The outcome variables used in this analysis are measures of drug-related crimes per 1,000 people within a county for three types of drugs: methamphetamine, crack/cocaine and marijuana. The measure for methamphetamine was collected using the Drug Enforcement Administration’s National Clandestine Register for 2010. The National Clandestine Register denotes the addresses of all clandestine labs and dump sites seized by authorities as a courtesy to citizens because the chemicals used in these labs can be harmful. A clandestine lab is any situation involving the production of illicit compounds and most commonly refers to the production of methamphetamine but could also include the production or refinement of heroin or MDMA/ecstasy.

To estimate the crimes related to crack/cocaine and marijuana use, the data was collected from each state’s Uniform Crime Report drug crime statistics for the year 2013. The Uniform Crime Reports denote the arrests for specific crimes related to the possession of certain drugs, and the drugs reported by each state very slightly due to prevalence. This report has focused on the possession of crack/cocaine and marijuana because they are the most common drugs used among citizens in the states considered and is measured as arrests for the possession of crack/cocaine or marijuana per every 1,000 citizens in the county.

Out of the five states that still have dry counties, this report analyzed Alabama, Arkansas and Kentucky because of the similarity of their liquor laws and the data available to the public. Texas was excluded because only 10% of Texas’s 254 counties are still completely dry and therefore has too few observations. Marijuana laws are more restrictive than any other state’s therefore they do not make their crime data available to the public. In Alabama 19% of counties are dry, 69% of Arkansas counties are dry and 53% of Kentucky counties are dry, and the distributions can be seen on the maps below.

Possible reasons for this include the blurred judgment that comes as a result of inebriation under alcohol use. Alcohol can make the judgment of seeking out and using additional substances such as marijuana or crack/cocaine.

Comparing the magnitude of possession arrests for marijuana and crack/cocaine, the results support the intuition that the more severe drug, crack/cocaine, is less sensitive to dry/wet status within a county than marijuana. This means that marijuana use fluctuates more depending on access to alcohol as compared to the more addictive crack/cocaine use, which still sees some change but not to the same extent because it is more likely for users to become addicted to crack/cocaine and seek it out no matter the risk.

One limitation to this study, as well as many other studies dealing with the topic of drugs, is that drug related arrests are not a perfect measure of drug use. It is unlikely someone would voluntarily self-report the recreational use of illicit substances so accurate data reflecting actual drug use is difficult to estimate. Arrests or reports of production sites may not best represent actual use of the drug because in most cases the production site is in dry counties. Possible reasons for this include the blurred judgment that comes with crime data available to the public. Texas was excluded because only 10% of Texas’s 254 counties are still completely dry and therefore has too few observations. Marijuana laws are more restrictive than any other state’s therefore they do not make their crime data available to the public. In Alabama 19% of counties are dry, 69% of Arkansas counties are dry and 53% of Kentucky counties are dry, and the distributions can be seen on the maps below.

This study evaluated the impact of alcohol prohibition on drug-related crimes. Findings indicate that the number of methamphetamine production sites may be lower in dry counties, and the number of production sites for marijuana may be higher in dry counties. The comparison of behaviors between three different states allows for a more generalized relationship, because the results are not state specific. Also, studying the relationship of alcohol with each individual drug demonstrates that each drug has its own market and its own market behaviors. Also, the analysis does not include the supply and demand of certain drugs in dry counties was included in this paper. The results could aid in supporting legislation aimed at reducing the production of illicit drugs within counties by eliminating dry counties.

There are many exciting future research opportunities; for example, an analysis including the relationship between alcohol prohibition and more types of drug offenses and the results of this paper could support a more complete classification of controlled substances. Another possible field of future research could include the regulation of other activities considered “sinful” in the United States, such as gambling, and its relationship with drug use.