

Data Investigation of TSQR 18 Findings

Introduction

As a follow-up to TSQR 18, MCSO investigated the data (Body Worn Camera footage, VSCF entries, and Incident Reports) to better understand the results from the analyses conducted for TSQR 18. This investigation was a first step to identify potential racial profiling on the part of MCSO deputies, consistent with the requirements of Paragraph 70 of the Supplemental Permanent Injunction.

The results of the analyses presented in this report do not indicate that bias exists at MCSO nor do they directly represent discriminatory policing. Per Paragraphs 53, 64, 67, and 69 of the Supplemental Permanent Injunction, inequality identified by analyses conducted by MCSO are “indicia of possible racial profiling.” Per Paragraph 70 of the Supplemental Injunction, MCSO investigates the findings from these analyses and will take appropriate action if racial profiling exists. Since MCSO began conducting the TSMR analyses (April 2021), neither MCSO nor the Monitor’s team or Parties (the DOJ and ACLU) have identified individuals, policy, or practice identified as racial profiling in its traffic stop patrol.

Below, we identify the findings of disparity identified by TSQR 18 analyses and provide more nuanced details related to the analyses conducted for TSQR 18. Because TSQR 18 analyses focused on District-level disparity, we consider each identified district difference in turn. Because TSQR 20 (to be released December 2025) will investigate arrest outcomes at the District-level, we do not provide summaries of District-level arrest activity here. In Table 1 below, we summarize findings from the propensity score matching analyses reported on pages 55-68 of TSQR 18 and provide results from the TSAR 10 for comparison.¹

In TSQR 18, MCSO conducted 84 propensity score matching analyses investigating racial/ethnic disparity in four benchmarks (stop length, citation rate, search rate, arrest rate). We focus on these results for this investigation. TSQR 18 was just one of the many efforts MCSO engages in to monitor deputies’ traffic stop activity and intervene when necessary. Each month, all traffic stops completed by deputies in the previous year are analyzed statistically, at the deputy level, and identified disparities are thoroughly reviewed for indicators of bias. Interventions are conducted when deemed necessary. Each quarter MCSO conducts detailed investigations into other aspects of traffic stop data as a response to findings from the annual report or other quarterlies. This year, an MCSO examined Extended Traffic Stop Indicators, a District-level analysis of disparity, and analyses of citations and warning outcomes. The final quarterly report of the year will focus on arrest outcomes.

¹ TSQR 18 is available here:

https://www.mcsobio.org/files/ugd/b6f92b_7606415106984878bd7d6cd0cccd7564.pdf

Table 1: TSQR 18: Propensity Score Matching Results, 2024 Traffic Stops

TSAR 10	Stop Length	Citations	Searches	Arrests
Hispanic	✓	✓	✓	3.86%
Black	0.52 minutes	✓	✓	3.08%
Minority	✓	✓	0.45%	3.05%
District 1	Stop Length	Citations	Searches	Arrests
Hispanic	✓	✓	✓	3.75%
Black	✓	✓	✓	✓
Minority	✓	✓	✓	✓
District 2	Stop Length	Citations	Searches	Arrests
Hispanic	✓	✓	✓	✓
Black	✓	✓	✓	✓
Minority	✓	✓	✓	✓
District 3	Stop Length	Citations	Searches	Arrests
Hispanic	✓	8.11%	✓	✓
Black	1.15 minutes	✓	✓	✓
Minority	✓	✓	✓	✓
District 4	Stop Length	Citations	Searches	Arrests
Hispanic	✓	✓	✓	✓
Black	✓	✓	✓	✓
Minority	✓	✓	✓	✓
District 5	Stop Length	Citations	Searches	Arrests
Hispanic	✓	5.36%	✓	✓
Black	0.90 minutes	✓	✓	✓
Minority	✓	✓	0.54%	3.08%
District 7	Stop Length	Citations	Searches	Arrests
Hispanic	✓	✓	✓	✓
Black	✓	✓	✓	8.82%
Minority	✓	✓	✓	✓
Motors Unit	Stop Length	Citations	Searches	Arrests
Hispanic	✓	✓	✓	✓
Black	✓	✓	✓	9.73%
Minority	✓	✓	✓	4.47%

District 1

In District 1, propensity score matching analyses in TSQR 18² identified disparity in one benchmark for one racial/ethnic group. We identified disparity in arrest rates between Hispanic and White drivers. Hispanic drivers were arrested at a rate 3.75 percent higher than White drivers. To investigate this disparity, MCSO is investigating arrest activity in District 1 for TSQR 20. This investigation will include reviews of VSCF data, Incident Reports, and, when necessary, Body Worn Camera footage.

District 2

MCSO identified no statistically significant differences in benchmarks (stop length, citation rate, search rate, arrest rate) for District 2. Based on these propensity score matching results, MCSO did not further investigate disparity in District 2.

²Propensity score matching and analyses of raw arrest rates do not produce exactly the same differences. Propensity score matching uses control variables to identify similar stops to compare to one another. For an overview of the propensity score method used in TSQR 18 (and TSQR 10) see TSQR 10 at: https://www.mcsobio.org/files/ugd/b6f92b_67bf9768cf3c474888c562442a393dab.pdf

District 3

In TSQR 18, MCSO identified statistically significant racial/ethnic disparity in stop length between Black and White drivers (1 minute and 9 seconds). We also identified statistically significant disparity in citation rates (8.11%) between Hispanic and White drivers.

MCSO currently investigates stop length each month by reviewing body worn camera footage of stops that exceed twenty minutes when no documentation (extended stop indicator) exists explaining why the stop was extended. We also review Body Worn Camera Footage, VSCF data, and Incident Reports for these stops.

Stop Length

To investigate the findings from the TSQR 18 analysis further, MCSO examined summary statistics for Black and White drivers and tabulated stop lengths for the traffic stops used in the TSQR 18 analysis. MCSO also reviewed Body Worn Camera footage from a random sample of 20 stops of Black drivers and 20 stops of White drivers to identify any potential bias. These stops exclude stops documented as extended. We found that there was a statistically significant difference in the average length of 70 seconds between Black and White drivers ($t = 2.83$, $p < 0.05$).

Table 3: Comparison of Stop Length Frequency for Black and White Drivers		
Minutes	Black Drivers (N = 66)	White Drivers (N = 594)
	Number (percent)	Number (percent)
5	0 (0.00%)	1 (0.17%)
6	1 (1.52%)	16 (2.69%)
7	3 (4.55%)	41 (6.90%)
8	7 (10.61%)	64 (10.77%)
9	8 (12.12%)	96 (16.16%)
10	8 (12.12%)	88 (14.81%)
11	5 (7.58%)	69 (11.62%)
12	8 (12.12%)	55 (9.26%)
13	4 (6.06%)	45 (7.58%)
14	6 (9.09%)	38 (6.40%)
15	2 (3.03%)	33 (5.56%)
16	4 (6.06%)	20 (3.37%)
17	1 (1.72%)	11 (1.85%)
18	5 (7.58%)	7 (1.18%)
19	2 (3.03%)	3 (0.51%)
20	2 (3.03%)	2 (0.34%)
21	0 (0.00%)	2 (0.34%)
23	0 (0.00%)	2 (0.34%)
29	0 (0.00%)	1 (0.17%)

After reviewing stops for stop length, MCSO has not identified that bias has led to the 1 minute, 9 second difference in stop length between Black and White drivers.

Citations

In District 3, propensity score matching analysis identified an 8.11 percent difference in citation rates between Hispanic and White drivers. MCSO investigated citation and warning outcomes at the district-level in TSQR 19. To further investigate citation disparity in citation outcomes in District 3, MCSO identified ARS statutes that were differentially cited in District 3 and explored BWC footage, VSCF entries, and Incident Reports to identify the characteristics of traffic stops that may have led to the differences in citation rates.

We identified statistically significant differences in citation rates for four ARS sections in District 3. Below, we identify these ARS statutes, relevant citation outcomes, and characteristics of the stops that contribute to these citation outcomes. An overarching theme with these stops (and others) was that Hispanic drivers were more likely to have secondary violations unrelated to the reason for the traffic stop. These generally included violations for driving documentation issues (licensing, insurance, and registration).

- ARS 28–2153—Registration requirement; exceptions, assessment ($t = -2.43$; White drivers cited at a higher rate),
 - Hispanic; $N = 21$; 52.38% citation rate
 - White; $N = 80$; 78.75% citation rate
- ARS 28–2354—License plates, attachment; civil penalty ($t = 2.64$),
 - Hispanic; $N = 10$; 30.00% citation rate
 - White; $N = 21$; 0.00% citation rate

Three Hispanic drivers were issued citations for ARS 28-2354, and no White drivers were issued citations for this statute. Each Hispanic driver that was issued a citation had additional violations identified during the traffic stop. MCSO concludes that the difference in citation rates for ARS 28-2354 could be attributed to the existence of additional violations identified during the traffic stop.

- ARS 28–645—Traffic control legend (red light violations; $t = 2.09$), and
 - Hispanic; $N = 42$; 9.21% of Hispanic traffic stops; 85.71% citation rate; 26.19% of stops had multiple violations, all cited.
 - White; $N = 55$; 5.11% of White traffic stops; 67.27% citation rate; 16.36% of stops had multiple violations, all cited.

Hispanic drivers were stopped for red light violations at a greater rate than White drivers in District 3. Of the Hispanic drivers stopped for red light violations in District 3, 26.19 percent had additional violations identified after the stop was initiated. Of White drivers stopped for red light violations, 16.36 percent had additional violations identified after the stop was initiated. MCSO concludes that the difference in citation rates for ARS 28-645 could be attributed to the existence of additional violations identified during the traffic stop.

- ARS 28–855—Stop signs; yield signs ($t = 2.07$).
 - Hispanic; $N = 31$; 6.80% of Hispanic traffic stops; 64.52% citation rate, 22.58% of stops had multiple violations.
 - White; $N = 49$; 4.64% of White traffic stops; 40.82% citation rate; 10.20% of stops had multiple violations.

Hispanic drivers were stopped for stop sign violations at a greater rate than White drivers in District 3. Of the Hispanic drivers stopped for stop sign violations in District 3, 22.58 percent had additional violations identified after the stop was initiated. Of White drivers stopped for stop sign violations, 10.20 percent had additional violations identified after the stop was initiated. MCSO concludes that the difference in citation rates for ARS 28-855 can be attributed to the existence of additional violations identified during the traffic stop.

District 5

In TSQR 18, MCSO identified statistically significant racial/ethnic disparity in stop length between Black and White drivers (55 seconds). We also identified statistically significant disparity in citation rates (5.36%) between Hispanic and White drivers, a 0.54 percent difference in search rates between Minority and White drivers, and a 3.08 percent difference in arrest rates between Minority and White drivers

Stop Length

MCSO already investigates stop length each month by reviewing body worn camera footage of stops that exceed twenty minutes when no written documentation (extended stop indicators and VSCF comments) exists explaining why the stop was extended. We also review Body Worn Camera Footage, VSCF data, and Incident Reports for these stops.

To investigate the findings from the TSQR 18 analysis further, MCSO examined summary statistics for Black and White drivers and tabulated stop lengths for the traffic stops used in the TSQR 18 analysis. These stops exclude stops documented as extended. We found that there was a statistically significant difference of 68 seconds in the average length of stop between Black and White drivers ($t = 2.83$, $p < 0.05$).

Table 4: Comparison of Stop Length Frequency for Black and White Drivers

Minutes	Black Drivers (N = 134)	White Drivers (N = 2,164)
	Number (percent)	Number (percent)
4	0 (0.00%)	1 (0.05%)
5	0 (0.00%)	35 (1.62%)
6	7 (5.22%)	111 (5.13%)
7	11 (8.21%)	278 (12.85%)
8	15 (11.19%)	393 (18.16%)
9	20 (14.93%)	369 (17.05%)
10	18 (13.43%)	301 (13.91%)
11	16 (11.94%)	206 (9.52%)
12	11 (8.21%)	165 (7.62%)
13	10 (7.46%)	95 (4.39%)
14	7 (5.22%)	69 (3.19%)
15	7 (5.22%)	44 (2.03%)
16	4 (2.99%)	34 (1.57%)
17	1 (0.75%)	21 (0.97%)
18	3 (2.24%)	12 (0.55%)
19	0 (0.00%)	11 (0.51%)
20	1 (0.75%)	5 (0.23%)
21	1 (0.75%)	1 (0.05%)
22	0 (0.00%)	3 (0.14%)
23	0 (0.00%)	4 (0.18%)
24	1 (0.75%)	1 (0.05%)
25	0 (0.00%)	2 (0.09%)
28	0 (0.00%)	1 (0.05%)
29	0 (0.00%)	1 (0.05%)
31	1 (0.75%)	0 (0.00%)
207	0 (0.00%)	1 (0.05%)

MCSO reviewed a random sample of 20 stops of White drivers and 20 stops of Black drivers to identify potential causes of the difference in average stop length between Black and White drivers in District 5. During these reviews, we identified no evidence of bias.

Citations

In District 5, propensity score matching analysis identified a 5.36 percent difference in citation rates between Hispanic and White drivers. MCSO investigated citation and warning outcomes at the district-level in TSQR 19. To further investigate a citation disparity in citation outcomes in District 5, MCSO identified ARS statutes that were differentially cited in District 5 and explored BWC footage, VSCF entries and Incident Reports to identify the characteristics of traffic stops that may have led to the differences in citation rates.

We identified statistically significant differences in citation rates for five ARS sections in District 5. We did not investigate differential citation rates when White drivers were issued citations at a higher rate than Hispanic drivers. Below, we identify these ARS statutes, relevant citation outcomes, and characteristics of the stops that contribute to these citation outcomes. An overarching theme with these stops (and others) was that Hispanic drivers were more likely to have secondary violations unrelated to the reason for the traffic stop. These generally included violations for driving documentation issues (license, insurance, and registration).

- ARS 28–710—State highway work zone safety; civil penalty; fund ($t = -2.75$; speeding in a work zone; White drivers cited at a higher rate),
 - Hispanic drivers; $N = 5$; 40.00% citation rate
 - White drivers; $N = 30$; 90.00% citation rate
- ARS 28–3151—Driver license requirement; definition ($t = 3.03$),
 - Hispanic drivers; $N = 96$; 98.96% citation rate
 - White drivers; $N = 21$; 85.71% citation rate

We reviewed VSCF information, BWC footage and incident reports to further investigate this disparity in ARS 28-3151A. We identified the following patterns (Table 5 below) for citations and warnings. We note that only four stops resulted in a warning for ARS 28-3151A in District 5. Three White drivers were issued warnings for expired drivers licenses while one Hispanic driver was issued a warning for an expired driver's license.

Table 5: Comparison of ARS 28-3151A Citations and Warnings, Expired Licenses, Suspended Licenses, and No Licenses, District 5

	Citations 116 (96.67%)	Warnings 4 (3.33%)
Asian Drivers		
Expired License	1 (100.00%)	0 (0.00%)
Black Drivers		
Expired License	1 (100.00%)	0 (0.00%)
Hispanic Drivers		
Expired License	7 (100.00%)	0 (0.00%)
No License	86 (98.85%)	1 (1.15%)
Suspended License	2 (100.00%)	0 (0.00%)
Native American Drivers		
No License	1 (100.00%)	0 (0.00%)
White		
Expired License	5 (62.50%)	3 (37.50%)
No License	13 (100.00%)	0 (0.00%)

- ARS 28–701A—Reasonable and prudent speed; prima facia evidence; exceptions ($t = 2.86$),
 - Hispanic drivers; $N = 523$; 71.51% citation rate;
 - White drivers; $N = 2,014$; 64.88% citation rate;

In reviewing citation disparity in citation activity for ARS 28-701A we identified that Hispanic and White drivers were issued citations at similar rates for a given speed over the speed limit. The difference in citation rates between Hispanic and White drivers was not statistically significant when controlling for the speed drivers were traveling.

- ARS 28–729—Driving on roadways laned for traffic ($t = 2.85$)
 - Hispanic drivers; $N = 62$; 22.58% citation rate; 25.81% of stops had multiple violations.
 - White drivers; $N = 127$; 7.87% citation rate; 15.75% of stops had multiple violations.

Drivers issued citations for ARS 28-729 often had multiple violations identified during the stop. Additional violations included speeding (ARS 28-701A) and violations associated with licensing, insurance, and registration. For Hispanic drivers cited/warned for ARS 28-729, nearly 26 percent were identified with additional violations. For White drivers, almost 16 percent were identified with additional violations. We conclude that additional violations identified during the traffic stops contributed to the disparity in citation rates for ARS 28-729.

- ARS 28–751—Required position and method of turning ($t = 2.02$).
 - Hispanic drivers; $N = 10$; 20.00% citation rate; One citation was a DUI, the second citation the deputy needed to swerve to avoid a collision with the driver.
 - White drivers; $N = 19$; 0.00% citation rate;

There were only two citations issued to drivers for ARS 28-751 by District 5 deputies. After examining these stops, we identified that one citation was associated with a driver charged with a DUI. For the other citation, the driver nearly collided with the deputy and the deputy was required to swerve his patrol vehicle to avoid the collision.

Searches

We identified a 0.54 percent difference in search rates between Minority and White drivers in District 5. Minority drivers experienced searches during 10 traffic stops while White drivers experienced searches during four traffic stops. Following the publication of TSAR 10, MCSO reviewed Body Worn Camera footage for all discretionary searches conducted in 2024 (N = 122). We identified no evidence of bias during these reviews. Additional review of searches of Minority drivers for District 5 identified that three searches were “plain view” and drivers possessed open containers of alcohol in their vehicles. Two searches were initiated after deputies were alerted by K-9 units. Three searches of Hispanic drivers were not searches for contraband, but deputies taking possession of firearms during traffic stops then returning the firearms to drivers at the conclusion of the stop. Two searches of Hispanic drivers were DUI stops and drivers were searched prior to deputies performing Field Sobriety Tests. We identified no evidence of bias for searches conducted by District 5 deputies in 2024.

- Minority drivers; N = 10; 0.60% search rate
- White drivers; N = 4; 0.11% search rate

Arrests

Analyses for TSQR 18 identified a 3.08 percent difference in arrest rates for Minority and White drivers stopped by District 5 deputies. To investigate this disparity, MCSO is investigating arrest activity in District 5 for TSQR 20. This investigation will include reviews of VSCF data, Incident Reports, and, when necessary, Body Worn Camera footage.

District 7

Arrests

TSQR 18 identified an 8.82% difference between Black and White drivers in arrest rates in District 7. To investigate disparity in arrest rates in District 7 MCSO is investigating arrest activity in District 7 for TSQR 20. This investigation will include reviews of VSCF data, Incident Reports, and, when necessary, Body Worn Camera footage.

Motors Unit

Arrests

TSQR 18 identified disparity in arrest rates between Black and White drivers (9.73%) and between Minority and White drivers in (4.47%) for drivers stopped by deputies working the Motors Unit in 2024. To investigate disparity in arrest rates for the Motors Unit MCSO is investigating arrest activity for the Motors Unit for TSQR 20. This investigation will include reviews of VSCF data, Incident Reports, and, when necessary, Body Worn Camera footage.

Secondary Violations

For context regarding additional violations identified in this report MCSO has identified that when additional violations are identified during traffic stops, the likelihood drivers will be issued a citation increases markedly and nearly doubles the likelihood that a driver is issued a citation (See TSQR 6 and TSQR 19). Below we identify the most common secondary violations identified during traffic stops. We report the citation rate for each ARS section and the violation rates for Minority, Hispanic, Black, and White drivers.

Table 8: Most Common Secondary Violations:

	Overall Citation Rate	Minority Drivers	White Drivers	Hispanic Drivers	Black Drivers
ARS 28-2153A Registration requirement	60.12%	436 (6.12%)	735 (5.59%)	275 (5.79%)	127 (7.97%)
ARS 28-2532 Registration requirement	73.91%	522 (7.33%)	1,227 (9.34%)	330 (6.95%)	133 (8.35%)
ARS 28-3151A Licensure	97.75%	374 (5.25%)	71 (0.54%)	328 (6.91%)	30 (1.88%)
ARS 28-3473 Suspended license (criminal)	99.23%	230 (3.23%)	160 (1.22%)	152 (3.20%)	59 (3.70%)
ARS 28-3482 Suspended license (civil)	99.19%	69 (0.97%)	54 (0.41%)	48 (1.01%)	19 (1.19%)
ARS 28-4135 Insurance requirement	93.95%	668 (9.38%)	541 (4.12%)	483 (10.17%)	157 (9.86%)
ARS 28-4139A Suspended plate	82.69%	575 (8.07%)	355 (2.70%)	391 (8.24%)	145 (9.10%)