Low-Level Offenses:
The Cost of Enforcement in New Jersey Municipalities

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A report prepared for New Jersey Policy Perspective by graduate students of the Edward J. Bloustein School of Planning and Public Policy at Rutgers, The State University of New Jersey

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Executive Summary

This study analyzes the municipal costs associated with low-level offense enforcement by examining (1) the relationship between low-level offense enforcement and municipal spending and revenues, and (2) if poverty and race impact spending on low-level offense enforcement. A random sample of New Jersey municipalities with a population greater than 3,000 was selected for the study. The project utilized spending and revenue figures for police departments and municipal courts from 2015 municipal budgets. Data from the New Jersey Judiciary's Municipal Court Statistics on "disorderly persons" and "petty disorderly persons" court filings, which include marijuana possession under 50 grams, possession of drug paraphernalia, disorderly conduct, simple assault, petty theft, shoplifting, resisting arrest, and trespassing were used as a measure of low-level offenses.

Findings indicate that:

- Low-level enforcement has little impact on municipal spending. For each additional low-level offense enforced, it costs a resident $0.04 in police and court spending. The research team believes this low amount is due to the high fixed costs of operating a police department.
- Police spending makes up the vast majority (approximately 95 percent) of total justice spending.
- Each time an additional low-level offense is enforced per capita, courts generate less than a penny in revenue on behalf of each taxpayer.
- An analysis that includes fixed costs found the median amount municipalities in our sample spent on low-level enforcement was $17 per capita. Due to data limitations, this does not include health care and pension costs for police and court staff, or prosecutor and public defender costs for the courts.
- On average, the municipalities spent an estimated 1.3% of their budget on low-level enforcement, with a range of 0.2% to 3.5%.
- A case study of large New Jersey cities and municipalities that have lower median income and a higher proportion of black and Hispanic residents found they had higher rates of overall low-level offense enforcement and spending, but lower arrest rates for marijuana possession, than towns that are more white and affluent.

Though the cost of low-level enforcement is practically low, several important conclusions can be made. Police spending dominates total spending on enforcement, greatly overshadowing court spending. This suggests that reform efforts to reduce justice spending should be focused on police departments specifically. But, due to the minor cost of each additional low-level offense, decreasing enforcement alone is not enough to make a large budgetary impact. Efforts to reduce spending should instead focus on high fixed costs. It is important to note that despite a low-budgetary impact, there are additional costs to communities due to this policing approach that are beyond the scope of this report.

The research team also found the demographic composition of a municipality (race, gender, and age) does not play a significant role in describing the differences in low-level enforcement rates within the sample. Court filing data does not include race so it was not possible to compare the rates of arrests, summons, and citations for blacks, Hispanics, and whites.

Additionally, a case study of seven large municipalities was completed using a different method that includes fixed costs. It showed that these cities, which have more black and Hispanic residents and a lower median income than the sample, spend more on low-level enforcement. These cities also had lower arrest rates for marijuana possession than the sample average.

The vast majority of municipal court filings consist of traffic and parking violations (86%). Future research should more closely examine the relationship between traffic and parking violations and justice expenditures in New Jersey, which may be more sensitive to being used for revenue generation than low-level offense enforcement.

The FBI Uniform Crime Report (UCR) data are of questionable validity for a number of reasons. First, police department reporting is voluntary; there have been reports of discrepancies between police records and their corresponding FBI report (ACLU 2015). Second, there is an issue of categorization. Half of all arrests in New Jersey fall into a category called "all other offenses." As a result, it is impossible to ascertain exact accounts for the low-level offenses contempt of court, drug paraphernalia, and trespassing. Third, the UCR does not require tracking and reporting the number of Hispanic individuals arrested, making it difficult to conduct research on police activity in Hispanic communities. For increased transparency in police department activity, a better arrest tracking system is needed than the current UCR.

Project Overview

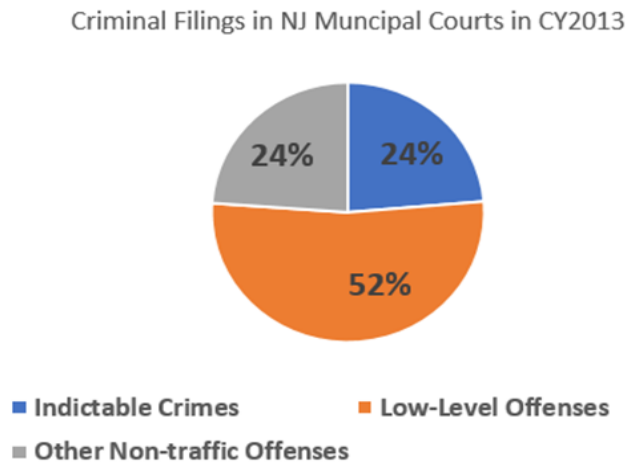
Numerous stakeholders have questioned the enforcement of low-level offenses, arguing that it is an expensive practice that has little impact on community safety (ACLU 2015; Henrichson, Rinaldi, and Delaney 2015; Miron and Waldock 2010; Simms 2014; Subramanian et al 2015). Previous research has also documented racial and economic disparities in such enforcement (ACLU 2013 and 2015). This study investigates (1) what is the relationship between low-level offense enforcement and municipal spending and revenues; and (2) do poverty and race impact spending on low-level offense enforcement.

Those questions are investigated using two approaches. In the first, statistical analysis is used to examine the influence of low-level arrests and court filings on police and court spending. The second approach estimates what municipalities spend on low-level enforcement, and makes comparisons to a case study of seven large, urban municipalities. As an exploratory study of a sample of New Jersey municipalities, this report examines the relationships between low-level offenses, race, poverty, police and court spending, and court revenue, discusses implications and recommends further research.

Low-Level Offenses and Enforcement Costs

New Jersey statute categorizes low-level, non-criminal offenses as "disorderly persons" (DP) and "petty disorderly persons" (PDP) offenses (defined in N.J.S.A. 2C:1-4). Often called misdemeanors, a DP offense can carry a fine up to $1,000 and six months in jail, while a PDP carries a fine up to $500 and thirty days in jail. DP and PDP offenses include marijuana possession under 50 grams, disorderly conduct, simple assault, petty theft, shoplifting, resisting arrest, and trespassing. These cases are heard in municipal court and, between 2010 and 2014, there were 430,429 DP and PDP offenses filed on average statewide in the Municipal Court system (New Jersey Judiciary 2017a). As shown in Figure 1, low-level filings (DP and PDP offenses) make up the majority (52%) of criminal court filings in the state's municipal courts compared to higher level indictable crimes that are later sent Superior Court and other criminal offenses (New Jersey Judiciary 2017a).

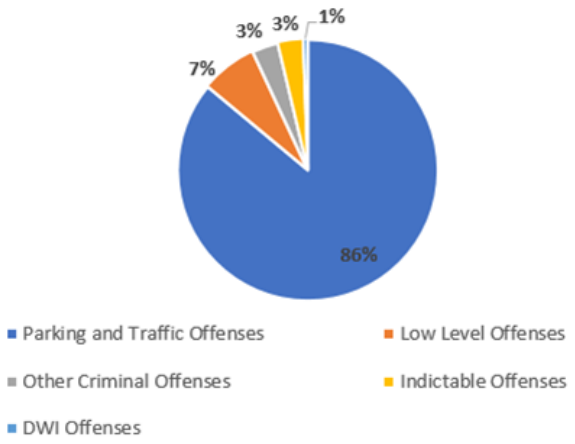
Figure 1. Criminal Filings in New Jersey Municipal Courts in CY2013



Please note: The "Other Non-Traffic Offenses" category includes municipal ordinance and fish and game violations. This data was obtained from the New Jersey Judiciary (2017).

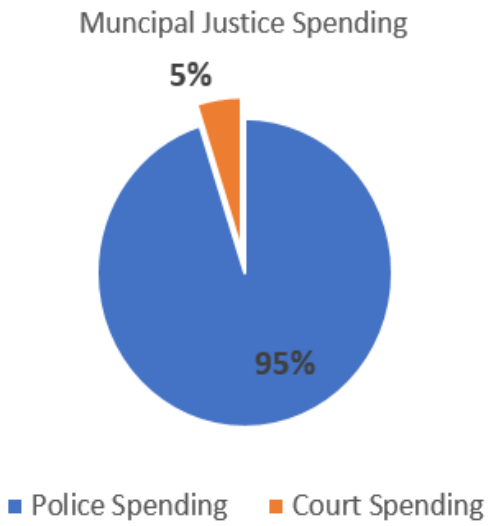
The majority of Municipal Court activity, however, is parking and traffic violations. As shown in Figure 2, in Court Year 2013, of just over 6 million filings in municipal courts statewide, 5.2 million were parking and non-DWI traffic Judiciary 2017). This study does not examine spending and other resources dedicated to traffic and parking violation enforcement, which accounts for most court filings, and then presumably most police activity.

Figure 2. Municipal Court Filings by Offense Type in CY2013



Data obtained from New Jersey Judiciary (2017)

Figure 3. Municipal Justice Spending



low-level enforcement requires municipal spending on police, courts, and incarceration. Based on our analysis of municipal budgets, the majority of municipal spending on all crime enforcement is concentrated in police spending as shown in Figure 3. Therefore, reductions in police spending would have a much larger budgetary impact.

Municipal Courts handle the vast majority of court matters in the state. The bulk of court spending supports judge and staff salaries, interpreters, equipment, security services, police overtime, administrative services, facility maintenance, and prosecutor and public defender payments (New Jersey Judiciary 2010). One-quarter of New Jersey municipalities participate in a shared or joint court arrangement in an effort to reduce costs (New Jersey Judiciary 2010). In a shared court, individual courts share space, staff and supplies, but municipalities can still appoint their own judge or administrators. Under a joint court, all services are consolidated and judges are appointed by the Governor. As of 2010, there were 83 shared municipal courts in the state, the majority located in Monmouth, Burlington, Hunterdon and Warren Counties, and 21 joint municipal courts that serve 59 municipalities (New Jersey Judiciary 2010).

Individuals awaiting trial, sentencing, or conviction in the municipal court are housed in county correctional facilities. A 2015 Vera Institute of Justice report found that nationwide 75% of the inmate population was incarcerated for "nonviolent traffic, property, drug or public order offenses" and local jurisdictions spent $22.2 billion on corrections (Subramanian, R. et al. 2015, 5). The Bureau of Justice Statistics' *Jail Inmates in 2015* survey of local inmate populations, found 27% of inmates were held for a misdemeanor offense (Minton and Zeng 2016).

In New Jersey, a 2013 study found about 7% of the county jail population were individuals sentenced in a municipal court and about 7% were individuals awaiting trial or sentencing in a municipal court, about 1,780 individuals (Van Nostrand 2013). The most common municipal court charges were contempt of court, drunk driving, and shoplifting or theft. Under a nationwide median estimate of an $101 average daily cost to house an inmate at a county facility, New Jersey taxpayers pay $9,006 to incarcerate each individual who is held the average 89 days in a county facility for Municipal Court pretrial (Henrichson, Rinaldi, and Delaney 2015; Van Nostrand 2013).

Trends in Low-Level Offense Enforcement

Much of the research on low-level enforcement has examined its roots in "broken windows" policing and the potential for profit motive in cash-strapped municipalities. "Broken windows" policing, based on the premise that the enforcement of minor offenses will prevent more serious crime, was widely adopted by police forces in the 1990s (Kelling and Wilson 1982, American Civil Liberties Union 2015; hereafter ACLU, Subramanian et al. 2015). Opponents argue this has resulted in police practices, such as "stop and frisk" and "zero tolerance," that increase low-level enforcement (ACLU 2013). Studies of these tactics have found they do not reduce crime overall and target low-income communities of color. The National Research Council found "there is not strong evidence that aggressively responding to minor offenses, particularly with arrest, effectively reduces or prevents more serious crime" (Subramanian et al. 2015). The ACLU (2013) found that there is no correlation between these marijuana possession arrests and crime reduction.

In New Jersey, an ACLU report found black residents were between 2.6 and 9.6 times more likely than Whites to be arrested for low-level offenses in the four high population, urban municipalities included in their study (2015, 4). The report also found higher arrest levels for Hispanics compared to Whites. The authors attributed these racial disparities to officers' ability to exercise discretion in low-level enforcement (ACLU 2015, 9). It's important to note that the analysis presented in this report differs from the ACLU study in its methodology. The ACLU used open records requests to acquire arrest and race data from police departments, compared these to FBI arrest records, and analyzed both in relation to Census data on the racial composition of the communities under study.

The ACLU has also criticized police performance measures that are tied to funding as an incentive to increase low-level enforcement (2015). The federal government provides grants, such Byrne Justice Assistance Grants (JAG) for police staff and drug enforcement programs, based on performance measures which include total number of arrests (ACLU 2013, Simms 2014). In 2014, 46 municipalities in New Jersey qualified for a total of $2,114,397 in federal JAG grants (Bureau of Justice Assistance 2014). The largest recipients were Newark, Jersey City, Camden, Paterson, Trenton, and Elizabeth. The state provides Safe and Secure Communities grant funding for additional officers or support staff and currently supports 345 officer positions and 13 staff members in 160 municipalities (NJ Office of the Attorney General 2017).

Beyond grants, municipal court revenue has been examined as a potential driver of low-level enforcement. A US Department of Justice study of the Ferguson Missouri Police Department and Municipal Court found that minor offense enforcement was being used to increase municipal revenue (2015; hereafter USDOJ) . In 2016, *The Asbury Park Press* in New Jersey examined 86 towns in

Monmouth and Ocean counties. They found seven municipalities rely on court revenue to fund over 5% of their budgets, and that the revenues had increased 39% on average between 2010 and 2015 (Kachmar 2016). According to their interviews with lawyers and former judges, there is significant pressure to generate revenue, and there was evidence that one municipality replaced a judge in an effort to boost revenue (Kachmar 2016).

Some argue that the spending required to enforce low-level offenses could be used in more productive ways. The ACLU (2015, 12) found that when individuals were charged with a low-level offense in the four New Jersey cities they studied, over 70% of the charges were not associated with a more serious arrest as defined by the FBI. By reducing focus on low-level offense enforcement, police departments can target resources towards solving serious crimes. Nationally, approximately 50 percent of violent offenses and 80 percent of property crimes were not solved in 2010 alone (ACLU 2013, 115).

Low-Level Marijuana-Related Offense Enforcement

In terms of the cost of low-level enforcement, much of the research has focused on drug prohibition. In New Jersey, marijuana possession under 50 grams, drug paraphernalia possession, failure to turn over marijuana to a police officer, and being under the influence of marijuana are all low-level offenses (NORML 2017). Possession over 50 grams, distribution, cultivation, and sale of paraphernalia are all indictable offenses, handled in Superior Court. In New Jersey, about 365,900 people age 21 and over are estimated to use marijuana regularly, using 2.53 million ounces a year (McKoy and Rosmarin 2016). In 2014, there were 24,689 marijuana and hashish possession arrests statewide; note the number of arrests for possession under 50 grams alone is not available (NJ State Police).

A 2010 study on cost savings from federal and local government drug legalization found legalizing marijuana would save $183.039 million in New Jersey (Miron and Waldock 2010, 32-33). In New Jersey, the researchers estimated marijuana spending accounted for 22% of all state-level expenditures on drug prohibition (Miron and Waldock 2010, 6). An ACLU (2013) study estimated New Jersey spent $127 million on enforcing marijuana possession prohibition. Both cost figures include police spending on arrests, judiciary spending on prosecution, and incarceration. At this spending level, New Jersey has the eighth highest per capita fiscal expenditures for enforcing marijuana possession laws in the country (ACLU 2013, 23). New Jersey was also eighth nationwide for most marijuana possession arrests with 21,659 arrests, 35.1% of which were black individuals (ACLU 2013, 15).

A report by the Drug Policy Alliance report found that in New Jersey roughly 17% of county inmates were incarcerated with drug charges as the primary charge, however, the researchers did not specifically report the number of inmates incarcerated on marijuana charges (Van Nostrand 2013). The trend in New Jersey's Superior Courts for higher level drug offenses has been toward less prison sentences; the number of incarcerated drug offenders statewide has dropped from 10,385 in 1999 to 5,224 in 2012 (Chesler 2013).

Impacts of Low-Level Enforcement on Municipal Spending

The research team explored the relationship between low-level enforcement and municipal spending in three ways: (1) the direct relationship between low-level offenses filed in municipal courts on police spending, court spending, and court revenue; (2) spending and revenues when demographic factors are

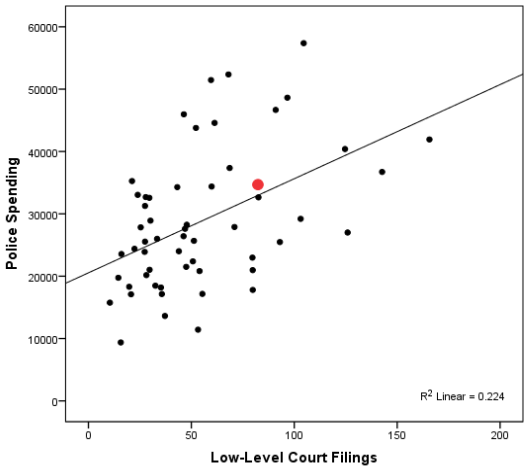
also considered; and (3) a per capita estimate of spending on low-level enforcement in a random sample of New Jersey municipalities, compared with a case study of seven cities with high populations.

Methods

To examine whether reductions in low-level enforcement could result in cost savings for municipalities in the form of lower police and court spending, the research group created an original dataset. First, a random sample of New Jersey municipalities was pulled. Then data for demographic, arrest, and budget indicators at the municipal level was compiled. The New Jersey Judiciary's Municipal Court statistics were used for court filing data and spending and revenue figures were taken from each municipality's 2015 budget. Demographic data were taken from the American Community Survey. Arrest data was also collected from the FBI UCR dataset, but ultimately not used based on concerns outlined in the findings section and Appendix A.

Using this dataset, the study relied on two analysis techniques. The first analysis used was the statistical modeling technique linear regression, which examines how fluctuations in low-level enforcement influence municipal budgets, specifically police spending, court spending, and court revenue. The second analysis is a cost calculation of low and high estimates of spending on low-level enforcement using a methodology developed by Harvard economist Jeffrey Miron (2010). A full description of the methods used in the dataset creation and statistical testing can be found in Appendix A. Methodology used in the municipal cost analysis can be found in Appendix B.

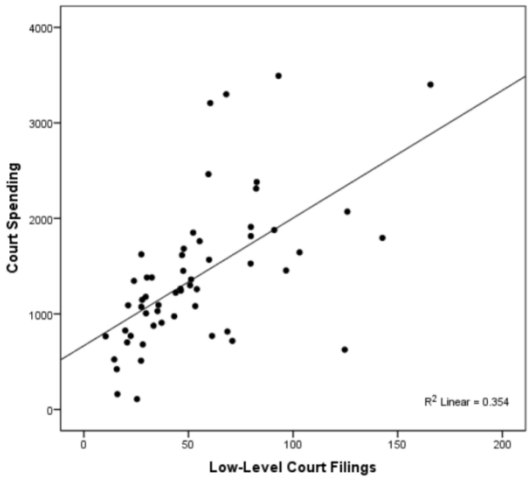
Figure 4. As court filings increase, police spending does too.



Direct Relationships

The research team relied on scatterplots to visually represent the relationship between low-level court filings and the budget indicators of police and court spending and court revenue. Each dot on the scatterplots in Figures 4, 5 and 6 represents a municipality. For example, the red dot 5 in Figure 5 is Salem City. The line running through the graph shows the direction of the relationship. When the dots cluster closely around the line, it signals that the indicators are closely related, meaning changes in one are a good predictor of what will happen in the other.

Figure 5. As court filings increase, court spending does too.



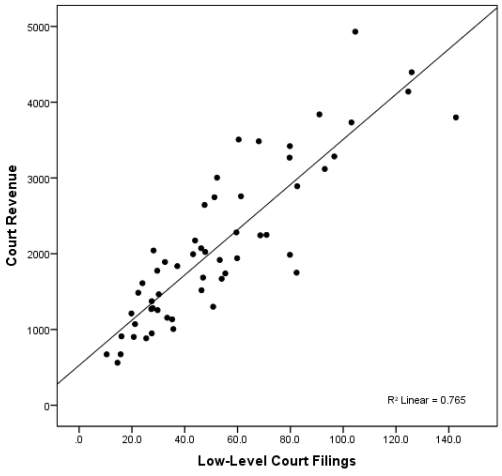
The horizontal lines, or x-axes, show the range of low-level citations, summons, and arrests per 100 residents in New Jersey municipalities. The vertical lines, or y-axes, represent police spending and court revenue per 100 residents.

Looking at the red dot's position between the two axes, it makes sense that in 2014 for every 100 residents in Salem, the city spent $35,689 on police and the courts processed 82 low-level offenses.

Low-level Court Filings have a positive relationship to both police spending and court revenue, as shown by the upward slope of the line in Figures 4, 5 and 6. This means that as court filings increase, so does police spending, court spending, and court revenue.

But the spending and court revenue scatterplots differ in one important way. It is clear that the dots are located much more tightly around the line in Figure 6, indicating they are closely related and that changes in one are a good predictor of what will happen in the other. The research team can say with confidence there is a very strong relationship between court revenue and low-level filings. Large upticks in low-level summons, citations, and arrests strongly predict courts will bring in higher amounts of revenue. The same fluctuation in low-level crime, on the other hand, may nudge police spending upward, but it's more likely that other factors have a larger impact.

Figure 6. Court filings and court revenue have the strongest relationship.



Low-Level Enforcement and Demographic Impacts on Spending

Across the state of New Jersey, regions, towns, and cities vary greatly in their socio-demographic profiles. Positing that black neighborhoods experience more intense "broken windows policing" and poorer communities have a smaller absolute tax base, the research team wanted to explore what impacts these demographic factors would have on the budgetary indicators. Therefore, the team conducted three statistical analyses to examine how low-level enforcement, the proportion of black residents, and poverty rate impact the three spending and revenue indicators. The research team found that a quarter of spending differences could be explained by differences in low-level enforcement rates, race, and poverty rate (see Appendix A for full description of methodology and calculations used to determine the figures presented below).

The results of those analyses are:

- Each time an additional low-level offense is enforced, it costs a resident $0.03 in police spending.
- Each time an additional low-level offense is enforced, it costs a resident less than one cent in court spending.
- Each time an additional low-level offense is enforced, courts earn a penny in revenue on behalf of each resident.

The analysis also found regardless of poverty rate and low-level enforcement rate, a one percent increase in the proportion of black residents is associated with:

- A $4.84 reduction in police spending
- A $0.44 drop in court spending
- A $0.27 decrease in court revenue

In addition, when taking race and enforcement rates into account, a one percent increase in the per capita poverty rates leads to an increase in:

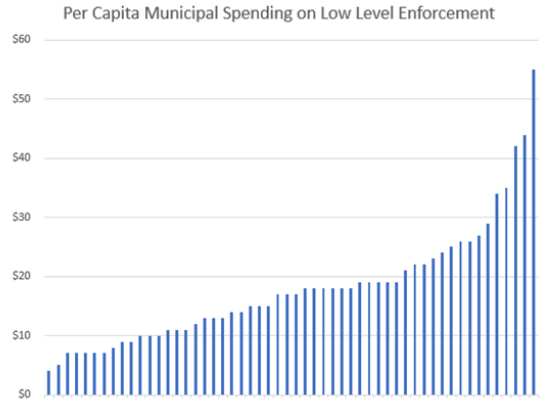
- police spending of $3.22

- court spending by $0.03
- court earnings of $0.14

Our analysis found that gender and age do not have a significant influence on municipal justice spending and revenue. The proportion of Hispanic residents has a strong relationship with total low-level court filings and court spending. Ultimately the research team opted to leave it out of the advanced statistical models because the census reports Hispanics of all races as one category and New Jersey has one of the highest percentages of Hispanics who identify as black. The research team also tested whether the demographic factors influence the number of court filings in a municipality (without including spending in the models). None of the demographic indicators had a significant impact. Further research is needed to determine if other factors such as education, lifestyle, policing behavior, or environmental factors are driving low-level offense enforcement.

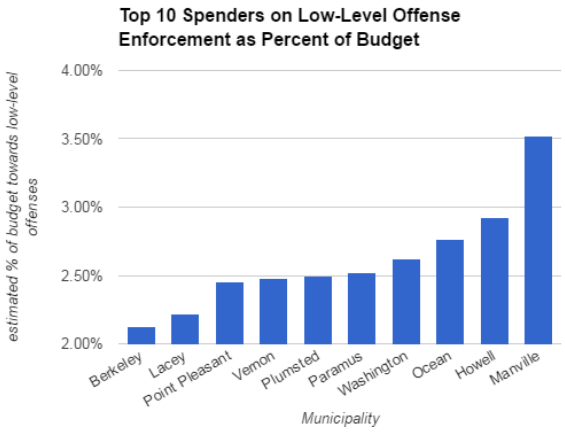
Cost Analysis and Case Study of Large Municipalities

Figure 7. Per Capita Municipal Spending on Low Level Enforcement



NOTE: This estimate includes the fixed costs of municipal police and court spending but excludes pension and benefits for police and court spending, and prosecutor and public defender salaries in court spending.

Figure 8. Top 10 Spenders on Low-Level Offense Enforcement as Percent of Budget in Our Sample



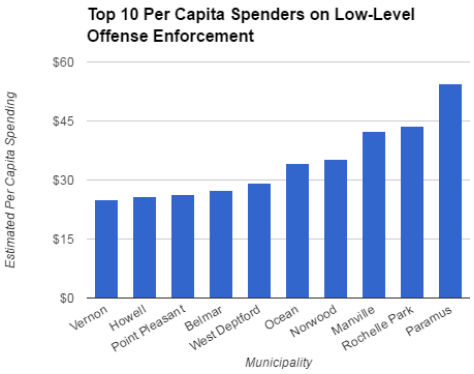
Municipal budgets and low-level offense court filings were also analyzed to estimate how much municipalities spent on low-level enforcement in 2014. This method uses the number of low-level offenses filed in municipal court as a proxy for the allocation of police and court resources since these represent all the arrests, summons and citations for these offenses (see Appendix B for full description of methodology used). It's important to note that these estimates include the fixed costs involved with police departments and courts, which is why it differs so greatly from the statistical analysis. However, this is a useful way to compare municipalities to one another.

According to this analysis, the median amount spent on low-level enforcement is $17 per capita in the random sample of 54 municipalities. On average, the municipalities spent an estimated 1.34% of their budget on low-level enforcement, with a range of 0.23% to 3.52%.

The top 10 municipalities with the highest percent of their budget going towards low-level offenses were: Manville Borough (3.5%), Howell Township (2.9%), Ocean Township (2.8%), Washington Township (2.6%), Paramus Borough (2.5%), Plumsted Township (2.5%), Vernon Township (2.5%), Point Pleasant Borough (2.5%), Lacey Township (2.2%), and Berkeley Township (2.1%).

The top 10 spenders per capita were: Paramus Borough ($55), Rochelle Park Township ($44), Manville

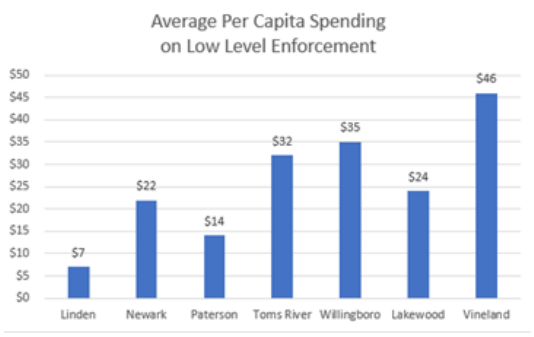
Figure 9. Top 10 Per Capita Spenders on Low-Level Offense Enforcement in the Sample

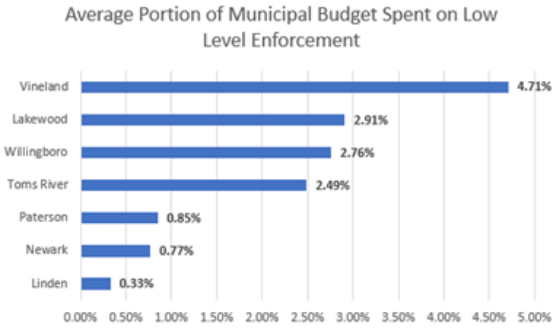


Borough ($42), Norwood Borough ($35), Ocean Township ($34), West Deptford Township ($29), Belmar Borough ($27), Point Pleasant Borough ($26), Howell Township ($26), and Vernon Township ($25).

Seven large cities and municipalities were also analyzed separately as a case study, and compared to the random sample: Linden, Newark, Paterson, Toms River, Willingboro, Lakewood, and Vineland. While the random sample had an average median income of about $88,400 and was on average 74% White, this group had an average median income of $52,000 and was 55% White. However, when Toms River and Lakewood are removed, which are both about 90% White, the average comes down to 41% White. The case study municipalities showed a higher average rate of low-level enforcement, using the ratio of low-level court filings to total court filings as an indicator. In the random sample, the municipalities had an average of 8.5% of their court filings as low-level offenses, while 13% of the court filings in the case study cities were low-level. Interestingly, the marijuana arrest rates tell a different story. The average marijuana arrest rate per 100,000 persons was found to be 268 for the random sample, and 212 for the case study municipalities.

Figure 10. Spending Patterns in Case Study Municipalities





As noted further in the Recommendations section and in Appendix A, the arrest data from the FBI UCR has significant limitations. Counting all low-level offenses is problematic, but that is not a problem with marijuana possession arrests. The validity is questionable since reporting is voluntary, and research has documented disparities between police department records and their UCR submissions (ACLU, 2015). However, over time the arrest data has reliability, and can be used to look at difference between groups, such as in this case study comparison.

Overall the case study municipalities had higher spending in terms of totals, per capita, and as a percent of budget. Linden, Newark, Paterson, Toms River, Willingboro, Lakewood, and Vineland spent an estimated total of $17,749,332 on low-level enforcement in 2014, with Newark spending the bulk, at $6,209,584.

These municipalities spent on average 2.12% of their municipal budgets on low-level enforcement: Vineland (4.7%), Willingboro (2.8%), Toms River (2.5%), Lakewood (2.9%), Newark (0.8%), Paterson

(0.9%), Linden (0.3%). They spent on average $26 per capita: Vineland ($46), Willingboro ($35), Toms River ($32), Lakewood ($24), Newark ($22), Paterson ($14), and Linden ($7). Linden stood out as a low-end outlier, with an estimated $7 per capita and 0.3% of its municipal budget going towards low-level enforcement. Compared to the other municipalities, Linden had a very low percentage of low-level offenses filed in court in relation to their traffic and parking offenses. In Vineland, which had the highest per capita spending on enforcement, and portion of municipal spending, 25% of court filings were low-level offenses.

Though the seven cities analyzed here represent a small case study, these findings suggest that communities that are more racially diverse and have lower median income experience higher rates of overall low-level offense enforcement. They also appear to spend more on enforcement, both as a per capita cost to taxpayers, and as a percent of their municipal budgets. However, these communities appear to experience lower arrest rates for marijuana possession than more affluent, less diverse communities, and this may warrant further examination. This finding may indicate that in larger cities, police don't enforce marijuana possession as much because they are busier enforcing other more serious offenses, or it could mean they spend more time enforcing the other low-level offenses associated with "broken windows" practices, such as disorderly conduct, loitering, etc., or a combination of both. In wealthier, whiter communities, police may spend more time enforcing marijuana possession because there is not as much opportunity to do the "broken windows" type enforcement in less urban areas.

Concerns with Low-Level Offenses in FBI Arrest Data

Although FBI arrest data were collected and analyzed for each municipality under study, ultimately they were found to be of questionable usefulness for measuring the volume of overall low-level enforcement in a community.[1] First, police agency reporting is voluntary, so the measure lacks some validity. Previous work by the ACLU (2015) found discrepancies between the arrest numbers in the FBI dataset and as reported by municipalities under Open Public Records requests.

Second, the FBI arrest reporting has a large category called "All Other Offenses" which makes up half of all arrests in New Jersey and combines some misdemeanors and indictable crimes (USDOJ, 2013). The low-level offenses from this category, which include possession of drug paraphernalia, contempt of court, and trespassing, could not be separated out and counted. The only offenses that could be counted for the analysis were marijuana possession (under and over 50 grams), disorderly conduct, vagrancy, curfew, liquor law violations, and gambling.

Finally, in comparing the FBI arrest data to the low-level offenses filed in municipal courts, there were significant differences in the numbers, even when accounting for the fact that the court filings count the total number of charges, while the FBI UCR counts the number of individuals arrested. As a result, the statistical analysis showed that the court filing data had a strong relationship to police spending, court spending and court revenue, while the FBI arrest data did not. Looking at Figures 11 and 12, it is clear that the dots are clustered much more tightly around the line in Figure 11 than they are in Figure 12.

[1] For a more in depth explanation of why the court filing indicator is a better predictor of low-level enforcement than the FBI-UCR, please see Appendix A: Limitations with FBI UCR Data.

This signals that court filings predict court revenue much better than low-level arrests from the UCR data. The steepness of the line in Figure 11 also indicates that the relationship between court filings and court revenue is much stronger than low-level arrests. Due to these limitations and discrepancies between the court filing and FBI UCR data, the FBI dataset was not used for statistical analysis in our study (see Appendix A for further details).

Figure 11. Court Revenue and Low-Level Court Filings Scatterplot

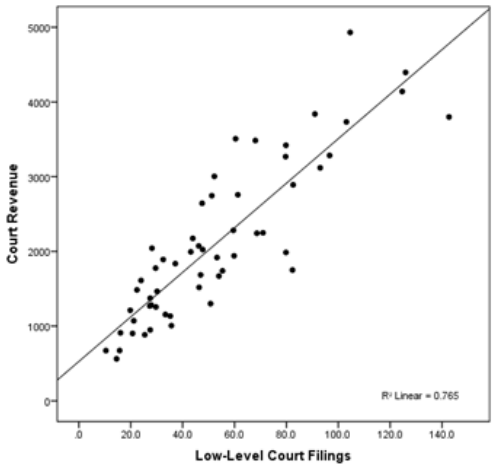
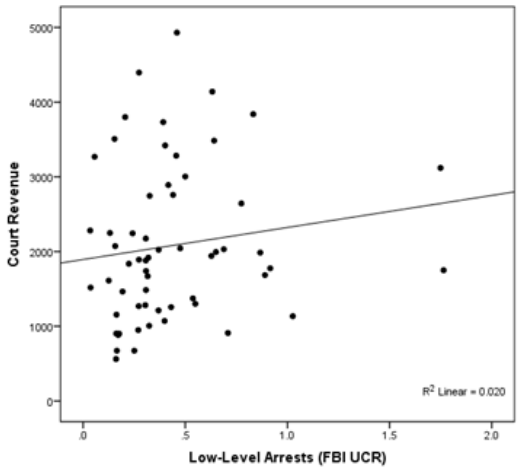


Figure 12. Court Revenue and Low-Level Arrests (FBI UCR)



However, the UCR arrest data is a reliable measure over time, so it's possible to glean useful information from looking at arrest trends. It's also possible to make useful comparisons between groups, as was done in the case study analysis of large municipalities and cities, with marijuana possession arrests specifically (see Appendix B for full methodology on marijuana possession arrest analysis).

Conclusions

The following conclusions can be made based on the results of our analysis:

1. **Low-level enforcement has little impact on municipal budgets in terms of police and courts.** For each additional low-level offense enforced, it only costs a resident $0.04 in police and court spending. The research team believes this is due to the high fixed costs of operating a police department.

2. **Police departments have high fixed costs, reducing the potential budget impact of a drop in low-level offense enforcement.** Our analysis found that low-level court filing rates explain 33% of the difference in police spending between municipalities even though it has little practical impact. The small dollar amount of low-level enforcement seems to indicate that the high fixed costs of policing, including healthcare and pensions, drive overall spending, a finding which is consistent with many budget analyses in New Jersey.

3. **Police spending makes up the overwhelming majority (95%) of justice spending for municipalities, while court spending is less than five percent.** Therefore, changes to low-level crime enforcement policies will not have any significant impact on court system spending, and if municipalities want to lower justice costs, they should focus on police spending.

4. **The demographic composition of a municipality (race, gender, and age) did not play a significant role in describing the differences in low-level enforcement rates within the sample.** Court filing data does not include race so it was not possible to compare the rates of arrests, summons, and citations for blacks, Hispanics, and whites.

5. **Large, racially diverse municipalities and cities have more overall low-level offense enforcement, but lower arrest rates for marijuana possession based on FBI data.** According to the case study findings, large New Jersey municipalities and cities that have higher percentages of black and Hispanic residents and lower median income, also appear to spend more per capita and as a percent of their budget, on low-level offense enforcement.

6. **Traffic and parking violations are the vast majority of municipal court filings (86%), and therefore may be more inviting as a source for revenue generation than low-level offense enforcement.** Conversely, statewide low-level offense enforcement made up only 7% of municipal court filings. Municipalities in our sample had an average 8.97% low-level offense court filing rate, but there were municipalities that exceeded the statewide and sample average by a significant amount and could be investigated further. Low-level offenses accounted for 34.89% of court filings in Millville, 32.19% in Salem City, 20.33% in West Deptford, and 20.15% in Vernon Township.

7. **FBI Uniform Crime Reporting (UCR) data is not the best measure for analyzing overall low-level offense enforcement in communities.** Problems include the fact that reporting is voluntary, half the arrests in New Jersey are grouped into one category called "All Other Offenses", and the UCR does not report the number of Hispanic individuals arrested. For increased transparency in police department activity, a better arrest tracking system is needed than the current UCR.

Recommendations & Discussion for Further Research

- This dataset can be expanded by adding more municipalities (cases) to strengthen the findings and provide more reliability to current findings. The findings presented here are based on a small sample (less than 50). The sampling error for these municipalities is +/- 12%. A larger dataset may highlight a stronger relationship between demographic factors, municipal spending, and low-level enforcement.

- The fact that race was not a significant driver of low-level court filings in the most sophisticated statistical analysis does not mean these results are at odds with the ACLU findings for racial disparities in low-level enforcements (2015). Since this analysis examined court filings, which have no data on the race of the defendants, it was not possible to compare these to the racial composition of the communities being analyzed.

- Longitudinal data could be added to the dataset to use a methodology developed by the Vera Institute of Justice to determine municipal spending on low-level enforcement to develop an additional measure of per capita spending.

- About 25% of municipalities in the state already participate in a joint or shared court in an effort to reduce their spending. However, within in our dataset, court spending was a very small portion (<5%) of a municipality's overall justice spending. To achieve real reductions in

expenditures, more focus would need to be made on police spending, which was over 95% of justice spending.

- In our sample, shore towns had a very different relationship between low-level enforcement and police spending than other communities around the state, and this may merit further examination.
- Some of the municipal police departments in our sample received federal Byrne grants and state Safe and Secure Communities grants. Previous studies have posited that communities that receive these funds have an incentive to increase arrest rates to continue to qualify for grants as total arrests are reported on the grant application. Our sample was not large enough to determine if the municipalities receiving such funds are systematically different than other communities in New Jersey, but this would be an interesting question to investigate with a larger dataset.
- Additional research could be done to determine how municipal revenue is generated in the court system. This research group did not have the data available to determine what portion of court fines resulting from enforcement action went to the municipalities and the amount that went back to the state. The research team was also unable to determine what low-level enforcement resulted in municipal ordinance violations; the municipalities keep all the fines collected for these offenses and do not remit anything back to the state.

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Appendix A: Statistical Methodology and Findings

To examine whether reductions in low-level enforcement could result in cost savings for municipalities in the form of lower police and court spending, the research group created an original dataset based on a random sample that included demographic, arrest, and budget indicators at the municipal level.

Using this dataset, the study relied on two analysis techniques. This appendix describes the linear regression methodology that enabled us to model how fluctuations in low-level enforcement influence municipal budgets. The research group also calculated low and high estimates of spending on low-level enforcement based on Harvard economist Jeffrey Miron's methodology (2010), explained in Appendix B.

Dataset and Variable Creation

The 62 municipalities included in this study were selected randomly. Originally, a random sample of 75 municipalities was drawn. Four had a population of less than 3,000 residents and were removed. The other nine were removed due to a county supported police department (Camden), joint courts, correctional facilities housed within their boundaries, or lack of budget data.

Demographic Indicators

Because municipalities across the state vary by population, racial composition, median income, and poverty rate, the American Community (ACS) Survey 5-Year Estimates were utilized to create demographic variables. ACS is a national survey that relies on monthly samples to produce annual updates on the areas formerly surveyed by the decennial census. Unlike the census, sample variability in the ACS is represented by a margin of error. Since the error caused by our small sample of 62 municipalities eclipses the variability in the ACS, the group did not include the demographic variables' margins of error within our analysis.

Low-Level Offense Enforcement Indicators

Two datasets provided indicators for the enforcement of low-level offenses. The group drew upon arrest data from the Uniform Crime Report (UCR) compiled by the Federal Bureau of Investigation (FBI) to create variables that reflect marijuana possession, disorderly conduct, total low-level offenses (based on a limited number of categories available in the dataset), and total arrest rates. The UCR counts one arrest for each time a person is arrested, cited, or summoned.

The UCR data has serious limitations. Police agency reporting is voluntary, so the measure lacks some validity. Previous work by the ACLU found discrepancies between the arrest numbers in the FBI dataset and as reported by municipalities under Open Public Records Act requests (2015). Categorization presents another problem. The UCR allows police departments to report within an "all other non-traffic offenses" category and it was impossible to ascertain how many low-level offenses were included in this group. As we did not have enough time to file open records requests with each municipality, the team relied upon UCR data to capture arrest data at the municipal level.

We also used the state Judiciary's Municipal Court statistics dataset for Court Year 2013 to create a second indicator for low-level enforcement. This dataset includes the number of Disorderly Person (DP) and Petty Disorderly Person (PDP) offenses and total filings in a Court Year, which spans from July to June. Court filings are counted per charge, not per defendant, and a defendant can have more than one charge. As a result, the raw number of DP and PDP court filings is higher than how many interactions

individuals actually had with police in our sample of municipalities. Nonetheless, as mentioned throughout this report, the rate of DP and PDP filings is a more accurate representation of low-level offense enforcement than the variables created using FBI UCR data.

Spending Indicators

2015 municipal budgets were analyzed to collect data for 2014 expenditures for total appropriations, police spending, court spending, and court revenues. Budgets vary in how prosecutor, public defender, and "other expenses" are documented. These public counsel expenses are often rolled into general legal department line items, which include expenses irrelevant to our study, such as salaries for corporation counsel or land use attorneys. As a result, we excluded prosecutor and public defender expenditures for all municipalities in the sample, and our court spending variables are conservative. The police and court spending variable should also be viewed as a low estimate because pension and benefit expenses were not included.

Using our original dataset, we created each independent, dependent, and contextual variable. The independent variables created using judicial statistics and FBI UCR data included low-level court filings, low-level arrests, marijuana arrests, and disorderly conduct arrests. Dependent variables relied on municipal budget data to capture police spending, court spending, and court revenue.

As noted in the literature review, research links low-level enforcement to race and income. In response, we drew upon the American Community Survey to create variables that control for demographic differences in the proportion of black residents and the poverty rate of cities and townships across the state. We did not include Hispanic as a demographic variable because the ACS reports Hispanics of all races as one category. Since New Jersey has one of the highest percentages of Hispanics who identify as black, we would not be fully capturing the variance of the two populations compared to white only residents.

Bivariate Analysis

To begin the analysis, each variable was normalized by total population and standardized to account for having been originally measured with different scales. Initial scatterplots were run to show the relationship between the crime and cost indicators and to determine which variables would be included in the subsequent regression analysis. Severe outliers, defined as data points more than two standard deviations above or below the mean, were omitted from the data analysis.

Many of our primary indicators have strong positive correlations with one another, meaning as one variable increases, so does the other. In Figure 7 below, the green cells indicate when the relationship between indicator in row and the corresponding column are 95% unlikely to be due to chance and are therefore statistically significant ($p < .05$). The value within the green cells signals the amount of variance described by the corresponding row or column. The number of low-level court filings, for example, describes 22% of the variation or differences in police spending between municipalities.

Figure A1: Correlation Matrix

Green cells indicate a positive, statistically significant relationship, and the percentages represent the variation explained.

	Poverty	Hispanic	Low-Level Court Filings	Low-Level Arrests (FBI UCR)	Marijuana Possession Arrests (FBI UCR)
Black			**12%**		
Hispanic			**8%**		
Police Spending	**6%**		**22%**		
Court Spending		**14%**	**35%**	**10%**	
Court Revenue			**76%**		**8%**

The proportion of Hispanic residents has a statistically significant relationship to the total low-level court filings and court spending. Due to the limitations explained both in the "Impacts of Low-Level Enforcement on Municipal Spending" section of this report and in the database creation section of this appendix we did not include it as a demographic control in our regression analysis.

As shown in Figure A1, low-level court filings were related to our spending indicators more often than the low-level and marijuana possession arrest variables. The former was created using New Jersey Judiciary municipal court filings, while the latter two relied on FBI UCR data. To further examine which variable is a better indicator of low-level crime, we compare how they interact with three spending variables below.

Limitations with FBI UCR Data

Our analysis concludes that the FBI UCR data is not the most useful measure of low-level arrests at the municipal level. In addition to the concerns outlined in the section titled "Concerns with Low-Level Offenses in FBI Arrest Data", the following scatterplots highlight the different relationships the two indicators have with the spending variables under study. Each dot on the scatterplots below represents a municipality and the line running through the graph shows the direction of the relationship. When the dots cluster closely around the line, it signals that the indicators are highly correlated, meaning changes in one are a good predictor of what will happen in the other.

Figures A2 and A3 include the same police spending indicator on the vertical axis, but the horizontal axes differ. The court filing variable (Figure 8) was statistically significant and explained 22% of the variance in police spending, while the FBI UCR data was not significant and explained less than 1% of the variation.

Figure A2. Impact of Low-Level Court Filings on Police Spending

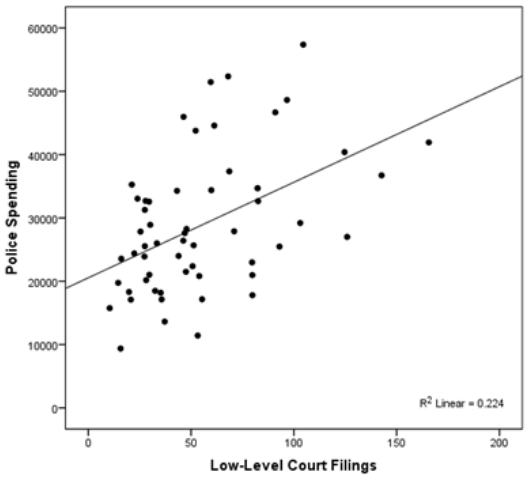
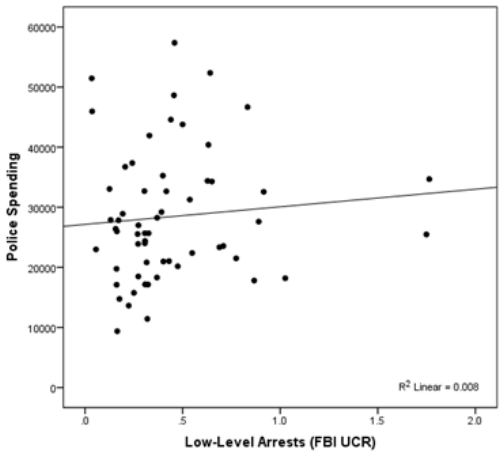


Figure A3. Impact of Low-Level Arrests (FBI-UCR) on Police Spending



Figures A4 and A5 compare the differing relationships of low-level court filings and FBI UCR arrests to court spending. The court filings variable explains 3.5 times more variance in court spending (35%) than the total low-level arrests variable created from UCR data (10%). In this case, both relationships are statistically significant, but court spending is still a stronger indicator.

Figure A4. Impact of Low-Level Court Filings on Court Spending

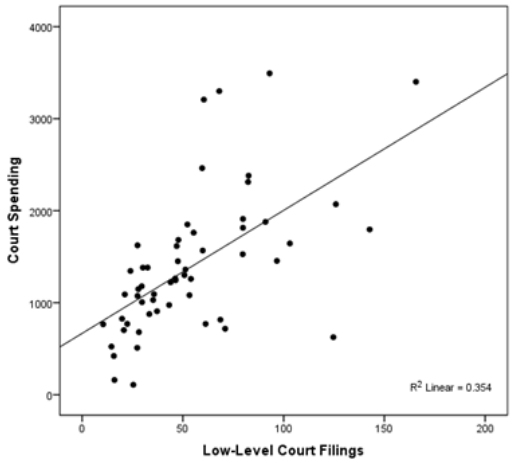


Figure A5. Impact of Low-Level Arrest Data (FBI UCR) on Court Spending

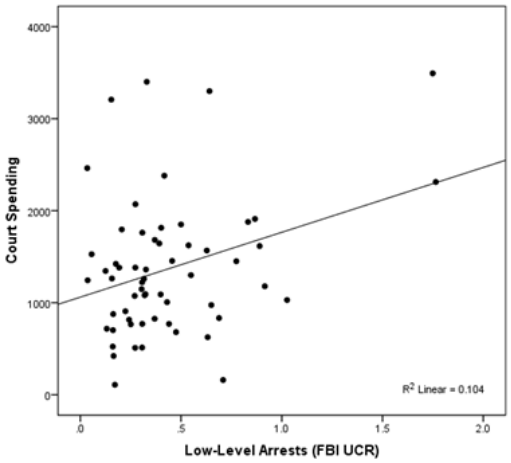


Figure A6 highlights the strongest, statistically significant relationship in our dataset. Court filings explain 76% of the variance in court revenue, while the FBI UCR variable in Figure A7, total low-level arrests, only explains 2% of changes in court revenue.

Figure A6. Impact of Low-Level Court Filings on Court Revenue

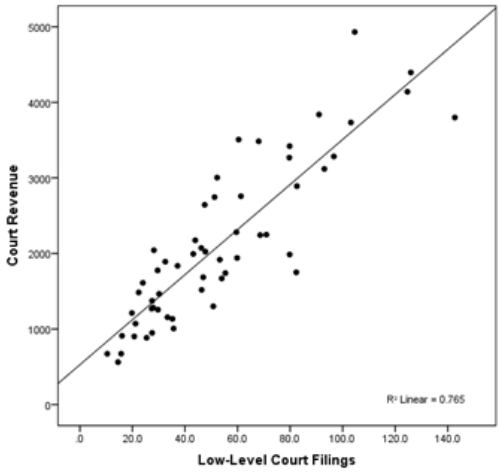
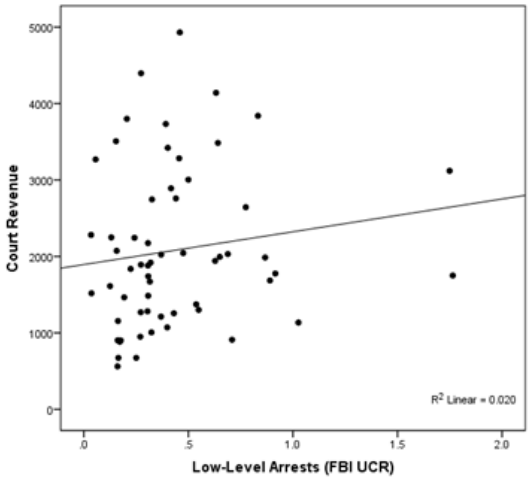


Figure A7. Impact of Low-Level Court Filings on Low-Level Arrest (FBI UCR)



Variables created using FBI UCR data consistently explained a lower amount of variance in our spending indicators. Based on this finding, we concluded that New Jersey Judiciary municipal court filings are a better indicator of low-level offenses.

Regression Analysis

The dataset was then examined using ordinary least squares (OLS) regression. Three models were built to determine how much variation in (1) court spending, (2) police spending, and (3) court revenue can be explained by differences in low-level enforcement, as represented by the number of municipal court filings. To ensure outliers did not skew the results, data points that fell more than two standard deviations from the mean were omitted from each model.

Figure A8 shows that a one standard deviation increase in low-level court filings is associated with a 0.52 standard deviation increase in police spending. A one standard deviation increase of black residents in a municipality is associated with a 0.29 standard deviation decrease in police spending. A one standard deviation increase of those classified as living in poverty is associated with a 0.22 standard deviation increase in police spending.

Figure A8. The Impact of Low-Level Enforcement, Proportion of Black Residents, and Poverty Rate on Police Spending

Police Spending	Model 1			Model 2			Model 3		
n=48	B	SE	ß	B	SE	ß	B	SE	ß
Constant	20,725.90	2,499.70		21,513.78	2,443.78		12,340.38	5,697.57	
Low-Level Filings	126.24 ***	39.74	0.42 ***	157.03***	41.05	0.52 ***	155.41 ***	40.131	0.52 ***
Black				- 478.86**	227.21	-0.29 **	- 484.49 **	222.08	- 0.29 **
Poverty							322.97	181.65	0.22
Total R^2			0.18 **			0.25 **			0.30 **
Adjusted R^2			0.16 **			0.22 **			0.25 **

****p<0.001, **p<0.05*

Figure A9. Equation 1: Marginal Cost to the Police Force of Enforcing Low-Level Offenses

$$\left(\frac{1\text{ Low Level Offense}}{\text{Population}} \Big/ \frac{\text{B Value from Regression}}{\text{Population}}\right) = \left(\frac{\text{Average annual low level crimes }**}{\text{Cost}}\right)$$

$$\left(\frac{1\text{ Low Level Offense}}{\text{Population}} \Big/ \frac{1.17}{\text{Population}}\right) = \frac{\text{Average annual low level crimes }**}{\text{Cost}}$$

$$\left(\frac{1\text{ Low Level Offense}}{\text{Population}} \times \frac{\text{Population}}{1.17}\right) = \left(\frac{\text{Average annual low level crimes }**}{\text{Cost}}\right)$$

$$\left(\frac{1\text{ Low Level Offense}}{1.17}\right) = \frac{215{,}214}{\text{Cost}}$$

$$\text{Cost} = 1.17 \times 215{,}214$$

$$\text{Cost / New Jersey Population} = 251{,}800 \,/\, 8{,}958{,}013$$

$$\text{Marginal cost to the taxpayer} = .03$$

**The 2010 to 2014 judicial court reported average of low-level court filings (430,428) was reduced by 50% to account for the fact that municipal court filings count total charges rather than total people charged

Using the low-level court filing B value in the Figure A8, Model 3 above and the average annual court filings for Court Years 2010-2014 from the State Judiciary's Municipal Court Statistics, we were able to calculate the marginal cost of enforcement using the equation presented in Figure A9. Through this equation, we determined that it costs each resident $0.03 cents when police departments enforce a new low-level offense. This value is surprisingly low, which we hypothesize is a result of high fixed costs within the departments.

Figure A10. The Impact of Low-Level Enforcement, Proportion of Black Residents, and Poverty Rate on Court Spending

Court Spending	Model 1			Model 2			Model 3		
n=49	B	SE	ß	B	SE	ß	B	SE	ß
Constant	633.59 ***	164.79		707.19 ***	153.14		597.32	360.72	
Low-Level Filings	13.45 ***	2.62	0.60 ***	16.31 ***	2.57	0.721 ***	16.27 ***	2.60	0.72 ***
Black				- 44.73 **	14.21	- 0.36 **	- 44.67 **	14.34	- 0.36 **
Poverty							3.83 **	11.35	0.04 **
Total R^2			0.35 ***			0.47 ***			0.47 ***
Adjusted R^2			0.34 ***			0.44 ***			0.43 ***

****p<0.001, **p<0.05*

Figure A10 demonstrates how an one standard deviation increase of low-level court filings is associated with 0.72 standard deviation increase in court spending. A one standard deviation increase in black residents in a municipality is associated with a 0.36 standard deviation decrease in court spending. A one standard deviation increase of those classified as living in poverty is associated with a 0.04 standard deviation increase in court spending.

Figure A11. Equation 2: Marginal Cost to the Municipal Courts due to Low-Level Summons, Citations, and Arrests

$$\left(\frac{1\text{ Low Level Offense}}{\text{Population}} \Big/ \frac{\text{B Value from Regression}}{\text{Population}}\right) = \left(\frac{\text{Average annual low level crimes}\ **}{\text{Cost}}\right)$$

$$\left(\frac{1\text{ Low Level Offense}}{\text{Population}} \Big/ \frac{.16}{\text{Population}}\right) = \frac{\text{Average annual low level crimes}\ **}{\text{Cost}}$$

$$\left(\frac{1\text{ Low Level Offense}}{\text{Population}} \times \frac{\text{Population}}{.16}\right) = \left(\frac{\text{Average annual low level crimes}\ **}{\text{Cost}}\right)$$

$$\left(\frac{1\text{ Low Level Offense}}{.16}\right) = \frac{215{,}214}{\text{Cost}}$$

$$\text{Cost} = .16 \times 215{,}214$$

$$\text{Cost / New Jersey Population} = 34{,}434 \,/\, 8{,}958{,}013$$

$$\text{Marginal cost to the taxpayer} < .01$$

**The 2010 to 2014 judicial court reported average of low-level court filings (430,428) was reduced by 50% to account for the fact that municipal court filings double count people who have multiple offenses

According to our calculation of the marginal cost of low-level enforcement, presented in Figure A11, we found each resident pays less than one cent to process a new low-level summons, citation, or arrest in municipal courts.

Figure A12. Impact of Low-Level Enforcement, Proportion of Black Residents, and Poverty Rate on Court Revenue

Court Revenue	Model 1			Model 2			Model 3		
n=48	B	SE	ß	B	SE	ß	B	SE	ß
Constant	541.14 ***	134.11		559.49 ***	128.02		142.10	282.72	
Low-Level Filings	29.60 ***	2.28	0.89 ***	32.03 ***	2.39	0.96 ***	31.99 ***	2.35	0.96 ***
Black				- 27.92 **	11.63	- 0.17 **	- 27.93 **	11.42	- 0.17 **
Poverty							14.43	8.76	0.11
Total R^2			0.78 ***			0.81 ***			0.82 ***
Adjusted R^2			0.78 ***			0.80 ***			0.81 ***

****p<0.001, **p<0.05*

Figure A12 shows that a one standard deviation increase of low-level court filings is associated with a 0.96 standard deviation increase in court revenue. A one standard deviation increase in black residents in a municipality is associated with a 0.17 standard deviation decrease in court revenue. A one standard deviation increase of those classified as living in poverty is associated with a 0.11 standard deviation increase in court revenue.

Figure A13. Equation 3: The Marginal Court Revenue from Low-Level Enforcement

$$\left(\frac{1\text{ Low Level Offense}}{\text{Population}} \Big/ \frac{\text{B Value from Regression}}{\text{Population}}\right) = \left(\frac{\text{Average annual low level crimes }**}{\text{Cost}}\right)$$

$$\left(\frac{1\text{ Low Level Offense}}{\text{Population}} \Big/ \frac{.31}{\text{Population}}\right) = \frac{\text{Average annual low level crimes }**}{\text{Cost}}$$

$$\left(\frac{1\text{ Low Level Offense}}{\text{Population}} \times \frac{\text{Population}}{.31}\right) = \left(\frac{\text{Average annual low level crimes }**}{\text{Cost}}\right)$$

$$\left(\frac{1\text{ Low Level Offense}}{.31}\right) = \frac{215{,}214}{\text{Cost}}$$

$$\text{Cost} = .31 \times 215{,}214$$

$$\text{Cost / New Jersey Population} = 34{,}434 \,/\, 8{,}958{,}013$$

$$\text{Marginal revenue collected on behalf of each taxpayer} < .01$$

**The 2010 to 2014 judicial court reported average of low-level court filings (430,428) was reduced by 50% to account for the fact that municipal court filings double count people who have multiple offenses

On average, according to our calculation presented in Figure A13, the courts make around one penny in revenue on behalf of each resident when a low-level offense makes its way through the judiciary system.

The regression model and marginal cost calculation findings suggest that budget effects *alone* are not large enough to spur a large effort towards decreasing low-level offense enforcement by municipal police departments and court systems. That said, a cost-benefit analysis would capture externalities outside the scope of this report that warrant further research, such as quantifying community impacts.

The constants in A8, A10, and A12 show that fixed police costs, $12,340 are much higher than court costs, $ 597. This regression analysis focused on marginal cost, and did not include health care or pension costs, which would likely increase both marginal and fixed costs substantially.

We tested whether demographics, such as gender and age had a significant impact on spending and revenue indicators in our three models. Specifically, we tested models that included those between the ages of 18 to 24 and male; neither were found to be statistically significant.

We also tested if our dataset explained variation between low level enforcement rates in municipalities, specifically looking at demographic drivers. We used the American Community Survey's estimates for demographic variables (race and poverty) per municipality and ran regressions with the low-level court filings. However, this analysis did not find anything significant. The same was true when we tried to explain the driving forces behind marijuana possession arrests by examining race, ethnicity, age and gender populations; there was little to no significance. Additional research is needed to determine if factors outside the scope of our study, such as educational, policing behavior, lifestyle, or environmental motivators are driving arrests.

Code book

Variable Name	Variable Description	Data source
Muni	Name of municipality	
TPop	Total population in each municipality	2014 ACS 5-years estimate
Pov_Rate	percentage of people living under federal poverty line	2014 ACS 5-years estimate
Black	Number of black residents	2014 ACS 5-years estimate
Hispanic	Number of hispanic residents	2014 ACS 5-years estimate
TotArrest	Total offense number in UCR dataset	FBI:UCR 2014
MParrests	Number of marijuana possession offense	FBI:UCR 2014
DOarrests	Number of disorderly conduct offense	FBI:UCR 2014
GbArrests	Number of gambling offense	FBI:UCR 2014
LiqArrests	Number of liquor law offense	FBI:UCR 2014
VagArrests	Number of vagrancy offense	FBI:UCR 2014
CurLArrests	Number of curfew and loitering offense	FBI:UCR 2014
TotLow	Total low level offenses (Marijuana Possession, Disorderly Conduct, Gambling, Liquor, Vagrancy, Curfew, and Loitering)	FBI:UCR 2014
CourtRev	Municipal court revenue: fines and costs	General Appropriations

PolSpend	Total police spending	General Appropriations
TotCourt	Total court spending, including court salary plus other	General Appropriations
Justice	Total police spending plus total court spending	General Appropriations
CourtRev_Profit	Court revenue minus total court spending	General Appropriations
Jul13-Jun14 DP&PDP MuniCt Filings	Disorderly Persons & Petty Disorderly Persons Filings in Muni Court July 2013 - June 2014	New Jersey Courts Data
DV_PolicePop100	Police spending per 100 people	Created from 2014 ACS and General Appropriation
DV_CourtPop100	Court spending per 100 people	Created from 2014 ACS and General Appropriation
DV_CourtRevPop100	Court revenue per 100 people	Created from 2014 ACS and General Appropriation
DV_JusticePop100	Justice spending per 100 people	Created from 2014 ACS and General Appropriation
IV_BlackPop100	Number of black people per 100 people	Created from 2014 ACS
IV_HispanicPop100	Number of Hispanic people per 100 people	Created from 2014 ACS
IV_MParrestPop100	Marijuana arrest per 100 people	Created from 2014 ACS and UCR

IV_DOarrestPop100	Number of disorderly arrest per 100 people	Created from 2014 ACS and UCR
IV_CourtfilePop100	Number of court filing of DP/PDP per 100 people	Created from 2014 ACS and court data
IV_TLowLevPop100	Low-level arrest per 100 people	Created from 2014 ACS and UCR
IV_PovertyPop100	Number of people under poverty line per 100 people	Created from 2014 ACS

Municipalities Included in Random Sample

Municipality	County	Municipality	County
Bellmawr borough	Camden	North Caldwell borough	Essex
Belmar borough	Monmouth	Norwood borough	Bergen
Berkeley township	Ocean	Oaklyn borough	Camden
Boonton town	Morris	Ocean township	Ocean
Brielle borough	Monmouth	Oceanport borough	Monmouth
Closter borough	Bergen	Paramus borough	Bergen
Collingswood borough	Camden	Perth Amboy city	Middlesex
Colts Neck township	Monmouth	Plumsted township	Ocean
Cranbury township	Middlesex	Point Pleasant Beach borough	Ocean
Delaware township	Hunterdon	Point Pleasant borough	Ocean
Dover town	Morris	Robbinsville township	Mercer
Edison township	Middlesex	Rochelle Park township	Bergen
Elk township	Gloucester	Rockaway township	Morris
Emerson borough	Bergen	Roseland borough	Essex
Englewood city	Bergen	Roselle borough	Union
Flemington borough	Hunterdon	Roxbury township	Morris
Franklin township	Hunterdon	Rutherford borough	Bergen
Green Brook township	Somerset	Salem city	Salem
Hasbrouck Heights borough	Bergen	Sayreville borough	Middlesex
Hillsborough	Somerset	Shrewsbury borough	Monmouth
Hillsdale borough	Bergen	South Orange Village township	Essex
Hopewell township	Mercer	Trenton city	Mercer
Howell township	Monmouth	Vernon township	Sussex
Lacey township	Ocean	Waldwick borough	Bergen
Lawrence township	Mercer	Washington Township	Gloucester
Lincoln Park borough	Morris	Watchung borough	Somerset
Lumberton township	Burlington	West Deptford township	Gloucester
Manville borough	Somerset	Wildwood city	Cape May

Milltown borough	Middlesex	Wood-Ridge borough	Bergen
Millville city	Cumberland	Woolwich township	Gloucester
Montclair township	Essex		
Netcong borough	Morris		

Appendix B: Municipal Cost Analysis

To estimate municipal spending on enforcing low-level offenses, a methodology was employed based on the Harvard economist Jeffrey Miron. Miron has estimated the cost of drug prohibition using police, court and corrections data (2010). Miron describes the findings generated from his method as "ballpark figures" and the same applies to this analysis (2010). These cost estimates should be understood not as precise numbers but as a way for municipalities to begin to understand the degree to which low-level enforcement affects their spending. It's important to note that unlike the statistical analyses, the costs generated from this method include fixed costs to police and court systems.

Since this analysis focuses on low-level drug offenses and other offenses that do not pose a threat to public safety, certain adjustments were made to the methodology. In addition, accurate corrections data on the number of inmates incarcerated in county jails for the study offenses were not available so this cost was not included. A Drug Policy Alliance report found that roughly 17% of inmates in county prisons were incarcerated in the county system under drug charges as the primary charge, however, the researchers did not report the number of inmates within that category incarcerated on marijuana charges specifically (Van Nostrand, 2013). So for the purposes of this study, police and municipal courts were the only cost categories under consideration, and the overall justice spending is a conservative estimate.

Miron utilized FBI UCR arrest data, which counts one arrest for each time a person is arrested, cited or summoned (2010). Marijuana possession (including possession over and under 50 grams), disorderly conduct, gambling, liquor law violations, vagrancy and curfew were the offenses that could be counted as low-level for this analysis because they are non-indictable offenses in New Jersey, known as "disorderly persons" and "petty disorderly persons". However, the UCR program codes many other low-level and indictable offenses together into a category called "All Other Offenses" (U.S. Department of Justice, 2013). Due to this limitation with counting low-level arrests in the UCR arrest data, and the fact that a 2015 ACLU-NJ study of low-level offenses found significant issues with UCR arrest data, this indicator was not used (2015). Instead, the analysis used the municipal court filings as a proxy for both police time and court time spent on low-level offenses.

In New Jersey, municipal courts are responsible for adjudicating disorderly persons and petty disorderly persons cases. The courts publish statistics on the DP and PDP filings. Like the UCR data, the court filings include arrests, citations and summons. The court statistics count each charge, not each person, and a defendant can have more than one charge. Since this indicator is transformed into a ratio of DP and PDP filings to total filings, it seems unlikely that this is an overstatement. But since there is no public data available on the number of individuals charged with more than one offense, or the amount of time spent processing a low-level offense takes as compared to traffic violations, DUIs, or other offenses, a conservative downward adjustment of 50% was applied to the DP/PDP filings to create a low-end estimate. This adjustment is based on the ACLU study of low-level offense arrests in four New Jersey cities that showed 56% of arrests were for a stand-alone charge for one of the low-level offenses under study (2015).

To estimate the spending, first the amount of disorderly persons and petty disorderly persons filings is divided by the total court filings. This ratio is then multiplied by the police budget to get the police spending estimate. It's important to note here that municipal police budgets are a conservative

estimate because they do not include pensions or health benefits, which are a considerable additional cost. Next, the low estimate for police spending is estimated by multiplying the high estimate by 50%.

Next, the portion of court budgets devoted to low-level offenses is calculated. Prosecutor and public defender salaries were omitted from the analysis because many municipal budgets do not provide this information as a separate line; instead it is lumped into legal department spending which includes additional municipal legal services. Therefore, this is a conservative estimate of court costs. As with police spending, the court budget is multiplied by the ratio of disorderly persons and petty disorderly persons filings to total filings to calculate the high estimate. The low estimate is then found by multiplying by 50%.

Finally, the total spending on low-level offense enforcement can be calculated by adding together the police and court spending for each municipality. An average can also be calculated from the high and low estimates, along with estimates for per capita spending, and percent of municipal budget.

The arrest rates for marijuana possession were calculated from the FBI UCR data for each municipality. Despite that data's limitations for use in cost analysis, it is useful here. Although the UCR data's validity is questionable, it is a reliable measure because it is collected annually, which is a common issue with federal data collection. This means that the data is more useful to look at trends over time or to make comparisons between groups. Therefore, calculating an arrest rate to compare municipalities is an appropriate use of this data, unlike the cost analysis or the statistical models. The arrest rate calculations followed the model used by the ACLU in their study of low-level offenses (2015). For each community, the number of marijuana possession arrests was divided by the population. This ratio was multiplied by 100,000 to get the arrest rate per 100,000 people.

Delaware Township, Dover, and Elk were excluded from this sample because they have joint courts.

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Appendix C: Differences between the Statistical and Municipal Cost Analysis Methodologies

Both the regression and Miron methodology have strengths and weaknesses. In the absence of having individual-level data on how police spend their time (outputs), Miron's methodology offers a reasonable model to estimate costs over a one-year period using aggregate costs. A more robust method would examine the relationship between workload outputs and costs over several years, controlling for confounding variables. On the other hand, the regression accounts for fixed costs, where Miron does not. It also allows us to better understand which relationships could not happen by chance, illuminates demographic differences, and proves that fluctuations in low-level offenses do impact police spending.

Regression	Miron
$0.04 per capita for each additional low-level offense enforced based on 2014 data	$21.26 per capita spent in 2014 on low-level offense enforcement

Appendix D: Individual Cost Profile for Low-Level Offense Arrest

If charged with a DP or PDP offense, an individual will appear in the Municipal Court where the offense occurred, and the defendant is not entitled to a jury trial. If convicted of a DP offense, the municipal judge can impose a monetary fine of up to $1,000 and/or a jail sentence of up to six (6) months, served in a county facility. PDP offense conviction can result in a fine up to $500 and/or thirty (30) days in prison. Additional restitution, community service and probation can be required for both. The imposed fine and jail sentence is largely arbitrary, determined by the presiding municipal judge (Pedraza 2017).

Cost to Individual

Beyond the fines outlined above, there are additional monetary costs and consequences associated with a DP or PDP offense conviction.

A DP and PDP conviction carries the following mandatory fees, in addition to the fine imposed by a municipal court judge:

- Victims of Crime Compensation Board (VCCB): $50
- Safe Neighborhood Services Fund: $75
- Court Costs: $33
- Drug Enforcement and Demand Reduction Penalty (DEDR) when conviction is for drug possession or paraphernalia: $500
- Mandatory lab fee for drug related convictions: $50

If an individual does not pay these fines, he or she can be held in contempt of court and incarcerated. Municipalities can hire private collection firms to collect the fines under certain conditions[1], and these firms can charge the defendant up to a 22% additional fee on the amount to be collected (New Jersey Judiciary 2011). Therefore, a $1000 fine for marijuana possession under 50 grams will result in $1708 in total court fines and fees; if the balance is referred to collection, an individual could end up owing over $2080.

A first-time offender that chooses to participate in a diversionary program (conditional dismissal or conditional discharge) in municipal court to avoid a criminal record can still be charged fines, up to the amount a conviction would have yielded, and a program application fee (New Jersey Judiciary 2013). *The Asbury Park Press* interviewed one New Jersey resident who paid $1200 in fines and surcharges after participating in the conditional discharge program for a marijuana possession charge (Kachmar 2016).

Appearance in court can cost an individual in terms of lost wages, transportation expenses, and child care arrangements. If an individual fails to appear for a court date, it is a fourth degree indictable offense (crime) and a warrant can be issued for their arrest (ACLU 2015).

Finally, a defendant in municipal court will have attorney costs if they choose to be represented. The state Office of the Public Defender does not cover municipal courts; instead, each municipality provides public defender services. The municipal court determines if the defendant qualifies based on need, including financial ability to afford representation, employment status and salary, liquid assets, and other factors, and the municipality can charge up to $200 to apply for the public defender. However, a municipal defense attorney in New Jersey the researchers spoke with stated that defendants had to essentially be below the federal poverty line to qualify for these services (Pedraza 2017). Therefore, most individuals who have representation in municipal court hire a private attorney, who typically

charge a flat fee for handling the case. This can range depending on the quality of the attorney and the offense charge from $200-$1500, but the municipal defense attorney interviewed by the researchers estimated the average cost is $500-$750 (Pedraza 2017). Simms (2014, 21) found the flat fee for representation in Minnesota was $500-2000 for a petty misdemeanor marijuana charge and $1000-3500 for a misdemeanor marijuana charge.

The inability to afford or other lack of access to a lawyer was cited by the National Association of Criminal Defense Lawyers (NACDL) in 2009 as a major contributor to the denial of constitutional rights to individuals accused of misdemeanors, and the organization found people of color were disproportionately impacted (Boruchowitz, Brink, and Dimino 2009). The NACDL noted that in 2000, 28.3% of inmates incarcerated for misdemeanors reported having had no attorney representation (Boruchowitz, Brink, and Dimino 2009, 14). The organization has called for the provision of counsel to all defendants facing possible jail time.

Collateral Consequences to an Individual

Although not considered a crime, a defendant convicted of a DP or PDP offense will have a criminal record and will need to file an expungement application to clear the charge from his or her record. A waiting period applies before an individual can file for expungement: 5 years for DP offenses, at least 3 years for PDP offenses, and 2 years for municipal ordinance violations (Legal Services of New Jersey 2017). The filing fee is $75, but it can be waived, and documents have to be sent by certified mail to multiple agencies and offices, multiple times in the process, the cost of which can mount quickly. An individual may choose to hire (1) a service to help file the paperwork, which can cost between $100-$300, or (2) a lawyer, which can cost $700-$2000, as a Petition for Expungement will be denied if any required steps are completed improperly (Tiziano 2016).

Additionally, an individual that uses a diversionary program (conditional dismissal or conditional discharge) for a first time offense in municipal court, such as on a drug charge, is barred from using a Pre Trial Intervention (PTI) program if they are later arrested for an indictable crime (New Jersey Judiciary 2013, Pedraza 2017). The diversionary programs and PTI redirect first time offenders from prosecution to probation monitoring or a rehabilitative program and upon successful completion, the individual does not have a criminal record (New Jersey Judiciary 2017).

Some DP offenses require automatic driver license suspension or revocation for not less than six months and up to two years; marijuana possession in a motor vehicle results in an automatic two year license suspension (NORML 2017). The NACDL report noted that driving on a suspended license constituted a large portion of the misdemeanor caseload in many jurisdictions, indicating individuals who lose their license as part of a low level offense conviction may be involved with the municipal court system again at a later point (Boruchowitz, Brink, and Dimino 2009, 26). To restore your license in New Jersey, the base fee is $100 (New Jersey Motor Vehicle Commission 2017). The suspension may also affect automobile insurance rates, or the policy may be dropped entirely (Simms 2014).

A DP offense may result in professional license suspension as well for doctors, nurses, attorneys, pharmacists, stockbrokers, real-estate agents, accounting, taxi drivers, day care provision and others (Simms 2014, 25).

These arrests can result in further long-term impacts or collateral consequences, even without conviction or incarceration. An arrest can result in eviction from public housing or leased residence

(ACLU 2015, NORML 2017, Simms 2014). Simms (2014, 3) found that in Minnesota the loss of public housing could cost a family "at least $14,300 more over three years and at least $23,900 more over five years" for private housing. Arrests can also affect immigration status, federal student aid eligibility, eligibility for other public assistance programs, and child custody (ACLU 2015, Boruchowitz, Brink, and Dimino 2009, Simms 2014).

An arrest and conviction for low-level offenses can affect income, employment status, and future job prospects. Simms (2014) found that "over 60% of employers indicate that they probably would not or definitely would not hire someone with a criminal record, including those with only an arrest record containing no conviction." More individuals can be impacted as criminal records become easier and less expensive to access. Beyond the arrest or conviction record, it may be harder to find employment if your driver license is suspended as well. If incarcerated as a result, the loss is even greater. One study found that serving time resulted in a 10-30% decrease in earnings for at least a decade (Simms 2014, 24). A 2015 study by the Vera Institute of Justice found that following incarceration, men saw "hourly wages decreased by 11 percent, annual employment by nine weeks, and annual earnings by 40 percent as a result of time spent in jail or prison" (Subramanian et al. 2015).

An individual convicted of a DP offense does not lose the right to vote and is not disqualified from serving on a jury.

Estimating Costs for an Adult Arrested for Marijuana Possession Under 50 Grams

Fines:	
Disorderly Persons Offense Fine	$1,000
Victims of Crime Compensation Board (VCCB)	$50
Safe Neighborhood Services Fund	$75
Court Costs	$33
Drug Enforcement and Demand Reduction Penalty (DEDR)	$500
Mandatory lab fee	$50
Attorney fees:	$750
Reinstatement of driver's license:	$100
Expungement:	
Filing Fee	$75
Certified Mail Expenses (at least 5 mailings twice at $6.06 each)[2]	$60.60
Criminal History Background Check from State Police	$40.70
Filing Service	$300
TOTAL	**$3034.30**

Incalculable:

- Lost wages from time in court, meeting probation requirements
- Impact on employment status and future earnings
- Transportation costs due to loss of license

- Car insurance rate changes
- Civil forfeiture losses

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