Hi-Frequency homelessness group
Client: Road Home

Project Outline

Problem:

How can we best identify individuals likely to return to the road home shelter for a second stay based off of summary data at entrance? Road Home best identify high resource need individuals upon shelter entrance?

Goal:

The goal is to help the road home predict who is likely to need more resources and assistance from the shelter upon admission in effort to decrease the amount of people who end up returning to the shelter for multiple stays.

Deliverable:

We will create an algorithm that can help them identify the probability of return upon entrance and create an application that personnel at the shelter can then use to direct staff resources. Our research group can expand upon the already existing application that Kyle created for the family shelter data to create models for the individual shelter.

Prior Research:

Kyle has already made an application and algorithm using the family shelter data so we plan of first replicating his work with the family data and then using that methodology to process the individual shelter data. Given that the key issue with this project is variable selection in the data we will use previous research to help inform what variables might be worth inclusion in addition to other analysis techniques that involve multiple competing models analyzed with an Akaike information criterion (AIC) to compare the models to find a best fit for out of sample data.

Timeline/Assignments:

- Administration: Megan
- Model prep: Everyone
- Tech set up w/ github: Corbett

- Background & Litt review compilation: Jefferson & Chris (March 6th)
- Deliverable shiny app programming: Will
- Color design compliments of Casey (thank you)

The timeline is on GitHub along with the code for the model competition/collaboration and we meet with Kyle every other week.