

## *The Power Set: Presentation Write-Up*

### **Variables**

Did customer use a mobile device; Date and time of customer activity; Customer location; Search destination; Length of browsed/booked trip.

### **Background**

Per eMarketer, 63% of Americans plan trips on their mobile devices. Thus, we focused on mobile usage among Expedia users in the United States in order to explore ways that Expedia can maintain a competitive edge in the digital realm. Mobile users tend to book same-day, one-night trips at nearby hotels. The population is active later in the night, typically after work hours, with peak activity at 8 PM. In contrast, non-mobile users browse and book more frequently throughout the day, during work hours. We explored seasonal travel patterns of New York City (NYC) Expedia users as a case study in the context of mobile usage.

### **Analysis & Case Study**

The distribution of mobile vs non-mobile usage in Figure 1 can inform Expedia's decisions as to when "push notifications" and emails offers should be sent. While travel companies often send promotional emails in the early morning, these data suggest that Expedia should activate promotional material when customers are actively using their mobile devices, thereby increasing the likelihood that promotions result in browsing and conversions.

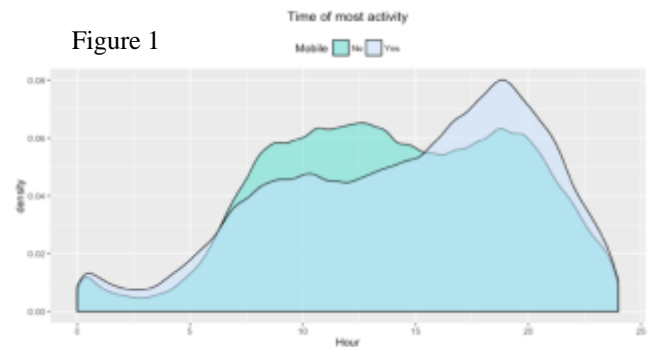


Figure 2a: Winter



Figure 2b: Summer



As Figure 2a shows, NYC Expedia users rarely browse northern travel plans during the winter and prefer warmer locations such as California and Central America. On the other hand, Figure 2b indicates that NYC users are more likely look at non-tropical destinations in the summer.

### **Recommendations**

While conventional promotional practices generally notify customers of deals early in the morning, such a strategy will not maximize conversions. In order to engage mobile customers when they are actively using their mobile devices and thereby increase the likelihood of a conversion, Expedia should send push notifications and promotional material in the evening to target periods of high activity. Moreover, mobile promotion offers should match the browsing and booking trends of mobile Expedia users. Specifically, strong mobile promotions should provide users with discounts for destinations closer to a user's location while simultaneously highlighting seasonal travel trends.