

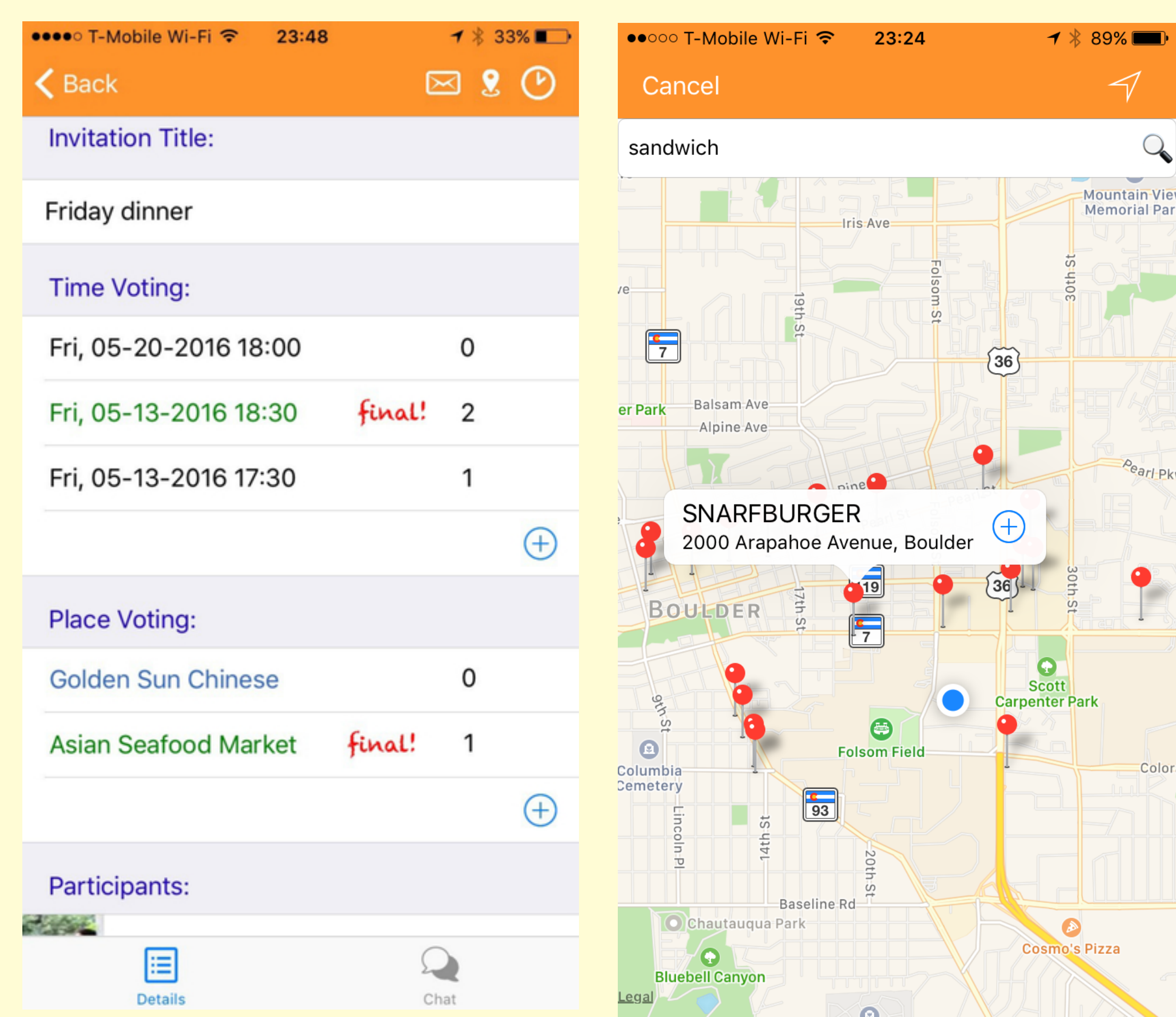


Understanding Group Event Scheduling via the OutWithFriendz Mobile Application

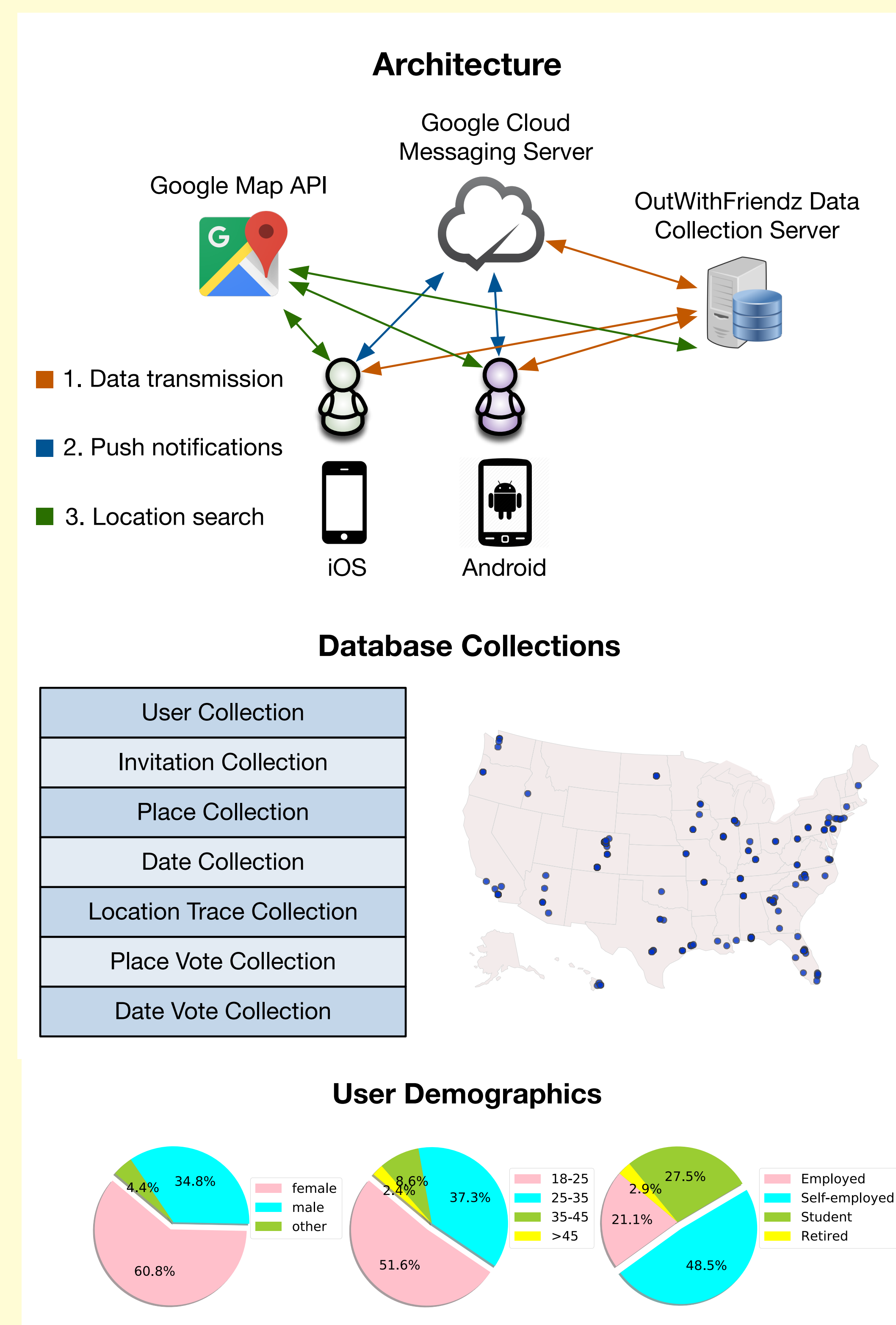
Jason Shuo Zhang, Khaled Alanezi, Mike Gartrell, Richard Han, Shivakant Mishra, and Qin Lv
Department of Computer Science, University of Colorado Boulder



1. OutWithFriendz Mobile Application



2. The Architecture and Data Collection



3. Impact of User Mobility

Table: The correlation of user mobility and voting availability

	Corr	P-value
User mobility and date availability	0.276	7.12e-05
User mobility and location availability	0.281	2.92e-06

Observation 1: Users with higher mobility are more active in attending social events.

Table: The correlation of group mobility and urban density

	Corr	P-value
Group mobility and population density	0.183	0.013
Group mobility and housing unites	0.157	0.018

Observation 2: Group mobility has a positive correlation with an area's urban density.

4. Impact of Individual Preference

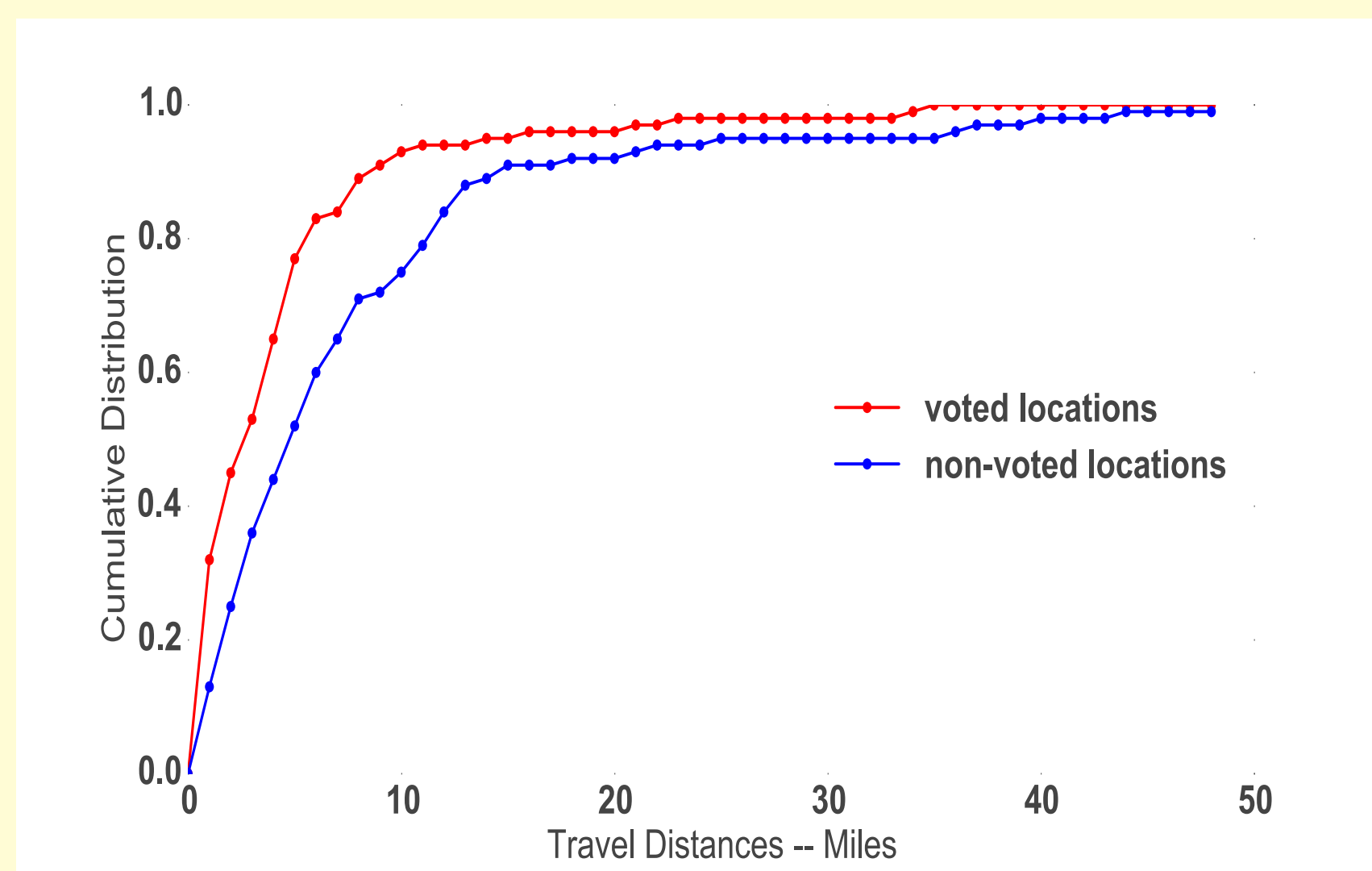


Figure: The CDF of travel distances among voted locations and non-voted locations for each participant.

Observation 3: Most users would like to vote for event venues near their frequented locations.

6. Impact of Voting Process

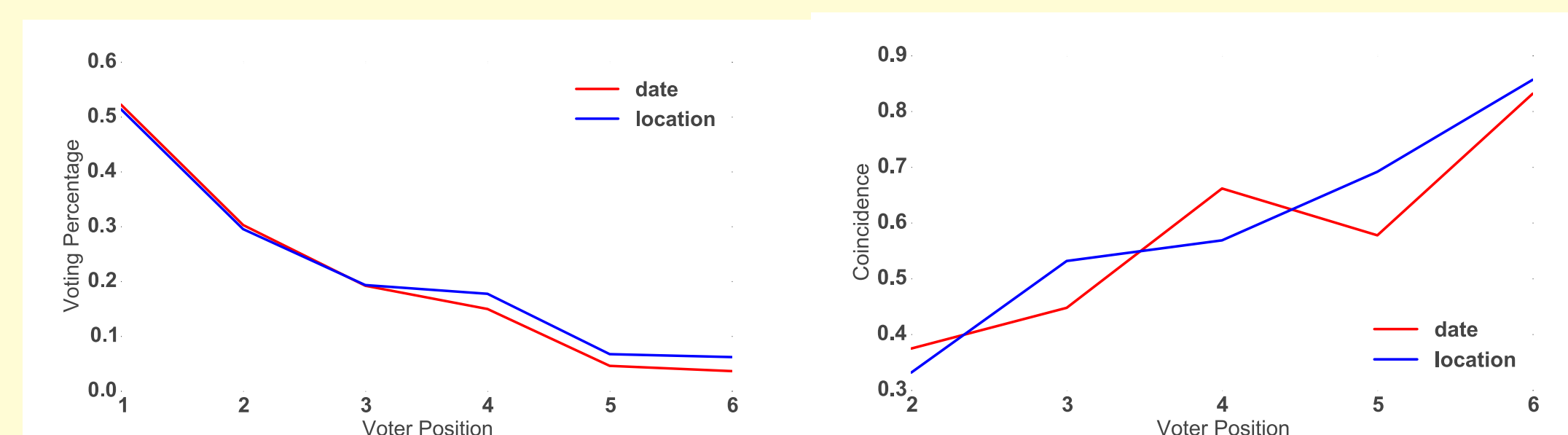


Figure left: The relationship between average voting availability and voter position.

Figure right: The relationship between average voting coincidence and voter position.

Observation 7: Early voters tend to vote for a wide variety of options, while later coming voters are more likely to report limited availability.

Observation 8: Late voters tend to vote for options align with existing voting results and are mutually agreeable

5. Impact of Host Preference

Table: The probability of final event option voted by host

	Probability
Final event date voted by host	0.71
Final event date voted by participant	0.36
Final event location voted by host	0.72
Final event location voted by participant	0.34

Observation 5: The final meeting location is closer to a host's frequented place than other participants.

Table: The correlation between whether host comply voting results and the event attendance rate

	Corr	P-value
Host comply location voting result and event attendance rate	0.48	<10e-10
Host comply date voting result And event attendance rate	0.47	<10e-10

Observation 6: The host choose not to use the consensus result as the final decision would have negative influence on the event attendance rate

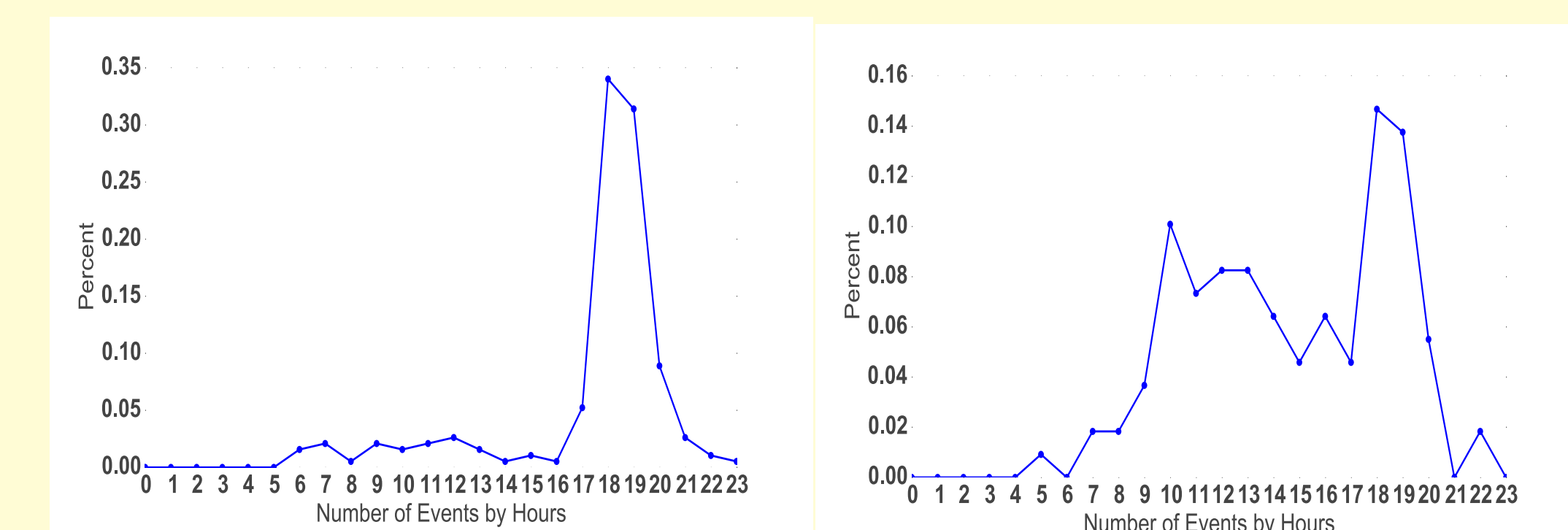


Figure: The distribution of events by hours on weekday (left) and weekend (right)

Observation 4: People like to attend social events after work on weekdays, while on weekends, events are distributed relatively evenly.