

Dynamic Price Discrimination in Airline Markets Among Strategic Consumers

Nicholas Scott-Hearn

This research project investigates the existence and effect that strategic consumers in airline markets have on overall consumer behavior when responding to dynamic pricing strategies. Using a series of large and detailed datasets on the transaction level, I estimate measures of consumer purchasing behavior and of price change dispersion using t-statistics, CDF estimation and k-means clustering. Using multiple regression on these measures, I show that the dispersion of price changes has a statistically significant effect on consumer purchasing behaviors. If prices increase as the date of departure approaches, the average consumer is more likely to purchase earlier. Conversely if prices decrease as the date of departure approaches, the average consumer is more likely to purchase later. Thus, at least some consumers exhibit strategic cost-minimizing behaviors using prior knowledge of the dispersion of price changes.