Staffing Analysis

Allocate Analytics
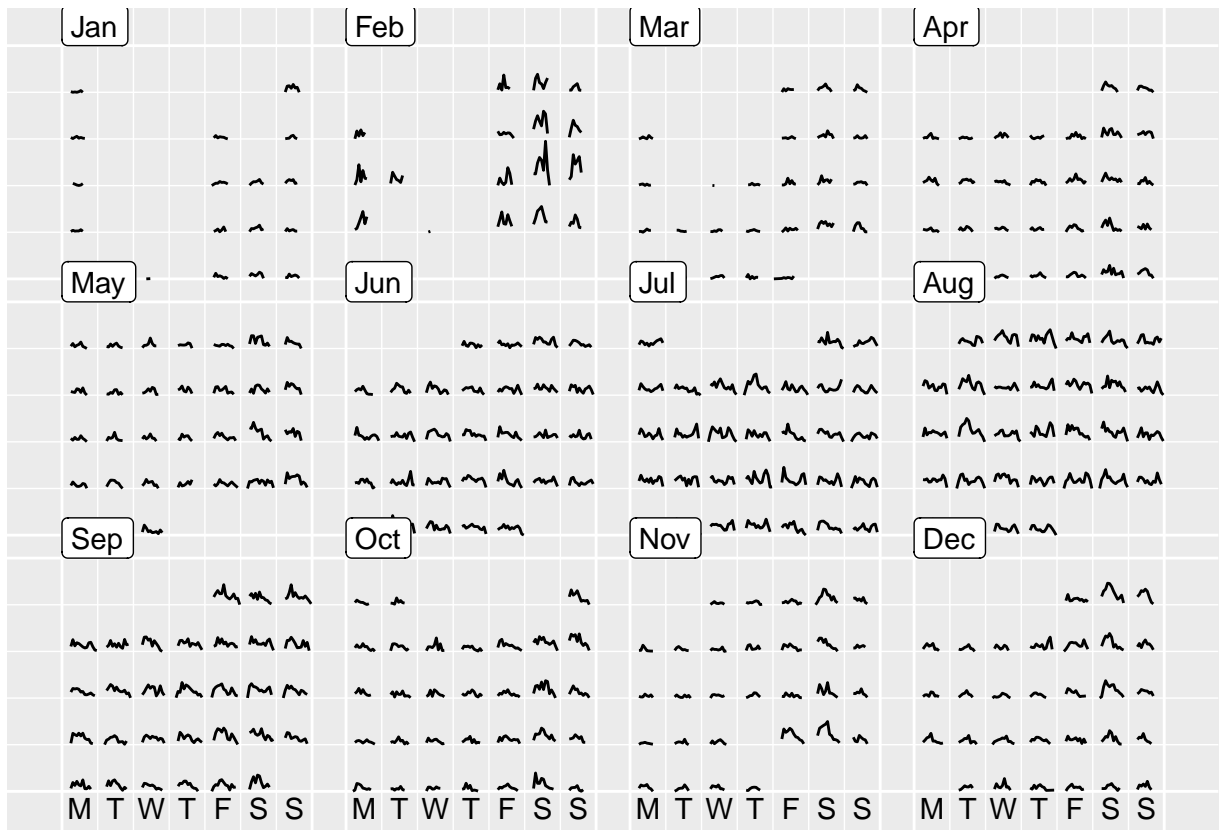
March 16, 2018

Question To Answer: How can sales data help inform staffing levels through the day through each month of the year?
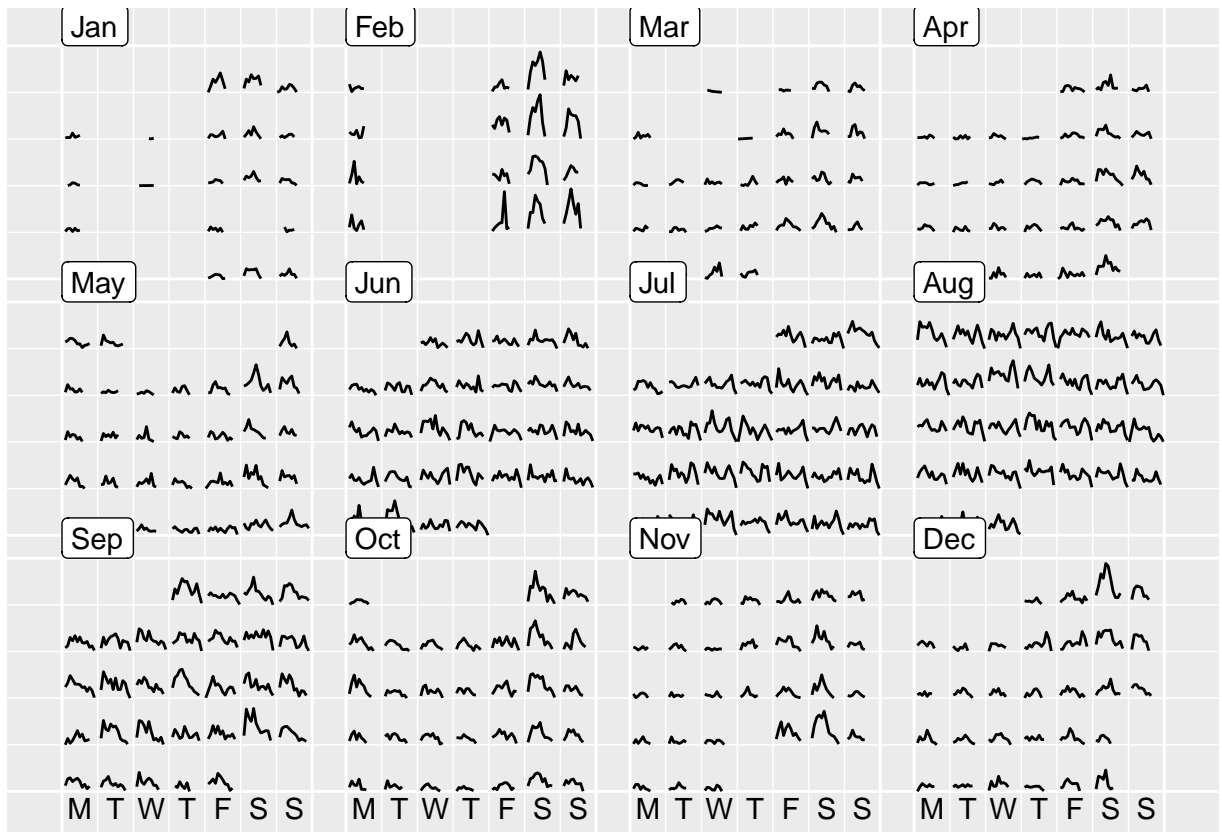
Approach To Answer Question:

1. Visualize 2017 sales by hour for each day of the year in order to see trends (also visualize 2016 to confirm it's fairly similar to 2017)

2. Group together similar days into a number of "sales profiles" for consistency and simplicity.

3. Plot the range of sales that happen through the day for each of the 10 profiles.

Sales By Hour For Each Day of 2017

Sales By Hour For Each Day of 2016
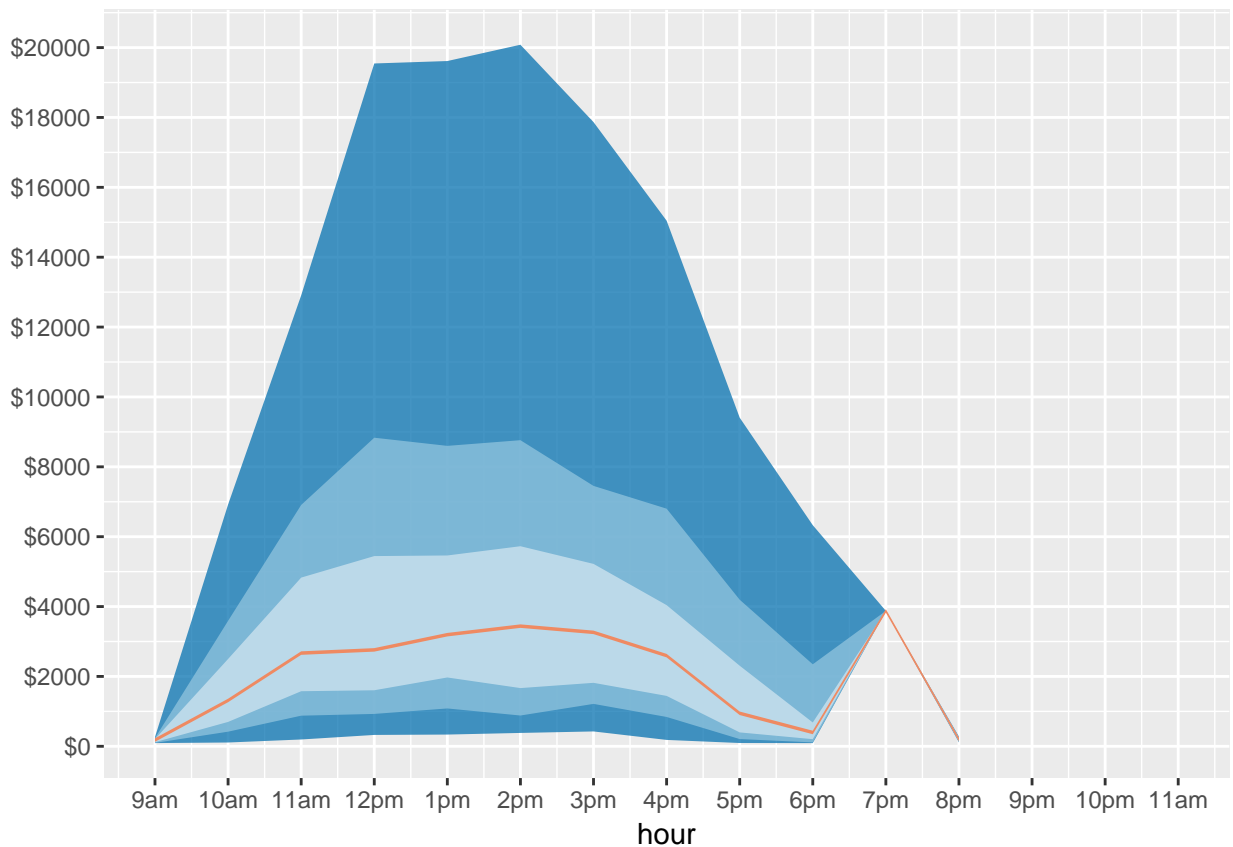
Sales Ranges of Profiles

The next 10 plots show the range of sales that have occurred for each hour of the day. The darkest, largest blue range represents where sales occur that hour 95% of the time. The next slightly lighter blue range represents where hourly sales will fall 75%. The smallest, lightest blue contains hourly sales 50% of the time. The red ribbon is the average sales level for that hour.

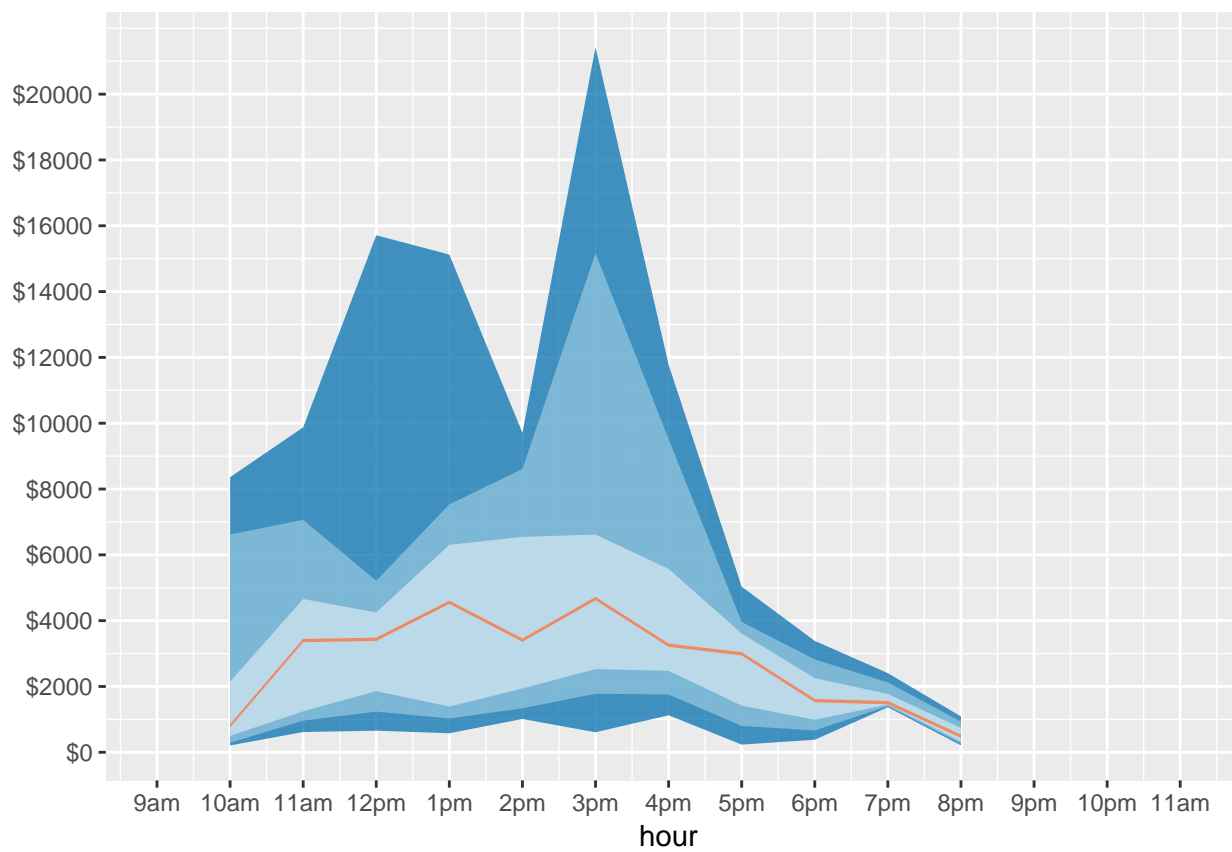**Approximate Staffing Needs At Hourly Sales Levels**

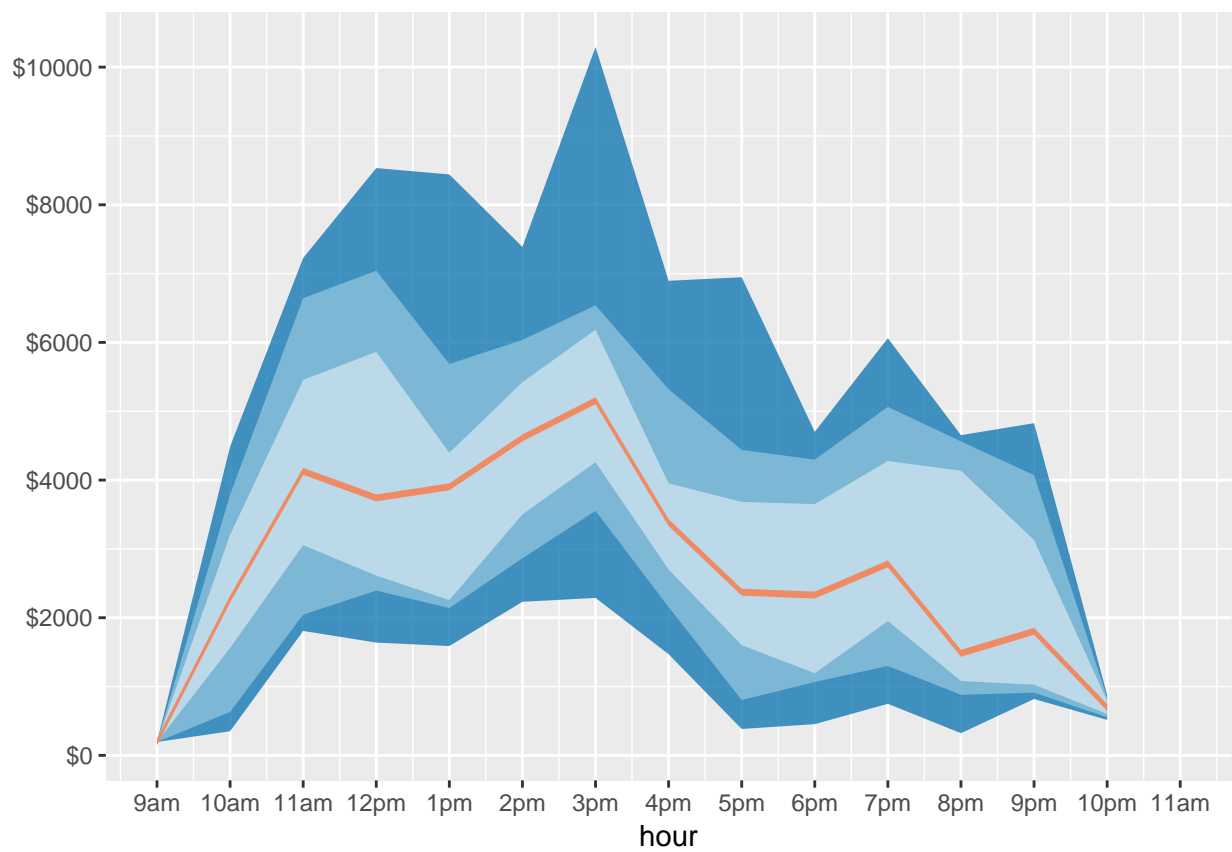Below are the plots of each profile:

Profile #1 - Time Period XYZ
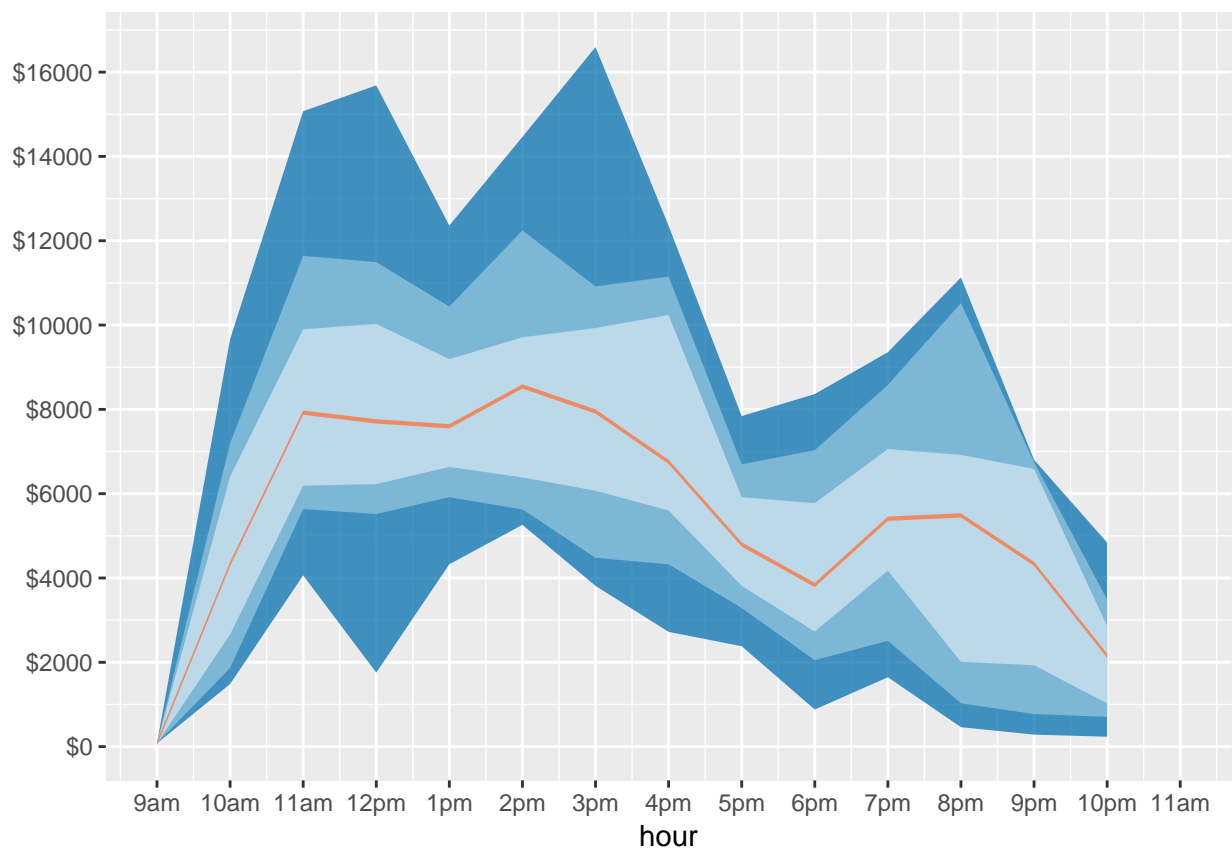
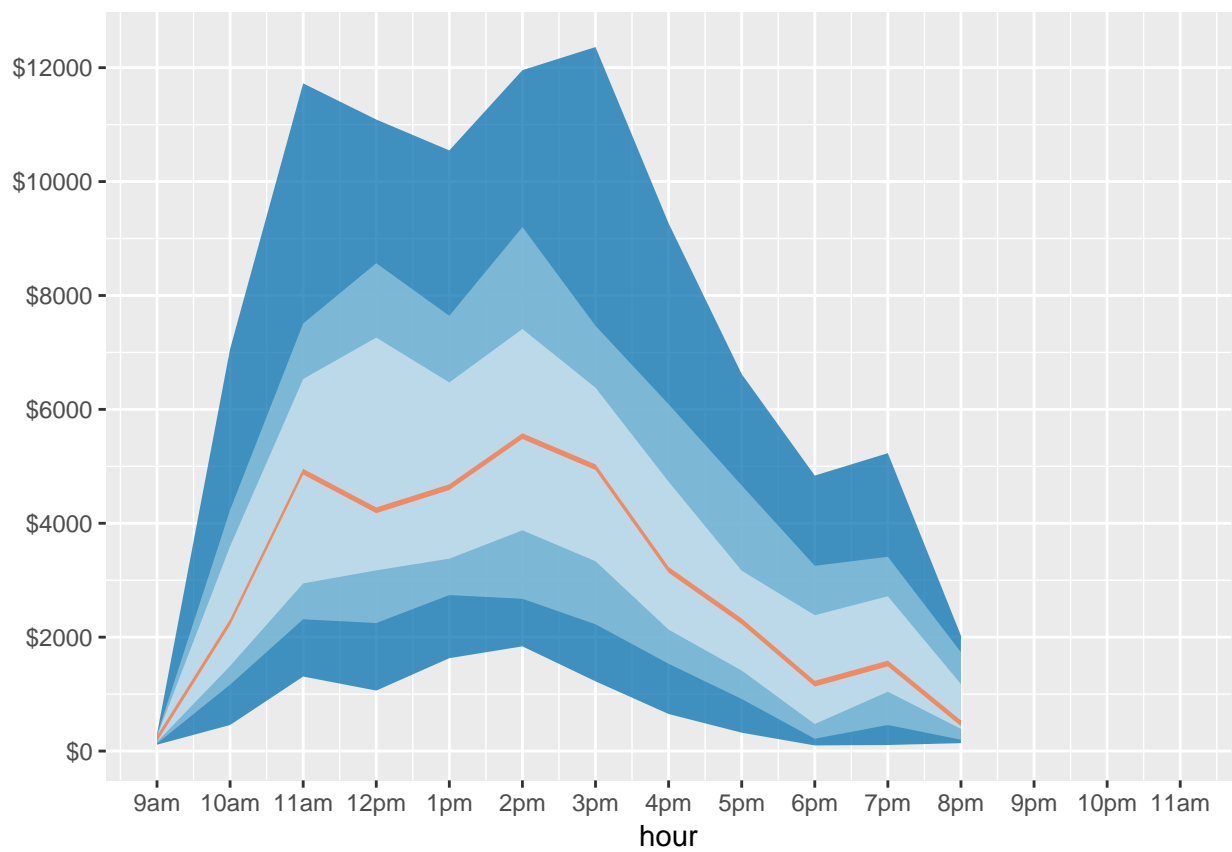This first one represents all the very low sales days

Profile #2 - Time Period XYZ
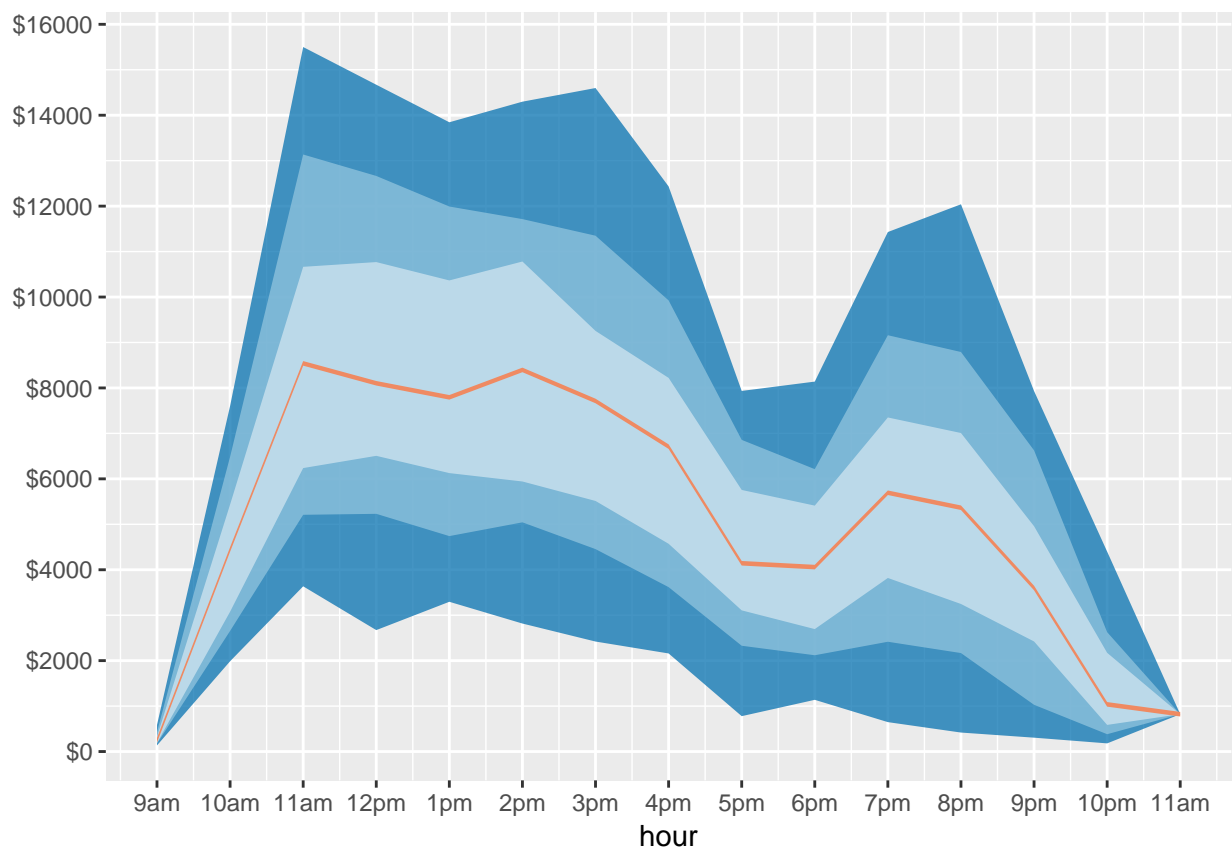
Profile #3 - Time Period XYZ
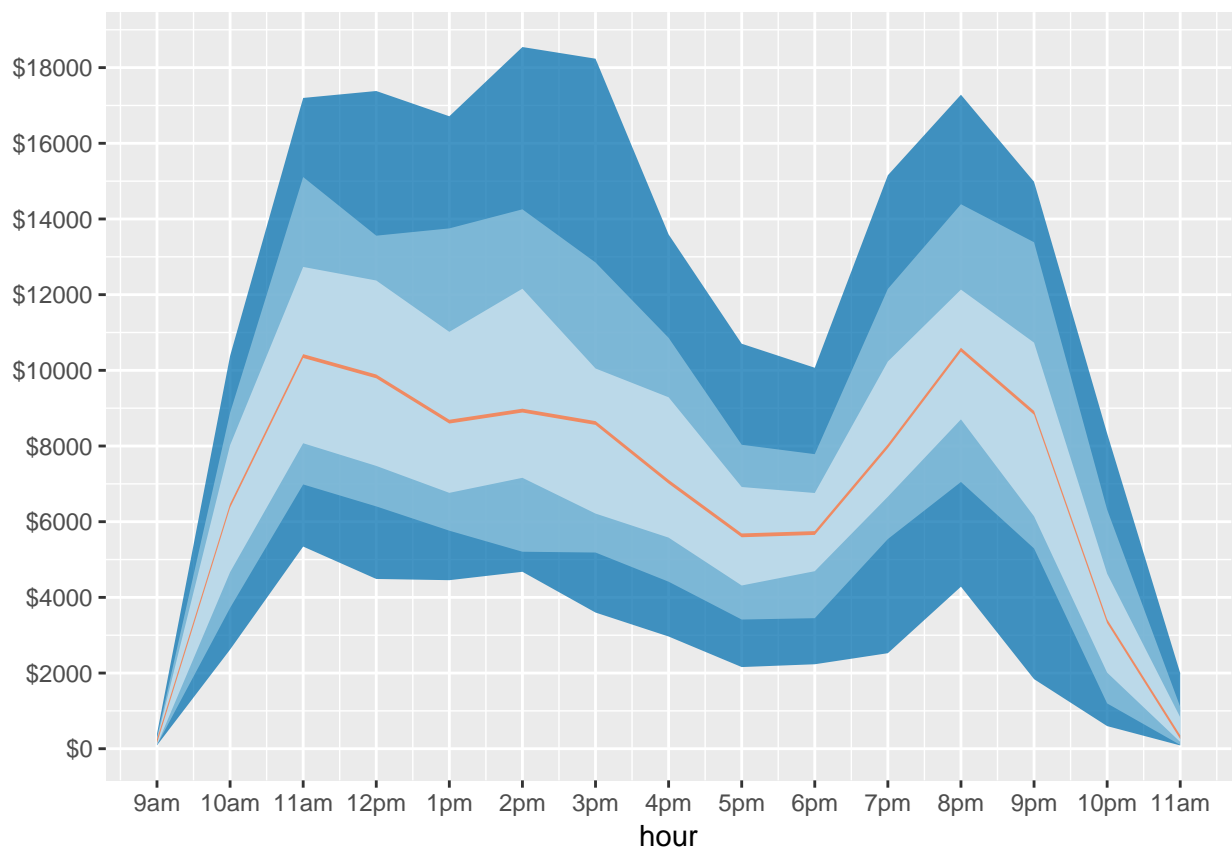
Profile #4 - Time Period XYZ

Profile #5 - Time Period XYZ

Profile #6 - Time Period XYZ

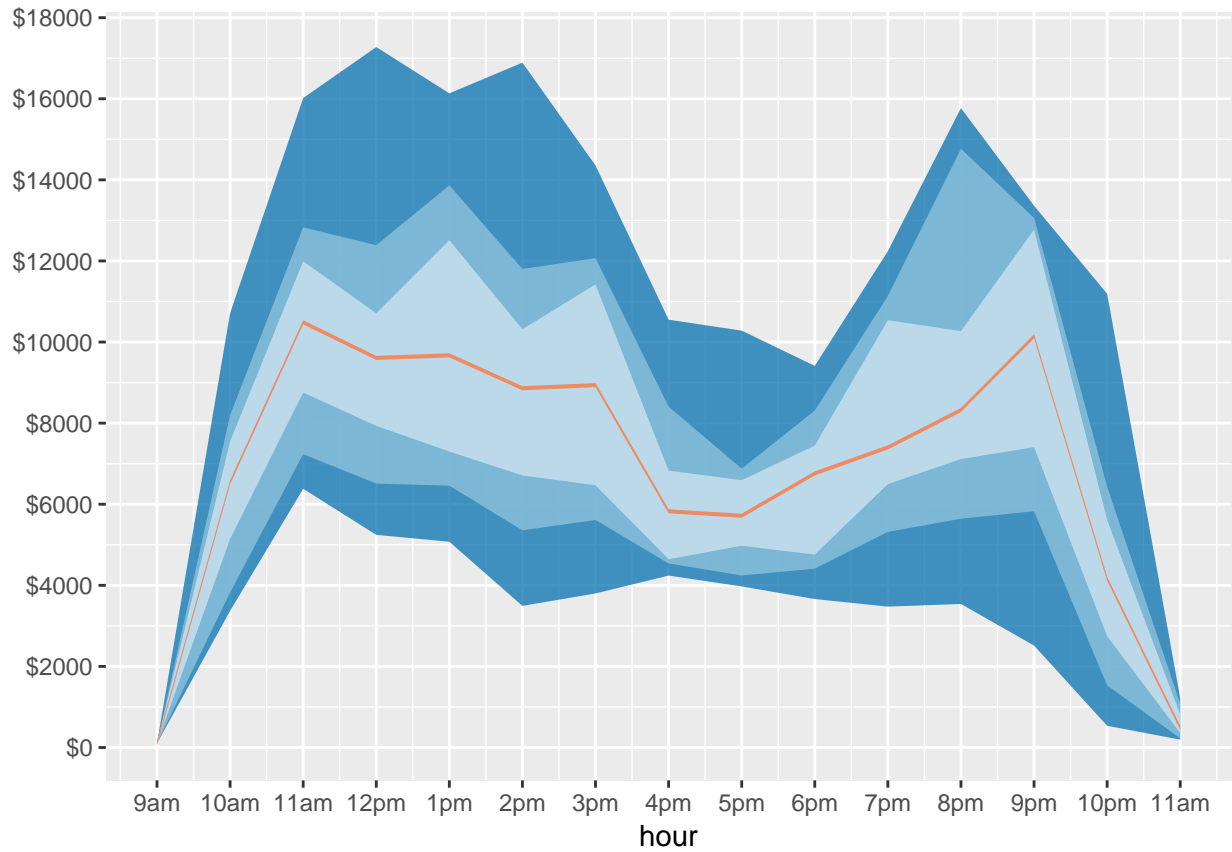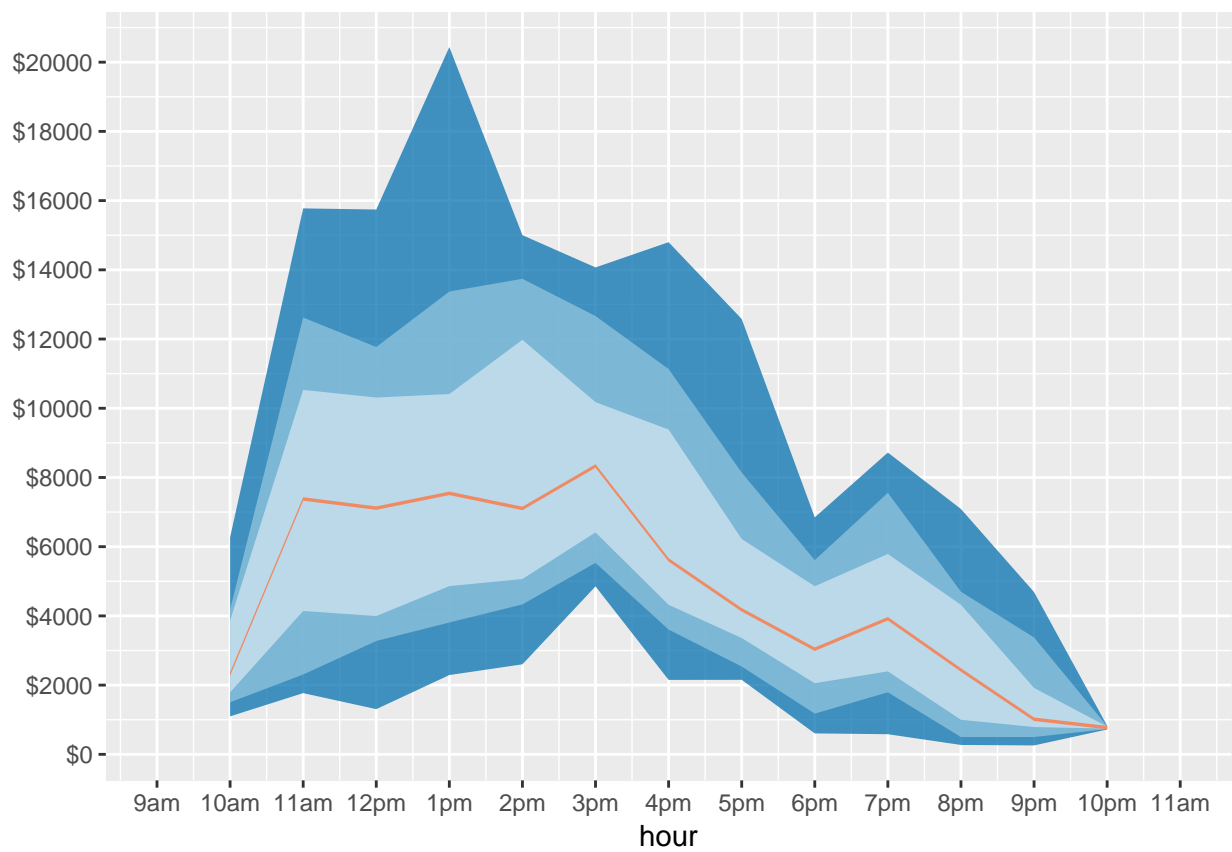**Profile #7 - Time Period XYZ**

Profile #8 - Time Period XYZ

Profile #9 - Time Period XYZ

Profile #10 - Time Period XYZ