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Introduction

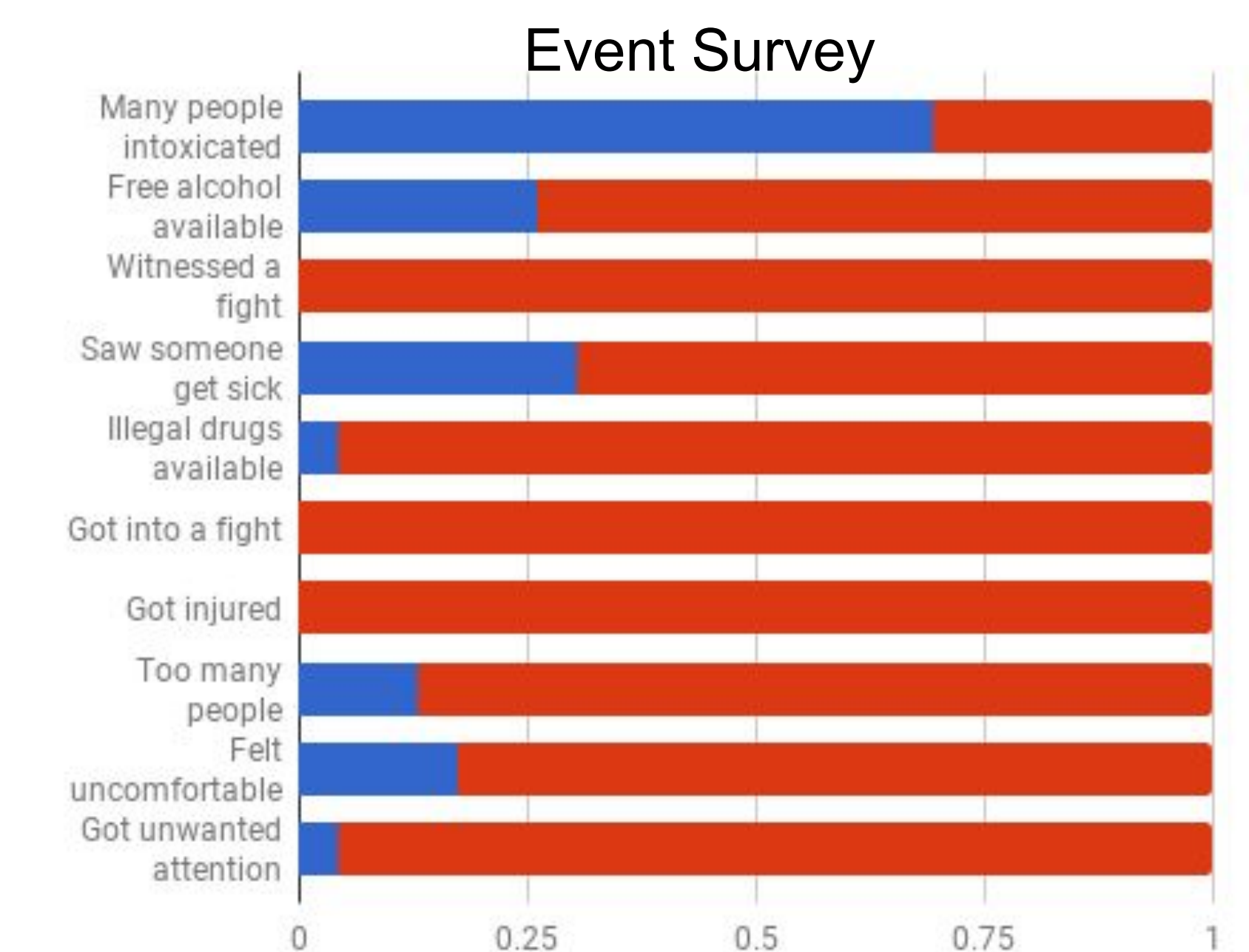
With the rise of technology and its presence ever increasing in our lives, parties and social events at universities nowadays have much more exposure due to social media and texting. With this increase in attention and foot traffic, college parties now have higher risks and a high percentage of dangerous characteristics.

We gathered data and assessed the risks of college parties with just person-to-person filtering at the door, compared to pre-party online ticketing using a mobile app. We then broke down risks into different characteristics to see what positively or negatively improved.



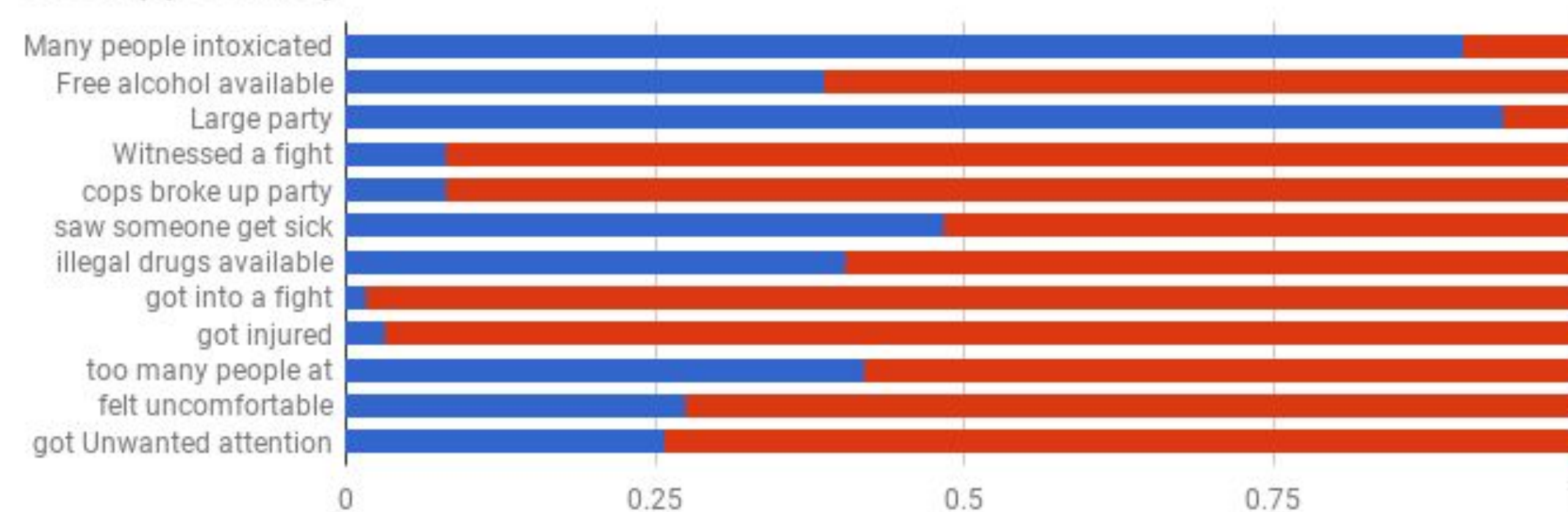
Methods

We tested the app by using it at a college event of around 60 people. The app was used successfully and the event had minimal risks. The data gathered has given us valuable information for our research and for the future development of the app.



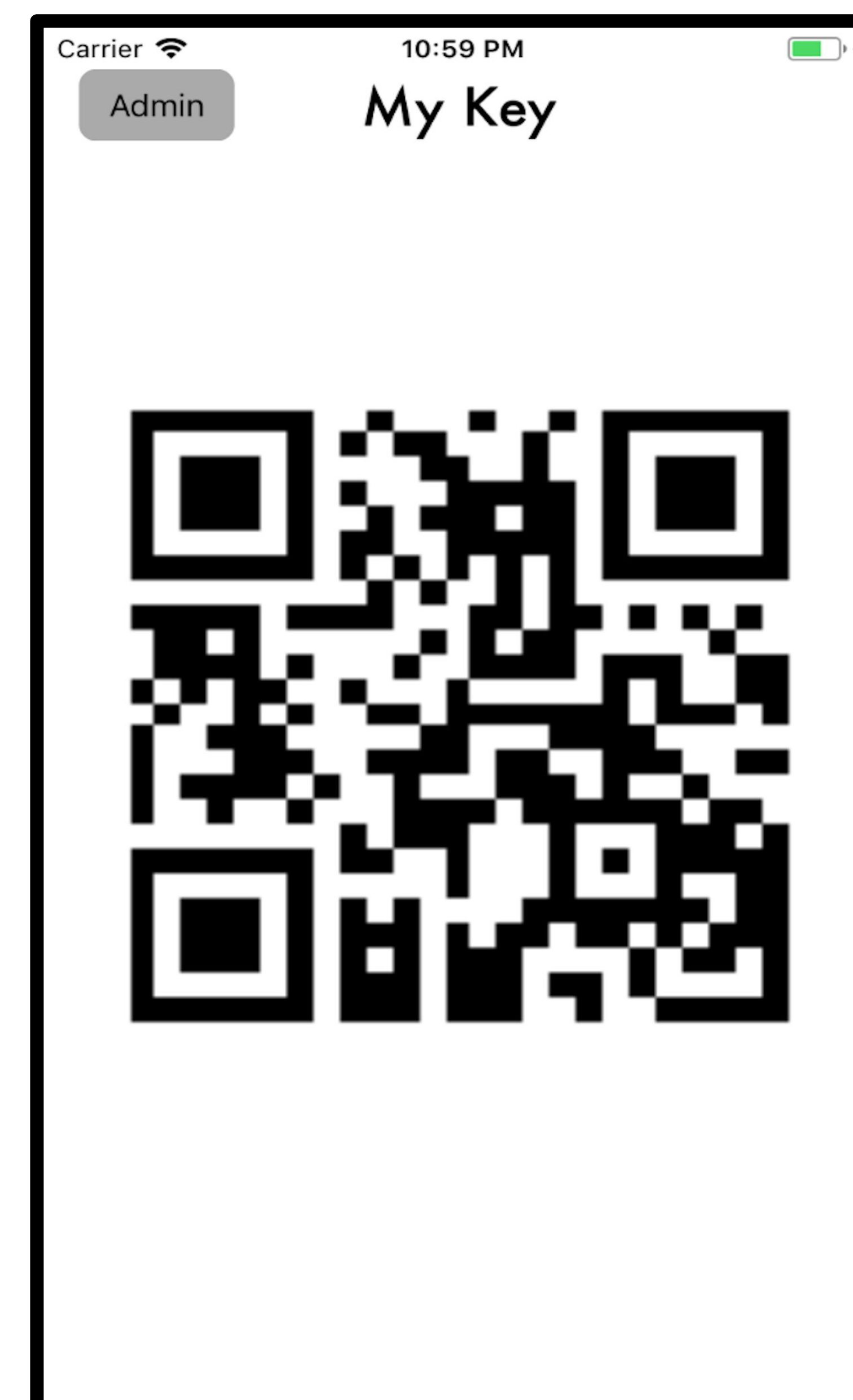
Pre-App Results

We used a 12 question survey to gather data from college students on the conditions of Greek parties. Out of 62 respondents (pictured below), 90% and 93% reported that many people were intoxicated and that large parties were common, respectively. Many (42%) felt that there were too many people. Illegal drugs were also reported to be commonly available. According to a study by Marzell et al., minimum age drinking laws are not well-enforced at Greek parties; further, they also found only 28.9% of surveyed students said there was a system in place to look after intoxicated persons.



Our Solution

In order to solve these risky problems we came up with an idea, Event Key. An app that controls who is allowed into certain events. Without an Event Key, a person is not allowed to enter. Each Event has a host. The host is the one who controls whom receives a pass. During the time of the event the host will have someone scanning Keys. Each key contains a unique code per user. Event Key then tracks the names and numbers of the people who scanned in as well keeping track of the number of people.



Results

During the two hour event we scanned a total of 58 Keys. The following day we sent out a post event survey with 51 responses. The results showed that <18% of attendees felt uncomfortable while at the event compared to the 27% who said they felt uncomfortable at a similar event that did not utilize Party Key. The data also highlights a significant decrease in the number of attendees who felt they received unwanted attention.

There was similarly a large decrease in people who reported illegal drugs being easily available: 40% without Event Key compared to <10% with it. Finally, in our post event survey, 100% of survey takers answered yes to "Would you feel safer if this app was used at future events?" We noticed a clear improvement and were happy to see that using Event Key made guests feel safer while lowered unwanted behavior.

Future Directions

After our field tests we came up with more features that will help improve the security and lower risks at events. In our later version we want to implement a Start An Event/Event Ended. Once the host starts an event, the app will keep all data saved on the device even if the host terminates the app. When the Event ends all gathered data will be saved and stored in a database that can be viewed at any time. After noticing multiple occurrences of users sharing their Key with others, we want to implement a method of disabling the sharing of a Key and only allowing a Key to be scanned once per event.

References:

M. Marzell, N. Bavarian, M. J. Paschall, R. F. Saltz, and C. Mair, "Party Characteristics, Drinking Settings, and College Student's Risk of Intoxication: A Multi-Campus Study," *Journal of Primary Prevention*, vol. 36, no. 4, 2015.