WHAT IS THE MONETARY COST OF LOCAL MARIJUANA ENFORCEMENT?

Collin Masato Ito
Northern Michigan University

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WHAT IS THE MONETARY COST OF LOCAL MARIJUANA ENFORCEMENT?

By
Collin Masato Ito

THESIS

Submitted to
Northern Michigan University
In partial fulfillment of the requirements
For the degree of

MASTER OF SCIENCE IN CRIMINAL JUSTICE

Graduate Studies Office

2012
This thesis by Collin Ito is recommended for approval by the student’s thesis committee in the Department of Criminal Justice and by the Dean of Graduate Studies.

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<tr>
<td>Committee Chair</td>
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Collin Masato Ito  April 5, 1987
ABSTRACT

WHAT IS THE MONETARY COST OF LOCAL MARIJUANA ENFORCEMENT?

By

Collin Masato Ito

The criminal justice system is tasked with protecting the public from actions that are deemed harmful and/or damaging. The consumption, distribution, and manufacture of illegal substances constitutes a sizeable portion of these behaviors. However, not all drugs have the same harmful effects. Marijuana, a non-lethal substance with potentially positive medical uses is one such example. With public opinion for the legalization of marijuana reaching new heights, the prohibition of marijuana may soon be at an end. What will be the repercussions of this act? Current literature on the topic points to an overall benefit to be realized by society and criminal justice agencies, but this is still theoretical. Utilizing secondary analysis of local law enforcement statistics, a brief overview of the current monetary resources devoted to marijuana enforcement was developed. For the departments participating in this research, it was discovered that in 2010 the average calls for service for marijuana enforcement were approximately 154, the average amount of time spent on marijuana enforcement was 508 hours, and the average cost per hour for marijuana enforcement was $29.37.
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ACKNOWLEDGEMENTS

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This thesis follows the format prescribed by the APA Publication Manual and the Department of Criminal Justice.
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CHAPTER 1: INTRODUCTION

The enforcement of drug-related crime comprises a significant amount of the day-to-day operations of law enforcement agencies. Drugs that are illegal are generally considered to be harmful to individuals and/or society. However, this is does not signify that all deadly substances are prohibited. Alcohol and tobacco are two legal drugs that have a variety of harmful side effects, which can ultimately result in death. Conversely, there are some illegal drugs that have less severe outcomes. Marijuana is one example.

Like any drug, marijuana can be prone to abuse and/or addiction. However, it is also known to have medicinal effects that are useful in treating nausea and pain in a variety of patients. Besides these applications, marijuana is a non-lethal substance. As this knowledge becomes more prevalent among society, public opinion regarding marijuana’s legal status has started to shift from outright condemnation to a more positive acceptance. This can best be seen in the recent California election where a proposition to fully legalize marijuana under state guidelines was included on the ballot (California Secretary of State, 2010).

Marijuana plants have had a long history of use in the world. They have been widely used in a variety of cultures throughout time, either as a medical aid or to produce usable goods like cloth and rope. Marijuana, along with opium, cocaine, and other drugs were available to the public until the early 1900’s. The creation of the Bureau of Narcotics and the subsequent passing of the Marijuana Tax Act marked the beginning of the decline of public opinion regarding marijuana legalization (Graham, 2001). Although this tax affected the growers, distributors, and buyers of marijuana, it did not affect
marijuana’s legality. Then in 1970, the Comprehensive Drug Abuse Prevention and Control Act went into effect, which effectively illegalized any marijuana drug use (Graham, 2001). By this time, common misconceptions about the effects of marijuana use had become widespread and the average citizen was ignorant as to the true benefits and disadvantages of using the drug. However, in the 1970s alone, at least 11 state governments decriminalized marijuana offenses (Graham, 2001). The decriminalization of marijuana involves lessening the punishment for marijuana related crimes. While still technically illegal, the penalty usually becomes a monetary fine, similar to that of a speeding ticket. These states demonstrate the presence of public support for these marijuana statutes. Decriminalization should not be confused with the legalization of the medical use of marijuana, which allows citizens to obtain medical grade marijuana through a doctor’s prescription. By 1982, 31 states had laws dealing with the medical use of marijuana and as of 2012, 17 states have passed medical marijuana legislation (HOPES, 2012). This further shows the current level of public support.

With public opinion regarding the dangers of marijuana usage changing, the full legalization of marijuana may soon be a reality. What this might mean for the criminal justice system is difficult to predict. There are currently a number of resources devoted to enforcing marijuana-related laws. With the legalization of marijuana, these resources would become available for redistribution. The nature and extent of these resources needs to be identified in order to fully understand this change and to observe the current cost of local marijuana enforcement.
CHAPTER 2: LITERATURE REVIEW

The review of material applicable to this subject encompasses several different areas. While some of these do not directly deal with the legalization of marijuana, they provide perspective into different aspects surrounding the issue.

*The Effects of Marijuana Enforcement*

Although the enforcement of marijuana-related crimes may be a proactive way of dealing with an identified problem in society, it may also be producing unintended consequences. The effects on society from a greater focus on marijuana possession offenses as opposed to the sale of marijuana by law enforcement officers was examined in San Mateo, CA. It was shown that the most significant monetary costs to the criminal justice system are incurred in apprehending and processing offenders, instances of police misconduct, and the alienation of first time offenders to the criminal justice system which promotes more criminal behavior (Smith, 1969). Maintaining the criminalization of commercial dealing, but legalizing personal possession and use would eliminate a lot of these costs (Smith, 1969).

A review of the effects of California’s marijuana enforcement over the past few decades has shown some interesting trends. From 1990 to 2008, misdemeanor marijuana possession (less than one ounce) was the only offense category to show an increase in rates, gaining 127% (Macallair & Males, 2008). Additionally, the age groups showing the largest increases in marijuana arrests were ages 50-59 (420% increase), under 21 (205% increase) and 60+ (418% increase), while the ethnic groups showing the greatest growth were African Americans age 40+ (345% increase), European Americans age 40+ (285% increase), females age 40+ (275% increase) and Hispanics under age 20 (264% increase).
(Macallair & Males, 2008). These trends show a clear disparity in the California’s application of marijuana enforcement.

*The Relationship Between Marijuana and Crime*

A focus on marijuana enforcement may have differing effects on other areas of crime. The examination of a crime model comprised of economic conditions, enforcement effectiveness, and arrests for possession or sale of marijuana was utilized to develop a correlation between marijuana enforcement and its resulting impact on society. This model exhibited an increase in non-drug crime, including homicides, burglaries, motor vehicle thefts and larcenies in relation to marijuana arrests, as well as a later growth in hard-drug arrests (Shepard & Blackley, 2005). These findings suggested that the then-current marijuana enforcement approach was not practical in terms of a cost-benefit relationship.

A sample population of adolescents in Norway was observed over a 13 year span in order to discover if there was any affiliation between the variables of marijuana use and criminality. It was found that there was some association between marijuana usage and drug-specific crime, especially involving marijuana, but that there was no solid connection between marijuana use and non-specific drug crimes (Pederson & Skardhamar, 2009). Additionally, it was proposed that penalties for marijuana crimes may not deter criminals, but could instead socialize them into a deviant community and promote continued participation (Pederson & Skardhamar, 2009).

*The Decriminalization of Marijuana*

The marijuana laws in Dade Country, Florida in the 1970s were evaluated in order to discover their impact on citizens. This area was chosen because of the harsh
enforcement of marijuana laws in a period where other states had started decriminalizing marijuana offenses. Information and treatment statistics obtained from the Dade County hospital, as well as local crime data, were used to conduct this study and to appraise some of the psychological/physiological, human, social, and financial costs. These costs include health conditions, disruptions of normal life due to arrest, conviction, and sentencing, the loss of productive citizens to the corrections system, the deviation of citizens to increased criminal activity due to interaction with more criminals while in incarceration, and the financial costs to the budgets of the criminal justice and corrections systems (Weppner, & Inciardi, 1978). The extent of these costs caused concern over the social policy at the time, and a cost/benefit analysis was suggested to determine the proper course for these types of infractions and the plausibility of decriminalization (Weppner, & Inciardi, 1978).

In 1979, Nebraska decriminalized the first-offense of possession of marijuana in an amount of an ounce or less. This change had five major impacts: the offense changed from a criminal misdemeanor to a civil infraction, mandatory fines were implemented, jail sentences were altered depending on the number of offenses, drug education became a discretionary choice, and offenders were issued citations instead of being arrested (Suggs, 1981). Interviews, court records, police data, and surveys were collected and analyzed to ascertain the effects of this modification. Some of the positive effects viewed were offenders perceiving their punishments and interactions with the criminal justice system as less traumatic, no significant increase in marijuana use, and a slight reduction of focus on marijuana enforcement by police officers which was offset by a great increase in the county attorney’s office’s prosecutions (Suggs, 1981). However, it was noted that
this new law may have caused a more abrasive relationship between police officers and offenders due to the requirement of an increased fine (Suggs, 1981).

A correlation of the repercussions of the decriminalization of marijuana on both the United States and Australia was utilized to examine the impact of this modification on marijuana usage trends, as well as the criminal justice system in these two different countries. This included social impacts (attitudes, knowledge, perception of marijuana and its use), drug enforcement costs, as well as other areas. It was shown that in both countries decriminalization resulted in no significant increase in availability of marijuana or its usage and that decriminalization produced substantial savings to drug enforcement, which was especially realized in the United States (Single, Christie, & Ali, 2000). However, it was noted that this does not necessarily hold true for the legalization of marijuana or of other illegal drugs and the importance of further research on the topic was stressed (Single, Christie, & Ali, 2000).

**The Legalization of Drugs**

The argument for the legalization of drugs often arises from a considerable quantity of different rationales, ranging from the defense of basic civil rights to an increase in revenue gained from the taxation of a new product. People have the right to control their bodies and the suppression of drugs results in a loss of this ability, as well as slew of other liberty-infringing events like strip-searching and urine tests (Cusser, & Block 2000). The legalization of drugs would also open the door to free trade practices, which would help assure quality control, adequate pricing, and medical assistance and supplies. In addition, social benefits would be realized from the downgrading of the ability of black markets to supply products that are not legal, which would then allow for
increased governmental regulation of drugs and culminate in the liberation of a considerable amount of taxpayer money that is currently being spent on drug enforcement (Cusser, & Block, 2000). This reduction in black market activity would also help diminish the amount of young, poor people who are typically enticed into criminal behaviors due to financial need and would release criminal justice resources to manage more property and violent crimes (Kleiman, Caulkins, & Hawken, 2011).

Additional justifications are derived from the examination of the time of Prohibition in the U.S. This era resulted in the formation of organized crime syndicates, the potency effect (the escalation of alcohol proof to maximize the risk/reward benefit resulting in increased danger to the consumer) and the corruption of law enforcement (Cusser, & Block). The legalization of drugs would reduce the potency effect and would cause a reduction in crime because the criminal elements from manufacture to sale would be eliminated and the entire process would become a legal transaction.

The purpose of this research is not to provide support for either side of the marijuana debate. Rather, the goal of this research is to help promote critical thought on current and future marijuana enforcement. If marijuana is legalized, what monetary resources would be released for allocation? If marijuana is not legalized, then are the present efforts an accurate measure of the need for marijuana enforcement as perceived by society or do they need to be modified? Providing information about the current resources devoted to marijuana enforcement will ideally contribute to a greater understanding of this situation in its entirety.
CHAPTER 3: METHODOLOGY

In order to discover if the hypothesized current relationship between marijuana enforcement and the distribution of resources is accurate, an analysis of available data needs to be conducted. By examining the resources currently spent on investigating marijuana related offenses, one can develop a better concept of contemporary marijuana enforcement and its price. Because smaller law enforcement departments have more limited funds than larger agencies, the information that will be generated from analyzing this data will create statistics that people can relate to instead of intangible, massive amounts and figures.

Sample

A random sampling was utilized to help reduce the presence of bias. Random samples are presumed to be more representative of the entire population because each individual unit has an equal chance of being chosen, which will also increase the generalizability of the results (Deflem, 1998). First, the fifty United States were numerically labeled due to alphabetical ordering. From this grouping, the Excel formula \( \text{RAND}() \times (b-a) + a \) (where \( b \) is the upper limit of the range and \( a \) is the lower limit and for this function \( b = 50 \) and \( a = 1 \)) was used five times to randomly select five different states (Microsoft Office, 2011). Next, the FBI’s 2009 Uniform Crime Report (UCR) was accessed to provide additional data (http://www2.fbi.gov/ucr/cius2009/index.html). The target range for the population being served by each law enforcement agency was decided to be 5,000-25,000. This would ensure that the findings would be generalized to smaller communities, but would also have a substantive law enforcement presence.
However, these particular data is not available for both sheriff’s offices and police departments, so the dimensions needed to be adjusted to locate the suitable information. According to the UCR’s Table 70 from Crime in the United States 2009, Group V and VI of the table fall into the population range. Taking an average of these column’s averages of law enforcement employees yields a base number of 3.45 officers per 1,000 inhabitants. Multiplying this number by the population range divided by 1,000 (5-25) produces a new range of 18-87 law enforcement officers per county. The UCR’s Table 80 from Crime in the United States 2009 was then accessed for each of these states. This table shows full-time law enforcement employees by state and by metropolitan and nonmetropolitan counties. Using the range as a filter, these tables were examined to create a group of suitable counties.

As a result of different strategies utilized to increase response rates, three different sample groups were developed. The first group consists of five sample populations comprised of five randomly selected states with one randomly selected county for each of those states. These 25 counties contained 94 difference police departments and sheriff’s offices. The second sample group contained five more sample populations made up of eight randomly selected states with a single randomly selected county for each state. These forty counties contain 223 police departments and sheriff’s offices. The final sample group was chosen using a different UCR table. A problem identified with the first two sample groups was the presence of departments that did not fit into the population range themselves, but were in a county that fit the population range. The UCR’s Table 78 from Crime in the United States 2009 was used for each state to help bridge the gap in the population range. This table contains statistics for full-time law enforcement employees.
by state by city. Although this includes population as well as officer statistics, it does not include sheriff’s agencies. Both the 5,000-25,000 population range and the 18-87 officer range were used to make these samples. The third sample group contained ten sample populations, each with five randomly selected states with five randomly selected police departments for each state. This totaled fifty states with 250 different police departments.

The responding law enforcement agencies are listed in Appendix A.

Analysis

The data obtained was analyzed using secondary data analysis. Law enforcement agencies provided their information and correlations were drawn between the different variables, such as the officers employed by the agency and the population served. Comparing these with the information sought will help provide insight into current financial resources being used by police agencies for marijuana enforcement. Graphs were used to illustrate the different results.

Survey

The method of gathering data was through the use of survey. The original survey (Appendix C) contained a consent form, a questionnaire with 16 questions, and a section for additional comments. The majority of these questions were answered with statistics and several questions of the survey were dependent on a previous question with a yes/no format. The survey was converted to an online format (Appendix D) to increase response rates. Due to feedback acquired from respondents, the survey was reduced to the first three questions for the last sample group (Appendix E).
Request to Participate

The first two sample populations of the first sample group were mailed an initial consent letter and the full survey. In an effort to decrease costs and increase the ease of the process, the rest of this sample group was contacted by phone or email before being sent the consent letter and survey. The second and third sample groups were contacted through phone or email to participate in the online survey. This process was started on October 18\textsuperscript{th}, 2011 and the last response was obtained on July 2, 2012.

Response Rate

The number of eligible respondents is 567 different police departments and sheriff’s offices. The survey was voluntary and multiple attempts were not made to re-contact agencies about completing the survey, unless there was an inquiry. The response rate to the surveys was approximately 10.4\%. Of this portion, 32\% provided information for the final reduced survey questions. The response rate overall was a very low 3.4\%. This can be partially attributed to the large possible sample population parameters. In trying to obtain a more generalized sample, the response rate was negatively affected. However, a low response rate is not necessarily an indication of inadequate data. If a sampling process is truly random, a lack of response can result in valid data from a survey with a small response rate (Rojas, 2007). The absence of bias from the selection process helps to ensure the integrity of the data. In the instance of this survey, the data is valid, but the generalization of the results is more limited because of its reduced size.
CHAPTER 4: DATA ANALYSIS

All participating departments were promised anonymity for their participation. As a result, only a brief, generalized overview of each department is provided (Appendix A). Population statistics were retrieved from the United States Census Bureau and rounded to the nearest 100. Regions are assigned according to the designation used by the Census Bureau.

Table 1: Overview of Respondents

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<tr>
<th></th>
<th>Low</th>
<th>High</th>
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<tr>
<td>Officers</td>
<td>6</td>
<td>84</td>
<td>33</td>
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<td>156,100</td>
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</tr>
<tr>
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<td>3</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Northeastern</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midwestern</td>
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Table 4-1 gives a brief summary of the population, officers and regions for each of the respondent agencies. As can be seen, the low number for the officers group does not meet the 18-87 range utilized in the formation of the sample groups. The same applies to the numbers in population group. This is attributed to the use of the first UCR data page and was hopefully mitigated by the later change. The Midwestern region had the large majority of responses. However, it is important to note that many responses were not considered because they did not have usable data, so the total response rate may show a different ratio.
Research Questions

The discussion of the three questions used in the final survey will grant a small look into current marijuana enforcement practices. It should be remembered that these departments are all random, so they may deal with different situations, like being in border town or part of a university. It should also be noted that because some agencies only made partial responses, the agencies in the legends of the figures are not consistently the same across the figures. The legends are only descriptors for that particular figure and data set, but the agencies are the same for each question/subset section. Some agencies provided exact figures, while others approximated their responses. All statistics are from the period of January 1, 2010 to December 31, 2010. All numbers are either rounded up to the nearest whole number or to the second decimal point depending on their sample group. Additional information will be given on departments with distinct trends in an attempt to provide some clarification for that result.
Question 1: How many calls for service were received for marijuana related offenses?

Figure 1 shows the various calls for service for each agency, as well as the overall average of 154. Although these calls do not necessarily dictate marijuana crimes, calls for service demonstrate the need for a quality of life problem as perceived by the local community and can be used to determine crime trends (Hiebert, 2011).
This figure demonstrates the relationship between calls for service and the amount of officers employed by an agency. Ideally, it represents the average amount of marijuana cases that each officer in that agency has to deal with in a given year. The majority of agencies in this group reported less calls for service per officer than the average of approximately 6. This examination does not take into account the division of labor that many agencies have with special divisions taking the greater part of the responsibility for marijuana and drug-related crimes.
Figure 3 displays the correlation between the population the agency is responsible for and the quantity of calls for service. Agency 9 reported approximately 61 marijuana related offenses for each 1,000 people of their service population. This is a rural agency in the northwest region. As such, marijuana may be its main drug crime, which could help explain its high result. In contrast, most of the other agencies reported less than a 10 to 1,000 ratio.
Question 2: How many man-hours (the total combined for all officers) were spent investigating marijuana related offenses? This includes interviewing suspects, patrolling hot spots, questioning witnesses, responding to calls, etc...

Figure 4 presents the estimated hours each agency spent investigating marijuana related crime, including the previously mentioned calls for service. In this group, Agency 4 is a sheriff’s office, which may account for its higher response as a result of the agency’s increased coverage area. The rest of the agencies reported a much smaller amount of investigative hours at 1000 or less. Agency 2 had the least amount of hours, but serves a population of 1,400 people, which seems like a reasonable association. However, the second lowest agency (Agency 3) services a college campus and a population of 70,000 people.
This figure illustrates the amount of hours the average police officer from the sample agencies spent on marijuana enforcement. Again, the lowest agency is Agency 3. This agency employs 44 officers, which may provide more a little more insight into the agency’s situation mentioned above. There may be a more important crime problem or quality of life issue that draws the majority of the agency’s attention. In contrast, the highest agency only employs 9 officers, which may signify that marijuana crime is more of a problem in this area.
Figure 6 shows the hours each agency spent on marijuana crimes per 1000 people of their service population. Agency 3 consistently has the lowest rates with less than half an hour per 1000 people. Conversely, Agency 16 has the highest scale despite only having a service population of 3,900. A likely explanation for this comparison could stem from the fact that Agency 16 serves a southern beach town. As a possible popular vacation venue, Agency 16 may have to deal with a much greater transient population than normal.
Question 3: What is the average cost for a single one of these hours?

This figure represents the average cost of an hour these agencies spent investigating marijuana crimes. The majority of the sample agencies are fairly close to the average of $29.37 per hour. Agency 14 has the highest cost, with $72.00 per hour. This agency is from the northeast and employs 46 officers serving a population around 22,000 people. Without more specifics on this agency, it is difficult to speculate as to why its average cost is so much higher than the other agencies.
Averages

Using the information gained from the research questions, correlations were drawn between the variables of calls for service, hours of investigation, and cost per hour of investigation. These will provide a brief look at the estimated time and money the sample agencies applied toward marijuana enforcement.

Assuming that the hours spent investigating marijuana offenses were largely a result of the calls for service, Figure 8 represents the maximum time that each agency spent per call for service. This time may be lower if an agency has a normal routine for marijuana enforcement that consumes some of these hours. Taking these factors into consideration, the majority of the agencies demonstrated less than a 5 to 1 ratio. Agency 14 shows the greater amount of time by far with over a 20 to 1 ratio. This may be a result of increased marijuana enforcement measures.
This figure shows the average cost per call for service based on the results of Figure 8. These numbers are a product of the hours and the cost per hour that the agencies reported. Again, these are the maximum amounts and the actual totals may be lower depending on other factors. They also do not take into account the various expenses associated with enforcement, like processing offenders or the cost of equipment. The greater part of these agencies showed $100 or less per call for service.
This final figure shows the total amount of money each agency spent on marijuana enforcement in 2010 as a product of their reported statistics. Agency 3 has the lowest result with just $300, but this is also a fairly small agency. In contrast, Agency 2 is a much larger agency with only a slightly larger amount of $837.50. On the other side of the spectrum is Agency 4, with a total cost of $75,000. This agency is a sheriff’s office, which may help explain its high cost.

**Feedback**

The last section of the survey was devoted to miscellaneous comments and additional information. This helped provide some insight into the results, as well as the difficulty of receiving responses. One agency reported that marijuana enforcement is given little priority because of the importance of harder drug crimes. With a limited budget, it is more efficient to arrest and prosecute these crimes because they carry harsher sentences. Several agencies communicated that specific information on marijuana enforcement is impossible, either because the statistics are grouped with other crimes
(specifically other drugs and alcohol) or the information could not be obtained without reviewing every case. Some of these agencies refrained from providing any information for these reasons. A few agencies who declined to participate in the original survey stated that the information would take too long to obtain. One agency suggested shortening the survey. These observations were recognized and the survey was shortened to be more accommodating.
The purpose of this research is to provide a general overview of the current monetary resources used by local law enforcement agencies for the purpose of marijuana enforcement. Marijuana has had a very checkered past in society, but current public opinion points to a favorable view and a drive for full legalization. There has been research done on the decriminalization of marijuana, but little done on the full legalization of this drug and its effect on the criminal justice system. Hopefully this overview will provide some understanding into this subject.

A random selection of 567 law enforcement agencies fitting specified categories of both citizen and officer populations was utilized to obtain the 19 agencies used in obtaining the analyzed data. These agencies are located across the United States, although the majority of them are located in the Midwest region. The data acquired was comprised of three variables: calls for service, hours of enforcement, and cost per hour. These variables were correlated with each other to provide different insights into current marijuana enforcement efforts. In conducting the sample population portion of the survey, additional issues were observed. These include the lack of consistent data across agencies and the difficulty of obtaining agency contact information.

Overview

Calls for service are an important part of law enforcement. These can be used to identify crime trends and quality of life issues in a community. The average calls for service found in this study were 154 for the 2010 year. Additionally, there was an average of approximately six calls for service per officer and 13 calls for service per 1000
population for the 2010 year. These are just averages and are not meant to convey that every officer in a department physically responded to six calls for service. Hours spent on enforcement demonstrate the current attention given to marijuana enforcement by agencies. These hours include the previous calls for service. The average amount of time spent on marijuana enforcement reported by the agencies was approximately 508 hours. The average hours per office employed was 17 and the average hours spent on marijuana enforcement per 1000 of the population served was 39. The average cost per hour of marijuana enforcement was $29.37.

These figures are estimations based on the data the agencies provided to the three survey questions. They are not meant to be all inclusive. For example, the cost per hour of marijuana enforcement is just the base cost and does not take into account benefits, overtime, or any other forms of income. These additional factors are beyond the scope of this study.

**Averages**

Using the data from the survey questions, additional connections were drawn between the variables. The average hour spent per call for service was four. This was based off the total hours of marijuana enforcement with the understanding that there may be other enforcement efforts that could cause this number to be lower. However, there may also be some agencies that only respond to calls for service and do not perform any routine marijuana enforcement. The average cost per call for service was $99.20. Again, this was based off the average hour spent per call for service and is subject to the same restrictions. The average approximated total cost per agency was $14,212.06.
Need for Further Research

This study provides only a small glimpse into current marijuana enforcement efforts. With the enactment of medical marijuana statutes, marijuana enforcement is becoming even more complex. Even without legalization, it may soon be that marijuana enforcement is no longer an effective use of the criminal justice system’s resources. A full cost-benefit analysis will be needed to truly begin to understand the repercussions of marijuana legalization and to see if current marijuana enforcement is worth the resources. It is also worth reviewing research done on the prohibition and legalization of alcohol in order to discover any similarities between the two processes and identify future trends and issues.

Research Issues

During the sample population process, some general issues with the criminal justice system were identified. One of these was inconsistent methods of storing data among agencies. Many departments decline participation in the survey asserting that the information was beyond the capabilities of their records system. However, other agencies were able to provide the information and did not report any difficulties. A third group was able to supply general information but was incapable of communicating any specifics. It is understandable that agencies have limited budgets and may use whatever technology and software is available to them, but in order to ease the process, as well as expedite the transference of records between different agencies, it would seem that a universal system or program should be implemented. It is unknown if this problem was mainly a result of an agency’s records system or some other factor, but it could mandate the need for future study. Another identified problem was the presence of agency contact
information. With the prevalence of technology in society, it is fairly easy for even the most computer-illiterate individuals to access the Internet and perform basic functions. Yet, many law enforcement agencies lack a website. For those that did utilize a website, some were outdated or difficult to navigate. This led to obsolete contact information, like multiple addresses and/or phone numbers (if any), as well as confusion about agencies with similar names. Websites are one of the main processes through which citizens find out information in today’s society. If citizens are unable to find out contact information for their local law enforcement agency, this could be counterproductive to the goal of community safety.

Summary

This study examined current marijuana enforcement in an effort to provide some insight into the effects of the legalization of marijuana. Essentially, it should provide a basic look at the monetary resources currently used for marijuana enforcement that will become available for redistribution in the event that marijuana is legalized. With public opinion becoming more favorable towards legalization, it may be only a short time before this becomes a reality for the criminal justice system. Additionally, the development of new technology crimes may mandate the need for a revised use of resources. This society depends on technology and with identity theft and other cybercrimes becoming even more prevalent, the criminal justice system may need to shift its priorities and resources to combat these new threats. The elimination of marijuana from the list of concerns law enforcement agencies must deal with could help provide the time and revenue to accomplish this goal.
In hindsight, the effects of the prohibition of alcohol are much greater than original problem. Prohibition is widely credited with the formation and funding of organized crime syndicates, an increase in alcohol overdoses, and the criminalization of otherwise productive citizens. After its legalization, alcohol became a regulated commodity that provides revenue for the government. In addition, many more people are now aware of the dangers of alcohol consumption and are able to make use of safe practices when they do decide to drink liquor. Perhaps the prohibition of marijuana will follow a similar pattern.
REFERENCES


APPENDIX A

SAMPLE DEMOGRAPHICS

Agency 1: A western border town agency that employs 84 law enforcement officers and serves a population of approximately 21,000.

Agency 2: A northeastern agency that employs 6 officers and serves a population of approximately 1,400.

Agency 3: A Midwestern university agency that employs 44 officers and serves a student population of approximately 42,800. This agency also shares jurisdiction within its county, which consists of approximately 138,000 people.

Agency 4: A Midwestern agency that employs 65 officers and serves a county with a population of approximately 156,100.

Agency 5: A southern agency that employs eight officers and serves a population of approximately 2,900.

Agency 6: A southern agency that employs ten officers and serves a population of approximately 2,800.

Agency 7: A Midwestern agency that employs 35 officers and serves a population of approximately 15,200.

Agency 8: A Midwestern agency that employs 14 officers and serves a population of approximately 8,400.

Agency 9: A Midwestern Agency that employs 50 officers and serves a population of approximately 13,661. This agency also shares jurisdiction with its county, which consists of approximately 62,800 people.

Agency 10: A Midwestern Agency that employs 16 officers and serves a population of approximately 10,400.

Agency 11: A northeastern agency that employs 28 officers and serves a population of approximately 10,000.

Agency 12: A Midwestern agency that employs 58 officers and serves a population of approximately 48,600.
Agency 13: A southern agency that employs nine officers and serves a population of approximately 5,700.

Agency 14: A Midwestern agency that employs 45 officers and serves a population of approximately 27,700.

Agency 15: A northeastern agency that employs 46 officers and serves a population of approximately 22,400.

Agency 16: A Midwestern agency that employs 25 officers and serves a population of approximately 12,600.

Agency 17: A Midwestern agency that employs 17 officers and serves a population of approximately 11,500.

Agency 18: A southern agency that employs 49 officers and serves a population of approximately 21,100.

Agency 19: A southern agency that employs 26 officers and serves a population of approximately 3,837.
Date:

Dear Sir or Madam:

I am a criminal justice graduate student at Northern Michigan University writing to invite you to participate in a research study. The purpose of the study is about the current financial resources utilized in the enforcement of marijuana related crimes.

I am inviting you to be in this study because you were selected as part of a random sampling of departments across the United States.

If you agree to participate, I would like to ask you questions about the time and money spent on policing and investigating marijuana related crimes in your agency, as well as any related arrest and conviction statistics. The questions will not be extensive and may be answered with generalized figures and/or statistics. There are 15 questions in total. If you would like to participate in this study, please sign this letter and fill out the questionnaire. A stamped envelope will be supplied for the return of both. If you do not wish to participate please mail the stamped envelope back empty.

I will keep the information you provide confidential; however, federal regulatory agencies and the Northern Michigan University Institutional Review Board (a committee that reviews and approves research studies) may inspect and copy records pertaining to this research. If I write a report about this study, I will do so in such a way that any person(s) involved cannot be identified. Additionally, any information and/or conclusions obtained will not be directly associated with any of the departments involved.

You will not have any costs/additional costs for being in this research study.

Taking part in this research study is completely voluntary. If you decide not to be in this study, or if you stop participating at any time, you will not be penalized or lose any benefits for which you otherwise qualify.

If you have any further questions regarding your rights as a participant in this research project, you may contact Dr. Terry Seethoff of the Human Subjects Research Review Committee of Northern Michigan University (906-227-2300) tseethof@nmu.edu. Any questions you have regarding the nature of this research project will be answered by the
I have read the above “Informed Consent Statement.” The nature, risks, demands, and benefits of the project have been explained to me. I understand that I may ask questions and that I am free to withdraw from the project at any time without incurring ill will or negative consequences. I also understand that this informed consent document will be kept separate from the data collected in this project to maintain anonymity (confidentiality). Access to this document is restricted to the principle investigators.

Subject’s Signature

Date

Subject’s Title

Thank you very much for your consideration. Please return this signed letter in the envelope along with the survey.

Sincerely,

Collin Ito
APPENDIX C

ORIGINAL SURVEY

I. Departmental Enforcement Efforts
All questions are for the time period of January 1, 2010 to December 31, 2010. If any information is not available, please write N/A for the given slot.

1. How many calls for service were received for marijuana related offenses?

2. How many man-hours (the total combined for all officers) were spent investigating marijuana related offenses? This includes interviewing suspects, patrolling hotspots, questioning witnesses, responding to calls, etc…

3. What is the average cost for a single one of these hours?

II. Marijuana-Related Task Forces
All questions are for the time period of January 1, 2010 to December 31, 2010. If any information is not available, please write N/A for the given slot.

4. Were any task forces created specifically for marijuana enforcement, or for a more general purpose with marijuana enforcement as a major goal?
   Yes/No

If yes, please answer questions 7-10. If no or N/A, please go to Section III.

5. What was the name of this project?

6. What was the initial total cost (to the agency) of this project?

7. What is the yearly total cost (to the agency) of supporting the project?
8. If more than one project originated at this time, please describe them using the questions above. Also, please note if the agency received support from another organization (ATF, DEA, etc…) and what that assistance entailed. If more room is needed, use Section IV.

III. Arrest Information
All questions are for the time period of January 1, 2010 to December 31, 2010. If any information is not available, please write N/A for the given slot.

9. How many arrests were made for marijuana related offenses?

10. Did any of these arrests lead to property or money that was seized as a result of forfeiture?
   Yes/No

If yes, please answer questions 12-16. If no, please go to Section IV.

11. If yes, what was the total amount of money seized?

12. What was the estimated value of the property seized?

13. Was any marijuana seized during these cases?

14. If yes, what was the total weight?

15. What is the estimated street value of this amount?
IV. Additional Information
Please feel free to leave any additional, related information that was not covered in the questions.

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APPENDIX D

ONLINE SURVEY

**Thesis**

**INFORMED CONSENT STATEMENT**

I am a criminal justice graduate student at Northern Michigan University inviting you to participate in a research study. The purpose of this study is about the current financial resources utilized in the enforcement of marijuana-related crimes.

I am inviting you to be in this study because you were selected as part of a random sample of departments across the United States.

If you agree to participate, I would like to ask you questions about the time and money spent on policing and investigating marijuana-related crimes in your agency, as well as any related arrest statistics. The questions will not be extensive and may be answered with generalized figures and/or statistics.

I will keep the information you provide confidential; however, federal regulatory agencies and the Northern Michigan University Institutional Review Board (a committee that reviews and approves research studies) may inspect and copy records pertaining to this research. If I write a report about this study, I will do so in a way that any personal or agencies involved cannot be identified. Additionally, any information and/or conclusions obtained will not be directly associated with any of the departments involved.

Taking part in this research study is completely voluntary and there are no costs associated with your participation.

If you have any further questions regarding your rights as a participant in this research project, you may contact Dr. Terry Seethoff of the Human Subjects Review Committee at Northern Michigan University (906.227.2630, tseethoff@nmu.edu). Any questions you have regarding the nature of this research project will be answered by the Criminal Justice Department Head or the principal researcher who can be contacted as follows: Dr. Dale Kapa (dkapa@nmu.edu), Collin Loe (760-936-2060), cito@nmu.edu.

**1. I have read the above "Informed Consent Statement." The nature, risks, demands, and benefits of the project have been explained to me. I understand that I may ask questions and that I am free to withdraw from the project at any time without incurring ill will or negative consequences. I also understand that this informed consent document will be kept separate from the data collected in this project to maintain anonymity (confidentiality). Access to this document is restricted to the principle investigators.**

- I agree.
- I do not agree.

**2. Subject’s Name**

**3. Subject’s Title**
4. Subject's Department

5. Department Address

6. Number of Police Officers in Department (not required)

I. Departmental Enforcement Efforts
All questions are for the time period of January 1, 2010 to December 31, 2010. If any information is not available, please write N/A for the given slot.

7. How many calls for service were received for marijuana related offenses?

8. How many man-hours (the total combined for all officers) were spent investigating marijuana related offenses? This includes interviewing suspects, patrolling hot spots, questioning witnesses, responding to calls, etc...

9. What is the average cost for a single one of these hours?

II. Marijuana-Related Task Forces
All questions are for the time period of January 1, 2010 to December 31, 2010. If an information is not available, please write N/A for the given slot.

10. Were any task forces created specifically for marijuana enforcement, or for a more general purpose with marijuana enforcement as a major goal?
   
   Yes
   No

11. What was the name of this project?
12. What was the initial total cost (to the agency) of this project?

13. What is the yearly total cost (to the agency) of supporting the project?

14. If more than one project originated at this time, please describe them using the questions above. Also, please note if the agency received support from another organization (ATF, DEA, etc...) and what that assistance entailed.

III. Arrest Information
All questions are for the time period of January 1, 2010 to December 31, 2010. If no information is not available, please write N/A for the given slot

15. How many arrests were made for marijuana related offenses?

16. Did any of these arrests lead to property or money that was seized as a result of forfeiture?
   ○ Yes
   ○ No

17. What was the total amount of money seized?

18. What was the estimated value of the property seized?

19. Was any marijuana seized during these cases?
   ○ Yes
   ○ No
20. What was the total weight?

21. What is the estimated street value of this amount?

22. IV. Additional Information
   Please feel free to leave any additional, related information that was not covered in the questions.
APPENDIX E

REDUCED SURVEY

Reduced Survey

INFORMED CONSENT STATEMENT

I am a criminal justice graduate student at Northern Michigan University inviting you to participate in a research study. The purpose of this study is about the current financial resources utilized in the enforcement of marijuana related crimes.

I am inviting you to be in this study because you were selected as part of a random sampling of departments across the United States.

If you agree to participate, I would like to ask you questions about the time and money spent on policing and investigating marijuana related crimes in your agency, as well as any related arrest statistics. The questions will not be extensive and may be answered with generalized figures and/or statistics.

I will keep the information you provide confidential; however, federal regulatory agencies and the Northern Michigan University Institutional Review Board (a committee that reviews and approves research studies) may inspect and copy records pertaining to this research. If I write a report about this study, I will do so in a way that any person(s) or agencies involved cannot be identified. Additionally, any information and/or conclusions obtained will not be directly associated with any of the departments involved.

Taking part in this research study is completely voluntary and there are no costs associated with your participation.

If you have any further questions regarding your rights as a participant in this research project, you may contact Dr. Terry Geelhoed of the Human Subjects Review Committee of Northern Michigan University (906-227-2303) tgeelhoed@nmu.edu. Any questions you have regarding the nature of this research project will be answered by the Criminal Justice Department Head or the principle researcher who can be contacted as follows: Dr. Dale Kaple dkaple@nmu.edu, Collie Ito (706-639-2080) cito@nmu.edu.

*1. I have read the above "Informed Consent Statement." The nature, risks, demands, and benefits of the project have been explained to me. I understand that I may ask questions and that I am free to withdraw from the project at any time without incurring ill will or negative consequences. I also, understand that this informed consent document will be kept separate from the data collected in this project to maintain anonymity (confidentiality). Access to this document is restricted to the principle investigators.

☐ I agree.
☐ I do not agree.

*2. Subject's Name


*3. Subject's Title


Reduced Survey

4. Subject's Department

5. Department Address

6. Number of Police Officers in Department (not required)

1. Departmental Enforcement Efforts
All questions are for the time period of January 1, 2010 to December 31, 2010. Questions may be answered with approximated figures. If any information is not available, please write N/A for the given slot.

7. How many calls for service were received for marijuana related offenses?

8. How many man-hours (the total combined for all officers) were spent investigating marijuana related offenses? This includes interviewing suspects, patrolling hot spots, questioning witnesses, responding to calls, etc...

9. What is the average cost for a single one of these hours?

10. IV. Additional Information
Please feel free to leave any additional, related information that was not covered in the questions.

Thank you very much for your time and consideration.
APPENDIX F

NMU Human Subjects Research Review Approval Letter

Memorandum

September 21, 2011

TO: Collin Ito
   Criminal Justice Department

FROM: Terrance Seethoff, Ph.D.
       Dean of Graduate Studies & Research

SUBJECT: IRB Proposal HS11-419
   "What is the Monetary Cost of Local Marijuana Enforcement?"

Your proposal "What is the Monetary Cost of Local Marijuana Enforcement?"
has been approved under the administrative review process. Please include your proposal
number on all research materials and on any correspondence regarding this project.

Any changes or revisions to your approved research plan must be approved by the IRB prior
to implementation.

kjm