

St. Louis County Police Department National Justice Database City Report.

Cover Letter

Introduction

The Center for Policing Equity (CPE) partnered with the St. Louis County Police Department (SLCPD) to analyze the department's policing practices during the 2016 to 2018 timeframe.

Through the National Justice Database (NJD), CPE collects policing data to measure fairness and improve policing equity, applies a rigorous analytic framework to examine equity in police contact, shares findings with partner agencies, and encourages our partners to share the findings with their communities. We recognize that leadership in police reform cannot alone address all challenges in producing fair and equitable policing, as these challenges result not only from department policy and behavior but also from the broader history of racial injustice in our country. Nonetheless, we believe change is possible. This report reflects CPE's commitment to partnering with agencies like SLCPD to create systems that use data to illuminate opportunities to change how policing delivers public safety. Our hope is that informed by the NJD analyses and recommendations, partners can chart a path toward better practices that are consistent with their values and those of the communities they serve.

Project goals

The project's overall goals were to (1) examine whether some racial groups in St. Louis County experience more frequent or burdensome police contact than other groups; (2) identify factors that contribute to any existing racial disparities and the extent to which these factors can be influenced by SLCPD; and (3) provide recommendations for actions SLCPD can take to address any identified disparities. While findings of racial disparities are always a reason for concern, they are not necessarily attributable to the decisions or practices of law enforcement. In other words, observed racial disparities do not necessarily indicate that officers have prejudiced beliefs or that they have even engaged in discriminatory behavior. Crime, poverty, institutional neglect and a host of other factors may drive law enforcement's disparate contacts with and other behaviors toward various racial groups. These factors do not mean disparities are not a concern, just that those seeking to address the concern must focus on all of the factors that produce them—including, but not limited to, the policies and behaviors of law enforcement.

Key Findings

The Black/White disparity in vehicle stops declined over the course of the 2016–2018 study period. The White share of stops increased by 6 percentage points, while the Black share of stops decreased by almost the same amount.

During the 2016–2018 observation period, Black drivers were more likely to be stopped per capita than drivers of any other race or ethnicity.

Six percent of Black drivers who were stopped were arrested, compared to 4% of White drivers and 3% of drivers categorized as Other Race, a composite group consisting of drivers identified in SLCPD records as Hispanic (Latinx), Asian, Native American, and Other Race.

Black male drivers who were stopped were searched at almost twice the rate of White male drivers, yet the contraband yield rate (the ratio of the number of searches yielding contraband to the total number of searches) was about the same for both groups.

Black individuals were more than 3 times as likely to experience SLCPD use of force compared to White persons, adjusting for the population size of each group in St. Louis County.

Multilevel regression analysis found that the higher per capita rate at which Black persons experienced SLCPD use of force relative to White persons were not fully explained by the neighborhood characteristics and crime rates of the areas where the incidents occurred.

Recommendations

In this report, we recommend SLCPD take 10 actionable steps to enhance the department's commitment to fair and equitable policing. Several of the key recommendations are listed below.

- We recommend that SLCPD require officers to collect all of the data elements for pedestrian stops identified by the NJD analytical framework. The department does not currently collect data on pedestrian stops. It is important to collect and analyze data on all stops— vehicular and pedestrian—to get a full understanding of departmental stop practice.
- We recommend that SLCPD clearly define reportable force and include any use-of-force incidents (including pointing a firearm) beyond hand control or escort techniques that do not result in injury or complaint of injury and that are not used to overcome resistance.
- We recommend that SLCPD require supervisors to review vehicle stop reports in a timely fashion to ensure that their supervisees are completing them properly.
- We recommend that SLCPD adopt a policy explicitly requiring officers to intervene if they see a fellow officer using excessive force.
- We commend SLCPD for prohibiting the use of chokeholds and neck restraints. We recommend that SLCPD build on and clarify this policy by defining the terms chokehold and neck restraint to include any maneuver that may inhibit breathing by compression of the airway in the neck, that may inhibit blood flow by compression of the blood vessels in the neck, or that applies pressure to the front, side, or back of the neck.
- We commend SLCPD for their policy warning of the risk of positional asphyxia and prohibiting the use of “hog-tying” techniques. We recommend that SLCPD build on this policy by prohibiting officers from placing body weight on the back of a prone, restrained individual.
- We recommend that SLCPD work with local LGBTQ+ communities to implement the policy changes recommended in the review of the department's General Orders attached as Appendix B to this report.

Conclusion

We commend SLCPD for its proactive participation in the NJD as a tool for enhancing equity in SLCPD policing practices and outcomes. We encourage SLCPD to share these results with the people of St. Louis County in an effort to enhance transparency and accountability and to support community partnership in producing equity and public safety. The analyses in this report should be viewed as a resource for steering reforms and as a benchmark against which future progress can be measured.

The Science of Justice

St. Louis County Police Department
National Justice Database City Report

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CENTER FOR POLICING EQUITY

The Center for Policing Equity (CPE) is a research and action think tank, providing leadership in equity through excellence in research. CPE specializes in partnering with law enforcement and communities to diagnose disparities in policing, shed light on police behavior, and answer questions police and communities have asked for years about how to build a healthy relationship.

TABLE OF CONTENTS

Authors	i		
Acknowledgments	ii		
Executive Summary	2		
Key Findings	2	Which types of use-of-force incidents evidence the greatest racial disparities?	18
Recommendations	4	What factors might explain disparities in the frequency of SLCPD use-of-force incidents?	20
SLCPD Context and History of Participation in CPE’s National Justice Database	6	Conclusion	23
National Justice Database Analytic Framework	8	Bibliography	24
SLCPD Vehicle Stops, 2016–2018	10	Appendix A. St. Louis City Reports Comparison Brief	36
Are there racial disparities in who is stopped by SLCPD officers and in the outcomes of these stops?	10	Appendix B. Policy Review on LGBTQ+ Equity	39
Which types of vehicle stops evidence the greatest racial disparities?	13	Appendix C. Supplemental Data Gap Analysis	44
SLCPD Use-of-Force Incidents, 2016–2018	16	Appendix D. Supplemental Vehicle Stop Analyses	55
Are there racial disparities in who is subject to use of force and in the types of force used by SLCPD officers?	17	Appendix E. Supplemental Use-of-Force Analyses	57
		Appendix F. Multilevel Regression Analysis Census Tracts	59

EXECUTIVE SUMMARY

The Center for Policing Equity (CPE) partnered with the St. Louis County Police Department (SLCPD) to analyze the department’s policing practices during the 2016 to 2018 timeframe.

Through the National Justice Database (NJD), CPE collects policing data to measure fairness and improve policing equity, applies a rigorous analytic framework to examine equity in police contact, shares findings with partner agencies, and encourages our partners to share the findings with their communities. We recognize that leadership in police reform cannot alone address all challenges in producing fair and equitable policing, as these challenges result not only from department policy and behavior but also from the broader history of racial injustice in our country. Nonetheless, we believe change is possible. This report reflects CPE’s commitment to partnering with agencies like SLCPD to create systems that use data to illuminate opportunities to change how policing delivers public safety. Our hope is that, informed by the NJD analyses and recommendations, partners can chart a path toward better practices that are consistent with their values and those of the communities they serve.

The project’s overall goals were to (1) examine whether some racial groups in St. Louis County experience more frequent or burdensome police contact than other groups; (2) identify factors that contribute to any existing racial disparities and the extent to which these factors can be influenced by SLCPD; and (3) provide recommendations for actions SLCPD can take to address any identified disparities.

While findings of racial disparities are always a reason for concern, they are not necessarily attributable to the decisions or practices of law enforcement. In other words, observed racial disparities do not necessarily indicate that officers have prejudiced beliefs or that they have even engaged in discriminatory behavior. Crime, poverty, institutional neglect, and a

host of other factors may drive law enforcement’s disparate contacts with and other behaviors toward various racial groups. These factors do not mean disparities are not a concern, just that those seeking to address the concern must focus on all of the factors that produce them—including, but not limited to, the policies and behaviors of law enforcement.

The NJD framework described below examines how factors outside of a department’s control (e.g., poverty and crime rates in a neighborhood) can contribute to observed disparities, which helps us infer what portion of a disparity is likely related to officer behavior and/or departmental policies and practices. In addition to the analyses that are part of the normal NJD framework, CPE also conducted, at SLCPD’s request, a policy review of SLCPD’s General Orders to identify opportunities to promote LGBTQ+ equity within the department and in interactions with the public.

Overall, the analyses revealed reasons for optimism and identified opportunities for improving SLCPD practices in the service of fair and equitable policing. The key findings from the report are highlighted below.

Key Findings

- Over the past 5 years, SLCPD has conducted department-wide training to recognize implicit bias. The department codified their bias-free policing policy in General Order (GO) 16-81 (2016), which includes specific guidelines for documenting traffic stops and reviewing them to identify patterns of possible bias.
- SLCPD retrained officers in 2015–2016 to reduce the use of Taser force. The department reported that this resulted in a 46% reduction in Taser use the following year.

- The Black/White disparity in vehicle stops declined over the course of the 2016–2018 study period. The White share of stops increased by 6 percentage points, while the Black share of stops decreased by almost the same amount.
- During the 2016–2018 observation period, Black drivers were more likely to be stopped per capita than drivers of any other race or ethnicity.
 - Compared to White drivers and those of other races, a larger share of Black drivers were stopped for license violations and a smaller share for moving violations.
 - The North County and Central County precincts had particularly large shares of vehicle stops with Black drivers—84% and 54% of all precinct stops, respectively.¹
- Six percent of Black drivers who were stopped were arrested, compared to 4% of White drivers and 3% of drivers categorized as Other Race, a composite group consisting of drivers identified in SLCPD records as Hispanic (Latinx), Asian, Native American, and Other Race. The likelihood of drivers categorized as Other Race being released without citation was about 10% higher than the likelihood for White and Black drivers, and their likelihood of being cited was about 10% lower than for drivers from those groups.
- Black male drivers who were stopped were searched at almost twice the rate of White male drivers, yet the contraband yield rate (the ratio of the number of searches yielding contraband to the total number of searches) was about the same for both groups. Male drivers in the Other Race group were searched at about the same rate as White men, but the yield rate for this group was much lower than for Black or White men.
- Black individuals were more than 3 times as likely to experience SLCPD use of force compared to White persons, adjusting for the population size of each group in St. Louis County.
 - Black persons experienced every type of use of force at a higher rate than the group's 24% share of the county population.
 - In the City of Jennings and North County precincts, Black individuals accounted for 96% and 94% of all use-of-force incidents, respectively.²
- Multilevel regression analysis found that the higher per capita rate at which Black persons experienced SLCPD use of force relative to White persons was not fully explained by the neighborhood characteristics and crime rates of the areas where the incidents occurred. Black race remained a powerful predictor of use of force, even when those common explanations were taken into account, suggesting that SLCPD policies and behaviors may have contributed to the observed disparities.

We commend SLCPD for their proactive participation in the NJD as a tool for enhancing equity in their policing practices and outcomes. SLCPD was an early partner with NJD, and this is the second report that we have produced for the department.³ We encourage SLCPD to share the results in this new report with the people of St. Louis County in an effort to enhance transparency and accountability, and to support community partnership in producing equity and public safety. The analyses in this report should be viewed as a resource for steering reforms and as a benchmark against which future progress can be measured.

¹ It is important to note that geographic data, including Beat, Precinct, District, Police Service Zone, was missing for 42% of stop data.

² The demographic composition of each precinct varies, which may account for a portion of the variation in use-of-force rates.

³ See *The Science of Justice: St. Louis County Policy Department National Justice Database City Report* (April 2019). This earlier report used data from 2010–2015 and an interim analysis plan that CPE has since modified. Consequently, the findings in the two reports are not fully comparable. Comparability between reports is discussed in a brief that is attached to this report as Appendix A.

RECOMMENDATIONS

In this report, we recommend SLCPD take 10 actionable steps to enhance the department's commitment to fair and equitable policing.

1. We recommend that SLCPD require officers to collect all of the data elements for pedestrian stops identified by the NJD analytical framework. The department does not currently collect data on pedestrian stops. It is important to collect and analyze data on all stops—vehicular and pedestrian—to get a full understanding of departmental stop practice. To ensure that these data can be analyzed, they should be stored electronically with the option to download in a tabular format.
2. We recommend that SLCPD require officers to collect the latitude and longitude for each vehicle stop and use-of-force incident. To ensure that these data can be analyzed, they should be stored electronically with the option to download in a tabular format. A departmental data software upgrade and a new requirement that officers input the relevant computer-aided dispatch number for each vehicle stop will provide location data going forward.
3. We recommend that SLCPD clearly define reportable force and include any use-of-force incidents (including pointing a firearm) beyond hand control or escort techniques that do not result in injury or complaint of injury and that are not used to overcome resistance. To ensure that these data can be analyzed, they should be stored electronically with the option to download in a tabular format.
4. We recommend that SLCPD require supervisors to review vehicle stop reports in a timely fashion to ensure that their supervisees are completing them properly. The data provided to CPE included a large number of missing observations of the street address corresponding to the stop and of the precinct in which the stop was made.
5. We recommend that SLCPD use a single, consistent identifier for the department's work units in their data files. At present, different data elements use different terms, including district number, precinct number, and precinct name.
6. We recommend that SLCPD adopt a policy explicitly requiring officers to intervene if they see a fellow officer using excessive force.
7. We commend SLCPD for prohibiting the use of chokeholds and neck restraints. We recommend that SLCPD build on and clarify this policy

by defining the terms *chokehold* and *neck restraint* to include any maneuver that may inhibit breathing by compression of the airway in the neck, that may inhibit blood flow by compression of the blood vessels in the neck, or that applies pressure to the front, side, or back of the neck.

8. We commend SLCPD for their policy warning of the risk of positional asphyxia and prohibiting the use of “hog-tying” techniques. We recommend that SLCPD build on this policy by prohibiting officers from placing body weight on the back of a prone, restrained individual.

9. We recommend that SLCPD adopt a policy stating that officers may not use deadly force unless other reasonable alternatives have been exhausted or would clearly be ineffective.

10. We recommend that SLCPD work with local LGBTQ+ communities to implement the policy changes recommended in the review of the department’s General Orders attached as Appendix B to this report.

SLCPD CONTEXT AND HISTORY OF PARTICIPATION IN CPE'S NATIONAL JUSTICE DATABASE

Beginning in 2014, SLCPD partnered with CPE to address departmental concerns about fairness and equity and to strengthen the department's ability to deliver bias-free policing.

Chief Jon M. Belmar, who was leading the department at the time, initiated the contact. This partnership involved three major projects: a departmental climate survey, which assessed the internal climate of SLCPD by surveying the department's commissioned officers; a policy review; and analyses of SLCPD data with respect to reported vehicle stops, searches, and use-of-force incidents for the time period between 2010 and the end of 2015. We shared our findings with the department in the 2019 report cited above. We compare those findings with findings from the current study in a comparison brief included with this report as Appendix A. In May 2020, Mary T. Barton was named SLCPD chief, becoming the first woman to lead the department.

SLCPD serves a community of about 1 million residents in St. Louis County,⁴ as well as the pool of commuters, visitors, and other non-residents who enter the county. The racial composition of St. Louis County residents is summarized below.⁵

- 67% White (668,690 residents)
- 24% Black (236,515 residents)
- 4.0% Asian (39,534 residents)

- 2.8% Latinx (27,784 residents)
- 2.3% Multiple Races (22,944 residents)
- Less than 1% are another race, including Native American, 0.2% (1,529 residents) and unspecified "Other Race," 0.2% (2,356 residents)

SLCPD employs about 923 sworn officers and another 320 non-sworn personnel. In 2018, 86% of SLCPD's sworn officers were male and 14% were female. The racial demographics of the department's sworn officers at that time were as follows:⁶

- 87% White
- 10% Black
- 1.6% Latinx
- 1.3% Other Race

Following the civil unrest in Ferguson, Missouri, and on Chief Belmar's initiative, SLCPD entered into a collaborative reform agreement with the U.S. Department of Justice from 2014 to 2017. Collaborative reform is a voluntary, non-adversarial, joint endeavor to build and strengthen trust between a police department and

4 Estimates of the St. Louis County population are drawn from the U.S. Census Bureau's American Community Survey 5-year estimates for 2017.

5 In this report, "racial group" refers to groups described in SLCPD records by racial categories (e.g., Black, Asian, etc.). When our analyses compare SLCPD policing statistics to U.S. Census Bureau data, these identities are mapped onto the following census categories: Hispanic (referred to as Latinx in this report), non-Latinx Asian, non-Latinx Black, non-Latinx Native American, non-Latinx White, and non-Latinx Other Race. To make analysis tractable, in many of the analyses in this report we use a broader category for Other Race, combining the relatively small number of observations in the Latinx, Asian, Native American, Multiple Race, and Other Race census categories. The census counts "Hispanic" identity as an ethnicity that encompasses persons of all racial backgrounds. The description of Asian, Black, Native American, Latinx, White, and Other Race as "racial" designations does not represent a claim that any such person belongs to a monolithic "race," or indeed that the category of "race" has objective meaning independent of its social context. Furthermore, it should be noted that SLCPD racial categories describe the officer's perception of the individual's race. That perception may or may not match the individual's own racial identity.

6 Personal communication with SLCPD personnel (June 1, 2020).

the communities it serves through community policing principles. The initiative produced a report in 2015 with a number of recommendations to encourage effective community policing in the department.⁷ The county maintains a civilian oversight board, the SLCPD Board of Police Commissioners, whose members are appointed by the County Executive and approved by the County Council.

Over the past 5 years, the department has conducted department-wide training to recognize implicit bias. The department codified their bias-free policing policy in General Order (GO) 16-81 (2016), which includes specific guidelines for documenting traffic stops and reviewing them to identify patterns of possible bias. SLCPD retrained officers in 2015–2016 to reduce the use of Taser force. The department reported that this resulted in a 46% reduction in Taser use the following year. It has also developed new procedures for vehicle stop data

collection and review that are intended to recognize and reduce racial disparities in vehicle stops. SLCPD has established a Diversity and Inclusion Unit intended to “foster an inclusive environment within the department and enhance the department’s services to the diverse constituents it serves.”⁸

SLCPD has articulated two main goals for participating in the NJD. The first is to demonstrate the department’s commitment to the community in addressing racial inequities within the criminal justice system. The second is to use the resources of CPE to discover and address issues within departmental operations that can impact racial equity. SLCPD also expressed a specific interest in identifying cutting-edge best practices for promoting LGBTQ+ equity, both within the department and in interactions with the community.

7 Norton, B., Hamilton, E., Braziel, R., Linskey, D., & Zeunik, J. (2015). *An assessment of the St. Louis County Police Department. Office of Community Oriented Policing Services*. <https://www.policefoundation.org/wp-content/uploads/2015/10/cops-p316-pub.pdf>

8 Office of the St. Louis County Executive. (2019). *Annual report, 2019*. <https://stlouiscountymo.gov/st-louis-county-government/county-executive/county-executive-dr-sam-page/>

NATIONAL JUSTICE DATABASE ANALYTIC FRAMEWORK

The analyses presented in this report are intended to identify any racial disparities in SLCPD stops and use-of-force incidents, to identify potential drivers of these disparities, and to test various explanations of what may be contributing to the disparities. The analyses are informed by CPE's understanding of racial disparities and common sources of disparities in policing, as described below.

What does CPE mean by racial disparities?

The analyses presented in this report consider two types of racial disparities: disparities in rates of contact and disparities in the outcomes of this contact. **Racial disparities in contact** exist when the proportion of a racial group that experiences police contact is greater than that group's representation in the community the police department serves. **Racial disparities in outcomes** exist when the likelihood of a police encounter resulting in a given outcome (e.g., a vehicle stop resulting in an arrest) differs across racial groups.

What does it mean if these analyses find evidence of racial disparities?

Disparities in rates of police contact and the outcomes of this contact mean that racial groups in St. Louis County have different experiences of SLCPD policing. This is important to measure, as these differences can represent pain points for communities. Disparities do not necessarily indicate that police officers have engaged in biased or discriminatory behavior. The NJD framework described below examines how factors outside of a department's control (e.g., poverty and crime rates in a neighborhood) contribute to observed disparities, which

can be used to infer what portion of the disparity is likely related to officer behavior and/or departmental policies and practices.

What factors might contribute to observed racial disparities?

The NJD analytic framework aims to distinguish among five broad types of explanations for racial disparities in policing. These explanations of disparities in policing are:

1. **Individual characteristics or behaviors.** Attributes or behaviors of individual community members may lead to a greater risk of interaction with law enforcement. Such behaviors and attitudes may include mental health challenges, homelessness, or participation in criminal activity.
2. **Community characteristics.** Neighborhood conditions, such as poverty or high crime rates, may result in higher rates of interaction with law enforcement.
3. **Officer characteristics or behaviors.** Some officers may view members of certain communities

with a higher level of suspicion, resulting in a disproportionate rate of stops or more punitive disposition after a stop for these individuals.

4. **Departmental culture, law, or policy.** Institutional policies, practices, or norms may increase law enforcement contact with some members of the population more than others. For example, officers may be deployed to patrol some communities more intensively than others. Moreover, police departments may be constrained by federal, state, or local laws that may contribute to disparate interactions with individuals and communities.
5. **Relationships between communities and police.** Mistrust of law enforcement can reduce community members' willingness to cooperate with police. Similarly, a sense that communities do not trust or respect police may cause officers to feel unsafe or defensive in encounters with members of those communities.

CPE recognizes that the whole story likely incorporates elements of each of these explanations. The analyses presented in this report combine police administrative data provided by SLCPD and census data on the resident population of St. Louis County to examine the role that

community characteristics (Explanation 2) and police factors (Explanations 3 and 4) may play in any observed racial disparities. Please see the Supplemental Data Gap Analysis included as Appendix C of this report for a summary of the data CPE requested and received from SLCPD, and a description of how the availability of requisite data fields impacted the analyses conducted for this report.

At SLCPD's request, we also conducted a policy review of the department's publicly available General and Special Orders to identify opportunities for SLCPD to align with emerging industry best practices for promoting LGBTQ+ equity, both within the department and in interactions with the community. The results of this review and CPE's resulting recommendations are included as Appendix B to this report.⁹

We commend SLCPD for their participation in the NJD and their responsiveness to CPE requests for data sharing and information. Our hope is that SLCPD and the community they serve can leverage the information revealed through these analyses to address the disparities that both police departments and communities want to reduce.

⁹ CPE did not receive or analyze any data specifically pertaining to SLCPD's interactions with LGBTQ+ people. The recommendations in the policy review found in Appendix B are based on policy analysis comparing SLCPD's publicly available General and Special Orders with emerging industry best practices for promoting LGBTQ+ equity.

SLCPD VEHICLE STOPS, 2016–2018

For the purposes of this report, a vehicle stop is defined as a single event in which the driver of a vehicle is detained by the police, regardless of the number of vehicle passengers or officers involved in the stop.

While data on the number of SLCPD stops appear to be comprehensive, data on the location of the stops are missing for a number of observations. SLCPD did not collect latitude and longitude data for stops during the years analyzed in this report, and street address information is missing for more than 80% of observations.

SLCPD advised against CPE using officer assignment data (e.g., precinct, specialized unit) in our analysis due to frequent changes in officer assignments that may not be captured in the data provided. Instead, we used the precinct where the stop was made as a proxy for the work unit. These precinct data were missing for more than 40% of stops, and these were dropped from the analysis of vehicle stops by work unit. Data identifying driver race were missing for 0.6% of stops (1,066 observations), and these were dropped from the analyses of stops by race but not from the analyses of all stops.

SLCPD officers made a total of 171,882 vehicle stops during the 3-year period.¹⁰ The annual number of vehicle stops SLCPD made was roughly constant during the 3-year period, ranging from a high of 59,614 (2016) to a low of 53,417 (2017). The analyses presented in this report examine whether there are disparities in the frequency and outcomes of vehicle stops across racial groups, whether there is variation in the disparities of stops across different types of stops and SLCPD work units, and factors that may explain any observed disparities. In this section of the report, the Other Race category includes individuals identified as Latinx, Asian, Native American, and Other Race, as these four categories combined account for less than 3% of all vehicle stops.

Are there racial disparities in who is stopped by SLCPD officers and in the outcomes of these stops?

The analyses presented in this section examine whether there are disparities in the frequency and outcomes of vehicle stops across racial groups using analyses of stop composition, stop outcomes, and search and yield rates.

VEHICLE STOP COMPOSITION

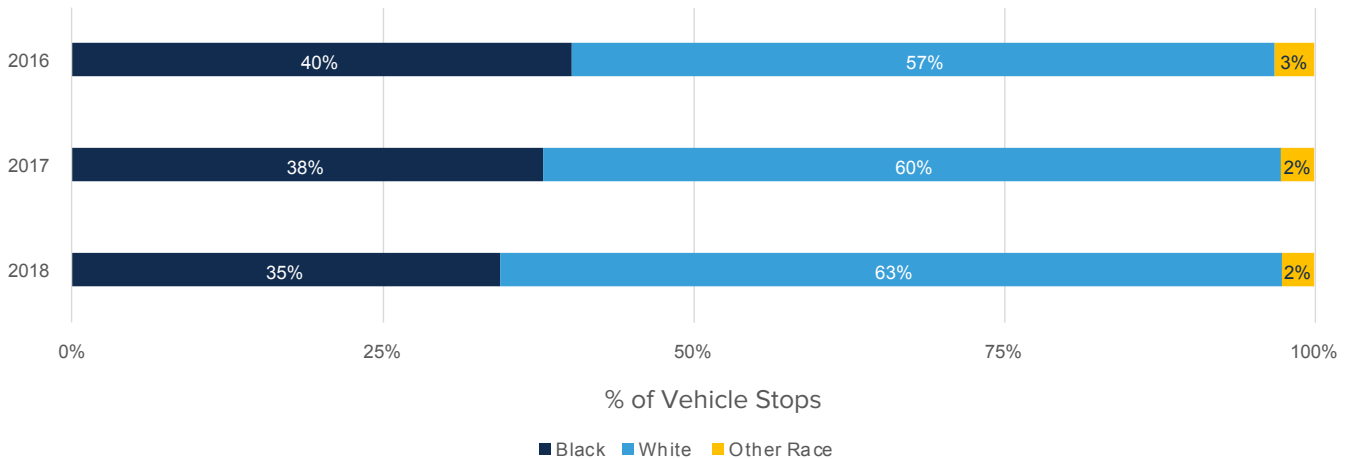
Stop composition analysis (Figure 1): This analysis reports the proportion of vehicle stops by the race of the driver.

Interpreting findings: The stop composition analysis illustrates the racial composition of drivers stopped by SLCPD. It should be noted that the composition of stops does not adjust for the relative sizes of the Black, White, and Other Race populations due to the difficulty of accurately accounting for the appropriate benchmark population, including the pool of commuters and other non-resident drivers on St. Louis County streets and highways with whom SLCPD is likely to interact. Therefore, while the demographic composition of the residents of St. Louis County provides one reference point for contextualizing vehicle stop data, we do not provide a per capita estimate of the number of stops made relative to a benchmark or reference resident population.

White drivers made up the majority of SLCPD vehicle stops in each of the 3 years observed. Stops of Black drivers ranged from 35% to 40% of total SLCPD stops during the period of observation, while stops of drivers who were included in the Other Race category ranged from 2.0% to 2.6% of the total. Over the course of the 3-year period, the White share of stops increased by 6 percentage

¹⁰ A graph displaying the count of vehicle stops made each quarter is included in Appendix D, as are additional graphs showing the age and gender breakdowns of these stops.

Figure 1. Composition of SLCPD Vehicle Stops by Race, 2016–2018



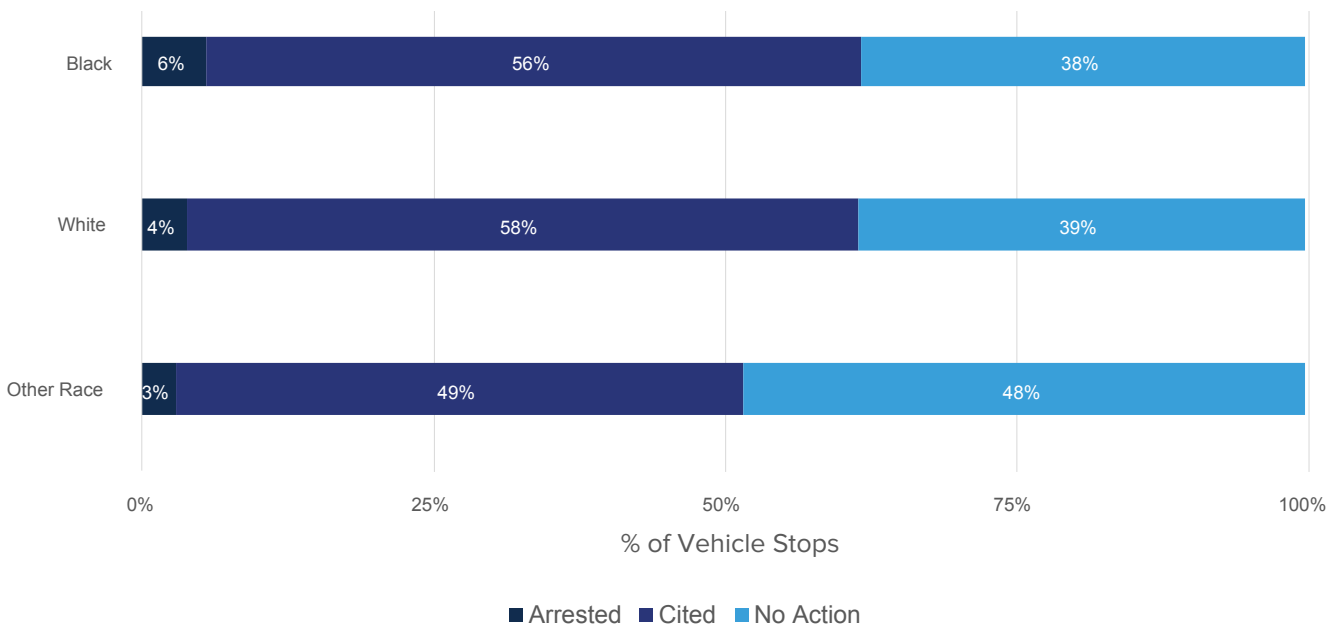
points (from 57% to 63%), while the Black share of stops decreased by almost the same amount (from 40% to 35%). In every year, however, White individuals accounted for a smaller share of stops relative to their 67% share of the county population; Black individuals accounted for a larger share of stops compared to their 24% share of the county population. Fewer drivers in the Other Race category were stopped than would be expected based on the 9% population share of this composite group.

STOP OUTCOMES

Stop outcomes analysis (Figure 2): This analysis examines the percentage of stops that end in each stop outcome (i.e., arrested, cited, or released without citation or arrest) for each racial group. The goal of this analysis is to gauge the degree to which different groups are subject to similar levels of scrutiny and treatment.¹¹

Interpreting findings: If the stop outcomes analysis finds that stops are more likely to result in the individual being

Figure 2. Comparing the Outcomes of SLCPD Vehicle Stops by Driver Race, 2016–2018



¹¹ For purposes of this analysis, we coded the disposition of stops in mutually exclusive categories: no action, cited, or arrested. In cases where an individual was neither cited nor arrested, the disposition was categorized as “no action,” even if a formal warning was issued. In cases where an individual was cited but not arrested, the disposition was coded as “cited,” even if a formal warning was also issued. In cases where an individual was arrested, the disposition was categorized as “arrested,” even if the individual was also cited and/or warned.

released among a group that is underrepresented in the stop composition analysis, this may suggest the group is experiencing **greater leniency** in discretionary enforcement decisions. If the stop outcomes analysis finds that stops are more likely to result in the individual being released among a group that is overrepresented in the stop composition analysis, this may suggest this group is experiencing a **greater burden** of stops relative to other groups and may be subject to greater scrutiny than other groups.

The most frequent outcome for stopped drivers across all three racial categories was a citation. Black and White drivers were released without citation and cited at very similar rates. While arrest rates were comparatively low for drivers of all racial groups, the rate for Black drivers (6%) was one and a half times the rate for White drivers (4%) and twice as high as the rate for drivers of Other Races (3%).

The remaining outcomes differed notably for drivers of Other Race compared to drivers from the other two groups.

Specifically, the likelihood of Other Race drivers being released without citation was about 10% higher than the likelihood for White and Black drivers; the likelihood of their being cited was about 10% lower than for drivers from the other two groups. Since drivers categorized as Other Race were stopped at a rate lower than their population share, this may indicate that these drivers are being treated more leniently than others in SLCPD discretionary enforcement decisions.

SEARCH AND YIELD RATES

Search and yield rate analysis (Table 1): This analysis compares the percentage of stopped drivers who are subject to a discretionary search¹² by race and gender, and the share of these searches that result in the discovery of weapons or contraband. (We exclude mandatory searches incident to arrest.) Like the stop outcomes analysis above, this analysis is intended to evaluate the degree to which different groups are subject to similar levels of scrutiny and treatment.

Interpreting findings: This search and yield rate analysis

Table 1. Comparing Vehicle Stop, Search, and Yield Rates by Driver Race and Gender, 2016–2018¹³

	Stops	Searches		Contraband Found		Weapons Found		Drugs Found	
	Count	Count	% of Stops	Count	% of Searches	Count	% of Searches	Count	% of Searches
Black Women	26,947	721	2.7%	235	33%	43	6.0%	203	28%
Black Men	37,195	3,811	10%	1,162	31%	269	7.1%	999	26%
White Women	38,809	1,421	3.7%	471	33%	9	0.6%	451	32%
White Men	64,128	3,685	5.7%	1,220	33%	57	1.5%	1,136	31%
Other Race Women	1,139	25	2.2%	6	24%	0	0.0%	5	20%
Other Race Men	2,598	143	5.5%	17	12%	0	0.0%	13	9.1%

¹² The analysis of searches and yield rates excludes searches incident to arrest, as these searches are non-discretionary and are not based on an officer’s suspicion of the presence of contraband. This analysis therefore excludes approximately 22% of SLCPD vehicle searches that were indicated as “searches incident to arrest.”

¹³ It should be noted that in Table 1 the Contraband Found column records whether any contraband was found during the search as opposed to no contraband being found. If multiple forms of contraband were found during the search (e.g., both an illegal weapon and drugs), the count in the Contraband Found column remains 1. Hence, the number in the Contraband Found column can be less than the sum of the numbers in the Weapons Found and Drugs Found columns. On the other hand, contraband encompasses types of property in addition to illegal weapons and drugs (such as stolen property or counterfeit currency), so the number in the Contraband Found column can also be greater than the sum of the numbers in the Weapons Found and Drugs Found columns.

examines whether the likelihood of a stop resulting in a search differs by racial and gender group, and whether these differences in search rates may be driven by the likelihood of possessing contraband. When the analysis reveals that a given group is searched more frequently and that the searches are less likely to result in the discovery of contraband, this may suggest that either SLCPD officers' suspicion of illegal activity or weapons possession is less likely to be accurate for the group or that some officers have a lower threshold in making the decision to search members of that group.

The data show that men from every group were more likely to be searched than women, and Black men were more likely to be searched than any other racial and gender group. At 10%, the search rate for Black male drivers was substantially higher than for White and Other Race male drivers, who had the second and third highest rates (5.7% and 5.5%, respectively). For Black and White drivers of both genders, the yield rates for contraband of any kind (i.e., illegal weapons, drugs, or other contraband) were similar, at 31% to 33%. This suggests that SLCPD officers used similar criteria, with similar accuracy, when determining whether to conduct discretionary searches of drivers from these groups.

the Other Race group was only about one third that of White men. This suggests that SLCPD officers may have used less accurate criteria or had a lower threshold of suspicion for searching drivers designated as Other Race compared to drivers from other groups. While the stop outcomes analysis suggested drivers in the Other Race group may have been treated more leniently than other drivers, this does not appear to be the case with respect to discretionary searches.

Which types of vehicle stops evidence the greatest racial disparities?

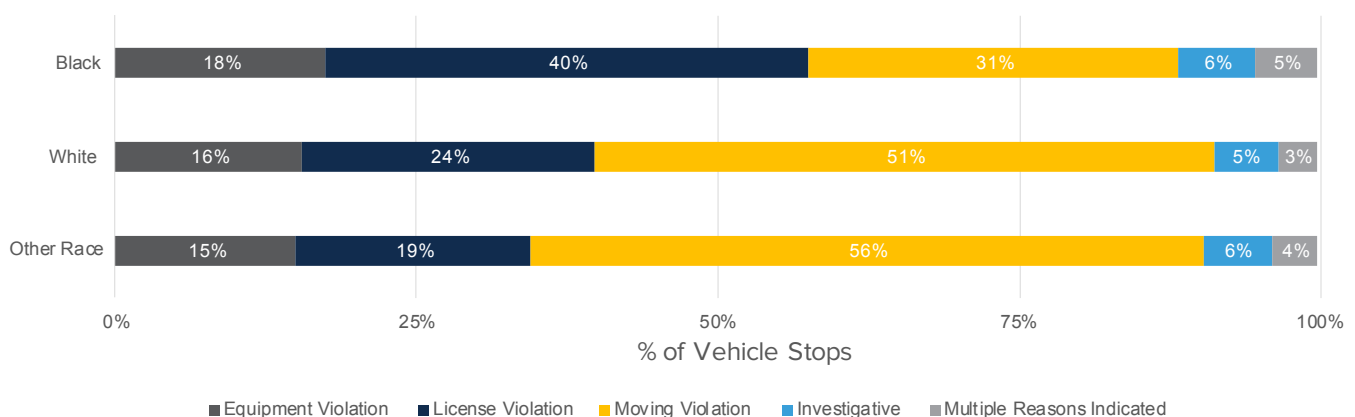
STOP REASONS

Stop reason analysis (Figure 3): This analysis examines how the racial composition of vehicle stops varies by the reason for the stop. The goal of this analysis is to reveal whether specific types of stops may be driving disparities in vehicle stops.

Interpreting findings: A stop reason analysis that reveals a specific racial group is overrepresented in stops of a specific type relative to other types of stops indicates that stops of that type may be driving observed disparities in the stop rates for that racial group.

The most notable intergroup difference in the reason

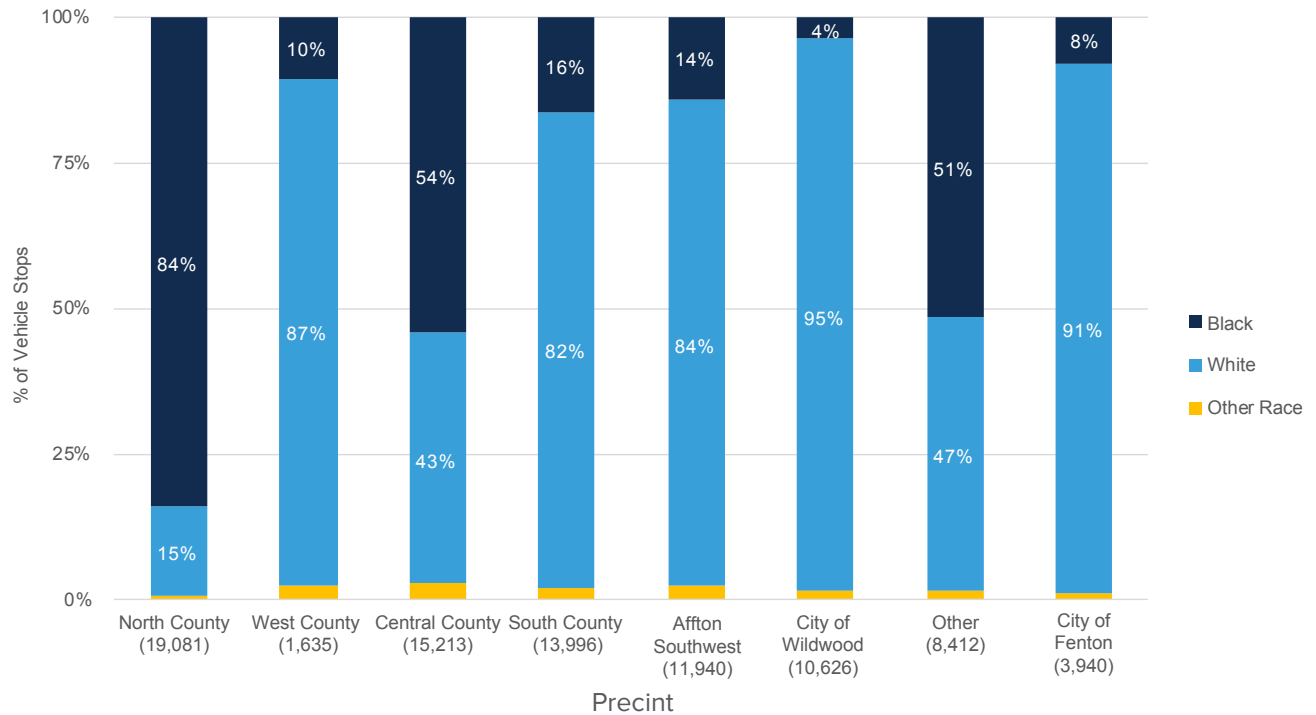
Figure 3. Comparing Vehicle Stop Reason by Driver Race, 2016–2018



The yield rates were notably lower for individuals in the Other Race category—especially among men. Although male drivers in the Other Race group were searched at about the same rate as White male drivers, the yield rate for any contraband found in searches of men in

cited by SLCPD for a vehicle stop is the much higher incidence of stops related to license violation for Black drivers compared to White drivers and drivers of Other Races. (Conversely, moving violations accounted for a much smaller share of stops of Black drivers.) Officers

Figure 4. Comparing the Racial Composition of Vehicle Stops by SLCPD Precinct, 2016–2018



Note: The numbers in parentheses are the total counts for each precinct. Additionally, precincts with less than 2% of stops were grouped into 'Other,' including the City of Jennings. When combined, these groupings represented roughly 5% of incidents total.

may stop a vehicle for a license check for various reasons—among them, when records show that the registered owner of the vehicle has a suspended license. Because Black individuals were stopped at a higher rate than other groups relative to their population size, the disparity in stops related to license violations may be an important contributor to the overrepresentation of Black drivers in all vehicle stops.

WORK UNITS

Work unit analysis (Figure 4): This analysis shows the distribution of vehicle stops during the 3-year period by racial group and police department work unit (defined in this case as the SLCPD precinct where the stop was made). The goal of this analysis is to examine whether specific work units may differently contribute to the overall racial composition of SLCPD vehicle stops.

Interpreting findings: A work unit analysis suggests that a specific work unit may contribute to racial disparities in vehicle stops if a specific racial group is overrepresented in stops among that work unit relative to other work units and relative to that group's representation in the

St. Louis County population. We note, however, that the demographic composition of the populations served across work units may vary, which may account for a portion of the variation in racial composition of stops across work units. If the work unit analysis finds that a given racial group is overrepresented among the stops in all work units, this indicates that local demographics are not the whole explanation for the observed racial disparities.

An additional caveat is warranted for this analysis. Information on the precinct in which the stop was made was missing for 42% of the observations received by CPE. Because we are unclear on the processes responsible for the large amount of missing data, we note that the sample of records included in Figure 4 may not accurately represent the full population of vehicle stops.

The precincts are ordered in the chart from left to right by the total number of stops made (keeping in mind the caveat noted above that many observations are missing). The bar denoted "Other" comprises precincts and other units with less than 2% of all stops.

For each precinct, the composition of stops by racial group largely aligns with the racial composition of the overall county, mirroring the pattern of racial residential segregation in the county.¹⁴ For example, in North County, where the majority of residents are Black, more than 80% of stops were of Black drivers. In mostly-White West County, the pattern was reversed, with White drivers accounting for more than 80% of stops. The population in Central County is more racially mixed, and the pattern

of stops was also more mixed. In four other precincts, stops were heavily skewed toward White drivers, again broadly reflecting those residential populations. It is possible that the large number of stops of Black drivers in the North County and Central County precincts may contribute significantly to the overrepresentation of Black individuals in all vehicle stops in St. Louis County, but missing data limit the inferences that can be drawn.

14 Cambria N., Fehler P., Purnell J. Q., & Schmidt B. (2018). *Segregation in St. Louis: Dismantling the divide*. Washington University in St. Louis. <https://sites.wustl.edu/healthequityworks/files/2018/06/Segregation-in-St.-Louis-Dismantling-the-Divide-22ih4vw.pdf>

SLCPD USE-OF-FORCE INCIDENTS, 2016–2018

For the purpose of this report, a use-of-force incident is defined as a use of force against an individual community member, regardless of the type(s) of force or number of officers involved. A single incident, then, could include multiple force types, multiple applications of force, or multiple officers.

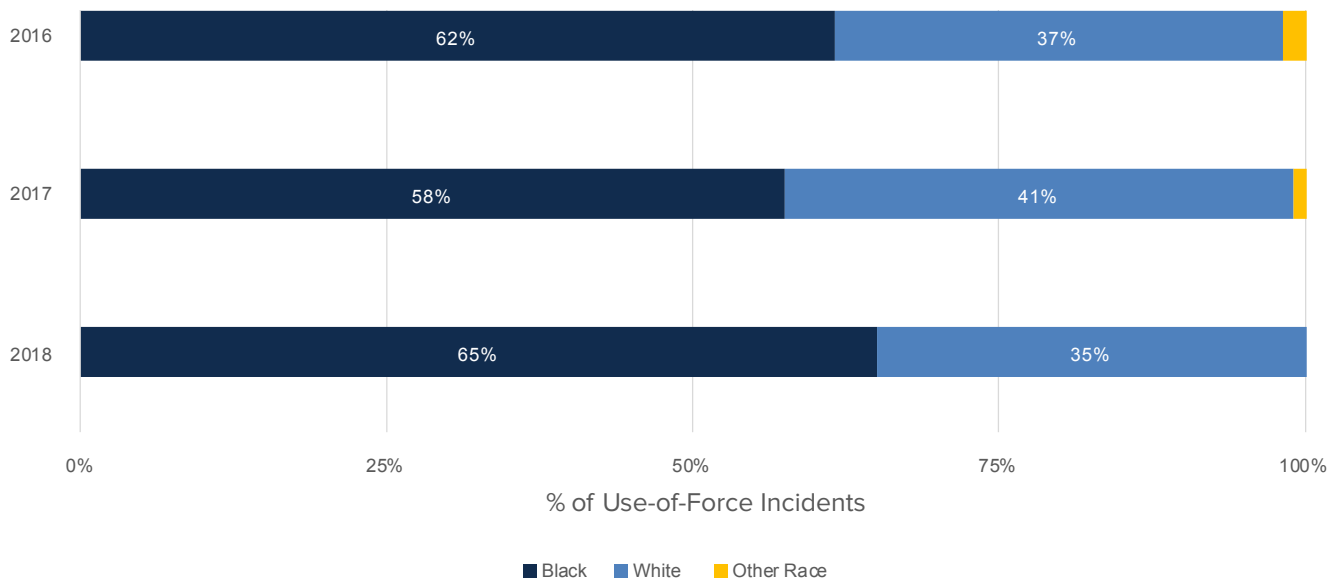
SLCPD officers recorded a total of 852 use-of-force incidents during the 3-year period.¹⁵ Data on the type of force used were missing for 16 observations, and these were dropped from analyses of type of force used. Data on race were missing for 13 observations, and these were dropped from analyses of use of force by race. Location data for incidents of use of force were available only when the incident could be linked to a crime record, which includes location. Crime records were not available for 87 observations of incidents of use of force, and these were dropped from the multilevel regression analysis.

The analyses presented in this report examine whether there are disparities in the frequency of use-of-force

incidents across racial groups or in the type of force used. They also investigate whether there is variation across racial groups in the reason for the initial contact that resulted in use of force. In this section of the report, Other Race includes individuals identified as Latinx, Asian, and Other Race, as these three categories combined account for less than 2% of all incidents of use of force.

The racial composition of individuals subject to SLCPD use of force over the 3-year period is illustrated in Figure 5. In each year, Black individuals experienced SLCPD use-of-force more often than any other group. The Black share of total incidents of use of force ranged from 58% to 65%, far exceeding the Black share of the county population, which is 24%. Conversely, the White share of

Figure 5. Composition of SLCPD Use-of-Force Incidents by Race, 2016–2018



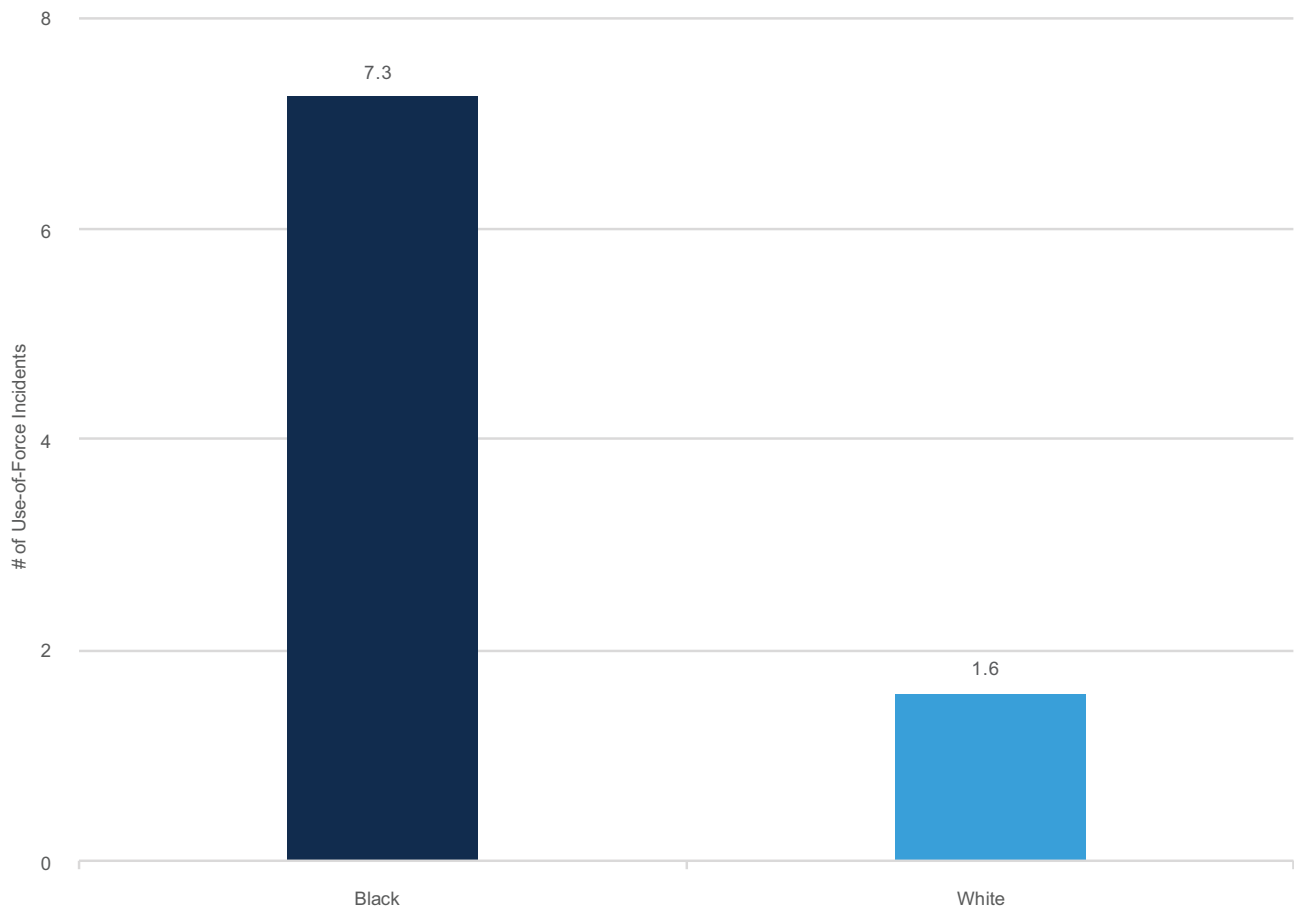
¹⁵ A graph displaying the count of use-of-force incidents each quarter is included in Appendix E, as are additional graphs showing the race and age breakdowns of these stops.

total incidents of use of force ranged from 35% to 41%, below the 67% White share of the county population. The share of incidents involving individuals included in the category Other Race—ranging from 1.9% in 2016 to 0% in 2018—was also far below the 9% population share of this composite group. While the Black share dipped and the White share rose in 2017, there was no overall trend in the racial distribution of incidents of use of force during the brief observation period of 3 years.

Are there racial disparities in who is subject to use of force and in the types of force used by SLCPD officers?

The findings presented in this section examine the degree to which there are disparities in the frequency of use of force incidents and types of force across racial groups. Here we present analyses of incident rates, force types, and incident outcomes.

Figure 6. Comparing Per Capita Use-of-Force Incidents per 10,000 Residents by Race, 2016–2018



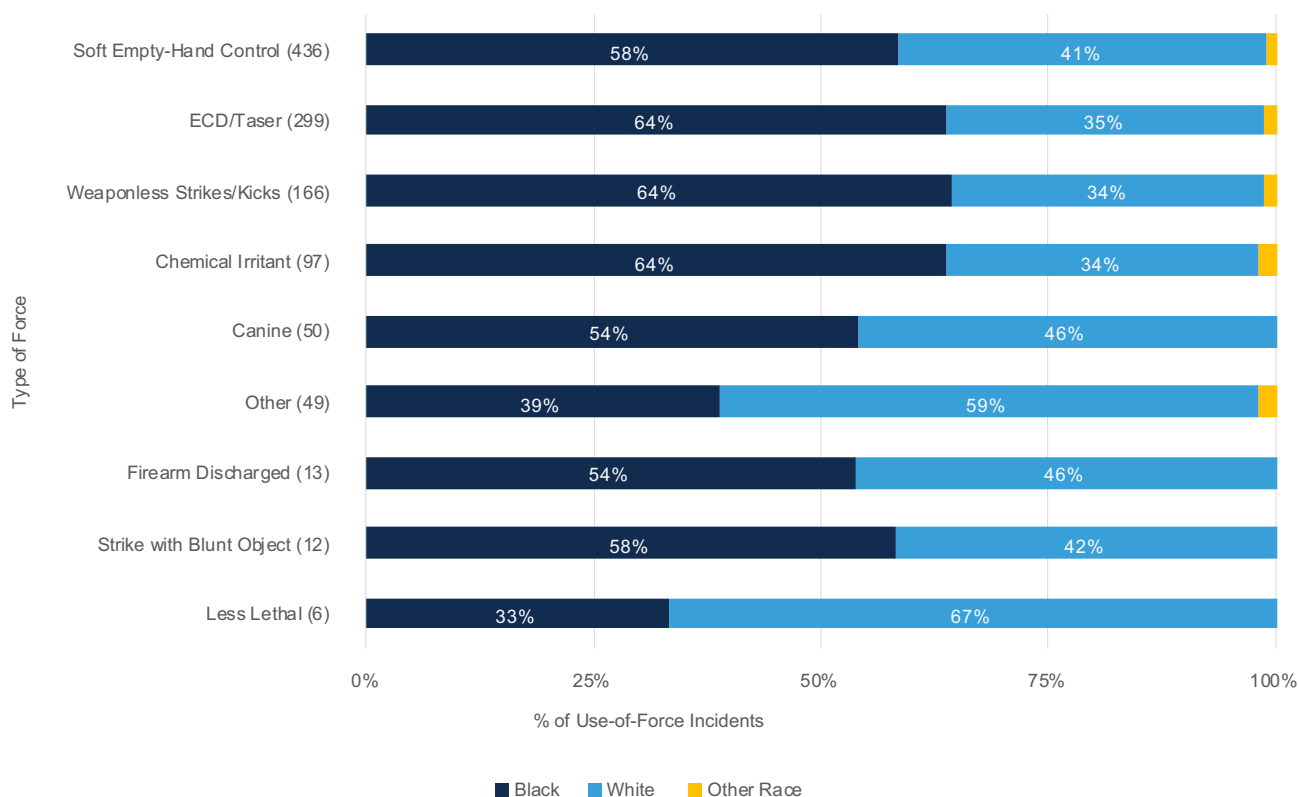
USE-OF-FORCE INCIDENT RATES

Incident rate analysis (Figure 6): This analysis compares the frequency of use-of-force incidents across racial groups, taking into account the representation of each group in the population of residents in St. Louis County. The per capita use-of-force incident rate for each racial group is calculated by dividing the number of incidents for the racial group by the number of county residents in that group. Because fewer than 2% of use-of-force incidents involved individuals in the Other Race category, the analysis compares only Black and White individuals.

Interpreting findings: Higher incident rates for a given group indicate that the group is at greater risk of SLCPD use-of-force compared to other groups.

As shown in Figure 6, Black residents of St. Louis County were more than 3 times as likely to experience SLCPD use of force compared to White residents, adjusting for the population size of each group in the county.

Figure 7. Comparing Use-of-Force Types by Race, 2016–2018



Note: SLCPD categories of force types are mapped to CPE’s standardized categories as follows: physical restraint = soft empty-hand control; Taser = electronic control device (ECD)/Taser; physical striking = weaponless strikes/kicks; pepper spray = chemical irritant; canine = canine; other = other; firearm = firearm discharged; baton = strike with blunt object; less lethal = less lethal. Types of force are ordered in the figure from top to bottom according to the frequency of their use.

The numbers in parentheses are the total counts for each force type. CPE would like to acknowledge the slight variation in the total counts of use-of-force type between Figure 7 and Figure E2. There were 13 incidents in the SLCPD use-of-force data where a subject’s race was missing. These incidents were dropped from the calculation of use-of-force types by racial groups. Note that there are incidents where more than one use-of-force types was used on an individual. As such, a total of 18 use-of-force types were excluded from our total counts of use-of-force by racial group.

Which types of use-of-force incidents evidence the greatest racial disparities?

FORCE TYPE

Force type analysis (Figure 7): This analysis examines the various types of force deployed by SLCPD by the race of the individual subject to that force. The goal of this analysis is to gauge the degree to which different groups are subject to similar types of treatment.

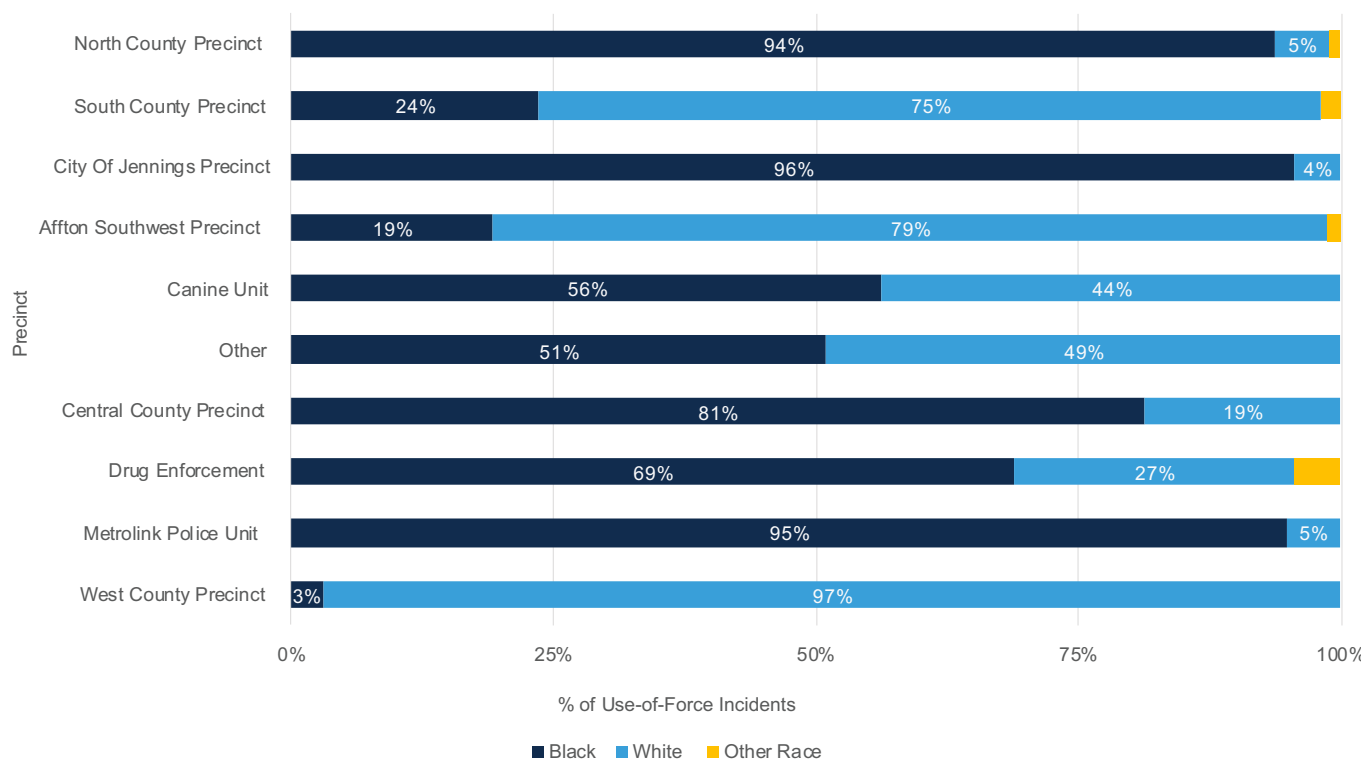
Interpreting findings: A force type analysis that finds that some force types are more likely to be used in incidents involving members of a specific racial group is an indicator these groups may be subject to differing treatment during encounters in which force is deployed by SLCPD.

Black individuals experienced every type of use of

force at a higher rate than their 24% share of the county population, but the disparity varied substantially by force type. The Black share tended to be highest in the most commonly used force types: hand control, electronic control device (ECD)/Taser, weaponless strikes/kicks, and chemical irritant. Because these four force types accounted for 89% of all force types used during the 3-year period, Black overrepresentation in their use largely accounts for Black overrepresentation in incidents of use of force.

White individuals experienced every type of force at a lower rate than their 67% share of the county population, with the exception of less lethal force, which was used by SLCPD just six times during the 3-year study period (out of 1,116 applications of force, including multiple force types used in a given incident). Individuals categorized

Figure 8. Comparing Use of Force by Race and SLCPD Work Unit, 2016–2018



as Other Race also experienced every type of use of force at a lower rate than the 9% population share for this composite group. This group accounted for no more than 2% of any type of force used and was not represented at all in four categories of force type. A graph reporting the overall count of each force type deployed by SLCPD is included in Appendix E. It should be noted again that a single incident of use of force may include the application of multiple types of force.

WORK UNIT

Work unit analysis (Figure 8): This analysis shows the distribution of incidents of use of force by racial group and police department work unit (i.e., SLCPD precinct). The goal of this analysis is to examine whether specific work units may differently contribute to the overall racial composition of SLCPD use-of-force incidents.

Interpreting findings: The work unit analysis suggests that a specific work unit may contribute to racial disparities in use of force if a racial group is overrepresented in incidents among that work unit relative to other work units and relative to that group’s representation in the St. Louis County population. We note, however, that the demographic composition of the populations

served across work units may vary, which may account for a portion of the variation in the racial composition of force incidents. If the work unit analysis finds that a given racial group is overrepresented among the use of force incidents in all work units, this indicates that local demographics are not the whole explanation for the observed racial disparities.

As in the previous chart, precincts are shown in descending order by the number of incidents of use of force. Work units with a small proportion of use of force incidents are combined in the Other category. Figure 8 shows that the racial composition of use of force during the study period varied substantially by precinct. As noted above with respect to vehicle stops, the racial composition of use of force by precinct has some correlation with the demographic makeup of the precinct. Between them, the North County and City of Jennings precincts accounted for 55% of use-of-force incidents experienced by Black individuals in SLCPD precincts; accordingly, they would be expected to contribute significantly to Black overrepresentation in use-of-force incidents in the county as a whole.

It is important to note that the racial composition of stops also reflects the community served by officers in a given work unit. For example, the population of individuals stopped by officers assigned to North County and City of Jennings reflects, in part, the high concentration of Black residents in both precincts. As we discuss next, regression analysis provides further insight into the various factors influencing the rates of use of force across racial groups.

What factors might explain disparities in the frequency of SLCPD use-of-force incidents?

Multilevel regression analysis (Table 2): This analysis examines how various factors contribute to observed disparities in the likelihood of a use-of-force incident. We use this technique to examine whether two common explanations for racial disparities are the main contributors to the disparities observed in SLCPD use-of-force data. These common explanations are aligned with

the community characteristics described in Explanation 2 in the NJD analytic framework:

1. **Higher crime rates** in neighborhoods may drive more frequent police contact with community members in specific racial groups. To test this explanation, we examine how rates of serious crime are related to the frequency of incidents of use of force in a neighborhood (see Model 3).
2. **Neighborhood characteristics**, such as higher poverty rates, may drive disproportionately frequent police contact with community members in specific racial groups. To test this explanation, we examine whether the proportion of residents living below the poverty line is related to the frequency of incidents of use of force in a neighborhood (see Model 4).

Table 2. Testing Common Explanations for the Frequency of Use-of-Force Incidents Using Multilevel Regression Models¹⁶

	Estimated Use-of-Force Incidence Ratios (95% CI)				
	Individual Race Only (Model 1)	Individual Race and Neighborhood Racial Composition (Model 2)	Accounting for Neighborhood Crime Rates (Model 3)	Accounting for Neighborhood Poverty Rates (Model 4)	Accounting for the Interaction of Individual Race and Neighborhood Poverty (Model 5)
Race					
White	1.00	1.00	1.00	1.00	1.00
Black	5.97* (4.39,8.11)	6.72* (4.80,9.39)	6.50* (4.59,9.23)	6.46* (4.69,8.89)	6.37* (4.55,8.93)
% of population that is Black[†]		0.78* (0.61,1.00)	0.65* (0.53,0.80)	0.49* (0.37,0.65)	0.49* (0.37,0.66)
# of Part 1 crimes[†]			2.15* (1.81,2.55)	2.09* (1.76,2.47)	2.07* (1.74,2.46)

*Indicates statistical significance at the 95% confidence level. This confidence interval (CI) means that there is a 5% likelihood that the true value of the coefficient lies outside of the range of values shown in parentheses for each coefficient.

† These variables were transformed into units of standard deviation (i.e., z-scores) for analysis.

16 Incidents of use of force involving racial groups other than White and Black were excluded from the analysis due to the small overall number of such incidents.

It should be noted that location data for incidents of use of force were available only when the incident could be linked to a crime record, which includes location. Of 826 use-of-force incidents, 84 (10.2%) could not be linked to a crime incident; accordingly, these incidents have been dropped from the regression analysis because the neighborhood where the incident took place is not known. Because these observations are unlikely to be missing at random, excluding them could make the regression estimates less accurate. The regression model made use of census tracts for St Louis County. Using location data provided by SLCPD, CPE located the census tract in which each incident occurred.¹⁷ These records of incidents in each census tract were then tallied to comprise the counts of incidents per tract that were input into the regression model.¹⁸

Interpreting multilevel regression findings: In Table 2, Model 1 serves as a baseline, while Models 2–4 include additional factors that might help us understand or explain any observed disparities. Model 5 adds a final factor, which interacts (combines) Black race and neighborhood poverty. These are reported step by step, which allows us to evaluate whether taking various common explanations into account reduces the observed disparities.

The impact of each factor is reported in the table as an incident rate ratio. If the value is greater than 1.0, this indicates that the count of force incidents is increased by the presence of this factor. Similarly, a value of less than 1.0 indicates the count of force incidents is decreased by the factor. In all models, the individual being White is included as the reference category (i.e., the incident risk ratio always equals 1.0 for this racial category, as it is the category to which all others are being compared). If the effect for the race of an individual is greater than 1.0, it

indicates individuals in this racial group are at greater risk of use of force than individuals who are White.

This analysis also allows us to examine the effect of each factor when we take the other explanations into account. If the effect of race on the frequency of use-of-force incidents (i.e., the incident rate ratio) is reduced when we take into account these common explanations, this suggests these factors help explain the observed disparity. If the effect of race on the frequency of an incident remains significant even after the analysis accounts for these common explanations (i.e., when they are included in Models 2–5), this suggests that SLCPD policies and behaviors may contribute to the observed disparities.

Model 1 examines the relationship between Black race and frequency of use-of-force incidents before we take common explanations into account. This model shows that a Black individual, on a per capita basis, is 5.97 times more likely to experience SLCPD use of force compared to a White person in the same neighborhood.¹⁹

Model 2 controls for the share of the neighborhood population that is Black. The coefficient for this second variable (0.78) is statistically significant and less than 1.0, meaning that although Black persons are more likely to experience SLCPD use of force, this is not explained by a higher incidence of use of force in neighborhoods where a large proportion of residents are Black. On the contrary, the finding suggests that the higher the proportion of Black residents in a neighborhood, the less likely force will be used, all else equal. The incidence rate ratio for Black race increases to 6.72, indicating that Black race is even more predictive of use of force when the neighborhood demographic composition is taken into account.

Model 3 adds the Part 1 crime rate in the neighborhoods

¹⁷ Where valid location information was available.

¹⁸ It is important to note that use-of-force incidents from work units outside of SLCPD's patrol area were included in this analysis.

¹⁹ The Black/White disparities in use of force that are reported in the neighborhood regression models differ from the disparity reported in Figure 6 for the county as a whole. This can be explained by the fact that the population demographics in the neighborhoods in which use-of-force incidents were reported differed from the demographics of the county as a whole.

where the incidents occur as a third explanatory factor.²⁰ The effect size for this factor is above 1.0, which indicates that use of force incidents are more likely to occur in neighborhoods with higher crime rates. We can also examine how the inclusion of this variable affects the statistical relationship between use of force and the race of the community member. If the higher rate of use-of-force experienced by Black persons was driven by the crime rate in the neighborhoods where the stops occurred, we would expect to see a decline in the effect size for Black race. Comparing the effect size of Black race in Model 2 and Model 3, we see that the incident rate ratio hardly changes, falling from 6.72 to 6.50. This suggests that while there is a relationship between neighborhood crime and the likelihood of experiencing use of force, it does not entirely explain the observed disparity—that is, the greater risk of experiencing use of force for Black individuals.

Model 4 also takes into account the poverty rate of the neighborhood where the use-of-force incident occurs. The analysis finds that incidents of use of force happen more frequently in neighborhoods with higher poverty rates. As with Model 3, the relationship between Black race and use of force is not changed significantly by the inclusion of this additional factor. After accounting for serious crime rates and the neighborhood characteristic

of poverty, we estimate that a Black person, on a per capita basis, is 6.46 times as likely to experience SLCPD use of force as a White person in the same neighborhood.

Model 5 examines the joint association (i.e., the “interaction”) of race and neighborhood poverty with incidents of use of force. This interaction term explores whether the likelihood that a Black individual will experience use of force relative to a White individual varies according to the neighborhood poverty level. The coefficient for this interaction term is not significant, meaning that no such variation is found. Inclusion of this variable lowers the Black race coefficient very slightly, to 6.37.

Although it is not possible to control for every contributing factor, this analysis suggests that the higher per capita rate at which Black persons experience SLCPD use of force relative to White persons is not solely explained by the neighborhood characteristics and crime rates of the areas where the incidents occur. Black race remains a powerful predictor of use of force even when these common explanations are taken into account, suggesting that SLCPD policies and behaviors may contribute to the observed disparities.

²⁰ Part 1 crimes are serious crimes—specifically, a category of eight offenses used in the FBI’s Uniform Crime Reporting (UCR) Statistics: murder and non-negligent homicide, rape (legacy and revised), robbery, aggravated assault, burglary, motor vehicle theft, larceny theft, and arson. Three additional offenses related to human trafficking—added to the UCR classification of Part 1 crimes in 2013—are not counted in the calculation of crime rates utilized in this report.

CONCLUSION

Overall, the results of our analyses of SLCPD data on vehicle stops and use-of-force incidents find reasons for optimism and identify opportunities for improvement.

We commend SLCPD for their proactive participation in the NJD as a tool for enhancing equity in SLCPD policing practices and outcomes. We encourage SLCPD to share these results with the people of St. Louis County in an effort to enhance transparency and accountability and to support community partnership in producing equity and public safety. The analyses in this report should be viewed as a resource for steering reforms and as a benchmark against which future progress can be measured.

Based on the findings detailed in this report, we offer 10 specific recommendations, as detailed in the Executive Summary. While this is not an exhaustive list of possible solutions to the disparities and risk factors we have identified, we recommend SLCPD adopt these actionable steps to enhance their commitment to fair and equitable policing.

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APPENDIX A. ST. LOUIS CITY REPORTS COMPARISON BRIEF

This is the second City Report that CPE has prepared for SLCPD. Our first report, *The Science of Justice: St. Louis County Police Department National Justice Database City Report* (April 2019), used data from 2010 to 2015 and an interim analysis plan that CPE has since updated. Consequently, findings in the current report (2020) and original report (2019) are not fully comparable. This brief summarizes the changes in CPE's analytical approach and identifies the findings that may be validly compared between reports. Pedestrian stop data were not made available to CPE for analysis in either report, so the discussion in this brief is limited to vehicle stops and use of force.

The study period for vehicle stops in the original report is 2010 through 2015, and the corresponding period for the current report is 2016 through 2018. The current report includes a new analysis of racial disparities in the reasons given for vehicle stops (moving violation, license violation, equipment violation, and so on). The current report retains analysis of vehicle stops by SLCPD work unit but eliminates analysis of vehicle searches and search outcomes by work unit. In addition, the current analytical plan no longer includes a regression model of contraband yield regressed on the reasons given for vehicle stops and searches.

The study period for use of force in the original report is 2012 through 2015 and the corresponding period for the second report is 2016 through 2018. The current analytical plan eliminates analysis in the original report that adjusted the use-of-force rate for a given racial group by the group's arrest rate. The current report includes a regression model examining how race, neighborhood crime rates, and neighborhood characteristics relate to use-of-force rates. In addition, the current report includes an analysis of racial disparities in use of force by SLCPD work unit.

The table below lists the key research questions in both reports and indicates whether the findings may be validly compared. To summarize, the comparable findings reveal the following:

- The racial disparity in vehicle stops appears to have increased over time. In the current report, Black drivers were stopped at rates 11 to 16 percentage points higher than the Black population share of the county; the disparity was 9 percentage points in the original report.
- On the positive side, the Black/White disparity in search rates resulting from vehicle stops appears to have narrowed considerably in the context of a general decline in search rates.
- SLCPD also seems to have significantly improved search efficiency for both Black and White drivers, and the difference in search yield rates between these two groups has narrowed.
- There is only one valid point of comparison for use of force, but it is an important one: The Black/White disparity in experiencing use of force per capita appears to have declined from fourfold to threefold.

Research Question	Summary of Original Report Findings (2010–2015, vehicle stops) (2012–2015, use of force)	Summary of Current Report Findings (2016–2018, all data)	Comparability of Findings
Are there racial disparities in vehicle stops?	Yes. 31% of all SLCPD vehicle stops during the 5-year period involved Black drivers, while Black persons made up 23% of the county population.	Yes. 35% to 40% of all stops (depending on the year) involved Black drivers, while Black persons made up 24% of the county population.	Findings are comparable. The racial disparity in stops has increased.
Are there racial disparities in reasons for vehicle stops?	Not analyzed.	Yes. Black drivers were more likely to be stopped for a license violation than White or Other Race drivers.	Not applicable.
Are there racial disparities in outcomes of vehicle stops?	Yes. Black drivers were more likely than White drivers to be either arrested or released without citation.	Yes. Black drivers were more likely than White drivers or those of Other Race to be arrested. Drivers of Other Race were more likely to be released without citation than drivers from the other two groups.	Findings are comparable across reports for White and Black drivers. Black drivers continue to be arrested at a higher rate than White drivers, but White and Black drivers are now released without citation at about the same rate. Findings are not comparable for other races because these are shown separately in the original report and combined in the Other Race group in the current report.
Are there racial disparities in search rates for vehicle stops?	Yes. Black drivers were searched at a rate of 15%, compared to 9% for White drivers.	Yes. Black drivers were searched at a rate of 7% compared to 5% for White drivers.	Findings are comparable. Search rates have declined for both racial groups, and the racial gap in search rates has narrowed. Nevertheless, Black drivers who are men or boys are still searched at a much higher rate than White drivers who are men or boys.

Are there racial disparities in rates of contraband found from searches during vehicle stops?	Yes. The contraband yield rate for White drivers was 24%, and the yield rate for Black drivers was 20%.	Yes. The contraband yield rate for White drivers was 33%, and the yield rate for Black drivers was 31%.	Findings are comparable. Searches have become more efficient, and the contraband yield gap between races has narrowed.
Are racial disparities in yield rates explained by the reasons given for stops and searches?	No.	Not analyzed.	Not applicable.
Are there racial disparities in vehicle stops and searches across SLCPD work units?	Yes, for both stops and searches.	Yes for stops; searches were not analyzed by work unit.	Findings for stops are roughly comparable, although original findings are shown as counts, and current findings are shown as percentages. The variation among precincts is similar in both study periods.
Are there racial disparities in use of force?	Yes. Black individuals were more than 4 times as likely per capita to experience SLCPD use of force compared to White individuals.	Yes. Black individuals were more than 3 times as likely per capita to experience SLCPD use of force compared to White individuals.	Findings are comparable. The Black/White disparity in use of force has diminished.
Are there racial disparities in types of force used?	Yes. Adjusted per 1,000 arrests, Black individuals experienced every type of force at a higher rate than White individuals.	Yes. Black individuals experienced every type of force at a higher rate than the Black population share. The disparity was highest in the most commonly used force types.	Findings are not comparable because the original analysis adjusts counts by arrests and the current analysis uses unadjusted counts.
Are there racial disparities in rates of use of force after accounting for crime rates and neighborhood characteristics?	Not analyzed.	A regression analysis that controlled for these variables found that Black individuals were more than 6 times as likely per capita to experience force compared to White individuals.	Not applicable.
Are there racial disparities in rates of use-of-force after accounting for arrest rates?	Yes, although the disparities were reduced.	Not analyzed.	Not applicable.

APPENDIX B. POLICY REVIEW ON LGBTQ+ EQUITY

Background

SLCPD requested that CPE conduct a review of the department's publicly available written policies and procedures to identify opportunities to promote LGBTQ+ equity, both within the department and in interactions with the community.

Across the United States, the relationship between law enforcement agencies and LGBTQ+ communities is often fraught with conflict and distrust. In 2012, Lambda Legal conducted a national survey of LGBT people and people living with HIV who had interacted with law enforcement during the 5 years prior. Twenty-one percent of respondents—and 32% of non-White respondents—reported experiencing hostile attitudes from police officers.¹ In a 2015 survey of transgender Americans who had interacted with law enforcement officers in the prior year, a majority of all respondents reported experiencing some form of disrespect or mistreatment from police.² A majority of respondents also said they would be somewhat or very uncomfortable seeking assistance from law enforcement if they needed it.³

We commend SLCPD for seeking opportunities to promote LGBTQ+ equity and build trust with the LGBTQ+ communities that they serve. SLCPD communicated to CPE that the department is seeking opportunities to move beyond basic compliance and align with cutting-edge best practices. We applaud this

goal and conducted this review accordingly.

Scope of Review

This review focuses on opportunities to improve and build on SLCPD's written policies to promote LGBTQ+ equity and build trust with LGBTQ+ communities. Written policies can be a powerful tool for setting clear standards of behavior and communicating a law enforcement agency's values to staff and to the broader community.

We recognize that not all organizational norms flow from formal written policies. Training, community engagement, supervision practices, disciplinary norms, and organizational culture all communicate an organization's values and set expectations of behavior. As a result, we recognize that this review may not capture all of the ways that SLCPD is currently working toward LGBTQ+ equity and inclusion. We also recognize that, in some cases, the recommendations in this document may involve formalizing existing implicit expectations of behavior rather than changing existing expectations. Setting clear and explicit expectations of behavior is, however, an important tool for reducing the risk that bias will influence decisions.⁴

CPE reviewed the General Orders and Special Orders publicly available on SLCPD's website through PowerDMS. Our review indicated that SLCPD has adopted several policies consistent with the department's goal of promoting LGBTQ+ equity and community trust. For example, SLCPD

1 Lambda Legal. (2012). *Protected and served?* <https://www.lambdalegal.org/protected-and-served>

2 National Center for Transgender Equality. (2016). *Report of the 2015 U.S. Transgender Survey*. <https://transequality.org/sites/default/files/docs/usts/USTS-Full-Report-Dec17.pdf>, p. 186.

3 National Center for Transgender Equality (2016), p. 186.

4 Goff, P. A., & Rau, H. (2020). Predicting bad policing: Theorizing burdensome and racially disparate policing through the lenses of social psychology and routine activities. *The ANNALS of the American Academy of Political and Social Science*, 687(1), 67–88. <https://doi.org/10.1177/0002716220901349>

has policies prohibiting workplace harassment,⁵ discriminatory policing,⁶ and posting of offensive online material relating to sexual orientation that may inhibit the employee's ability to serve the entirety of the community effectively.⁷ SLCPD's policy on hate crimes explicitly covers acts motivated by sexual orientation.⁸ SLCPD also has policies relating to the protection of transgender and gender-nonconforming prisoners.⁹

We also identified opportunities for improvement and growth. In the remainder of this brief, we make recommendations for ways that SLCPD can build and improve on their existing policies to align with emerging industry best practices for promoting LGBTQ+ equity. We divide our recommendations into two sections: those relating to workplace policies, and those relating to interactions with LGBTQ+ people in the community.

Recommendations for Workplace Policies

1. **Adopt a workplace nondiscrimination policy.**

While SLCPD currently has a policy prohibiting workplace harassment, the policies reviewed did not include a prohibition against workplace discrimination. We recommend that SLCPD adopt a nondiscrimination policy expressly prohibiting discrimination in hiring, promotion, compensation, assignment, or discipline. Protected categories should include sex, gender, gender identity and/or expression, and sexual orientation. A workplace nondiscrimination policy should include procedures for complaining about an

incident of discrimination and prohibit retaliation against those who complain of discrimination, oppose discrimination, or support a claim of discrimination.

2. **Prohibit workplace harassment based on gender identity and expression.**

SLCPD has a workplace harassment policy that explicitly prohibits harassment based on a number of protected categories, including sex and sexual orientation, but does not explicitly prohibit workplace harassment based on gender identity and expression. We recommend that SLCPD expand the department's workplace harassment policy to include gender identity and expression as protected categories. Examples of conduct that might constitute harassment based on gender identity or harassment include: deliberately misusing a person's name or pronouns; asking personal questions about a person's body or gender transition; "outing" and using demeaning or derogatory language aimed at a person's sexual orientation, gender identity, or gender expression.¹⁰

3. **Amend family leave policy language to be inclusive of LGBTQ+ parents.**

SLCPD's leave policy allows employees to request up to 12 weeks of leave to bond with a newborn child, newly adopted child, or newly placed foster child.¹¹ While this policy applies to all employees equally, some portions of the policy language assume that employees seeking leave are in heterosexual relationships. For example, the

5 SLCPD GO 16 (Workplace Harassment).

6 SLCPD GO 81 (Bias Free Policing and Traffic Stop Information).

7 SLCPD GO 98 (Social Media and Networking).

8 SLCPD GO 79 (Hate Crimes).

9 SLCPD GO 57 (Prisoner Security and Accountability).

10 See District of Columbia Metropolitan Police Department Policy EO-17-012 (Gender Identity and Expression Anti-Discrimination Policy). See also Copple, J. E., & Dunn, P. M. (2017). *Gender, sexuality, and 21st century policing: Protecting the rights of the LGBTQ+ community*. Office of Community Oriented Policing Services. <https://www.iadlest.org/Portals/0/cops%20LGBTQ.pdf>

11 SLCPD GO 18 (Leave Policy), Section VI.J.

policy provides that if both parents are employees of the department, “the couple is entitled to up to 12 weeks of leave, which may be divided between the mother and father as they choose.” Changing references to “the mother and father” to “the parents” and references to “maternity/paternity leave” to “parental leave” or “baby bonding leave” would be a simple opportunity to signal commitment to LGBTQ+ equity and inclusion in the workplace.

4. **Allow members to dress and groom themselves according to their gender identity or expression.** SLCPD’s policy on uniforms and appearance currently includes gender-specific restrictions on dress and grooming.¹² SLCPD could promote an inclusive environment for transgender and gender-nonconforming employees by modifying this policy to ensure that all employees are able to dress and groom themselves according to their gender identity or expression.

Some police departments, like the New York City Police Department and the Metropolitan Police Department of the District of Columbia, have adopted uniform and grooming policies that apply equally to individuals of all genders and have removed gender-specific restrictions altogether.¹³ Other departments, like the Los Angeles County Sheriff’s Department, maintain some gender-specific restrictions in dress codes but explicitly clarify that transgender and gender-nonconforming

employees may dress and groom themselves according to their gender identity and expression.¹⁴

5. **Adopt a policy providing guidance and support for department members who transition on the job.** Adopting an explicit policy on supporting officers who transition on the job is an important way that law enforcement agencies can promote LGBTQ+ equity and inclusion in the workplace.¹⁵ Important topics often covered in such policies include:

- confidentiality of information regarding employee gender identity and/or transition;
- use of proper names and pronouns;
- procedures for updating department records and identification cards;
- bathroom and locker room access; and
- protection against discrimination and harassment.¹⁶

Recommendations for Policies on Interactions With the Public

6. **Adopt a policy specifically governing interactions with transgender and gender-nonconforming individuals.** An emerging industry best practice in policing is to adopt a standalone policy on interactions with transgender and

¹² SLCPD GO 36 (Uniforms and Appearance).

¹³ New York City Police Department Patrol Guide, Procedure No. 203-07 (Performance On Duty-Personal Appearance); District of Columbia Metropolitan Police Department Policy EO-17-012 (Gender Identity and Expression Anti-Discrimination Policy).

¹⁴ Los Angeles County Sheriff’s Department. (2017). *An LASD guide: Transgender and gender nonconforming employees*. http://shq.lasdnews.net/content/uoa/SHQ/LASD%20Transgender%20Employee%20Guide_Rev%202017.pdf, p. 5.

¹⁵ Copple et al. (2017), p. 30.

¹⁶ Resources and examples for policies on supporting employee transition include: District of Columbia Metropolitan Police Department Policy EO-17-012 (Gender Identity and Expression Anti-Discrimination Policy); New York City Police Department Patrol Guide, Procedure No. 205-68 (Member of the Service Seeking to Notify the Department of Transgender or Gender Non-Conforming Transition or Status); and Los Angeles County Sheriff’s Department (2017), *An LASD guide: Transgender and gender nonconforming employees*. In addition, the Transgender Law Center has published a Model Transgender Employment Policy, available at <https://transgenderlawcenter.org/wp-content/uploads/2013/12/model-workplace-employment-policy-Updated.pdf>

gender-nonconforming people.¹⁷ A standalone policy allows officers to obtain guidance on appropriate language and procedures quickly, without the need to flip through multiple different department policies.¹⁸ SLCPD currently has a policy on prisoner security and accountability that provides officers guidance on respectful communication and search procedures for transgender and gender-nonconforming prisoners, but we did not locate a similar policy applicable to interactions with transgender and gender-nonconforming individuals in non-arrest contexts, such as traffic stops, *Terry* frisks, and victim or witness interviews.

We recommend that SLCPD build on the department's existing policies by adopting a new policy broadly governing interactions with all transgender and gender-nonconforming individuals. This policy should cover respectful communication, search procedures, department documentation of name and gender, and prevention of profiling and harassment. An example model policy developed by the National LGBT/HIV Criminal Justice Working Group can be found in the appendices of the Community Oriented Policing Services (COPS) report entitled *Gender, Sexuality, and 21st Century Policing*.¹⁹

7. Clarify bias-free policing policy to prohibit discrimination based on gender identity and

expression. SLCPD has a policy prohibiting biased policing based on a number of personal characteristics, including gender and sexual orientation/identity.²⁰ While discrimination based on gender identity and expression may fall within the existing prohibition against gender discrimination, SLCPD could send a strong message regarding the department's commitment to equity for transgender and gender-nonconforming people by explicitly including gender identity and expression in this policy's list of protected categories.²¹

8. **Clarify social media policy and networking policy.** SLCPD's current policy on social media and networking prohibits employees from posting materials relating to sex or sexual orientation "that are reasonably likely to inhibit the employee's ability to effectively serve the entirety of the community."²² We recommend that SLCPD modify this policy to also prohibit posting of material relating to gender identity or expression that is reasonably likely to inhibit an employee's ability to serve the entire community effectively.
9. **Adopt a policy expressly defining and prohibiting sexual harassment and misconduct against members of the public.** Over the past few years, leaders across many professions and industries have recognized the need to proactively address and prevent sexual harassment

17 Copple et al. (2017), p. 13; San Francisco Police Department GO 5.22 (Interacting With Transgender, Gender-Variant, and Nonbinary Individuals); District of Columbia Metropolitan Police Department GO 501-02 (Handling Interactions With Transgender Individuals); Philadelphia Police Department Directive 4.15 (Department Interactions With Transgender Individuals); New Orleans Police Department Operations Manual, Ch. 41.13.1 (Interactions With Lesbian, Bisexual, Transgender, and Questioning Persons); Norfolk Police Department OPR 755 (Interactions With Transgender, Intersex, and Gender Non-Conforming Individuals).

18 Copple et al. (2017), p. 13.

19 Copple et al. (2017), Appendix A.

20 SLCPD GO 81 (Bias Free Policing and Traffic Stop Information).

21 President's Task Force on 21st Century Policing. (2015). Final report of the President's Task Force on 21st Century Policing. Office of Community Oriented Policing Services. <https://cops.usdoj.gov/RIC/Publications/cops-p311-pub.pdf>. In particular, see Recommendation 2.13: "Law enforcement agencies should adopt and enforce policies prohibiting profiling and discrimination based on race, ethnicity, national origin, religion, age, gender, gender identity/expression, sexual orientation, immigration status, disability, housing status, occupation, or language fluency" (p. 2).

22 SLCPD GO 98 (Social Media and Networking).

and abuse. Within the field of policing, the International Association of Chiefs of Police (IACP) recommends that all law enforcement agencies adopt written policies specifically defining and prohibiting sexual harassment and misconduct against members of the public and arrestees.²³ Both the President’s Task Force on 21st Century Policing and the National LGBT/HIV Criminal Justice Working Group have recognized that sexual harassment and misconduct by law enforcement officers is an issue of particular importance to LGBTQ+ communities.²⁴ An example model policy can be found in the appendices of the COPS report entitled *Gender, Sexuality, and 21st Century Policing*.²⁵

10. Expand GO 79 (Hate Crimes) to include incidents based on sex and gender identity.

Existing SLCPD policy defines hate crimes as “acts, attempted acts or threats to an individual, group or their property motivated by hostility based on race, ethnicity/national origin, religion, sexual orientation or physical/mental disability.”

We recommend that SLCPD update this policy to clarify that acts motivated by sex and gender identity are also hate crimes.²⁶

11. Partner with LGBTQ+ communities to implement the changes recommended in this review.

While model policies, templates, and recommendations can provide a helpful starting point, we strongly advise SLCPD to include involved communities when creating or revising policies identified in this review.

²³ International Association of Chiefs of Police. (2011). *Addressing sexual offenses and misconduct by law enforcement: Executive guide*. <https://www.theiacp.org/sites/default/files/all/a/AddressingSexualOffensesandMisconductbyLawEnforcementExecutiveGuide.pdf>

²⁴ Copple et al. (2017), Appendix A.

²⁵ Copple et al. (2017), Appendix B.

²⁶ See Mo. Rev. Stat. § 557.035; 18 U.S.C. § 249.

APPENDIX C. SUPPLEMENTAL DATA GAP ANALYSIS

CPE presented a Data Gap Analysis (DGA) to SLCPD on April 7, 2020. This appendix includes this DGA in its entirety, along with additional information relevant to data completeness that we identified while conducting the analysis provided in this report. This new information is provided in the column titled “Post-Analysis Evaluation,” included in Tables C4 and C5.

Crime/Offense Data Checklist

Table C1. St.Louis County_Crime&Arrests_2016–2018

Variables	Provided	Complete (✓) / Potential Limitation (⚡)
Variable Keycodes	✓	✓
Unique Identifier	✓	✓
Date of Incident	✓	✓
Time of Incident	✓	✓
Was the incident a result of a Call for Service or Officer Initiated Activity?	✓	✓
NIBRS or UCR Classification	✓	✓
Offense Description	✓	✓
Latitude and Longitude	✓	✓
Street Address Details	✓	⚡ - See Notes
Beat, Precinct, District, Police Service Zone, etc.	✓	✓
Location Type (as coded by NIBRS/UCR)	✓	✓
Bias Motivation (as coded by NIBRS/UCR)	✓	✓
Suspect Race/Ethnicity	✓	⚡ - See Notes
Suspect Sex	✓	⚡ - See Notes
Suspect Age	✓	⚡ - See Notes
Victim Race/Ethnicity	✓	✓
Victim Sex	✓	✓
Victim Age	✓	✓
Officer Race/Ethnicity	✓	⚡ - See Notes
Officer Sex	✓	⚡ - See Notes
Officer Age	✓	⚡ - See Notes
Officer Department Years	✓	⚡ - See Notes
Officer Rank (at date of incident)	✓	⚡ - See Notes
Officer Geographic Assignment (at date of incident)	✓	⚡ - See Notes

Officer Department Assignment (e.g., patrol, SWAT, SRO, etc.) (at date of incident)	✓	◆ - See Notes
Officer Military Background/Experience	X	
Unique Identifiers for Subjects and Officers	✓	◆ - See Notes

<u>Notes</u>	
Street Address Details	7% of addresses cannot be plotted with a high level of confidence.
Suspect Race/Ethnicity	Only 11,541 "Victims" rows could be linked to "Suspects" rows. This means we can only see suspect demographics for 13% of "Victims" rows.
Suspect Sex	
Suspect Age	
Officer Race/Ethnicity	11% of rows in the "Victims" sheet cannot be linked to "Employees2018_SLCPD" to pull officer demographics.
Officer Sex	
Officer Age	11% of rows in the "Victims" sheet cannot be linked to "Employees2018_SLCPD" to pull officer demographics.
Officer Department Years	
Officer Rank (at date of incident)	
Officer Geographic Assignment (at date of incident)	
Officer Department Assignment (at date of incident)	Officer ages, ranks, and assignments are at the date of a separate officer extract (end of 2018), not at the date of the incident.
Unique Identifiers for Subjects and Officers	There are no subject IDs listed.

Vehicle Stop Data Checklist

Table C2. St.LouisCounty_VehicleStops_2016–2018

Variables	Provided	Complete () / Potential Limitation ()
Variable Keycodes	✓	✓
Unique Identifier	✓	◆ - See Notes
Date of Incident	✓	✓
Time of Incident	✓	✓
Reason for Stop/Offense	✓	✓
Latitude/Longitude	X	
Street Address Details	✓	◆ - See Notes
Beat, Precinct, District, Police Service Zone, etc.	✓	◆ - See Notes
Location Type (as coded by NIBRS/UCR)	✓	✓
Whether Stop Occurred at a Checkpoint	X	
Disposition(s) for Each Vehicle Occupant (citation, arrest, release, etc.)	✓	✓
Whether a Search Was Conducted on Occupant(s) and/or the Vehicle	✓	✓
Nature of Each Search (incident to arrest, plain view, consent, etc.)	✓	✓
What contraband was found in each search, if any?	✓	✓
Whether a K9 Was Used to Search	✓	✓
Vehicle and/or Foot Pursuit Involved	X	
Subject Driver or Passenger	X	
Subject Race/Ethnicity	✓	✓
Subject Sex	✓	✓
Subject Age	✓	✓
Number of Subjects in Vehicle	X	
Officer Race/Ethnicity	✓	◆ - See Notes
Officer Sex	✓	◆ - See Notes
Officer Age	✓	◆ - See Notes
Officer Department Years	✓	◆ - See Notes
Officer Rank (at date of stop)	✓	◆ - See Notes
Officer Geographic Assignment (at date of stop)	✓	◆ - See Notes
Officer Department Assignment (patrol, SWAT, SRO, etc.) (at date of stop)	✓	◆ - See Notes
Officer Military Background/Experience	X	
Number of Officers Involved	✓	◆ - See Notes
Unique Identifiers for Subjects and Officers	✓	◆ - See Notes

Do the data include all vehicle stops OR only certain stops (citation stops, field interviews, etc.)?	
The data appear to represent all vehicle stops.	
Notes:	
Unique Identifier	While there is not actually a unique ID provided, each row represents a single stop, so we can consider this variable to be present.
Street Address Details	83% of rows are blank.
Beat, Precinct, District, Police Service Zone, etc.	42% of rows are blank.
Officer Race/Ethnicity	8% of rows aren't linkable to the provided officer demographics extract. Additionally, officer ages, ranks, and assignments are at the date of the separate extract (end of 2018), not at the date of the incident.
Officer Sex	
Officer Age	
Officer Department Years	
Officer Rank (at date of stop)	
Officer Geographic Assignment (at date of stop)	
Officer Department Assignment (at date of stop)	
Number of Officers Involved	Due to the presence of the column "SECONDDSN," we know when at least two officers were on scene, but we are unable to determine if more than two officers were involved.
Unique Identifiers for Subjects and Officers	There are no subject IDs listed.

Use-of-Force Data Checklist

Table C3. St.LouisCounty_UOF_2016–2018

Variables	Provided	Complete (✓) / Potential Limitation (✦)
Variable Keycodes	✓	✓
Unique Identifier	✓	✓
Date of Incident	✓	✓
Time of Incident	✓	✓
Latitude and Longitude	X	
Street Address Details	X	
Beat, Precinct, District, Police Service Zone, etc.	✓	✦ - See Notes
Location Type (as coded by NIBRS/UCR)	X	
Nature of Contact (traffic stop, call for service, warrant, etc.)	X	
Was the stop officer-initiated?	X	
Disposition(s) for Each Subject (citation, arrest, release, etc.)	X	
Subject Resistance (verbal aggression, physical force, fleeing, etc.)	X	
Type(s) of Force (restraint only, physical force, lethal, etc.)	✓	✓
Did subject(s) possess a weapon?	X	
Did subject(s) use the weapon?	X	
Police Weapons/Tools Used (handgun, OC, Taser, etc.)	✓	✓
When a Firearm is Used, Whether It Was Discharged	✓	✓
Number of Officers Involved	✓	✓
Camera on Scene	X	
Camera Activated/Operating	X	
Subject Race/Ethnicity	✓	✓
Subject Sex	✓	✓
Subject Age	✓	✓
Subject Injury/Hospitalization/Death	✓	✓
Officer Race/Ethnicity	✓	✓

Officer Sex	✓	✓
Officer Age	✓	✓
Officer Department Years	✓	✓
Officer Rank (at date of incident)	✓	✓
Officer Geographic Assignment (at date of incident)	✓	✓
Officer Department Assignment (patrol, SWAT, SRO, etc.) (at date of incident)	✓	✓
Officer Military Background/Experience	X	
Officer Injury/Hospitalization/Death	✓	✓

Notes

Beat, Precinct, District, Police Service Zone, etc.	The closest thing to a district found in the dataset is “countylocation,” which largely shows the county where it took place.
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Symbol Key

Symbol	Provided Meaning	Analysis Ability Meaning
✓	Variable Provided	Analysis Possible
X	Variable Not Provided	Analysis Not Possible
⚡	Variable Provided with Potential Limitation	Potential Analysis Limitation

Vehicle Stop Data – Possible Analyses

Table C4.

Research Question	Variables Required	Provided?	Analysis Ability	Post-Analysis Evaluation
VS0. Has the annual number of vehicle stops increased or decreased during the time period for which data were provided?	1. Unique Identifier	✓	✓ - Analysis Possible	Analysis conducted. Data were provided for vehicle stops from 2016 to 2018.
	2. Date of Incident	✓		
VS1. How many vehicle stops does the department make?	1. Unique Identifier	✓	✓ - Analysis Possible	Analysis conducted.
	2. Date of Incident	✓		

VS2. What percentage of vehicle stops each year involve people from each racial group?	1. Unique Identifier	✓	✓ - Analysis Possible	0.6% of stops (1,066) were dropped from the analysis due to race being missing.
	2. Subject Race/Ethnicity	✓		
	3. Date of Incident	✓		
VS3. What percentage of each work unit's vehicle stops are of each racial group?	1. Unique Identifier	✓	⚠ - Potential Analysis Limitation 8% of rows aren't linkable to the provided officer demographics extract that contains officer assignments. Additionally, officer assignments are at the date of the separate extract (end of 2018), not at the date of the incident. 42% of rows are blank for beat, precinct, district, police service zone, etc.	See VS2. 42.1% of stops (72,333) were dropped from the analysis due to police district being missing. Officer assignment data were deemed to be unreliable for this analysis, as they did not indicate assignment at the time the stop was made.
	2. Subject Race/Ethnicity	✓		
	3a. Officer Department Assignment	⚠		
	OR			
	3b. Beat, Precinct, District, Police Service Zone, etc.	⚠		
VS4. What percentage of each age group's stops are of each racial group?	1. Unique Identifier	✓	✓ - Analysis Possible	See VS2.
	2. Subject Race/Ethnicity	✓		
	3. Subject Age	✓		
VS5. What percentage of each racial group's stops are of each gender?	1. Unique Identifier	✓	✓ - Analysis Possible	See VS2.
	2. Subject Race/Ethnicity	✓		
	3. Subject Sex	✓		
VS6. Are there disparities in the reasons cited for stopping people of different races?	1. Unique Identifier	✓	✓ - Analysis Possible	See VS2. Less than 0.1% of stops (15) were dropped from the analysis due to incident reason being missing.
	2. Subject Race/Ethnicity	✓		
	3. Reason for Stop	✓		

VS7. Once stopped, are stop outcomes different for people of different races and genders?	1. Unique Identifier	✓	✓ - Analysis Possible	See VS2.
	2. Disposition(s) (Citation, Arrest, Release, etc.)	✓		
	3a. Subject Sex	✓		
	AND/OR			
	3b. Subject Race/Ethnicity	✓		
VS8. Are there disparities in the stop outcomes for people of different races?	1. Unique Identifier	✓	✓ - Analysis Possible	See VS2.
	2. Subject Race/Ethnicity	✓		
	3. Disposition(s) (Citation, Arrest, Release, etc.)	✓		
VS9. Once searched, are there racial differences in the likelihood of being found in possession of contraband (e.g., are there differences in the “yield rate”) for discretionary searches (i.e., not “searches incident to arrest”)?	1. Unique Identifier	✓	✓ - Analysis Possible	Analysis conducted.
	2. Whether a Search Was Conducted	✓		
	3. What Contraband Was Found in Each Search	✓		
	4a. Subject Sex	✓		
	AND/OR			
	4b. Subject Race/Ethnicity	✓		

Symbol Key

Symbol	Provided Meaning	Analysis Ability Meaning
✓	Variable Provided	Analysis Possible
X	Variable Not Provided	Analysis Not Possible
⚡	Variable Provided with Potential Limitation	Potential Analysis Limitation

Use-of-force – Possible Analyses

Table C5.

Research Question	Variables Required	Provided?	Analysis Ability	Post-Analysis Evaluation
UF0. Has the annual number of use-of-force incidents increased or decreased over the time period for which data were provided?	1. Unique Identifier	✓	✓ - Analysis Possible	Analysis conducted. Data were provided for use-of-force incidents from 2016 to 2018.
	2. Date of Incident	✓		
UF1. How many use-of-force incidents occur within the department?	1. Unique Identifier	✓	✓ - Analysis Possible	Analysis conducted.
	2. Date of Incident	✓		
UF2. What percentage of use-of-force incidents each year involve people from each racial group?	1. Unique Identifier	✓	✓ - Analysis Possible	1.5% of incidents (13) were dropped from the analysis due to race being missing.
	2. Subject Race/Ethnicity	✓		
	3. Date of Incident	✓		
UF3. What is the per capita rate of experiencing police use of force?	1. Unique Identifier	✓	X - Analysis Not Possible Street Address Details not found in these data Latitude/Longitude not found in these data	See UF2. Precise location data (address or latitude/longitude) are not required for this analysis.
	2. Subject Race/Ethnicity	✓		
	3a. Street Address Details	X		
	AND/OR			
	3b. Latitude/Longitude	X		

UF4. What force types are most commonly deployed by the department?	1. Unique Identifier	✓	✓ - Analysis Possible	1.4% of incidents (16) were dropped from the analysis due to type of force being missing.
	2. Type(s) of Force	✓		
	3. Police Weapons/ Tools Used	✓		
	4. (OPTIONAL): When a Firearm Was Used, Whether It Was Discharged	✓		
UF5. Are there racial differences in the type of force deployed by the department?	1. Unique Identifier	✓	✓ - Analysis Possible	See UF2 and UF4.
	2. Subject Race/Ethnicity	✓		
	3. Type(s) of Force	✓		
	4. Police Weapons/ Tools Used	✓		
	5. (OPTIONAL): When a Firearm Was Used, Whether It Was Discharged	✓		
UF6. What percentage of each age group's use-of-force incidents involve each racial group?	1. Unique Identifier	✓	✓ - Analysis Possible	See UF2. 1 incident was dropped from the analysis due to subject age being missing.
	2. Subject Race/Ethnicity	✓		
	3. Subject Age	✓		
UF7. Are there disparities in the reasons cited for stopping people of different races?	1. Unique Identifier	✓	X - Analysis Not Possible Nature of Contact not found in data	Analysis not conducted.
	2. Subject Race/Ethnicity	✓		
	3. Nature of Contact	X		

UF8. When subjected to police use of force, are racial groups equally likely to be injured/hospitalized/killed?	1. Unique Identifier	✓	✓ - Analysis Possible	UF8 analysis not included in 2020 NJD reports.
	2. Subject Race	✓		
	3. Subject Injury	✓		
	4. (OPTIONAL): Subject Hospitalization	✓		
	5. (OPTIONAL): Subject Death	✓		
UF9. When controlling for all other factors, is race predictive of the likelihood of a person experiencing police use of force?	1. Unique Identifier	✓	X - Analysis Not Possible	<p>Analysis conducted.</p> <p>This analysis requires precise location data (e.g., address). Location data for use-of-force incidents were only available when the incident could be associated with a record of a crime. Eighty-seven of the incidents (10.2%) were dropped from this analysis, as they could not be linked to a crime.</p> <p>This analysis required mapping crime records to a UCR classification of either Part 1 or Part 2 crimes. Not all crimes recorded in each incident could be definitively classified.</p>
	2. Subject Race/Ethnicity	✓		
	3a. Street Address Details	X		
	AND/OR			
	3b. Latitude/Longitude	X		
	4. Crime Data: Unique Identifier	✓		
	5. Crime Data: Date of Incident	✓		
	6a. Crime Data: Offense Description	✓		
	AND/OR			
	6b. Crime Data: NIBRS or UCR Classification	✓		
	7a. Crime Data: Street Address Details	⚡		
	AND/OR			
7b. Crime Data: Latitude and Longitude	✓			

APPENDIX D. SUPPLEMENTAL VEHICLE STOP ANALYSES

Figure D1. Vehicle Stops by Quarter, 2016–2018



Figure D2. Vehicle Stops by Race and Age Group, 2016–2018

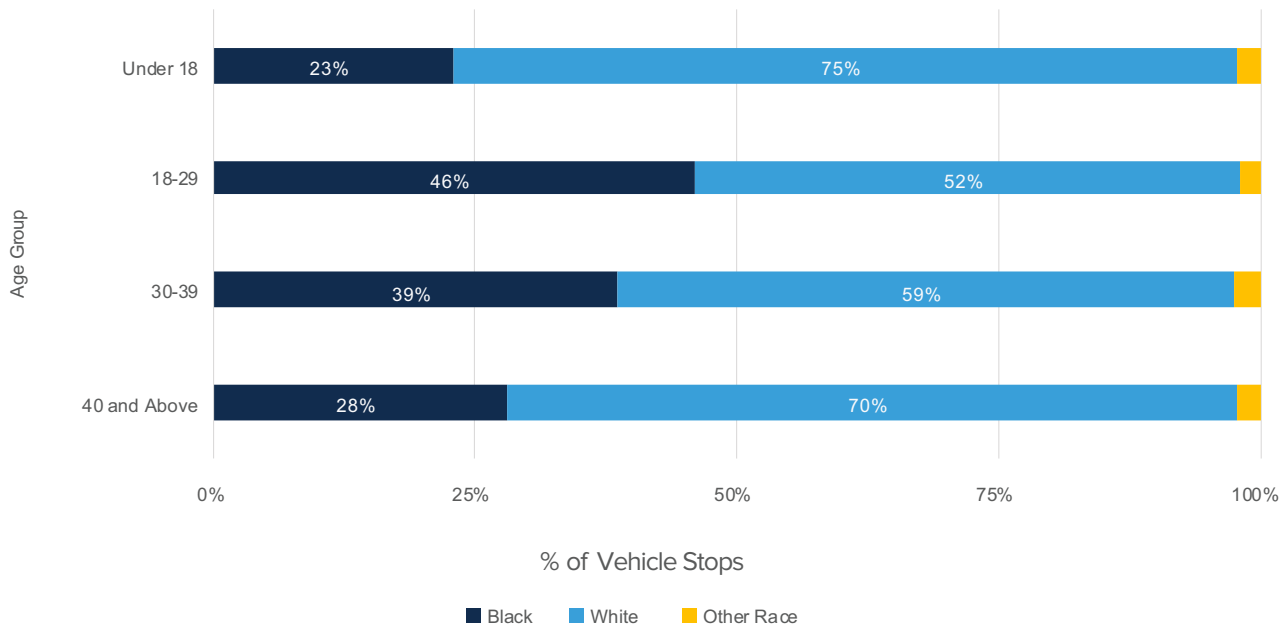
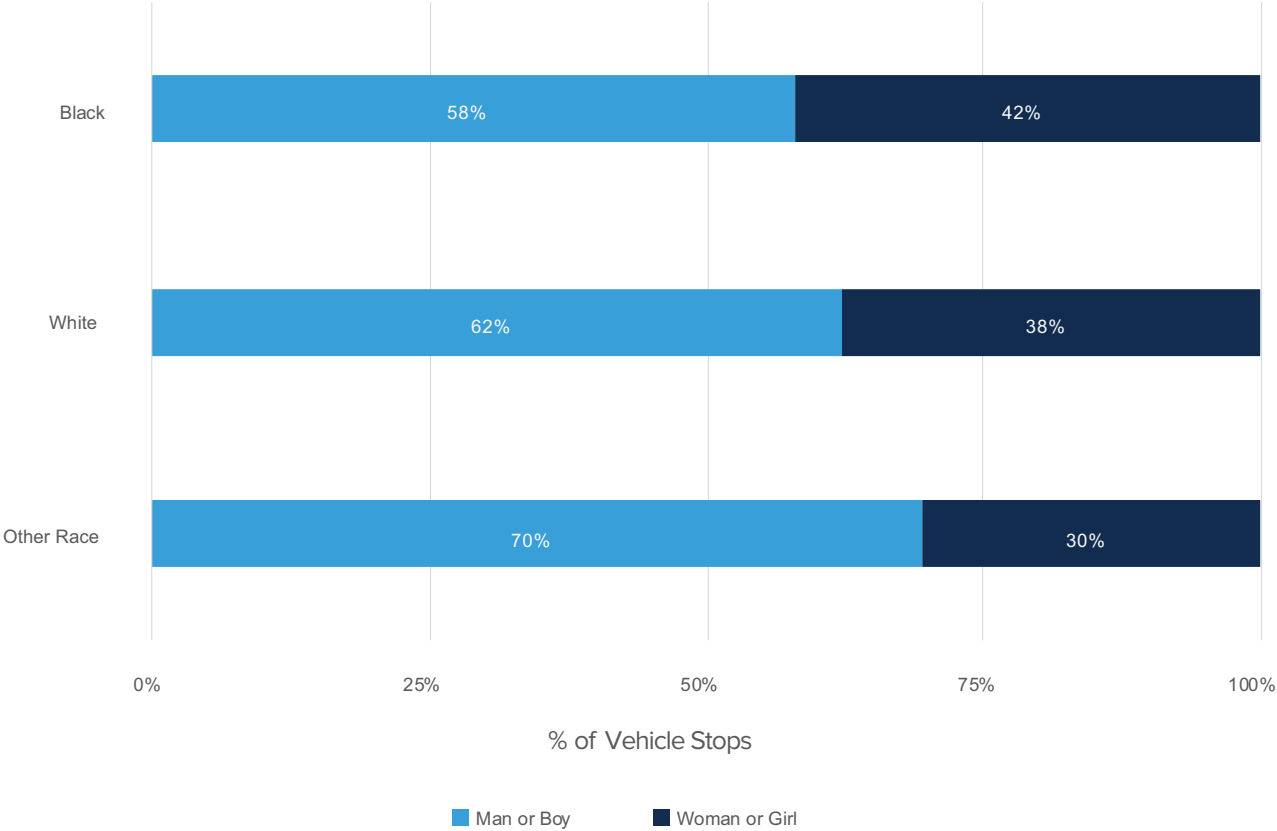


Figure D3. Vehicle Stops by Race and Gender, 2016–2018



APPENDIX E. SUPPLEMENTAL USE-OF-FORCE ANALYSES

Figure E1. Use-of-Force Incidents by Quarter, 2016–2018

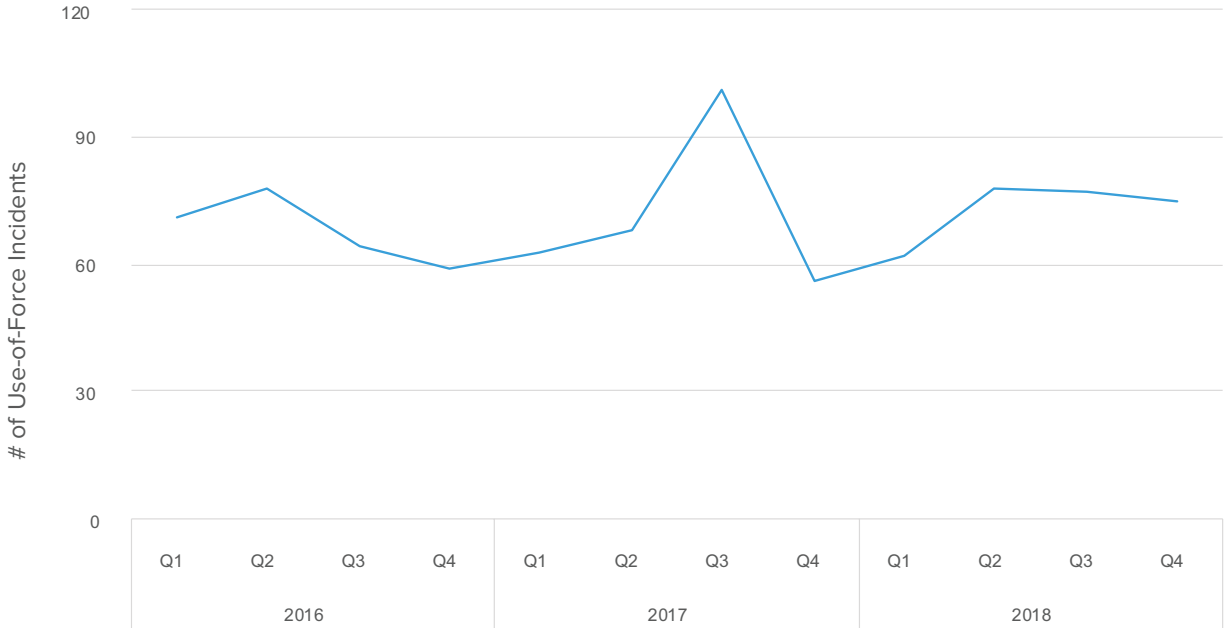
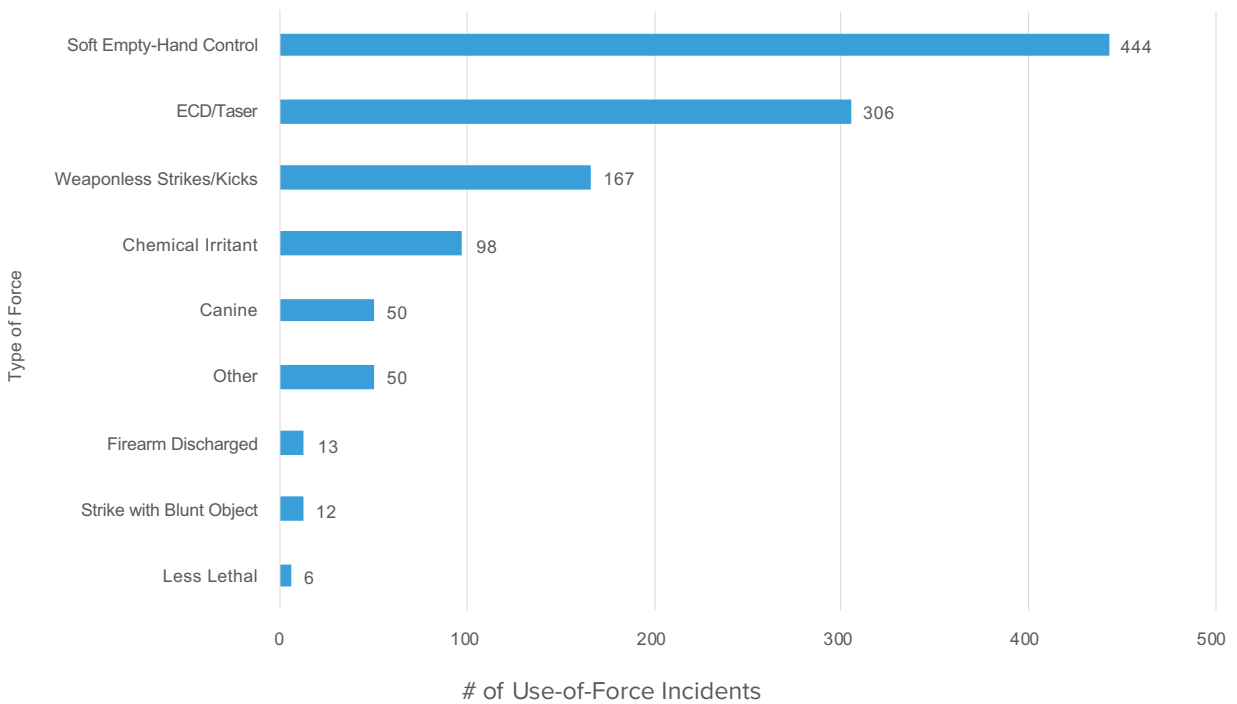
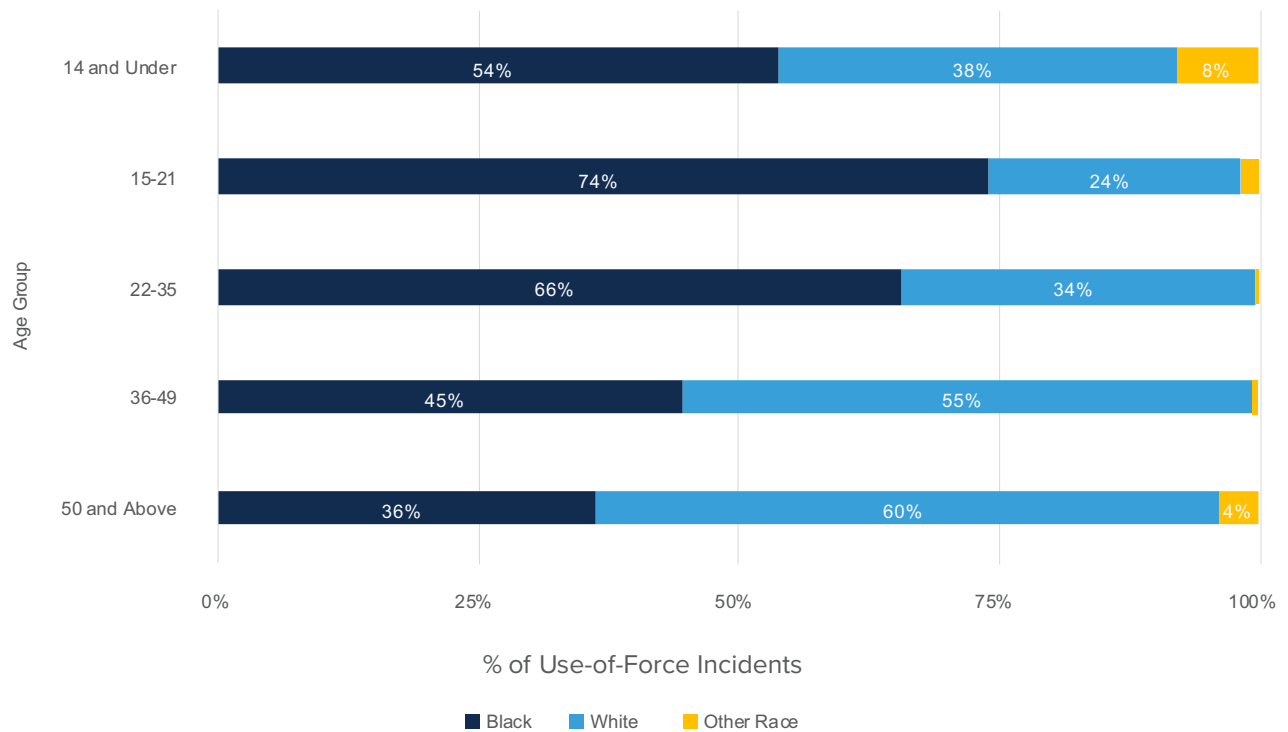


Figure E2. Count of Use-of-Force Types, 2016–2018



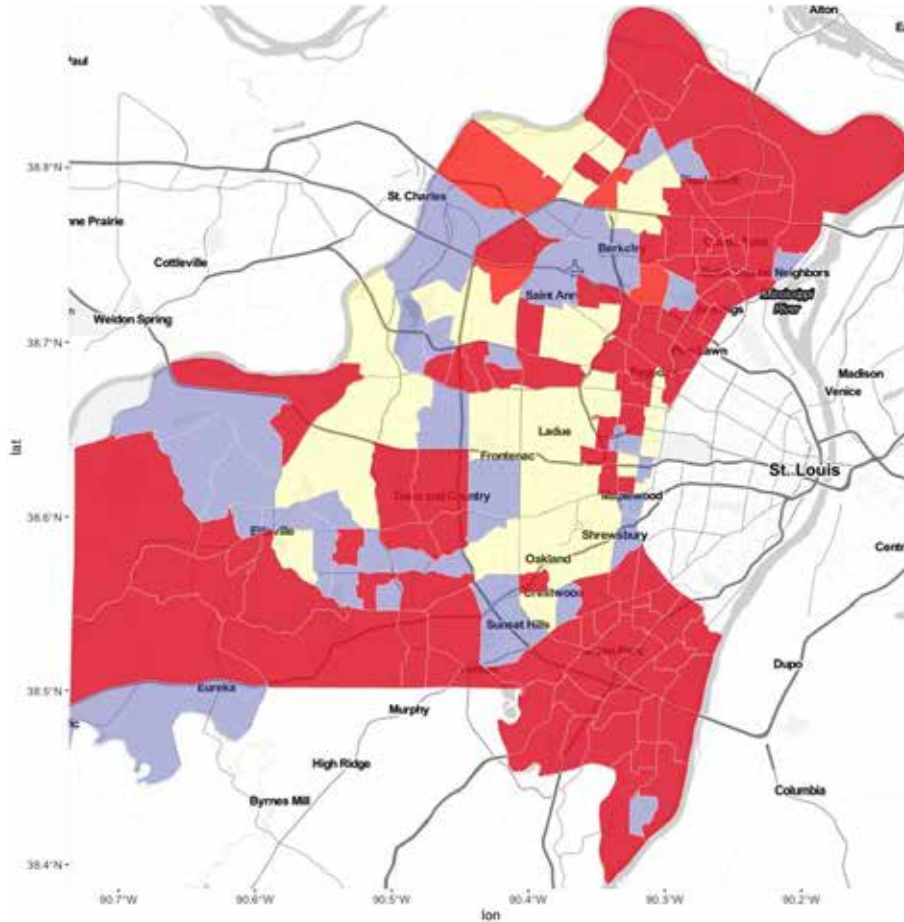
Note: CPE would like to acknowledge the slight variation in the total counts of use-of-force types between Figure 7 and Figure E2. There were 13 incidents in the SLCPD use-of-force data where a subject's race was missing. These incidents were dropped from the calculation of use-of-force type by racial groups. Note that there are incidents where more than one use-of-force type was used on an individual. As such, a total of 18 use-of-force types were excluded from our total count of use-of-force by racial group.

Figure E3. Use-of-Force Incidents by Race and Age Group, 2016–2018



APPENDIX F. MULTILEVEL REGRESSION ANALYSIS CENSUS TRACTS

Figure F1: Regression Analysis Census Tract Map



Our regression model (Table 2) includes counts of the number of contact incidents (use of force) and crimes per tract. Where there were no incidents or crimes reported (based on the data provided by SLCPD), this was coded as a zero.

The data provided by SLCPD did not have observed crime or use-of-force incidents for all tracts in St. Louis County. As seen Figure F1, the areas shaded in red are tracts where incidents of use of force were reported. In blue are those areas that had no use-of-force incidents reported but where at least one crime was reported. In yellow are tracts in St. Louis County where there were neither crime nor use-of-force reports. These tracts were excluded from our regression analysis.