The Role of Income in Hospital Pricing: Using Regression Models to Predict Hospital Markup

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The purpose of this project was to investigate the relationship between features such as hospital size, hospital location, and, primarily, regional income, and hospital pricing. Data were obtained from the U.S. Census Bureau, RAND, National Bureau of Economic Research, and UDS Mapper. This study is important because it contributes to pricing visibility in healthcare and allows consumers to make more educated decisions about which hospitals they choose to attend. To answer the question, three different types of regression models were fit to several features of thousands of hospitals across the United States and used to predict the markup of each of these hospitals. Once a model was created that made satisfactory predictions, it was used to determine the importance of each of the features in predicting the markup. The results of this experimentation show that there is a negative correlation between household income and hospital pricing—hospitals tend to overcharge more in lower-income areas. This information is important for consumers when they make decisions about their own healthcare, and can also be used to hold hospitals and healthcare providers accountable for their prices.

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