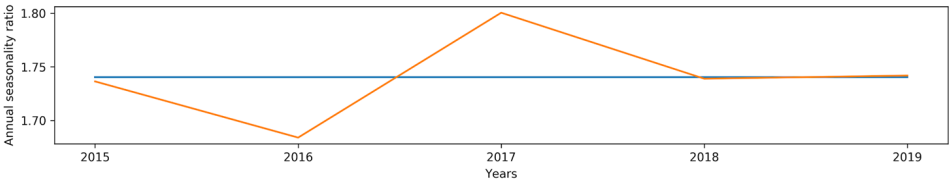
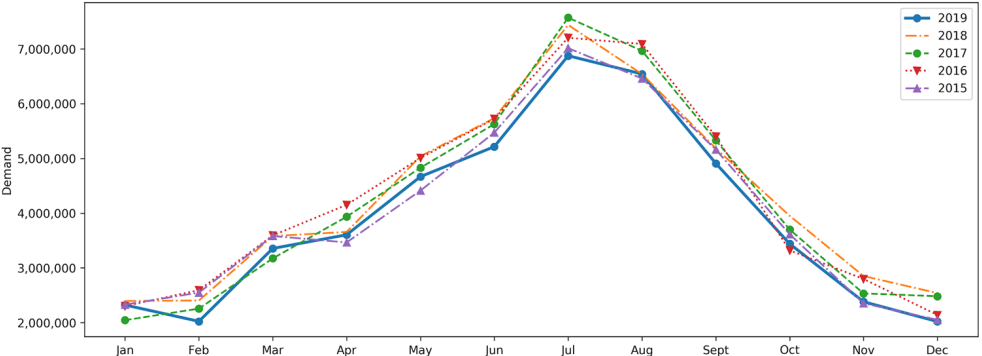
Forecast of rooms booked in 2018
using data from 2017

2019 FORECAST: INCREASE IN DEMAND, DECREASE IN R VALUE

OVERNIGHT STAYS (COMBINED)



DAY VISITS (STATE PARKS)



IMPLICATIONS

- Monitoring changes in seasonality trends over time
- Directing visitation to smooth out seasonality





NEXT STEPS

- Supplementing model with other datasets
- Identifying causes of seasonality
- Automating data analysis and dashboarding

An aerial photograph of a river meandering through a vast, green landscape. The river is dark and winding, with some white rapids visible on the right side. The surrounding land is covered in lush green grass and scattered small trees and shrubs. The text "Thank you" is overlaid in the center of the image in a white, sans-serif font.

Thank you