Marijuana and Policing:

The Impact of Reform and Partisanship on Marijuana Arrest Practices



By

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Abstract

In 2016, California voted to legalize marijuana possession with Proposition 64. But as a growing literature argues that drug reform is ineffective at reducing arrest rates for drug crime, can Proposition 64 truly be credited with reducing arrests for marijuana? Do external factors, like the partisanship of a city's mayor, impact the arrest practices for marijuana offenses? I hypothesize that Proposition 64 was successful in significantly reducing the arrest rate for marijuana related crimes, as its policies were targeted at legalizing common marijuana possession instances. I further hypothesize that cities with Democrat mayors make less arrests for marijuana related offenses. To test this hypothesis, I run a linear regression analyzing marijuana arrest rates in the 30 most populous cities in California before and after the passage of Proposition 64, while also considering factors such as the mayor's partisanship. I find that Proposition 64 is associated with a decrease in city's marijuana arrest rates, but find no significant difference across partisan lines. The association between Proposition 64 and the decrease in marijuana arrest rates suggest that reforms that legalize drug possession as opposed to decriminalize possession may be more likely to be correlated with a decrease in policing of the drug through measures like arrests. No significant relationship between mayoral partisanship and marijuana arrests is uncovered, suggesting that although often vocal about their policies on policing, mayors may not have as tangible an impact in practice when looking at arrests.

| Acknowledgments | 2 |
|--|------|
| Abstract | 4 |
| Table of Contents | 5 |
| I. Introduction | 6 |
| II. Literature Review | 8 |
| A. Past Attempts at Reform | 8 |
| B. Implementation and Variation of Policies | . 10 |
| C. Actors within Law Enforcement | . 11 |
| D. Partisanship of Marijuana | . 13 |
| II. Research Design | . 13 |
| III. Data | 17 |
| IV. Results | . 23 |
| A. Marijuana Arrest Rates | . 23 |
| B. Proportion of Drug Arrests for Marijuana Violations | . 26 |
| V. Discussion | . 28 |
| VII. Appendix | 33 |
| Appendix A: Models for Overall Drug Arrest Rate | 33 |
| Appendix B: Descriptive Partisan Statistics From 2012-2020 | . 34 |
| Appendix C: Model for Purely Democratic Cities | . 35 |
| Appendix D: Models for Purely Republican Cities | . 36 |
| Appendix E: Models for Purely Partisan Cities | 37 |
| Bibliography | . 38 |

Table of Contents

I. Introduction

In 2016, California narrowly passed Proposition 64, legalizing recreational marijuana use across the State. It was the second time the proposal had been brought to the voters after a failed Proposition fell just 3.6% below the threshold 6 years prior (Baldassare, 2016). In both cases, the California Democratic Party endorsed the Proposition, while the California Republican Party opposed it (Baldassare, 2016 & Ballotpedia). While on paper, Proposition 64 would reduce marijuana related arrests by legalizing limited, personal possession of cannabis, it doesn't necessarily mean that marijuana violations would actually decrease. Legislative measures across the globe intending to reform cannabis possession have failed to make any significant reductions in marijuana arrests or convictions, causing at most a short-term reduction in arrests before returning to pre-reform arrest rates. (Barno, 2023 & Shiner, 2015).

Do policy reforms like Proposition 64 actually lead to significant reductions in arrests for the drugs targeted by the reform? In this paper I examine how marijuana arrests were impacted by the passage of Proposition 64, and whether mayoral partisanship further impacted arrest rates. Past research is unclear, with some arguing that drug reforms are unable to cause meaningful changes to drug arrest practices, finding that previous-year arrest rates for police agencies were the strongest indicators of drug arrest rates, as well as broader political influences (Barno, 2023 & Shiner, 2015). At the same time, existing literature disagrees that mayoral partisanship, a broader political influence on police agencies, can have an impact on arrest rates, citing education and income as major indicators (Brownstein et al., 2021, Ferreira and Gyourko, 2009). However, these studies only looked at violent crimes like murder and burglary, which arguably are less political in nature than marijuana usage, suggesting that these results are not indicative of all crimes. Marijuana policy has consistently been spearheaded and supported by the Democratic party, from medical marijuana adoption (Spetz et. al., 2019) to recreational marijuana implementation (Beltz et. al., 2020), and thus it is uniquely different from other crimes in that a partisan divide is easily identifiable through the ongoing legalization. In this paper, I look at whether Proposition 64 was successful in significantly reducing marijuana arrest rates.

In order to assess whether Proposition 64 was successful in reducing marijuana arrest and whether partisanship influenced this success, I run a linear regression focused on the mayoral partisanship affiliation in the 30 largest California cities compared to the marijuana arrest rate in those cities. Data on marijuana arrest rates is collected on an annual basis from 2012 to 2020, coming from the FBI's database. Mayoral partisanship is also collected and cleaned on an annual basis, building upon existing data on partisanship in local elections (de Benedictis-Kessner, 2023). Control variables like income and education were collected from the census, ensuring that potential confounds identified in past research are addressed (Brownstein et al., 2021, Ferreira and Gyourko, 2009). I also use specifications with city and year fixed effects to control for arrest variations that may be isolated in select cities or years that could otherwise taint a cross-sectional regression approach.

My results find that Proposition 64 is associated with a significant decrease in marijuana related arrests. This result holds true when accounting for police agencies' prior arrest practices and when analyzing the reform's impact on arrest rates in each individual city studied. While having a Democrat mayor was associated with a statistically significant increase in marijuana arrests, the effect was nullified when including city fixed effects, implying that factors common within cities that elect Democrat mayors may influence marijuana arrest rates, but that simply having a Democrat mayor does not. After Proposition 64 was passed, there was no significant variance in marijuana arrest rates between cities with Democrat or Republican mayors, although

they both did have a significant decline in both marijuana related arrests and the proportion of the drug arrests that were caused by marijuana violations.

II. Literature Review

A. Past Attempts at Reform

Drug reform is not a new concept. Across the globe, States and nations have passed laws hoping to move away from a punitive approach to drug offenses, instead promoting initiatives that encourage harm-reduction. However, the success of these initiatives is mixed. In Oregon and Washington, initiatives to decriminalize certain drug possession crimes were successful in reducing overall drug arrest rates, without leading to arrest rate influxes in other areas (Davis et. al., 2023). Philadelphia had a similar initiative, signing a marijuana decriminalization act into law in 2014. After doing so, marijuana arrest rates dropped significantly, even as medical marijuana storefronts increased in the county (Tran et. al., 2020).

While this literature suggests that marijuana reform policies are effective, not all reform policies have succeeded in decreasing arrest rates. Just a few years prior to Proposition 64, Proposition 47 had been signed into law in California, reclassifying a majority of drug possession offenses to misdemeanors. While many anticipated this reform to alter policing practices and arrest rates, no significant change was observed, suggesting that drug reforms alone are unable to create tangible change in drug enforcement. Instead, the prior arrest practices of police agencies carried over and continued to predict drug possession arrest rates, regardless of Proposition 47 being instated (Barno, 2023).

Outside of California, similar attempts at marijuana reform have failed to make an impact in actual arrest practices. In 2009, Mexico passed a set of reforms targeted at promoting decriminalization and harm reduction for drug offenses. Notably, these reforms in part "decriminaliz[ed] the possession of drugs in amounts below certain volume thresholds. (Arredondo et. al., 2018). While arrest rates for drug crimes saw a moderate reduction in the three months following the reform, drug possession arrests reached the same rates seen prior to the reform just a year after instituting the decriminalization of drug possession (Arredondo et. al., 2018). The same paradoxical result occurred in England. After passing legislation that downgraded the classification of cannabis offenses, there was a temporary drop in guilty sentences for possessing cannabis, which climbed back to pre-reform rates after a few years (Shiner, 2015). These results suggest that drug reforms on their own may not be impactful enough to create lasting change in drug arrest practices. Instead, the previous arrest practices of police agencies (Barno, 2023) and the broader ideologies of those who oversee police activity (Shiner, 2015) may be better indicators of how drug reforms will impact arrest rates.

These conflicting results leave the impact that drug reform has on arrest practices largely undetermined. The results out of Oregon, Washington, and Philadelphia (Davis et. al., 2023, Tran et. al., 2020) do not account for the previous arrest practices of each police agency studied, nor do they account for the ideologies of those in power, yet they still find with statistical significance that the reforms enacted did decrease arrest rates for marijuana. Conversely, the argument that an agency's prior arrest practices predict current arrest practices more than a reform (Barno, 2023) and the argument that the ideologies of principals to police officers is more impactful than a reform (Shiner, 2015) were not tested in the same study, mystifying whether one or both variables are significant when tested together. Whether these confounds would impact the findings from Oregon, Washington, and Philadelphia (Davis et. al., 2023, Tran et. al., 2020) is also unknown, leaving uncertainty as to the true impact that drug reform can have on arrest practices thereafter.

B. Implementation and Variation of Policies

When government policies are modified or introduced, police forces are expected to shift their enforcement of the policies. However, broader actors, like city mayors, influence how enforcement policies should be prioritized, if enforced at all. Mayors act as "the one who ultimately will be responsible for policy in all city departments," (Isenberg, 2017) allotting discretion for policy enforcement. While police chiefs may regularly have meetings with their mayors and voice their concerns about crimes and police priorities, it is the mayor who has the ultimate say (Isenberg, 2017). A large reason for this is that mayors play a vital role in deciding budgets for police agencies. Mayors work with city councils to decide the budget for the fiscal year, meaning that the mayor's satisfaction with the police force can decide whether their budget should be increased or decreased (Sylvera, 2023). The political affiliation of the mayor impacts their decisions surrounding police budgets. For instance, when Democratic mayors are elected, the fiscal allotment for the city's police drops 2.3%, with areas such as officer salary being a primary target. When Republican mayors are narrowly elected, anti-crime spending increases by an average of 1.8% (Gerber & Hopkins, 2011).

Previous literature has centered around violent crimes when trying to understand how political affiliation affects crime. These studies have found that Democratic led cities tend to have higher crimes, but found that there is no significant correlation between a mayor's party affiliation and the "lawlessness" of a city, instead arguing that underlying demographics of the city like education and household income are better predictors of crime rates (Brownstein et al., 2021, Ferreira and Gyourko, 2009). It should be noted that these studies only examine violent crimes and do not encompass all violations. In other cases, alcohol enforcement has been tied to community density, with urban police agencies being more likely to conduct compliance checks in establishments to combat illegal alcohol sales compared to suburban or rural agencies (Calvert et. al., 2019).

City governments do impact the arrest practices by police agencies under their jurisdiction. The election of a Black mayor leads to a decrease in the arrest rates for both Black and White individuals for cannabis sale (Sylvera, 2023). Similarly, Democratic mayors have been found to lead initiatives which hire more racially diverse police forces, which in turn lead to a modest decrease in Black individuals' make-up of crime arrests. (de Benedictis-Kessner et. al., 2024). In other cases, mayors have outright rejected changing State laws for drug possession, instructing their police force to simply not arrest individuals for methadone possession (Williams, 2021). The distinction between a mayor-council, or unreformed city, and council-manager, or reformed city, structure is also important. In cities led by a mayor-council, the political leaning of voters weighs more into the practices of the police. Cities with Republican mayors were found to be more likely to enforce Federal Immigration policy than Democrat led mayor-council cities (Lewis et. al., 2013), emphasizing the partisan aspect of policy enforcement once again.

C. Actors within Law Enforcement

Within law enforcement, police chiefs assume the executive position over the police department. While county governments also have an elected sheriff, their influence in recent years is unclear. While some data shows sheriff's political affiliation affecting arrest priorities for immigration (Farris & Holman, 2016), others argue the exact opposite, finding that Democrats and Republican sheriffs had a bipartisan approach to enforcing immigration policy (Thompson, 2020). Additionally, the power of the sheriff has declined over the years, in part due to the growing expectation that sheriffs do not exercise any authority in areas where municipal police

departments have jurisdiction (Tomberlin, 2018). Due to these distinctive factors, it is imperative to instead focus on the role of the chief of police and how their unique intermediate role between officers and the mayor affects enforcement within municipal police departments.

Chiefs of police communicate enforcement priorities to their forces, giving them substantial control over how enforcement is carried out in practice. When guidelines and policy changes are not effectively communicated to officers, the standards on whether to warn, cite, or arrest someone for a crime vary based on the officer and their understanding of the law. However, in cases in Washington State where police chiefs stressed that certain drug policies were not an agency priority, officers responded and shifted their patrol focuses (Stanton et. al., 2022). The identities of police chiefs also influence their enforcement techniques, especially when government directions are absent. Over half of city governments did not give their police agencies direction on whether or not they were to enforce new Federal Immigration legislation, thus leaving police chiefs to take the helm of directing their staff. In these cases, Hispanic police chiefs were more likely to take a less intensive enforcement pathway than their colleagues (Lewis et. al., 2013), emphasizing the assumed role police chiefs take on when government directions are absent.

Individual officers, under the direction of their police chief, still possess their own opinions about drug policy. In 2013, 3 years before the passage of Proposition 64, 85% of law enforcement believed that marijuana should not be legalized. Over half of officers believed that the laws at the time were not strong enough to punish drug users and dealers, believing that higher sentencing times were necessary to deter violations (Petrocelli et. al., 2014). This attitude is contrasted with officers in Washington State after marijuana legalization measures had been passed. Numerous officers, largely concentrated in urban areas, now supported the legalization of marijuana. Even among officers who did not support the initiative, there was near-unanimous agreement among officers that they would still uphold marijuana legalization (Stanton, 2022).

D. Partisanship of Marijuana

Marijuana has been a divisive issue throughout multiple legislative initiatives. Democrats were the primary adopters of medical marijuana, with 77% of early medical marijuana adopters having state legislatures controlled by Democrats. This follows the pattern of other largely partisan issues, such as gun control policies and gay marriage (Spetz et. al., 2019). Proposition 64 had similar partisan divides, with the California Democratic Party endorsing the measure, while the California Republican Party opposed the measure (Ballotpedia). Even after Proposition 64 passed, support for legalized marijuana largely depends on partisan beliefs. Counties with higher concentrations of registered Republicans have less support for legalized marijuana, even as dispensaries have begun to be more prevalent across the State (Beltz et. al., 2020).

While partisan divides exist around marijuana's legalization, it is less clear that this causes a partisan divide in who uses cannabis. Among male high schoolers, no difference has been seen among the rate of marijuana use between Blue states and Red states, emphasizing that the actual use of marijuana is less influenced by partisanship than beliefs around legalization (Caldwell & Davis, 2021). While other studies have found a positive correlation between marijuana users and support for Democratic presidential candidates, there were multiple limitations, including an unexplained decrease in Democratic support among marijuana users in the 2020 election compared to the 2016 election (Kılıçer, 2023).

II. Research Design

In order to assess the impact of Proposition 64 and partisanship on marijuana arrest rates, I ran an observational study ranging from 2012-2020. Proposition 64 was signed into law in November of 2016, providing 5 years of data prior to its implementation (2012-2016) and 4 years of data after its implementation (2017-2020). Variables were analyzed at the city level, given the jurisdiction that mayors' authority extends. All variables were captured on an annual basis, coming largely from public databases.

Hypothesis 1: Marijuana reforms like Proposition 64 decrease marijuana arrests.

Proposition 64 includes many policy reforms, most importantly allowing those over 21 to "possess, process, transport, purchase, obtain, or give away" marijuana in limited amounts (Proposition 64). I believe that this distinction, being a legalization reform as opposed to a decriminalization or reclassification reform, is important and plays a key difference in separating Proposition 64 from past reforms that were found to be unsuccessful in reducing marijuana arrests (Barno, 2023 & Arredondo et. al., 2018).

Hypothesis 2: Cities with Democrat mayors make less arrests for marijuana violations.

The Democratic platform has supported marijuana legalization since 2010, when the first referendum went to California voters but was not passed (Baldassare, 2016). Given that mayors often are responsible "for policy in all city departments" (Isenberg, 2017), including police departments, and that past literature has linked mayoral characteristics to shifting police enforcement practices (Sylvera, 2023 & de Benedictis-Kessner et.al., 2024), it follows that California mayor's priorities, which can be linked to their party's platform, would be demonstrated through their police priorities. Washington State cities previously instructed their police forces not to enforce marijuana possession in direct contrast to the law due to it not being a priority (Stanton et. al., 2022), and it is plausible that drug possession crimes like marijuana would similarly be deemed as a low priority by California mayors, especially when their party supports its legalization.

Past studies have examined the linkage between mayoral partisanship and arrest rates, finding no significant conclusion. However, these studies were particular in the arrest offenses used, focusing on property and violent crimes instead of drug arrests. They do provide a framework of variables to consider, including community demographics, education, and income. To examine how marijuana arrests have been influenced by Proposition 64 and mayoral partisanship, I will run a linear regression comparing the drug arrest rate per city *c* from 2012 (t=1) through 2020 (t=9) to the mayoral partisanship and other variables for each city *c* for year *t*. For any drug arrest (*A*), I estimate the following form:

$$A_{c,t} = \beta_0 + \beta_1 R_{c,t} + \beta_2 Dem_{c,t} + \beta_3 (Dem_{c,t} * R_{c,t}) + \beta_4 I_{c,t} + \beta_5 E_{c,t} + \beta_6 H_{c,t} + \beta_7 B_{c,t} + \beta_8 A_{c,t-1} + \epsilon$$

 $A_{c,t}$ firstly represents the marijuana arrest rate per 1,000 citizens in each city *c* for the year *t*. In a second regression equation, $A_{c,t}$ represents the proportion of drug arrests that were done for marijuana violations in city *c* for year *t*. $R_{c,t}$ is a dummy variable that takes a value if Proposition 64 has been signed into law in each city *c* for year *t*, $Dem_{c,t}$ is a dummy variable that takes a value when a Democratic mayor is in office at the beginning of year *t*, $I_{c,t}$ is the per capita personal income in thousands of dollars for each city *c* for year *t*, $H_{c,t}$ is the proportion of citizens with at least a bachelor's degree in city *c* for year *t*, $H_{c,t}$ is the percentage of citizens who identify as Hispanic in city *c* for year *t*, and $B_{c,t}$ is the percentage of citizens who identify as Black or African American alone in city *c* for year *t*. $A_{c,t-t}$ is a lag variable that takes on the marijuana arrest rate or proportion of drug arrest for marijuana related offenses for city *c* for the year *t*-*1*.

Including two dependent variables highlights different changes that Democrat mayors and Proposition 64 have on marijuana related arrests. Including the annual marijuana arrest rate will illustrate how the reform and Democrat mayors independently influence marijuana arrest rates, providing results that estimate the change in individuals arrested for marijuana violations. However, this dependent variable will be unable to capture how marijuana is prioritized when compared to other drugs such as opioids and cocaine, which may not be as historically politicized or impacted by Proposition 64. In order to understand how police resources for marijuana related offenses are impacted when compared to all other drug crimes, including the proportion of drug arrests that are attributed to marijuana violations is essential. Including this dependent variable will better estimate how Proposition 64 changed priorities within drug arrests, and how the partisanship of a mayor differentiates the how often police arrest for marijuana related arrests compared to other drug violations.

I have included an interaction variable for mayoral partisanship and whether Proposition 64 has passed because my hypothesis compares changing arrest rates between Democratic and Republican mayors. The interaction term will provide a picture of how cities with a Democratic mayor had their marijuana arrest practices impacted after Proposition 64, allowing me to compare whether it was significantly different from cities with Republican mayors. This result could have implications in how receptive mayors were to Proposition 64, and whether their partisanship may have resulted in them arresting more or less individuals for marijuana related offenses than in other cities.

Including the identity-based variable of the Black proportion of a city's population was done based on literature linking police racial bias to drug arrests. In neighborhoods with a balanced proportion of Black and White residents, how drug arrests are made vary. Black drug arrests are 20% more likely to be made based on officer-initiated stops, whereas White drug arrests had a balanced proportion of officer-initiated stops and citizen-report stops (Gaston, 2019). This disparity carries over into the actual arrest proportions for African Americans and White Americans. During early adulthood (age 18 through 27), African-Americans are at least 83% more likely to be arrested for drug offenses than White Americans. (Mitchell & Caudy, 2013). Because of this, it is important to consider the black proportion of the population in this study, as it may be impactful in how marijuana arrests are made.

I also ran an OLS regression that includes a lagged dependent variable for arrest rate. By including the previous year's arrest rate, I will be able to account for unidentified confounding variables within the regression. The lagged dependent variable will also illustrate how the arrest rate from the year prior impacts the current year's arrest rate. This regression will run from 2013-2020, as to not introduce new data from 2011 that was not accounted for in the other regressions.

My regression model will also include a column accounting for city-fixed effects, and a column accounting for city and year fixed effects. Including city fixed effects will control for unobserved variations across different cities, which can include the makeup of the police department and pre-existing arrest practices for drug crimes. Including year fixed effects will provide a better insight into how partisanship specifically varied arrest practices each year, controlling for potential spikes or declines in drug arrests that may have occurred across the State in a given year.

III. Data

There are two dependent variables that will be used in this study. The first is the marijuana arrest rate per 1,000 individuals. The second is the proportion of drug arrests that are

marijuana violations. The FBI Crime Data Explorer (CDE) provides monthly arrest reports for various crime categories by police agency, which is the basis of these data points. For each city studied, arrest counts for all marijuana abuse violations were collected from their respective city police agency (for example, the Los Angeles Police Department for the city of Los Angeles) on an annual basis by adding together the "drug possession - marijuana" and "drug sale/manufacturing - marijuana" categories. Arrest counts were also collected from the CDE for all drug abuse violations. In order to determine the annual marijuana arrest rate, marijuana arrest counts for each city's police department are divided by the estimated population of the city, collected from the Census Bureau's American Community Survey. The arrests for each city are then multiplied by 1,000 to illustrate the arrest rate per 1,000 citizens in each city, matching previous studies that examine mayoral partisanship on crime (de Benedictis-Kessner, 2024). For the proportion of drug arrests that are marijuana related, the annual marijuana violations arrest count was divided by the annual drug abuse violations arrest count.

The primary independent variable, Proposition 64 ("Reform") was signed into law on November 9, 2016 (California Courts). The years 2012 through 2016 have been coded as a 0, thereby meaning pre-reform. The years 2017 through 2020 have been coded as a 1, thereby meaning post-reform.

Data on the partisanship of city mayors was collected from the American Local Government elections database (de Benedictis-Kessner, 2023), whose research team utilized local election campaign sites and statewide election materials to assess the partisanship of local office candidates across the country. Because elections can take place at any time of the year, the mayoral party affiliation is based on the mayor in office on January 1st of that year. 8 of the top 30 cities did not have a complete partisanship assessment for mayors from 2012-2020. In these instances, I utilized city government websites to determine who held the mayor position at the beginning of each year, and used election campaign sites, partisan endorsements from local or countywide Democrat or Republican parties, and news articles to confirm the partisanship affiliation of the mayor.

To assess the relationship between drug arrests and mayoral partisanship, I also controlled for some variables that have been found to be correlated with arrest rates and partisanship. Median household income was collected from the Census Bureau's American Community Survey, with each city's annual average being included and divided by 1,000, making the variable the median household income in thousands of dollars. Education levels per city were collected on an annual basis from the Census Bureau's American Community Survey 5 year estimates. The percent of individuals within each city that have a Bachelor's degree or higher and are aged 25+ are coded between the interval of 0 to 100, as has been done in other surveys examining the politics of marijuana (Beltz et. al., 2020). The Hispanic and Black or African American demographics of each city were similarly collected from the American Community Survey 5 year estimates, and are coded between 0 and 100 based on the percentage points of individuals who identify as either.

Table 1: Descriptive Mayor Statistics From 2012-2020.

| Variables | Democratic Mayor n=145 | Republican Mayor n=125 |
|--|----------------------------------|----------------------------------|
| Marijuana Arrest Rate per 1,000 people | 0.297 | 0.245 |
| Percentage of Drug Arrests resulting | | |
| from Marijuana Offenses | 7.6% | 5.1% |
| Median Income | \$69,606 | \$66,423 |
| Completed Bachelors or Higher | 32.0% | 29.2% |
| Hispanic Percentage of Population | 39.2% | 40.5% |
| Black Percentage of Population | 7.9% | 7.2% |

30 cities were observed over 9 years, resulting in 270 unique observations per variable. Of these annual observations, 145 came from cities with a Democratic mayor, and 125 came from cities with a Republican mayor. Even with partisanship variation, some demographics held relatively equal, with the Black proportion of the population averaging 0.7% higher in Democratically led cities, and the Hispanic proportion of the population averaging 1.3% higher in Republican led cities.

The mean marijuana arrest rate varies slightly between cities with a Democrat or Republican mayor. Based on the table, cities with Democrat mayors arrest an average of 0.052 more individuals per 1,000 people for marijuana related offenses. Cities with Democrat mayors average 7.6% of their drug arrests being the result of marijuana violations, while Republican led cities have 5.1% of their drug arrests stem from marijuana violations. In both cases, the vast majority of drug arrests come from non-marijuana related arrests, suggesting that police departments prioritize harder drugs like opioids and cocaine.

| Variables | Before Prop. 64 <i>n</i> =150 | After Prop. 64 <i>n</i> =120 |
|--|---|--|
| Marijuana Arrest Rate per 1,000 people | 0.415 | 0.096 |
| Proportion of Drug Arrests resulting | | |
| from Marijuana Offenses | 9.4% | 2.7% |
| Median Income | \$62,985 | \$74,566 |
| Completed Bachelors or Higher | 29.6% | 32.0% |
| Hispanic Proportion of Population | 39.3% | 40.4% |
| Black Proportion of Population | 7.6% | 7.5% |

| Fable 2: Descri | ptive Reform | Statistics | from | 2012-2020 |
|-----------------|--------------|-------------------|------|-----------|
|-----------------|--------------|-------------------|------|-----------|

Five years of observations took place prior to the enactment of Proposition 64, and four years of observations took place after its enactment. The mean median income across the 30 cities had the most substantial difference, with the mean growing \$10,000 when comparing the

median income before and after Proposition 64 was enacted. The marijuana arrest rate also notably dropped, from approximately 4 arrests per 10,000 people to just 1 arrest per 10,000 people. The proportion of drug arrests for marijuana related offenses dropped by roughly 6.7%, with marijuana related offenses accounting for just 2.7% of all drug arrests after Proposition 64 was implemented.

| Average Statistics From 2012-2020 n = 9 | | | | | | | | | |
|--|------------|--|---|--------------------------------|--------------------------------|--------------------------------------|------------------|---|-----------------------------------|
| City | Population | Marijuana Arrest Rate Per 1000 people | Marijuana proportion of drug arrests | Years with Dem. Mayor | Years with Rep. Mayor | Completed Bachelor's or Higher | Median Income | Hispanic Proportion of Population | Black Proportion of Population |
| Los Angeles | 3,888,825 | 0.21 | 0.09 | 9 | 0 | 33.40% | \$54,553.89 | 48.50% | 9.10% |
| San Diego | 1,368,963 | 0.19 | 0.04 | 1 | 8 | 44.70% | \$70,905.78 | 29.80% | 6.50% |
| San Jose | 1,016,745 | 0.2 | 0.07 | 9 | 0 | 41.90% | \$94,414.22 | 32.40% | 3.10% |
| San Francisco | 864,419 | 0.13 | 0.09 | 9 | 0 | 56.50% | \$92,131.22 | 15.20% | 5.50% |
| Fresno | 526,872 | 0.51 | 0.08 | 0 | 9 | 21.20% | \$44,995.67 | 48.50% | 7.70% |
| Sacramento | 500,546 | 0.51 | 0.07 | 9 | 0 | 31.70% | \$54,943.33 | 27.90% | 13.60% |
| Long Beach | 471,634 | 0.29 | 0.06 | 6 | 3 | 30.30% | \$57,197.89 | 42.10% | 13.00% |
| Oakland | 426,724 | 0.36 | 0.12 | 9 | 0 | 42.50% | \$61,683.56 | 26.40% | 25.00% |
| Bakersfield | 384,104 | 0.24 | 0.03 | 0 | 9 | 21.40% | \$59,366.56 | 48.20% | 7.90% |
| Anaheim | 346,509 | 0.08 | 0.02 | 0 | 9 | 25.20% | \$64,924.33 | 53.40% | 2.50% |
| Santa Ana | 319,324 | 0.32 | 0.05 | 9 | 0 | 14.00% | \$58,225.78 | 77.70% | 1.10% |
| Riverside | 312,518 | 0.11 | 0.02 | 9 | 0 | 23.00% | \$61,539.89 | 52.30% | 6.20% |
| Stockton | 311,170 | 0.23 | 0.13 | 5 | 4 | 17.70% | \$49,219.44 | 41.80% | 11.60% |
| Irvine | 273,818 | 0.12 | 0.04 | 1 | 8 | 67.70% | \$96,814.89 | 10.00% | 1.90% |
| Chula Vista | 265,939 | 0.2 | 0.07 | 7 | 2 | 28.00% | \$71,374.56 | 58.80% | 4.70% |
| Fremont | 228,320 | 0.15 | 0.05 | 9 | 0 | 55.30% | \$116,284.00 | 13.70% | 3.30% |
| Santa Clarita | 223,739 | 0.28 | 0.08 | 0 | 9 | 35.20% | \$89,344.00 | 32.30% | 3.30% |
| San Bernardino | 218,350 | 0.3 | 0.06 | 2 | 7 | 11.70% | \$41,227.00 | 63.00% | 14.00% |
| Modesto | 212,672 | 0.48 | 0.05 | 3 | 6 | 18.60% | \$52,907.89 | 38.20% | 4.20% |
| Fontana | 203,740 | 0.27 | 0.04 | 0 | 9 | 17.30% | \$68,006.11 | 67.90% | 9.20% |
| Oxnard | 202,011 | 0.38 | 0.12 | 9 | 0 | 17.20% | \$65,470.22 | 74.00% | 2.70% |

Table 3: Average City Statistics from 2012-2020.

| Moreno Valley | 202,784 | 0.26 | 0.03 | 8 | 1 | 15.10% | \$59,553.67 | 56.80% | 17.80% |
|------------------|---------|------|------|---|---|--------|-------------|--------|--------|
| Huntington Beach | 198,370 | 0.15 | 0.03 | 3 | 6 | 42.30% | \$87,363.11 | 19.20% | 1.10% |
| Glendale | 196,588 | 0.35 | 0.05 | 6 | 3 | 39.30% | \$58,488.56 | 17.80% | 1.60% |
| Santa Rosa | 180,808 | 0.53 | 0.09 | 7 | 2 | 32.50% | \$66,665.00 | 31.30% | 2.30% |
| Oceanside | 174,152 | 0.16 | 0.04 | 0 | 9 | 29.40% | \$63,656.56 | 36.10% | 4.80% |
| Garden Grove | 173,530 | 0.38 | 0.05 | 5 | 4 | 21.10% | \$63,235.78 | 36.60% | 1.10% |
| Rancho Cucamonga | 173,007 | 0.21 | 0.04 | 0 | 9 | 34.30% | \$82,547.56 | 36.80% | 9.20% |
| Lancaster | 169,205 | 0.27 | 0.05 | 1 | 8 | 16.70% | \$51,260.67 | 39.30% | 20.90% |
| Elk Grove | 167,817 | 0.31 | 0.18 | 9 | 0 | 35.80% | \$85,656.78 | 18.30% | 11.10% |

Even within the top 30 cities in California, there are noticeable differences. The largest city in California, Los Angeles, had an average population of 3,888,825 between the years of 2012-2020, whereas the smallest city in this study, Elk Grove, had an average population of 167,817. Just over half of the cities had a single party hold the mayoral position all 9 years, with 10 of these being Democratic-led cities and 7 being Republican-led cities. Only 2 cities, Garden Grove and Stockton, had a near-equal number of years with Democratic or Republican mayors in office, with both having 5 years with a Democratic mayor and 4 with a Republican mayor. Anaheim had the lowest average marijuana arrest rate, with 0.08 arrests per 1,000 people, and Santa Rosa had the highest average marijuana arrest rate, with 0.53 arrests per 1,000 people.

In eighteen of the cities observed, at least 25% of the population had earned at least a bachelor's degree. Two cities, Santa Ana and San Bernardino, reported less than 15% of their citizens possessing a bachelor's degree or higher, while three cities, San Francisco, Irvine, and Fremont had 50% or more of their population with a bachelor's degree or higher. The mean median income across 9 years was \$68,131.93. Only 10 cities had a median income above this value, with Fremont having the highest median income of \$116,284.00, almost a \$50,000

difference. Eight cities had over half of their population identify as Hispanic across the nine years observed, and eight cities had 10% or more of their population identify as Black.

IV. Results

A. Marijuana Arrest Rates

In order to test my hypotheses, I ran five regression models for each dependent variable. The first is a baseline regression examining how Proposition 64 impacted marijuana arrests, the second includes all independent variables (Democrat, Interaction term) and explanatory variables (Income, Education, Hispanic, and Black), the third includes a lagged dependent variable, the fourth includes city fixed effects, and the fifth includes city and year fixed effects.

| | (1) | (2) | (3) | (4) | (5) |
|---------------|-----------|-----------|-----------|--------------|--------------|
| Variable: | Marijuana | Marijuana | Marijuana | Marijuana | Marijuana |
| Reform | -0.318 ** | -0.234 ** | -0.089 ** | -0.178 ** | -0.420 ** |
| | (0.024) | (0.034) | (0.025) | (0.043) | (0.090) |
| Democrat | | 0.090 ** | 0.039 | 0.067 | 0.059 |
| | | (0.030) | (0.023) | (0.039) | (0.038) |
| Democrat x | | | | | |
| Reform | | -0.060 | -0.052 | -0.076 | -0.067 |
| | | (0.045) | (0.032) | (0.045) | (0.044) |
| Income | | -0.003 * | -0.000 | -0.001 | 0.003 |
| | | (0.001) | (0.001) | (0.003) | (0.004) |
| Education | | -0.006 ** | -0.001 | -0.019 ** | -0.005 |
| | | (0.002) | (0.001) | (0.007) | (0.008) |
| Hispanic | | -0.005 ** | -0.001 | -0.042 ** | -0.012 |
| | | (0.001) | (0.001) | (0.011) | (0.013) |
| Black | | -0.001 | 0.001 | -0.031 | -0.023 |
| | | (0.002) | (0.001) | (0.024) | (0.023) |
| Previous Year | | | | | |
| Arrest | | | 0.585 ** | | |
| | | | (0.042) | | |
| City Fixed | | | | | |
| Effects | | | | \checkmark | \checkmark |

Table 4. Models for Marijuana Arrest Rates

| Year Fixed | | | | | | | | | | |
|----------------|---------|----|---------|----|---------|---|---------|----|--------------|--|
| Effects | | | | | | | | | \checkmark | |
| Intercept | 0.415 | ** | 0.914 | ** | 0.207 | * | 2.891 | ** | 1.105 | |
| | (0.016) | | (0.098) | | (0.081) | | (0.583) | | (0.745) | |
| Number of | | | | | | | | | | |
| observations | 270 | | 270 | | 240 | | 270 | | 270 | |
| ** < 01 * < 05 | | | | | | | | | | |

** p<.01, * p<.05

Throughout all five models, the reform has a statistically significant impact on marijuana arrest rates. In multiple models, the percentage of the population with a Bachelor's degree or higher and the percentage of the population that is Hispanic is statistically significant. Having a Democrat mayor is statistically significant only in column two, where explanatory variables are introduced. At no point was the interaction term significant, indicating that after reform, Democratic and Republican mayors had similar changes in their marijuana arrest practices. In all five models, the introduction of Proposition 64 is correlated with a decrease in the arrest rate for marijuana related violations. When a higher percentage of the population has a Bachelor's degree or higher or is Hispanic, the arrest rate for marijuana violations also decreases. Looking at column 2, for every one percentage point increase in the population who has obtained a Bachelor's degree or higher, the arrest rate for marijuana violations is expected to drop by 0.006 arrests per 1,000 individuals. For each one percentage point increase in the population who is Hispanic, the marijuana arrest rate is estimated to decrease by 0.005 arrests per 1,000 people. All else equal, the introduction of Proposition 64 is estimated to have decreased marijuana arrest rates by 0.234 arrests per 1,000 people.

Interestingly, column 2 predicts with statistical significance that cities with a Democrat mayor will arrest more individuals for marijuana violations than those with a Republican mayor. All else equal, a Democratically led city is estimated to arrest 0.090 more individuals for marijuana violations per 1,000 people when compared to those with a Republican mayor. In a

city with the median population in the sample, 232,596, this difference would account for 21 more arrests per year. When applying the median population in the sample to reform's coefficient in column 2, the estimated impact in marijuana arrests after Proposition 64 was signed into law is 54 less arrests per year. However, this effect is no longer statistically significant when controlling for city-specific effects. In column 3, which accounts for the city's previous year marijuana arrest rate, and columns 4 and 5, which include city fixed effects, the Democrat variable is no longer statistically significant. This suggests that the statistically significant coefficient observed in column 2 is likely due to other city-wide factors that are prevalent in cities where Democrat mayors are commonly elected. Having a Democrat mayor does not inherently increase marijuana arrest rates as column 2 estimates, but other variables common in cities that elect Democrat mayors likely do cause an increase in marijuana arrest rates.

The same variance is not observed with the reform variable. Across all five models, the reform variable remained statistically significant with a negative coefficient. This includes columns 1-3, which has a cross sectional analysis, and columns 4-5, which has city and year fixed effects. Even when comparing marijuana arrest rates within cities, across years, and cross-sectionally, Proposition 64 is associated with a decrease in marijuana related arrests with statistical significance.

B. Proportion of Drug Arrests for Marijuana Violations

| | (1) | (2) | (3) | (4) | (5) |
|---------------|------------|------------|------------|--------------|--------------|
| Variable: | Proportion | Proportion | Proportion | Proportion | Proportion |
| Reform | -0.067 ** | -0.055 ** | -0.020 ** | -0.020 * | -0.032 |
| | (0.006) | (0.008) | (0.005) | (0.008) | (0.017) |
| Democrat | | 0.029 ** | 0.005 | 0.000 | -0.004 |
| | | (0.007) | (0.005) | (0.007) | (0.007) |
| Democrat x | | | | | |
| Reform | | -0.016 | -0.007 | -0.026 ** | -0.018 * |
| | | (0.011) | (0.006) | (0.009) | (0.008) |
| Income | | 0.000 | 0.000 | -0.002 ** | -0.003 ** |
| | | (0.000) | (0.000) | (0.000) | (0.001) |
| Education | | -0.001 * | -0.000 | -0.003 * | -0.000 |
| | | (0.000) | (0.000) | (0.001) | (0.001) |
| Hispanic | | -0.001 ** | -0.000 | -0.004 * | -0.002 |
| | | (0.000) | (0.000) | (0.002) | (0.003) |
| Black | | 0.003 ** | 0.001 ** | -0.008 | -0.008 |
| | | (0.000) | (0.000) | (0.005) | (0.004) |
| Previous | | | | | |
| Year | | | | | |
| Proportion | | | 0.622 ** | | |
| | | | (0.035) | | |
| City Fixed | | | | | |
| Effects | | | | \checkmark | \checkmark |
| Year Fixed | | | | | |
| Effects | | | | | \checkmark |
| Number of | | | | | |
| observations | 270 | 270 | 240 | 270 | 270 |
| ** p<.01, * p | <.05 | | | | |

Table 5: Marijuana Proportion of Drug Arrests

Throughout four of the five models excluding column 5, the reform variable is a statistically significant result. Column 5 includes year fixed effects, so it is not too shocking that reform, a variable associated with time (taking on the value 1 from 2017-2020), is not statistically significant in that model. Being statistically significant in the other 4 models emphasizes that Proposition 64 led to marijuana offenses decreasing in the overall pool of drug

related arrests. This is true with both a cross sectional approach that includes comparisons across years and cities in columns 1-3, and when looking at the impact of Proposition 64 within individual cities.

The Democrat variable is statistically significant in column 2. When including city fixed effects and a city's previous year proportion of drug arrests that are marijuana related, the Democrat variable is no longer statistically significant. Similar to Table 4, these results suggest that variation within cities that typically elect Democrat mayors are the factor(s) that impact the proportion of drug arrests that are marijuana related, as opposed to the actual election of a Democrat mayor. All four explanatory variables are statistically significant in two models, although they each vary on which exact models those are. As the proportion of the population with a Bachelor's degree or higher increases, the proportion of drug arrests that are marijuana related is expected to decrease. The same is true as the proportion of the population that is Hispanic increases, whereas an increase in the proportion of the population that is Black is estimated to increase the proportion of drug arrests for marijuana related violations.

Column 4 and 5 include significant results for the interaction term. After the passage of Proposition 64, cities with Democrat mayors are estimated to have had the proportion of drug arrests that are the result of marijuana violations decrease more than Republican led cities. In Column 4, Democrat cities had this proportion decrease by an additional 2.6 percentage points when compared to other cities. However, Table 4 finds no significant difference between Democrat and Republican cities in regards to their marijuana arrest rate after the passage of Proposition 64. The significant results seen in Column 4 and 5 for Table 5 are thus more likely to be associated with Democrat cities prioritizing other drug violations, thus increasing their proportion of the overall drug arrests, and resulting in marijuana violations taking up less of this overall proportion. While there is a significant variance in the proportion of drug arrests that are the result of marijuana violations, Table 4 suggests that this is not the result of differing marijuana arrest priorities, but rather arrest priorities for other drug crimes that make up a bigger proportion of drug arrests in cities with a Democrat mayor.

V. Discussion

In this paper, I examine the effects of Proposition 64 and mayoral partisanship on marijuana arrest rates. My findings suggest that Proposition 64 was associated with a significant reduction in marijuana related arrests and a reduction in the proportion of drug arrests that are marijuana related, even when controlling for mayoral partisanship and previous arrest rate. This result is in contrast to a growing number of literature, which argue that other variables such as the previous arrest practices of police agencies and the broader ideologies of those who impact policing efforts are the true determinants in drug arrest rates, not policy reform (Barno, 2023 & Shiner, 2015). Even when accounting for these variables, I find a statistically significant decrease in arrest rates as a result of Proposition 64. This discrepancy challenges the notion that "reforms alone are unlikely to have a substantial impact on the overall scale of drug crime enforcement" (Barno, 2023), suggesting that the underlying provisions within the reform may be helpful in assessing whether the reform will be successful in reducing related drug arrests.

The main difference between the reforms which did not significantly reduce related drug arrests and Proposition 64 is that they were decriminalization or re-classification reforms, not legalization reforms (Arredondo, J. et. al., 2018 & Barno, 2023). While decriminalization efforts remove any criminal sanctions for an offense, such as arrest or prosecution, offenders may still face a civil fine (Cornell Law, 2022), whereas legalization reforms like Proposition 64 remove all legal prohibitions against limited marijuana possession and use. Reclassification reforms

typically decrease the punishment for acts, but still leave arrest and incarceration open (Barno, 2023). Future research on this matter could use a comparative analysis approach to examine whether there is a significant difference in cities, states, and/or nations who have undergone a combination of reclassification, decriminalization, and legalization efforts for marijuana to examine whether one or both significantly reduce marijuana arrest rates. A past study examining Proposition 47, a marijuana reclassification reform in California, found no significant change in arrest rates (Barno, 2023), and although the methodology and data is not identical to this one, it does suggest that there is evidence that the distinction between reclassification and legalization is significant.

If the difference between reclassification, decriminalization, and legalization continues to hold true, it holds implications for policy makers who must carefully consider the appropriate reform to take on. When constituents believe that marijuana is overpoliced or jails and prisons become overcrowded due to drug crime, it is not enough just to reclassify marijuana offenses or revoke criminal sanctions for possession and consumption. Instead, looking towards legalization may be the solution that will actually lead to a significant reduction in marijuana arrests.

This study also examined whether mayoral partisanship was a significant factor in impacting marijuana arrest rates. Current literature argues that mayors do not have a significant role in affecting policing efforts (Brownstein et al., 2021, Ferreira and Gyourko, 2009). My study, while finding no direct association between mayoral partisanship and marijuana arrests, did find that cities with Democrat mayors had a lesser proportion of their drug arrests be the result of marijuana violations after Proposition 64 was passed. While this result is not due to Democrat cities arresting less for marijuana violations, it does suggest that there are other drug crimes that Democrat mayors may prioritize and arrest in higher frequencies than Republican

mayors. Future research could explore this finding, looking at whether there is a significant partisan difference when examining the type of drug, like cocaine or opioids, or the type of crime, like possession or intent to sell.

My study did face limitations, given the time and financial constraints. Primarily, the sample size for the study was limited, as the dataset used for mayoral partisanship (de Benedictis-Kessner, 2023) is not complete, and as California cities become less populous, the availability of data decreases. My sample size only incorporates 30 cities, which is less than 10% of the 482 cities within California, meaning the results observed within this study may not hold true Statewide. I chose to incorporate the 30 most populous cities, and although no prior literature has identified variables correlated with population that impact arrest rates, they may exist and are not controlled for within this study. Additionally, there may be unaccounted reforms or other confounding factors that took place at the city, county, or State level that affected the criminalization or legalization of marijuana during the study period (2012-2020). As a result, it is difficult to discern whether Proposition 64 alone resulted in a decrease in marijuana related arrests.

Further, it is possible that the arrest data is not a holistic representation of marijuana policing. Within the FBI's Crime Data Explorer, there are drug crimes where the substance is "unspecified." The absence of this data means that my results are not entirely representative of drug crimes in each city, with a portion of marijuana arrests likely being included as an unspecified drug. Additionally, after Proposition 64 was passed, police officers could still arrest individuals under the influence of marijuana for other crimes, like public nuisance or disorderly conduct, as a way to arrest individuals for consuming marijuana without explicitly citing it as the cause. This would underrepresent the total number of marijuana related arrests. Future research

could look at whether there was a spike in other arrest categories after the passage of Proposition 64, although it may be impossible to truly understand the intent behind an officer's arrest.

There are also limitations when examining mayoral partisanship. California mayors are elected in a non-partisan manner, meaning that the partisan affiliation of mayors is based on their previous work, private identification, and/or the political party which donates to their campaign. As a result, these publically non-partisan mayors may feel less bound in aligning their policies with their party than mayors in a state with partisan elects. Future research could explore this discrepancy in a State with partisan mayors. Further, because this study was done on an annual basis, the year(s) in which a mayor is in office may not be entirely reflective in the study, which marked the partisanship of the mayor in office on January 1 of the year. A mayor hypothetically could have been elected in mid-January, meaning their policies would have impacted the city for a majority of the year, which would not be properly accounted for in my data.

While my observational study can only arrive at descriptive patterns of the relationship between marijuana reforms and corresponding arrests, my descriptive findings do provide a framework for future research to delve into. As discussed earlier, a study within cities that have undergone a combination of reclassification, decriminalization, and legalization reforms for drug crimes may be able to better understand whether legalization is the most significant in reducing arrests for the drug. In the realm of mayoral partisanship, looking at other drug crimes may illustrate a significant partisan divide among Democrats and Republicans, given the variance this study observed in the proportion of arrests due to marijuana violations. There were also certain factors that I was unable to consider in this study that are important considerations for future research. Past work has found that population density has an impact on policing for alcohol violations (Calvert et. al., 2019), which may carry over to drug crimes as well. A study where mayoral partisanship is less difficult to access, perhaps with partisan elections, may be able to explore this more. Lastly, I was unable to examine whether the distinction between a council-manager or mayor-council city government was influential in determining how much impact mayors had on marijuana policing. California only has five mayor-council cities (Heidorn, 2016), which would be a small sample size to draw descriptive findings from. However, this variable may be extremely relevant to the ongoing conversation about the impact mayors have on city policy, and should be explored further, especially when the sample has a balanced number of mayor-council and council-manager setups.

Overall, my findings suggest that marijuana legalization efforts like Proposition 64 are associated with a significant reduction in marijuana arrest rates, separating from past literature that argues that drug reform is ineffective in decreasing arrests. My results join a growing literature that finds that mayoral partisanship has no significant effect on arrest rates, while opening the door to alternate types of drug crime that may have a partisan divide.

VII. Appendix

| | (1) | (2) | (3) | (4) | (5) |
|---------------|------------|----------------|-------------|-------------|-------------|
| Variable | Drug Arres | st Drug Arrest | Drug Arrest | Drug Arrest | Drug Arrest |
| Reform | -0.175 | 1.065 * | 0.013 | 0.513 | 0.042 |
| | (0.348) | (0.428) | (0.251) | (0.411) | (0.902) |
| Democrat | | -0.070 | 0.012 | 0.295 | 0.401 |
| | | (0.382) | (0.234) | (0.379) | (0.376) |
| Democrat x | | | | | |
| Reform | | -1.090 | -0.167 | -0.642 | -0.824 |
| | | (0.576) | (0.335) | (0.437) | (0.442) |
| Income | | -0.038 ** | -0.010 | 0.002 | 0.035 |
| | | (0.013) | (0.008) | (0.024) | (0.037) |
| Education | | -0.097 ** | -0.015 | -0.059 | -0.103 |
| | | (0.023) | (0.014) | (0.069) | (0.076) |
| Hispanic | | -0.039 ** | -0.012 | -0.199 | -0.202 |
| | | (0.014) | (0.008) | (0.111) | (0.132) |
| Black | | -0.225 ** | -0.057 ** | 0.093 | 0.083 |
| | | (0.026) | (0.017) | (0.231) | (0.230) |
| Previous | | | | | |
| Year Arrest | | | 0.853 ** | | |
| | | | (0.036) | | |
| Intercept | 5.152 ** | * 13.670 ** | 2.795 ** | 13.788 * | 12.626 |
| | (0.232) | (1.248) | (0.870) | (5.625) | (7.419) |
| Number of | | | | | |
| observations | 270 | 270 | 240 | 270 | 270 |
| ** n < 01 * n | < 05 | | | | |

Appendix A: Models for Overall Drug Arrest Rate

Appendix B: Descriptive Partisan Statistics From 2012-2020.

| Variables | Consistently Democrat City | Consistently Republican City | Varied Partisanship City |
|------------------|-------------------------------|---------------------------------|-----------------------------|
| | $\Sigma Dem = 9$ | $\Sigma Dem = 0$ | $0 < \Sigma Dem < 9$ |
| Number of Cities | 10 | 7 | 13 |

| Variable [.] | (1) Drug Arrest | (2) Drug Arrest | (3) Drug Arrest |
|------------------------|--------------------|--------------------|--------------------|
| Reform | -0.847 | -0.595 | -0.301 |
| | (0.591) | (0.525) | (0.287) |
| Income | | 0.014 | 0.002 |
| | | (0.022) | (0.012) |
| Education | | -0.014 ** | -0.038 |
| | | (0.040) | (0.023) |
| Hispanic | | 0.009 | -0.010 |
| | | (0.026) | (0.015) |
| Black | | -0.004 | -0.009 |
| | | (0.053) | (0.030) |
| Previous Year Arr | rest | | 0.829 ** |
| | | | (0.059) |
| Intercept | 4.482 ** | 7.925 ** | 2.338 |
| | (0.394) | (2.824) | (1.619) |
| Number of observations | 90 | 90 | 80 |

Appendix C: Model for Purely Democratic Cities

| | (1) | (2) | (3) | |
|----------------------|-------------|-------------|-------------|--|
| Variable: | Drug Arrest | Drug Arrest | Drug Arrest | |
| D.C. | 0.110 | 0.000 | 0.550 | |
| Reform | -0.119 | 0.338 | -0.552 | |
| | (0.686) | (0.703) | (0.478) | |
| Income | | 0.055 | 0.006 | |
| | | (0.041) | (0.030) | |
| Education | | -0.363 * | 0.017 | |
| | | (0.161) | (0.125) | |
| Hispanic | | -0.066 | 0.016 | |
| 1 | | (0.069) | (0.049) | |
| Black | | 0.007 | -0.084 | |
| | | (0.129) | (0.089) | |
| Previous Year Arrest | | | 0.888 ** | |
| | | | (0.106) | |
| Intercept | 6.092 ** | 14.724 * | -0.113 | |
| | (0.458) | (5.570) | (4.380) | |
| Number of | (| | (| |
| observations | 63 | 63 | 56 | |

Appendix D: Models for Purely Republican Cities

| | (1) | | (2) | | (3) | |
|----------------------|---------|-------|---------|--------|---------|-------|
| Variable: | Drug Ar | rrest | Drug A | Arrest | Drug A | rrest |
| Democrat | -1.934 | ** | -0.333 | | -0.259 | |
| | (0.452) | | (0.530) | | (0.344) | |
| Reform | | | 0.074 | | -0.396 | |
| | | | (0.583) | | (0.360) | |
| Democrat x Reform | | | -0.680 | | 0.046 | |
| | | | (0.736) | | (0.457) | |
| Income | | | 0.019 | | 0.005 | |
| | | | (0.017) | | (0.011) | |
| Education | | | -0.159 | ** | -0.032 | |
| | | | (0.042) | | (0.027) | |
| Hispanic | | | 0.005 | | -0.007 | |
| | | | (0.023) | | (0.014) | |
| Black | | | 0.007 | | -0.011 | |
| | | | (0.043) | | (0.027) | |
| Previous Year Arrest | | | | | 0.843 | ** |
| | | | | | (0.054) | |
| Intercept | 6.039 | ** | 8.605 | ** | 2.079 | |
| 1 | (0.347) | | (2.173) | | (1.419) | |
| Number of | | | | | | |
| observations | 153 | | 153 | | 136 | |

Appendix E: Models for Purely Partisan Cities

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