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### Short Research Essay - Example 2 - Research Idea

I will evaluate the effect of alternatives sentences (fines or community service) on recidivism.

To do so, I will web-scrap the São Paulo's Court System website to collect information on trial judge's sentences. Having collect these text files, I will use a natural language processing algorithm to classify those sentences in two groups:

1. defendants who were found guilty and punished with an alternative sentence, and
2. defendants who were found not guilty.

To measure recidivism, I will check whether the defendants in my dataset were prosecuted more than once.

My treatment variable is endogenous because the econometrician does not observe all the variables that influence the defendant's future criminal behavior and are used by the trial judge to decide the defendant's punishment. To avoid this endogeneity problem, I will use the trial judge's leave-one-out rate of punishment (or "leniency rate") as an instrument for the trial judge's decision ([Bhuller et al., 2019](#); [Agan et al., 2021](#)). This instrumental variable is independent of the defendant's counterfactual criminal behavior because trial judges' are randomly assigned to each case conditional on court districts according to state law in São Paulo.

Given this data, I will estimate the effect of alternatives sentences on recidivism using a 2SLS regression whose instrument is the trial judge's leave-one-out rate of punishment. To account for the fact that the randomization of trial judges is valid only at the court district level, I will condition on a full set of court district dummies.

My work is inserted in the literature about the effect of alternative sentences on future criminal behavior. Three recent papers in this field were written by [Huttunen et al. \(2020\)](#), [Giles \(2021\)](#) and [Klaassen \(2021\)](#). While the first group of authors uses data from Finland and uses a judge fixed-effect strategy, the second uses data from Milwaukee (a city in the State of Wisconsin in the U.S.) and leverages a state law change as a source of exogenous variation in a regression discontinuity design. Both sets of authors find that alternative sentences increase recidivism. Differently from them, [Klaassen \(2021\)](#) finds that alternative sentences decrease recidivism in North Carolina (a state in the U.S.) by using a judge fixed-effect strategy.

Since there is no consensus on the direction of the effect of alternative sentences on recidivism, my research project will contribute to this literature by analyzing this policy in a developing country context.

## References

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