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Abstract: Three Essays Examining the Behavior of Groups

Every firm would like to have perfect information about their customers. This knowledge would empower them to perfectly price discriminate by charging each consumer his or her willingness to pay. However, in reality, third-degree (rather than first-degree) price discrimination is prevalent. The three essays presented in this dissertation examine how behavior varies across types of consumers in response to different product bundles and prices.

The first essay estimates the demand for down hill snow skiing. Consumer responses to price, income, competitors' prices, weather, transportation costs, weekends, and holidays is analyzed and compared across ten groups. The results show significant differences across groups in their response to these factors. In general, the major factor that affects the decision to snow ski is the snow quality. Based on casual observation at the ski resort snow fall should have more impact than what the results show. Interestingly, the responses to weekends and holidays vary between groups and are of the expected sign.

The behavior of snow skiers who hold season tickets is examined in the second paper when the price of the season ticket increases. When the price increases, depending on the group determines whether the number of tickets sold, and used increases or decreases. Each group exhibits a different change in the average price per use. The average price per use increases the most for members of ski groups when the price increases. The average price per use actually decreases when the price increases for local ski shop employees, members of the military, and spouses or children of the ski resort employees. After calculating the price elasticity of demand, the demand for the season ticket is inelastic for the general skier, and the spouse or children of the employee working at the resort.

The third essay analyzes the way that universities optimize across groups of applicants. The goal of the admissions offices at universities is to admit students who will graduate from their school. Currently high school grade point average (GPA) and standardized test scores are used as signals of whether the students will excel in college. However, GPAs are not consistent across different high schools. A model is developed to determine whether high school size and location impact student retention in higher education.