**Identifying Information**


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**Paper Information**

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| Title: | Errors in Measuring Patent Damages using Choice Modeling |
| Abstract: | Conjoint analysis and other choice models are widely used today in patent infringement and class action lawsuits to calculate damages. In the patent context, the method is used to calculate the value of the infringed feature. Using these choice based methods to understand values of major attributes is generally an easy task. However, in the legal context, most cases implicate only minor attributes. To estimate the value of these minor attributes, most conjoint analysis seeks to omit some major attributes and instead attempts to hold them constant throughout the choice task. We show that this widespread method of omitting major attributes causes the estimated value of minor attributes to be substantially inflated. We first explain the details of the method, its historical use, and how it is routinely used (and ultimately abused) in patent infringement cases. Next, using both simulated data and a sample of 800 M-Turk respondents, we use hierarchal Bayes estimation to show that when major attributes are excluded in the choice set, minor attribute valuations are biased upwards. The implications of our findings are that recent jurisprudence is not correctly using conjoint analysis. Therefore, several damage awards have been substantially inflated and several class action lawsuits have been inappropriately certified. Ultimately, we seek to educate both lawyers, judges, and expert witnesses on the correct way to utilize conjoint analysis to value patented features. |