EIGHTH REPORT TO THE STATE OF MARYLAND UNDER TR 25-113

Maryland Statistical Analysis Center,

Governor's Office of Crime Control and Prevention

August 29, 2010

INTRODUCTION

In 2001, the Maryland General Assembly passed TR 25-113. The statute, which requires data collection on every law eligible traffic stop in Maryland, aims to provide information about the pervasiveness of racial profiling.[1] From 2002 through 2009, Maryland law enforcement agencies collected and reported traffic stop data according to the legislation.

Specifically, TR 25-113 required the Maryland Police Training Commission (PCTC), in consultation with the Maryland Justice Analysis Center (MJAC)[2], to develop four guiding documents. The documents include: 1) a model recording and reporting format; 2) a model policy for law enforcement agencies to address ethnicity-based traffic stops; 3) guidelines for law enforcement agencies to manage, counsel, and train officers who collect traffic stop data; and 4) a model log to record traffic stop data. Appendix A contains the model recording and reporting format. In addition, Appendix B contains the PCTC-approved model policy. Appendix C contains the guidelines for management, counseling, and training. However, the guidelines acknowledge multiple methods of data collection and reporting; therefore, agencies adapted different versions of the guidelines. It should be noted, although TR 25-113 mandates State funding for data collection and analysis, neither law enforcement agencies nor MJAC received funding for traffic stop data reporting.

METHODOLOGY

The 2010 report presents aggregate data on all law eligible stops in Maryland that law enforcement agencies reported to Maryland Statistical Analysis Center (MSAC) for the 2009 calendar year. Departments submitted their data for the reference period to the MSAC at the Governor's Office of Crime Control and Prevention (GOCCP). The original data was submitted in Microsoft Excel or Microsoft Access and subsequently merged, standardized, and analyzed using SPSS version 16.0, a

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[1] By definition, racial profiling refers to the practice of constructing a set of characteristics or behaviors based on race and using that set of characteristics to decide whether an individual might be guilty of some crime.

[2] MJAC refers to the Maryland Justice Analysis Center at University of Maryland, which hosted the Maryland Statistical Analysis Center through 2006.

system package widely accepted and used by researchers and social scientists.

For the current reporting period, 121 agencies were eligible to report, and 108 departments are included in the current analysis (n=871,631 traffic stops). [3] The units of analysis for this report are all law eligible traffic stops that occurred under Maryland jurisdiction for the calendar year of 2009. To that end, *law eligible traffic stops* are defined as all stops made by law enforcement agencies that are eligible to issue traffic violations. TR 25-113 excludes traffic stops that result from checkpoints or roadblocks, stops of multiple vehicles after an accident or emergency, and the use of radar, laser, or vascar technology. Such stops are excluded because officer discretion is unlikely to play a role and therefore any differences observed between races and minority populations would not be the result of systematic differences in treatment due to ethnicity.

The relevant information from departments included demographic, registration, initial reason for traffic stop, search, and the outcome of the traffic stop.

- Demographic information on the driver
- Vehicle registration information
- Reason for the stop
- If a search was conducted, and if so, the reason for the search
- The type of search
- The outcome of the search
- The overall outcome of the traffic stop

The demographic information of the driver in the traffic stop was determined using the officer's observations and in some cases supplemented with information from Maryland's Motor Vehicle Administration (MVA) at the time of the traffic stop. This information included gender, age, and ethnicity. For the purposes of this report, ethnicity was coded into 5 categories including Caucasian, African American, Asian, Hispanic, and Other. *Caucasian* refers to individuals that were reported by officers and/or the MVA as White, Arab, Caucasian, and Asiatic Islander. The *Other* category is comprised of multiple ethnicities that cannot be disaggregated due to the categorical disparities between

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[3] The majority of agencies that were not included in the analyses reported to GOCCP but had no measurable data for 2009.

MVA ethnic data and law enforcement ethnic data under TR 25-113.[4] To this end, the results of this report refer to the statute's guidelines for reporting ethnicity and ethnicities reported for traffic stops that do not correspond to one of the five categories were coded as *Other*.

Registration information was measured as a dichotomous variable reflecting whether or not the vehicle was registered within the state. The initial reason for the traffic stop was provided and classified according to the Annotated Code of Maryland Transportation Article. Search information includes the reason for the search, the type of search, and the disposition of the search if applicable. Reasons for the search include consensual, incident to arrest, exigent circumstances, probable cause, K-9 Alert, and other. The *Other* category reflects all searches conducted by law enforcement officers that were not classified into one of the other five categories. The types of searches conducted include searches of the person, searches of the vehicle and/or its contents, or both. Search disposition was collapsed into the following categories: property, contraband, both, or nothing. Finally, the outcome of the traffic stop was measured using four possible categories including warning (both verbal and written), citation, Safety Equipment Repair Order (SERO), and arrest. The categories of this variable are mutually exclusive and were coded to reflect the most severe outcome of the traffic stop. Therefore, if the traffic stop resulted in both a citation and an arrest, only arrest was coded.

RESULTS

For calendar year 2009, Maryland police departments and sheriffs' offices reported 871,631 law eligible traffic stops. Table 1 displays the overall breakdown of the ethnicity of drivers involved in traffic stops. Information on ethnicity was missing in 4,462 cases, and ethnicity could not be correctly classified in 15,450 traffic stops. As shown, the majority of drivers were Caucasian (51.8%). The largest minority represented were African Americans who were the subjects of 38.3% of all traffic stops (n = 333,487).

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[4] The statute requires the use of the following categories: Asian, Black, White, Hispanic and Other. However, the MVA utilizes the following categories: Black or African American, White, Asian, Native Hawaiian or Other Pacific Islander, American Indian, and Other.

Table 1. Ethnicity of Driver in Traffic Stops

	Frequency	Percent	Cumulative Percent
Valid			
Asian	17289	2.0	2.0
African American	333487	38.3	40.3
Hispanic	49493	5.7	46.0
Other	15450	1.8	47.8
White	451450	51.8	99.6
Unknown/Missing(U/M)	4462	0.5	100.0
Total	871631	100.0	

Tables 2 and 3 display the initial reason given by the officer for the traffic stop stratified by the driver's ethnicity, for males and females respectively.[5] Overall, the patterns are fairly similar across ethnicity and gender with the same sets of traffic codes ranking high in frequency as the primary initial reason for a stop. Both Caucasian males (25.8%) and minority males (17.6% to 19.6%), excluding African Americans, were stopped most frequently for a violation of Title 22. African American males were most likely to be stopped for a violation of Title 13 (23.4 %) followed by a violation of Title 22 (20.6 %). Males of every ethnicity were least likely to be stopped for a violation of Title 21 Subtitle 14 which comprised less than 0.1% of stops for each ethnicity. Of all of the ethnicities, Asian males were the most likely to be stopped for a moving violation (16.4%) compared to Caucasians (13.5%), African Americans (10.4%), and Hispanics (9.5%). Both Caucasian females (22.7%) and minority females (18.8% to 19.5%), excluding Asians and African Americans, were stopped most frequently for a violation of Title 22. Asian females were stopped most frequently for a violation of Title 21.8 (18.8%), and African American females were most likely to be stopped for a violation of title 13 (25.1%). All females were least likely to be stopped for a violation of Title 21 Subtitle 13 and Title 24 (less than 0.1% for each ethnicity).

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[5] Note: Totals do not equal the total number of traffic stops due to missing gender data in 873 cases and missing stop reason data in 7,792 cases.

Table 2. Primary Initial Reason for Stop by Driver's Race/Ethnicity and Gender (Males)

Primary Initial Reason for Stop (Title. Subtitle)[6]		Race					U/M	Total
		Asian	African American	Hispanic	Other	White		
13	Count	1841	50611	6422	1780	51957	489	113100
	Pct	15.9%	23.4%	16.1%	14.8%	17.4%	16.1%	19.5%
21.1	Count	10	113	28	16	332	0	499
	Pct	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%
21.11	Count	68	1969	570	71	3321	18	6017
	Pct	0.6%	0.9%	1.4%	0.6%	1.1%	0.6%	1.0%
21.13	Count	3	89	22	10	346	11	481
	Pct	0.0%	0.0%	0.1%	0.1%	0.1%	0.4%	0.1%
21.14	Count	10	115	19	7	149	0	300
	Pct	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%
21.2	Count	1446	16186	3903	1197	22819	282	45833
	Pct	12.5%	7.5%	9.8%	9.9%	7.6%	9.3%	7.9%
21.3	Count	559	9456	1907	634	14665	146	27367
	Pct	4.8%	4.4%	4.8%	5.3%	4.9%	4.8%	4.7%
21.4	Count	88	1181	294	70	2161	14	3808
	Pct	0.8%	0.5%	0.7%	0.6%	0.7%	0.5%	0.7%
21.6	Count	57	1253	185	39	1473	9	3016
	Pct	0.5%	0.6%	0.5%	0.3%	0.5%	0.3%	0.5%
21.7	Count	763	8701	1834	461	14652	124	26535
	Pct	6.6%	4.0%	4.6%	3.8%	4.9%	4.1%	4.6%
21.8	Count	1893	22417	3775	1425	40426	385	70321
	Pct	16.4%	10.4%	9.5%	11.8%	13.5%	12.7%	12.1%
21.9	Count	164	2978	810	151	5387	38	9528
	Pct	1.4%	1.4%	2.0%	1.3%	1.8%	1.3%	1.6%
22	Count	2032	44603	7788	2187	77176	571	134357
	Pct	17.6%	20.6%	19.6%	18.1%	25.8%	18.8%	23.1%
24	Count	17	320	78	19	492	18	944
	Pct	0.1%	0.1%	0.2%	0.2%	0.2%	0.6%	0.2%
Other	Count	2606	56019	2190	3992	63336	929	139072
	Pct	22.5%	25.9%	30.6%	33.1%	21.2%	30.6%	23.9%
Total	Count	11557	216011	39825	12059	298692	3034	581178
	Pct	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

[6] Title 13: Registration

Title 21.11: Miscellaneous rules

Title 21.13: Operation of motorcycles

Title 21.14: Operation of vehicles on certain toll facilities

Title 21.2: Traffic signs, signals, and markings

Title 21.3: Driving on right side of roadway, overtaking and passing

Title 21.4: Right of way

Title 21.6: Turning and starting, signals on stopping

Title 21.7: Special stops required

Title 21.8: Speed restrictions

Title 21.9: Reckless, negligent or driving, fleeing, and eluding

Title 22: Equipment of vehicles

Title 24: Size, weight, and load

Table 3. Primary Initial Reason for Stop by Driver's Race/Ethnicity and Gender (Females)

Primary Initial Reason for Stop (Title. Subtitle)		Race							
		Asian	African American	Hispanic	Other	White	U/M	Total
13	Count	889	28572	1440	568	27694	128	59291
	Pct	16.2%	25.1%	16.4%	18.2%	18.5%	15.6%	21.0%
21.1	Count	0	55	11	4	159	0	229
	Pct	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	0.1%
21.11	Count	19	596	78	12	994	4	1703
	Pct	0.3%	0.5%	0.9%	0.4%	0.7%	0.5%	0.6%
21.13	Count	1	23	6	6	64	5	105
	Pct	0.0%	0.0%	0.1%	0.2%	0.0%	0.6%	0.0%
21.14	Count	4	55	5	1	77	0	142
	Pct	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.1%
21.2	Count	767	9485	1056	399	12518	108	24333
	Pct	14.0%	8.3%	12.0%	12.8%	8.4%	13.2%	8.6%
21.3	Count	260	4630	399	150	7481	31	12951
	Pct	4.7%	4.1%	4.5%	4.8%	5.0%	3.8%	4.6%
21.4	Count	56	703	88	23	1206	8	2084
	Pct	1.0%	0.6%	1.0%	0.7%	0.8%	1.0%	0.7%
21.6	Count	28	579	22	12	708	5	1354
	Pct	0.5%	0.5%	0.3%	0.4%	0.5%	0.6%	0.5%
21.7	Count	512	5615	588	191	10055	67	17028
	Pct	9.3%	4.9%	6.7%	6.1%	6.7%	8.2%	6.0%
21.8	Count	1034	12945	888	414	23015	116	38412
	Pct	18.8%	11.4%	10.1%	13.3%	15.4%	14.1%	13.6%
21.9	Count	61	909	84	41	2248	5	3348
	Pct	1.1%	0.8%	1.0%	1.3%	1.5%	0.6%	1.2%
22	Count	798	20463	1661	587	34016	160	57685
	Pct	14.5%	18.0%	18.9%	18.8%	22.7%	19.5%	20.5%
24	Count	3	59	4	2	54	0	122
	Pct	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
Other	Count	1064	29046	2444	707	29556	184	63001
	Pct	19.4%	25.5%	27.9%	22.7%	19.7%	22.3%	22.4%
Total	Count	5496	113735	8774	3117	149845	821	281788
	Pct	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The registration of the vehicle being driven (in-state or out-of-state) by the ethnicity of the driver is displayed in Tables 4 and 5, for males and females respectively.[7] The majority of both male and female drivers of all ethnicities were driving a vehicle with an in-state registration at the time of their stop.

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[7] Note: Totals do not equal total traffic stops due to missing gender (873) and registration (1,627) data.

Table 4. Vehicle Registration by Driver's Ethnicity (Males)

Vehicle Registration		Race						
		Asian	African American	Hispanic	Other	White	U/M	Total
In State	Count	9966	190211	34413	8886	248029	2412	493917
	Pct	85.3%	87.3%	85.4%	73.1%	82.7%	78.2%	84..4%
Out of State	Count	1722	27556	5904	3275	52056	674	91187
	Pct	14.7%	12.7%	14.6%	26.9%	17.3%	21.8%	15.6%
Total Stops	Count	11688	217767	40317	12161	300085	3086	585104
	Pct	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 5. Vehicle Registration by Driver's Ethnicity (Females)

Vehicle Registration		Race						
		Asian	African American	Hispanic	Other	White	U/M	Total
In State	Count	5098	104790	8071	2770	133168	781	254678
	Pct	91.6%	91.3%	90.4%	88.0%	88.3%	89.8%	89.7%
Out of State	Count	469	9991	859	379	17562	89	29349
	Pct	8.4%	8.7%	9.6%	12.0%	11.7%	10.2%	10.3%
Total Stops	Count	5567	114781	8930	3149	150730	870	284027
	Pct	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 6 through Table 10 concern the searches of both persons and property that occurred during the traffic stop. Tables 6 and 7 display the types of searches conducted (person or property) with regards to the ethnicity of the driver and disaggregated by gender. There were a large number of stops for which no search occurred or the type of search was unknown (n= 837,930). Of those with a reported valid search type, the majority of searches for both males and females of all ethnicities were a combination of both person and property. However, the percentage of total reported person/property searches for Hispanic males (6.6%) was 3.0% higher than Caucasian males (3.6 %). In addition, the percentage of personal/property searches for African American males (5.8%) was 2.2% higher than Caucasian males (3.6%). Little difference is observed for females where the cases of personal/property searches range between 1.1% (Asians) and 2.4% (Hispanics).

Table 6. Search Conducted and Type of Search by Driver's Race/Ethnicity and Gender (Males)

Search Type		Race						
		Asian	African American	Hispanic	Other	White	U/M	Total
Person	Count	52	1799	483	93	1899	25	4351
	Pct	0.4%	0.8%	1.2%	0.8%	0.6%	0.8%	0.7%
Property	Count	32	2839	572	48	1529	7	5027
	Pct	0.3%	1.3%	1.4%	0.4%	0.5%	0.2%	0.9%
Both	Count	181	8095	1631	252	7327	41	17527
	Pct	1.5%	3.7%	4.0%	2.1%	2.4%	1.3%	3.0%
Total Searches With Type Reported	Count	265	12733	2686	393	10755	73	26905
	Pct	2.3%	5.8%	6.6%	3.2%	3.6%	2.4%	4.6%
No Search/ Unknown/ Missing	Count	11444	205654	37799	11791	289739	3017	559444
	Pct	97.7%	94.2%	93.4%	96.8%	96.4%	97.6%	95.4%
Total Stops	Count	11709	218387	40485	12184	300494	3090	586349
	Pct	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 7. Search Conducted and Type of Search by Driver's Race/Ethnicity and Gender (Females)

Search Type		Race						
		Asian	African American	Hispanic	Other	White	U/M	Total
Person	Count	20	378	56	10	624	3	1091
	Pct	0.4%	0.3%	0.6%	0.3%	0.4%	0.3%	0.4%
Property	Count	13	837	62	15	626	0	1553
	Pct	0.2%	0.7%	0.7%	0.5%	0.4%	0.0%	0.5%
Both	Count	30	1204	99	33	1906	7	3279
	Pct	0.5%	1.0%	1.1%	1.0%	1.3%	0.8%	1.2%
Total Searches With Type Reported	Count	63	2419	217	58	3156	10	5923
	Pct	1.1%	2.1%	2.4%	1.8%	2.1%	1.1%	2.1%
No Search/ Unknown/ Missing	Count	5509	112593	8741	3094	147687	862	278486
	Pct	98.9%	97.9%	97.6%	98.2%	97.9%	98.9%	97.9%
Total Stops	Count	5572	115012	8958	3152	150843	872	284409
	Pct	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Tables 8 and 9 display the reason provided by the officer for the search of the driver's person or property. As shown, the majority of the searches were classified as incident to arrest for both genders and all ethnicities. A smaller percentage of male African Americans (34.6%) than Caucasians (52.4%) were searched as incident to

arrest. The pattern was reversed for other non-Caucasian groups, with higher percentages of male Asians (65.5%), and other non-Caucasian ethnicities (60.7%) searched as incident to arrest. The percentages of females searched as incident to arrest was lower for African Americans (36.9%) and Hispanics (51.6%) than Caucasians (59.2%), but higher for Asians (73.0%) . Exigent circumstances were reported least often for each demographic (0.0% to 3.0%) except for Hispanic males and females, who both were searched least often due to a K-9 alert. Searches of both male and female non-Caucasians were more likely to be for reasons categorized as *Other* than were searches of Caucasians with the exception of Asians. For males, 5.3% of Caucasians compared to 3.3% of Asians, 9.3% of other non-Caucasian ethnicities, 12.7% of Hispanics, and 13.6% of African Americans were searched for reasons categorized as *Other*. For females, 5.7% of Caucasians, compared to 7.9% of Asians, 12.3% of other non-Caucasian ethnicities, 17.3% of Hispanics, and 24.8% of African Americans were searched for reasons categorized as *Other*.

Table 8. Reason for Search by Driver's Ethnicity (Males)

Reason for Search		Race						
		Asian	African American	Hispanic	Other	White	U/M	Total
Consensual	Count	50	4243	653	83	2822	14	7865
	Pct	18.2%	32.8%	24.4%	20.9%	25.3%	19.4%	28.6%
Incident to Arrest	Count	180	4469	1368	241	5859	53	12170
	Pct	65.5%	34.6%	51.2%	60.7%	52.4%	73.6%	44.2%
Exigent Circumstances	Count	3	297	74	6	117	1	498
	Pct	1.1%	2.3%	2.8%	1.5%	1.0%	1.4%	1.8%
Probable Cause	Count	30	1527	174	20	1112	2	2865
	Pct	10.9%	11.8%	6.5%	5.0%	9.9%	2.8%	10.4%
K-9 Alert	Count	3	633	65	10	673	1	1385
	Pct	1.1%	4.9%	2.4%	2.5%	6.0%	1.4%	5.0%
Other	Count	9	1757	339	37	593	1	2736
	Pct	3.3%	13.6%	12.7%	9.3%	5.3%	1.4%	9.9%
Total Searches With Reason Reported	Count	275	12926	2673	397	11176	72	27519
	Pct	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 9. Reason for Search by Driver's Ethnicity (Females)

Reason for Search		Race						
		Asian	African American	Hispanic	Other	White	U/M	Total
Consensual	Count	8	487	41	14	639	0	1189
	Pct	12.7%	20.1%	18.2%	24.6%	19.4%	0.0%	19.6%
Incident to Arrest	Count	46	892	116	31	1944	7	3036
	Pct	73.0%	36.9%	51.6%	54.4%	59.2%	77.8%	50.1%
Exigent Circumstances	Count	0	72	9	0	20	0	101
	Pct	0.0%	3.0%	4.0%	0.0%	0.6%	0.0%	1.7%
Probable Cause	Count	2	282	16	3	265	1	569
	Pct	3.2%	11.7%	7.1%	5.3%	8.1%	11.1%	9.4%
K-9 Alert	Count	2	87	4	2	231	1	327
	Pct	3.2%	3.6%	1.8%	3.5%	7.0%	11.1%	5.4%
Other	Count	5	599	39	7	187	0	837
	Pct	7.9%	24.8%	17.3%	12.3%	5.7%	0.0%	13.8%
Total Searches With Reason Reported	Count	63	2419	225	57	3286	9	6059
	Pct	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 10 displays the search disposition stratified by ethnicity and collapsed across search type. The majority of all searches resulted in nothing being confiscated, ranging from 67.1% (African Americans) to 77.0% (other non-Caucasians). There was little difference between Caucasians (73.6%), African Americans (67.1%), and Hispanics (69.6%) on the probability of having nothing confiscated during a search. Caucasians were the most likely to have Contraband confiscated (15.6%) followed by African Americans (11.0%), Asians (10.9%), other non-Caucasians (6.4%), and Hispanics (6.2%). An opposite trend seemed to occur with the likelihood of property being confiscated with Hispanics leading the way (21.6%), followed by African Americans (14.0%), other non-Caucasians (12.5%), Asians (9.9%), and Caucasians (5.1%).

Table 10. Type of Search by Search Disposition and Driver's Ethnicity

Search Type	Search Disposition				Race				
			Asian	African American	Hispanic	Other	White	U/M	Total
Person	Contraband	Count	3	90	5	1	73	0	172
		Pct	1.0%	0.8%	0.2%	0.3%	0.6%	0.0%	0.7%
	Property	Count	4	248	44	9	103	2	410
		Pct	1.3%	2.3%	1.8%	2.6%	0.9%	2.2%	1.6%
	Contraband & Property	Count	1	51	6	1	13	0	72
		Pct	0.3%	0.5%	0.2%	0.3%	0.1%	0.0%	0.3%
	Nothing	Count	56	1318	353	83	1999	26	3835
		Pct	18.5%	12.1%	14.3%	24.1%	17.3%	28.9%	15.0%
Property	Contraband	Count	5	138	16	1	192	1	353
		Pct	1.7%	1.3%	0.6%	0.3%	1.7%	1.1%	1.4%
	Property	Count	6	485	108	11	117	2	729
		Pct	2.0%	4.5%	4.4%	3.2%	1.0%	2.2%	2.8%
	Contraband & Property	Count	0	53	5	0	30	0	88
		Pct	0.0%	0.5%	0.2%	0.0%	0.3%	0.0%	0.3%
	Nothing	Count	24	1532	342	35	1286	3	3222
		Pct	7.9%	14.1%	13.9%	10.2%	11.1%	3.3%	12.6%
Both	Contraband	Count	21	801	98	19	1345	3	2287
		Pct	7.0%	7.4%	4.0%	5.5%	11.6%	3.3%	8.9%
	Property	Count	9	428	145	9	234	3	828
		Pct	3.0%	3.9%	5.9%	2.6%	2.0%	3.3%	3.2%
	Contraband & Property	Count	10	752	52	13	620	2	1449
		Pct	3.3%	6.9%	2.1%	3.8%	5.4%	2.2%	5.6%
	Nothing	Count	143	4376	988	145	5078	40	10770
		Pct	47.4%	40.2%	40.1%	42.2%	43.9%	44.4%	42.0%
Unknown/Missing	Contraband	Count	4	166	33	1	192	0	396
		Pct	1.3%	1.5%	1.3%	0.3%	1.7%	0.0%	1.5%
	Property	Count	11	363	235	14	130	0	753
		Pct	3.6%	3.3%	9.5%	4.1%	1.1%	0.0%	2.9%
	Contraband & Property	Count	0	12	2	0	4	0	18
		Pct	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%
	Nothing	Count	5	74	33	2	147	8	269
		Pct	1.7%	0.7%	1.3%	0.6%	1.3%	8.9%	1.0%
All Search Types With Disposition Reported	Contraband	Count	33	1195	152	22	1802	4	3208
		Pct	10.9%	11.0%	6.2%	6.4%	15.6%	4.4%	12.5%
	Property	Count	30	1524	532	43	584	7	2720
		Pct	9.9%	14.0%	21.6%	12.5%	5.1%	7.8%	10.6%
	Contraband & Property	Count	11	868	65	14	667	2	1627
		Pct	3.6%	8.0%	2.6%	4.1%	5.8%	2.2%	6.3%
	Nothing	Count	228	7300	1716	265	8510	77	18096
		Pct	75.5%	67.1%	69.6%	77.0%	73.6%	85.6%	70.5%
Total Searches With Type and Disposition Reported		Count	302	10887	2465	344	11563	90	25651
		Pct	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Tables 11 and 12 pertain to the outcome of the traffic stop. The most frequent outcome of traffic stops for Asian and Caucasian males was a warning (43.4% and 47.9%, respectively), while males of Hispanic, African American, and other ethnicities most frequently received a citation (45.0%, 44.1%, and 48.3%, respectively). Hispanic males were almost twice as likely to be arrested (4.8%) as Caucasian males (2.5%). Among females, the majority of stops of Caucasians (53.1%) resulted in a warning, compared to 34.0% to 47.8% of stops of non-Caucasians. Hispanic females were more likely to receive a citation (41.0%) than a warning (34.0%). Females of all other ethnicities were more likely to receive a warning than a citation, although the likelihood of receiving a citation was slightly higher for non-Caucasian females than for Caucasian females. The proportion of females who were arrested is similar across ethnicities, ranging from 1.0% to 2.1%for non-Caucasian females, compared to 1.7% for Caucasian females.

Table 11. Traffic Stop Outcome by Driver's Ethnicity (Males)

Traffic Stop Outcome		Race						
		Asian	African American	Hispanic	Other	White	U/M	Total
Warning	Count	5087	82444	11775	4432	143878	1471	249087
	Pct	43.4%	37.8%	29.1%	36.4%	47.9%	47.6%	42.5%
Citation	Count	4681	96328	18218	5879	118526	1277	244909
	Pct	40.0%	44.1%	45.0%	48.3%	39.4%	41.3%	41.8%
SERO	Count	16076	30698	8018	1554	29669	279	71894
	Pct	14.3%	14.1%	19.8%	12.8%	9.9%	9.0%	12.3%
Arrest	Count	225	6803	1938	284	7562	58	16870
	Pct	1.9%	3.1%	4.8%	2.3%	2.5%	1.9%	2.9%
Unknown/ Missing	Count	40	2114	536	35	859	5	3589
	Pct	0.3%	1.0%	1.3%	0.3%	0.3%	0.2%	0.6%
Total	Count	11709	218387	40485	12184	300494	3090	586349
	Pct	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 12. Traffic Stop Outcome by Driver's Ethnicity (Females)

Traffic Stop Outcome		Race						
		Asian	African American	Hispanic	Other	White	U/M	Total
Warning	Count	2664	46560	3047	1324	80088	412	134095
	Pct	47.8%	40.5%	34.0%	42.0%	53.1%	47.2%	47.1%
Citation	Count	2042	45649	3673	1242	49271	310	102187
	Pct	36.6%	39.7%	41.0%	39.4%	32.7%	35.6%	35.9%
SERO	Count	785	20269	1973	527	18475	136	42165
	Pct	14.1%	17.6%	22.0%	16.7%	12.2%	15.6%	14.8%
Arrest	Count	57	1629	188	50	2583	7	4514
	Pct	1.0%	1.4%	2.1%	1.6%	1.7%	0.8%	1.6%
Unknown/ Missing	Count	24	905	77	9	426	7	1448
	Pct	0.4%	0.8%	0.9%	0.3%	0.3%	0.8%	0.5%
Total	Count	5572	115012	8958	3152	150843	872	284409
	Pct	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Restricting the analysis to only cases in which the traffic stop resulted in arrest, Tables 13 and 14 display the reason given by the officer for the arrest by the driver's ethnicity. The majority of the arrests for all ethnic groups were based on the stop, ranging from 54.7% for Asian males to 70.1% for other non-Caucasian males compared to 65.0% for Caucasian males. For females, the range was 46.0% for other non-Caucasian females to 64.1% for Caucasian females. Twice as many African American and Caucasian males were arrested based on the search compared to Hispanic males. For males, the proportion of arrests for which the reasons were unknown or missing was higher for Asians (20.0 %) Hispanics (18.5%), than for Caucasians (8.5%). For females, the percentage of arrests for which the reasons were unknown or missing was higher for Hispanics (25.0%), and Asians (21.1%) than for Caucasians (13.5%).

Table 13. Reason for Arrest by Driver's Ethnicity and Gender (Males)

Traffic Stop Outcome		Race						
		Asian	African American	Hispanic	Other	White	U/M	Total
Based on Search	Count	17	787	94	14	826	3	1741
	Pct	7.6%	11.6%	4.9%	4.9%	10.9%	5.2%	10.3%
Based on Stop	Count	123	3979	1164	199	4912	37	10414
	Pct	54.7%	58.5%	60.1%	70.1%	65.0%	63.4%	61.7%
Other	Count	40	1468	322	40	1184	17	3071
	Pct	17.8%	21.6%	16.6%	14.1%	15.7%	29.3%	18.2%
Unknown/ Missing	Count	45	569	358	31	640	1	1644
	Pct	20.0%	8.4%	18.5%	10.9%	8.5%	1.7%	9.7%
Total Arrests	Count	225	6803	1938	284	7562	58	16870
	Pct	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 14. Reason for Arrest by Driver's Ethnicity and Gender (Females)

Traffic Stop Outcome		Race						
		Asian	African American	Hispanic	Other	White	U/M	Total
Based on Search	Count	1	95	7	4	209	0	316
	Pct	1.8%	5.8%	3.7%	8.0%	8.1%	0.0%	7.0%
Based on Stop	Count	34	953	105	23	1656	3	2774
	Pct	59.6%	58.5%	55.9%	46.0%	64.1%	42.9%	61.5%
Other	Count	10	380	29	13	370	3	805
	Pct	17.5%	23.3%	15.4%	26.0%	14.3%	42.9%	17.8%
Unknown/ Missing	Count	12	201	47	10	348	1	619
	Pct	21.1%	12.3%	25.0%	20.0%	13.5%	14.3%	13.7%
Total Arrests	Count	57	1629	188	50	2583	7	4514
	Pct	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

DISCUSSION AND RECOMMENDATIONS

The descriptive statistics suggest that traffic stops and the characteristics of traffic stops are generally consistent with regards to ethnicity. Across ethnicities and gender, both males and females were most likely to be stopped for a violation of Title 22 or Title 13, except for Asian females who were stopped most often for a violation of Title 21.8. Among males, both Hispanic and African American males were slightly more likely to have their person/property searched than Caucasian males. The search reason of both male and female non-Caucasians was more likely to be categorized as *Other* than was the search reason for Caucasians. The majority of each group stopped had nothing confiscated regardless of

their ethnicity; however, Caucasians, both male and female, were less likely to have property confiscated than non-Caucasians and more likely to have contraband confiscated. Once stopped, Caucasian and Asian males received a warning most often, while African American and Hispanic males most frequently received a citation. Hispanic males were nearly twice as likely to be arrested as Caucasian males. Females, across ethnicities, were most likely to be given a warning with the exception of Hispanic females who were more likely to receive a citation. Arrest rates of females also were similar across ethnicities. Additionally, for both males and females, an *Unknown/Missing* arrest reason was reported more often for non-Caucasians than Caucasians, excluding African Americans.

While each of these observations has been revealed from the data, conclusions regarding the relationship between ethnicity and traffic stops should be cautiously interpreted and carefully utilized. First, with regards to the ethnicities reported, the lack of correspondence between the ethnicities required by the statute and those ethnicities reported by the MVA results in some ethnicities being collapsed and therefore not represented in this analysis.[8] To rectify this limitation, the adoption of MVA categories would allow for the full analysis of ethnicities reported and would eliminate the possibility of bias as a result of the differences in data sources.

The major limitation of the current study pertains to the possibility of omitted variables that may account for any differences observed between ethnicities. The purpose of this report is to discover whether drivers who exhibit similar behaviors, but are of different ethnicities, are stopped at different rates and whether the traffic stops result in different treatment and outcomes. However, the current method allows the possibility of error by neglecting confounding variables, such as driving behavior, the driver's violation history, and law enforcement deployment. If temporal and spatial traveling patterns differ by ethnicity, any differences observed may be the result of these driving patterns and not systematic differences between ethnicities. Considering that it is unknown whether traveling behaviors and patterns differ by ethnicity, no statistical conclusions can be drawn regarding whether there is differential

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[8] The statute requires the use of the following categories: Asian, Black, White, Hispanic and Other. The MVA uses Black or African American, White, Asian, Native Hawaiian or Other Pacific Islander, American Indian, and Other.

treatment.

This final report provides descriptive statistics regarding the demographic information associated with traffic stops in Maryland for the calendar year of 2009. No definitive conclusions can be drawn from this report regarding the effect of ethnicity on the frequency or characteristics associated with traffic stops due to data limitations beyond the scope of what reporting agencies could provide. However, the Governor's Office of Crime Control and Prevention is committed to strengthening communication with law enforcement agencies to facilitate the collection of available data and reporting.[9]

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[9] GOCCP incorporated MSAC in 2007, according to Executive Order 01.01.2007.05.