

Introduction to Statistics for Data Science

**Communicating Legal Precedent by Estimating Preparation Hours Needed for Criminal Cases**

**Estimating Preparation hours based on Expected Trial Days**

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6. **Introduction**

Managing serious criminal matters such as murder, sexual assault, or weapon offences are very difficult, and each case requires a different number of Trial Days to resolve. Lawyers need a certain amount of Preparation Hours to effectively represent the case in court, however as they are paid by the hour, they will rationally ask for the maximum amount possible in order to maximize their earnings. To mediate this and ensure there is no needless overspending, budget management committees require some rationale to authorize a reasonable amount of Preparation Hours for each case. They often turn to historical cases to grant Preparation Hours based on precedent, looking at the number of hours granted for past cases with a similar number of Trial Hours.

Our team aims to ease the work of such budget management teams by devising a statistical method to estimate the number of Preparation Hours that have been historically granted based on the number of Trial Hours for each case. This project would end with a program that could receive a new case’s ‘Trial Hours’, and output an estimated ‘Preparation Hours’, based on historical data. This would allow for the legal precedent to be communicated clearly and numerically to the committee, thus reducing bias.