METRO NASHVILLE
COMMUNITY OVERSIGHT

Traffic Stop Policy Advisory Report Proposal

Request approval from the Community Oversight Board for a Policy Advisory Report on MNPD's traffic stops that assesses inequities in decisions to make traffic stops and post-stop decisions including searches and traffic citations. The Policy Advisory Report will assess, if possible, the effects of traffic enforcement on serious crime and traffic crashes.

Background

Metro Nashville Police Department's (MNPD) policies and practices of conducting traffic stops have received substantial attention in recent years. Gideon's Army's 2016 report, *Driving While Black: A Report of Racial Profiling in Metro Nashville Police Department,* brought attention to the large number of stops that MNPD made from 2010-2015 and large racial disparities in who was stopped and searched.[1] Following the *Driving While Black* report, Metro Council Members pushed for increased transparency and a formal response to the report. MNPD critiqued the methodology and conclusions of the report but did not dispute the findings.

Following the concerns raised in the *Driving While* Black report and the subsequent police involved shooting of Jacques Clemmons on February 10th, 2017 during a traffic stop, Mayor Barry contracted with the Policing Project from New York University, in part, to evaluate MNPD traffic stop practices.[2] In November of 2018, the Policing Project released their findings. The quantitative evaluation of traffic stops in collaboration with the Stanford Computational Policy Lab showed that there were considerable racial disparities in traffic stops. While *disparities* are not necessarily evidence of *discrimination*, even after accounting for neighborhood crime rates—the primary reason given by MNPD for racial disparities—there was still a considerable amount of unexplained racial disparity with black drivers more likely to be stopped than white drivers. Furthermore, the analysis showed that the concentration of traffic stops in areas with higher crime was not associated with decreased crime rates in those areas. In April of 2019, *The Tennessean* published a follow up article assessing three months of traffic stops showing a precipitous decline in stops relative to the same time period in the prior two years following the publication of the Policing Project report.[3]

Figure 1, below, shows the average number of monthly traffic stops made by MNPD for each calendar year between January 2001 and July 2019. From 2001 through 2003, MNPD made around 10,000 stops each month. The average number of stops rose precipitously from 2003 through 2005 and again from 2010 through 2012. In 2012, MNPD officers made an average of 37,093 stops per month totaling over 445,000 stops. Since peaking in 2012, the number of traffic stops has fallen. The decline was steady from

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[1] Gideon's Army, "Driving While Black: A Report on Racial Profiling in Metro Nashville Police Department Traffic Stops."

[2] Policing Project, "An Assessment of Traffic Stops and Policing Strategies in Nashville."

[3] Timms, "After Years of Debate, Police Make Major Change in Number of Nashville Traffic Stops."

2014 through 2018. The Policing Project released their report on traffic stops in November of 2018 and subsequent months showed large reductions in traffic stops. In 2018, MNPD averaged 17,040 stops per month. In 2019, MNPD has averaged 4,871 stops per month between January and July, the months for which we have complete data.

Figure 1: Yearly Average Monthly Traffic Stops Made by MNPD
January 2001-July 2019
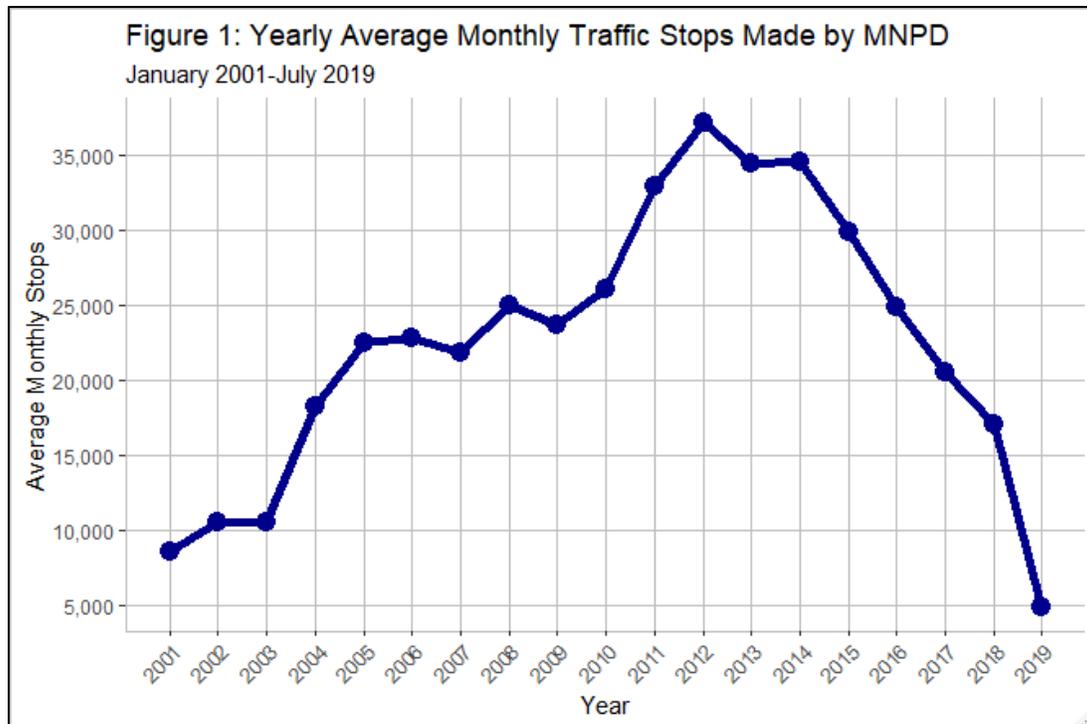
The decline in traffic stops seems to be a result of reprioritizing police resources in context of community concerns and evidence that traffic stops are not effective in reducing major crimes.[4] Several precincts have developed community engagement units that focus on relationship building and community policing in high-need areas rather than traffic stops. Refocusing officer time toward non-enforcement community engagement is likely to improve community perceptions of police and increase willingness to report victimization.[5]

Following the changes in traffic stop practices, several community members have raised concerns that the change may be associated with increasing crime and/or traffic accidents. Fatal traffic accidents have increased in 2019 compared to 2018. Captain Walburn of MNPD's Special Operations Division reported at the October 11th, 2019 COMPSTAT meeting that fatal crashes are up 25% year-to-date compared to 2018. Whether the increase in fatal accidents is associated with changes in traffic stops is an empirical question that should be investigated. Since the Policing Project report, there has not been a comprehensive analysis of whether racial disparities in traffic stops have reduced or widened as the stops have declined. This policy advisory report will fill these gaps in knowledge by assessing traffic stops in Nashville and Davidson County.

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[4] Timms.
[5] Peyton, Sierra-Arévalo, and Rand, "A Field Experiment on Community Policing and Police Legitimacy."

Proposed Study

This policy advisory report has three primary purposes. First, it will reassess several aspects of Gideon's Army's analysis of racial disparities in traffic stops. Specifically, we will assess the quantity of stops, the racial distribution of stops relative to several benchmarks, the spatial distribution of stops, searches conducted during stops, the hit-rate for finding contraband during searches, the correlation of stops with crime incidence, and outcomes of traffic stops. The report will strengthen the methodology of the *Driving While Black* report in context of scholarly debates on tests for racial disparities and racial profiling.[6]

Second, this policy advisory report will evaluate whether changes in traffic stop practices have, in fact, been crime neutral. Since the Stanford Computational Policy Lab found that there was no relationship between traffic stops and serious crime, we will revisit the analysis to understand whether the null relationship is maintained as traffic stops have declined.

Finally, this policy advisory report will assess whether declines in traffic stops are associated with increases in vehicle collisions. One reason to conduct traffic enforcement is to improve traffic safety. If a person is stopped for a moving violation, they may be less likely to violate the law in the future. If unnecessary stops have been reduced while maintaining necessary stops, there would be no effects on vehicle collisions.

Methodology

Assessing racial disparities in traffics stops is the subject of a robust methodological debate in the social sciences and criminology.[7] The most common way that disparities are assessed is by comparing the population of drivers stopped to a known population size, referred to as benchmarking. We want to know whether the drivers stopped are the same or different as the drivers who are on the road and at risk of being stopped. A common benchmark used is the residential population size reported by the US Census Bureau.[8] The residential population, however, is not representative of the vehicles on the road.[9] Scholars have used modified Census benchmarks and subsets of traffic stops to attempt to circumvent problems with benchmarking. This policy advisory report will take the multiple benchmark approach where multiple benchmarks are used—each with limitations—to try to find trends or conflicts among the benchmarks. Searches during traffic stops do not rely on an unknown population benchmark so there are relatively fewer methodological challenges but there are several limitations that we will work to address.[10]

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[6] Fridell, "By the Numbers: A Guide for Analyzing Race Data from Vehicle Stops"; Baumgartner, Epp, and Shoub, *Suspect Citizens: What 20 Million Traffic Stops Tell Us about Policing and Race*; Epp, Maynard-Moody, and Haider-Markel, *Pulled over: How Police Stops Define Race and Citizenship*.

[7] Baumgartner, Epp, and Shoub, *Suspect Citizens: What 20 Million Traffic Stops Tell Us about Policing and Race*; Gumbhir, *But Is It Racial Profiling?: Policing, Pretext Stops, and the Color of Suspicion*; Fridell, "By the Numbers: A Guide for Analyzing Race Data from Vehicle Stops"; Ridgeway and MacDonald, "Methods for Assessing Racially Biased Policing"; Epp, Maynard-Moody, and Haider-Markel, *Pulled over: How Police Stops Define Race and Citizenship*.

[8] U.S. Department of Justice, "Investigation of the Baltimore City Police Department"; U.S. Department of Justice, "Investigation of the Ferguson Police."

[9] Fridell, "By the Numbers: A Guide for Analyzing Race Data from Vehicle Stops."

[10] Neil and Winship, "Methodological Challenges and Opportunities in Testing for Racial Discrimination in Policing."

Crime and vehicle collision patterns are affected by many factors beyond police interventions. Testing for efficacy of interventions brings a host of challenges that must be addressed analytically. Due to the complexity, a supplemental technical report will be attached to the main report. There are two main challenges that must be addressed: temporal and spatial variation. The temporal dimension refers to the timing of events. To test whether traffic stops effectively reduce crime, the traffic stops must come prior to the outcome. Therefore, the analysis will focus on one-week segments and lag the independent variable so that the past week's traffic stops predict the current week's outcome. Spatial variation refers to differences in how geographic areas are treated by police and the social conditions within each area. Intervening in crime hot spots may also lead to displacement where crimes that would have happened in one area move to another because of police presence.[11] We will aim to address neighborhood-level differences in crime victimization, police prioritization, and potential crime displacement in the analysis.

Data
This report will use three databases to conduct the analyses: Traffic stops (Form 252), Incidents (Form 100), and the Tennessee Integrated Traffic Analysis Network (TITAN) database available through Data.Nashville.gov. Currently, Metro Nashville Community Oversight (MNCO) only has access to incident location information for closed cases. If we are not able to obtain access to location information (reporting area, patrol zone, precinct, zip code) for open incidents, we will not be able to conduct an analysis of whether traffic stops affect crime or replicate the results of Stanford Computational Policy Lab's results. We currently have access to the traffic stop database from January 2001 through August 23, 2019. We will begin analysis with the currently available data and update with data after January 1, 2020. The TITAN database is available through Data.Nashville.gov and is updated regularly.

Community Input
MNCO plans to consult community members regarding the scope and direction of our policy advisory research and reports. Community input is a crucial part of the work of oversight organizations and should be a part of the discussion surrounding future policy recommendations and decisions.
We will reach out to affected community members and request interviews and or focus groups with them. We plan to directly reach out to community members as well as collect information though an online questionnaire. For the traffic stop report, we will seek out input from community members related to their experiences during traffic stops and vehicle searches. Gideons Army's *Driving While Black* report included 25 interviews with Black residents about their experiences when pulled over. We would like to assess how residents in previously high-stop neighborhoods have seen changes in their community and their opinions about it. We would also like to interview community members who have been searched during a traffic stop to better understand the personal impact of the search.

The online questionnaire is available at: https://tinyurl.com/MNCOsurvey. Community members are asked to describe the incidents they would like to share and how they felt about the incident. We clarify that the questionnaire is not a misconduct complaint but is for research purposes only. They are asked for demographic information and may optionally give contact information for a follow-up interview. The questionnaire does not aim to be a representative survey but to solicit input from people who have stories they would like to share with MNCO.

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[11] Braga, Papachristos, and Hureau, "Hot Spots Policing Effects on Crime"; Natl. Acad. Sci. Eng. Med., *Proactive Policing: Effects on Crime and Communities*.

Broader Impact

If the changes that MNPD has made in their traffic stop practices have freed officers to conduct more community engagement without additional unintended costs from criminal activity and vehicle collisions, there is a clear policy success. If there are some unintended negative effects, this analysis will suggest policy reforms that may mitigate those impacts. Currently, the impact of the changes is unknown and there is speculation as to their success. Future decisions should be informed by an in-depth assessment of the evidence.

Beyond MNPD, this report will also inform other cities' decisions about changing traffic enforcement strategies. Identifying the potential challenges of strategic changes may help police agencies mitigate potential pitfalls and make better informed enforcement decisions. Our comprehensive evaluation of disparities in traffic stops and the associated effects on crime and traffic enforcement will draw from recent methodological innovations in criminology and social sciences and serve as a model for other municipalities and oversight boards. We will make our statistical code available for transparency and replication.

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