We approach the challenge of scheduling river rafting trips as an assignment problem. That is, for each day of the six month season we seek to assign each visitor a campsite. No two visitors are allowed the same site on the same day. While it is desirable that groups encounter each other as little as possible, epitomizing the outdoor experience, this is second to assigning as many groups as possible. Based on research and necessity, we assume there are 128 camp sites; groups are capable of passing one another at any point; travel speed is constant; a group stays as a unit throughout the entire length of the river; and, excluding departure date, visitors allow us to dictate their exact schedule. While there are crafts that travel only 4 or only 8 mph, we relax the problem by introducing variable times on the river each day, and by introducing a *tolerance* on the number of campsites passed each day. These relaxations allow a larger number of possible assignments.

The program we wrote utilizes reasonable randomly generated travel groups to conduct simulations in testing the solution algorithm. Our solution approaches scheduling as a constraint satisfaction problem (CSP). This class of problem seeks to assign values to variables. In our case, this means assigning campsites to visitors once per day. This allows us to explore solutions with preference for visitor satisfaction or any other number of variables. Additionally, we shaped the problem such that the season is a CSP in and of itself. This creates a dynamic CSP where each day depends upon the last. Our model suggests a limit to the number of visitors possible under "standard" conditions.

In analyzing the model, we focused primarily on the number of visitors possible in a given season. Our findings suggested that a successful schedule is nearly always found with 200 visitors per season and a 2-site tolerance. While it is possible to schedule many more groups per season, there is a diminishing probability a valid schedule will be found. At 300 visitors per season, the probability of successfully scheduling a season begins to drop sharply. It drops below 91% and continues decreasing until reaching an asymptote of 5% at 600 visitors per season. As the solution space grows exponentially, the success rate decreases exponentially. We also considered satisfaction and found it decreased with success rate. Lastly, our model found that utilizing more motorboats than oar-powered rafts led to a greater number of successes. The paper addresses further implications of these results along with possible extensions to the model.