

Judge Shopping To Do List

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1 To Do List

Current Priorities

- Replicate Nasser’s discrepancy analysis between the sentencing data and the schedule data. This includes: 1. reading the section in the document detailing the particularities of the schedule data 2. Running some tests to make sure daily schedule data was parsed correctly.
- Read background material and relevant sections in the document to refine or confirm the criteria for ”clean days”.
- Implement ”clean days” exclusion and service rate estimation procedures.

1.1 Data

1.1.1 Schedule Data

- Parse the assignment types (e.g. CP, GS, CC)

1.2 Parameter Estimation

1.2.1 Conviction Probability at Trial - θ

- Look into Hurdle model used by Hester.
- Use more covariates to predict this.

1.2.2 Expected Sentence Length if Convicted - τ

- Look into Hurdle model used by Hester.
- Use more covariates to predict this.

1.2.3 Defendant Cost of Trial - c_d

- Figure out how to implement the MLE approach described in Nasser's document that uses information from sentencing events other than those in which $s < u_j$

1.2.4 Judge maximum and minimum plea - $l_j(\theta\tau), u_j(\theta\tau)$

- Look into convex hull approach.
- Remove each defendant from K nearest neighbors.

1.2.5 Service Rates - μ_p, μ_t

- Study documentation to refine exclusion criteria for "clean days".
- Try approach 1 for estimating plea service rate. Figure out how to enumerate the tuples of interest.
- Try approach 2 for estimating plea service rate.
- Try approach 3 for estimating plea service rate.
- Use updated plea service rate estimate to re-estimate trial service rate.

1.3 Simulation

- Confirm that current way of simulating arrivals works. Current way is to draw the number of arrivals for each period from a $\text{Poisson}(\lambda_c)$ for each county, c , and then draw that number of defendants from the county's past defendants, with replacement.
- Fix the processing of backlogged defendants.
- Consider only assigning judges to the counties they are assigned to in the data. Or taking into consideration geography when assigning judges.
- Incorporate defendants' decision to go to trial.
- Incorporate capacity reductions for judges from time spent on trials.
- Consider assigning more than one judge per week for busier counties.

1.4 Analysis

- Think about what other metrics to compute.
- Consider analyzing county level outcomes (eg intra and inter county variance).