

## Drugs, Crime and Space: The Spatial Distribution and Consequences of Prescribing Patterns on Use and Criminal Activities

Professors Jason Fletcher and Marissa King

Isaac Park, Calhoun College '13

Professor King's project involved a large data set containing roughly 70% of all prescriptions written in the US between 2005-2009 for several classes of drugs – specifically, stimulants and antidepressants. Generally speaking, the project involved a statistical examination of the spatial and temporal distribution of prescribing patterns, as well as an exploration of potential socioeconomic determinants that may predict that spatial and temporal distribution.

As a research assistant, my first responsibility was to perform naïve regressions involving several socioeconomic determinants that were determined to potentially predict the spatial and temporal distribution of prescribing patterns for stimulants. I ran multiple preliminary regressions stratified by age and varied by gender, geographic area, socioeconomic status, and other relevant factors. Later, I performed the same analysis for antidepressants. The next step was to run the actual logistic regressions in STATA.

Another of my responsibilities was gathering data about the beginning and ending dates of school districts in certain targeted states. Eventually, an element of the final regression would be a consideration of the difference in prescription rates during the school year and during the summer. Finally, I was responsible for completing the cleaning of the data, running the preliminary regressions, and running the logistic regressions.

Most importantly, I learned much about the formulation of a research question, from the cleaning of data to the running of regressions that interrogate certain aspects of that research question. I also gained valuable experience with STATA, with running logistic regressions, and with literature review.

My SRO experience was a very valuable and rewarding use of my time. I highly recommend it to any and all Yale economics majors!