Lansing Police Department
MATS Data Analysis for Year 20
(Months 229-240)

March 2021

Prepared by

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ANALYSIS OF THE LANSING POLICE DEPARTMENT MATS DATA: A STATUS REPORT FROM YEAR 20
(Months 229-240)

A Report Submitted to

Daryl Green, Chief of Police
Lansing, Michigan Police Department

March 2021

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Abstract

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The findings of this analysis show consistency in officer-behavior conducting traffic stops compared to the long baseline of data provided by the MATS program. Traffic stops declined precipitously in the year 20 timeframe, presumably driven largely by the COVID-19 pandemic, a new LPD traffic stop policy, and by competing service demands created by various protest movements that took place throughout Lansing and on the grounds of the Michigan Capital. Despite the decline in the volume of stops, there were no anomalous patterns identified with respect to proportions of demographic characteristics of drivers stopped by LPD officers nor with searches arising from those stops. There will always be some variation between each MATS analysis, however, none of these variations have shown anomalous patterns. Consistent with the research findings, it is improbable that driver demographics will be the same as community demographics in any community because of factors identified by the National Institute of Justice.[1] Thus, there is some demographic variance in traffic stops compared to the 2010 Census characteristics in Lansing, the differences do not appear significant and are consistent over the 20 years of the MATS program. With respect to one of the most telling variables of officer behavior in traffic stops, searches, there is no indication of biased policing patterns.

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[1] https://www.nij.gov/topics/law-enforcement/legitimacy/pages/traffic-stops.aspx

ANALYSIS OF THE LANSING POLICE DEPARTMENT eMATS DATA:
A STATUS REPORT FROM YEAR 20
(Months 229-240)

In response to a national debate, the Lansing Police Department (LPD) began a voluntary and comprehensive process of ensuring LPD officers did not practice what has become known as "racial profiling" or "racially biased policing". As a means to monitor officer behavior related to traffic stops, LPD began collecting traffic stop data for analysis known as the Management Analysis of Traffic Stops -- or MATS -- program.

This report is the annual analysis of MATS data. For reference, Appendix A of this report provides the background, development and operational implementation of the MATS program. Similarly, Appendix B provides the summary findings of all previous MATS analysis for the reader's reference.

Importantly, as an analytic assessment, the MATS data do not identify individual officer behavior attached to any particular traffic stop. Rather, this is an analysis of aggregate data collected from reported traffic stops that seeks to determine if there are any questionable or anomalous "patterns or practices"[2] in LPD traffic enforcement operations.

The reader is reminded that the premise of "racial profiling" is that an officer stops a vehicle based on the perceived race or ethnicity of the driver. Officers will report "Not Apparent" when they enter their MATS traffic stop information if the race or ethnicity of driver was "not apparent" at the time of the stop.

DATA ANALYSIS FOR YEAR 20

This report reflects the results of months 229 to 240 of MATS data collection (all stops from February 13, 2020, through February 12, 2021). During the course of this twelve-month period, LPD officers reported 3,282 traffic stop encounters. This is down about 46.5% compared to the previous year, but not unexpected with the COVID-19 pandemic and protests in the city that had to be policed. The reader should note that the MATS data collection runs from February 13 of the previous year through February 12 of the current year.[3] The novel coronavirus started emerging in the U.S. in February 2020 – about the time the new MATS data collection year began – with the pandemic lockdown of businesses, schools, and events in early March 2020. A quick glance at traffic stops by month indicates what one would expect. The stops were at a rate fairly consistent with the previous year until mid-February and

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[2] "Patterns or practices" is a consistent standard used by the Justice Department in Civil Rights Investigations. https://www.justice.gov/file/how-pp-investigations-work/download

[3] These start and end dates have been the same since the MATS data collection began 20 years ago.

came to an almost full stop in March and April. Throughout the remainder of the data collection period the number of traffic stops were uncharacteristically low. The authors note that this was a trend nationwide resulting from the pandemic.

In addition, Lansing, like many communities across the country, experienced a variety of protests during 2020 ranging from protests against pandemic restrictions to the social justice protests of the summer. These events diverted policing resources to ensure the safety of all involved citizens. Moreover, police departments nationwide saw reduced traffic stops, and less proactive policing in general, as a result of the social justice protests – Lansing is no exception.

Another factor likely reducing the number of traffic stops was an LPD policy change. Effective July 1, 2020 Chief Green issued a new departmental policy prohibiting the stop of vehicles simply for equipment violations. In the memorandum to LPD employees on the new policy, Chief Green stated the "… traffic stop guidelines are consistent with our overall constitutional policing model that is focused on protecting the individual constitutional rights of our citizens while eliminating any aspect, inferred or otherwise, of bias-based traffic policing practices." While the MATS data does not have a breakdown between public safety traffic stops versus regulatory traffic stops, some conclusions may be drawn from the research literature. Specifically, regulatory equipment violations tend to occur more frequently with drivers who are on the lower end of the socio-economic spectrum which is also disproportionately represented by people of color. Relying on this research, one might assume that in Lansing, as a result of this policy, the MATS data may show a decrease in the proportion of persons stopped who are African-American and Latino.

Across the timeframe of the current data collection, there was variation in the rate of traffic stops per day as one would expect. Table 1 presents the average rate of stops *per day* during this assessment's time frame. These rates have been calculated to control for variations in the number of days in each month. Some difference is to be expected given variation in weather conditions, roadway conditions, other demands on police resources, and police staffing levels.

The overall picture of traffic enforcement in Lansing has remained stable in terms of whom officers are stopping and how these encounters are being handled. The race/ethnicity "Not Apparent" rate reported by officers at the time of the stop is low[4] which suggests vigilance by the officers in submitting the MATS data and is a positive sign of reliability in completing the forms. The distribution of stops across driver demographic attributes (Table 2) is quite

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[4] There is research that suggests officers often either do not pay attention to driver demographics or cannot determine the driver's demographics when making a traffic stop, particularly at night. As an example see https://amstat.tandfonline.com/doi/abs/10.1198/016214506000000168#.WrlT6C7wbIU.

similar to that observed in earlier reports. There is some demographic variance in traffic stops compared to the 2010 Census characteristics in Lansing, however the differences do not appear significant and are consistent over the previous 19 years of the MATS program.[5] LPD officers continue to engage in a slightly higher rate of traffic stops involving male drivers (the opposite was observed in the early years of MATS data collection; such shifts over time are expected). Traffic stops decreased from MATS Year 19 (February 2019 - February 2020) to Year 20 (February 2020 - February 2021), although such a decrease, as noted previously, was expected given the COVID-19 pandemic's effect on staffing, police service demands, and actual citizen driving behaviors. It is common for levels of police activities, such as traffic stops, to vary from year-to-year based on a variety of factors, including variations in available staffing, shifts in departmental priorities and operational policies, fluctuation in other demands on officer time and other factors external to the police department such as the weather.

The analysis shows no evidence of anomalous patterns emerging from LPD traffic stops. This has been a constant throughout the twenty years of the MATS program; even though there is some variation, it would be expected and is not enigmatic. There are sufficient baseline data throughout the years of the MATS program to provide a solid foundation of information wherein anomalous patterns would be evident. Moreover, the research suggests that some variations in traffic stops and driver demographics are the result of differential policing strategies adopted for different areas based on the police service demands in those areas.[6] This is a contemporary policing trend that is based on data analysis referred to as "place-based policing".[7] The data do not demonstrate any anomalous patterns or systematic practices by LPD officers in terms of who is stopped, searched, or sanctioned.

Variation is also noted in the time of day during which traffic stops occurred. Figure 1 displays the total number of traffic stops for each hour of the day. The frequency of stops tended to be lowest during the early morning hours. Frequencies rapidly rose between 7:00 and 10:00 AM, before declining from the late morning through the early evening. The frequency of stops rose again from 9:00 PM until midnight, before again declining into the early morning hours. These patterns are not only consistent with previous years they are consistent with changing traffic volumes (such as rush hours) and police patrol staffing.

The demographic characteristics of drivers are reported in Table 2. The reason for stops (Table 3), disposition of stops (Table 4), and search outcomes

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[5] Research by the RAND Corporation examines the differential demographic variance in traffic stops and the effects of external variables that may result in demographically different traffic stop characteristics, as compared to census data, but is not evidence of biased policing. https://www.rand.org/content/dam/rand/pubs/reprints/2007/RAND_RP1253.pdf

[6] http://journals.sagepub.com/doi/abs/10.1177/1098611109332422

[7] http://www.sipr.ac.uk/downloads/Policing_2026_Evidence_Review.pdf#page=37

are similar to distributions observed in earlier reports. The patterns and distributions are consistent overall with earlier MATS data and the observed variations are to be expected when tracking thousands of incidents over a number of years.

Table 1: Rate of Traffic Stops Per Day*		
	2020 (N= 2,848)	**2021 (N=434)**
January	--	9.5
February *	23.6	11.6
March	9.3	--
April	1.8	--
May	3.8	--
June	7.3	--
July	4.2	--
August	10.7	--
September	18.7	--
October	13.7	--
November	6.4	--
December	3.8	--

∗Rates for February 2020 and 2021 are adjusted to reflect less than a full month of data collection.

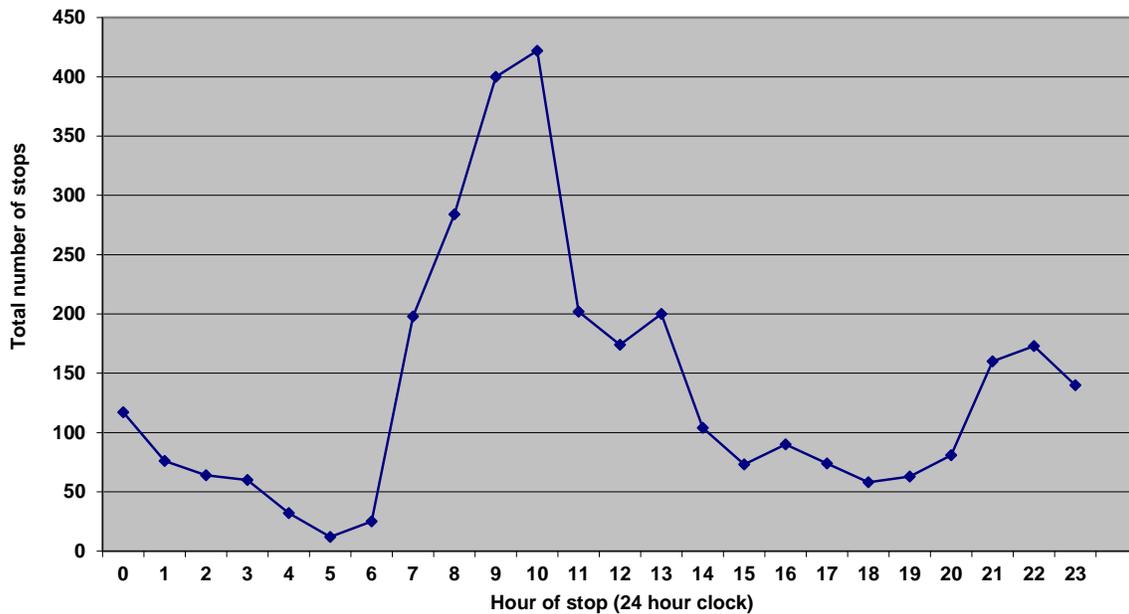## Figure 1: Total Stops by Hour of Day

Table 2. Driver gender, race/ethnicity and age; all stops.		
	ALL STOPS (N=3,282)	**2010 CENSUS[8] CHARACTERISTICS (PERCENTAGES)**
Gender		
Male	60.7	48.4
Female	39.3	51.6
Race/Ethnicity*		
Black	35.0	23.7
Asian-Pacific Islander	1.3	3.7
Hispanic	6.3	12.5
White	48.2	61.2
Not Apparent	9.1	--
Age Bracket		
10-19	5.0	MATS Data
20-29	34.8	Categories
30-39	24.7	and
40-49	15.0	Census Statistics
50-59	11.2	are on Different
60-69	6.6	Scales, Thus
70-79	2.4	Not
80-89	0.3	Comparable
90-99	0.1	
Average Age (in years)	36.8	32.2

* Three drivers were identified as Native American (0.1% of all stopped drivers). Because of the small number of drivers in this grouping, they are omitted from the rest of the report. No searches involved these three drivers.

Officers reported the reasons that led them to initiate traffic stops. Table 3 presents this information, along with reporting in each of the four LPD sectors where the traffic stop occurred. The majority of these stops were initiated because an officer observed some form of moving violation. Sector 3 had the most traffic stops, while Sector 2 had the fewest.

Perhaps the immediate question is why there are 382 fewer traffic stops in Sector 2 compared to Sector 3. The intuitive explanation is that there are more consumer businesses and main traffic arteries in Sector 3. That would account for a higher traffic volume and consequently the increased probability for more stops. The number of officers patrolling in each sector and patrol officer call loads can also influence stops, however that information is not integrated into the MATS data hence no empirical conclusion can be drawn on their effects. As a rule of probability, more officers are assigned to work areas that have the highest call loads and highest traffic loads. As the number of officers increase in a geographic area, the number of traffic stops will increase in those areas. If the race or ethnicity of drivers is proportionately higher in the

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[8] The latest census estimates (2019) show an estimated African-American/Black population percentage of 23.3% and estimated Hispanic/Latino population percentage of 12.4%. Since this is a small variance and only an estimate, the authors used the actual 2010 census data which enhances comparability to previous MATS reports. https://www.census.gov/quickfacts/lansingcitymichigan

higher police deployment areas, then there will be more stops of these drivers as compared[9] to the census proportions. (For these and other methodological reasons, the National Institute of Justice suggests that census proportions may not be the most accurate benchmark for this type of analysis, however, currently in Lansing we have no better alternative.)

Most stops resulted in an officer issuing a citation, although warnings were also common. Table 4 provides the dispositions of traffic stops. No problematic patterns were detected and the distribution is consistent with other police departments.[10]

Table 3: Reason for Traffic Stops and Stop Location*		
	FREQUENCY	PERCENT
Moving violation	2412	73.5
Registration	343	10.5
Equipment violation	255	7.8
Investigative Stop	56	1.7
Other	214	6.5
Sector 1	745	22.7
Sector 2	637	19.4
Sector 3	1019	31.0
Sector 4	880	26.8

* No reason was reported for two traffic stops. No sector was record for one of the traffic stops.

Table 4: Disposition of Traffic Stops*		
	FREQUENCY	PERCENT
Citation issued	2416	73.6
Arrest made	47	1.4
Warning issued	808	24.6
Report written	8	0.2

* No disposition was reported for 3 of the stops (0.1%).

STOPS WITH SEARCHES

Scientific research suggests that examining searches arising from traffic stops can provide insight about officer behavior and motivation for the stop.[11] In Lansing, searches were conducted in a relatively small proportion of all traffic stops. During the time frame covered in this report, officers reported conducting searches during 253 stops (7.7% of all stops).[12] Table 5 indicates who was the

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[9] https://nij.ojp.gov/topics/articles/racial-profiling-and-traffic-stops#note4

[10] https://www.policedatainitiative.org/datasets/stops-citations-and-arrests/

[11] https://onlinelibrary.wiley.com/doi/full/10.1111/j.1467-9930.2008.00282.x. See also the Stanford Open Policing Project https://openpolicing.stanford.edu/

[12] In reviewing the literature from other police departments, the number of searches in car stops varies significantly - Lansing appears to be on the lower end of the continuum where a car stop results in a search.

subject of such searches. No information was collected concerning passenger characteristics,[13] so a further analysis of these variables and their relationship with searches is not possible.

Table 5: Searches During Traffic Stops			
	FREQUENCY	**PERCENT OF TOTAL STOPS**	**PERCENT OF STOPS WHERE SEARCHES OCCURRED**
Driver searched	154	4.7	60.9
Passenger(s) searched	13	0.4	5.1
Vehicle searched	86	2.6	34.0

A brief explanation of terminology will help interpret the data. There are several circumstances where an officer can lawfully conduct a search and/or seize of property without a search warrant.[14]

- *Consent* - When an officer asks an individual if they will agree to the officer making a search of their person or property (e.g., motor vehicle). The consent must be given freely and voluntarily. This is the most discretionary type of search because it is based on the officer's decision to request consent to search. Essentially, a consent search is exploratory.
- *Search incident to an arrest* - If a person is being custodially arrested, the officer may search their person and area within their immediate control for a weapon or for evidence.
- *Terry cursory search* - More accurately a "frisk" for weapons to protect the officer or others when an officer, based on his/her experience, believes the person has committed, is committing or is about to commit a crime. The frisk is limited to an external pat down of the clothing to detect weapons.
- *Tow inventory* - While technically not a "search" it has the same effect - if a vehicle is being towed by the police, the officer may inventory the contents of the vehicle to record any valuables that may be in the vehicle to protect the property of the owner and to prevent accusations of negligent handling of the property by the police. If contraband[15] is observed during the inventory, it may be seized.

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[13] When the MATS program was developed the core, emphasis was to determine police officers' observations and actions related to the driver for determining the purpose and disposition of a traffic stop. At the same time, a goal in data collection was to make the process minimally intrusive on the officers' time and to collect only that data to meet the program's intent. As a result, detailed data collection on passengers was not built into the methodology.

[14] This is a very abbreviated description of warrantless searches and seizures and is not meant to be legal guidance nor is it comprehensive as to the legal requirements. It is simply presented to describe the types of search circumstances under which data were collected to help the lay reader interpret the findings.

[15] Contraband is deemed anything that is inherently unlawful to possess.

- *Plain view* - If the officer inadvertently observes contraband that is immediately recognized as contraband, it can be seized.
- *Parole search* - As a condition of parole, a parolee agrees to be searched by a police officer when stopped.

LPD officers were required to report the legal basis for conducting a search during the course of a traffic stop. This information is reflected in Table 6. The information in this table indicates, among other things, that officers rarely used their own discretion to conduct a search. The majority of all searches (65.2%) were "searches incident to a lawful arrest." In such situations, officers conducted the search pursuant to established criminal procedure, rather than exercising discretion. As a result, the probability of a search being based on a racial profile is significantly reduced. Several other categories would also suggest searches made out of procedure, rather than via discretion (e.g., the inventory of a vehicle to be towed or a plain view seizure). Generally speaking, officers would be considered to be exercising their discretion to initiate a search (i.e., an exploratory search) during "consent" and "Terry stop" situations. LPD officers only conducted a consent search in 1.7% of traffic stops and a Terry frisk in only 0.2% of the stops. While lawful and used for legitimate purposes, "consent: and "Terry stops" are very low proportions indicating LPD officers rarely conduct discretionary searches and suggests they are only doing so when facts and circumstances warrant the searches.

Items were discovered and/or seized during 82 searches in traffic stops. This represents 2.5% of all stops and 32.4% of those stops involving some type of search. Table 7 presents the types of items that were discovered/seized in the course of these searches. Many of these items were relatively innocuous; alcohol and drugs were the most commonly seized forms of contraband. Weapons were discovered in 7.5% of the searches.

Tables 8, 9 and 10 provide alternative perspectives on the data by displaying stops, searches and contraband discoveries/seizures based upon the driver's race/ethnicity, gender and age bracket. The reader is reminded that this assessment's unit of analysis is the individual traffic stop, not the driver. Thus, the fact that a search was conducted does not mean that the driver was actually the subject of such a search. Also, these tables do not reflect the characteristics of passengers who may have been the subject of searches.

Table 6: Authority for Searches in Traffic Stops*

	FREQUENCY	PERCENT OF ALL STOPS	PERCENT OF STOPS WITH SEARCHES
Consent	55	1.7	21.7
Incident to arrest	165	5.0	65.2
Terry cursory	8	0.2	3.2
Tow inventory	23	0.7	9.1
Plain view	11	0.3	4.3
Parole	1	0.0	0.4

* Authority categories are not mutually exclusive. Because an officer could conduct multiple searches during the course of a traffic stop encounter, there could be multiple authorities for such searches.

Table 7: Items Discovered/Seized Through Searches in Traffic Stops*

	FREQUENCY	PERCENT OF STOPS	PERCENT OF STOPS WITH SEARCHES	PERCENT OF ALL SEARCHES PRODUCING CONTRABAND
Weapons	19	0.6	7.5	23.2
Vehicles	16	0.5	6.3	19.5
Drugs	23	0.7	9.1	28.0
Alcohol	17	0.5	6.7	20.7
Cash	4	0.1	1.6	4.9
Other property	20	0.6	7.9	24.4

* Item categories are not mutually exclusive. Multiple items could be discovered and/or seized during the course of a search.

Table 8: Driver's Race by Stops, Searches and Contraband Discoveries/Seizures

DRIVER'S RACE	NUMBER OF STOPS (% OF ALL STOPS)	NUMBER OF SEARCHES (% OF ALL SEARCHES)	NUMBER OF DISCOVERIES (% OF ALL DISCOVERIES)
Asian-American	43 (1.3%)	--	--
Black	1149 (35.0%)	149 (58.9%)	44 (53.7%)
Hispanic	207 (6.3%)	16 (6.3%)	4 (4.9%)
White	1582 (48.2%)	70 (27.7%)	29 (35.4%)
Not Apparent	298 (9.1%)	18 (7.1%)	5 (6.1%)

Table 9: Driver's Gender by Stops, Searches and Contraband Discoveries/Seizures

DRIVER'S GENDER	NUMBER OF STOPS (% OF ALL STOPS)	NUMBER OF SEARCHES (% OF ALL SEARCHES)	NUMBER OF DISCOVERIES (% OF ALL DISCOVERIES)
Female	1291 (39.3%)	50 (19.8%)	12 (14.6%)
Male	1991 (60.7%)	203 (80.2%)	70 (85.4%)

Table 10:	Driver's Age Bracket by Stops, Searches and Contraband Discoveries/Seizures		
DRIVER'S AGE	**NUMBER OF STOPS (% OF ALL STOPS)***	**NUMBER OF SEARCHES (% OF ALL SEARCHES)**	**NUMBER OF DISCOVERIES (% OF ALL DISCOVERIES)**
10-19	163 (5.0%)	15 (5.9%)	7 (8.5%)
20-29	1141 (34.8%)	81 (32.0%)	20 (24.4%)
30-39	812 (24.7%)	82 (32.4%)	27 (32.9%)
40-49	492 (15.0%)	42 (16.6%)	15 (18.3%)
50-59	366 (11.2%)	23 (9.1%)	9 (11.0%)
60-69	215 (6.6%)	9 (3.6%)	4 (4.9%)
70-79	80 (2.4%)	--	--
80-89	10 (0.3%)	--	--
90+	2 (0.1%)	--	--

* Mean age of all drivers = 36.8 years. Age was not reported for the driver in one traffic stops.

RACE, GENDER AND SEARCHES

A key impetus for the MATS analysis was to understand the role of various demographic factors in traffic enforcement encounters. Table 11 presents the race/ethnicity and gender of all drivers involved in traffic stops. The first column lists the possible race/ethnicity and gender combinations for drivers stopped during the study time frame. The second column reports the number of stops involving each race/ethnicity and gender combination. The third, fourth and fifth columns reflect the percent of drivers within various classifications (for example, 32.8% of female drivers were Black, 36.8% of Black drivers were female, and 12.9% of all drivers were Black females). The final column indicates the odds of a driver being searched in the course of a traffic stop. For example, when the driver was a Black female, a search was conducted in 6.6 out of 100 stops.

Table 12 reflects the odds that various forms of contraband were found when searches were conducted during traffic stops. The odds are reported based upon the race/ethnicity and gender of the driver. The reader should note that several rows in this table are highlighted to reflect that a very small number of searches were conducted with drivers of the respective race/ethnicity and gender combination. These small numbers may dramatically skew the odds in these cases. It must also be noted that the discovery and/or seizure of any form of contraband does not necessarily mean that the driver was in possession of such items. Once again, the unit of analysis for the MATS form is an individual traffic stop. Officers reported driver demographics and search outcomes from each stop. The data do not allow for the discovery of contraband to be linked to a particular individual in a vehicle.

TABLE 11: Drivers by Gender and Race/Ethnicity for Traffic Stops

	COLUMN A FREQUENCY	COLUMN B % OF DRIVERS WITHIN GENDER CLASS	COLUMN C % OF DRIVERS WITHIN RACIAL CLASS	COLUMN D % OF ALL DRIVERS	COLUMN E # OF SEARCHES (ODDS IN 100 OF SEARCH)
Asian American Female *	17	1.3%	39.5%	0.5%	--
Black Female	423	32.8%	36.8%	12.9%	28 (6.6)
Hispanic Female *	74	5.7%	35.7%	2.3%	1 (1.4)
White Female	671	52.0%	42.4%	20.4%	18 (2.7)
Not Apparent Female *	105	8.1%	35.2%	3.2%	3 (2.9)
Asian American Male *	26	1.3%	60.5%	0.8%	--
Black Male	726	36.5%	63.2%	22.1%	121 (16.7)
Hispanic Male	133	6.7%	64.3%	4.1%	15 (11.3)
White Male	911	45.8%	57.6%	27.8%	52 (5.7)
Not Apparent Male	193	9.7%	64.8%	5.9%	15 (7.8)

* Dataset contains 10 or fewer stops where the driver had this race/ethnicity/gender composition and was searched.

Table 12: Odds (In 100) Of Contraband Being Discovered and/or Seized by Driver Race/Ethnicity and Gender

	WEAPON	VEHICLE	DRUGS	ALCOHOL	CASH	OTHER PROPERTY	ANY CONTRABAND†	NOTHING
Asian American Female *	--	--	--	--	--	--	--	--
Black Female	3.6	3.6	3.6	--	--	--	10.7	89.3
Hispanic Female*	--	--	--	--	--	--	--	100.0
White Female	5.6	--	22.2	11.1	--	11.1	44.4	55.6
Not Apparent Female*	--	--	--	--	--	33.3	33.3	66.7
Asian American Male *	--	--	--	--	--	--	--	--
Black Male	7.4	9.1	9.1	5.8	2.5	6.6	33.9	66.1
Hispanic Male	6.7	--	--	13.3	--	6.7	26.7	73.3
White Male	11.5	7.7	11.5	3.8	1.9	11.5	40.4	59.6
Not Apparent Male	6.7	--	6.7	--	--	13.3	26.7	73.3

* Dataset contains 10 or fewer stops where the driver had this race/ethnicity/gender composition and was searched.
† Because officers could seize multiple forms of contraband on a single stop, the various categories are not mutually exclusive and the values in the columns to the left do not necessarily sum to the value appearing in this column.

In examining the odds of being searched based upon race/ethnicity and gender, it is crucial to examine the legal authority that allowed an officer to conduct a search. The odds of various legal authorities legitimizing an officer's search (when there were searches) are presented in Table 13 by driver race/ethnicity and gender. For example, when searches were conducted during traffic stops with Black female drivers, the legal authority for 14.3/100 searches was the driver's consent; 82.1/100 searches were incident to arrest in such

stops. Because an officer could have multiple legal authorities justifying multiple searches in a single stop, these columns are not mutually exclusive.

Of key importance in this table are the differential patterns that emerge among the various authorities. When an officer conducts a search that is "incidental to a lawful arrest" or for a tow inventory, that officer is following policy and procedure more than discretion. When an officer seeks a driver's consent or conducts a *Terry* search, that officer is exercising discretion. It can be more instructive to examine patterns of officer discretion, though the overall low proportion of stops involving *Terry* or consent searches necessitates the use of caution in making strong conclusions from the distribution in Table 13.

Table 13: Odds (in 100) of Various Legal Authorities by Driver Race/Ethnicity and Gender

	CONSENT	INCIDENT TO ARREST	TERRY CURSORY	TOW INVENTORY	PLAIN VIEW	PAROLE
Asian American Female*	--	--	--	--	--	--
Black Female	14.3	82.1	--	10.7	--	--
Hispanic Female*	--	--	--	100.0	--	--
White Female	33.3	44.4	11.1	5.6	11.1	--
Not Apparent Female*	33.3	66.7	--	--	--	--
Asian American Male*	--	--	--	--	--	--
Black Male	19.8	66.1	0.8	9.1	5.0	0.8
Hispanic Male	26.7	60.0	--	6.7	--	--
White Male	28.8	61.5	7.7	3.2	1.9	--
Not Apparent Male	22.0	64.0	2.0	12.0	6.7	--

* Dataset contains 10 or fewer stops where the driver had this race/ethnicity/gender composition and was searched. Rows may not total to 100.0 due to rounding, missing data, or multiple authorities for searches.

Based on the data in the above table, the lowest *discretionary* search -- search incident to arrest - had by far the greatest probability of searching. There will always be consent searches and typically these are based on indicators of a criminal nexus that fall short of probable cause. We would also expect these to be low probability search scenarios. The data show this to be the case in Lansing. Collectively, these data do not reflect any anomalies nor suggest a pattern of discriminatory policing.

The outcomes of all traffic stops are presented in Table 14 by the driver's race/ethnicity and gender. The table reports the percent of stops for drivers of each race/ethnicity and gender combination that resulted in the various outcomes (e.g., in stops involving Black female drivers, citations were issued in 70.7% of stops, arrests were made in 1.7%, and warnings were given in 27.7%). The reader is reminded that multiple outcomes are possible for a single stop;

therefore, these columns are not mutually exclusive. In addition, a specific outcome may not relate to the vehicle's driver (e.g., a passenger could have been the party cited, arrested or warned). Both arrests and warnings were more commonly noted in stops involving male drivers, while citations were more commonly observed in stops involving female drivers. In contrast to other racial/ethnic groups, Black and Hispanic drivers were cited less, but arrested and warned more.

Table 14: Outcome of all Traffic Stops by Driver Race/Ethnicity and Gender*

	CITATION	ARREST	WARNING	REPORT
Asian American Female	76.5	--	23.5	--
Black Female	70.7	1.7	27.7	--
Hispanic Female	78.4	--	21.6	--
White Female	76.3	0.7	22.7	--
Not Apparent Female	88.6	1.9	9.5	--
Asian American Male	73.1	--	26.9	--
Black Male	66.5	3.3	29.9	0.3
Hispanic Male	61.7	0.8	36.8	0.8
White Male	75.1	0.7	23.8	0.3
Not Apparent Male	88.6	1.0	9.3	1.0

* Rows may not sum to 100.0 due to rounding or missing data.

CONCLUSIONS

The Research Team again notes the overall picture of traffic enforcement in Lansing has remained stable in terms of whom officers are stopping and how these encounters are being handled. The only notable difference between the current data analysis and the Year 19 data analysis was the sharp decline in reported traffic stops. For purposes of identifying anomalous patterns, the 3,282 stops during this analytic year is adequate for analysis. The raw number of stops is less relevant than the patterns that emerge from the analysis. For example, the distribution of stops across driver demographic attributes is quite similar to distributions observed in earlier reports with minimal exceptions. There is no clear evidence that would suggest systematic problems with when, how, and against whom LPD officers make traffic stops. Likewise, there is no evidence that officers are systematically using traffic stops as a pretext for biased policing practices. The reason for stops, disposition of stops, and search outcomes are similar to distributions observed in earlier reports. The authors continue to see no pattern of problematic behavior of LPD officers – notably, no evidence of "racial profiling" – emerging from these data.

APPENDIX A

BACKGROUND, DEVELOPMENT AND OPERATIONAL IMPLEMENTATION OF MATS

As a result of incidents around the country—most notably involving the New Jersey Highway Patrol—it was learned that some police officers were using race and ethnicity as a primary factor of "suspicion" that certain people may be involved in crime. There are several historical factors that contributed to this:

1. **Cultural Distinction**. The idea of "cultural distinction" influences the behavior of all people; not just police officers. People tend to draw conclusions about members of different cultures based on erroneous assumptions and misinterpretations of the culture. If someone is "different", this may seem "unnatural" or "suspicious". Perhaps the best contemporary example—notably since the terrorist attacks of September 11, 2001—is the reaction directed toward Muslims and people perceived to be Muslims or from the Middle East, regardless of their religion. There have been cases where Arab-American businessmen were denied passage on airlines because their appearance—and the assumption they could be a terrorist—made passengers and/or flight crew nervous. This cultural distinction makes people of one race/ethnicity suspicious of others, thereby causing stereotyped conclusions—this is a form of "racial profiling" that is a social-psychological reaction experienced by virtually everyone at one time or another.

2. **Police Training Legacy**. In past generations, officers were taught in training that if, while on patrol, they observed a person "who did not fit the area" it was "good police work" to stop the individual "to find out what they are up to". In, practice, this usually meant that a Black or Hispanic person driving an older vehicle in a predominantly White middle- or upper-class area would be stopped for questioning under the assumption that the "suspect" was planning a burglary, auto theft, or burglary of a vehicle. On the other hand, a White driver in an expensive vehicle driving slowing through a predominantly disadvantaged minority community would come under suspicion as well. Importantly, the only criterion was that "the person did not fit the area"; a factor that does not meet the test of lawful criminal procedure. While this practice is no longer taught to new police officers, the practice still remains to an extent, informally passed between generations of officers, under the guise that "it's good police work." The implications are that ongoing training and supervision are needed to eliminate the practice.

3. **Operation Pipeline**. In order to respond to drug trafficking and distribution in the U.S., the Drug Enforcement Administration (DEA) and Arizona Highway Patrol, jointly developed a lengthy protocol designed to "profile" drug couriers. The protocol gave officers a wide range of variables to look for which, in combination, suggested that the person possessing those variables was a probable drug trafficker. When employed correctly, the protocol identified drug traffickers with a reasonable degree of consistency. However, the process was time consuming and awkward to employ, particularly if an officer was following a target and attempting to assess variables in the protocol while traveling down the road. In the allegations of profiling by the New Jersey Highway Patrol (NJHP), it was alleged that NJHP officers would select variables such as a young black male driving a rental car as a person to stop as a probable drug courier. Even though the protocol may include these variables, the protocol would include additional variables such as location, time, furtive conduct, position of the car (suggesting weight), and other factors. These were essentially ignored; hence many innocent people were stopped by the police, largely as a result of their race or ethnicity.

Even though officers may have become suspicious of a person largely as a result of their race or ethnicity, it was understood that there had to be probable cause to stop the vehicle. Thus, officers would typically use some form of traffic violation—e.g., improper lane usage, license expiration, vision obstruction, etc.—as the legal reason to stop the vehicle. This is known as a "pretext stop" because the motivating reason to stop the vehicle was for the officer to question the "suspicious driver"; it was not primarily traffic law enforcement. The traffic violation becomes the means, not the end. Interestingly, the United States Supreme Court has affirmed that the use of a pretext stop is lawful.[16] The subsequent debate associated with racial profiling has been whether police officers use pretext stops with greater frequency involving non-White drivers than they do with White drivers.

This allegation—disproportional use of pretext traffic stops involving racial and ethnic minority drivers—fueled a response among policy makers. With support from Civil Rights leaders, both policy pronouncements and legislation began to mandate that police departments collect data on the demographic characteristics of drivers stopped for traffic violations, as well as, the circumstances surrounding the stop. The intent was to find a measure that would indicate the *unjustified* demographic disproportionality of drivers stopped for traffic violations.

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[16]*Whren v. U.S.*, 517 U.S. 806, (1996).

It is important to note that demographic disproportionality of drivers stopped by the police is not a problem, per se. Rather, the issue is whether that disproportionality is based on legally justifiable criteria (i.e., no profiling) or whether that stop was the product of an officer's conclusions about the driver based on the driver's race or ethnicity (i.e., racial profiling). This presents a problem that is compounded by a different interpretation of facts by the officer and the citizen. Poor communications, different perceptions of facts, and a legacy of distrust between the police and minority community (nationwide) aggravate the problem.

There are some important concerns about the simple review of data reporting the demographic proportionality of drivers stopped by officers. First, it is virtually impossible to determine if an officer's behavior is motivated by lawful actions or unjustified pretext stops, without confirmation by the officer him/herself. Assumptions cannot be made about an officer's motivation by simply reviewing the demographic data of traffic stops. For example, it is unlikely that an officer is "profiling" when s/he stops a demographically disproportionate number of drivers for speeding as a result of radar speed measurement. Conversely, if an officer has a high demographic disproportionality of traffic stops involving minority drivers for which few citations are issued, this may warrant closer examination of the officer's reasons for the stops and lack of citations.

Other factors contribute to the equation in trying to determine if an officer's demographically disproportionate traffic stops—including pretext stops—are justified or not. For example, if a police officer has received a crime analysis report about a burglary trend with evidence that the burglars may be young, Black males committing daytime burglaries, then the officer would be justified in using pretext stops in the burglary areas to target individuals meeting the characteristics of the burglars. With this information, the officer is acting on reasonable grounds with explicit criteria for the stop related to known crimes. Race/ethnicity may become one of these factors if there is reliable evidence, such as a witness. The officer is not acting on mere suspicion because of race/ethnicity. In this illustration, there is demographic disproportionality in traffic stops, but it is legally and ethically justifiable based on the crime data.

The important aspect to note is that this is not a simple process of comparing traffic stops to census demographics. There is no universal standard of comparison to determine if officers are "racial profiling" or not. Similarly, a conclusive judgment cannot be made about an officer's motivations simply by looking at his/her "numbers". Rather, the data serve as a barometer to suggest if there are policies or practices, which should be examined more closely to ensure that there is no discrimination.

There are other compounding issues. The lay reader should note that the United States Supreme Court has held that a police officer may stop, detain, and frisk a person when the officer has reasonable grounds, based on his/her experience, to believe that the person has committed, is committing, or is about to commit a crime.[17] This is an investigatory stop that may begin with a pretext traffic stop. Thus, as long as the officer can articulate the reasonable grounds—which may be a collection of circumstantial facts—the officer can ask the driver and passengers to step out of the car, frisk them, and interview them. Police officers should carefully document the cases because they are often the focal point of a complaint about racial profiling.

Finally, this report is an analysis of aggregate data trends—not an assessment of individual officers' behaviors. Once again, data cannot be reviewed on the stops of an individual officer to draw conclusions about whether or not the officer has "racially profiled" drivers. The process is far more complicated. If an officer works in an area where the residents are predominantly minorities, it is reasonable to assume most drivers encountered by the officer will be minority drivers. The determination of whether an individual officer is "profiling" is found neither in the numbers of persons stopped by the officer nor the demographic characteristics of the drivers. Rather, it is found in the reasons used by the officer to make the traffic stops. Thus, the responsibility for monitoring this comes largely from the officer's immediate supervisor, not a data analysis.

THE LANSING MODEL

It is recognized that data alone—particularly when there is no conclusive standard of comparison—does not necessarily provide the most accurate picture of the existence, or lack thereof, of racial profiling problems. Most importantly is the organizational culture in the police department, the quality of supervision, and leadership. The unique aspect of the Lansing Police Department's approach to this issue is that the department did not rush into a traffic stop data collection study, just to "get the numbers". Instead, under the leadership of Chief Mark Alley, the department took a comprehensive view of the issues associated with racial profiling and sought to implement a plan for organizational change.

This approach is certainly more time-consuming than the approaches taken by other police departments—it is also more effective. In summary form, what has become known as "The Lansing Model" contains the following elements:

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[17] *Terry v. Ohio*, 392 U.S., 1 (1968).

Philosophy: Racial profiling must be operationally defined and empirically measured to determine its character and existence in the department. Whatever forms the practice may take—and it may take multiple forms—it cannot be remedied by simple mandate or controlled through monitoring demographic data of traffic stops. Rather, there must be substantive change in the organizational culture. As such, there are four philosophical tenets to the LPD Management Analysis of Traffic Stops (MATS) initiative.

1. To address police profiling of minorities, we must fully understand the concept of racial profiling; social-psychological dynamics of both officer and community behavior; legal issues; implications of police procedure; and the interactive behavioral dynamics of the police and community in such incidents.

2. There must be a mechanism to document such incidents, assess any discernible trends, and identify and investigate individual improprieties.

3. If overt, insidious cases of racial profiling are identified, the disciplinary process must be imposed.

4. Prevention and remedial strategies for improper institutionalized behavior requires changes in organizational attitudes, values and beliefs.

Protocol: In order to operationalize this philosophy, a multi-stage protocol has been developed.

1. The first step was to create an Implementation Team that included management personnel who were critically involved in policy implementation; representatives of the police collective bargaining units; the city Human Relations Director, and external advisors. Using a participatory management style, the Committee's role was to provide guidance for the total implementation process.

2. Research was conducted on national issues and trends related to police profiling of minorities.

3. Focus groups of uniformed personnel were conducted representing all shifts and geographic assignments to

determine issues and concerns as well as gain practical information on accountability models/processes.

4. Community meetings were held to gain insight on how citizens explicitly view racial profiling in the city and gain insight on issues and processes that must be addressed from the perspective of citizens.

5. A White Paper on Policy was prepared which discussed both the broad national issues and those specific to Lansing. This paper served as a learning document for both the police and community providing a foundation for:

   a. Policy and procedures
   b. Organization change
   c. Police training
   d. Community education

6. A data collection form, policy and procedure were developed to serve as the mechanism to monitor demographic trends in traffic stops.

7. Training was provided to all uniformed personnel on:

   a. The issue of racial profiling, generally.
   b. Current law and policy associated with officer behavior that has led to profiling allegations.
   c. Perceptions, relations, and interactions with minority communities.
   d. Use of the LPD MATS data collection form and related procedures.

8. Training was provided to uniformed supervisors concerning their responsibilities specifically related to the racial profiling issue and the new MATS process.

9. Community education sessions were held to discuss police procedure and minority relations and the racial profiling issue.

10. Evaluation includes:

   a. Processes used in the MATS program
   b. Institutional (aggregate) accountability outcomes
   c. Individual accountability

In sum, the Lansing Model attempted to mold the organizational culture so that officers could understand and adhere to both policy and law. As noted in the original LPD Racial Profiling Paper, when racial profiling by the police occurs it is typically a subconscious act. This model is to bring awareness to the forefront in order to ensure that unacceptable practices do not occur.

METHODOLOGY

Beginning February 12, 2001, following the developmental steps described above, uniformed LPD officers working in marked units were required to complete a MATS data form describing the driver's demographic characteristics and the circumstances related to each officer-initiated traffic stop and for each traffic accident to which they were dispatched. Since there is difficulty in establishing a standard of comparison, one idea was to compare the demographic characteristics of drivers stopped for traffic violations to those drivers involved in accidents. This experiment was to determine if this was a useful standard by which comparisons could be made.

By the end of each shift, officers submitted completed MATS forms to their supervisor who, in turn, reviewed and "signed off" on completed forms and forwarded them for processing. Part of the supervisors' responsibility is to monitor officers' behaviors and be alert to any potentially anomalous problems.

Beginning in 2006, it was decided that MATS data would not be collected during responses to traffic accidents because responding to traffic accident calls were not discretionary.

Year ten of the MATS data collection reflects the first full year of eMATS. With eMATS, the data about traffic stops are directly entered into the computer system by the officer, rather than having officers complete paper reports. Some evidence from the raw data suggest some data entry problems, but nothing from these apparent mistakes suggests any negative trend nor were their sufficient data entry problems to question the findings.

APPENDIX B

SUMMARY FINDINGS FROM PREVIOUS REPORTS

To provide the reader with some perspective, critical findings from the previous MATS data analysis are provided below.

Key Findings from the Six-Month Report

An analysis of the first six months of MATS data was completed with a report submitted to former Chief Mark Alley. While a synopsis of those findings is presented below, the reader is referred to the actual reports before drawing any comparative conclusions.[18]

Based on the first six-month analysis of the MATS data collection, there were no trend data suggesting Lansing police officers stopped demographically disproportionate drivers without legal justification. A slightly higher proportion of Black and Hispanic drivers were stopped by police officers compared to the demographic proportions reported in the 2000 Census for Lansing. The differences (approximately 5%) do not appear to be significant because (1) Census data do not account for transient drivers who do not live within the city and (2) police officers are deployed more densely to areas within the city which have higher call and service demands for the police. These areas in Lansing tend to have a disproportionately higher number of minority residents; hence the probability of officers stopping minority drivers increases.

With respect to the issue of "racial profiling", it was found that both arrests and warnings were more commonly noted in stops involving minority drivers, while citations were more commonly observed in stops involving White drivers. Moreover, an important finding was that in over 80% of traffic stops where a search was involved, the legal authority was a "search incident to arrest", indicating little discretion for the search by the officer. As discretion for officers' actions decreases, so does the probability of profiling.

Key Findings from the One Year Report

The one-year data suggest that LPD officers follow law and policy for traffic stops and that neither the character of the traffic stops nor the circumstances associated with the traffic stops reflect inappropriate targeting of any racial or ethnic group. Perhaps the most insightful data are related to searches. These data suggest that while there are a disproportionate number of minority drivers who are searched when compared to White drivers, the searches are those, which have, clear justification in law (e.g., searches

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[18]All previous reports are available on the Lansing Police Department web site, http://www.lansingpolice.com.

incidental to an arrest) rather than being discretionary searches (e.g., request for consent.)

When compared to the 2000 Census data for the City of Lansing, there were minor disproportionalities noted in the LPD traffic stops when compared to the Census proportions. Men were stopped disproportionately more frequently when compared to women; young drivers (in their teens and twenties) were stopped disproportionately more frequently when compared to older age groups. While there are not specific MATS data to explain these differences, there is a strong legacy of research and actuarial insurance data that suggests younger drivers and men commit more traffic violations.

When comparing the proportion of drivers stopped to the proportionality of residents based upon race/ethnicity, there were slight differences: 2.2% more Black drivers were stopped than Lansing residential proportionality; 1.3% less White drivers was stopped than residential proportionality. These differences are not significant and can be attributed to a wide range of variables unrelated to any form of profiling of drivers. Interestingly, there was 3.5% fewer Hispanic and 1.0% fewer Asian-Pacific Islander drivers stopped than the residential proportionality.

Key Findings from the Eighteen-Month Report

During this six months increment of analysis (months 13-18 of the LPD MATS program), there were two noticeable changes in the data. First, there was an approximate 8% fewer traffic stops compared to the previous two six-month intervals. Second, there were a smaller proportion of formal dispositions, (e.g., citations) during this analysis period compared to the previous periods. An analysis of the data does not reveal the cause of these reductions, however that is not surprising. The variables measured in the MATS program are necessarily limited, because they seek to identify patterns of discriminatory behavior, not measure other causal dynamics. Intuitively, one could conclude that some type of environmental and/or policy factors contributed to these reductions.

Regardless of these reductions, the findings of this six-month period are consistent with those in the previous six and twelve-month reports. From these data, no anomalies emerge which would suggest that officers are treating minorities any differently than whites on matters of traffic stops. As in the previous reports, the data suggest that LPD officers follow law and policy for traffic stops and searches. Moreover, it appears that neither the character of the traffic stops nor the circumstances associated with the traffic stops reflect inappropriate targeting—i.e., "profiling"—of any racial or ethnic group.

Key Findings from the Twenty-Four Month Report

On the whole, the results of 24-month analysis do not suggest a significant shift in the nature of traffic stops in Lansing from the 18-month report submitted by this evaluation team. While this assessment focused only on analysis of the data received during the months 19-24 of the MATS program rather than specifically making comparisons over the previous two years, few changes appear to have occurred in the traffic enforcement behaviors of LPD officers during this timeframe. The number of traffic stops and searches during months 19 to 24 of data collection is similar to the same time frame the previous year (months 7 to 12). Although month-to-month differences and variation are noted, the evaluation team finds no evidence that MATS reporting behaviors were impacted by the release of any of the three prior status report. Variance is likely the product of increased traffic enforcement by motorcycle officers, most of whose enforcement involves speeding violations.

During the course of the data collection period, LPD officers used MATS forms to report data for 19,351 traffic stop encounters. Of these encounters, 15,741 (81.3%) were non-accident related (traffic stops not initiated because of a traffic accident). The remaining 3610 (18.7%) encounters were accident-related (traffic stops pursuant to the investigation of a traffic accident).

The data suggest that LPD officers follow law and policy for traffic stops and that neither the character of the traffic stops nor the circumstances associated with the traffic stops reflect inappropriate targeting of any racial or ethnic group. When compared to the 2000 Census data for the City of Lansing, there were minor disproportionalities noted in the LPD traffic stops when compared to the Census proportions. Men were stopped disproportionately more frequently when compared to women; young drivers (in their teens and twenties) were stopped disproportionately more frequently when compared to older age groups. While there are not specific MATS data to explain these differences, there is a strong legacy of research and actuarial insurance data that suggests younger drivers and men commit more traffic violations.

When comparing the proportion of drivers stopped to the proportionality of residents based upon race/ethnicity, there were slight differences: 1.3% more Black drivers were stopped than Lansing residential proportionality; 0.1% more White drivers were stopped than residential proportionality. These differences are not significant and can be attributed to a wide range of variables unrelated to any form of profiling of drivers. Interestingly, there was 4.0% fewer Hispanic and 0.9% fewer Asian-Pacific Islander drivers stopped than the residential proportionality.

Key Findings from the Thirty Month Report

During the course of this six-month period of months 25 to 30, LPD officers used MATS forms to report data for 16,759 traffic stop encounters. Of these encounters, 13,718 (81.9%) were non-accident related (traffic stops not initiated because of a traffic accident). The remaining 3041 (18.1%) encounters were accident-related (traffic stops pursuant to the investigation of a traffic accident). The number of traffic stops and searches during this period of data collection is similar (although slightly lower) to the same time frame the previous year (months 18 to 24). Despite variation in the rate of completed MATS forms across the five reports prepared by this research team, the proportion of accident to non-accident stops has remained stable (approximately 1 to 4). The evaluation team finds no evidence that MATS reporting behaviors were impacted by the release of any of the four prior status report. The data analysis revealed no patterns or evidence to suggest improprieties by LPD officers related to traffic stops and the issue of racial profiling.

Key Findings from the Thirty-Six Month Report

After three years of collecting data on the demographic characteristics of drivers stopped by Lansing police officers as well as the analysis of circumstances associated with these stops, there continues to be no evidence to suggest any pattern of racial profiling by LPD officers. It is possible that spurious incidents of profiling occur, but this is a probabilistic conclusion based on the experience of the authors, not a conclusion drawn from the MATS data analysis. Spurious incidents are typically idiosyncratic to an officer's circumstances at the time of the stop and are not characteristic of any trend behavior.

The data suggest that LPD officers follow law and policy for traffic stops and that neither the character of the traffic stops nor the circumstances associated with the traffic stops reflect inappropriate targeting of any racial or ethnic group. Perhaps the most insightful data are related to searches. These data suggest that while there is a disproportionate number of minority drivers who are searched when compared to White drivers, the searches are those which have clear justification in law (e.g., searches incidental to an arrest) rather than being discretionary searches (e.g., request for consent). It is also worth noting that searches, in particular discretionary (e.g., consent and *Terry*) searches take place in a very small proportion of all traffic stops initiated by LPD officers.

Key Findings from the Forty-Eight Month Report

The data from months 37-48 indicate that fewer citations were issued than in previous years. Further, the data show there was an increase in the *rate* of issuing traffic citation as a disposition to traffic stop encounters. This increase was universally observed across race/ethnicity and gender groups. At the same time, there were fewer stops that generated either arrests or written warnings as outcomes. Thus, while citations were lower and the rate between stops and citations increased, all changes were universal across demographic variables, hence suggesting that these changes were a product of external policy factors (i.e., the LPD's crime analysis-driven initiatives) and not the product of any biased behavior by the officers. The number of traffic stops and searches during the fourth year of data collection is lower to the same time frame the previous year. This is, however, presumed to be a product of a departmental effort to encourage officers to use discretionary time engaging in activities other than routine traffic enforcement, not a result of actual changes in officers' enforcement behaviors.   Again, the changes were universal across demographic variables. During the time frame covered in this report, officers reported conducting searches during 577 non-accident stops (3.6% of all non-accident stops), 2.9% of which were "searches incident to an arrest". This suggests few discretionary searches, thereby minimizing the probability of "profiling".

Key Findings from the Sixty Month Report

The data from months 49-60 are based on notably fewer MATS forms for analysis than previous years. It is unknown to the research whether this is a reflection of fewer traffic stops, fewer MATS forms being completed when traffic stops occur, or a combination of these factors. If there are overall fewer stops, this number is significant and would most likely reflect some type of policy change in LPD related to traffic stops. If the data reduction is due to non-compliance with the MATS data collection policy, then there are implications for supervision that need to be addressed by LPD management.

Despite the reduced numbers of MATS forms available for analysis, the data are still robust and reflect a consistent trend. The critical behaviors and proportionalities measured in this data collection period are consistent with all previous data analyses with no statistically significant variation.   Based on the data collected, a consistent pattern is maintained that there is no evidence that suggests that the traffic stop behavior of LPD officers is inappropriate nor does it suggest any bias in traffic stop outcomes is based on inappropriate behavior.

In layman's terms, despite having less data to analyze, there is sufficient data to provide a conclusion with confidence: The findings of the data analysis

for Months 49-60 are consistent with previous analyses and do not suggest any pattern of "racial profiling" by Lansing police officers.

Key Findings from the Seventy-Two Month Report

In contrasting the results of this analysis with prior reports written by the research team, two changes are observed that merit comment. First, the data considered in this report mark a return to the level of traffic enforcement recorded in earlier years of analysis. Though the year five (months 49-60) traffic data indicated a decline in reported traffic stop encounters, the level of enforcement reported year is similar to that noted in year 4 (months 37-48). This is still; however, a lower level of enforcement than what was noted in the first two years of the MATS project. For example, in MATS Months 19 to 24, LPD officers reported 19,351 traffic stops, a volume of reported enforcement similar to the entire year considered in this analysis. Second, in months 19 to 24, LPD officers reported more than 3600 traffic stop encounters pursuant to motor vehicle accidents; in the 12 months studied in this report, they only reported 237. The authors encourage LPD leaders to consider if there may be non-compliance concerns with the data reported in this analysis. As outside observers, the authors have difficulty identifying the cause of these declines and whether they merit attention by LPD leaders.

Despite this decrease in traffic enforcement, the overall picture of traffic enforcement in Lansing has remained stable in terms of who officers are stopping and how these encounters are being handled. For example, the distribution of stops across driver demographic attributes is quite similar to distributions observed in earlier reports. The reason for stops, disposition of stops, and search outcomes are similar to distributions observed in earlier reports. In other words, although there is evidence of possible underreporting of traffic stop encounters (i.e., in the context of traffic accidents), this appears to be a random event and not a conscious effort to underreport stops of certain drivers or with certain outcomes. Indeed, the authors continue to see little evidence of problematic behavior emerging from these reports. The citizens of Lansing should be comforted by the positive behavior being exhibited by their police department in its traffic enforcement efforts.

Key Findings from the Eighty-Four Month Report

During this reporting period, it was noted that some anomalous findings emerged. The first is what appears to be a reduced number of traffic stops, most likely attributable to the displacement of patrol officers from traffic enforcement to handling issues related to violent crime. Second, the increased speed limit on I-496, which was a high enforcement area, also most likely contributed to a reduced number of traffic stops. These factors do not appear to taint or influence the data analysis but are worthy of not for LPD management.

Despite the reduced amount of raw data, the analysis of the data did not indicate any improprieties in officer behavior during traffic encounters. The data from this analysis period are consistent with previous periods. On all of the critical variables, there is no evidence of racial profiling or evidence of any other type of discriminatory behavior. Particularly on the important variables of non-discretionary searches and outcomes of traffic stops, there are no data suggesting any form of impropriety.

Key Findings from the Ninety-Six Month Report

This report notes that there were fewer traffic stops reported for analysis due to the increased speed limit on I-496 and the directive for officers to increase their patrolling time in the city's neighborhoods. These changes only reflect raw numbers for analysis and do not appear to have any effect on the patterns of behaviors by officers in traffic stops. The assessment team also notes that it analyzed fewer traffic stops than were reported in the records submitted for analysis by LPD. This was simply a clerical error because some records were submitted that should not have been included in the analysis dates. This change has no effect on the analysis but was a factor the assessment team felt needed to be acknowledged.

Despite the reduced amount of raw data, the analysis of the data did not indicate any improprieties in officer behavior during traffic encounters. The data from this analysis period are consistent with previous periods. Based on the analysis of all of the critical variables, there is neither evidence of racial profiling nor evidence of any other type of discriminatory behavior associated with traffic stops. Particularly on the important variables of non-discretionary searches and outcomes of traffic stops, there are no data suggesting any form of impropriety.

Key Findings from the One Hundred Eighth Month Report

The Research Team again notes the overall picture of traffic enforcement in Lansing has remained stable in terms of who officers are stopping and how these encounters are being handled. For example, the distribution of stops across driver demographic attributes is quite similar to distributions observed in earlier reports with two exceptions. Traditionally female drivers have accounted for around 60% of LPD stops; this year the rates by gender inverted with males accounting for 59.8% of the traffic stops. In addition, there was an appreciable increase in drivers with a racial classification of "not apparent". There is nothing in the data analysis that suggests reasons for these changes other than chance. The reason for stops, disposition of stops, and search outcomes are similar to distributions observed in earlier reports. The authors continue to see no evidence of problematic behavior of LPD – notably, no evidence of "racial profiling" – emerging from these data.

Key Findings from the One Hundred Twentieth Month Report

This report reflects the tenth year of analysis, consisting of months 109-120 since the MATS data collection and analysis began at the Lansing Police Department. The tenth-year report reflects the first full use of eMATS. The distinction between MATS and eMATS simply reflects the manner data are recorded. MATS used a paper form that had to be scanned and entered in a computerized system. eMATS permits direct computer entry of the data by the officer.

During the tenth year of data analysis the overall picture of traffic enforcement in Lansing has remained stable in terms of who officers are stopping and how these encounters are being handled. For example, the distribution of stops across driver demographic attributes is quite similar to distributions observed in earlier reports with two exceptions. Traditionally female drivers have accounted for around 60% of LPD stops; this year, however, female drivers accounted for 39.9% of the traffic stops. A careful analysis of the data does not suggest any cause of this change other than chance. In addition, there was an appreciable increase in drivers with a racial classification of "not apparent" – analysis of other data does not suggest any negative trend, hence the only conclusion with this limited data is that this is a function of chance. If this trend continues in future years, this issue should be examined more closely to determine if there is some identifiable and controllable factor that is contributing to this trend. The reason for traffic stops, disposition of stops, and search outcomes are similar to distributions observed in earlier reports.

Key Findings from the One Hundred Forty-Fourth Month Report

The Research Team found that traffic enforcement in Lansing remained stable in terms of whom officers were stopping and how these encounters were being handled. The distribution of stops across driver demographic attributes was quite similar to distributions observed in earlier reports with minimal exceptions. There was no clear evidence that would suggest systematic problems with when, how, and against whom LPD officers conducted traffic stops and enforced traffic laws. Likewise, there was no evidence that officers were systematically using traffic stops as a pretext for biased policing practices. The reason for stops, disposition of stops, and search outcomes were similar to distributions observed in earlier reports.

Key Findings from the One Hundred Sixty-Eighth Month Report

In this report, the Research Team again notes the overall picture of traffic enforcement in Lansing has remained stable in terms of whom officers are stopping and how these encounters are being handled. This stability was

consistent across virtually all of the previous analyses. For example, the distribution of stops across driver demographic attributes was quite similar to distributions observed in earlier reports with minimal exceptions. There was no clear evidence that would suggest systematic problems with when, how, and against whom LPD officers enforce traffic laws. Likewise, there was no evidence that officers are systematically using traffic stops as a pretext for biased policing practices. The reason for stops, disposition of stops, and search outcomes are similar to distributions observed in earlier reports. The authors continue to see no evidence of problematic behavior of LPD – notably, no evidence of "racial profiling" – emerging from these data.

Key Findings from the One Hundred Eightieth Month Report

The Research Team again notes the overall picture of traffic enforcement in Lansing has remained stable in terms of whom officers are stopping and how these encounters are being handled. For example, the distribution of stops across driver demographic attributes is quite similar to distributions observed in earlier reports with minimal exceptions. There is no clear evidence that would suggest systematic problems with when, how, and against whom LPD officers enforce traffic laws. Likewise, there is no evidence that officers are systematically using traffic stops as a pretext for biased policing practices. The reason for stops, disposition of stops, and search outcomes are similar to distributions observed in earlier reports. The authors continue to see no evidence of problematic behavior of LPD – notably, no evidence of "racial profiling" – emerging from these data.

Key Findings from the One Hundred Ninety-Second Month Report

This report covers Months 181-192 (Year 16). While there was a significant 41% reduction in the total number of traffic stops during Year 16 compared to Year 15, all other characteristics of traffic enforcement in Lansing has remained stable in terms of whom officers are stopping and how these encounters are being handled. For example, the distribution of stops across driver demographic attributes is quite similar to distributions observed in earlier reports with minimal exceptions. There is no clear evidence that would suggest systematic problems with when, how, and whom LPD officers select to make traffic stops. Likewise, there is no evidence that officers are systematically using traffic stops as a pretext for biased policing practices. The reason for stops, disposition of stops, and search outcomes are similar to distributions observed in earlier reports. The authors continue to see no evidence of problematic behavior of LPD – notably, no evidence of "racial profiling" – emerging from these data.

Importantly, the findings of the data analysis have been consistent over the history of the MATS data collection. While there will always be some

variance, it has consistently been limited variance and consistently there have been no indicators -- or even anomalies -- to suggest biased policing. This is an important measure of reliability across the years of analysis.

Key Findings from the Two Hundred Fourth Month Report

The Research Team again notes the overall picture of traffic enforcement in Lansing has remained stable in terms of whom officers are stopping and how these encounters are being handled. For example, the distribution of stops across driver demographic attributes is quite similar to distributions observed in earlier reports with minimal exceptions. There is no clear evidence that would suggest systematic problems with when, how, and against whom LPD officers enforce traffic laws. Likewise, there is no evidence that officers are systematically using traffic stops as a pretext for biased policing practices. The reason for stops, disposition of stops, and search outcomes are similar to distributions observed in earlier reports. The authors continue to see no pattern of problematic behavior of LPD officers – notably, no evidence of "racial profiling" – emerging from these data.

Key Findings from the Two Hundred Sixteenth Month Report

The Research Team again notes the overall picture of traffic enforcement in Lansing has remained stable in terms of whom officers are stopping and how these encounters are being handled. The only notable difference between the current data analysis and the Year 17 data analysis was that there 1,031 fewer stops in Months 205-216. For purposes of identifying anomalous patterns, the 6,534 during this analytic year is more than adequate for analysis. The raw number of stops is less relevant than the patterns that emerge from the analysis. For example, the distribution of stops across driver demographic attributes is quite similar to distributions observed in earlier reports with minimal exceptions. There is no clear evidence that would suggest systematic problems with when, how, and against whom LPD officers enforce traffic laws. Likewise, there is no evidence that officers are systematically using traffic stops as a pretext for biased policing practices. The reason for stops, disposition of stops, and search outcomes are similar to distributions observed in earlier reports. The authors continue to see no pattern of problematic behavior of LPD officers – notably, no evidence of "racial profiling" – emerging from these data.

Key Findings from the Two Hundred Twenty Eighth Month Report

The Research Team again notes the overall picture of traffic enforcement in Lansing has remained stable in terms of whom officers are stopping and how these encounters are being handled. The only notable difference between the current data analysis and the Year 18 data analysis was that there were 556 more stops in Months 205-216. For purposes of identifying anomalous patterns,

the 7,090 during this analytic year is more than adequate for analysis. The raw number of stops is less relevant than the patterns that emerge from the analysis. For example, the distribution of stops across driver demographic attributes is quite similar to distributions observed in earlier reports with minimal exceptions. There is no clear evidence that would suggest systematic problems with when, how, and against whom LPD officers enforce traffic laws. Likewise, there is no evidence that officers are systematically using traffic stops as a pretext for biased policing practices. The reason for stops, disposition of stops, and search outcomes are similar to distributions observed in earlier reports. The authors continue to see no pattern of problematic behavior of LPD officers – notably, no evidence of "racial profiling" – emerging from these data.