THE WELFARE EFFECTS OF PEER ENTRY IN THE ACCOMMODATION MARKET:
THE CASE OF AIRBNB

ABSTRACT: We study the entry of Airbnb into the accommodation industry and its effects on travelers, hosts, and hotels. We first document heterogeneity in Airbnb’s penetration across 50 major US cities and demonstrate that much of this heterogeneity can be explained by proxies for hotel costs, the costs of peer hosts, and demand fluctuations. Next, we document that Airbnb has an effect on hotel revenues. This effect is mostly due to a reduction in hotel prices rather than occupancy and is greatest in cities with low hotel capacity relative to the size of demand. Finally, we estimate a structural model of competition between peer hosts and hotels and use it to study the effects of Airbnb on the distribution of surplus across consumers, peer hosts, and incumbent hotels. We find an average consumer surplus of $70 per night from Airbnb. This surplus is disproportionately concentrated in locations (New York) and times (New Year's Eve) when hotels have high occupancy. Because Airbnb guests view Airbnb as a differentiated product and because Airbnb bookings occur disproportionately when hotels are near full capacity, most of these bookings would not have resulted in hotel bookings had Airbnb not been available. We also quantify the effects on hotels and peer hosts. In total, the sum of the surplus from Airbnb entry across consumers, hotels, and hosts is $352 million in 2014 for the top 10 US cities in terms of Airbnb's penetration.