High and Dry: An Economic Analysis of Drug Use in Dry Counties

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High and Dry: An Economic Analysis of Drug Use in Dry Counties

An honors thesis submitted in partial fulfillment
of the requirements for the degree of BSBA in Economics

By

Shannon Harris
University of Arkansas, Fayetteville
May, 2015
Abstract:

This paper focuses on how alcohol prohibition affects the drug seeking behaviors of citizens in dry counties. Dry counties are counties that do not permit the production or sale of alcohol and are typically found in Southern states only. This paper analyzes the relationship between dry county laws and three different drug incident measures in order to get a better picture of the unintended consequences of modern alcohol prohibition in the states of Alabama, Arkansas and Kentucky. To estimate drug related events I used the seizure of production sites used to make methamphetamine and other synthetic drugs, as reported by the Drug Enforcement Administration as well as measurements for possession of marijuana and possession of crack/cocaine according to the Uniform Crime Statistics for each state. The results of the analyses offer some interesting insights into drug seeking behavior in relation to alcohol prohibition. It finds that the seizure of production sites used to make methamphetamine and other synthetic drugs is significantly higher in dry counties than in wet counties in all states used in the analysis. This variable represents the relationship of drug supply with alcohol supply and finds that the two are substitutes. For the demand of drugs, the relationship was the opposite for both substances used in the analysis: crack/cocaine and marijuana. This suggests that these non-synthetic drugs have a complementary relationship with alcohol permissive laws for consumers.

This honors thesis is approved for recommendation

Faculty Advisor:  

Dr. Li Hao

Second Reader:  

Michael Cawthor
Acknowledgements:

I would like to thank the faculty and staff of the University of Arkansas, as well as the faculty and staff of the Sam M. Walton College of Business for their contributions to my education and passion for learning. I would also like to thank Dr. Li Hao for her patience and persistence to bring this thesis to fruition and Michael Cawthon for his feedback and contributions to the final product.
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I. Introduction

Despite the end of alcohol prohibition at a federal level in 1933, to this day there are over 200 counties that have voted to prohibit the sale of alcohol because of a religious or moral consensus among the majority of voters, who often believe that these alcohol regulations will help curb crime. However, there are many possible unintended consequences of continued alcohol prohibition not taken into consideration by the population, such as the use of drugs as an alternative to alcohol. This paper investigates the relationship between alcohol prohibition laws at the county level and the illicit production and use of controlled substances.

Counties that do not permit the sale or production of alcohol are called dry counties, and while they do not exist in most states, more than 500,000 people are affected by these laws. Dry counties typically do not prohibit the possession and consumption of alcohol,\(^1\) therefore the prohibition laws do not attempt to eliminate drinking but rather raise the implicit price of alcohol by requiring more effort from the consumer to obtain it. Those who are willing to give more to obtain alcohol must either travel to a wet county where sales are permitted, or obtain alcohol through illegal means. Supporters expect the implicit price increase to result in a decline in alcohol consumption, possibly followed by decreases in drunk driving accidents, DUlIs and crime. For example, Carpenter (2005) finds that stern laws against drunk driving can reduce property and nuisance crimes amongst young adults, but violent crimes are unchanged.

However, the unintended consequences of these laws could be more devastating than the problems that result from alcohol consumption. In the absence of alcohol, citizens may resort to using or producing other substances that are more harmful, more addictive and more likely to

\(^1\) The only exception is Mississippi dry counties do not permit the possession and consumption of alcohol within county lines; however Mississippi is not analyzed in this paper.
induce crime. This paper analyzes both the supply of and demand for various illicit substances in order to compare the effects of prohibition laws on the behaviors of each side of the market.

Previous research on this topic is limited, but I will discuss three papers here. Conlin, Dickert-Conlin and Pepper (2005) studied whether the levels of drug related crimes and mortalities changed when dry counties in Texas opted to become wet between the years 1978 and 1996. They found that after controlling for year and county fixed effects, wet counties have fewer drug related crimes and mortalities caused by illicit substances than dry counties, suggesting a substitute effect. Estimates for drug use were measured by total drug arrests for trafficking and possession as well as mortalities related to any type of drug.

Fernandez, Gohmann and Pinkston (2014) found that in Kentucky methamphetamine lab seizures were higher in dry counties than in wet counties. They used data from the DEA’s National Clandestine Register, Uniform Crime Reports and the Kentucky State Police for years 2005-2010.\(^2\) They used two data sets to measure the production and/or sale of methamphetamine and the results were consistent for both data sources, suggesting a substitute effect of methamphetamine production in dry counties in Kentucky.

DiNardo and Lemieux (2001) researched the impact of raising the drinking age on both alcohol consumption and marijuana use among high school seniors, measured using a survey of self-reported drug use by a sample of high school seniors. They found that a higher drinking age leads to a decrease in alcohol consumption and a slight increase in marijuana consumption among high school seniors, suggesting that the two substances are substitutes. However, conflicting research by Williams, Pacula, Chaloupka, and Wechsler (2001) found a

\(^2\) This paper will also use the DEA’s National Clandestine Register and the Uniform Crime Report of various states to conduct the analyses.
complementary effect between alcohol and marijuana among college students. Specifically, they found that efforts to decrease alcohol consumption, such as campus-wide bans of alcohol or restrictions on happy hour, reduced both marijuana and alcohol use among women over the age of 21. The information for this study was aggregated from the Harvard College Alcohol Study (CAS) for the years 1993, 1997, and 1999. The CAS surveys college students at 4-year institutions about alcohol consumption and the use of other illicit substances, as well as demographic information.

The contribution of this paper to current research is two-fold: first, the paper investigates three different states and the results offer insights by state comparison, second, this paper investigates the specific relationship of dry counties to three of the most common drugs today: methamphetamine, marijuana, and crack/cocaine.

This paper is organized as follows: Section II explains the data and gives sources, Section III offers predictions and explains the estimation strategy, Section IV shows the results and Section V consists of conclusions and discussion.

II. Data

The outcome variables used in this study 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 is collected through the Drug Enforcement Administration’s National Clandestine Register for the year 2010. The variable used in the analysis will be referred to as Production Sites and measures the seizure of production sites of methamphetamine and other synthetic drugs by authorities within a county per 1,000 citizens. The DEA National

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3 2010 is the most recent year of complete data for the DEA National Clandestine Register.
Clandestine Register denotes the addresses of all clandestine labs and dump sites seized by authorities as a courtesy to the citizens because these production sites may contain chemicals harmful to health. A clandestine lab includes any situation involving the production of illicit compounds and most commonly refers to the production of methamphetamine but could also include the production of heroin, other amphetamines, 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. Each report varies slightly in the categorization of drugs and types of crime, but I focused only on common variables. The Uniform Crime Report for each state measures the arrests for specific crimes related to the possession of certain drugs, and most states make this information available to the public. This report includes variables for the possession of marijuana per every 1,000 citizens and the possession of crack/cocaine per ever 1,000 citizens.

Currently, there are five states that have dry counties: Alabama, Arkansas, Kentucky, Mississippi, and Texas. Among these five states, Alabama, Arkansas and Kentucky have the most similar liquor laws and similar drug crime data available to the public. I have excluded Texas because only 10 of Texas’s 254 counties are dry and therefore it has too few observations.

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4 2013 is the most recent drug crime data from each state’s Uniform Crime Report.

6 Tennessee, Oklahoma and Kansas also regulate the sale of alcohol but only by the drink. Some counties within these states require a certain percentage of food income in order for an establishment to sell alcohol; some counties do not allow the sale of individual liquor drinks at all. Because of the nature of the dependent variable, i.e. drugs are not typically used or produced in public places; these types of alcohol prohibitions would not have an impact on drug incidents and has been excluded from this analysis.
Mississippi is excluded from the analysis because it lacks comprehensive drug crime data necessary for comparison. 7

The main explanatory variable in this analysis is an indicator variable “Dry” which is assigned a value of 1 when a county is dry and 0 when a county is wet. In some cases, there are municipalities within dry counties that have opted to allow alcohol sales within city limits and these cases are assigned a value for variable “Dry” of 0.5. All information regarding the wet/dry status of counties was obtained using each state’s respective Department of Alcohol Beverage Control, as shown in the following three figures.

Figure 1: Alabama ABC Wet/Dry Map

---

7 There still exist hundreds of municipalities scattered throughout the United States that prohibit the sale of alcohol, but this study will focus only on restrictions at the county level.
Figure 2: Arkansas ABC Wet/Dry Map

*Underlined county names mean there are dry areas within wet county.

Figure 3: Kentucky ABC Wet/Dry Map
Additional variables controlling for wealth of the county and the level of religious adherence are also included in the analyses. In particular, wealth is measured as the median household income for 2006-2010 according to the U.S. Census. Religion is measured using total religious adherence as percent of county population retrieved from Association of Religion Data Archives - U.S. Religious Census for 2010. The mean for each variable within each state included in the analysis is reported in Table 1.

Table 1: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Alabama</th>
<th>Arkansas</th>
<th>Kentucky</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Sites/1000People</td>
<td>0.2412</td>
<td>0.4151</td>
<td>0.2887</td>
</tr>
<tr>
<td>Marijuana/1000People</td>
<td>0.5887</td>
<td>1.7485</td>
<td>3.7287</td>
</tr>
<tr>
<td>CrackCocaine/1000People</td>
<td>0.3742</td>
<td>0.1321</td>
<td>0.6500</td>
</tr>
<tr>
<td>Total Counties</td>
<td>67</td>
<td>75</td>
<td>120</td>
</tr>
<tr>
<td>Number of Dry Counties</td>
<td>13 (19.4%)</td>
<td>52 (69.3%)</td>
<td>63.5 (52.9%)</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>$36,962.94</td>
<td>$34,982.72</td>
<td>$37,080.83</td>
</tr>
<tr>
<td>Religious Adherence (%)</td>
<td>60.9834</td>
<td>54.4944</td>
<td>50.5883</td>
</tr>
</tbody>
</table>

III. Estimation Strategy and Predictions

A model must be provided as a framework for exploring the relationship between dry counties and drug related crime across states. Assuming the relationship is linear the following model will be used to analyze each state individually, and the analyses will be compared to draw conclusions:

\[ \hat{y}_i = \alpha + \beta_1 Dry_i + \beta_2 \ln(\text{Income})_i + \beta_3 \text{Religion}_i \]
Where $\hat{y}_i$ represents the variable for the drug crime being analyzed. The analyses will start with production site seizures, followed by arrests for possession of crack/cocaine and finally arrests for possession of marijuana. The variable $\alpha$ represents the intercept of the equation, and $\beta_i Dry_i$ is the indicator variable assigned the value of 1 when the county is dry. Each specific county is represented by $i$. The control variable for income is $\beta_2 \ln Income_i$ and the log is taken because the variable is in monetary terms. $\beta_3 Relgion_i$ represents the estimate for the control variable for religious adherence, measured as percent of population that associates themselves with some religion.

Using this model, a simple OLS linear regression was run for each state and each drug crime analyzed, and the results were compared for each drug crime across the states to look for trends. This model forms the basis of the following hypotheses:

HYPOTHESIS 1: When considering the supply of illicit substances in areas that restrict the sale of alcohol, it is expected that the production of these substances will increase. In this case, the production sites of methamphetamine and other synthetic drugs are expected to be more numerous in dry counties, where sale and production of alcohol is prohibited. One reason for this is that the supplier has a market of users whose desires for inebriation are not being satiated by alcohol, so the users seek out substitutes that may be easier to make or obtain. Another possible reason is that the effort required to obtain alcohol is much higher in dry counties so people may resort to creating their own substances, such as methamphetamine, which can be made with common household products.

HYPOTHESES 2: Alcohol prohibition laws affect demand for drugs differently than they affect the supply. It is important to consider the types of drugs included in this report. For
possession of crack/cocaine it is expected that there will be fewer arrest incidents in dry counties than in wet counties. The availability is not necessarily higher than the availability of alcohol in a dry county because crack/cocaine is not produced in-house and requires access to a drug dealer who must import the product from other places. This is especially true when considering that most major cities permit the production and sale of alcohol and also have a higher density of marijuana and crack/cocaine. The elasticity of crack/cocaine use is expected to be lower than for marijuana use because the drug is more likely to cause addiction. This means that users are willing to risk more to obtain crack/cocaine than they would to obtain a drug like marijuana, so the relationship will depend less on dry county status than does the relationship with marijuana use.

**HYPOTHESIS 3:** For incidents regarding possession of marijuana, the expected results are similar to that of possession of crack/cocaine. The expected relationship between marijuana and alcohol is complementary, following the same logic of availability used in Hypothesis 2. Consumption of alcohol is not prohibited in dry counties so the rational consumer should prefer to drive to another county to obtain alcohol and not face the risk of breaking the law by seeking out and obtaining illicit substances. Another indication to the complementary effect between these drugs and alcohol consumption could be that under the influence of alcohol, people tend to be less conscientious about breaking the law and may be more likely abuse marijuana and crack/cocaine.
IV. Results

The analysis includes considerations for each measurement of drug crimes for all states included and are ordered according to the perceived danger of the drug: starting with production sites explained in Result 1, followed by possession of crack/cocaine in Result 2 and possession of marijuana in Result 3.

**Result 1:** Dry counties have significantly more production site seizures than wet counties in all states considered.

*Evidence:* The coefficient for variable “Dry” is positive for all states in this regression, as seen in Table 2. This means that dry counties have more incidents of production site seizures by authorities than wet counties. In particular there are 0.5 more incidents per 1,000 people in Alabama and 0.2 more incidents per 1,000 people in Arkansas and Kentucky.

When considering average population, however, the magnitude of the incidents is clearer. With an average population in Alabama of about 71,000 people, there is an average of 36 more production site seizures in dry counties. Arkansas has an average population of about 39,000 resulting in an average of 8 more incidents in dry counties than in wet counties. Kentucky’s average population is about 36,000 and results in approximately 7 more incidents in dry counties, on average. All coefficients of the main explanatory variable were significant at a 10% level.

This analysis suggests that production of methamphetamine and other synthetics is a substitute to the sale and consumption of alcohol because in the areas where access to alcohol is limited, the number of reported labs is higher.
Table 2

Dependent Variable: Production Site Seizures per 1,000 People.

<table>
<thead>
<tr>
<th></th>
<th>Alabama</th>
<th>Arkansas</th>
<th>Kentucky</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry(Liquor)</td>
<td>0.579***</td>
<td>0.200*</td>
<td>0.203**</td>
</tr>
<tr>
<td></td>
<td>(0.164)</td>
<td>(0.115)</td>
<td>(0.0781)</td>
</tr>
<tr>
<td>InIncome</td>
<td>0.0793</td>
<td>0.455</td>
<td>0.00476</td>
</tr>
<tr>
<td></td>
<td>(0.200)</td>
<td>(0.254)</td>
<td>(0.122)</td>
</tr>
<tr>
<td>Religion</td>
<td>-0.00063</td>
<td>-0.00277</td>
<td>-0.00076</td>
</tr>
<tr>
<td></td>
<td>(0.0032)</td>
<td>(0.00323)</td>
<td>(0.0016)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.665</td>
<td>-4.332</td>
<td>0.170</td>
</tr>
<tr>
<td></td>
<td>(2.104)</td>
<td>(2.669)</td>
<td>(1.276)</td>
</tr>
</tbody>
</table>

N 67 75 120
Adj. R² 0.130 0.059 0.045

Standard errors are in parentheses
*p<0.10, **p<0.05, ***p<0.01

On the demand side of the analysis we consider the effect of alcohol prohibition on possession of crack/cocaine. Table 3 shows the results.

Result 2: Dry counties have fewer crack/cocaine possession arrests than wet counties; this difference is significant in Kentucky only.

Evidence: The coefficients for variable “Dry” in all three states are negative, which indicates that dry counties have less crack/cocaine possession incidents than wet counties. Alabama has about 0.2 fewer arrests in dry counties per 1,000 people, on average and Arkansas has about 0.1 fewer arrests in dry counties per 1,000 people. Kentucky had about 0.6 fewer arrests in dry counties per 1,000 people, on average and is the only one showing statistical significance at a 10% level, as seen in Table 3.

Considering the average population of each county for each state, Alabama has approximately 14.2 fewer crack/cocaine arrests in dry counties. Arkansas has approximately 3.9 fewer crack/cocaine arrests in dry counties than in wet counties, considering average population.
Kentucky has about 12 fewer crack/cocaine arrests in dry counties than in wet counties when put into the context of average county population. These results indicate that in Kentucky, possession of crack/cocaine has a complementary effect with alcohol permissive laws.

### Table 3

Dependent variable: Number of arrests for crack/cocaine possession per 1,000 people.

<table>
<thead>
<tr>
<th>Crack/Cocaine</th>
<th>Alabama</th>
<th>Arkansas</th>
<th>Kentucky</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry (Liquor)</td>
<td>-0.193</td>
<td>-0.104</td>
<td>-0.633***</td>
</tr>
<tr>
<td></td>
<td>(0.159)</td>
<td>(0.0918)</td>
<td>(0.157)</td>
</tr>
<tr>
<td>Ln Income</td>
<td>-0.0737</td>
<td>0.0511</td>
<td>0.347</td>
</tr>
<tr>
<td></td>
<td>(0.194)</td>
<td>(0.204)</td>
<td>(0.247)</td>
</tr>
<tr>
<td>Religion</td>
<td>0.00308</td>
<td>0.00241</td>
<td>0.00738*</td>
</tr>
<tr>
<td></td>
<td>(0.00318)</td>
<td>(0.00258)</td>
<td>(0.00312)</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.998</td>
<td>-0.461</td>
<td>-3.032</td>
</tr>
<tr>
<td></td>
<td>(2.038)</td>
<td>(2.136)</td>
<td>(2.571)</td>
</tr>
<tr>
<td>N (Counties)</td>
<td>67</td>
<td>75</td>
<td>120</td>
</tr>
<tr>
<td>Adj. $R^2$</td>
<td>-0.011</td>
<td>-0.009</td>
<td>0.237</td>
</tr>
</tbody>
</table>

Standard errors are in parentheses
*p<0.10, **p<0.05, ***p<0.01

Finally, we consider the relationship between arrests for possession of marijuana and dry counties. Table 4 contains the results of this analysis.

**Result 3:** Dry counties have fewer marijuana possession arrests than wet counties; this difference is only significant in Alabama.

**Evidence:** As seen in Table 4, the coefficients for the variable “Dry” are negative for all states, indicating that possession of marijuana is lower in dry counties than in wet counties. In Alabama there is an average of 0.87 fewer marijuana arrests per 1,000 people in dry counties than in wet counties. Arkansas had 0.16 fewer arrests per 1,000 people in dry counties than wet counties and Kentucky had 0.63 fewer arrests per 1,000 people in dry counties than in wet counties, on average. However, only Alabama was significant at the 10% level.
Alabama has an average of 61 fewer marijuana arrests in dry counties than in wet counties when considering average population per county. Arkansas has an average of 6 fewer marijuana arrests in dry counties compared to wet counties when considering its average county population, while Kentucky shows an average of approximately 23 fewer marijuana arrests when considering average county population within the state. The results of this regression analysis suggest that the possession of marijuana has a complementary effect to alcohol permissive laws within Alabama. This supports the hypothesis that crack/cocaine would have a less elastic relationship with alcohol prohibition laws, because the range for marijuana arrests is much higher than for crack/cocaine possession arrests.

Table 4

<table>
<thead>
<tr>
<th>Marijuana</th>
<th>Alabama</th>
<th>Arkansas</th>
<th>Kentucky</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry (Liquor)</td>
<td>-0.870*</td>
<td>-0.160</td>
<td>-0.630</td>
</tr>
<tr>
<td>(0.282)</td>
<td>(0.508)</td>
<td>(0.479)</td>
<td></td>
</tr>
<tr>
<td>lnIncome</td>
<td>0.227</td>
<td>1.753</td>
<td>1.913*</td>
</tr>
<tr>
<td>(0.344)</td>
<td>(1.126)</td>
<td>(0.751)</td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td>0.0012</td>
<td>0.0196</td>
<td>0.0133</td>
</tr>
<tr>
<td>(0.00565)</td>
<td>(0.0143)</td>
<td>(0.00949)</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-1.696*</td>
<td>-17.53</td>
<td>-16.68*</td>
</tr>
<tr>
<td>(3.616)</td>
<td>(11.81)</td>
<td>(7.829)</td>
<td></td>
</tr>
<tr>
<td>N (Counties)</td>
<td>67</td>
<td>75</td>
<td>120</td>
</tr>
<tr>
<td>Adj R²</td>
<td>0.094</td>
<td>0.017</td>
<td>0.128</td>
</tr>
</tbody>
</table>

Standard errors are in parentheses
*p<0.10, **p<0.05, ***p<0.01

V: Conclusions and Discussions

This paper evaluated the impact of alcohol prohibition on drug-related crimes. Results showed that the number of methamphetamine production sites is higher in dry counties than in
wet counties and the possession of both crack/cocaine and marijuana are lower in dry counties than in wet counties. These relationships suggest that limiting the sale and production of alcohol within the county leads to a substitute effect with the production and/or sale of methamphetamine and other synthetic drugs, and a complementary effect with the consumption of drugs like crack/cocaine and marijuana. Possession of marijuana is statistically significant after controlling for income and religion in Alabama only, as is the case for Kentucky and crack/cocaine possession arrests.

The reason for this disparity in results may be that the type of drug determines the relationship of that drug with the use of alcohol. The more serious drugs that can be made or refined in the home, most commonly methamphetamine, have a substitute effect with alcohol. This reinforces the first hypothesis that when the right to purchase legal intoxicants, i.e. alcohol, is prohibited, the citizens will find other ways to become intoxicated. Because these drugs were made in the home the users did not have to seek out dealers of illicit substances, which would probably be more difficult and time consuming than driving across county lines to purchase alcohol.

It is also important to note that the variable for production sites represents the supply side of certain drugs, although many may only produce for personal use. The alcohol prohibition laws regulate the supply of alcohol within a county, but do not regulate the possession or consumption of alcohol. This demonstrates that when the source to intoxicants is cut off to the citizens, they seek another source to satiate their desire for inebriation or they themselves become the source by producing their own illicit substances.
The relationship between the possession of marijuana and crack/cocaine has a complementary effect to alcohol use because dry counties have fewer arrests than wet counties for both drugs. Because these substances typically involve a consumer/dealer relationship and are not just made in-house, they should have a similar level of difficulty to find in both dry and wet counties. This suggests that people in wet counties seek out marijuana and crack/cocaine more often than in dry counties. Possible reasons for this include the blurred judgment that comes as a result of inebriation under alcohol causes the user to underestimate the punishment gradient 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 serious 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 that anyone would accurately self-report their recreational use of illicit substances, accurate data reflecting actual drug use is difficult to estimate. Arrests or reports of production sites may not best represent actual use of the substance because in order for this data to come to fruition, the user or production site must first be caught by law enforcement, which is not a guarantee for all of those that partake in these recreational drug activities. The spending on law enforcement by the county could play a role, and the population density could also impact the accuracy of these estimations.
We found similar results as those reported in Fernandez, Gohmann and Pinkston (2014) in their analysis of methamphetamine production sites within Kentucky and add to the current research by including results for Alabama and Arkansas, as well. This data can be used to draw more general conclusions about the relationship between alcohol prohibition laws and the production and subsequent use of methamphetamine and other synthetic drugs across all states that have dry counties.

This paper found a complementary effect between marijuana and alcohol regulation similar to Williams et al (2001) in the study of campus wide bans of alcohol and subsequent marijuana use amongst college students. However, the results contradict the conclusions of Dinardo and Lemieux (2001) who found a substitute relationship between marijuana and alcohol for high school students possibly because this study did not take into account age, which can have a large impact on behaviors in the market place.

The results did not follow the findings of Conlin, Dickert-Conlin and Pepper (2005) but this study differs in a few important ways. The most important difference is that Conlin used overall drug crimes and drug related mortalities, while this study focused specifically on production of methamphetamine, possession of crack/cocaine, and possession of marijuana. Also, Conlin analyzed dry county effects in Texas from 1978 to 1996 and Texas was not included in this paper and all data used was more recent.

This paper has added to current research by studying a larger scope and using newer data. 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 on each individual drug demonstrates that each drug has its own market and its own market
behaviors. Also, the analysis of both the supply and demand of certain drugs in dry counties was included in this paper. The results could aid in supporting legislation aiming to reduce 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 drugs could expand the results of this paper to include different classifications 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.
References:


